

Final Report
On
INSTITUTIONAL REVIEW OF SELECTED
MINISTRIES AND AGENCIES

BY
ATM SHAMSUL HUDA

PDO-ICZM Paper No. 08
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Prepared for
PROGRAM DEVELOPMENT OFFICE FOR
INTEGRATED COASTAL ZONE MANAGEMENT

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
ADC	Additional Deputy Commissioner
ADP	Annual Development Program
AEZ	Agro-ecological Zones
ARI	Agricultural Research Institutes
ARMP	Agricultural Research Management Project
ATI	Agricultural Training Institute
ATN	Aids to Navigation
BADC	Bangladesh Agricultural Development Corporation
BARC	Bangladesh Agricultural Research Council
BARI	Bangladesh Agricultural Research Institute
BDRCS	Bangladesh Red Crescent Society
BEMP	Bangladesh Environmental Management Project
BFDC	Bangladesh Fisheries Development Corporation
BFRI	Bangladesh Forest Research Institute
BINA	Bangladesh Institute of Nuclear Agriculture
BIWTA	Bangladesh Inland Water Transport Authority
BLRI	Bangladesh Livestock Research Institute
BMDA	Barind Multipurpose Development Authority
BOO	Build/Own/Operate
BOT	Build/Operate/Transfer
BPC	Bangladesh Parjatan Corporation
BRRRI	Bangladesh Rice Research Institute
BTRI	Bangladesh Tea Research Institute
BS	Block Supervisor
BWDB	Bangladesh Water Development Board
CAAB	Civil Aviation Authority of Bangladesh
CARE	Cooperative for American Relief Everywhere
CBO	Community-based Organization
CCF	Chief Conservator of Forest
CDMP	Comprehensive Disaster Management Program
CE	Chief Engineer
CGP	Coastal Greenbelt Project
CPP	Cyclone Preparedness Program
CSO	Chief Scientific Officer
DAE	Department of Agricultural Extension
DANIDA	Danish International Cooperation Agency
DC	Deputy Commissioner
DCC	Dhaka City Corporation
DCCF	Deputy Chief Conservator of Forest
DDA	Deputy Director of Agriculture
DFID	Department for International Development
DG	Director General
DLRS	Department of Land Record and Surveys
DPHE	Department of Public Health Engineering
DRR	Department of Relief and Rehabilitation
DWASA	Dhaka Water and Sewerage Authority
EC	Executive Committee
ECNEC	Executive Committee of the National Economic Council
ECA	Environmentally Critical Areas
EIA	Environmental Impact Assessment
EMG	Embankment Management Group
EOC	Emergency Operation Center
EPZ	Export Processing Zone
ESCAP	Economic and Social Commission for the Asia and the Pacific
EU	European Union
FAO	Food and Agriculture Organisation

ABBREVIATIONS AND ACRONYMS

FAP	Flood Action Plan
FCD	Flood Control and Drainage
FCDI	Flood Control, Drainage and Irrigation
FD	Forest Department
FFW	Food for Works
FPCO	Flood Plan Coordination Organisation
GC	Governing Council
GEF	Global Environment Facility
GOB	Government of Bangladesh
GPP	Guidelines for People's Participation
HRD	Human Resources Development
ICZM	Integrated Coastal Zone Management
IDA	International Development Association
IDMCC	Interministerial Disaster Management Coordination Council
IECO	International Engineering Corporation
IFAD	International Fund for Agricultural Development
IMED	Implementation, Monitoring and Evaluation Division
IPM	Integrated Pest Management
IWT-III	Third Inland Water Transport Project
JRC	Joint Rivers Commission
LCS	Landless Contracting Society
LGD	Local Government Division
LGED	Local Government Engineering Department
LGI	Local Government Institution
LRP	Land Reclamation Project
MOA	Ministry of Agriculture
MOCAT	Ministry of Civil Aviation and Tourism
MOEF	Ministry of Environment and Forest
MOFL	Ministry of Fisheries and Livestock
MOL	Ministry of Land
MOP	Ministry of Planning
MOS	Ministry of Shipping
MOWR	Ministry of Water Resources
NAEP	New Agricultural Extension Policy
NARS	National Agricultural Research System
NDMAC	National Disaster Management Advisory Council
NDMC	National Disaster Management Council
NEC	National Economic Council
NEDA	The Netherlands Economic Development Agency
NEMAP	National Environmental Management Action Plan
NGO	Non-government Organization
NPSWSS	National Policy on Safe Water Supply and Sanitation
NMMP	National Water Management Plan
NWP	National Water Policy
NWRC	National Water Resources Council
NWRD	National Water Resources Database
O&M	Operation and Maintenance
OTI	Officers' Training Institute
PC	Planning Commission
PDO	Project Development Office
PIO	Project Implementation Officer
PP	Project Proforma
PSD	Program Support Document
PSO	Principal Scientific Officer
RRI	River Research Institute
RWP	Rural Works Program
SDE	Sub-divisional Engineer
SE	Superintending Engineer

ABBREVIATIONS AND ACRONYMS

SEMP	Sustainable Environmental Management Programme
SRDI	Soil Resources Development Institute
SRP	Systems Rehabilitation Project
SSO	Senior Scientific Officer
TA	Technical Assistance
TAO	Thana Agriculture Officer
TAPP	Technical Assistance Project Proforma
TFO	Thana Fisheries Officer
UANDP	Upazila Afforestation Nursery Development Project
UNDP	United Nations Development Programme
WARPO	Water Resources Planning Organisation
WFP	World Food Programme

GLOSSARY

Accretion	Build-up of the coastal land area as a result of accumulation of sediment from the sea
Aquaculture	The farming of aquatic organisms including fish, crustaceans and aquatic plants
Baor	An oxbow lake formed from an old section of river channel
Beel	Low-lying depression in the flood plains that generally retains water throughout the year
Brackish Water	Water containing salt at a concentration significantly lower than that of the sea water
Bio-diversity	The number of different species, their relative abundance and the number of habitats existing in a particular area
Char	Newly formed or reformed land on the riverbed, which comes up through the process of accretion
Coast	The geographical area of contact between the terrestrial and marine environments, a boundary area of indefinite width, appreciably wider than the shore
Estuary	Generally the broad portion of a river or stream near its outlet that is influenced by the marine water body into which it flows
Habitat	The place or type of site where species and communities normally live or grow usually characterized by relatively uniform physical features or by consistent plant forms
Haor	Extended depressions between the natural levees of a river, which looks like a saucer, with a deep central part permanently under water
Jalmahal	Water bodies that used to be leased out by the Government for fishing purposes
Khatian	Land title or record of rights
Khas	Owned by the Government
Union	Lowest level administrative unit consisting of 10-12 villages
Upazila	Now called thanas, it lays between the union and the zila (district) as an unit of administration and consists of 6 -9 unions

1. INTRODUCTION

1.1 Background

The land occupied by the coastal area of Bangladesh has roughly been delineated as 42,154 sq.km covering 16 administrative districts and inhabited by roughly 30 million people. In terms of land and population, they more or less represent one-fourth of the total for the country.¹ The coastal zone represents an area of transition where terrestrial and marine environments interact to form unique environmental conditions. In as much this uniqueness puts a very high value on certain of its resources, this also subjects the area to "a specific range of vulnerabilities."² Coastal environment is thus different from the rest of the upland country and needs special program for the protection and development of its resources. Integrated Coastal Zone Management (ICZM), now operating in a few countries provides a framework for an integrated approach to the optimal use of coastal resources and protection of the natural environment.

In the recent past, the Government of Bangladesh (GOB) had made a few attempts at initiating ICZM. At the initiative of the ESCAP Secretariat and with the full support of the GOB, an interministerial symposium was held at Dhaka in June 1987 to consider a draft report on ICZM prepared by the experts.³ This was followed up by another study supported by the UNDP and coordinated by the Planning Commission of the GOB in 1993. Unfortunately, the matter did not proceed any further presumably due to lack of political commitment.

In the meantime, various studies carried out under the aegis of the Flood Action Plan and their critical review along with emerging concerns for the protection and preservation of the natural environment brought to sharp focus the imperative for integrated approach to resource management.⁴

In the light of these developments, a Joint Donor Mission consisting of representatives of the World Bank, the Government of the Netherlands and the World Food Programme assembled in March 1999 and developed a set of recommendations for initiating an ICZM program in Bangladesh. This was followed in September 1999 by a Policy Note prepared by a Secretaries' Committee on the basis of literature review and field visits in Thailand⁵. In that Note and through other written communications the GOB expressed its firm commitment to process, install and operate an ICZM program.

Following on the recommendations of an IDA/NEDA ICZM Preparation Mission in October 1999, the GOB decided to commence a 3-year preparatory stage for ICZM by setting up the Programme Development Office (PDO). GOB commitment to ICZM was confirmed by rapid processing and approval of an umbrella TAPP in early 2000. The PDO-ICZM has also been operating since 2000.

1.2 ICZM Preparation

One of the principal responsibilities of the PDO is the development of an ICZM vision and strategy. Given the long culture of sector-based planning, there is a need to develop a vision as to what it is that is intended to be achieved through the ICZM. This has to be done by preparing a series of discussion papers on all aspects of ICZM and holding discussions with all stakeholders. To the extent the vision will contain the essential ingredients of an ICZM

¹ Program Development Office, Ministry of Water Resources, *Integrated Coastal Zone Management (ICZMP): Inception Report*. Dhaka; January, 2001.pp9-10

² "Integrated Coastal Zone Management in Bangladesh". (Mimeo) Recommendations of a Joint Donor Identification Mission. Dhaka: March, 1999.p5

³ Economic and Social Commission for Asia and the Pacific, *Coastal Environmental Management Plan for Bangladesh*. Bangkok, Thailand, 1988.

⁴ Flood Plan Coordination Organization, Ministry of Water Resources, *Bangladesh Water and Flood Management Strategy*. Dhaka: 1996

⁵ "Integrated Coastal Zone Management: Concepts and Issues". (Mimeo). September 1999.

program, it will also need strategic planning to translate that vision into reality. It is only through strategic planning that the problems and opportunities regarding resources, economic development activities and social needs in the coastal area can be understood and analyzed. Well-developed strategy will help in deciding a program that will promote compatibility between economic development and the long-term environmental and socio-economic needs of the community.

1.2.1 The Building Blocks

The *aide-memoir* of the Preparatory Mission introduced the concept of "building blocks" for the ICZM preparation in general and developing an ICZM strategy in particular.⁶ Since ICZM programs are developed through consensus for use of resources having competing demands, there have to be innumerable exchanges among different stakeholders mediated through well-studied position papers. These studies are considered as building blocks. These are developed by, among others, collecting information on policies, programs, past strategies and the institutions that were involved in carrying them out and were responsible for their maintenance. There is lot of information available on the issues raised. There is thus a need to collect and critically analyze this information to facilitate a common understanding of the relationships between them.

The Inception Report for the ICZM has identified a number of studies to be conducted for their development as suitable building blocks. One such study relates to an appraisal of the various sectoral policies adopted by the GOB and a draft report on this has already been prepared and circulated. The current study seeks to review the status of the relevant institutions for coastal zone management and critically analyze their capacity and compatibility to participate in a future ICZM program. When completed, this study will also provide an important building block towards the development of an ICZM vision and strategy for Bangladesh.

1.3 Institutions as the core for ICZM

An ICZM program may take 5-7 years before it is ready for implementation in the field. At a minimum, it involves the following four stages towards its full development:

- Policy Formulation
- Strategic Planning
- Program Development
- Implementation

Activities at each stage must also be supported by secure access to a continuous flow of information and data as well as by meaningful participation of all stakeholders.

In carrying out all these activities, institutions will play the most crucial role. Institutions, by definition, are the instruments or the means through which the goals of the owners or stakeholders are achieved. They are basically built on two pillars: one is the structure; the other, the processes. Hierarchy, organogram, rules, procedures, staffing, deployment and the like belong to the structural component. However, it is the process issues that bring life to an institution. Process consists of such things as interpersonal relationships, morale, motivation, cooperation, conflict and other imperceptible attributes. Good functional institutions harmonize the rational, means-oriented, efficiency-guided process of administration with the value-laden, adoptive, and responsive process of institutionalization. Some organizations are merely organizations---rational tools in which there is little personal investment and which can be cast aside without regret. Others become institutionalized. They take on a distinctive character: they become prized in and of themselves, not merely for the goods and services they grind out. People build their lives around them, identify with them, become dependant upon them. It is these kinds of institutions that will be best suited to realize the goals of an ICZM program.

⁶ IDA/NEDA Preparation Mission, "Aide-Memoir". Dhaka: October 1999.

1.4 Purpose of the present Study

Within the context of the preparatory work for an ICZM program by the PDO-ICZM, the Institutional Review Study is intended as another building block. To achieve that goal, the objectives of the study have been set in the Terms of Study as under:

- Assessment of the existing mechanism of the concerned government agencies to deal with coastal issues
- Knowledge of the linkages with other departments for dealing with coastal issues
- Appraisal of the suitable mechanism for co-ordination to deal with implementation of the activities under ICZM

These study findings will form the basis for proposed institutional mechanism for ICZM.

1.5 Methodology

Any institutional review for the ICZM ought to be preceded by a brief resume of the structure of the Government of Bangladesh. This is necessary for an understanding of the various linkages between the Ministries and the Agencies under their control, on the one hand, and linkages between the government organizations, the private sector institutions and the general public, on the other. Such an understanding will also make it clear as to why it is necessary to study the Ministries and the Agencies under them for launching an ICZM Program.

1.6 Structure of Government

The structure of the Government of Bangladesh is determined and its business conducted according to the rules prescribed in the Rules of Business (Rules) made by the President under Article 55(6) of the Constitution of the People's Republic of Bangladesh⁷. The President of the Republic is the head of the State while the Prime Minister (PM) is the head of the Government. All executive powers of the Republic vest in the PM who also heads the Council of Ministers.

Government business is conducted through a number of Ministries. Each Ministry consists of one or more self-contained units called Division. Operationally, there is no distinction between a Ministry and a Division, only that a Ministry headed by a Minister may consist of more than one Division. A single Division may also be called a Ministry if it is headed by a Minister.

Structurally, a Ministry is divided into several wings, branches and sections in order to ensure fair distribution of work and speedy disposal of business. All business allocated to a Ministry is to be disposed of under the general or special direction of the Minister-in-charge. He is also responsible for conducting the business of his Ministry in the Parliament unless otherwise directed by the PM. The Secretary is the administrative head of the Ministry and is responsible for its administration and discipline. He is also the Principal Accounting Officer of the Ministry and has to ensure that funds allocated to the Ministry and to organizations under its administrative control are spent in accordance with rules/laws for the time being in force.

The Secretariat of the Government of Bangladesh is the designation of the offices of the Ministries referred to collectively. The Rules have very clearly defined the role of the Ministries that should be limited to the following only:

- policy formulation
- planning
- evaluation of execution of plans
- legislative measures
- assisting the Minister in the discharge of his duties in the Parliament
- personnel management at the top level, viz., (i) officers not below the rank of Member/Director in the cases of public statutory corporations and (ii) officers not

⁷ Ministry of Law, Justice and Parliamentary Affairs, Government of the People's Republic of Bangladesh, *The Constitution of the People's Republic of Bangladesh*. (Corrected upto December 1998). Dhaka: 1998.

below the level of NPS-V in the cases of Attached Departments and Subordinate Offices

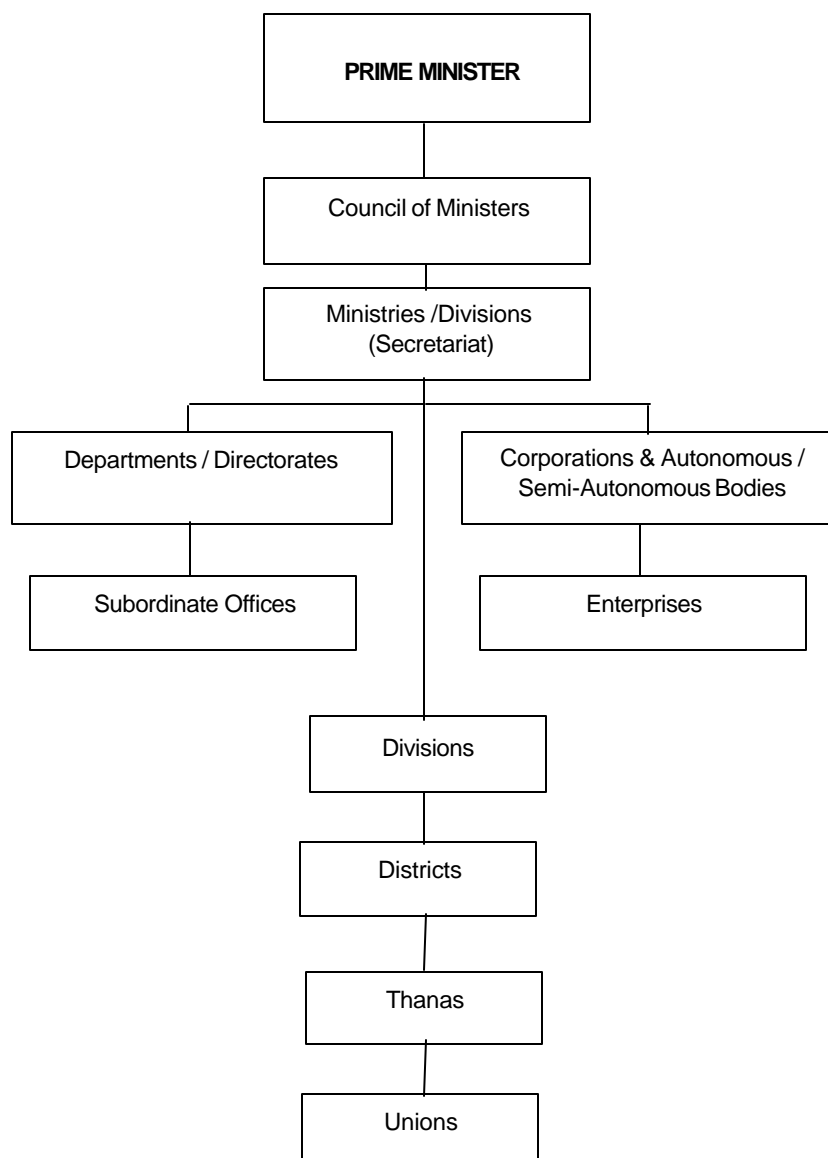
- such other matters as may be determined by the PM from time to time.

Government policies taken at the level of the Ministry is normally executed by the Attached Departments and subordinate offices. Attached Departments are generally responsible for providing executive direction in the implementation of policies laid down by the Ministry to which they are attached. They also serve as the repository of technical information as well as render advice to their respective Ministries on technical aspects of business transacted by the latter.

The subordinate offices generally function as field establishments or as agencies responsible for the actual execution of government policies. Most of them function under the direction of the Attached Departments but a few of them may be directly under the Ministries. Autonomous, semi-autonomous and public corporations are created to perform certain specialized functions or to provide public services. They have much greater freedom *vis-a-vis* the Attached Departments in terms of personnel management and financial administration.

Institutional linkages in the governmental system may be seen from the following diagram :

Diagram 1.1 Governmental System in Bangladesh



1.6.1 Selected Ministries and Agencies

The Institutional Review will be conducted on the following line Ministries and Agencies under them. They are selected on the basis of their relevance for an ICZM program in Bangladesh:

Ministries

Ministry of Planning
Ministry of Land
Ministry of Agriculture
Ministry of Civil Aviation and Tourism
Ministry of Disaster Management and Relief
Ministry of Environment and Forest
Ministry of Fisheries and Livestock
Local Government Division
Ministry of Shipping
Ministry of Water Resources

Agencies

Water Resources Planning Organization
Bangladesh Water Development Board
Local Government Engineering Department
Department of Fisheries
Forest Department
Department of Livestock Services
Department of Agricultural Extension
Department of Land Record and Surveys
Department of Public Health Engineering
Disaster Management Bureau
Department of Environment
Bangladesh Parjatan Corporation
Bangladesh Inland Water Transport Authority
Bangladesh Agricultural Research Council
Coast Guard

For each organization reviewed, an organizational profile will be prepared on the basis of the criteria identified in the conceptual framework. This will involve:

Collection of Act/Ordinance/Resolution/Government Orders enunciating the mandate for the respective organization

Collection of organogram, rules of business, delegation of financial and administrative powers, recruitment rules, promotion rules etc

Collection of materials relating to reforms already carried out or reform proposals under process

Collection of information relating to such institutional improvement as privatization, commercialization, outsourcing, capacity building, decentralization and restructuring

Collection of information on inter-agency, between agency and NGO and between agency and private partners relationships

The collected material will be critically analyzed to find out their compatibility with ICZM norms. Institutional deficiencies will be identified and suggestions for improvement made.

The tentative findings will be finalized after holding detailed discussions with the top management of the line ministries and agencies, donor community, civil society and NGOs.

Sector policies are important ingredients of institutional capacity. These will not, however, be reviewed under the present study since an elaborate analysis of all relevant policies has already been made by the PDO.

1.7 Limitations of the Study

As designed under section 1.5 this Review will appear to have relied heavily on the supply side of the equilibrium i.e. on the views of the actors who deliver. It is their vision of the institutions that are reflected. Equally important is to know the perception of the institutions by the people who are at the receiving end i.e. the inhabitants of the coastal area and the users of coastal resources that are affected, one way or the other, by decisions taken in these institutions.

The Institutional Review would have undoubtedly been enriched by incorporation of these stakeholders' views. Unfortunately, the time and resources allocated to this Study will not permit that. It is our understanding that while undertaking the targeted activities under "Participatory Stakeholders Consultation Process", appropriate steps would be taken to obtain their views on institutions and consider their input while preparing the ICZM vision and strategy.

1.8 Plan of Presentation

The Review will be presented in five chapters. Chapter 1 intends to put the study in the context of the overall ICZM objectives and sets the methodology. Chapter II tries to isolate the criteria through which the institutions can be evaluated in terms of the norms and requirements of an ICZM program. Chapter III presents the findings on the selected Ministries reviewed while Chapter IV does the same thing with regard to the selected Agencies. Chapter V makes an attempt to draw some conclusions relating to institution building on the basis of findings presented in the previous chapters for a successful ICZM program in Bangladesh.

2 CRITERIA FOR INSTITUTIONAL REVIEW

2.1 Institutions: Formal and Informal

As has already been pointed out, institutions are made up of two components: structure and process. An institution cannot take formal shape without a determination of its mandate, its location within the cluster of organizations, organogram, staff, rules, procedures and the like. These traditional structural elements provide the blueprint according to which institutions are to be set up and to which they ought to adhere. However, early research on organization has revealed that, for a variety of reasons, institutions do not operate in the way they were intended. Side by side the formal structure develops an informal one--which is distinct from the official blueprint. There is also the phenomenon of dysfunction that arise out of inconsistencies and conflicting tendencies within an institution. An institutional study, based solely on the formal set-up could be partial and dangerously deceptive. However, looking at the formal organization of an institution is a good starting point for investigating its health. These elements are essential for the successful operation of an institution. It is, therefore, necessary that these be in place. To what extent the actual operation of an institution conforms to its formal blueprint is a matter for empirical investigation. Institutional review, therefore, ought to be so designed as to accommodate investigation of both the formal and informal organization.

2.2 Isolating the Criteria for Review

The institutional Review is intended to be carried out by an evaluation of each of the identified institutions according to the criteria developed in this chapter.

2.2.1 Mandate

Institutions are developed for achievement of specific goals. They do not exist for anything: nor can they operate in a vacuum. At the time of their creation, their owners assign to them specific objectives to be achieved.⁸ For the public organizations, these are generally done through legislation or through cabinet decisions or through orders issued by a concerned Ministry of the Government. The important thing to see in a mandate is its clarity as to its goals and specificity of its jurisdiction. Uncertainty on these two scores may lead to inter-organizational conflict and may create difficulties in pursuing an ICZM program.

2.2.2 Policy

Sectoral policy is important for the pursuit of institutional goals. It has to be seen as to the extent to which the policies are adequate and appropriate towards achieving the sectoral goals and are in harmony with other related policies of other sectors. Parochial, top-down and arbitrary policy would do more harms to society than having no policy at all.

2.2.3 Regulatory Standards

It is recognized that an ICZM program can reconcile both conservation and development. A number of government agencies often compete with each other for revenue by exploiting coastal resources. Similarly, people belonging to different professions also depend on coastal resources for their livelihood. Disjointed and uncoordinated activities without any control over resources preservation by different stakeholders entail misallocation and inefficient use of resources, downgrade the environment and increase the risk level of natural disasters. There is a link between unplanned development and disasters. It is worthwhile to integrate the knowledge of coastal hazards and risks into development standards and planning guidelines.

2.2.4 Status of Human Resources

Competent and dedicated staff and workforce are needed to run successful programs. Professional workforce cannot be created overnight: there has to be a political commitment to create a merit-based service system supported by appropriate rules, procedures, training, promotion and deployment.⁹ Deployment is an important issue. Paradoxically, while most of the public organizations in Bangladesh are overstaffed, there are critical shortages at professional and technical levels. The other malady is the frequent turnover of professionals without allowing them to leave any impact or legacy of their tenure.

⁸ Peter M. Blau and Marshall W. Meyer, *Bureaucracy in Modern Society*. Second Edition. New York: Random House, 1971.

⁹ World Bank, *Government that Works: Reforming the Public Sector*. Dhaka: March, 1996

2.2.5 Status of Financial Resources

Free service delivery has been a cultural norm in the country for a long time. Water, for example, is considered by a majority of the population as a free gift of nature. All services centering round water like flood control, drainage and irrigation are considered as social service to be provided by the government free of cost. It has been very difficult to levy service charges for surface water irrigation and, in a few cases, where it has been levied, the rate of collection is very poor. Consequently, most of the government agencies depend very heavily on public fund to pursue their programs. But due to budgetary constraints, they sometimes receive about half of what is required.

Another undesirable trend in financial management is the highly disproportionate expenditure on establishment at the cost of maintenance. It would be interesting to note the proportion of the budget that is spent on establishment and maintenance.

Agency's efforts at generating its own revenue and the problems associated with that will also be investigated.

2.2.6 Intra-organization Delegation

GOB, at a minimum, operates at three levels in delivering services to people - the Ministry at the center, the Head office of the agency and its field outfit. Among them there could be several levels of hierarchy. All powers, by law, vest in the government who then delegates some of these powers to the subordinate offices for smooth operation of business. There are numerous delegations of power relating to administrative and financial affairs. The extent of their coverage and adequacy will be investigated alongwith their implementation.

2.2.7 Capacity – Building

There are two ways in which capacity can be improved. One is skill development and the other is the provision of modern aids to good office management.

For skill development, there has to be facilities for in-house and in-service training. There has to be necessary budget allocation to operate an all-round pragmatic training program.

In the context of globalization, there has to be a total reorientation of office management. Offices must be equipped with e-mail, fax and computers with suitable development of soft and hardware.

2.2.8 Prior Experience of Participating in Joint Programs

Some of the agencies in the past have carried out joint programs in the coastal area. It will be instructive to review their experience in terms of planning and implementation. Bottlenecks faced by them should be noted and remedial measures suggested.

2.2.9 Experience of working with NGOs

Some agencies have also worked with the NGOs under different arrangements. A comparative evaluation may be made to see which arrangement worked the best and under what circumstances.

2.2.10 Innovative Approaches to Institutional Reforms

Financial and management problems have created pressure to rethink about the ways organizations have traditionally been run. Budget crunch has forced concerned decision-makers to seriously question the justifiability of maintaining permanent staff for doing everything in the organization itself. It is now being seriously considered if agencies would be better off by retaining essential core staff and outsourcing or contracting out remaining work which can be done at a much lesser cost by the private sector.

Activities of commercial nature that may occupy a part of an agency's work can be privatized. Similarly, some part of the activities for which public sector agencies are not well endowed can be entrusted to professionally –oriented and competent NGOs.

Last but not the least, institutions may consider, in view of the developments noted above, to even downsize its permanent staffing in conjunction with restructuring to cope with the demands of the changing technology.

3 INSTITUTIONAL REVIEW OF SELECTED MINISTRIES

3.1 Nature of the Selected Ministries

ICZM is a very intensive and integrated operation. It envisages the active participation by a large number of Agencies and their administrative Ministries. The Ministries selected for this institutional review are currently engaged on some ongoing programs in the coastal areas with the exception of the Ministry of Planning. As already mentioned in the previous Chapter, the following Ministries have been selected for review:

- Ministry of Planning
- Ministry of Land
- Ministry of Agriculture
- Ministry of Civil Aviation and Tourism
- Ministry of Disaster Management and Relief
- Ministry of Environment and Forest
- Ministry of Fisheries and Livestock
- Local Government Division
- Ministry of Shipping
- Ministry of Water Resources

For the purpose of the present review, the above Ministries can be classified into three broad categories, namely, *service*, *line* and *service-cum-line* Ministries. *Service* Ministries are those Ministries that do not in and of themselves pursue any activities in the field but allocate the resources under their command to the *line* Ministries for achievement of their goals. *Line* Ministries are actually engaged in the regulation, conservation, exploitation and development of resources falling within their allocated jurisdiction. *Service-cum-line* Ministries combine both the functions. In our sample, the Ministry of Planning would be considered a *service* Ministry, the Ministry of Land a *service-cum-line* Ministry and the other eight Ministries as *line* Ministries.

It has to be understood that the *line* Ministries do not have any control over the resources needed for carrying out the activities assigned to them. Personnel management is centrally controlled by the Ministry of Establishment and allocation of funds by the Ministry of Finance. Similarly, all legal matters must be cleared by the Ministry of Law, Justice and Parliamentary Affairs. And the Planning Commission is there to clear every aspect of a project from conceptualization to implementation. The Rules of Business make it mandatory to consult the *service* Ministries before matters are put up to higher authorities for decision.

3.2 Organizational Overview of the Selected Ministries

We will now take a look at these Ministries individually in the order in which they are presented here to get an overall view about their organization. This will then be followed by a collective look on all the Ministries on the basis of a few relevant criteria developed in Chapter II.

3.2.1 Ministry of Planning

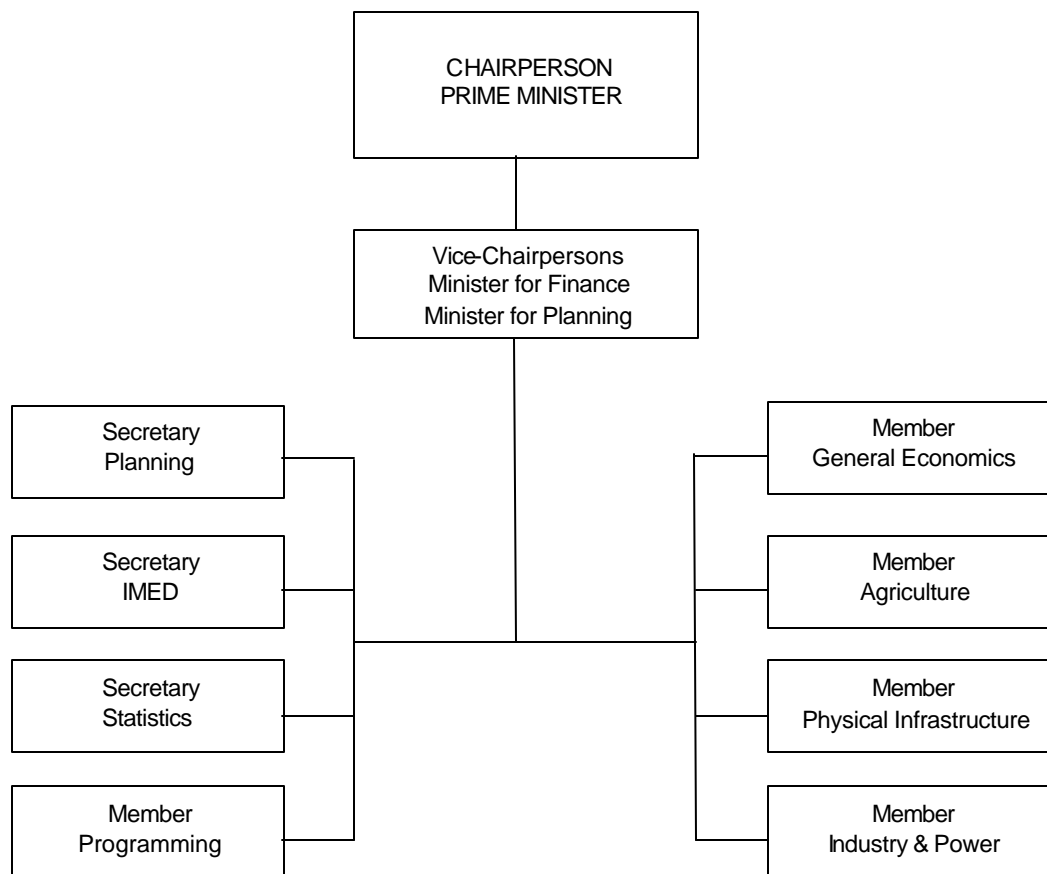
The Ministry of Planning (MOP) is a *service* Ministry and possesses unique characteristics. The Ministry consists of three Divisions, namely, Planning Division, Statistics Division and Implementation, Monitoring and Evaluation Division (IMED). But the Ministry itself is overwhelmed by the imposing presence of the Planning Commission (PC) which is attached to it as a technical body. Among themselves, these Divisions and the Commission perform the following functions:

- **Policy Planning:** determination of goals, objectives, priorities, strategies and policy measures for development plans
- **Sectoral Planning:** identification of the role that the various sectors of the economy are required to play in the context of the Plan objectives and goals

- **Program Planning:** formulation of detailed resource allocation to realize the Plan objectives and goals
- **Project Planning:** appraisal of projects embodying investment decisions for the implementation of the sectoral plans
- **Evaluation:** impact analysis of projects, programs and Plans on the people's living standard.

The (MOP) is headed by a Minister: however, the Chairperson of the Planning Commission is the Prime Minister, the Minister for Finance and the Minister for Planning are the Vice-Chairpersons and the Secretary, Planning who is also a Member, Planning Commission is the Member-Secretary. In addition to the regular Ministerial staff, the PC provides technical support to the Ministry through five Divisions (not self-contained units) working under a Member. These Divisions are Programing/Socio-economic Division, General Economics Division, Agriculture, Water Resources and Rural Institutions Division, Physical Infrastructure Division and Industry and Power Division. The organogram of the Ministry of Planning including the PC may be seen in the following diagram:

Diagram 3.1 Organizational Structure of the Ministry of Planning



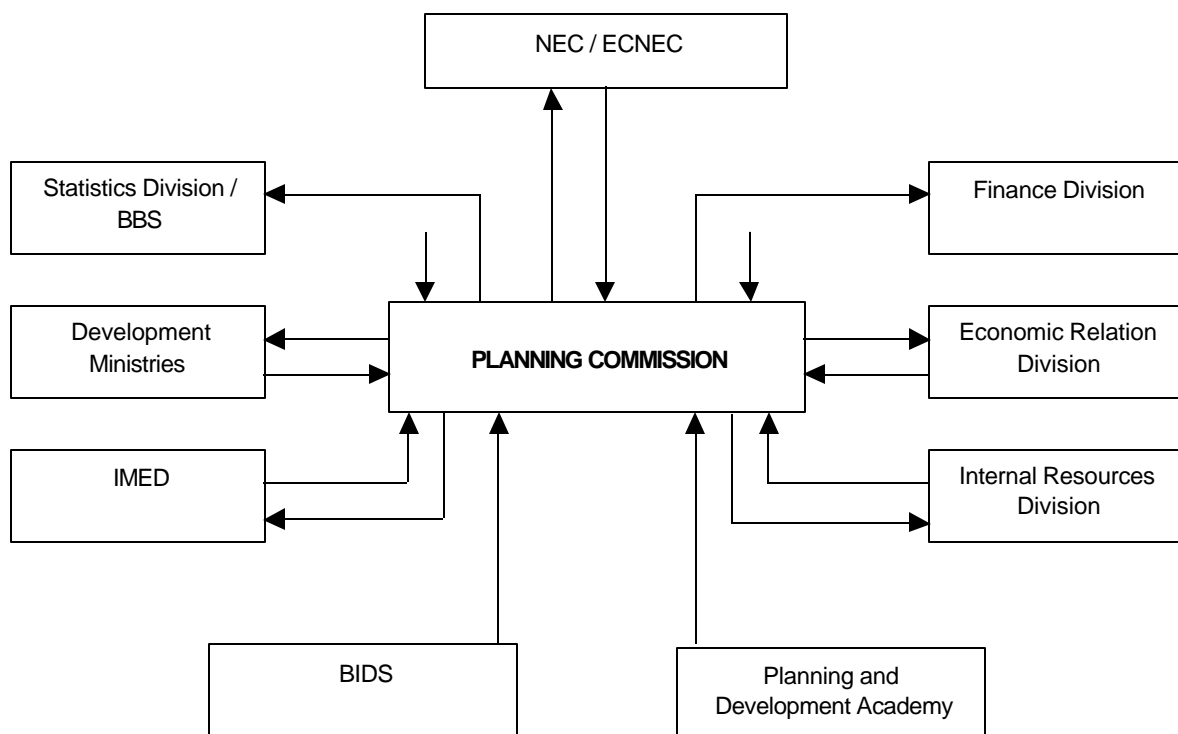
For the purpose of operationalizing development planning, there are two high level Committees. The National Economic Council (NEC) is the highest body chaired by the Prime Minister that includes all the Cabinet Ministers as Members. Secretary, Cabinet Division, Members of the PC, Secretaries of the concerned Ministries and the Governor of the Bangladesh Bank assist the Council in its work. The terms of reference of the NEC consists of providing overall guidance at the initial stages of the formulation of the Five Year Plan, Annual Development Program and other economic policies. It also reviews the progress of implementation of development projects.

The other Committee that meets more frequently than the NEC is its Executive Committee (ECNEC). This Committee is also headed by the Prime Minister with the Finance Minister as the alternate Chairperson. The main function of the ECNEC is to consider and approve all investment projects costing more than taka ten crore. It also reviews the implementation progress of all development projects. The MOP provides secretariat support to both the Committees.

Project processing normally starts at the Agency level, even if the project idea is generated elsewhere. All the executing Agencies have some form of a planning set up by whatever name they may be called. After collecting data from the field, this planning outfit puts together project documents for further processing at different levels. Line Ministries engaged in development work have Planning Cells in their set up manned by officers of the BCS (Economic) Cadre. With support from the planning outfit of the Agencies, the Cell fine tunes the project documents received from them and with approval of competent authority sends them up to the PC for further action at their end.

The institutional linkages of the PC with other Ministries and Organizations are illustrated in the following diagram :

Diagram 3.2 Institutional Linkages of the Planning Commission



3.2.2 Ministry of Land

The Ministry of Land (MOL) has been classified as a *service-cum-line* Ministry. It is the custodian of all government land and their management. Any agency requiring any land for execution of its project must obtain it through the MOL. In that sense, it is indeed a *service* Ministry. The Ministry has also the responsibility to manage land owned by the government by sale or lease or through distribution among the landless under special programs. It also collects revenue from eligible landowners and takes necessary steps for collection of arrears of land revenue under the Public Demand Recovery Act. However, its activities in the matter of bringing newly accreted land in the revenue records and finalizing the individual record of rights expose it to the social milieu of land management. Maintenance of land records, survey for the

purpose of revenue and record-of-rights and survey and settlement have emerged to be the most important functions of the MOL.

The MOL discharges its responsibilities through two lines of attached and subordinate offices. It directly controls the following Agencies:

- Department of Land Record and Surveys
- Land Appeals Board
- Land Reforms Board

Management of land and ancillary matters are conducted through the local administration. The Additional Commissioners in charge of Revenue in the administrative Divisions, the Additional Deputy Commissioners in charge of Revenue in the administrative Districts and the Assistant Commissioners of Land in the Thanas are exclusively deployed to perform functions relating to management of land. The Commissioners and the Deputy Commissioners are also revenue officers and if they can find the time, they can also deal with revenue matters. In addition to many functions of administrative nature, they also exercise judicial powers under different Acts. Appeals against the decisions of the Commissioners are heard in the Land Appeals Board that is under the administrative control of the MOL. There is also another entity called the Land Reforms Board that takes care of the properties belonging to the Court of Wards.

Survey and settlement operations and creation and maintenance of record-of-rights belong to the domain of the Department of Land Record and Surveys. This is dealt with in some detail in the next chapter and need not be discussed here.

3.2.3 Ministry of Agriculture

Ministry of Agriculture (MOA) is one of the largest Ministries of the Government of Bangladesh. The primary goal of the Ministry is to make the nation self-sufficient in food through increasing production of all crops including cereals and ensure a dependable food security system for all. The MOA seeks to achieve these objectives by directly supporting extension, agricultural research and supply of agricultural inputs and arranging other support services needed for agriculture. For meeting these obligations, the Ministry has fourteen Agencies under its control, the highest ever under one Ministry. These Agencies may be listed in the following manner according to the nature of their principal activities:

Research

- Bangladesh Agricultural Research Council
- Bangladesh Agricultural Research Institute
- Bangladesh Rice Research Institute
- Bangladesh Institute of Nuclear Agriculture
- Bangladesh Jute Research Institute
- Bangladesh Sugarcane Research Institute
- Cotton Development Board

Extension

- Department of Agricultural Extension
- Agriculture Information Service

Inputs Delivery

- Bangladesh Agricultural Development Corporation
- Seed Certification Agency

Supporting Agencies

- Soil Resources Development Institute
- Department of Agricultural Marketing

Multipurpose

- Barendra Multipurpose Development Authority

Research and extension organizations need not be discussed here as they will be looked into in the next Chapter. The one organization that must be mentioned briefly is the Bangladesh Agricultural Development Corporation (BADC). Created in 1961, the BADC spearheaded the revolution in minor irrigation in Bangladesh. Since the middle of the 1980s, Government has been progressively withdrawing its operations from procurement and supply of agricultural inputs. The first to go in the process was pesticide followed by fertilizer and BADC's withdrawal from minor irrigation is all but complete. The only input that the BADC partly generates and supplies is certain kinds of seeds. Besides, BADC operates a few farms as well as a few agro-irrigation projects like the Ashuganj Project.

Seed Certification Agency is responsible for certifying the seeds both produced inside the country and procured from outside as to their quality and suitability for release. Administratively, no seed can be marketed without certification from this Agency. Soil Resources Development Institute mainly engages in soil classification to help farmers determine their cropping pattern as well as to make them aware of the needs for restoration of soil fertility. The Agricultural Marketing Department is the weakest in the chain. Its activities are limited to collecting the price of certain listed commodities. Currently, it is also engaged in developing wholesale market for agricultural commodities in promising areas.

3.2.4 Ministry of Civil Aviation and Tourism

The Ministry of Civil Aviation and Tourism has two broad functions. One relates to all matters connected with air space control, air safety, aeronautical inspection and regulation of aircraft, aircrew, airports and air services. The other sphere of activities relates to tourism development. It discharges its functions through three Agencies under its administrative control. These are:

- Civil Aviation Authority of Bangladesh (CAAB)
- Bangladesh Biman Corporation
- Bangladesh Parjatan Corporation (BPC)

In addition, the Bangladesh Government also holds majority shares in the Hotels International Limited and Bangladesh Services Limited that are being run by the Pan Pacific and Sheraton respectively.

3.2.5 Ministry of Disaster Management and Relief

The Ministry of Disaster Management and Relief (MDMR) deals with disaster management in the most comprehensive sense starting from disaster mitigation/prevention planning to development of disaster management programs and conducting actual rescue and subsequent relief operations. The MDMR is very heavily dependent on the local administration, civil society, private organizations, NGOs, BDRCS and the general public at the time of disasters and post-disaster relief and reconstruction works. To provide the backstop and technical service, it has two Departments under its administrative control. One is the Disaster Management Bureau (DMB) which we discuss in some detail in the next Chapter. The other one is the Directorate of Relief and Rehabilitation. The main function of the Directorate is to maintain sufficient stock of relief goods during normal times and arrange to dispatch them in disaster hit areas in the shortest possible time. Unlike the DMB, it has a modest field staff who take active part in relief management in cooperation with local administration and others. The Directorate also plays a major role in post-disaster rehabilitation by carrying out needs assessment and recommending quantum of assistance in an affected area.

3.2.6 Ministry of Environment and Forest

Till 1989, there was no separate Ministry dealing exclusively with environment. The Ministry of Environment and Forest (MOEF) had begun its sojourn as Forest Division after being segregated from the Ministry of Agriculture and Forest in 1987. In July 1989 the Forest Division was raised to the status of a Ministry. In August of the same year, the Ministry of Forest was redesignated as the Ministry of Environment and Forest whereupon the Directorate of Pollution Control under the Local Government Division was transferred to the MOEF after being named as the Department of Environment. Concern about the natural environment is of recent origin

and that partly explains the low level of institutional development of the sector compared to the other established ones.

The main function of the MOEF is the conservation and development of the natural environment and, in the pursuit of that goal, ensure through appropriate laws and regulations that natural resources like land, water and forests are used and exploited in an environment-friendly manner.

The MOEF pursues its activities through the following institutions:

- Forest Department
- Department of Environment
- Bangladesh Forest Industries Development Corporation
- Bangladesh Forest Research Institute
- Bangladesh National Herbarium

In our discussion of the Forest Department most of the institutional issues have been covered and these need not be repeated here.

3.2.7 Ministry of Fisheries and Livestock

The overall objectives of the Ministry of Fisheries and Livestock (MOFL) are the protection, preservation and development of the fisheries resources of Bangladesh in the fisheries sub-sector and better management practices of livestock and poultry rearing through development of technology for breed, feed and disease control in the livestock sub-sector.

The MOFL is assisted in its task by the following Agencies under its administrative control:

- Fisheries Sub-sector
- Department of Fisheries
- Bangladesh Fisheries Development Corporation
- Bangladesh Fisheries Research Institute
- Livestock Sub-sector
- Department of Livestock Services
- Bangladesh Livestock Research Institute

The Agencies in the fisheries sub-sector are well taken care of in the discussion of the Department of Fisheries and need not be repeated here. In the livestock sub-sector, the Department of Livestock Services has also been similarly covered. A brief introduction about the Livestock Research Institute (BLRI) would be in order.

The BLRI was established at Savar, Dhaka as an autonomous body in 1984. The general direction and management of the Institute vest in a Board of Management headed by the Minister in charge of the Ministry of Fisheries and Livestock. The Institute is headed by a Director General. It is mandated to carry out research to find technologies for better breed of livestock and poultry and their successful application in the home situation. It is also expected to play a major role in discovering techniques for animal disease control and their application. The Institute is also called upon by the Ministry to assist it in the formulation of policies in respect of livestock and poultry.

3.2.8 Local Government Division

Local Government Division (LGD) is a self-contained Division under the Ministry of Local Government, Rural Development and Co-operatives. Its main functions consist of facilitating the development and proper functioning of the local government institutions. Within that framework, it also facilitates availability of a few civic amenities like supply of pure drinking water to urban and rural people and development and maintenance of physical infrastructure in rural and peri-urban areas.

The LGD seeks to achieve its objectives through the following Agencies under its control:

- Local Government Engineering Department
- Department of Public Health Engineering
- Dhaka Water and Sewerage Authority
- Chittagong Water and Sewerage Authority
- National Institute of Local Government

The LGD is politically very sensitive to the extent that major institutional changes have in the recent past been made in the sphere of local governance and the political mobilization at that level will have significant bearing in national politics. It is also very important from the point of view of good governance in as much as it facilitates the process of decentralization, people's participation, empowerment, better utilization of resources and many other attributes identified with good governance.

At the time of her independence, Bangladesh had inherited a long legacy of local government. Unfortunately, each successive regime in Bangladesh has tinkered with the system they found on assumption of power. Consequently, the local government institutions failed to take roots and solidify. The immediate past Government, on the basis of the recommendations of the Local Government Commission, passed the necessary legislation for establishing local government at four levels: Zila Parishad, Upazila Parishad, Union Parishad and Gram Parishad. At the present time, elections could be held only for the Union Parishads and they are properly constituted and functioning. Constitution of the other Parishads are held up due to court cases. It is important that the different tiers of local government are constituted at the earliest and allowed time to consolidate their position in the system of government. Without a viable local government, programs for poverty alleviation and economic development will not be sustainable in the long run.

3.2.9 Ministry of Shipping

The principal objective of the Ministry of Shipping (MOS) is to operate the ports efficiently and provide safety and security to shipping and inland water transportation having due concern for environmental protection. This objective envisages both regulatory, maintenance and development functions. The Ministry performs its functions through these following Agencies:

- Department of Shipping
- Chittagong Port Authority
- Mongla Port Authority
- Bangladesh Inland Water Transport Authority
- Bangladesh Inland Water Transport Corporation
- Bangladesh Shipping Corporation

The Department of Shipping (DOS) is the only government department under the Ministry: the rest are all autonomous bodies. The DOS regulates seaworthiness of all vessels and maintains overall safety standards of shipping. It is also in charge of the Marine Academy and the Seamen's Training School. These are the two institutions for developing the marine cadets and sailors needed for the sector.

The two port authorities operate on a self-sustaining basis through their Board of Directors. The two Authorities are plagued with innumerable problems that are beyond the scope of this review. It must, however, be mentioned that a congenial working environment in the port area is a pre-condition not only for rapid economic development of the country but also for the successful implementation of an ICZM program

3.2.10 Ministry of Water Resources

The Ministry of Water Resources (MOWR) is responsible for ensuring an integrated water resource management in conjunction with other water user Ministries keeping in view the optimal use of water without doing any damage to the natural environment. Within the framework of integrated management, it is mandated to carry out activities relating to flood control, drainage and irrigation involving river management and estuary control. The MOWR is assisted in its tasks by the following Agencies under its administrative control:

Bangladesh Water Development Board
Water Resources Planning Organization
River Research Institute
Joint Rivers Commission
Haor Development Board

The first two organizations in the list will be discussed in the next Chapter. The River Research Institute carries out materials testing and conducts physical modeling. The Joint Rivers Commission (JRC) is a unique institution in the sense that it was created pursuant to an agreement with India in 1972 to look into the water issues of common rivers. There is a counterpart JRC for India also. JRC is the repository of data relating to the 57 transboundary rivers and maintains all documents relating to JRC and its different meetings held during the past 30 years. The Haor Development Board was just created in the past year with an aim to direct more investments in the neglected haor and wetland areas of Bangladesh. It is a reincarnation of the former Board with some modifications which, a few years back had been thrown overboard due to its redundancy and futility.

3.3 Review of the Selected Ministries on a few Criteria

In Chapter II, a number of criteria have been developed to ascertain institutional status. Most of these will be relevant for the Agencies selected for review. However, it is not necessary to evaluate the Ministries on all those criteria. Given their bounded nature under the Rules, evaluating them against a couple of those criteria would give us sufficient indication as to the complexity and extent of the institutional constraints. What would follow is indicative only and there is no pretension that this is a complete *expose* of the administrative malaise that is prevalent in the country.

3.3.1 Mandate

Under rule 3(ii) of the Rules of Business, the business of government is distributed among the Ministries in the “Allocation of Business among the different Ministries and Divisions” notified as Schedule I of the Rules of Business, 1975. There are many incongruities in the Rules that adversely affect the disposal of government business. Unfortunately, very few people have bothered to talk about it. In the Rules, the following incongruities will be evident after close scrutiny:

3.3.1.1 Absence of a Reallocation of Functions to the Departments

Rules of Business as an instrument of governance has a long history. It was first introduced in 1954 for the Government of East Bengal. It went through two quick revisions in 1961 and 1962 before it was adapted for use by the central government of an independent nation in 1975. This new version was largely based on the Rules of 1961 and 1962 with one very important modification. The role of the Ministries was clearly defined. Theoretically, all powers relating to the allocated business vest in the Ministries. The constraining provisions about the role of the Ministries in the Rules needed to be followed up by official notification of the Charter of Duties of the Attached Departments. The Agencies under their control were to be told by the Ministries as to what type of business will be conducted by them. This is done in the case of statutory organizations in as much as they are created by law and it is a legal requirement that their functions are clearly spelt out. But in the case of government organizations, there is no official notification as to their mandate. The item of works these Department show as mandate has no legal basis. Most of these were neither well thought out nor discussed inter-departmentally to reach a consensus to avoid overlap and conflict. This has given rise to lot of ambiguities and confusion. Taking advantage of this confusion, officials of the ministries get the opportunity to unnecessarily interfere in the affairs of the Departments causing delay in disposal and creating frustration among the officials of the Department. This has also led to some very serious jurisdictional infringements creating long-term interdepartmental hostilities.

3.3.1.2 Neglect of a Comprehensive Review of the Rules

During the past two decades, rapid changes have been taking place about the role of the government, system of management of the economy, the manner of governing the people and

coming to terms with both exploitation of the natural resources and their preservation. Old ideas are cast aside making place for the new. It seems that no serious review of the Allocation of Business was undertaken collectively to update it to reflect the changing scenario of administration. Some of the more notable omissions are mentioned below:

The Rules of Business puts 'policy formulation' at the top of the functions of a Ministry. Of the ten Ministries reviewed, only the allocation of the Ministry of Fisheries shows an item as "preparation of schemes and coordination of national policy in respect of fisheries". Allocations in respect of other nine Ministries are totally silent about it. It may be argued by some that the Allocation was intended to be very precise and succinct and therefore, it was not necessary to enumerate all the things Ministries do in great length. This argument would be factually incorrect in as much as Allocations of the Ministries of Finance, Jute, Health and Information puts 'formulation of fiscal and monetary policies in consultation with other Ministries', 'jute policy', 'policy regarding health and family planning' and 'publicity policy-internal and external' respectively at the top of their functions, among other Ministries. This is a very notable omission borne by the very fact that all these Ministries in the past years have formulated their policies and circulated them for wide dissemination.

Sectoral plan formulation is another important activity of a Ministry. Of the ten Ministries reviewed, the Allocation of the Ministry of Disaster Management only has kept an item on plan. The true fact is that all the Ministries do engage in master planning and management planning.

Monitoring and Evaluation are two very important subjects emphasized by the Rules of Business as core functions of a Ministry. These are also not clearly mentioned in the Allocation of the Ministries reviewed.

That the Allocation has not been reviewed very thoroughly can be deduced from the persistence of some items that have become either totally obsolete or have been replaced by better modern concepts. For expository purposes, we may take up a few items from the Local Government Division.

There is an allocated subject titled "Inns and inn-keepers"; another one is 'pond and cattle trespass'. To our knowledge, these were in operation in a few places in East Pakistan in the 1950s. After independence of the country, these have become extinct; but they still continue to appear in our Allocation Rules.

Paradoxically, the important things currently the LGD is engaged in do not appear at all in the Allocation Rules. Mention may be made of the countrywide small-scale water schemes and the various physical infrastructures being executed by the LGED.

3.3.2 Personnel Management

Except for a few posts under the development budget, all class I posts in the Secretariat are centrally controlled by the Ministry of Establishment. Due to absence of a modern career development plan, personnel management is amateurish, egoistic and always geared to meet contingencies. Deployment has no relevance to the nature of job to be performed. Placement is largely on the basis of who is next in line for promotion. Even in the top positions in the government, promotion is based overwhelmingly on the basis of seniority, merit being relegated to a very nominal and self-serving position.

In the matter of skills mix also, there is preponderance of generalists at the expense of planning staff. The Ministries under review are all development Ministries with the exception of the MOL. Only the MOP is reasonably staffed with adequate number of professionals to handle their enormous job. This has been possible due to attachment of the PC to that Ministry and its control over the BCS (Planning) Cadre.

In many countries like India where generalists still dominate all ranks of federal and state administration, there is a conscious attempt at their area specialization. The Ministries are grouped together on the basis of broad similarities of functions for deployment of officials. Unfortunately, there is nothing close to that in Bangladesh and officers are posted in and out at random. Even under such adverse personnel management, a few of the more enterprising and

dedicated ones could have tried to make some contribution if they could stay in one position for a reasonable duration. As if tenure is of no significance, the average duration of senior management is pitifully short. Of the ten Ministries reviewed, the MOS, between 1994-2001, had a turnover of ten Secretaries. The average tenure of Secretaries in these ten Ministries is 1.3 years, which is not enough to do any work of substantive nature.

3.3.3 Co-operation with other Ministries

The Rules of Business gives the very clear directive that “when the subject of case concerns more than one Ministry/Division, no orders shall issue, nor shall the case be submitted to the Prime Minister or the Cabinet until it has been considered by all the Ministries/Divisions concerned and their views are properly recorded.” The Rules also mention the subjects on which consultation is mandatory with the Cabinet Division, Ministry of Establishment, Finance Division, Ministry of Law, Justice and Parliamentary Affairs and the Ministry of Foreign Affairs.

Unless there is clear political directive, this process of consultation is very lengthy. The delays emanate from a number of sources. One major source is the unclear and ambiguous nature of the mandates we have already discussed above. The Ministries and the Agencies under their control engender lot of controversy on jurisdictional matters. It is interesting that in cases where some material benefit is involved, there are many claimants to jurisdiction. When it comes to delivering a service, Ministries and Agencies, taking advantage of the ambiguity of the mandates, are prone to disclaim any responsibility. Another source of delay is contradictory provisions on the same subject under different laws. The same is true of a mountain of government circulars, orders, memoranda and other instruments issued from time to time for the operation of the Government. The most potent cause of delay seems to be the system itself that requires clearance from at least half a dozen Agencies before a thing can get passed.

In theory, what the Rules prescribe is the most desirable thing to do. There is perhaps no alternative to discussion and arriving at a consensus before taking decisions that may have wide ramifications. Unfortunately, rules are often used as a shield to cover up delays, satisfy egos and even to take recourse to corrupt practices. A reading of the Project Completion Reports jointly prepared by the GOB and the donor on completion of a donor-assisted project would reveal the many instances of a senseless display of vulgar egoism and authoritarianism. In the final analysis, it is not merely rules, regulations and government orders that would ensure co-ordination. These must be matched by a spirit of cooperation, achievement-orientation and a clear understanding of each other's needs for the greater good of the country. This would involve simplification of rules and procedures and a total reorientation of bureaucracy.

3.3.4 Capacity Building

Since personnel of the Secretariat are centrally managed by the Ministry of Establishment, individual Ministries do not have much control on the training of the concerned officials. There is a central training institute called the Bangladesh Public Administration Training Centre under the control of the MOE. Despite many deficiencies, it has the potential to be developed as a center of excellence for training the public servants of the country. However, the numerous recommendations for establishing a linkage between training and promotion and for overall career development has not yet been implemented due to lack of political commitment.

If civil service reforms are politically difficult to implement, it should not be difficult to carry out moderate reforms towards better office management. The logistics available at the disposal of the Secretariat officials are outdated and antiquated. If the Ministries' functions are policy making, planning, evaluation and monitoring, then there cannot be any better aid for doing these jobs than computer. All the Ministries must be fully computerized and connected through LAN. Unfortunately, there is no such official initiative. Some enterprising Secretaries have done this through diverting some project resources. However, these unofficial efforts are not sustainable on the long-term as funds for their maintenance are not allocated by the Ministry of Finance on completion of development projects.

4 INSTITUTIONAL REVIEW OF SELECTED AGENCIES

In this Chapter, brief institutional profiles of all the fifteen agencies selected for review would be presented. The reviews reflect the institutional status as they are found on the ground and no comments at this stage are made. These will be evaluated in the next Chapter.

4.1 Water Resources Planning Organization

Management of the water resources of the country in a “comprehensive, integrated and equitable” manner calls for development of a national water plan and its continuous updating. National water planning dates back to 1964 when the so-called IECO water master plan was prepared. Despite its partial implementation, the Plan was criticized for being too narrow in its approach and for neglecting such vital issues as climatic extremes, environmental and institutional aspects and integrated nature of land and water. These and other shortcomings were sought to be removed by another round of macro-level planning exercise carried out by the Master Plan Organization (MPO) created as a temporary entity with donor financing. The MPO produced, in two phases, National Water Plan I in 1987 and National Water Plan II in 1991.

Both the GOB and the donor community were keen to institutionalize the MPO on a permanent footing. The creation of the Water Resources Planning Organization (WARPO) under the Water Resources Planning Organization Ordinance, 1991 was the fulfillment of a long-felt need.

4.1.1 Mandate

The Water Resources Planning Act, 1992 (Act XII of 1992) that replaced the Ordinance No 46 of 1991 as a matter of routine assigns, amongst others, the following responsibilities to the WARPO:

- Prepare environmentally compatible water master plan for development of water resources
- Develop national policy and strategies for appropriate use and conservation of water resources
- Advise other water-related organizations in the development, use, and conservation of water
- Assist other water-related organizations by providing specialized, multi-disciplinary and cross-sectoral training.

This mandate, however, has been considerably widened by the NWP. The new responsibilities can be enumerated as under:

- Periodically update the NWP which it is mandated to develop under the Act of 1992
- Develop and update a National Water Resources Database and Information Management System
- Act as a “clearing house” for all water sector projects
- Act as the executive secretariat of the Executive Committee of the National Water Resources Council and in that capacity advise it on policy, planning and regulatory matters of water resources and related land and environmental management.

4.1.2 Policy

The NWP, for the present, provides a comprehensive framework for the development of WARPO as an institution. It also specifies very clearly its main functions and the ways in which it should carry them out in an inter-institutional context. The NWP puts a formidable agenda before the WARPO and the credibility and sustainability of the organization will very much depend on its acquiring the capacity to meet the assigned tasks satisfactorily.

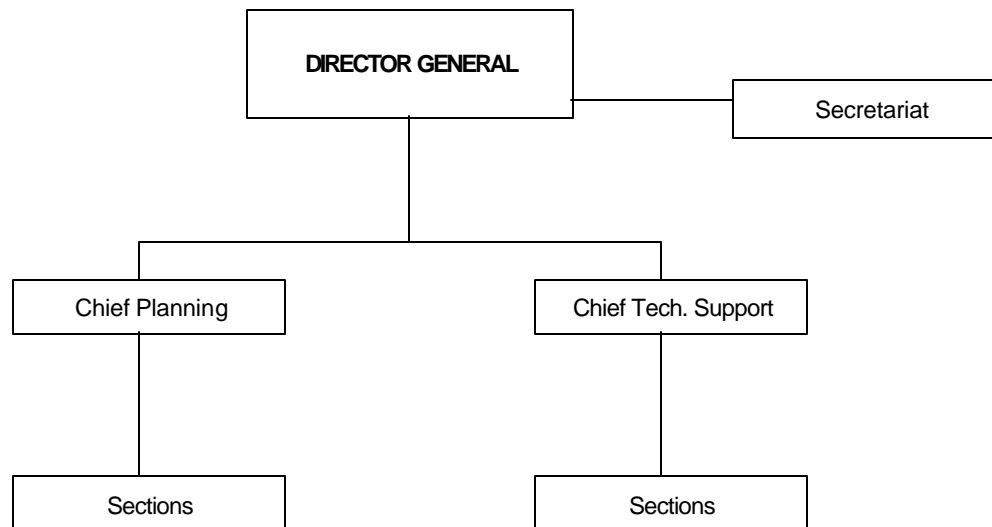
4.1.3 Structure

WARPO was consciously designed to be a highly professional but a very lean organization by outsourcing a large part of its work to the private sector and the NGOs. It is headed by a Director General who, in turn, is assisted by two Directors. At the real working level are the

Chief Scientific Officers who are in charge of the technical sections overseeing the work of other professionals. Compared to other related organizations in the water sector, there is relative stability in the tenure of the top management. However, there is a lingering staff problem at mid-level. WARPO tried couple of times in the past to recruit good quality manpower from the market but there was no success. A few of them who are already there are not considered mature enough to be promoted to the mid-level. Nor can those positions be filled by secondment from related public organizations. In some cases, officials with the requisite qualification are not available. While at other times, the lending departments nominate dispensable persons who are not found acceptable by the WARPO management. In consequence, professional positions are still lying vacant.

WARPO has been assigned responsibilities that require professional knowledge and skills of the highest order in the relevant fields. It has to be truly a center of excellence and for that it must have a core in-house capacity by attracting high-quality professionals, ensure their career and professional advancement and be able to retain them for a reasonable duration. At present, of the total number of 47 professionals, only 16 are WARPO's own staff while 14 are on secondment from other organizations and the remaining 12 posts are lying vacant for a long time. The current organizational lay out may be seen from the following diagram:

Diagram 4.1 Organogram of WARPO



4.1.4 Financing WARPO

WARPO and its predecessor organizations have always been heavily dependent on donor support. Even under the present phase, WARPO is sustained by two streams of financing. As a public organization, it gets a grant annually under the revenue budget, which barely covers the salary of the staff and a certain percentage of establishment costs. Its development component, the preparation of the NWMP, is funded by the IDA from funds allocated under the Riverbank Protection Project. A number of experts are also supported by bilateral donors like the Netherlands and Canada through grant assistance. The expenses relating to all items of program development, capacity building and training as well as a large part of establishment cost are met from the project fund.

This sort of over-dependence on external assistance has always put the sustainability of WARPO and its predecessors in jeopardy. The organization does not have a permanent office building that has forced it to move four times in the last decade. In the process, it has lost many valuable documents, maps and mimeographs.

Current IDA support to WARPO would end on November 30, 2001. There is considerable uncertainty if WARPO would be able to continue at its present location and keep on operating and maintaining the programs and facilities already developed by investing huge sums of money. This is a burning issue and a permanent solution of the financial problem must be found quickly.

4.1.5 Experience with Joint Execution of Projects

Beginning with the master planning exercise in the 1980s, WARPO and its predecessors have developed and nurtured a collegial atmosphere for doing their work. Technical Committees have been the most effective formal channels for all concerned to fully express their views on different issues relating to the water master plan. This consultation process also moves to a still higher level during deliberations in the Steering Committee meetings. The lingering issues can further be debated and decided at the level of the Executive Committee of the National Water Resources Council (NWRC) headed by the Minister for Water Resources. Finally, if needed, appropriate issues can be taken to the NWRC headed by the Prime Minister for resolution. Experience to date has shown that the outputs delivered by WARPO are developed by it through very intensive interaction by different professionals and concerned officials from the agencies.

4.1.6 Planning through Consultative Process

This aspect has two dimensions. The first one relates to the center where WARPO has to interact with the NWRC, Planning Commission and the concerned agencies at the national level. Consultations are envisaged here for two kinds of activities. The first kind relates to the preparation of the NWMP and its updating as well as the preparation and updating of the National Water Resources Database. WARPO has good experience on these activities and these do not pose major institutional problem except the financial issues. The second set of activities relates to its "clearing house" role. The important thing to remember here is that in the discharge of this function WARPO should not be seen as an impediment. Its monitoring activities should be confined to a technical check as to whether a proposed activity in the water sector broadly conforms to its plan framework. The suggestions made in the draft NWMP seem quite reasonable and worthy of follow-up.¹⁰

The second dimension relates to the planning framework at the local level. While WARPO will be in charge of water sector macro planning, all sector agencies would be developing their own sub-regional plans within the framework of the NWMP. WARPO will have to oversee the linkage between the two levels of planning. WARPO would not have enough staff to do this work as a matter of routine. It may, therefore, consider delegating this work to the district level Project Evaluation Committee already constituted by the Planning Commission. WARPO, however, may like to review this and propose suitable standards and guidelines for the Committee in the discharge of its duties.¹¹

4.1.7 Working with NGOs

During the Flood Action Plan days, Flood Plan Co-ordination Organization (FPCO) did not have very good relations with the NGOs. The NGO dislike was not that much for the FPCO as an institution as was for the concept and methodologies of flood protection. After the adoption by the Government of an integrated approach for water resources development, NGOs are now generally reconciled with the on-going planning exercise. In fact, WARPO has engaged 13 NGOs to assist it in developing and implementing a People's Participation and Consultative Process to support national-level planning. This sort of outsourcing and co-operation would be an important element in the institutionalization of the WARPO.

4.1.8 Institutionalizing WARPO

WARPO has been conceptualized in the NWP in the image of its chief institutional device for planning and managing the water resources of the country in an integrated manner. In order to enable WARPO to assume its role assigned in the NWP, the following actions ought to be initiated without any further delay:

¹⁰ Water Resources Planning Organization, "Final Development Strategy" Vol 2 (Main Report, Chapter 4draft. Dhaka: National Water Management Plan Project, February 2001. P22

¹¹ *Ibid*, Draft Development Strategy, Vol 7

- I. The NWP has brought about many radical changes in the concept, practice, procedure and role of water sector institutions in the management of water resources. A new dimension has been added to the role of the WARPO by assigning it the Secretariat function of the National Water Resources Council and the watchdog role for maintaining the integrity of the NWMP. The WARPO Act of 1992 does not cover these responsibilities. In fact, the Act has been dead for a long time now. Under that Act, there is provision for a Board of Directors. The Board was never constituted and during the past six years, no attempt was made to do that possibly for the reason that the composition and mandate of the Board were not suited to the needs of the time. For implementing the various directives of the NWP, WARPO would need legal cover. The first order of business in the institutionalization process would be quickly drafting a new law covering the latest developments and obtaining agreement of all concerned stakeholders as to its content and thrust. The composition of the Board of Directors, unlike the one in the present Act, must contain a mix of public and private sector people who either have considerable stakes in the future water resources planning or have demonstrated their commitment and capacity for meaningful contribution in the planning process of the sector.
- II. The NWP has further assigned the WARPO the task of preparing and periodically updating the NWMP as well as the NWRD. Both these assignments are now being completed with considerable donor support. This is very much justified considering the enormity of the task and the relative inexperience of WARPO staff in doing this kind of work. After this basic work has been accomplished, it would be the general expectation that WARPO would be able to do the updating by itself. However, there is no indication as to how WARPO wants to address the issue. At this point of time, it does not have any plan of action. The updating exercise would involve, at a minimum, twenty odd public agencies and a host of other private institutions, NGOs, universities and stakeholder organizations. There has to be a continuous flow of information. What are the mechanisms through which this flow can be ensured and maintained? Does WARPO need to enter into some formal arrangements with those other relevant organizations by signing memoranda of understanding or are there other mechanisms like inter-agency committees or task forces? WARPO should start a consultation process with its partner organizations and come up with an agreed methodology. It should then be refined through its exercise over a length of time and later institutionalized.
- III. The assigned role of WARPO as a "clearing house" for all water sector projects identified by different agencies for implementation is highly sensitive. The principal purpose of this responsibility is to prevent willful and unacceptable disregard and violation of the NWMP. The important thing to consider here is that WARPO is a central planning agency and it does not have any field outfit. The most viable way to fulfill this monitoring responsibility is to work as a technical arm of the Planning Commission when projects come up for processing at that level. For small projects that will not come up to the level of the Commission, the Thana level inter-agency committees already constituted by the Commission may serve the purpose. Whatever may be the shape of institutional arrangements, WARPO must take the initiative to draft administrative arrangements, hold discussions with all concerned agencies about it and finally get it approved by the NWRC. It would be a good idea to get the administrative order issued by the Planning Commission to give it a neutral cover.
- IV. By now, WARPO ought to have a reasonably good idea as to the future size of its organization and the mix of manpower. It had been considering a number of options and has been postponing a decision on its essential choice. It must make up its mind now. Further indecision would only aggravate the problems and may put the very existence of the institution at stake.
- V. Last but not the least, WARPO must have its own accommodation. Since its creation in 1991, it has changed place six times. In the process, it has lost many valuable documents, maps, equipment, electronic gadgets and other valuables that go to make up an institution. This time it is all the more necessary in as much as the NWRD is being developed which will need to be nurtured and maintained with great care and dedication.

4.2 Bangladesh Water Development Board

The Bangladesh Water Development Board (BWDB) came into being in 1959 as the Water Wing of the erstwhile East Pakistan Water and Power Development Authority. After the independence of Bangladesh, the Authority was restructured in 1972 to create two separate organizations dealing with water and power separately. The BWDB was created under the Bangladesh Water and Power Development Boards Order, 1972 (P.O No 59 of 1972) as a fully autonomous organization.

4.2.1 Towards a new Mandate

The Board consisted of a Chairman and a minimum of five Members. By conscious design, both policy and executive functions were assigned to the Board. Framers of the BWDB mandate at that time had thought that combining these functions will bring about efficiency and speed in the disposal of business of the Board and thereby would accelerate the water resources development in the country. The Board's principal responsibility for flood control, drainage and irrigation through executing flood control and drainage (FCD) and flood control, drainage and irrigation (FCDI) projects was necessarily linked with achieving self-sufficiency in food production.

As works progressed in the sector, experience and knowledge revealed inherent contradictions in the mandate and the various methods followed by the Board in carrying out its responsibilities. For a long time, the BWDB had been maintaining a huge staff beyond its financial capacity. While the requirement was an objective analysis of the personnel problem and taking suitable remedial action, the BWDB took the easy and expedient recourse of diverting development funds to pay for the salary of the redundant staff. The first victim of this diversion was the maintenance budget. More than 500 completed projects of the organization in 1995 were in a terrible state of disrepair. Although about 2.5 billion US dollar worth investments were made in the water sector between 1972 and 1995, most of the big surface water irrigation projects were operating much below their capacity determined at the time of their appraisal.

Water resources management is a multidisciplinary endeavor, but the organization was dominated by civil engineers. Attempts at rationalization were looked upon with suspicion and nothing substantial could be achieved due to opposition from the concerned quarters. Guidelines for people's participation was approved by the Government in 1995, but absence of an enabling environment did not see many advances on that score. The culture of a consultative process in the management of water resources could not permeate through the rank and file and the top down approach continued. Between 1980 and 1995, a number of studies¹² suggested urgent reforms in the structure and processes of the BWDB to increase its efficiency, accountability and capacity. During this period, sporadic and minor changes were attempted which obviously did not have much visible impact on its performance. It was only towards the end of the last decade that fundamental changes have been carried out in reforming BWDB. Approval of the National Water Policy (NWP) in 1999 and incorporating most of the major principles of that Policy in the new Bangladesh Water Development Board Act, 2000 (the BWDB Act) have been instrumental towards success in these reform efforts. It would be worthwhile to review the main features of the National Water Policy and the reforms already accomplished and their implication in the formulation of the new mandate.

In so far as it affected policy and operations of the BWDB in a fundamental way, the Water Policy contained the following directives:

¹² These include World Bank, *Land and Water Resources Study-Bangladesh*. Asia Projects Department. December 1972; World Bank, *Review of the Bangladesh Water Development Board*. April 1979; Bangladesh Water Development Board in association with Harza Engineering Company, *Strengthening of the Organizational and Implementation Aspects of the BWDB, 1981-82*. World Bank, *Institutional Components of the Third Flood Control and Drainage Project*. 1985; World Bank, *BWDB Operation and Maintenance Study*. October 1985; Government of the People's Republic of Bangladesh and the United Nations Development Programme, *Bangladesh Flood Policy Study. Final Report*. Dhaka: May 1989 and World Bank, *Bangladesh-Review of Experience with Policy Reform in the 1980s*. June 1990

- a. WARPO will be the exclusive government organization for macro-level water resources planning. This directive finally took away whatever claims the BWDB had for doing this kind of work based on their previous master planning exercises.
- b. The BWDB will implement all major surface water development projects and other FCDI projects having command area of more than 1000 hectares in a single project. The local government will implement FCDI projects having a command area of 1000 hectares or less after identification and appraisal through an interagency Project Appraisal Committee. This directive has further reduced the scope of the activities of the Board.
- c. Ownership of FCD and FCDI projects with command area of 1000 ha or less will gradually be transferred to the local governments, beginning with the ones that are being satisfactorily managed and operated by the beneficiary/community organizations. This is part of the divestment plan to allow more focussed attention by the BWDB on river management leaving small scale projects to the local government institutions.
- d. The management of public water schemes, barring municipal schemes, with command area upto 5000 ha will be gradually made over to local and community organizations and their o&m will be financed through local resources. When this task will be accomplished, the BWDB will be relieved of the perennial problems of o&m budget deficit.
- e. Public water schemes, barring municipal schemes, with command area of over 5000 ha will be gradually placed under private management, through leasing, concession or management contract under open competitive bidding procedures or jointly managed by the project implementing agency alongwith local government and community organizations. This directive comes out of the imperatives for better o&m through management participation.
- f. The participation of all project affected persons, individually and collectively, will be ensured in the planning, design, implementation and operation and maintenance of publicly funded surface water resources development plan and projects. Community level self-help groups and NGOs will also be relied on to assist in the participatory process. This reflects the concern of the highest level policy-makers to ensure a participatory decision-making process in the BWDB; and
- g. The Government will restructure and strengthen, where appropriate, the existing institutions to ensure that the agenda for reform and the action plan is implemented efficiently. Two important principles will govern institutional restructuring. Firstly, there should be separation of policy, planning and regulatory functions from implementation and operational functions at each level of government. Secondly, each institution must be held accountable for financial and operational performance. This is the most fundamental directive of all and was a key guideline in the reform of the BWDB.

On the basis of the above directives, a wide-ranging reform in the structure and the processes of the BWDB has been carried out. Most of these have been sought to be institutionalized through enacting the new BWDB Act of 2000. The salient features of these reforms may be seen from the following figure to appreciate the changed mandate of the BWDB.

TABLE 4.1 Reforms Already Accomplished in the BWDB

Propositions	Implementation
i) Redefining the mandate of the BWDB in water resources management by clearly delineating its jurisdiction vis-à-vis those of other public agencies, community organizations / beneficiaries and the private sector	i) The BWDB Act has allocated the function of developing water projects upto a command area of 1000 ha to the Local Government Engineering Department (LGED). Similarly, Water Resources Planning Act, 1992 and the River Research Institute Act, 1990 have empowered the Water Resources Planning

Propositions	Implementation
	<p>Organization (WARPO) and the River Research Institute (RRI) to take over the functions delineated in those Acts that were previously being performed by the BWDB prior to their promulgation. In consequence, WARPO has become the exclusive government institution for macro-level planning. Sector agencies of the government and local bodies will prepare and implement sub-regional and local water management plans in conformance with the National Water Management Plan (NWMP) and approved government project appraisal guidelines. Similarly, the BWDB will not undertake any physical modelling or materials testing and these will be done by the RRI.</p>
ii) Separation of Policy functions from implementation and operational functions	<p>The BWDB Act has also given up ownership of the Dredger Organization (DO) and the Mechanical Equipment Organization (MEO) to pave the way for their eventual commercialization.</p> <p>ii) The BWDB Act has effectively separated policy from implementation by establishing the Governing Council (GC) as the top policy making body for the BWDB. Henceforth the latter would be principally responsible for implementation and monitoring of water sector projects</p>
iii) Ensuring proper autonomy of the BWDB from the GC	<p>iii) In order to avoid conflict, the BWDB Act has clearly spelt out the functions and the responsibilities of the GC and those of the BWDB.</p>
iv) Encouraging participatory management for projects of different size that will create a sense of ownership among the beneficiaries and relieve the BWDB of operating and maintaining the relatively smaller ones	<p>iv) On participatory management, the new Act has provided for as follows:</p> <p>In sub-section (2)(d) of section 6 of the Act, it is mandated that the Board shall perform its functions by, among other things, outlining the institutional mechanism in project documents for securing people's participation in project areas during identification, preparation, implementation and operation and maintenance in the light of government guidelines on the subject</p> <p>In sub-section (1)(j) of section 6 of the Act, the BWDB is required to organize the beneficiaries to ensure their participation and to devise and implement strategies and institutional mechanism for o&m cost recovery of projects in order to deliver continued benefits of projects completed by the Board</p> <p>Subsection (3) and (4) of Section 15 of the Act outlines the management of completed projects. Projects with a command of more than 1000 ha to 5000 ha would be managed by</p>

Propositions	Implementation
	<p>the beneficiaries. Projects larger than this size would be managed by a Joint Management Committee consisting of the representatives of the BWDB, beneficiaries' organization and other water-related organizations. In suitable cases, the Government may contract out management to private parties.</p>
<p>v) Eliminating redundant positions in BWDB and restructuring it to meet the needs of the 21st century.</p>	<p>v) GOB has already approved a gradual reduction of staff strength from its previous sanctioned strength of 18,032 to the present sanction of 8,860. This exercise does not merely mean reduction of numbers: it also has resulted in through re-structuring in the light of revised mandate of the BWDB. Thus the Land and Water Use Directorate is set to be phased out. Similarly, the Board Secretariat has been abolished thereby allowing the departmental heads direct access to the Additional Director Generals and the Director General of the BWDB.</p> <p>Creating staff positions for sociologists and fisheries, forestry and environmental experts has set up a strong multidisciplinary planning department. The position of Chief Engineer, Planning has been redesigned as Chief, Planning to allow professionals from all relevant disciplines to move to that position. Similarly, the positions of Chief Engineer, Monitoring and that of Chief Engineer, Training have been redesigned as Chiefs.</p> <p>The field outfit of BWDB has also been rationalized in view of proposed transfer of small FCD/FCDI projects upto 1000 ha to the local government.</p>
<p>vi) Taking steps to improve organizational efficiency through improvement of procedure and office management</p>	<p>vi) Job descriptions of all officials from the Assistant Director /Assistant Engineer to the Director General and the Rules of Business for the BWDB have already been approved by the GC. A Committee of the Council is now examining the delegation of administrative and financial powers to different levels of officials. Computerized financial management system with the exception of pension administration has already been installed.</p>

4.2.2 New Mandate of the BWDB

The BWDB Act of 2000 has somewhat reduced the scope of work of the organization but what remains is more rational, manageable, people-oriented and focussed. Within the reduced scope, the main functions of the BWDB as enumerated in the Act are as follows:

Subject to fulfillment of conditions under the Act and guidelines provided by the National Water Policy and the National Water Management Plan, the BWDB shall perform the following activities and towards that end shall carry out all activities relating to preparation of needed projects, their implementation, operation, maintenance and evaluation:

- a. Construction of dams, barrages, reservoirs, embankments, regulators or other structures for development of rivers, flood control, drainage, surface irrigation and drought prevention;
- b. Dredging, re-excavation and de-siltation of water channels and removal of obstacles from the mouths of rivers for improvement of water flows or diversion of water for assisting fisheries, navigation, forestry, wildlife preservation and upgradation of environment;
- c. Works for preservation, land accretion, land reclamation and estuary control;
- d. River training and river bank protection for the protection of towns, bazars, hats and places of historical and public importance from the hazards of land erosion;
- e. Construction and maintenance of coastal embankment;
- f. Prevention of salinity intrusion and desertification;
- g. Harvesting rain-water for irrigation, environmental protection and supply of drinking water;
- h. Flood and drought forecasting and warning;
- i. Hydrological survey and investigation;
- j. Development of forestry and fisheries on land available around BWDB's infrastructures, in conjunction with relevant government agencies, for the preservation and improvement of the environment as well as for poverty alleviation;
- k. Basic and applied research on water management; and
- l. Development of water user's association and other water users/stakeholders organizations, their training and participation in project planning, implementation, operation and maintenance and project cost recovery for long-term sustainability of benefits to the beneficiaries of completed projects.

4.2.3 National Water Policy

National Water Policy has already been introduced in the discussion of the mandate of the BWDB. In the Policy, there is some specific policy guidelines for BWDB relating to the coastal area alongwith some other general guidelines applicable to the entire country. The overall thrust of water policy is "to ensure continued progress towards fulfilling the national goals of economic development, poverty alleviation, food security, public health, decent standard of living for the people and protection of the natural environment." These are sought to be achieved by, among others, the following means:

Harnessing and development of water in an efficient and equitable manner;
Ensuring availability of water to all elements of the society including the poor and the underprivileged;
Accelerating the development of sustainable public and private delivery systems of water;
and
Bringing about institutional changes to help decentralize the management of water resources.

More specific policy directives in the Policy to the BWDB for the coastal areas may be summarized as follows:

Ensuring adequate upland flow in water channels to preserve the coastal estuary eco-system threatened by salinity intrusion from the sea;
Confining brackish aquaculture to specific zones designated by the GOB for this purpose
Facilitating the availability of safe and affordable drinking water supplies through various means including rainwater harvesting and conservation;
Planning and implementing schemes for reclamation of land from the sea and the rivers;
and

Helping relevant agencies for development of tourism facilities in and around water bodies.

The Policy has finally directed the BWDB to carry out further investigations for appropriate policy development on these following two subjects:

The efficacy of coastal polders; and

The sociology of public cuts of embankments and the motives and conflict of interest he sociology behind them.

4.2.4 Organization Structure

The BWDB is an autonomous body under the MOWR. Under recent reforms, policy functions now vest in an outside Governing Council (GC) consisting of thirteen government and non-government Members with the Minister in charge of the MOWR as its chairman. The BWDB's activities are now confined to executive and operational functions only.

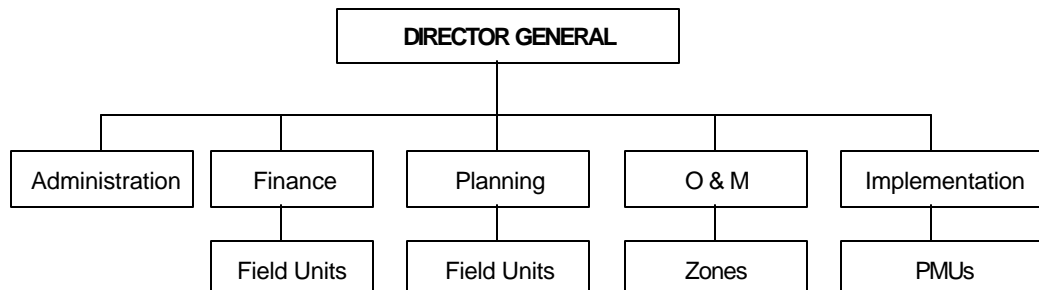
Recent reforms have considerably reduced the scope of activities of the BWDB and the size of its manpower. (See Table I). The BWDB now looks much healthier than before with a purposeful and sharply focused mandate.

The operations of the BWDB are divided into five broad areas managed by wings. These are administration, finance, o&m, planning and implementation. The Director General (DG) is the chief executive of the organization and is assisted by five Additional Director Generals (ADG) looking after the five wings. The DG's office and the five wings form the core of the headquarters of the BWDB. Among the five wings, administration and finance are manned by non-engineering staff whereas in the other wings, engineering staff dominates.

BWDB is basically a field-oriented organization to the extent that all its activities lay outside the Dhaka city. Except for the administration wing, all other wings have their field outfits extending deep inside the rural areas. The basic work of the organization is carried out by the O&M wing which manages the largest number of professionals in the field. Implementation wing carries out large civil engineering works and on completion, hands them over to the O&M wing. Implementation units in the field are, therefore, temporary whereas O&M set up are permanent. The field outfits of Planning and Finance wings provide necessary support to the O&M and Implementation wings in carrying out their work smoothly.

The field establishment of the O&M wing is built up from the lowest to the highest levels on the basis of jurisdiction, volume of work, complexity and level of responsibility. At the lowest level covering the administrative jurisdiction of one or more thanas is the Section under the charge of a diploma engineer called Section Officer. A few Sections make up a Sub-division headed by a Sub-divisional Engineer (SDE) and a few Sub-divisions constitute a Division. This is the most crucial level in as much as most of the operational activities are processed and acted upon here. An Executive Engineer (XEN) is in charge of a Division and he and the others below are supervised by the Superintending Engineers (SE) and the Chief Engineers (CE). A few Divisions make up a Circle under the charge of a SE while a Zone consists of a few Circles headed by an Additional Chief Engineer/Chief Engineer. The CE is the highest-ranking official of the BWDB in the field. The field set up of the O&M wing consists of 7 zones, 18 circles and 68 divisions. The hierarchical linkages may be seen from the diagram given below:

Diagram 4.2 Organization Chart of the BWDB



4.2.5 Manpower

BWDB was notorious for redundant staff. This has now been rationalized and a planned reduction is in progress. After downsizing, the BWDB has now a sanctioned strength of 8860 persons (exclude the manpower for the DO and the MEO). The classwise distribution of staff is as follows:

TABLE 4.2 Sanctioned Strength of Manpower of BWDB

Post	Technical	Non-technical
Class I	667	349
Class II	753	75
Class III	0	4117
Class IV	0	2899
Total	1420	7440

Through a process of natural attrition, the target strength of 8600 shall be achieved by 2006 if the retirement age remains unchanged at 57 years of age. As against sanctioned strength of 8600 positions, the current number on the rolls is 10,046. The classwise distribution of surplus staff is as follows:

TABLE 4.3 Surplus Staff of BWDB (as on 1.5.2001)

Post	Technical	Non-Technical
Class I	302	117
Class II	0	0
Class III	0	1237
Class IV	0	456
Total	302	1810

The BWDB faces a paradoxical situation in that while it has a sizeable surplus staff, it suffers from acute shortage of professional staff. The list of vacancies, given below, would reveal the critical situation in proper management of the premier organization in the water sector.

TABLE 4.4 Vacant Posts in BWDB (as on 1.5.2001)

Post	Technical	Non-Technical
Class I	178	93
Class II	20	30
Class III	0	477
Class IV	0	128
Total	198	728

4.2.6 Tenure of Top Management

Quick turnover of the top management has become a serious organizational issue for the BWDB. Between 1995-2000, BWDB saw five chief executives rolling over. The tenure for the next line of management was even shorter. The Riverbank Protection Project, during its five-year implementation period, saw six Project Directors while the Coastal Embankment Rehabilitation Project had seen five of them. Because of a lack of a sound deployment policy, professional below the top management level also have short tenure. In these conditions, incumbents do not have the time to pursue even short-term goals.

4.2.7 Promotion Rules

Though the BWDB has its own service rules, it did not contain any schedule attached to it prescribing the recruitment procedure and promotion rules. These are done on the basis of executive orders issued from time to time by the administrative Ministry or the BWDB. In the

past, it led to serious abuses creating anarchic situation. New service rules with a schedule for recruitment are now almost finalized and is expected to come into force soon.

4.2.8 Status of Financial Resources

BWDB is run totally on grants received from the GOB. For the large irrigation projects, it is supposed to levy water rate under the Bangladesh Irrigation Water Rate Ordinance, 1983(Ordinance No. XXXI of 1983). The BWDB has identified 18 projects to be capable of paying water charges. However, so far water rates have been assessed only on 8 projects. For political reasons, GOB has been following a go-slow policy with regard to new assessment. Even for the projects where water rate has been levied, the rate of collection is quite dismal as may be seen from the following Table

TABLE 4.5 Status of Collection of Water Tax between 1994 and 2000

(in million Taka)

Year	Assessment)	Collection
1994-95	408.93	107.67
1995-96	656.70	186.70
1996-97	465.91	86.95
1997-98	450.40	75.50
1998-99	337.72	10.61
1999-00	149.20	3.13

In these circumstances, the BWDB has to depend totally on Government sanction of fund through the budgetary process. Due to financial constraints, the GOB has never been able to meet the BWDB requirement of funds. This may be seen from the following Table:

TABLE 4.6 GOB Allocation of Funds to BWDB during 1995-2000

(In million Taka)

Fiscal Year	Demand	Sanction
1995-96	5029.37	1916.40
1996-97	4300.21	1912.40
1997-98	4265.28	1277.42
1998-99	3870.35	1411.57
1999-00	4174.13	1293.17

The shortfall is covered by a policy of deferment. The first victim of this shortage is maintenance of completed projects. The other easy escape is default on payment of government dues. Payment of local government and land taxes, and electricity, water and sewerage bills is withheld. Sometimes contractor's bills are also not paid on time.

4.2.9 Experience of Joint Execution of Projects

Since the 1980s, the BWDB has tried to integrate participation in all its project activities. These were pursued in three forms and the initiatives can be reviewed accordingly. These components are:

- Changing the character of the BWDB itself
- Developing linkages with other water-related agencies and the NGOs
- Beneficiary participation
- Reforming BWDB

4.2.9.1 Changing the character of the BWDB itself and Reforming BWDB

We need not discuss these items as these have been already covered.

4.2.9.2 Developing linkages with other water-relates Agencies and the NGOs:

Water is not the exclusive domain of the BWDB---there are many stakeholders who are intimately connected with its exploitation, development and use. This has brought about the perspective on the needs for integrated water resources management. At the project level also, BWDB alone, in most cases, cannot deliver the intended benefits without the active participation of other relevant agencies. Since the mid-1970s, the BWDB has been jointly executing projects in association with other agencies.

A list of such projects with other participating units is given below:

TABLE 4.7 Projects jointly executed by the BWDB with other Agencies

Name of the Project with effectiveness and closing dates	Name of partner Agencies	Source of Funding
1. Bhola Irrigation Project 14 October 1983 to 31 December 1991	BWDB BRDB DAE BANKs	GOB ADB
2. Dhaka Integrated Flood Protection Project 14 July 1992 to 31 December 2000	BWDB DWASA DCC DLR&S	GOB ADB
3. Second Bhola Irrigation Project 23 December 1992 to 30 June 1998	BWDB LGED BRDB DAE DOF R&HD	GOB ADB
4. Secondary Towns Integrated Flood Protection Project 29 March 1993 to 30 June 1999	BWDB LGED KCC Concerned MUNICIPALITIES DLR&S	GOB ADB
5. Command Area Development Project 26 January 1996 to 30 June 2002	BWDB DAE DOF	GOB ADB
6. Coastal Embankment Rehabilitation Project	BWDB DOF	GOB IDA EU
6. Char Development and Settlement Project 18 June 1996 to 31 December 2002	BWDB LGED DAE DPHE MOL	GOB DUTCH
7. Command Area Development of Teesta Project July 1998 to June 2002	BWDB DAE DOFI	GOB KUWAIT FUND SAUDI FUND

A review of the related literature¹³ reveals that there was no conscious attempt at designing a framework for inter-agency joint execution of project. This important issue initially did not receive much attention and has since been dealt with purely on an adhoc manner. One can discern any of the following four approaches in the joint implementation of a project listed in the previous Table:

***Assumption by the lead executing agency
that the relevant agency will automatically
take over the responsibilities***

This has been the innocent belief of an executing agency with regard to action on supporting activities that help spread or enhance the project benefits. The Land Reclamation Project, funded by the Netherlands Government, was one of the earliest ones to be executed by the BWDB. It commenced operations in 1978 and continued, through various extensions, upto 1990. The project evolved from a single issue of developing and testing methodologies of land reclamation to a multi-sectoral rural development project involving settlement of landless people on newly accreted Charland with provision of various services. While it was crucial for the success of the project to locate, mutate, register and transfer *khas* land to the targeted landless people and provision of such basic facilities as primary education, primary health care and access to safe drinking water, none of the concerned public agencies had any presence in the project area to take over such activities. The assumption that field units of national agencies will automatically take over functions within their mandate does not most of the times come true. Lack of fund and absence of a proper field outfit dissuade them from assumption of their otherwise mandated responsibilities. Similarly, for a large number of FCD and FCDI projects, the assumption that the DAE would automatically take up the extension activities after the physical infrastructures are built also did not come true in most cases.

***Induced Participation through Memorandum of Understanding
between a lead Agency and a partner organization***

A second approach to inter-agency co-operation is built around signing a Memorandum of Understanding (MOU) between a lead agency and a service delivery organization. The BWDB had taken recourse to this approach under the IDA-financed System Rehabilitation Project by signing MOUs with the DAE and the BRDB. The MOUs worked out the respective duties and obligations of each signatory. However, for a number of reasons, this approach did not bear much fruit.

***Bringing in other relevant Agencies as
Joint Executing Agencies***

In recent times, inter-agency co-operation has been sought to be achieved by bringing in other relevant agencies as joint executing agencies of project. Second Bhola Irrigation Project, Dhaka Integrated Flood Protection Project and a few others were designed in that mode.

This approach has two variations--- the first variation uses only one Project Proforma (PP) under a national Project Director to retain central control on flow and use of project fund. In the second variation, each agency is allowed to process PP for its own component thereby ensuring financial autonomy for the particular agency.

Working with the NGOs

From early on, the BWDB has been exposed to working under diverse situations. The first exposure came with the LRP in the late 1970s when the BWDB officials had to work closely

¹³There are quite a few good evaluation done of completed projects executed by the BWDB as the lead agency. Comments on the problems and the prospects of inter-organizational linkages may be seen in Anjan K. Datta, *Planning and Management of Water Resources: Lessons from two decades of Early Implementation Project*. Dhaka: The University Press Ltd, 1999; Koen de Wilde (ed) *Out of the Periphery: Development of Coastal Chars in Southeastern Bangladesh*. Dhaka: The University Press Ltd, 2000; John Soussan, Anjan Datta and Premachandra Wattage, *Community Partnership for Sustainable Water Management: Experience of the BWDB Systems Rehabilitation Project. Vol II*. Dhaka: The University Press Ltd, 1998.

with the NGOs in mobilizing and organizing landless people in the char areas of Noakhali. Since then, there has been hardly any project where the NGOs have not been involved in water projects in one way or the other. The BWDB recognizes that it cannot venture to undertake such activities as mobilization of beneficiaries, conducting participatory process and carry out resettlement of people. As it gains more experience in getting some specific works done by others, it becomes all the more aware of the complementarity of NGO work. This will be further discussed in the next section.

4.2.9.3 Beneficiary Participation

Beneficiary participation in water management can be traced back to the mid-1970s in the Dutch-financed "Delta Development Project". In the course of experimenting with the maintenance of earthen structures, the project came up with the idea of employing the destitute people of the project area for this purpose. Thus was born the institution of the Landless Contracting Societies (LCS). Formation of the LCS is facilitated by an NGO who select the members from amongst the destitute labors only. Generally, a LCS consists of 40 members and is headed by a team leader and assisted by a secretary.

Another innovation applied for the first time in the Delta Project was the introduction of the Embankment Maintenance Group (EMG). An EMG is composed of a group of female laborers, organized by an NGO. Only destitute women, who own less than 0.5 acre of land and whose main source of income is manual labor are eligible for membership in an EMG.

The involvement of the LCS and the EMG for construction and maintenance of BWDB projects is fairly commonplace now. Both have proved to be reasonably effective and efficient institutions. EMG particularly has proven to be an effective means of carrying out preventive maintenance. Such maintenance is cost-effective and their quality of work is also of high standard.

It is argued that the LCS and the EMG cannot be construed as true participation. The group members are not involved in any decision-making about the management of the project and there is no sense of ownership. Though introduction of these innovations in water resources management has brought about marked improvement in maintenance work, participation has to be more substantive and real. Based on the earlier model of water user groups practiced in the Ganges-Kobadak Project, the BWDB was looking for a model that would give more authority to the beneficiaries on their planning, implementation and maintenance. In 1994, the Ministry of Water Resources approved the Guidelines for the People's Participation in Water Development Projects (GPP). The GPP outlined a four-tier hierarchical structure from the Water User Group at bottom end to the Project Council as the apex body at the highest level.

The GPP was tried for group formation in the IDA-financed "BWDB Systems Rehabilitation Project"(SRP). But it was almost a total failure. The reasons for this fate were as follows:

- Developing a participatory program requires tremendous amount of preparatory work. All concerned people need to be oriented to the philosophy and the benefits of participation. There has to be a clear understanding as to what it is and what are expected of the participants to such a process. In the SRP, it was never clear to concerned people what job the different layers were expected to do. For some, they existed to provide a channel for consultation with the BWDB, for others their main function is to become directly responsible for the o&m of the infrastructure whilst for yet others their main function was to provide a channel for resolving conflicts and preparing plans. At times, different mixtures of these functions appear to be assumed.
- Participation cannot be induced as an after-thought. It has to begin from the conceptualization stage of the project and continues through implementation and maintenance. Again, this was not the case in the SRP.
- In SRP, efforts were made to develop new institutions without giving any attention to the existing formal or informal organizations that were traditionally involved in water management. There is a need to develop with the local institutions.
- There was no clarity as to the delineation of hydrological units around which the bottom level groups were to be formed. This was further complicated by the fact that the staff involved in this process had no training in participatory process.

- In the groups, only farmers were included as members. Representatives of other interest groups were totally ignored, although it was well known that conflicts over alternate use of water existed.
- The BWDB people used these paper groups to validate their own decisions about the management of the sub-projects. Field studies have revealed that if the beneficiaries were given the authority, they are willing to take charge of projects.

What happened in the SRP is nothing peculiar to it: it is reflective of the general situation on participation in other water projects. However, the experience in this case has been quite rewarding for the BWDB and other water sector agencies, which paved the way for the current policy and endeavors on participation in the water sector.

4.2.10 Standards and their Enforcement

Relevant guidelines and manuals are in place to guide BWDB officials in the design and execution of civil engineering works. There are also standard operating procedures to operate and maintain the completed projects.

4.2.11 Capacity-building

In-service training is an important component of capacity building. With the exception of the defense services, this aspect is universally neglected in Bangladesh. However, this problem is most acute in the BWDB. Physical infrastructure for a central training institute has been completed since long but it has not yet been made operational.

Another component of capacity building is computerization. Except for financial management, computerization is virtually absent in project planning, design, operation and maintenance and overall office management.

There is no concept of career planning in the personnel management policy of the BWDB. Policies relating to placement are also erratic and do not help development of subject-matter specialization.

4.2.12 Innovative Approaches to Management

Budget crunch and wide-ranging criticism of its inefficient operation and maintenance of completed projects, of late, have awakened the BWDB to consider some innovative approaches to management. One such tem is outsourcing. For such activities as mobilization of beneficiaries, group formation, and resettlement, the BWDB is involving the NGOs. Similarly, it is using the national agencies for works that were previously done by the BWDB itself. Inducting the DAE for extension in BWDB project areas is one such example of this approach.

4.3 Local Government Engineering Department

The origins of the present-day Local Government Engineering Department (LGED) is closely linked with the evolution of the Rural Works Program (RWP) of the 'Comilla Model' in the 1960s. What began as an element of that model was later institutionalized in 1982 as the Works Program Wing of the Local Government Division of the Ministry of Local Government, Rural Development and Co-operatives. In 1984, the Wing was converted into a permanent Local Government Engineering Bureau and later in 1992 was upgraded as the Local Government Engineering Department.

4.3.1 Mandate

Like most other government departments, the LGED does not have an officially notified mandate. The Martial Law Committee on Organisational Set Up had written a mandate for the Works Program.¹⁴ But so much has happened since then that it is now totally irrelevant and is of academic interest only. The LGED looks upon its responsibilities in the following terms:

- Provide technical support to the rural local government institutions (LGIs)
- Provide technical support to the urban LGIs
- Planning, implementation, maintenance and monitoring of infrastructure development projects in the rural and urban areas
- Prepare plan books, maps, database, design manuals, technical standards and specifications
- Impart training to the LGED officials and LGI representatives.¹⁵

4.3.2 Sector Policy

Current program of activities of the LGED has been developed on the basis of policies approved for the sub-sector under the Fifth Five Year Plan. The objectives of that policy are the following:

- Reduction of poverty in the rural areas
- Productive employment generation in the rural areas
- Self-employment creation for the rural poor
- Development of rural infrastructure
- Development of basic infrastructure and services at zila, thana, union and village level
- Development of small and landless farmers

The above objectives are sought to be achieved through the following strategies:

- Development of rural infrastructure such as growth centers and roads, bridges and culverts connecting such centers
- Provision of small irrigation and flood control related infrastructures
- Preventing destitution through rural maintenance program¹⁶

The NWP has given concrete shape to a few of the objectives of the Fifth Plan. According to stipulations in the Policy, all small-scale flood control, drainage and irrigation schemes having a command of 1000 ha or less shall henceforth be executed by the local government institutions. Similarly, all such projects executed by the BWDB will gradually be transferred to the local government, beginning with the ones that are being satisfactorily managed and operated by the

¹⁴ Government of the People's Republic of Bangladesh, *Report of Martial Law Committee on Organisational Set Up. Vol. X. Part. I.* Dhaka: May 1982.

¹⁵ Enumerated in a booklet titled, *Local Government Engineering Department*. Dhaka: 2000. Fourth Edition

¹⁶ Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, *Op Cit.* PP 279-280 and 403.

beneficiary/community organization.¹⁷ To facilitate the above and other stipulations in the Policy, heavy emphasis has been put on decentralization, participatory decision-making, stakeholder involvement through partial cost sharing and management of completed facilities. To link up all the above processes, the Guideline for Participatory Management has also been approved by the GOB.

4.3.3 Structure of LGED

LGED is headed by a Chief Engineer and is assisted by three Additional Chief Engineers and other support staff at the HQ. The Department is basically a field-oriented organization and its presence is visible even in the villages. Besides the HQ staff, there is permanent standard set-up for each of the 64 districts and 463 thanas. The cost of this permanent establishment is borne by the GOB through its revenue budget. For each district, there is a sanctioned strength of 11 persons while for each thana the number is 13. For the coastal districts, the pattern is the same and there is no special set-up.

However, the revenue set-up is augmented by deployment of staff under development and technical assistance (TA) budgets. Currently, LGED is implementing 36 rural development and 8 urban development projects in addition to a number of "deposit works" undertaken on behalf of other agencies. By Bangladesh standard, this is quite a large volume of work for a single Department to handle. On the other hand, it has given LGED the opportunity to expand its activities and to hire additional staff to complete the tasks at hand. The staff situation in the LGED may be seen from the following Table:

TABLE 4.8 Staffing Situation in the LGED

As of March 30,2000

Level	Revenue	Development	TA	Total
HQ	84	679	409	1,172
District	726	2,168	219	3,113
Thana	8,785	224	0	9,009
				13,294

Source: (i) For the revenue posts, different government notifications.
(ii) For the development and TA posts, Asian Development Bank,
Management Capability Strengthening Project of Local Government Engineering Department, Bangladesh. Action Plan Update 1998.
TA
1809-BAN. Annexure # 4.pp 133-137

4.3.4 Rules and Procedures

LGED is a government department and its management is bound by government rules and regulations. Seniority, for example, hangs very heavily in matters of promotions and placement and deviation from seniority norms is very rare. On the other hand, initiatives for taking risks and innovative approaches are discouraged by acts of retribution even for small mistakes. Within these constraints, a very strong and committed leadership has been able to engender a strong team spirit in the rank and file of the organization. Norms for hard work, achievement-orientation, informal decision-making and participatory approach have brought real dynamism in the activities in the Department.

There is apprehension that this dynamism is very transient as it depends mostly on the leadership of the Chief Engineer. This is contrary to the process of institutionalization where the value system has to be embedded in the psyche of the rank and file. Despite its ability to deliver outputs in a satisfactory manner, it is surprising that the LGED does not have a job description as yet. It does not also have a formal delegation of administrative and financial powers. Consequently, the financial management and accounting system in LGED is considerably weak and fragmented. LGED also needs to develop a Rules of Procedure to institutionalize the speedy disposal of its business.

¹⁷ Ministry of Water Resources, *National Water Policy*. Op Cit p 9

4.3.5 Experience with Joint Execution of Projects

LGED has been gaining in experience in joint execution of projects with other agencies. It has already worked with the BWDB in completing its components under two projects. Currently, it is implementing its components under seven infrastructure development projects being executed by different agencies under the Ministry of Agriculture. All partners have worked or are working under a Project Director drawn from the lead agency but each participating agency has its own Project Proforma to ensure flexibility and speed. A high level Steering Committee headed by the Secretary of the lead Ministry oversees monitoring, coordination and conflict resolution.

Besides these joint execution of projects, LGED has also been taking up projects as “deposit works” from other agencies. It has taken up six projects of the Primary and Mass Education Directorate for construction of primary schools and another huge task of constructing 13,500 Community Health Clinics under the Ministry of Health, Population and Family Planning. Though these type of work looks very similar to contract works, these are no less exacting in terms of interaction between the parties concerned on all aspects from project planning to final completion.

4.3.6 Planning for Infrastructure Development

In order to carry out its mandate for rural infrastructure development, LGED has been trying to develop the necessary planning tools. GIS unit of the LGED has completed digitization of thana base map at 1: 50,000 scale for the whole country. The thana base map data have been integrated to produce the district base maps.

LGED has also prepared the union plan book for selection of priority infrastructure development schemes. The same type of plans for the Pourashavas are also under preparation. To ensure good quality, LGED has also developed a number of Manuals like Earthwork Manual, Road Structure Manual and Road Pavement Design Manual.

4.3.7 Community Participation

LGED has been working with local communities in the development of rural infrastructure for many years. In more recent times, this participation process has been formalized throughout the planning cycle. In the Second Small-Scale Water Resources Development Sector Project, the Joint Appraisal Mission had indeed developed a Beneficiary Participation Plan for involving all the stakeholders from identification, prefeasibility, feasibility, survey and detailed design to utilization, O&M and BME.¹⁸ This participation involved government functionaries at different levels, local leaders, non-government agencies, beneficiaries and others who might be affected.

The process of community participation is sought to be streamlined and institutionalized with the assistance of the NGOs. Government functionaries, despite the best intentions of some, are not generally good at mass mobilization, group formation and motivational work. NGOs have acquired valuable skills and experience in doing these kind of work. LGED had been very forthright in using their services in most of its projects. NGOs have notably been involved to help implement project components: in implementing the non-motorized transport pilot component; in assisting training and participation of country boat owners involved with the river jetties and training of poor workers in organizing themselves into labor contracting societies for doing earthwork. NGOs have also helped the formation of water management associations and have supported community participation in planning, implementation and o&m including local management of fisheries and aquaculture and income generating activities.

4.3.8 Capacity Building

LGED is striving to improve its capacity by a number of initiatives. First is the in-house training program developed since 1981. The training plan consists of a strong Training Unit at the HQ and a number of decentralized training outfits in the districts. At present, all the training programs of the LGED are coordinated and implemented through the HQ training unit and ten district training centers. Additionally, most of the donor-assisted projects keep provision for training of LGED officials as well as other stakeholders involved in the projects.

¹⁸ Asian Development Bank, “Aide Memoire of the Joint Appraisal Mission for the proposed Small-Scale Water Resources Development Project”. April, 1995. Appendix 5.

Secondly, LGED is developing different technical aids for better and quick decision-making. Implementation of an MIS Master Plan is ongoing. Already a computer software for personnel management is in place and other sub-systems are being developed. Internet facility at the HQ has been extended in the MIS Cell and the internet server has been connected with more than 300 terminals through Local Area Network(LAN).

Material testing and quality control at various stages of implementation are very important for sustainability of infrastructure. LGED has established its in-house capacity to do these jobs. A central materials testing laboratory has been set up at Dhaka with regional laboratories in 64 districts throughout the country.

Finally, LGED has undertaken the task of formalizing various rules, regulations, practices and procedures by compiling them and publishing them for general use.

A major constraint to LGED's capacity building to the fullest desirable extent is its heavy reliance on the TA staff. Their presence at the HQ gives the impression that major decision-making processes are run through these people. They are not, however, the permanent staff of the organization: strategically they do not belong here. Such visible presence of the TA people is affecting the long-term institutionalization in two ways. First, the permanent staff members are not getting enough opportunities to train themselves for what the TA staff are doing. Secondly, higher salary and other facilities drawn by the TA staff have created both jealousy and frustration among LGED people with corresponding level of qualification and experience. TA staff cannot be a substitute for the regular staff of an organization. TA staff should be appointed only for those disciplines for which expertise is lacking in-house. LGED must rationalize its TA policy keeping in view the imperatives of institutionalization.

4.3.9 Innovative Approaches to Management

Since the early 1980s, in addition to contractors and the Project Implementation Committees(PICs), Labor Contracting Societies(LCS) are being used by the LGED as a new and innovative mode of construction activities. The main objectives for using the LCSs for infrastructure development are to :

- Directly involve and provide employment opportunities to the landless groups/destitute women in infrastructure construction and maintenance
- Eliminate intermediaries in construction activities
- Ensure fair wages to laborers

Encouraged by the positive results of this experiment on poverty alleviation and income generation, the NWP has enjoined that at least twenty-five percent of all earthwork done by any agency should be executed through the LCSs.

4.4 Department of Fisheries

The Department of Fisheries (DOF) is the principal institution for the management and development of fish resources of Bangladesh. Its activities are supported by two other organizations, namely, the Bangladesh Fisheries Development Corporation (BFDC) and the Bangladesh Fisheries Research Institute (BFRI).

4.4.1 Mandate

The DOF was first created in 1908 in the province of Bengal. Through many trials and tribulations, it gained the status of a department in 1971. Government organizations are not created under any law and therefore they do not have any legal mandate like the corporations that clearly specify their duties and responsibilities.

The Martial Law Committee on Organizational Set-up, for the first time, tried to collate all these functions and give them a semi-legal footing in 1982. The Committee's enumeration of charter of duties of the DOF is as follows:¹⁹

- Operation of nursery fish farm and seed multiplication farm to supply quality fish fingerlings to the fish farmers
- Management of Government fisheries to increase fish production
- Formulation and execution of development projects to develop fisheries resources
- Dissemination of modern idea and methods of fish culture, conservation of fish, fisheries management, etc to the people
- Management and conservation of fish and other population of aquatic organism of economic importance
- Marine fisheries exploration and biological research, population studies and management
- Conduct of fisheries research both biological and technological
- Extension and training of the fisheries personnel
- Collection of fisheries statistics as far as possible
- Enforcement of the Protection and Conservation of Fisheries Act, 1950
- Advising the Government in formulating policies related to fisheries.

The Department reports that the mandate, as formulated above, has been widened by the Government from time to time and the functions have been updated as under ²⁰.

Transfer of Technology

- Extension service on aquaculture and management
- Training and advisory services to the people on aquaculture and management
- Render advisory services on access to credit on fisheries
- Dissemination of modern technology on aquaculture, fisheries management, hatchery operation
- etc.

Conservation of Fisheries Resources

- Expansion of fisheries through conservation and management of fisheries resources
- Enforcement of Fisheries Rules, regulations, etc

Quality Control of Fish and Fishery Products

- Ensure quality of fish and fishery products and issuance of health certificate for exportable fish products

¹⁹ Government of the People's Republic of Bangladesh, *Report of the Martial Law Committee on Organizational Set Up, Phase II. . Vol. XII (Department of Fisheries)*. Dhaka: 1982

²⁰ Department of Fisheries, *Brief on the Department of Fisheries*. Dhaka: 1999.

Enforcement of Fish and Fish Products (Inspection and Quality Control) Rules

Others

Advising the Govt. in formulating policies related to fisheries
Collection of data on fisheries, their compilation and publication
Planning, implementation, monitoring and evaluation of the fisheries development projects
Socio-economic upliftment of fisher-folk community
Poverty alleviation through fisheries.

4.4.2 Sectoral Policy

Government approved the National Fisheries Policy in 1998. The main objectives of the Policy are:

- To develop and increase production of fish resources
- To alleviate poverty by creating opportunities for self-employment and by improving the socio-economic condition of fisherfolks
- To meet the demand for animal protein
- To earn revenue and foreign exchange through export of fish and fish products
- To maintain ecological balance, conserve bio-diversity and develop public health.

The Policy has touched on many contentious issues. It is concerned about the conflicts over shrimp cultivation and underscores the need for formulation of suitable guidelines. To help conservation efforts, it has prescribed a moratorium on further cutting of mangrove for shrimp cultivation. It also supports an integrated culture of fish, shrimp and paddy in paddy fields.

The Policy also deals with the issues of industrial pollution, limitation of number of fishing operations, use of gear, land use and methods for helping the fishing communities.

4.4.3 Different Kinds of Fishing and their Management Practices

Fishery sub-sector plays a very important role in the economic development of Bangladesh. It contributes about 5% to the GDP and about 17% to the GDP for agriculture. About 1.2 million people derive their livelihood from fishing and another 11 million people indirectly earn their living from related activities.

Fisheries in Bangladesh do not possess a uniform set of characteristics. They differ from each other in terms of their location, nature of the water body and management. Development of institutions for the fulfillment of the goals of the National Fisheries Policy would require diverse institutions with varied management practices to maintain that essential diversity. For this purpose, it is worthwhile to understand the different types of fisheries now in operation in Bangladesh.

Total fish production in the country in 1998-99 stood at 1.4 million MT. The Fifth Five Year Plan has projected a production of 2 million MT by the terminal year of the Plan.²¹ About 80% of this production is derived from **inland fishing** carried out on river, estuaries, floodplains, beels, haors, baors and other natural or artificial water bodies. The total water environment covered by inland fishery is about 4.34 million ha out of which **open fishery** occupies an area of 4.05 million ha while the inland **closed fishery** including shrimp farms occupy .29 million ha.²²

The remaining 20% of the production are available from **marine fisheries**. With the extension of exclusive economic zone (EEZ) upto 200 nautical miles beyond the shores of Bangladesh, a total of 1,64,000 sq.km is now available for management and exploitation of sea resources. However, 16% of this 20% is enjoined by **artisanal fishing** and only 4% are accounted for by **industrial marine fishing**.

²¹ Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, *The Fifth Five Year Plan 1998-2002*. Dhaka: March 1998. Pp248-253.

²² Planning Commission, *Op Cit*.

4.4.3.1 Management Practices

The different kinds of management practices that have emerged for different kinds of fisheries are discussed below.

- I. **Open Inland Fisheries.** These are popularly known as *jalmahals*. In 1995, they were opened up to all fishers free of cost "to protect the interests of the poor fishermen and make the earning of their livelihood easier." This facility excluded the *jalmahals* that were transferred to the MOFL for the purpose of development and conservation of fisheries resources and creating fish sanctuaries and other development activities. Closed *jalmahals* upto 20 acres were transferred to the Ministry of Youth and Sports for promotion of opportunities of self-employment among the unemployed youth of the country. Management of closed *jalmahals* with an area of more than 20 acres vests in the Ministry of Land and is leased for a three-year period.
- II. **Marine Fisheries.** These are of two types----artisanal and industrial trawling. Majority of the artisanal fishermen actually engages themselves in coastal water upto a depth of 40 m. For centuries, they had been using non-mechanized boats of special design to carry on their activities. Motorization of traditional crafts in the 1960s brought about dramatic changes in these practices. Many of these small fishermen are no longer the owners and operators of small boats but now have become hired contractors of companies. This new arrangement of fishing is done on the basis of shared income or profit, details of which varies from location to location.²³

Indiscriminate exploitation of the coastal resources has set in a gradual decline of many species of marine and shellfishes in the Bay of Bengal. The artisanal fishing mainly centers on post larvae and juveniles, which are seriously damaging the stock due to use of crude traditional technology. The number of artisanal fishing gears including estuarine set bag nets; beach seine nets and shrimp seed push nets are increasing at an alarming rate causing serious over-exploitation of stocks.

In 1993, the MOFL made provisions for licensing and monitoring the activities of artisanal mechanized fishing boats numbering around 10,000 units. The boats are required to obtain license from the Mercantile Marine Department of the Ministry of Shipping regarding the sea-worthiness of the boats after which license from the DOF may issue. Boat owners find it difficult to get these licenses. The Department of Forests, on the other hand, have been issuing licenses for fishing in the water areas falling within the reserve forest area without any inquiry as to whether they already possess license from the Marine Department.

Trawl fishery is a relatively new development in Bangladesh. This was pioneered by the BFDC. Originally set up in 1964, it was raised to the status of a Corporation under the Bangladesh Fisheries Development Corporation Act of 1973. Its clear mandate was to develop fishing as an industry by acquiring trawlers, establishing fish processing plants, procuring all necessary accessories and equipment needed for such an industry and advancing loans to the fishermen cooperatives.

- III. **Coastal Fishery.** This does not mean another kind of fishing; it only denotes a particular area deserving special attention for development of its potential resources. The coastal area of Bangladesh, as identified in the Policy Note, is a veritable field for all types of fishing activities identified here.

Of all types, brackish water aquaculture is the most promising. Bangladesh commands extremely favorable conditions for this type of fish culture. About 0.2 million ha of coastal land is suitable for shrimp cultivation. At present, about 1,40,000 ha of land is under this activity. Unfortunately, the technology used here is traditional and average production hovers around 160 kg/ha. There can be a dramatic change in the per ha yield if the necessary infrastructure can be built quickly and all inputs for semi-intensive cultivation are made available to the farmers on time and at competitive price.

²³ Ehsanul Habib, *Management of Fisheries, Coastal Resources and the Coastal Environment in Bangladesh: Legal and Institutional Perspectives*. PRIAP-ICLARM Working Paper Series 4. Manila: International Center for Living Aquatic Resource Management, 1999. Pp59-62

The case of seed will illustrate the magnitude of the problem. The shrimp farms' current requirement for post larvae annually is around 5000 millions. There were only 17 hatcheries in the country which could produce only 600 millions of post larvae annually. The hatcheries are situated in the southeastern part of the country whereas maximum number of culture farms is located in the southwest. The post larvae produced in these hatcheries and collected from the shore used to be transported by road through trucks taking on average 20 hours. Transportation and handling would cause about 30-45% mortalities before these could even be stocked in the farms or ponds. Even after stocking, similar rate of mortalities would occur due to extremely stressed condition in which the whole process is conducted. The MOFL initiative for air transportation in 1999 was a very bold and innovative approach and the thread has now been picked up by the private sector. With the opening of the air route for transportation, new hatcheries came to be set up bringing the number to 47 in 2000 and the production in the existing ones also increased.

The BFDC, in a way, has accomplished its task. It has developed the necessary infrastructure for an export-oriented fish industry. Enterprising private sector companies took advantage of the promotional activities of the BFDC and now being well equipped, they give very stiff competition to its endeavors. Unfortunately, easy profit and lack of surveillance had created a regime of unbridled exploitation, mismanagement and fraud. The need for regulation of industrial trawling for conservation and better management was acutely felt and the Marine Fisheries Ordinance was promulgated in 1983. One task under the Ordinance is to limit the number of the trawlers commensurate with the permissible limit of annual catch. Another task is to ensure international standard for the frozen shrimps exported from Bangladesh.

There were 124 fish processing plants in the country. In 1996, there was a serious set back in the export, when the European Union Countries imposed ban on the import of the Bangladeshi frozen fish after manipulations were detected in the products. The ban was however, withdrawn in 1998 after modernization of the processing plants and improvement in the system of processing. So far, 59 plants have got clearance of the GOB to export with the concurrence of the EU. All the fishery products meant for export are being tested as per provisions of the Fish and Fish Product (Inspection and Quality Control) Ordinance, 1983. DOF maintains 3 Testing Laboratories to certify the quality of the exportable fishery products. But presently the quality of the certification is being questioned. The technological improvements in the quality of testing need to be reviewed and an internationally acceptable biological testing system required to be introduced soon.

4.4.4 DOF Structure and Human Resources

The Department is headed by a Director General who is assisted by two Directors; there are three Principal Scientific Officers equivalent to Director who are assigned special jobs. The scope of the Department is divided on two broad lines of activities. The Director of Inland Fisheries is in charge of administration, finance, training, fish culture and extension activities and management of field outfit. The Director of Marine Fisheries is responsible for protection and preservation of marine resources and related survey work. The Department has a total sanctioned strength of 4425 officials and staff. Of these, 869 are in the class I; the professionals belong to this class mostly.

In 1980, the GOB constituted the Bangladesh Civil Service (Fisheries) cadre with initial cadre strength of 659 professionals. Except 152 non-cadre officials, all the professionals belong to the cadre. It is unfortunate that despite so many eligible graduates remaining unemployed in the country, 106 cadre posts are lying vacant. Failure of the DOF to resolve the cadre-non-cadre issue has tempted the Department to augment its strength by recruiting manpower through the development projects. To start with, the non-cadre issue is a legacy of recruitment for project posts, which were to be terminated on completion of projects or reassigned to other projects. Being unable to do either, the Department had to keep them in service and keep their future indeterminate. This unresolved issue, however, has not deterred the Department from recruiting staff through the development projects. Since this type of recruitment is done by the Department itself and without the consent of the Public Service Commission, it is subject to political abuse and compromise on quality of the recruits.

The inland fisheries activities are spread all over the country and are carried out by the field outfit of the Department. The field establishment consists of 6 Deputy Directors at the divisional level, 64 District Fisheries Officers at the districts and 456 Thana Fishery Officers (TFO) at the thana level. The TFOs are in charge of extension activities within their jurisdiction in addition to carrying out other regulatory and managerial functions.

4.4.5 Organizational Set Up for Coastal Areas

Since the coastal area consists of both inland and marine waters, all types of fishing activities are conducted here. The standard set up for the administrative districts falling within the coastal area is operational here like the others in upland jurisdictions. Besides, there are some incremental staff working in the area under the on-going development projects.

Out of this 4425, only 181 is allocated to the Marine side - the rest work for the Inland Fishing Director. Except for the Director, Marine and his personal staff, all other professionals and staff is based at Chittagong and Cox's Bazar. The Deputy Director, Marine has a total of 80 staff under his control. Most of the professional posts are lying vacant. The staff of the Marine office is supposed to control the catches and the conduct of fishing vessels. But they cannot supervise and exercise their control over the marine area physically for want of sea-going vessels. They are simply compiling the reports of the vessel owners and act as teachers sitting on the shore.

DOF also maintains a Marine Fisheries Survey Management Unit with a manpower of 100 officers and employees. Its Head Quarter is at Chittagong with branch office at Cox's Bazar. It has two research vessels namely R. V. Anusandhani and R. V. Machranga.

The survey office is not capable of holding the survey work as both the survey vessels are lying out of order for long, many technical posts are vacant and the personnel lacks actual technical know-how about scientific survey of the marine aquatic animals. The vessel employees are enjoying long holidays and allegedly are doing other job outside their office.

A few surveys have been conducted since 1958. These are mostly of exploratory nature, study oriented and related to fishing feasibility. Some surveys however, have been conducted to assess the standing stock of the marine resources, particularly the demersal fish stock. But hardly any survey work has been conducted to reasonably assess the pelagic resources.

Again the results of each survey have been highly criticized by outside professionals because allegedly these were not based on extensive and physical data. Evidently, Research Vessel Machranga conducted voyage of 4/5 days once a year from 1995 to 1997 and it is now lying out of use since June 1997. RV Anusadhani could operate once a year in 1997 and 1998 and is lying out of order since January 1999. Having regard to the migratory habits of the marine species, continuous survey of the fishery resources is necessary for assessment of the stock.

4.4.6 Capacity Building

For proper management and conservation of the fishery resources of Bangladesh, the sub-sector has to build capacity internally by developing its own human resources through training and research and externally by developing capacity among all its stakeholders. The research activities of the fishery sector have long been pursued through some projects. In 1984, by promulgating an Ordinance, GOB established BFRI as a national Institute for planning, coordination and conduct of fisheries research.

The Institute is an autonomous research organization working under the MOFL. The general direction, administration and supervision of the Institute are vested in a Board of Governors headed by the Minister in charge of MOFL. The institute has so far developed a package of 26 technologies and culture of different species.

For conducting in-service training to the officers of the BCS (Fisheries) and to other officers, a Fisheries Training Academy has been set up at Savar, Dhaka.

Besides the above, a Marine Fisheries Academy was established in 1973 on the bank of the Karnafuly river in Chittagong. It operates under the direction and guidance of the MOFL. The

Academy is the only institute in the country which is dedicated to produce skilled and qualified manpower to man, manage and operate the fishing vessels. The academy confers degrees to only 45 marine cadets in each batch in three branches of marine technology, namely, marine engineering, navigation and marine fisheries technology.

After passing out, the cadets become capable of operating the Bangladeshi and foreign vessels. The Academy being an important institute for producing technical manpower for the fisheries development and export earning activities in the marine and coastal areas, need to be further extended and developed so that it can accept more cadets.

The major problem facing both the research and training institutions is lack of professional staff. A large number of them are pursuing higher training abroad and it is to be seen as to how many of them will ultimately return and stay for sometime in their sponsoring institutions.

4.4.7 Enforcement of Laws and Regulations

The activities of the Department consist of protection, management and development of fish resources of Bangladesh. The DOF derives most of its scope of activities from the different laws enacted over the years. The relevant laws are the following:

- The Private Fisheries Protection Act, 1889
- The Protection and Conservation of Fish Act, 1950
- The Bangladesh Fisheries Development Corporation Act, 1973
- The Marine Fisheries Ordinance, 1983
- The Fish and Fish Products (Quality Control) Act, 1983
- The Fisheries Research Institute Ordinance, 1984

The different laws and the rules made thereunder enjoin the DOF to the prevention and facilitation of many fishery activities. The record of the DOF in this regard is very dismal. The fundamental reason for not being able to do it is the unfortunate conjunction of extension and policing activities. The fishery experts cannot be expected to punish the same people whom they are advising on better fishery practices. Moreover, as far as the marine part of the responsibility is concerned, it is sheer wastage of resources to let all concerned agencies to police the marine waters. The DOF is unable to do it because of lack of logistics. Even if they had the logistics, it is highly doubtful that they would feel comfortable to perform their duty in the coastal and seawaters.

Secondly, the relevant laws are quite confusing and are amenable to different interpretations. As has been analyzed in a recent study²⁴, the two existing laws have created confusion over the technical definition of jurisdiction of coastal waters. The Marine Fisheries Ordinance of 1983 (MFO) is used to regulate certain fishery-related activities of coastal fishing like the issuance of licenses, gear regulation and area of fishing. However, use of this Ordinance for coastal fishing is not supported by the definition of its jurisdiction from an 18.29 m depth line to the limits of territorial sea. This definition excludes the shallow areas between the coastline and the baselines where much of destructive fishing practices are carried out.

Legal ambiguities and overlapping authority have also created opportunities for legal circumvention and non-enforcement of fishery regulations. Whereas it is a requirement under the MFO to obtain a fishing license for operating a fishing vessel, this can easily be ignored under another provision of the MFO, which exempts local fishing vessels from this requirement if they obtain registration or valid certificate under any other existing law. Since all vessels have to register with the Department of Shipping for obtaining certificate of sea-worthiness, it is very easy for the owners to bypass the DOF altogether and not to obtain any fishing license at all. In this situation, it is inevitable that the number of fishing vessels would tend to exceed the tolerable limits of resource exploitation.

The use of prohibited nets, gears and the collection of fry from the wild sources have increased to such an extent that if not controlled in the near future, they may wipe out the fish stock within a decade.

²⁴ Ehsanul Habib, *Op Cit*

The institutional and legal framework for integrated use of coastal and fishery resources are available. Its use is severely constrained due to “unco-ordinated, conflicting and sometimes even adversarial” enforcement efforts by different agencies.

4.4.8 Private Sector Mobilization

Private sector participation has come to the forefront in the fisheries sub-sector, especially in the coastal regions:

1. It is conducting shrimp and prawns aquaculture and has assumed responsibilities for landing, handling, storage, processing, transporting and exporting of frozen food from the country.
2. It has emerged as the only enterprise to make the country self sufficient in the bagda shrimp fry production in the privately owned hatcheries of Cox's Bazar and Khulna area.
3. It is only the private enterprises who are successfully operating the air transportation system for carrying shrimp fry from Cox's Bazar to Jessore by engaging the private aircrafts. The private owners are conducting 95% of the industrial trawl fishery.

4.4.9 Participatory Programs

Fisheries sub- sector has been gaining in experience in implementing projects and programs along with other agencies of the government or involving the stakeholders sometimes through the instrumentality of the NGOs.

One such example of participatory program is the Fish Culture and Poultry-rearing in the borrowpits of the FCDI Projects. The objective of the project is to organize the landless farmers and the destitute women in groups to undertake fish culture and poultry rearing in the borrowpits of the 18 irrigation projects of BWDB and other water bodies spread over 41 districts. So far, 2096 groups have been organized with a total of 40,385 members (men 29,729 and women 10,606) who actively participate in fish culture in the borrowpits and poultry farming on selected places in and around the embankments.

Another example of joint execution of projects is the implementation of the IDA/GEF/DFID/GOB and beneficiaries financed Fourth Fishery Project. The BWDB would be involved in the construction of the shrimp polders under a separate Project Proforma. This project has a number of components involving different agencies. The Project Management Unit (PMU) at the national level will coordinate the activities of different government agencies and NGOs.

For the components in which BWDB and LGED are involved, both will coordinate with the PMU, through designated officers. The activities of the PMU will be complemented by advice from the Steering Committee headed by the Secretary, MOFL.

4.5 Forest Department

Forest Department (FD) is one of the oldest government entities created during the British colonial rule and was established in 1862 as a government service. The role of the FD was formalized by enacting the Forest Act of 1878. The Act generally aimed at regulating and improving the administration of different types of forests. More specifically, this improved administration was desired for two specific purposes. One was generating more revenue income while the other was ensuring an uninterrupted supply of timber to the military, railways and industries within India and also for export to their homeland. It is important to keep this background in mind for the reason that these imperatives engendered the custodial type of forestry management where the people living near the government forests have most of the time been looked upon in adversarial term.

4.5.1 Towards a new Mandate

Like most other government departments, the FD did not have an officially declared mandate till the Martial Law Committee on Organisational Set UP developed one for it.²⁵ However, that version is dated to the extent that the FD is trying to modify both its management philosophy and strategy in response to new policy orientations. In order to capture the essence of this institutional evolution, it would be worthwhile to quickly review the background leading to these developments.

4.5.1.1 Traditional Forestry Management

The Forest Act of 1927, based upon the earlier Act of 1878, had indeed set the tone of forestry management in Bangladesh at the time of her independence in 1971.

The key instrument for traditional forestry management was delineation of a forest area by the FD as forestland and then control it and the surrounding areas in an absolute manner in terms of the various provisions of the relevant laws, rules and regulations. This process, over the years, has given rise to a class of forests known as classified forests. These are of three types:

- i) Reserved Forests (RF). These include natural forests and other thinly populated land not under intensive cultivation. In RF, all kinds of land use other than those permitted by the FD are strictly prohibited.
- ii) Protected Forests (PF). These include areas encompassing representative samples of flora and fauna in national parks, wildlife sanctuaries and game reserves. Sensitive areas, such as, slope of hills, fragile watersheds, swamps etc are also declared as PFs. They are intended to safeguard bio-diversity and to conserve soil and water resources.
- iii) Unclassified State Forests (USF). These include land containing forest cover, which have not been classified. The forests in Rangamati, Khahgrachari and Bandarban are all USFs.

The total forest land area of Bangladesh is estimated at 2.56 million ha corresponding to 17.8 percent of the surface area of the country. This includes all classified and unclassified forestland (2.22 million ha); village forest land (0.27 million ha) and land occupied by tea estates and rubber plantations (0.07 million ha). Much of this 2.56 million ha of forestland is treeless and only 0.84 million ha or about 5.8 percent of land area of Bangladesh have forest cover²⁶.

Deforestation in Bangladesh is not a post-independence phenomenon. The process had begun in the Pakistan days and continued unabated until very recently. The National Forestry Policy of 1979 did not visualize the emerging problems in forestry management: it continued to endorse the policy of revenue generation without providing any guidelines for reviewing the institutional framework for forestation.

²⁵ Government of the People's Republic of Bangladesh, *Report of the Martial Law Committee on Organisational Set Up. Department of Forests. Phase II*. Dhaka: December 1983.

²⁶ Asian Development Bank, "Report and Recommendations of the President to the Board of Directors on a proposed Loan to the People's Republic of Bangladesh for the Forestry Sector Project". October 1996. P1

It is not only indiscriminate logging, theft and pilferage that have led to a denudation of forests; a large part of it is explained by the poverty situation prevailing in the country. With population growing at the rate of 2.2 percent per annum, there is more subdivision and fragmentation of holdings. Landlessness has been swelling the ranks of the fringe communities living within and in the vicinity of forestland. These are the people who belong to the most vulnerable groups consisting of ethnic minorities, indigenous occupants of forestland, paupers and the landless. These people survive by collecting fuel, fodder and other non-timber products for consumption and sale.

This rapidly changing socio-economic situation in post-1971 Bangladesh demanded a radical review of the management strategy of the FD. Instead, the Department continued to rely on the traditional instrument of control and regulation. However, a number of developing countries had by the late 1980s realized that effective forestry management needed something more than regulation. It is impossible to enforce the law and protect the forest resources without accommodating the survival needs of the fringe communities. Decades of regulatory forest management had failed to conserve and develop forest resources in Bangladesh. The situation had reached such a critical level that the Asian Development Bank warned that deforestation is "undermining the natural base of the country's economic situation."²⁷ These developments set the scene for a re-orientation of forestry policy and management. The outcome of these changed perspectives is the Forestry Sector Master Plan, 1993-2012 (FSMP) and the National Forestry Policy (1994).²⁸

4.5.1.2 Forestry Sector Master Plan

The FSMP is a twenty-year action plan that seeks to optimize the contribution of the forest resources for environmental stability and economic and social development. To meet the twin objectives, a number of policy initiatives have been identified and definitive suggestions have been made for a thorough reorganization of the FD and amendments of the Forest Act of 1927 and other related laws and regulations. The FSMP thus not only seeks to preserve the environment by reversing the process of denudation of forest resources but also wants to promote rural development and social harmony by integrating the fringe communities into the forest management system. This Plan has been approved by the GOB for implementation in a twenty-year period (1995-2015) at an estimated cost of TK 80 billion.

4.5.1.3 National Forestry Policy

The new Forestry Policy was adopted by the GOB in 1994 by amending the policy of 1979. The new policy rationalizes the recommendations of the FSMP and the two documents may be considered to be complementary to each other. The policy is set in three sequences - preconditions for development, objectives and strategies. These are briefly summarized below:

Preconditions for forestry Development

The following five preconditions are set:

- Forestry sector to be developed for the fulfillment of basic needs of the people
- Benefits of forestry sector development to be distributed equitably among the people especially whose livelihood depend on tree and forests
- Forestry sector to be developed through people's participation
- Long-term political commitment for development of forestry sector since forestation is a long-term program
- Ensure effective use of bio-diversity

Objectives

- Achieving 20% forest cover of the total area of the country within the year 2015 by taking up various afforestation program

²⁷ *Op Cit* p2

²⁸ A reader-friendly version of the FSMP and the Forestry Policy, 1994 may be found in Asian Development Bank and the United Nations Development Programme, *Development Perspectives of the Forestry Sector Master Plan: Bangladesh*. Dhaka: 1995

- Strengthening the rural economy and alleviating poverty by creating employment opportunities
- Enriching bio-diversity by conserving the remaining natural habitat of birds and animals
- Strengthening the agriculture sector by conserving land and water resources
- Fulfilling national commitments by implementing government-ratified agreements relating to global warming, desertification and control of trade of wild bird and animals
- Preventing illegal occupation of forest land, illegal tree-felling and hunting of wild animals through people's participation
- Encouraging effective use and utilization of forest goods at various stages of processing
- Implementing afforestation program on both private and public land

Strategies

Limitation of land would be overcome by:

- massive afforestation in rural areas, newly accreted chars, USFs in the hill districts and in the Barind Tracts
- tree plantation and afforestation on fallow and hinterland, banks of ponds and homestead land under private ownership
- tree plantation program on the courtyard of rural organizations like union parishads, schools, eidgahs, mosques, maktabas, temples, clubs and orphanages
- tree plantation by the side of existing public infrastructures like roads, railways, embankments and khas tanks
- The areas under the RFs, which have been denuded or encroached upon, will be identified. Afforestation in these lands will be done through people's participation.
- Women will be particularly encouraged to participate in homestead and farm forestry
- Bio-diversity will be preserved by maintaining suitable areas as PFs.
- All classified forests and plantations of the hills and sal forests will be used for producing forest resources keeping aside suitable areas for preserving bio-diversity.
- Because of scarcity of forestland, state-owned RFs cannot be used for non-forest purpose.
- FD will be strengthened in order to achieve the goals and objectives of the Policy. For the same purpose, laws, rules and regulations relating to the forestry sector will be amended and, if necessary, new laws and rules will be promulgated.

4.5.2 The Tentative Mandate

According to the FSMP, the detailed structure and mandates of the FD and other related forestry organizations were to be worked out in collaboration with the concerned institutions by June 1996. That task remains to be accomplished, however, a tentative mandate appears in one of the documents of the FD as follows:²⁹

- Exercising leadership in the implementation of the FSMP
- Protecting and managing the Protected Area System which consists of National Parks, Wildlife Sanctuaries, Game Reserves and erosion prone watersheds
- Sustainably managing the natural forests, using the most appropriate technologies and approaches including participatory management

²⁹ Asian Development Bank and the United Nations Development Programme, *Op Cit*, P 31.

- Establishing plantations in state forests to meet the demand for timber, industrial wood and firewood on profit-oriented basis giving due emphasis to bio-diversity, soil and water conservation
- Providing extension and technical support to those engaged in tree growing and forest management in collaboration with local government units
- Assisting the MOEF and the Planning Commission in policy assessments, drafting of forestry legislation, and monitoring the impact of the Master Plan implementation
- Monitoring of all forest resources, including their condition, conservation and sustainable use
- Reporting on the state of forestry development to the MOEF and the public annually.

4.5.3 Reforms in the FD

Following on the policy statement about the reorganization of the FD and necessary amendments to the existing laws to bring the Department in tune with the present-day requirements, two major segments of reforms have been carried out in the last year: one related to the law and the other to the organization.

4.5.3.1 Amendment of the Forest Act, 1927

The Act was amended in 2000 primarily to incorporate the provisions relating to social forestry. This was needed to give the FD the necessary mandate to carry on with social forestry. The donors investing huge money in the sector also needed legal cover for their investment. There was also a felt need by FD officials to incorporate some punitive sections in the Act to better protect the state forests. Forestry activists, tribal leaders, NGOs and other concerned public have criticized the amendments. There are differences of opinion as to the methodology of such forestry but the fact that such a conservative Department as the FD has recognized it as a legitimate pursuit is a major advance in forestry management in Bangladesh.

4.5.3.2 Reorganization of the FD

Organization structure has very important bearing on its ability to perform satisfactorily. The emerging mandate of the FD would need a re-organized structure to process the new demands. For this reason, the structure of the FD has been under close scrutiny of all concerned for quite some time.

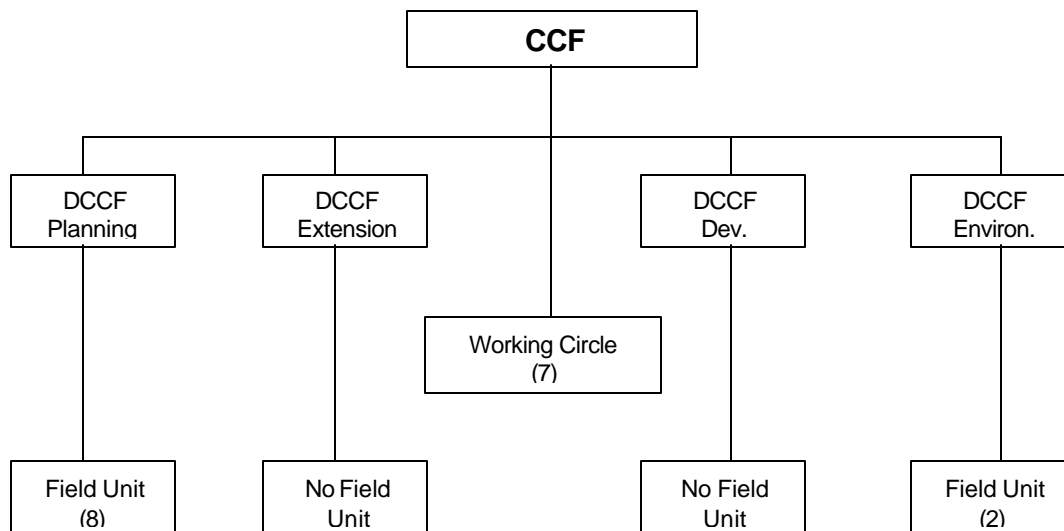
The FD is headed by a Chief Conservator of Forests (CCF) who is assisted by a couple of Deputy Chief Conservator of Forests (DCCF). Currently, there are four DCCFs in charge of four areas of operations, namely, management planning, extension, development planning and environmental management. The working circles headed by Conservator of Forests (CF) form the core of the traditional organization. These are seven in number and are under the direct control of the CCF. The Department has a total of 8681 posts under the revenue budget. Another 4136 are employed under the development budget.

Government constituted the Bangladesh Civil Service: Forest cadre in 1980 to give better status and job security to the professionals in the Department. The cadre has a sanctioned strength of 114 posts. All the positions from Assistant Conservator of Forests to the CCF are borne on this cadre. Unfortunately, 27 posts are lying vacant since long. It is paradoxical that about 700 permanent vacancies including these 27 cadre posts are not being filled up while recruitment is going on under the development budget. Like the Fisheries Department, this complicates the personnel management in any organization in unexpected ways. Already, 92 non-Cadre officers who had been recruited under various development projects have created a total stalemate by preventing fresh recruitment till disposal of their case. Further recruitment bypassing the Public Service Commission will definitely worsen the situation.

From the figure given overleaf, it will be seen that the CCF has centralized control of the working units whereas two of the DCCFs do not have any field units reporting to them. A third one controls training and management planning units rather than regular forest circles. This is quite a lop-sided administrative arrangement. The situation is much worse than it appears due to lack of delegation of power from the CCF to the DCCFs.

Current structure of the FD may be seen from the following diagram:

Diagram 4.3 Current Structure of the FD



In the deployment of professional staff, there is serious imbalance between HQs and the field as well as between the circles. This imbalance is also found at support staff levels. The ratio between professional and support staff is 1: 35, which is highly skewed and shows the custodial nature of the FD.

4.5.3.3 Main Features of Organizational Reform

The brief organizational profile of the FD just presented above is not suited to the needs of the FSMP or the Forestry Policy. Reform of the FD is an imperative and with that end in view, a detailed study was carried out by consultants under the TA titled "Support to Master Plan for the Forestry Sector"³⁰. The consultants examined six different options for restructuring and after weighing their relative advantages and disadvantages, recommended creation of two separate new departments, named the Department of Forest and Wildlife Conservation and the Department of Social Forestry giving the two departments parallel responsibility throughout Bangladesh. The main arguments in favor of this option are image and confidence building. Over the years, the public has developed a negative image about the operations of the FD as being more of a police operation than a development activity. Separation of Social Forestry under a totally different management creates the opportunity of projecting the enterprise as friendly to the people. With two separate departments, it is less problematic to police and control the state forests and at the same time pursue a people-oriented social forestry program.

Implementation of the preferred option by the consultants would require huge financial outlay. Besides, employing parallel staff may engender other unexpected problems. The GOB was also perhaps not yet ready to carry on such a radical reform. In the end, the actual reforms have rather been mild. In January 2001, Government has finally approved a revised set up for the FD. The following are its main features:

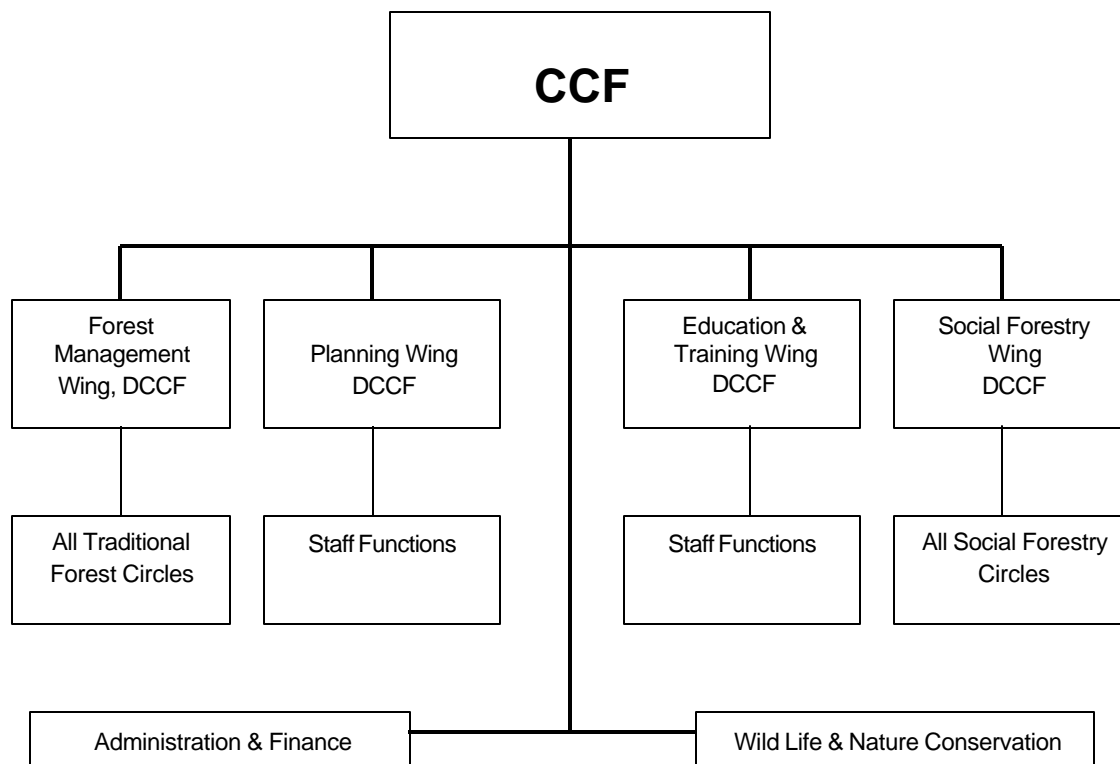
Operations of the four existing Wings of the FD have been rearranged into four broad functional areas, namely, Forest Management, Planning, Education and Training and Social Forestry. Theoretically, the functions of traditional forestry and social forestry have been segregated.

³⁰ Food and Agriculture Organization, *Support to Master Plan for the Forestry Sector*. Second Mission Report. Project No TCP/BGD/4553. March 1997.

The direct responsibilities of the CCF have been rationalized by relieving him of the burden of supervising the field units. The two field unit-based Wings now are under the charge of two DCCFs who were previously denied any such responsibility. The CCF is now directly responsible for administration and finance and wildlife and conservation. This distribution of work is expected to bring about rational sharing of duties and responsibilities among the top management of the FD.

Revised structure of the FD may be seen from the following Diagram:

Diagram 4.4 Revised Structure of the FD



Traditional Forestry would be looked after by 5 Circles and 24 Divisions whereas Social Forestry will have 3 Circles and 13 divisions. Areas brought under the cover the social forestry do not have any significant state-owned forest. However, areas covered by traditional forestry divisions would also have social forestry component. It is not clear as to how and by whom the job would be done.

The total manpower strength had been raised from 7385 to 8681. In the process, 1296 temporary staff who had been hired under different development projects have been transferred to the permanent establishment.

Shortage of professionals at the HQs has adversely affected project implementation. On many occasions, PDs had to look after additional work beyond their capacity. HQ staffing has now been rationalized by allocating 504 persons as against 271 previously. Of these, 74 belong to the professional cadres.

4.5.4 Manpower for the Coastal Area

In the existing set up, the activities of the coastal forestry was attached to a Conservator of Forest who was also responsible for the Administration branch of the Department. He was located at the Head Quarters of the Department and was overburdened with the general

administrative duties of the Department. Giving attention to the coastal affairs was difficult for him.

This Conservator was further handicapped as he did not have separate manpower at the field set up to execute the works of the coastal areas. He would entrust the works of the coastal affairs to the DFOs of the divisions who were supposed to look after the works of the coastal areas in addition to their normal and field administrative duties of the divisions for which they were accountable to the Zonal Conservators. As such, work in the coastal areas lagged behind.

4.5.5 Capacity Building

The main responsibility of the FD is to protect and conserve bio-diversity, wildlife, forest resources and the natural environment. Following are the important Forest Acts and Rules, which are generally used for these purposes:

- The Forest Act, 1927
- The Forest (Amendment) Act, 1990.
- The Forest (Amendment) Act, 2000.
- National Forest Policy, 1994.
- Bangladesh Crab Export Policy, 1998
- Bangladesh Baggily Bamboo Export Policy, 1999.
- The Atia Forest (Protection) Policy, 1982.
- Saw Mills (License) Rules, 1998
- Brick Burning (Control) Act, 1989.
 - i. Brick Burning (License) Rules, 1989
 - ii. Brick Burning (License) (Amendment) Rules, 1992
- Rules made under the Forest Act.
 - i. Powers of the Forest Officers under Forest Act
 - ii. Prohibition and Rules affecting Protected Forests in Sundarban Division.
 - iii. Bangladesh General Forest Transit Rules
 - iv. Chittagong Hill Tracts Forest Transit Rules.
 - v. Rules for Protection of Trees and Timber belonging to the Government in the Districts of Chittagong Division.
- Bangladesh Private Forest Ordinance, 1959
- Private Forest Management Rules, 1959
- Powers of the Forest Officers under Bangladesh Private Forest Ordinance, 1959.
 - i. Appointment of Regional Forest Officers
 - ii. Rules for Disposal of Forest Produce under the Private Forest Ordinance, 1959.
- The Wild Birds and Animal Protection Act. 1912.
- Bangladesh Wild Life (Preservation) (Amendment), Act 1974.

For efficiently running the operations of the Department, the rank and file has to clearly understand the laws and their implementation. The changed mandate of the FD would now demand of its personnel across all ranks to deal with the members of the public. This is totally a new approach unknown and not experienced by most of the employees of the Department. The FSMP envisages a triangular relationship among the FD, the NGOs and the beneficiaries. This can be perhaps achieved through a total re-orientation of curricula and courses for forestry education at the higher institutions of learning as well as in the Departmental Training Institutes.

The Forest Department maintains 5 training and educational institutions for imparting education to the interested people on forest affairs and training of the Officers and employees of the Department. These are:

- a. Bangladesh Forest Academy, Chittagong
- b. Forest School, Sylhet,
- c. Forest School, Rajshahi,
- d. Forest School, Chittagong,
- e. Forest Development and Training Center, Kaptai.

Consistent with the new mandate, the FD will have to carry out a thorough overhaul of its training system. Curriculum development, training of trainers, linking training performance with career progression is priority areas for immediate attention.

With regard to development of managerial tools, there is much to be done. Among other things, development and use of the following are accorded the highest priority:

- Review and update the delegation of administrative and financial powers consistent with current thrust towards decentralization
- Establishment of a computerized database for financial, personnel and performance monitoring purposes
- Enhancing planning capability through improved data collection, storage and analysis, improved mapping of forest area and preparing annual work plan for each Circle
- Preparing job descriptions and rules of procedure in view of the reorganization of the Department.

4.5.6 Experience of Working with the NGOs

The FD has been working with the NGOs since the early 1980s through the Asian Development Bank financed Coastal Greenbelt Project (CGP) and the Upazila Afforestation and Nursery Development Project (UANDP). These projects involved close cooperation with settlers and indigenous people living inside and near state forests. One activity involved rehabilitating degraded forests through participation and involvement of NGOs and local community groups. A number of evaluation reports and project completion reports have recognized the positive role of the NGOs in community forestry. The Sector Synthesis of Post-Evaluation Findings in the Forestry Sector stressed the role of the NGOs in enhancing responses from the communities at the grassroots level and helping to sustain forestry benefits and pointed out that NGOs are in a good position to mobilize women to participate in community forestry activities.³¹

The advocacy role of the NGOs in favor of the communities has made them suspect to the FD officials about their motives. The NGOs equally despised their counterpart in the Department for their alleged unfair deals with the participants. NGOs and participants would always argue about the short duration of their lease, which would normally be for one year with automatic renewal subject to satisfactory performance. It is alleged that people are routinely denied renewals. The FD people would argue that longer lease may require registration under relevant laws. Whatever may be the legal requirement, such denials hurt those most who had invested their labor, money and time for the more rewarding and long-gestation trees. Participants were dissatisfied with decisions imposed on them by the FD unilaterally. The FD people, in their turn, questioned the integrity of some of the NGOs and resented their lack of transparency in financial and other matters.

It is evident that the FD cannot pursue its social forestry program by itself: it has to seek and get the cooperation of the NGOs. There are a few thousand of them working in Bangladesh. Some of them are really good and their performance depends on their experience and skill mix. As has been rightly been pointed out by the Asian Development Bank "...NGOs with related rural development programs in agriculture, education or health, have a much better chance of success than NGOs that just undertake forestation of forest management programs exclusive of related programs."³²

This mutual mistrust between the Department and the NGOs is not desirable in the interest of the implementation of the FSMP or other upcoming programs. The potential for conflict can be minimized if the Terms of Reference for the proposed work are properly drafted and a strict pre-qualification process for selection of NGOs is followed. The requirement under the ADB-financed "Forestry Sector Project" that their relationships may be formalized prior to the engagement of an NGO could go a long way in improving the situation.

4.5.7 Experience of Joint Execution of Projects

The Department has been implementing the following development projects on long and short-term basis. A few of these are also executed jointly with other Department.

³¹ Post-Evaluation Office, Asian Development Bank, *Sector Synthesis of Post-evaluation Findings in the Forestry Sector*, August 1994.

³² Asian Development Bank, *Report and Recommendations*, Op Cit.

TABLE 4.9 List of some projects jointly executed by the FD with other Agencies

(Amount in Taka '000)

SL. no.	Name and Duration of the project	Source of fund	Total allotment for the project	Allotment for 2000-2001
1	Forest Resources Management Project (1992-93 to 2000-2001)	GOB & IDA	21,471	3,500
2	Coastal Green Belt project (95-96 to 2001-02)	GOB & ADB	13,000	2,200
3	Afforestation and Rehabilitation of Unclassified and Reserve Forest (95-95 to 2001-02)	GOB	2,800	300
4	Afforestation of Sea shore at Cox'sBazar (jhao) Project (97-98 to 2000-01)	GOB	41	7
5	Development of Bhawal National Garden, Balda Garden and Botanical Garden (97-98 to 2001-02)	GOB	670	50
6	Forestry Sector Project (97-98 to 2003 - 04)	ADB	38,891	2,550
7	Rehabilitation of Infrastructure of Forest Dept. and development of facilities at the Hill districts (1999-2000 to 2000-01)	GOB	998	317
8	Rehabilitation of the unemployed Freedom Fighters by establishment of Forest Nursery Project (1998-99 to 2004-05_)	GOB	440	220
9	Establishment of Agar Garden Project (1998-99 to 2004-05).	GOB	290	50
10	Bangabandhu Shiek Mujib Safari Project, Cox's bazar (1998-99 to 2000-01)	GOB	999	150
11	Mujibnagar Complex Development Project. (1998-99 to 2000-2001)	GOB	183	50
12	Development of bamboo, cane and murtha project, (198-99 to 2002-2005)	GOB	2,952	300
13	Conservation of biodiversity in the Sundarban Reserve Forest,(1998-99 to 2004-05)	GOB, ADB & GEF	39,889	2,500
14	Establishment of Botanical garden and Echo-park at Sitakundu project(99-2000 to 2003-04)	GOB	357	85
15	Rural development through food assistance Project (1997-98 to 2000-2001)	GOB & WFP	7,282	1
16	Development of Madhupur National Garden Project. (199-2000 to 2000-04)	GOB	973	50
17	Establishment of Echo-Park at Madhutula and Gajni Project (1999-2000 to 2001-02)	GOB	201	32
18	Establishment of Eco-Park at Madhabkundu and Muraichara (1999-2000 to 2003-03)	GOB	1,100	7
19	Establishment of Social Forestry at the guide embankment of the Bangabandhu Jamuna Multipurpose Bridge Project (2000-01 to 2003-04)	Project GOB	146	40

Quite a number of projects are being implemented in the coastal areas for protection and conservation of the biodiversity and forest resources. But progress is reported to be badly affected by various factors like unauthorized possession, non-receipt of possession and unauthorized lease of the forestland by general public and other authorities of the government.

The Department has prior experience of working as partners with other agencies like LGED and the BWDB. But experience in some of these projects was not happy for the FD. One such example is the afforestation component to be executed by the Forest Department under the Coastal Embankment Rehabilitation Project. Reportedly, the evaluation reports revealed that the project result was not at all satisfactory. Both the agencies are blaming each other for failure. During discussion in the Forest Department, resentments were noticed amongst the concerned officials of the Forest Department against the BWDB.

Such mutual recriminations are not at all conducive to co-operative programs. While commenting on the future prospects of social forestry through the FD, a donor Mission³³ had mentioned these constraints:

An age-old distrust of the FD by participants

Mutual distrust between the FD and the NGOs

A lack of research-based management models

Seedlings produced by the FD are not those preferred by the farmers. This is not because of any incapacity on the part of the FD but just its own bias.

Indecision regarding management regimes

Failure to fell trees according to a pre-agreed schedule; and

In some cases, failure to distribute produce/receipts amongst participants according to initial agreements.

These are micro-level problems and should not be difficult to remove if there is the determination to do so. But these appear to be so deeply ingrained in the institutional culture of the FD that the Mission thought it proper to document..

³³ Food and Agriculture Organization, *Op Cit.*

4.6 Department of Livestock Service

Veterinary services in the Indian subcontinent first started in 1785 for treatment of the horses of the British cavalry. The Civil Veterinary Department was formally organized by the British colonial rulers in 1934. After the division of the subcontinent in 1947, the Headquarters of the Department was shifted to Comilla and subsequently after several reorganizations, the Department of Livestock Services (DOLS) was established at Dhaka. It is one of the oldest departments having recognition as an organized public service that play a very important role in supporting agricultural production.

4.6.1 Mandate

The DOLS, like other Government Departments, does not have any officially announced mandate. The Martial Law Committee on Government Organizational Set Up collated the mandate in the following terms³⁴:

- Improvement of Cattle wealth
- Prevention and control of animal and poultry diseases
- Management of poultry farms, grading and quality control
- Management of cattle farms
- Animal nutrition
- Artificial insemination
- Development of the Veterinary profession
- Livestock census and cattle insurance
- Research and training in livestock
- Mechanized livestock operations
- Participation in relevant international conferences ,associations and other bodies and implementation of the decisions thereof
- Liaison with international organizations and matters relating to subjects allotted to the Department
- All laws on subjects allotted to the Department
- Inquiries and statistics on any subjects allotted to the Department
- Fees in respect of any of the subjects allotted except fees taken by the courts
- Veterinary education (other than Agricultural University) and development of animal resources
- Zoological research, zoological gardens and zoological surveys
- Coordination and determination of standards in institutions of higher veterinary education(other than Agricultural University)

4.6.2 Updating of the Mandate

With the passage of time, the Department felt the necessity of updating the mandate, which was done by adding new items in its charter of duties.³⁵ These additions are as follows:

- ❑ Livestock Services
 - Prevention, control and treatment of diseases of animals and birds
 - Control of contagious and infectious diseases of animals and birds and reducing mortality rate
 - Artificial insemination of cattle for genetic improvement
 - Improvement in livestock nutrition by production of feed and fodder

³⁴ Government of the People's Republic of Bangladesh, *Report of the Martial Law Committee on Organisational Set Up. Vol X. Departments/Directorates/Subordinate Offices*. Dhaka: 1983

³⁵ Strengthening of Livestock Information Services Project, Ministry of Fisheries and Livestock, *Department of Livestock Services: An Overview*. Dhaka: 2000.

- ❑ Poultry Development
 - Prevention and control of diseases of birds
 - Treatment of birds
 - Improvement of varieties and species
 - Genetic improvement of native chicken, HYV ducks and other birds
 - Improvement of livestock nutrition by production of feed and fodder.
- ❑ Employment
 - Milk farm extension activities
 - Poultry farm extension activities
 - Training of entrepreneurs for sustainability of poultry and dairy farms
 - Transfer of Technology
- ❑ Poverty alleviation
 - Training on rural and small scale livestock development
 - Training on rearing cattle for fattening
 - Facilitating access to credits on simpler terms and lower rate of interest
 - Facilitating access to other inputs
 - Technological assistance
 - Follow up and evaluation.

4.6.3 Organization Structure

The Department is headed by a Director General who is assisted by five Directors. The functions of the Department are divided into four areas, namely, administration and animal health, production, extension and research, training and evaluation. Each of these functional areas is under the charge of a Director. The Principal of the Officers' Training Institute holds the rank of a Director.

The Director, Administration deals with administration, budget, accounts, planning, monitoring and evaluation of field activities. In addition, he is responsible for the administration of the National Zoo, Central Veterinary Hospital and Central Medicine and Equipment Stores.

Director, Production looks after the production and supply of inputs for backyard livestock raisers and farm entrepreneurs. There are 49 different kinds of animal farms under this Director. These farms are engaged in developing and producing sustainable improved breeds for supply to farmers.

Director, Extension is in charge of the field services covering the whole country. He maintains the network through 5 Divisional Offices located at the administrative divisional headquarters and each headed by a Deputy Director. Below that level are 64 District Livestock Offices under the charge of District Livestock Officers. These officers supervise 460 Thana Livestock Officers. As a complement to the extension activities, a veterinary dispensary with one qualified veterinary doctor has been set up in each thana.

Director, Research, Evaluation and Training is responsible for epidemiological studies during outbreak of epidemics, carries out necessary investigations and diagnosis and suggests remedial measures. Through different establishments under his charge, he is to exercise control over the quality of the biological products, production of vaccines and livestock and poultry feed. He is also responsible for running the different training institutes under the Department.

Principal, Officers' Training Institute is responsible to provide post-entry in-service training to the officers of the BCS (Livestock) Cadre. Besides, the Institute also organizes different kind of skill development and technology transfer training modules.

4.6.4 Manpower

The Department has a total sanction of 7277 posts under the permanent revenue establishment. Another 1149 posts, which were in the permanent set up, were abolished and

recreated as temporary revenue posts on a year to year retention basis. About 100 other posts now exist under different development projects.

The professional positions of the Department are encadred in the Bangladesh Civil Service (Livestock). From entry level to the position of the Director General, the number of these posts alongwith leave and deputation reserves come to 1471 which account for all class I posts in the DOLS. Government had created this cadre alongwith other professional cadres to raise the morale of the concerned officials and to facilitate all round development of the country. Unfortunately, mismanagement of the cadre has gone down to such a low level that, with the exception of six officers, the other 233 officers from above the rank of Thana Livestock Officer to that of the Director General are holding superior charges without obtaining any substantive promotions. Officers expressed their helplessness, anger and frustration over the promotion issue. The already complicated cadre issues are further compounded by mindless and narrowly focussed interference favoring the composition and privileges of particular cadres without realizing its ramifications in other cadres. The problem arose due to the Department's inability to resolve disputes of *inter se* seniority of the encadred officers. This is not a problem peculiar to this Department only. This has happened in other organizations also and some of them have been able to resolve them satisfactorily with the help and guidance of the administrative Ministry. It would be too much to expect any substantial contribution from these officials when 663 cadre posts or more than 50% of the encoded posts remain vacant due to failure to process the promotion cases.

4.6.5 Capacity Building

The Department has built up facilities to train its own manpower. The Officer's Training Institute (OTI) imparts training to the newly inducted cadre officials. Two veterinary colleges, one at Sylhet and the other at Chittagong are already functioning. Two more, one at Barisal and the other at Dinajpur, are in the process of being set up. The institutions suffer from lack of qualified faculty and the quick turnover of those who are made to serve there. There is much to be desired about the quality of the training modules and the broad relevance of the programs developed for delivery.

The Department has not been able to develop a reliable database for long-term macro-level planning. Determination of the number of livestock is an important element in that kind of exercise. As a beginning, a "Resource Survey" may be carried out by the Department in association with some donor and the product then can be updated at regular intervals. Use of modern techniques for program management like computerization for monitoring and evaluation purposes and for financial management is virtually absent. Such old standard tools for good management like rules of procedure or delegation of administrative and financial powers are either missing or are outdated. A job description for all the relevant officials was found in one of the booklets published by the Department. This needs to be reviewed by the Department for suitable modifications and then this may be officially issued to all concerned for guidance and follow-up.

4.6.6 DOLS-NGO Relationship

With labor absorption capacity of the crop sub-sector diminishing gradually, the livestock and poultry sub-sector is assuming a greater role in creating employment opportunities and poverty alleviation. A multiplicity of government and non-government organizations has been working in the sub-sector for a long time. The sponsoring organizations form the groups and arrange the required credit while the DOLS provides the technical inputs. The Department has also executed its own programs of poverty alleviation through livestock or poultry development with the active cooperation of the NGOs. Such interaction between the DOLS and the NGOs has been rather limited in the livestock sub-sector compared to some other organizations reviewed here.

4.6.7 Private Sector Participation

The Fifth Five Year Plan ³⁶ has provided a major thrust towards supporting the private sector for the development of the livestock and the poultry sub-sector. Government has been supporting the private sector with credit and other infrastructural facilities. The DOLS complements these

³⁶ Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, *Op Cit.* p256.

efforts by providing technical advice, training, supply of inputs and marketing of the products. Government has also stipulated the transfer of public sector establishments to the private sector for running them strictly on business principles without having recourse to any subsidy.

4.6.8 Cooperation with other Government Organizations

Coastal areas are somewhat different from the rest of the country. One reason is their vulnerability to natural disasters. During the occurrence of cyclones, the worst hit is the livestock. For the landless and the marginal farmers, livestock is their only asset. Cyclone shelters have been constructed for people with no accommodation for the animals. A number of sociological studies have revealed that rural people do not like to leave their cattle behind and move for their own safety. They may like to leave their homes if they can carry the animals with them. It seems that the DOLS will have a good case for its plea for cyclone shelter for the livestock. But for achieving these kind of objectives, the DOLS will have to be more forthcoming in fostering good relationship with other public agencies than it had been able to do until recently.

4.7 Department Of Agricultural Extension

Agricultural extension is a century-old practice in Bangladesh. The present Department of Agricultural Extension (DAE) was created by the GOB in 1982 as the core of an institutional reform of extension activities.

Agriculture is the most dominant sector of the economy of Bangladesh and it is quite logical that increasing agricultural productivity would get close attention of all concerned. Improving the performance of the sector, particularly that of the crop sub-sector, depended on timely delivery of all agricultural inputs. Extension is a very important input in this delivery system.

Since the independence of Bangladesh, policy makers, academicians, donors, agricultural scientists and other concerned people were generally dissatisfied with the quality, spread and intensity of agricultural extension work. A number of studies³⁷ had revealed that the existing system of extension mainly suffered from two major institutional bottlenecks. One was the multiplicity of extension services at the farmer's level and the other was the lengthy chain of command that hindered smooth flow of information.

The disadvantages associated with multiplicity of extension were that different workers were approaching the same farmer with different messages, which were sometimes, contradictory and often confusing. The lengthy chain of command involving five tiers from the Head Office to the lowest level in the field would take days in transmittal of messages and there was always a high probability of distortion in the process.

After careful review of different options, the GOB decided to set up an integrated agricultural extension service by (a) offering a single point of contact with the farmer by merging all the extension services under the control of the Ministry of Agriculture (MOA), (b) bringing such other organizations not directly under the MOA within this framework in due course and (c) establishing a direct chain of management between different levels. The new department to be called the Department of Agricultural Extension was created by merging the following extension-oriented agencies under the direct control of the MOA:

- Directorate of Agricultural Extension (Extension and Management)
- Directorate of Jute (Jute Production)
- Directorate of Plant Protection
- Tobacco Development Board
- Horticulture Development Board
- Central Extension Resources Development Institute

4.7.1 Mandate

Unlike other Government Departments, the DAE has an official mandate³⁸. Its overall responsibility is to equip the farmers with modern technical know-how and improved methods of farming to increase agricultural productivity and farm income level. In more functional terms, these are enumerated as follows:...

- To provide farmers with the latest results of research and scientific farm-techniques for their socio-economic betterment.

- To motivate and help farmers adopt improved production practice which would increase their farm production and thereby meet national consumption requirements, maximize exports and minimize import.

- To assist farmers to arrive at the most promising course of action for maximizing production and income keeping in view their own needs, resources and abilities.

³⁷ See World Bank, *Staff Appraisal Report on the Agricultural Extension and Research Projects I&II*. Credit Nos 729BD and 1215 BD.

³⁸ Department of Agricultural Extension, Ministry of Agriculture, Government of the People's Republic of Bangladesh, *DAE Administrative Manual*. Dhaka: 1988. PP 8-9

To help develop self-reliance and co-operation by training local leadership for organized group action

To provide channels for service and information from the MOA and its different departments to the farm people and in turn relay the problems and the needs of the farmers that require national level intervention

To provide an efficient linkage between the various research institutions and the farmers so that alongwith the flow of technology to the farmers, the farm level problems are also brought to the relevant research institutes for investigation and solution

To provide educational opportunities in agriculture, especially for front line extension workers, and all rural masses, adults and youth

To serve as liaison between farmers and other organizations, both public and private concerned with over-all socio-economic development of the rural people, including the credit-giving and input-supply agencies.

4.7.2 Organization Structure

The Department is headed by a Director General who is assisted by five Directors and two Additional Directors. The functions of the DAE have been divided into six broad areas and are allocated to the six Wings, as they are called, in the following manner:

- Food Crops Wing
- Cash Crops Wing
- Field Services Wing
- Training Wing
- Water Management and Agricultural Engineering Wing
- Administration and Personnel Wing
- Planning and Evaluation Wing

Of the six Wings, Administration, Planning, Water Management and Cash Crop Wings do not have any field unit. The huge field outfit is administered by the Field Services Wing while the Training Wing controls the DAE training institutions and the Food Crops Wing the horticulture centers.

The organizational set up of the DAE, except for the Division, follows the administrative jurisdictions of the country and has offices at corresponding levels of the Divisions, Districts and Thanas. Beyond this, the organizational reach of the DAE goes down to the village level. It is one of the few organizations that are represented at that level. DAE's frontline staff is the Block Supervisors (BS) who deal directly with the farmers. One or more village constitutes a block level. Each block comprises of about 1000 farm families depending on cropping intensity and geographical location. Each block is manned by a Block Supervisor who is responsible for all extension activities in the block. Approximately 10,500 BSs are currently deployed in 468 Thanas of Bangladesh.

The BSs are supported by up to five agriculture specialists at the Thanas. Each Thana is manned by three agricultural graduates—one of them is in charge of the Thana Agriculture Office (TAO) while the other two provide him with technical support.

In the field establishment, the district plays the most crucial role. Thanas falling within the jurisdiction of a district are coordinated by the Deputy Director of Agriculture (DDA). The DDAs are supported by between two to three subject-matter specialists and a District Training Officer.

There are nine regional offices, as against six administrative divisions, to oversee and coordinate the activities of the DDAs. Regional Directors are in charge of these offices and they report directly to the Director of the Field Services Wing.

4.7.3 Manpower

With a view to enhance the status and attraction of jobs in the agriculture service as well as to bring about more professionalism, GOB established the Bangladesh Civil Service: Agriculture as a cadre in 1980 with a cadre strength of 2252. All the professional positions in the DAE are borne on the cadre. Currently, the Department has a sanction of 23954 permanent posts. Besides, a very negligible number of staff members are recruited occasionally under the development budget as incremental staff to implement development projects.

Of the total strength, only 618 staff members work at the Head Office at Dhaka. The rest are deployed, according to a standard staffing pattern, to the different layers of the field outfit. It is to be noted that the coastal districts are covered by this standard pattern.

Unlike some other Departments covered in this review, the DAE does not have any serious personnel management problem. Cadre officers are getting their promotions when vacancies occur and the manpower situation has stabilized.

4.7.4 Capacity Building

Organizational staff are the instruments through which organizational goals are to be achieved. It is, therefore, of utmost importance to enhance the capacity of these people to deliver the expected services. Until recently, progress in this area has been very limited. To streamline human resources development (HRD) activities, the DAE has initiated a number of innovative actions.³⁹ Notable among these are: writing of job descriptions containing performance indicators so that tasks can be assessed, Thana Agricultural Officer's Management Skills Program to upgrade their capacity and Technical Audit whereby the quality of District and Thana extension activities are monitored.

Another window for capacity building is the training system. The Training Wing has the responsibility to draw the Training Master Plan and execute it through 12 Agricultural Training Institutes (ATI) located at different parts of the country as well as through the Central Extension Resources Development Institute. In addition, there are 73 Horticulture Centers managed by the Food Crops Wing and 15 Plant Quarantine Stations operated by the Plant Protection Wing. The DAE does not have a coordinated view of HRD and there is a need for review of its training program.

Another important component in capacity building is the development of a dependable Management Information System (MIS). Attempts were made in the past years to do it through consultants. However, too much dependence on donor assistance hinders the development of a sense of ownership, which is detrimental to long-term institutional development. This is what has happened in the DAE's MIS program development and in future this must be avoided as far as possible.

4.7.5 New Agricultural Extension Policy

The creation of the DAE and the intensification of extension activities formed the first round of reforms in the country's extension system. However, with the passage of time, it became clear that another round of reforms was necessary to further consolidate the gains already made. The shortcomings of the 1982 reforms were apparent in the following areas:⁴⁰

Though the multiplicity of extension services within the MOA was consolidated, there were other extension services provided by other government organizations (GO) and the NGOs and the private sector. DAE, being the prime extension agency of the GOB, it was its responsibility to coordinate the extension services of the various providers in order to optimize the use of the resources within the system.

Government extension system should not discriminate among different farmers on the basis of the size of their land holdings or their wealth. It was found that government

³⁹ A description of these and other activities may be seen in the Department of Agricultural Extension, *Strategic Plan: 1999-2002*. Dhaka: 1999.

⁴⁰ This analysis has been drawn from Ministry of Agriculture, Government of the People's Republic of Bangladesh, *A Strategy for Implementing the New Agricultural Extension Policy (NAEP)*. Dhaka: January, 1997

organizations tended to provide services to the rich and the articulate to make sure that the time spent on them would be fruitful. Vast multitude of poor and marginal farmers remained outside extension coverage.

Farmers are primarily concerned with management of risks. They, therefore, allocate their resources on the basis of their own calculation to maximize their return from crop, livestock, fisheries and other activities. The extension advice can not be piecemeal: there has to be a farm management approach.

Farming system vary from place to place. The practice of issuing uniform directives from the Head Office was not conducive to meeting the needs of these diverse farming systems. There is a need to devolve these responsibilities to the local level for planning and implementation.

Poverty alleviation is one of the main objectives of the Agriculture Policy. However, extension programs did not have any specific focus on women's involvement. Similarly, it did not have a clear policy on mainstreaming environmental issues.

It was against this background that the New Agricultural Extension Policy (NAEP) was adopted for implementation in 1996.⁴¹ The goal of the NAEP is declared to be as follows:

“Encourage the various partners and agencies within the national agricultural extension system to provide efficient and effective services which complement and reinforce each other, in an effort to increase the efficiency and productivity of agriculture on Bangladesh.”

To achieve this goal, the NAEP had targeted the following actions as its key components:

- Extension support to all categories of farmers
- Efficient extension services
- Decentralization
- Demand-led extension
- Working with groups of all kinds
- Strengthened extension-research linkage
- Training of extension personnel
- Appropriate extension methodology
- Integrated extension support to farmers
- Co-ordinated extension activities
- Integrated environmental support

The declaration of the new policy was followed by *A Strategy for Implementing the New Agricultural Extension Policy (NAEP)* in January 1997. The Strategy provides the guidelines for implementing the Policy and it goes to such implementation detail as to how the different committees at different levels would be formed and what their Terms of Reference would be. At the same time, the Strategy also strongly advocates maintaining enough flexibility to achieve the desired coordination at all levels.

The execution of the NAEP is further assisted by the formulation of a Strategic Plan (1999-2002) now under implementation by the DAE. This is a three-year program, which seeks to achieve very clear objectives. To carry through the Plan, the Department has established a Change Management Forum. At present this consists of five working groups under the leadership of the Management Committee.

A National Agriculture Committee has been formed with the Minister for Agriculture as the chairperson to coordinate and monitor agricultural development programs of government organizations, private institutions and the NGOs. This Committee also provides guidance to the field level committees at the district, thana and union level for overall development of the agriculture sector.

⁴¹ Ministry of Agriculture, Government of the People's Republic of Bangladesh, *New Agricultural Extension Policy*. Dhaka: 1996.

4.7.6 Agriculture Policy

The MOA takes a broad view of the sector and points out that “agriculture encompasses the development of crops, livestock, fishery, environment and forestry”. Since separate policies on fisheries, livestock, environment and forestry have already been formulated by the respective Ministries, the Agriculture Policy, published in 1999,⁴² was consciously confined to the crop subsector only. The overall objective of the Policy is “to make the nation self-sufficient in food through increasing production of all crops including cereals and ensure a dependable food security system for all.” Its specific objectives, so far as these relate to extension activities, are consistent with the NEAP. In paragraph 3.3 of the Policy, a guideline for coastal agriculture has also been given as follows:

“Special development programmes will be taken with a view to increasing production of potential crops suitable for the coastal areas and the hill tracts.”

4.7.7 Experience of Joint Execution of Projects

The NAEP makes it abundantly clear that in order to achieve the maximum feasible coverage of farm families, the DAE resources would be inadequate. Some NGOs have their own extension strategy but may lack trained personnel at the grass roots levels or access to higher levels of expertise. Similarly, integrated extension calls for co-ordination of all extension activities on fisheries, forestry and livestock along with advice on crop production. This calls for close cooperation and clear understanding about each other's program. There is thus a need to establish linkages across many issues of common concern.

The DAE through its Strategic Plan has been establishing linkages with other entities like the NGOs, research institutes, other government organizations and relevant educational institutions.

The DAE has an impressive record of joint execution of projects. The following Table⁴³ would give an idea as to the diverse type of projects in which it has successfully worked with a number of public and private agencies.

TABLE 4.10 Example of some Jointly Executed Projects by the DAE

Name of the Project	Partners	Beneficiaries	Activities	Funding Source
Mymensingh-Jamalpur Sherpur Smallholder Agricultural Improvement	DAE LGED DLS BANK NGOs	Landless, small and marginal farmers	Training Extension Demonstration Lending Operation Infrastructure Development HYV Seed Supply Irrigation Support	GOB IFAD
Gopalganj, Madaripur, Shariatpur and Pirojpur Integrated Area Development	DAE LGED DFS BANK NGOs	As Above	Group Formation Rural Infrastructure Farm Mechanization Irrigation Support Training Extension Demonstration	GOB IDA
Agricultural Development in Southern Districts	DAE SRDI	Farmers	Fallow Land Identification Training Extension Demonstration Irrigation Support Group Formation	GOB

⁴² Ministry of Agriculture, Government of the People's Republic of Bangladesh, *National Agricultural Policy*. Dhaka: 1999

⁴³ Table drawn from data available in Management Accounting Unit, Ministry of Agriculture, *Draft Report for Third Quarter 2000-01*.

Name of the Project	Partners	Beneficiaries	Activities	Funding Source
Agricultural Diversification and Intensification Project			Community Infrastructure Crop Production Training Extension Demonstration Marketing	GOB IFAD
Agricultural Technology Transfer through GO-NGO/Private Organization Partnership	BARC USAID DAE DLS DOF FD NGOs	Farmers	Development, refinement and transfer of technologies through GO-NGO collaborative program	GOB USAID
Agricultural Research Management Project(ARMP)	BARC BARI BIRRI BINA BJRI SRDI BLRI BFRI FRI BTRI	Farmers and Agricultural Extension Services	Planning Monitoring Evaluation Research Management Training Coordination	GOB IDA
Agricultural Services Innovation and Reform Project(ASIRP)	DAE SRDI NGO	Farmers	NAEP Implementation Food Security On-farm Water Management Soil Fertility Management Crop Yield Forecasting Monitoring Evaluation	GOB DFID FAO

4.7.8 Challenges Ahead

The NAEP seeks a total reorientation of the extension approach so far experienced in the country. With continually changing configuration of land-man ratio and the rising incidence of marginal and small farms, the most effective way of transfer of technologies and dissemination of information is interaction at group level. At a time when the Government is under tremendous pressure to cut public expenditure on establishment, there is a need to think of a delivery system at a much lesser cost to the public exchequer by involving the private sector and the NGOs. Retaining the present strength of staff does not seem to be sustainable in the long run.

4.8 Directorate Of Land Record And Surveys

Land is a very valuable resource: its ownership could be permanent, its market value never diminishes and it is a source of power in a land-based economy like Bangladesh. Ownership of land ensures access to many other services that are not available otherwise. Ownership of land and its legal recognition have thus been looked upon by reform-minded politicians as a key to securing the rights of the tenants. It is against this background that the functions of the Directorate of Land Record and Surveys (DLRS) is to be seen.

Government responsibility for accurate survey and correct recording of rights came to be recognized only in the past century. Actions of each successive ruler on land management had implications for ownership and the need for survey and record could no longer be shelved.⁴⁴ The land survey system was first introduced during 1540 - 1545 by the then Pathan Emperor Sher Shah. It is recorded in history that Emperor Akbar's Finance Minister Todarmol had conducted a land survey for the first time in Indian history.

Land records and survey system became necessary for the Mughal rulers for collection of land revenue from the people through their appointed agents (zaminders). They introduced a L.R & Survey system for assessment of the rent of land possessed by the people on the basis of the extent of possession, productivity of the land and the quantity of the products. The zaminders would collect the land revenue from the people of the concerned revenue area and hand it over to the rulers. The zaminders would, however, get a share as commission. During the Mughal period, the owner of the land were the actual cultivators or raiyats or tenants (prajas) and the zaminders were only the revenue collectors or commission agents (nankars) of a particular area.

During British regime, Lord Cornwallis enacted the Permanent Settlement Regulation, 1793 wherein the zaminders were declared as the owners of the land. Thereby, the cultivators of land became tenants at will to the zaminders. The cultivators fell victims to various oppressions and atrocities in the hands of the zaminders, which resulted in many a revolutions from time to time. Ultimately, the British Government was compelled to enact the Bengal Tenancy Act. of 1885.

The Bengal Tenancy Act provided for the system of preparation of records of right for the cultivators and the possessors of land after conducting survey of each plot of land. The Settlement Officers were given authority of plot to plot survey and fixation of rent of new land if any detected during the survey operations. Because of the nature of operations, this process was called as Survey and Settlement Operation.

Under the Tenancy Act, the first cadastral survey was conducted from 1888 to 1940, which is also known as Cadastral Survey Operation (C.S. Operation). Under this survey, mouza, thana and district maps were prepared after surveying each plot and recording the rights of ownership. These are still known as C.S. maps, C.S plots and C. S. khatians.

The zamindari system established by the British Raj was finally abolished by the then Government of East Pakistan through the passage of the East Bengal Estate Acquisition and Tenancy Act, 1950. Under the Act, all rent-receiving interests and excess land beyond permissible limits as prescribed were to be taken over by the Government. The need for an updated record of rights through settlement operations looked like a pre-condition to acquisition of rent-receiving interests and distribution of excess land to the landless. However, recognizing the long time needed to carry out revisional settlement operations, Government decided to acquire the estates any way simultaneously starting the revisional operations. The absence of an updated record of rights, as experienced during the process of this transition from zamindari system to state ownership, had created innumerable problems which still haunt the land administration of this country.

⁴⁴ A critical review of the land management system in Bangladesh from a historical perspective may be seen in A.M.M Shawkat Ali, *Politics and Land System in Bangladesh*. Dhaka: National Institute of Local Government, 1986.

4.8.1 Mandate

Survey and updating of record of rights, called settlement operations in short, have four major objectives:

- Survey and mapping of land
- Preparation of record of rights
- Settlement of rent payable by the tenant
- Settlement of revenue

Without the above records, it is not possible to run a fair and credible land administration. The DLRS was created to conduct the different kinds of settlement operations to achieve these noble goals. Its mandate, as collated by the Martial Law Committee,⁴⁵ is given below:

- To initiate and prepare schemes with timeframe and estimates of expenditure for survey and preparation / revision of maps and records of rights of districts or part of a district within the framework of covering the whole country by rotation
- To survey and prepare / revise map and record of rights on mouza basis for every parcel / plot of land numbering about 80 million in the country by rotation
- To print/ reprint mouza maps numbering 96,402 sheets covering the whole country and to prepare, print and reprint Thana, District and country maps
- To print record-of rights of each land holder now estimated to be 25 million in the country
- To undertake Theodolite Traverse to provide basic control points for preparation of mouza maps
- To demarcate and relay more than 2200 miles of international boundary and to prepare and print boundary strip maps thereof
- To provide technical assistance to the district administration for relaying the inter-district and inter-thana boundaries
- To examine and vet all proposals of the Government for reorganization of thana and district jurisdictions from technical and geographical points of view
- To advise the Government in the matter of land reforms and Cadestral Survey and international and inter-district boundaries.

4.8.2 Types of Survey & Settlement Operations

The Directorate performs the following types of survey and settlement operations in different areas of the country based on needs and programs:

- *Revisional Survey and Settlement Operation*
A cadestral survey was conducted throughout the country during the period from 1888 to 1940. Over the years, many changes have taken place in the configuration of the land, their ownership/possession and records. For incorporation of these changes in the records and the maps, revisional surveys are conducted throughout the country on rotation basis.
- *Zonal Survey & Settlement Operation*
Frequent changes occur in land configurations, ownership/ tenancy records and physical possessions of landed properties. Updating the records and the maps are necessary for averting land disputes among the owners. Hence, a permanent set up for all the districts of the country have been approved at head quarter stations of all the greater districts for causing survey and settlement operations continuously.
- *Diara Settlement Operation*
Bangladesh is a riverine country with a very long coastline. Every year substantial areas of accreted land appear in the rivers and the sea at some places. Again, at some other places new alluvial areas (char areas) grow up. For survey and

⁴⁵ Government of the People's Republic of Bangladesh, *Report of the Martial Law Committee on Government Organisational Set Up: Phase II: Department of Land Records and Surveys*. Dhaka: 1983.

settlement of the newly formed alluvial land, a permanent outfit of the DLRS known as Diara Settlement has been working since 1963.

4.8.2.1 Stages in Settlement Operations

Settlement operations are very complicated and time-consuming. These cannot also be expedited due to statutory requirements of time intervals at every stage of processing. Putting in place the right kind of people in right numbers is very crucial for the success of such operations. For an appreciation of the processes involved, these are presented in summary form below:

Traverse survey

When mouza map is required to be made anew by plot to plot survey, the traverse surveyors are to fix up the coordinates over the plain P-70 sheets through computation of the angles found out in the locality and drawn by the theodolite measurements. The surveyors (Amins) then draw the plots of land over the P70 sheets on the basis of plot to plot survey (Kistowar)

Cadastral Survey

The plot to plot survey and drawing the plots as per actual configuration of the plots over the P-70 sheets prepared by the traverse surveyors is called cadastral survey.

Setting up of boundary demarcation

After completion of the plot to plot survey (kistowar) and drawing of the plots over the P70 sheets, the surveyors have to fix up tri-junction pillar posts at each side of the boundary of the mouza, for fixation of the boundary of the mouza taking into consideration the boundaries of the neighboring mouzas and conformity of the maps of the previous surveys

Khanapuri

In this stage, the surveyors put the plot number, area and name of the owners of each plot and prepare a statement containing these facts for the entire mouza. They prepare a draft record of right (khatian) in respect of each plot of land for each owner of land

Bujharat

In this stage, the surveyors distribute copy of the draft khatian (prepared during Khanapuri stage) to each of the owners locally at a place notified earlier.

Khanapuri-cum- Bujarat

When the new sheet for the mouzas are not required to be prepared, the mouza maps are prepared over the blue prints (Khaka) of the mouza maps of the previous survey as supplied by the Department. The Surveyors conduct plot to plot survey and cause amendments over the blue prints on the basis of the physical field configurations. They also prepare the draft khatians and deliver the copies to the landowners.

Tashdiq

The Tashdiq (attestation) Officers conduct the attestation of the draft khatian on presentation by the owners. The owner may file objections if he is not satisfied with the part or whole contents of the draft khatian. The Attestation Officers scrutinize the connected records, hear all the concerned parties and dispose of the dispute locally. If found proper, he makes amendments in the draft khatian.

Draft publication of record of rights

After completion of attestation works of all the khatians, the records and map of the concerned mouza are checked (junch work) in the office and the draft Khatians are locally published and kept open for inspection of the land owners for a period of 30 working days at a convenient place notified officially earlier.

Filing of objections and their disposal

During the period of draft publication, the owners may file objection in respect of any records of right. The objections so received are disposed of by the Revenue Officers after hearing all the parties concerned. The khatians are amended on the basis of the decisions of the objection case.

Filing of appeals and their disposal

Parties affected by the orders of the Revenue Officer passed in the objection cases may file appeal before the Assistant Settlement Officer within 30 days from the date of order on the objection case. The Appeals Officer after hearing both sides disposes of the appeal case through proper judgement. The khatian is amended on the basis of the orders of the appeal case.

Finalization, printing and final publication of the record of rights

On completion of the appeal stage, the records of rights (Khatians) and the mouza maps are checked in details (junched) and finalized in the office of the Assistant Settlement Officers. The records and the maps are then printed and finally published in the local area. After 60 days from the final publication, the Settlement Officer certifies the record as finally published and accordingly, the Government issues the official gazette notification.

4.8.3 Organization Structure

The DLR&S is headed by a Director General who is assisted by three Directors at the Headquarters level. There are three broad areas of responsibility at the HQ, namely, administration, land records and survey. Each of these areas is looked after by a Director. The main field establishment is attached to the Director (Land Records) who is basically responsible for all settlement operations. Directorate (Survey) is connected with demarcation of international, inter-divisional and inter-district boundaries. The Directorate has a total sanction of 5795 staff, against which 1702 positions are lying vacant for a long time. Besides the permanent staff, the Directorate also hires around 1500 people every year as seasonal workers to augment staff shortages.

The gazetted posts of the Directorate are filled up by placing officers belonging to the BCS (Administration) cadre. This is both a strength and a weakness. Frequent transfer of top management is adversely affecting the modernization of the organization, which is a crying need. Infusion of fresh blood at some interval, on the other hand, brings in the much-needed dynamism. The method of work and the technique of preserving the records are antiquated. Unscrupulous staff, taking advantage of the loopholes in the system, tampers with the records creating difficulties for the poor and marginal landowners and sometimes depriving them of all their landed property. Under an Australian Technical Assistance Program, there is now a serious effort to develop a computerized system of record of rights. When accomplished, this will go a long way in removing many long-standing grievances against the Department.

4.8.3.1 The HQs

The HQs of the DLR&S is responsible for timely collection, finalization, consolidation, printing and preservation of all records relating to land. For this purpose, it maintains a sophisticated printing press for printing of maps and other documents. Some of these works cannot be done at a private establishment due to their sensitive nature. The Directorate also runs the Survey Institute for imparting technical training to its technical staff and other interested agencies.

4.8.3.2 The Field Establishment

The field outfits of the DLR&S actually collect the basic material for building up the records system. The impartiality of the officials and the level of accuracy with which the data are collected and verified are important elements in developing a credible records system. The following kinds of operations are carried out in the field:

Revisional Survey and Settlement

It comprises of Settlement Officers for revisional survey operations at Chittagong, Pabna, Dhaka, Mymensingh and Kusthia and they have supporting officers and permanent staff and temporary seasonal field workers.

Zonal Survey and Settlement

It comprises of Zonal Settlement Officers for zonal settlement operations at the greater district areas of Comilla, Khulna, Barisal, Faridpur, Rangpur, Sylhet, Jessore, Bogra, Tangail, and Noakhali, their supporting officers and staff and temporary seasonal workers.

Diara Settlement Operation

It comprises of one Diara Settlement Officer, his supporting officers and revenue staff and the temporary seasonal workers.

4.8.4 Experience of Working with other Agencies

Urban development programs carried out by several agencies enhance the land value of the project areas by a number of times than their pre-project level. Most of the times development takes place in areas where land has been recorded as pure agricultural land with a very low rate of land tax. However, the rate of tax for non-agricultural land is much more and commensurate with the market value of land. Even though development activities would transform agricultural land into non-agricultural land, no authority would be able to charge at higher rate till such time the records are corrected by reclassifying the land in question. To meet this requirement and to earn revenue for o&m of completed projects, a number of agencies have taken the DLR&S as a partner from the very start of the projects to carry on with the reclassification work. Most notable was their involvement in the Char Development and Land Settlement Project, Greater Dhaka Integrated Flood Protection Project and the Secondary Towns Integrated Flood Protection Project. However, the experience of the lead organization working with the DLR&S has not always been happy. In implementing its components, the Department has mostly lagged behind vis-à-vis the performance of the other agencies in the same partnership. Its financial management is rather weak and the lead agencies had to face difficulties in squaring up project accounts due to delay in receiving vouchers from the DLR&S. The Department had always put the blame on shortage of manpower and lack of experience and training in the relevant fields.

4.8.5 Diara Settlement Operation

The Integrated Coastal Zone Management will have direct linkage with Diara Settlement Operations to the extent that it is involved in identification and survey and settlement of the alluvial land, reformed chars and islands in the riverine and the coastal areas of the country.

As has already been pointed out, the DLR&S is responsible for a plot to plot survey of land throughout the country including the alluvial land, newly formed chars and island of the rivers and the coastal areas. For this particular and special type of survey, the Directorate has a sanction of 106 posts under the Diara Operation, which is headed by a Settlement Officer. Of these sanctioned posts, 28 posts are lying vacant for the last few years. Most of the vacant posts are vitally related to the operational activities. The Settlement Officer, Diara Settlement expressed that these vacancies have been resulting in obvious delay in the survey operation in the diara areas and that he has been pressing the authorities for immediate filling up of these vacant posts.

The office of the Settlement Officer (Diara) is located at the D.G's office at Dhaka and it maintains two Assistant Settlement Officers' offices at Noakhali and Barisal for surveys in the riverine and coastal areas. Another office is going to be set up at Rajshahi soon for riverine surveys as per recommendations of the National Implementation Committee for Administrative Reorganization (NICAR). As per directives of the Ministry of Land in 1984, there is a decision for setting up of an office named 'Diara and Urban Settlement' for the purpose of surveys in both riverine and urban areas of the country. However, the decision has not yet been implemented.

Again, during setting up of the Zonal Settlement Offices at the greater district head quarters in 1985-86, it was expected that the survey of the riverine and coastal chars and island would be conducted by the concerned Zonal Settlement staff. But the Zonal Offices could not undertake these survey works as their manpower lacks specialization in the diara types of survey works. Hence, the Diara organization has to perform its role as before.

Bangladesh landscape is criss-crossed by a multiplicity of rivers and a very long coastline. Because of morphological reasons, every year vast areas are lost by erosions to the rivers and the sea. Again, every year many a chars and islands come up anew or the previous chars and islands expand their areas. This natural process causes loss of land to the private owners while it may bestow some benefits to the Government. Under section 86 of the Estate Acquisition and Tenancy Act. of 1950, if any private landowner's land is lost due to river or sea erosion, then he loses it forever. He cannot claim any land against this loss even if the said land resurfaces later on at the same place. As per present provisions of law, ownership of all the newly formed land / chars /islands in the river or seacoast entirely vest in the Government. The Government

takes over the alluvial land as khas land, conducts survey to create land plots and prepares title records. As per present rules of the Government, khas lands are to be distributed only to the landless people of the neighboring areas by selection through the administrative authorities.

As per present legal practices, the Upazila Revenue Officer sends a report to the Deputy Commissioner as soon as formation of a new land in the river or sea comes to his notice. The Deputy Commissioner of the concerned district after causing an inquiry into the matter, sends a requisition to the Director General, Land Records & Surveys for survey of the proposed land. The Director General, on receipt of the requisition, asks his Settlement Officer (SO), Diara Settlement for holding the survey work. Accordingly, the S.O, Diara Settlement performs the survey works following the legal steps of survey as described before.

The survey of the alluvial land is required to be done quickly. Delay in doing so encourages the local land grabbers and unauthorized people to take over possession of the alluvial land as soon as these are barely visible above the water table. The land grabbers create encumbrances over the land, which ultimately cause great problem for the Government in evicting them. Such unauthorized possession of the government land for a long time creates problems for the public agencies like the Forest Department, Water Board, Fisheries, Livestock, Agriculture and Disaster Management to carry on their preparatory work to make such land fit for human habitation. Without the mouza map and records of right (title documents) after following the survey procedures as per rules, government cannot utilize the land for any program. Government presses the Diara Settlement hard for immediate completion of the survey of the alluvial land. But the Diara Settlement cannot cope with these demands for lack of proper and sufficient manpower. The survey of Cox's Bazar, Noakhali and Patuakhali could not be completed during the last 5 years. As a result, the unauthorized occupiers are enjoying the land causing serious administrative and financial problems in the locality.

Immediate survey of the alluvial land is a priority activity for proper development and management in the entire coastal zone. Governments in the past had also constituted many Committees to resolve these issues⁴⁶. After the independence of the country, a Committee on Land Administration was constituted in 1974. This Committee stressed the need for updating record of rights, expansion of the facilities in the district record room and strengthening revenue offices at Thana and union levels. The recommendations were never seriously considered for implementation. A decade later, the Land Reforms Committee, 1983 revived the issue of strengthening not only the revenue set up but a decentralized survey and settlement set up at the thana level. The recommendations of the Committee were examined by a sub-committee whose recommendations were finally accepted by the NICAR in June 1984. The approved administrative set up envisaged a permanent survey and settlement organization at the thana level with a common establishment for both the management and settlement sides under the leadership of the Thana Revenue Officer. It was also decided to set up a tehsil office at each union in a phased manner. In addition, 22 Zonal Survey and Settlement offices were planned to be set up in all the greater districts. The decisions of the NICAR have only partially been implemented. In 1989, another Committee called "Land Record and Survey System Evaluation Committee" was constituted by the Government to make suitable recommendations to strengthen the DLR&S and the system that supports it. The principal recommendations⁴⁷ made by the National Committee for Evaluation of the Land Records and Survey system in 1989 were as follows:

- The strength and the manpower of the organization of the Diara Operations require to be enhanced sufficiently for quick survey of the alluvial land.
- Besides the offices at Noakhali and Barisal, offices of Diara Settlement should also be set up at Bhola, Chandpur and Chittagong.
- Aerial survey system for survey of the alluvial chars and islands at the riverine and coastal areas should be introduced.
- Before completion of the survey and preparation of records of rights, the Deputy Commissioners should ensure that the newly alluvial land is kept free from unauthorized possession.

Unfortunately, these recommendations have not yet been acted upon in full measure.

⁴⁶ The various Committee recommendations and their fate may be seen in A.M.M.Shawkat Ali, *Op Cit*

⁴⁷ Ministry of Land, Government of the People's Republic of Bangladesh, *Report of the Land Record and Survey System Evaluation Committee*. Dhaka: July 1989.

4.9 Department Of Public Health Engineering

The Department of Public Health Engineering (DPHE) is one of the oldest Departments inherited from the British colonial period. Originally created in 1936 as a government entity for the whole of undivided Bengal, it had started functioning as a Directorate of the erstwhile Government of East Pakistan right from 1947. The main function of the DPHE is to ensure water supply and sanitation in both the rural and urban areas of Bangladesh. With the creation of the Dhaka and Chittagong Water and Sewerage Authorities in 1963, the functions of the Department in those two cities were transferred to the new entities. Similarly, it lost its water pollution function to the Environment Control Board created in 1977. That Board has now become the new Department of Environment. The present Department thus has a much-reduced scope of activities than it used to discharge in the 1950s.

4.9.1 Mandate

Like other Government Departments, the DPHE does not have an officially notified mandate. It is carrying out its activities on the strength of long-standing customary practice. From a description of the duties and responsibilities of the different functionaries of the Department given by the Martial Law Committee on Government Organisation, the following mandate for the Department can be deduced:

- a. To provide advisory services to the Government in framing policy and action plan for water supply and sanitation in the country
- b. To provide safe water supply and environmental sanitation facilities and facilitate improving personal hygiene practices to both urban and rural community
- c. To provide operational training to Pourashavas/City Corporations and technical support to the local government institutions
- d. To facilitate the O&M of water supply and sanitation system by the local government institutions
- e. To respond to natural disasters in order to ensure safe water supply and sanitation facilities
- f. To ensure management of water supply and sanitation system surveillance.

4.9.2 National Policy for Safe Water Supply and Sanitation

Access to pure drinking water and sanitation is a basic human need and a fundamental right of all citizens of the country. Government announced its policy on these two important items in some detail under the National Policy for Safe Water Supply and Sanitation (NPSWSS) in 1998. The Policy can be looked upon from a number of perspectives, namely (i) setting numerical indices as well as objective criteria for the measurement of progress in the sub-sector (ii) indicating long-term policy goals with a view to inducing changes in the modes of delivery of services and (iii) advocating gradual withdrawal from those areas of operations where the private sector has a clear advantage over the public sector as well as cooperation among the government, NGOs and other partners where such partnership is most effective.

4.9.2.1 Setting Targets and Criteria

The NPSWSS sets the following targets to be achieved by the DPHE within a reasonable period of time:

- Increasing the present coverage of safe drinking water in rural areas from the present level of 105 users per tubewell to 50
- Ensuring the installation of one sanitary latrine in each household in the rural areas and improving public health standard through inculcating the habit of proper use of sanitary latrines
- Making safe drinking water available to each household in the urban areas
- Ensuring a sanitary latrine within the easy reach of every urban household through technology options ranging from pit latrines to water-borne sewerage

- Installing public latrines in schools, bus stations and important public places and community latrines in densely-populated poor communities lacking sufficient space for individual household latrines
- Ensuring supply of quality drinking water through observance of accepted quality standards
- Removal of arsenic from drinking water and supply of arsenic-free water from alternate sources in arsenic-affected areas
- Taking measures in urban areas for removal of solid waste and ensuring the use of waste for the production of organic fertilizer in rural areas.

4.9.2.2 Long-term Policy Goals for Changes in Service Delivery System

The NPSWSS has also indicated its long-term vision for inducing changes in the mode of delivery of the services now being provided by the DPHE. Some of the more important ones are reproduced here:

- Water is to be considered as economic and social goods. Water can only be supplied at a cost. Rural water supply and sanitation shall be based on cost sharing. Rural users are expected to bear the full cost of O&M of water supply facilities. In the near future, subsidies of capital costs of water supply will be adjusted to a maximum of 50% for hand tubewells in shallow water-table areas, 75% in low water-table areas and 80% for deep hand tubewells and other technologies for difficult areas. After disasters, tubewells are to be installed free of cost but rehabilitation will be charged for.
- In urban areas, water would be supplied at cost and it would be based on cost of water production, O&M, administration and depreciation. For urban water supply, the two WASAs and the Pourashavas will be empowered in the near future to set water tariffs and hire the necessary manpower to realize that. By adopting these measures, the urban water supply and sanitary system should be self-sustaining.
- Communities shall be the focus for water supply and sanitation services. In future program development, priority will be assigned to water supply in difficult and under-served areas.

4.9.3 Public-Private and NGO Collaboration

The NPSWSS is very clear on its advocacy of private sector involvement in water supply and sanitation services. In so far as the two WASAs are concerned, private sector participation through Build/Operate/Own (BOO) and Build/Operate/Transfer (BOT) are advocated. Their billing and collection functions have already been transferred to the private sector. Though the Policy is not very explicit about the role of the private sector in the rural system, it is assumed that the overall thrust of policy in this regard would be the same as in the urban system. There is already a large presence of the private sector in the manufacturing of pit latrines.

The Policy has very strongly sought cooperation and collaboration between the DPHE and the NGOs and the Community-based Organizations (CBO).

4.9.4 Organization Structure

The Department is headed by a Chief Engineer who is supported by two Additional Chief Engineers at the headquarters. One Additional Chief Engineer looks after planning while the other takes care of the operations. The operations of the Department are divided into seven broad areas, each under the charge of a Superintending Engineer (SE). Three Circles, namely, Planning, Groundwater and Store Circles act as supporting units to the seven fields Circles based at Dhaka, Chittagong, Khulna, Rajshahi, Rangpur, Barisal and Chittagong Hill Tracts. It is through these field Circles that the vast network of the DPHE extends upto the village level. The field establishment has a standard staffing pattern for all the districts and the thanas in the country.

The Store Circle maintains four stores at Dhaka, Chittagong, Khulna and Natore for covering the needs of the administrative divisions of Dhaka, Chittagong and Sylhet, Khulna and Barisal and Rajshahi respectively. The Groundwater Circle at Dhaka carries out its surveillance work

through four zonal laboratories located at Mymensingh, Comilla, Khulna and Rajshahi. Under the Village Sanitation Project Director, there is a network of 900 production-cum-selling centers in all the seven Circles.

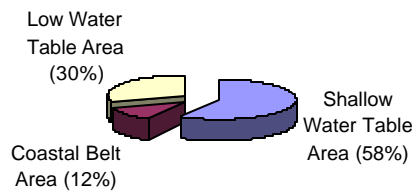
4.9.5 Manpower

It is extremely difficult to come to a precise figure about the total manpower of the Department working at a particular time period. Staff are recruited against four different dispensations, namely, permanent revenue posts, temporary revenue posts, posts created under the development budget and muster roll and work-charged staff. The Department has a permanent sanction of 4630 posts. They are complemented by an equal number of people recruited through other means as mentioned. The manpower situation of the Department rests on very shaky foundations as may be seen from the following facts and unless these long-standing issues are resolved promptly, the capacity of the Department to deliver would sink beyond any redemption:

- a. The posts of the Chief Engineer, Additional Chief Engineers and eight SEs have not been filled up properly for the last one decade. The present CE holds the substantive rank of a SE and this is so in respect of other senior officials in the Department. The reason for this impasse is litigation about *inter se* seniority of the concerned officers. There were similar problems in other Departments also in the wake of constitution of the new Bangladesh Civil Service (BCS) cadres. Fortunately, most of them have been able to overcome them. If others can do it, there is no reason why the DPHE cannot do it.
- b. The professional posts of the Department are encadred in the BCS (Public Health Engineering) cadre. The total cadre strength is 112 but 70 posts are lying vacant. Out of 76 posts of Sub-divisional Engineers, 42 posts were upgraded to the rank of Executive Engineers to place them in the newly created districts. There is thus a need to create 42 posts of SDEs immediately so that the Department can go for direct recruitment of officials at the entry level followed by a chain of promotions in the higher grades to revitalize the cadre. This process would also help regularize the induction of the non-cadre officers of the Department who are waiting for absorption for a long time.
- c. The Department has a very heavy dependence on the projects for maintenance of its establishment. With minor adjustments, the approved permanent revenue set up should be capable of delivering all the services now being performed by a parallel temporary organization. This sort of duality is wasteful, unsustainable and antithetical to the institutionalization of the mother organization. There is a 7:1 ratio of development to revenue budget for the DPHE in an average year. With declining donor assistance in the most recent years and the possibility of relinquishing some of the current DPHE functions to other agencies and to the private sector, the size of the manpower is bound to reduce. It would be worthwhile for the Department to undertake a self-analysis of the deep-rooted institutional problems and in the light of that analysis rationalize its manpower and organization structure.

4.9.6 Organizational Set Up for the Coastal Area

The coastal area is the most neglected in terms of water supply coverage. A comparative picture may be seen from the following figure:

Figure 4.1 Coverage of Service: Rural Water Supply

The NPSWSS has given the policy directive to accord priority in future program development to hitherto deprived areas. One estimate states that about eight million people do not have access to pure drinking water in the coastal areas. Moreover, at times of natural disasters, which frequently visit those areas, rehabilitation becomes a critical issue. Although two donor-assisted projects, namely, “Rural Water Supply in the Coastal Belt” assisted by the IDB and the “Rural Water Supply and Sanitation in Coastal Areas” assisted by DANIDA are being implemented now, much more will be needed to be done for the coastal areas for a balanced service delivery.

The Chittagong and Barisal Circles are taking care of the needs of the coastal areas and there is no need for any special organizational unit.

4.9.7 Relationship with the NGOs

For a long time, NGOs have been involved in water supply and sanitation programs. Unlike the programs in other Departments, NGOs have been running parallel activities. The NGO Forum for Drinking Water Supply and Sanitation represents about 600 NGOs and Community-based Organizations and work as a very effective pressure group. The Forum is also engaged in institution-building activities by facilitating training, community development, technology transfer and promotion. It is claimed that the members of the NGOs have so far installed 2.25 million manually operated tubewells throughout the country as against 1.1 million installed by the DPHE.

4.9.8 Relationship with the Private Sector

In the field of both sanitation and water supply, the sector is rather active in both the urban and rural areas. It is providing stiff competition to the DPHE in the manufacturing of concrete slabs, rings and pans. If it is a government policy to gradually withdraw from areas of operation where private sector can do better, it is for serious consideration whether the Department should continue with its manufacturing job.

4.9.9 Meeting the Challenge of Arsenic Contamination

Until very recently, DPHE boasted its achievement of providing access to 90% of the people of Bangladesh to a tubewell within 150 meters of their residence. All these good works are about to be negated due to arsenic contamination beyond permissible limit in about 63% of the wells. This is the worst crisis that has ever befallen the DPHE. The credibility of the Department is at stake and it must find a cost-effective and sustainable solution to this problem.

The Department is already executing a project with financial assistance from the World Bank and the British Department for International Development (DFID). However, it is the deep-seated institutional problems that are hampering the progress of this important project. It is time that someone should very earnestly look at the problems and try to resolve them fast to avoid real disaster in the sub-sector.

4.10 Disaster Management Bureau

Disaster Management Bureau (DMB) is a very new organization and has not yet achieved the permanent status of a Department. The Flood Action Plan, out of its 26 components, had a component on disaster management. The central objective and output of the component was to establish a special unit to plan and coordinate the disaster-related activities. That did not materialize at that time. In 1991, while executing a short term project assistance, the then Ministry of Relief and Rehabilitation identified a wide variety of tasks and complex interministerial issues relating to disaster management. After detailed examination of these issues in 1993, Government decided to establish the DMB. The new Bureau was created as a UNDP/UNICEF funded program in the year 1994.

4.10.1 Mandate

The functions of the new organization have been articulated in many project documents and other related papers. The Bureau itself has compiled and published its functions in the following terms:⁴⁸

During Normal Times

- a. Developing a National Disaster Plan and accompanying practical guidelines for those responsible for its implementation
- b. Helping the Ministries and Agencies to develop and test their own action plans
- c. Working with local authorities, BDRCS / CPP, NGOs, and others help Union Councils and village communities in high risk areas to develop their own action plans and increase their own coping capacity
- d. Collaborating with the existing training institutes, training materials development units and the NGOs already engaged in relevant training activities, coordinate and promote the production of curricula and relevant training materials for various target groups
- e. Collaborating with line agencies, local authorities, existing training institutes and relevant NGOs, plan and organize training for a wide range of government personnel, elected officials and others
- f. Establishing facilities, information systems, operating procedures, and telecommunication systems for National Emergency Operation Center (EOC/control room) for immediate use when an emergency arises
- g. Establishing arrangements for mobilization of additional personnel for the EOC and to assist local authorities in the field when required
- h. Maintaining an up-to-date inventory of the location, condition and ownership of all potentially life saving infrastructures including cyclone-shelters, killas, embankments, flood platforms and the like
- i. Providing a documentation and information service on disaster management for the agencies and others
- j. Increasing awareness of disaster risks and possibilities to reduce them and, if some measures are considered appropriate, move the Planning Commission to incorporate them in development
- k. Monitoring and reporting to the Government. / Parliament on the risks faced, the vulnerability of people and the economic assets to known hazards, the status of preparedness in the country and any delay/ bottlenecks in implementation of disaster prevention/ preparedness programs and the projects.

During Disasters

- a. Ensuring the effective dissemination of appropriate warnings of floods and cyclones through collaboration with BMD, BWDB, TV, Radio and local authorities
- b. Activating and operating the National Emergency Operation Center (EOC / control room), and receiving and analyzing recommendations for action

⁴⁸ Disaster Management Bureau, Ministry of Disaster Management and Relief, *An Introduction to Disaster Management in Bangladesh and the Disaster Management Bureau*. Dhaka:1998. P 5. The mandate is also enumerated in *Ibid, Standing Orders On Disasters*. Dhaka: March 1999. PP 10-12.

- c. Arranging rapid reconnaissance and assessment missions and , when needed, providing advice and guidance to the local authorities in relation to damage and needs assessments and relief and rehabilitation assistance operation
- d. Providing secretariat services and expert advise to the IDMCC, and helping to ensure coordination between line agencies, and between government and the NGOs in relation to the relief and short term rehabilitation activities
- e. Monitor the progress of rescue, relief, and short term rehabilitation activities, identifying problems and unmet needs and taking actions to resolve/ meet them or bring them to the attention of the IDMCC for resolution
- f. Maintaining liaisons with ERD concerning requirements for international assistance and with Ministry of Information for wide dissemination of disaster-related information.

During post-Disaster 'Recovery'

- a. Cooperating with the Planning Commission and line agencies as required, in compiling data on reconstruction requirements and in coordinating the preparation of an integrated reconstruction program
- b. Ensuring that the risk reduction measures are built into all reconstruction programs as much as possible
- c. Undertaking the final evaluation or at least a 'post-mortem' on the emergency operation, drawing lessons and feeding them back to the IDMCC and into training activities and updated guideline.

4.10.2 Program Development for Disaster Management

The objective of the Government is to strengthen the national capacity at all levels to respond effectively to disaster. The strategy is to involve all public and private agencies, NGOs, BDRCS, elected representatives at all levels and the general public in such a national effort as disaster preparedness and disaster management. This is the principal reason as to why the Government did not like to set up an elaborate bureaucracy reaching the remote areas of the country. In order to achieve the much needed coordination, the DMB has set out to develop a comprehensive Disaster Management Program by involving all relevant organizations and people. Though the program is yet to be formulated, many a relevant activities have been identified, undertaken or are planned, as under:⁴⁹

TABLE 4.11 Planned Activities for the Development of a Disaster Management Program 1

Item	Type of Activities	Typical Intervention	Agencies Concerned
Risk Analysis	Hazard Mapping Vulnerability Analysis	Assessment of physical/economic/functional vulnerabilities Distress/Deprivation factors Nutritional Surveillance	Local Administration LGED CARE Various Ministries/WFP/UNDP Helen Keller/MOH
	Planning and construction of embankments and other water control structures Cyclone-proof Housing Planning and Construction of Cyclone-proof Buildings Forestry Shelter Belts	- Adarsha Gram I/II CARITAS Housing Wind-resistant Huts PM/AFD Barracks Urir Char Houses EU Schools cum Shelters EU Preparatory Study Coastal Greenbelt Project Coastal Afforestation Project Similar Projects	BWDB WARPO MOL/BDRCS/NGOs AFD/PWD BDRCS/CARITAS and other NGOs Local Administration LGED/PWD/MOE DOF BWDB

⁴⁹ Adapted from the Table given in Disaster Management Bureau, *OpCit.* P5

Item	Type of Activities	Typical Intervention	Agencies Concerned
	Land Use/Settlement Planning	None as yet	Local Administration
	Development of Building Code	Bangladesh Building Code	BRI
	Local Proofing Measures	Flood Proofing Pilot Project Cyclone Proofing Houses on Raised Plinth Small Embankment Two story Construction	Local Administration CARE/LGED BWDB
	Communications	Radio Network Satellite Communication	BDRCS JICA/IRIDIUM
	Forecast/Warning Dissemination	Various Donor-supported programs MMDR/BDRCS: CPP WMO Tropical Cyclone Program	BWDB/SWMC BMD/SPARSO BDRCS
	Contingency Planning for Response	Standing Orders/Standard Operating Procedure Awareness creation and community mobilization Formation of Action Committees Training and Drills Storage and Transport Arrangements Stockpiling and Standing Arrangements with Suppliers	MDMR/DMB All Agencies Local Administration Armed Forces NGOs BDRCS
	Rescue and Basic Needs	Mobilization and Operation of Transport including helicopters, boats and equipment Provision and Supply of Medicines, Medical Care, Shelter and Public Health Measures	MDMR/DMB Armed Forces MOH DPHE
	Damage and Needs Assessment	Short-term Needs and Assistance Requirement Long-term Rehabilitation/Reconstruction Needs and Plans	Local Administration MDMR NGOs All Agencies
	Procurement and Distribution of Relief	Supply of Food and Materials	MMDR/DMB MOF/NGOs
	Reconstruction/Rehabilitation	Reconstruction/Rehabilitation of all infrastructure as well as rehabilitation of damaged agriculture	All Agencies

4.10.3 Organization Structure

The DMB is a small co-ordinating bureau that does not have any field offices. It achieves its objectives through the cooperation of a multiplicity of organizations, both public and private. It has a sanctioned strength of 60 staff only. An additional 14 people are working through development projects. The bureau is headed by a Director General who is assisted by four Directors.

4.10.4 Institutional Arrangements for Disaster-related Activities

Bangladesh is a disaster-prone country and almost every year it is subjected to one natural calamity or the other. In the 44 years between 1954 and 1998, severe flooding has engulfed about 37 percent of the country once in a ten-year period. Similarly, during the last 130 years,

over 44 major cyclones have hit the coastal belt- fifteen in the past 30 years⁵⁰. The vulnerability of the land and her people to natural disasters has motivated the Government in institutionalizing disaster management to a very high order.

The centerpiece of this achievement is the Standing Orders on Disasters (Orders) first codified and published in Bengali in 1997⁵¹. While preparing the Standing Orders, the Orders in vogue were duly examined and the concerned Ministries, Agencies, District and Thana Officers, the Civil Society and the NGOs were also consulted.

The main thrust of the Orders is the specification of responsibilities to avoid any kind of confusion and ambiguity. Responsibilities and duties of the concerned Ministries, Agencies, Armed Forces, District/Thana/Union level administration and the Disaster Management Committee have been specified in these Orders. For disaster reduction/mitigation, preparedness as well as post-disaster rehabilitation, importance has been laid on co-operation and co-ordination among the NGOs, Voluntary Agencies, concerned Government Agencies and the private organizations. The Orders contain in some detail as to who will do what, when and how.

The arrangements outlined in the Orders are carried into action through a number of committees from the national level to the village level. These Councils/Committees operate at two levels—the higher level Committees deal mostly with policy and overall coordination and the lower level Committees dealing mostly with implementation with the Ministry of Disaster Management standing in between providing the necessary linkages. These two level Council/Committees are discussed very briefly as under:

4.10.4.1 National Disaster Management Council (NDMC)

This is the highest-level policy formulation and coordination body for disaster management chaired by the Prime Minister. It is mandated to meet normally twice a year and are concerned with these two set of activities: establishing policies and providing overall directions for all aspects of disaster management and defining priorities and criteria for the allocation of resources.

4.10.4.2 National Disaster Management Advisory Council (NDMAC)

This body consists of eminent professionals in the field of water resources, meteorology, seismographic engineering, physical infrastructure planning, social anthropology, education and disaster management. Besides, its membership are also extended to professional bodies like the Federation of Bangladesh Chamber of Commerce and Industries and specialist organizations like the Institute of Engineers. The main functions of the Advisory Council consists of providing advice to the NDMC and directly to the MDMR and DMB, on specific technical management and socio-economic aspects of disaster management including vulnerability analysis and disaster development links. The Advisory Council provides a very important link between the Government and the public in general: unfortunately, it has remained dormant for the past few years.

4.10.4.3 Interministerial Disaster Management Coordination Committee (IDMCC)

This is a kind of an executive committee to implement the decisions taken by the NDMC or it can take emergency action on its own initiative. The IDMCC is headed by the Minister in charge of Disaster Management and Relief with membership covering all relevant public and private sector agencies, NGOs, relief organizations and the civil society. The responsibilities of the Committee consists of implementing NDMC policies and decisions, coordination of actions by all the government agencies and overall direction of activities of the DMB, assume responsibility for major operational decisions during emergency and taking decisions on allocation of relief resources through its sub-committee, the Executive Emergency Relief Management Committee.

4.10.4.4 Ministry of Disaster Management & Relief (MDMR)

The MDMR is the focal point of all disaster management activities in the country and the link between the higher and lower level Committees. The Ministry will furnish necessary information to the NDMC and the IDMCC and assist them in decision-making. Similarly, it will transmit all decisions to the field level for immediate implementation.

⁵⁰ Ministry of Water Resources, Government of the People's Republic of Bangladesh, *Bangladesh Water and Flood Management Strategy*. Op Cit, PP 2 and 4.

⁵¹ Disaster Management Bureau, Ministry of Disaster Management and Relief, Government of the People's Republic of Bangladesh, *Standing Orders On Disaster*. Dhaka: August 1999.

4.10.4.5 Disaster Management Bureau (DMB)

The DMB is the principal arm of the MDMR to carry out its responsibilities. Its main duties have been enumerated elsewhere. The main functions may be once again enumerated as provision of expert staff services to the NDMC and IMDMCC, promotion of disaster prevention/ mitigation and preparations within all agencies and levels of the Government, providing guidelines, organizing training and promoting the preparation for disaster plans and operation of the National Emergency Operation Centers (Control Rooms) at the time of disaster.

4.10.4.6 Department of Relief and Rehabilitation (DRR)

The DRR works in close cooperation with the DMB. The management and delivery of VGD, FFW, GR and TR and other relief supplies, and the provisions of related services are done by the DRR

4.10.4.7 DRROs and PIOs

They discharge duties under the direction of the DRR and the operational supervision of the DCs and TNOs respectively. Under the guidance of the DMB, DRROs are to give special attention to disaster management.

At the field level, the code has outlined elaborate arrangements for disaster management. The way it works can be visualized from the following figure:

TABLE 4.12 Institutional Arrangements for Disaster Management at Field Level

Directly Responsible Officials	Committees at different levels	Other Participating Officials at different levels	Civil Society
Deputy Commissioner District Relief & Rehabilitation Officer	<u>District Disaster Management Committee</u> Chairman- D.C Members : District level Officers Women representative, BDRCS, CPP, NGOs, Member-Secretary-DRRO	District level Officers Line Agencies	BDRCS, NGOs Voluntary Organization Professional Associations
Thana Nirbahi Officer Project Implementation Officer	<u>Thana Disaster Management Committee</u> Members :U .P.Chairmen Thana level officers, Women representatives, TCCA,BDRCS, CPP, NGO's Member Secretary – PIO	Thana level officers Line Agencies	BDRCS.CPP, NGOs, Voluntary Organization
	<u>Union Disaster Management Committee</u> Chairman - U.P.Chairman Members- Word Members, Teacher representative, Govt. workers, Representative of CPP women, co-op,DBRCS, NGO's MemberSecretary- U.P Secretary	Union level Govt. workers, teachers	
	<u>Village Level self help group</u> (including kinship group)		
	Individual households		

4.10.5 New UNDP Support for Disaster Management

The UNDP has recently prepared a Program Support Document (PDS) and circulated it to all concerned asking for opinions. The Program will be implemented as a follow up development program/project to the Comprehensive Disaster Management Program (CDMP) now under implementation by the MDMR. It has been suggested that the proposed program will be funded by the UNDP and other donor agencies for development of an Umbrella Program for an initial period of 5 years and subsequently, as an ongoing program for several more years to support the ongoing as well as the future risk reduction measures in prevention, mitigation, preparedness, response and recovery, i.e. full cycle of disaster management.

4.10.6 Institutionalizing Disaster Management

Long-term institutionalization of disaster management must start at its home ground. Given the history of different kinds of natural disasters visiting the country every year, there should not be any doubt in any body's mind that the existence of the DMB has to be permanent. Unless it gains a permanent status, it cannot attract high quality people to run its affairs. The DMB has rightly been conceived as a small and tightly knit planning and coordinating bureau without any field offices. Its success depends largely on its ability to mobilize and motivate people belonging to other organizations which, by no means, is an easy task. It needs highly committed people with great interpersonal skills to engender goodwill and spirit of cooperation among colleagues in those other organizations. The first order of business, therefore, would be to set up the Bureau on a permanent footing, create the necessary positions, firm up the recruitment rules to recruit the right type of people and arrange for necessary training for their induction to the system. The practice of filling the positions by officials on short deputation will not work here and should be discontinued at the earliest opportunity.

Permanent status must be backed by permanent office premises for the DMB. It has been found during this review that a few important Agencies do not have their own premises and they hold their offices at hired accommodation. This practice has been a great impediment to proper development of those institutions. These hired accommodations are designed by their owners as residential buildings and these cannot meet the specific requirements of technical organizations. Moreover, the owners shy away from long lease with the result that there is frequent change of office premises. In the process of movement, sometimes valuable documents are lost and equipment damaged. Investment in office premises is a necessity in the context of Bangladesh and it is more so in the case of the DMB.

On the program side, lot of work on disaster management has already been done. However, the interest of the UNDP in developing another program in this area is an indication that much more needs to be done to reach a satisfactory level of disaster management for a disaster-prone country like Bangladesh.

A number of studies made after the 1997 cyclone confirmed previous recommendations that the following are yet to be achieved:

- establishing national level policies, plans and guidelines
- strengthening existing institutions and coordination mechanisms in the field
- organizing extensive public education and community mobilization activities
- promoting a number of specific and practical measures to develop and test proofing techniques
- improving warning systems
- establishing better arrangements for the assessment of damage and needs
- developing specific expertise and management systems for the overall management and coordination of emergency response operations
- integrating the capabilities of the civil administration, the Armed Forces, the NGOs, professional and other organizations
- promoting wider knowledge of disaster risks and the possibilities of their mitigation.

The situation is no different in 2001 and this issues need close attention.

The Standing Orders on Disasters, for their compliance, envisage the following follow up actions by the concerned Ministries/Departments/Agencies:

- Fixation of focal points by the Ministry/Department/Agency Disaster Management Offices
- Formation of Committees and preparation of plans for cooperation by concerned Agencies
- Issuance of Action Plans regarding responsibility, duty and powers of the concerned personnel of the Agencies
- Arrangement of necessary training and preparation of directives for concerned personnel of the Agencies.

The above actions have not been taken by the concerned Agencies in the spirit in which these were drafted. For this a much greater effort needs to be launched by the DMB and the MDMR. They need to monitor progress on each item in their checklist at regular intervals, periodically seeking the moral support and direction from the top level Councils.

The other area where further efforts would be needed is the scope of disaster management. The program development by the DMB has a heavy bias towards cyclone and floods. However, millions of poor and marginal people fall victim to the vagaries of nature caused by riverbank erosion and drought. The MDMR and the DMB, in close collaboration with the MOWR and the MOA, must develop suitable programs in these two neglected areas.⁵² One set of Standing Orders may be found to be too general to tackle all kinds of disasters and given the current disposition for more specific and specialized response to disasters, there may be a need for couple of more sets of Standing Orders. In the matter of construction of cyclone shelters, humans rightly got the first preference. The time now has come to consider giving protection to the livestock also. They are valuable resources and in the past disasters the loss on that score has indeed been colossal.

⁵² Water Resources Planning Organization, Ministry of Water Resources, Government of the People's Republic of Bangladesh, *National Water Management Plan: Development Strategy*. Dhaka: June 2001 in its Chapter on "Disaster Management" has briefly discussed about these issues.

4.11 Department Of Environment

Land and water, among others, are the two basic ingredients that constitute the natural environment of a country. Rapid urbanization and steady growth of population have been putting ever-increasing pressure on the fragile ecological balance in the country. The first step towards a very rudimentary environmental protection was taken in, as far back as 1973, through the promulgation of the Water Pollution Control Act. This was followed by undertaking the Environment Pollution Control Project which somewhat expanded the scope of activities of the project compared to the earlier one. In 1985, the project facilitated the setting up of the Department of Environment Pollution Control. Finally, in 1989, the existing Department was renamed as the Department of Environment (DOE) and it was formalized under the Environment Conservation Act, 1995 (the Act of 1995).

4.11.1 Mandate

The Act of 1995 is a comprehensive legislation for starting up a new kind of operation. Unlike many other similar organizations, the DOE has a clear mandate as to its duties and responsibilities specified in the Act. The overall mandate of the DOE is conservation of the environment and enhancing its quality through prevention and mitigation of pollution. The specific directions may be summarized as follows:

- a. Coordinating with the activities of other authorities or agencies that have a bearing on the fulfillment of the overall mandate of the DOE
- b. Providing advice or taking direct action to prevent degradation of the environment
- c. Defining Environmental Impact Assessment (EIA) guidelines and issuing environmental clearance to different agencies and general public who intend to set up an industry or undertake any development projects
- d. Setting water quality standards for particular uses of water and for discharges to water bodies
- e. Inspecting/observing/examining any site, plant, equipment, machinery, production or other processes, materials or substances for the purposes of improving environment, pollution control and mitigation and give necessary directives to appropriate authorities or persons to meet such purposes
- f. Declaring Environmentally Critical Areas (ECA) where the eco-system has degraded to a critical stage. ECA status confers protection of land and water resources through a series of environmental regulations
- g. Collecting data on environmental protection, development and pollution for conducting research and assisting other authorities or agencies in similar activities
- h. Acting as the technical arm of the MOEF and advising it on various controls and development measures.

In addition to the above duties, the DOE is also obliged to implement quite a number of international protocols/conventions to which Bangladesh is a signatory. The important ones having relevance for the DOE are the 1971 Ramsar Convention on Wetlands, the 1972 Convention on the Protection of World Cultural Heritage, the Basel Convention on Hazardous Waste and the 1992 Rio Convention on Biological Diversity.

4.11.2 Policy Framework

The Act of 1995 was formulated on the basis of the policy framework provided by the Environment Policy of 1992⁵³ and the National Environmental Management Action Plan⁵⁴ (NEMAP) that was designed to put a concrete action plan to implement that policy. The main features of the Policy are enumerated below:

⁵³ Ministry of Environment and Forests, Government of the People's Republic of Bangladesh, *Environment Policy and Implementation Plan*. Dhaka: 1992

⁵⁴ Ministry of Environment and Forest, Government of the People's Republic of Bangladesh, *National Environment Management Plan*. Five Volumes. Dhaka: NEMAP Secretariat, 1995.

- a. Maintenance of ecological balance through protection and improvement of the environment
- b. Protection of the country against natural disasters
- c. Identification and control of all types of activities related to pollution and degradation of environment
- d. Development of environmentally sound projects in all the sectors
- e. Utilization of natural resources in an environmentally sound way
- f. Involvement in all environment-related international initiatives.

Since environment is closely linked with the use of land and water and there are a number of Ministries having a stake on those resources, sector policies issued by those Ministries have some statement on environment. With a few exceptions, these policies are generally in accord with the Environment Policy and the NEMAP. The latter has identified a total of eleven sectors, namely, industrial, water resources, energy, forestry, land resources, fisheries and livestock, agriculture, housing and urbanization, health, sanitation and pollution, education and awareness and transport and communication that will have a bearing on environment. Besides, it has also developed location specific action programs on such areas as charlands, Madhupur Tract, Barind Tract, Wetlands, hill cutting, salinity and shrimp cultivation and coastal and marine resource management. The Act of 1995, the Environment Policy of 1992 and the NEMAP of 1995 thus provide a broad, inter-sectoral and pragmatic action program for implementation.

4.11.3 Legal Framework

Except some fundamental research and monitoring and evaluation work, bulk of the activities of the DOE is regulatory in nature. In order to carry out its responsibilities, the DOE needs a very strong legal support to back-up its actions. The other thing it needs is unswerving support from the political masters on its legal actions. A discriminatory application of the law will make the Department vulnerable to its virtual take-over by vested quarters that are opposed to any strict application of the laws. This kind of work is sensitive from another point of view. In cases where proposals of other sister organizations are to be rejected on valid grounds for environmental protection, these may affect existing power structure and prompt them to get such orders reversed through high level interventions. Implementation of regulations thus needs strict neutrality of the highest political level, clear and unambiguous legal provisions and a just, fair and speedy system of adjudication.

The **legal aspects** are adequately covered by the enactment of laws and other regulations during the past couple of years. These are:

- a. **Environmental Conservation Act, 1995.** This is a very comprehensive piece of legislation that is good enough to start the rather delayed activities on environmental protection.
- b. **Environment Conservation Rules, 1997.** These are the rules framed under the Act of 1995 to implement the provisions of the Act. The Rules outline the EIA procedures for industries and other development activities. They also contain national environmental standards, including those for water quality
- c. **EIA Guidelines for Industry, 1997.** The title of the Guidelines is somewhat misleading to the extent that it covers significant water sector interventions including embankments, polders, dykes, water supply and sewerage treatment plants as well as roads and bridges. With few exceptions, all water sector interventions are grouped in the red category alongwith the industries. These will undergo the most stringent EIA scrutiny.
- d. **Environmental Court Act, 1999.** These have not yet started functioning.

As far as **political commitment** is concerned, there seems no dearth of it in terms of ratifying the international conventions obligating the Bangladesh Government from doing and refraining

from doing certain things. Government has also passed the necessary laws and the regulations. The real test of political commitment will come during implementation, which has not yet commenced.

4.11.4 Institutional Framework

The imperatives of a very high degree of coordination among a multiplicity of sectors, both horizontally and vertically, local government institutions, non-government organizations, the private sector, the civil society and the general public should determine the institutional framework of the DEO. Currently, the following framework exists:

- I. **National Environmental Council.** This is highest policy-making and coordinating body on all environmental matters chaired by the Prime Minister with representation from all the relevant Ministries as well as relevant institutions and persons from outside the government. Unfortunately, the concerned Ministry has not used this very important forum at all and the significance of the Council has virtually been lost on the stakeholders.
- II. **Executive Committee of the National Environmental Council.** The Executive Committee of the Council is designed to meet more frequently to dispose off intersectoral issues and ensure coordination at the ministerial level. The Minister in charge of the Ministry of Forests and Environment is the chairperson of this Committee with representation from other relevant government and non-government organizations. Unfortunately, this Committee has not met regularly, thereby affecting the agenda of the National Council.
- III. **Ministry of Environment and Forests.** This is discussed in some detail elsewhere in this Review.
- IV. **Department of Environment (DOE).** Being discussed in this section.
- V. **Divisional Environmental Committee.** In each of the six administrative divisions, namely, Dhaka, Chittagong, Khulna, Rajshahi, Barisal and Sylhet a Divisional Committee has been set up with the Divisional Commissioner as the chairperson with representation from government organizations at the divisional level. There are no Committees below this level. Hardly any meeting of the Divisional Committee takes place.
- VI. **DOE-NGO Linkage.** At the present time no such linkage exists.

4.11.5 Organization Structure

As may be seen from the previous section, the DOE is the most important link in the institutional setting for environmental management. The agenda before the DOE is huge and challenging. A highly professional and committed workforce can address these but it is not there at this point of time. The relevant laws cover the entire country but the Department has a total sanction of 173 staff only. Not to speak of the whole country, this number is not even adequate to meet the needs of the headquarters. The need for institutional strengthening is well recognized both by the Government and the donors. UNDP-supported "Sustainable Environment Management Programme"(SEMP) includes a Policy and Institutions sub-program which has a component on "Capacity Building for Environmental Legislation and Policy Analysis". This initiative will be complemented by the "Bangladesh Environment Management Project"(BEMP) funded by the Canadian Government.

The DOE is headed by a Director General who is assisted by a Director (Technical) and a Director (Administration) at the headquarters and two Directors, one each at the Dhaka and Chittagong Divisional offices and two Deputy Directors, one each at the Khulna and Rajshahi Divisional offices.

4.11.6 Institutionalization of the DOE

Unlike the other organizations covered in this Review, the DOE is in the process of being developed. There is no point in critiquing the existing arrangement, which the Government itself considers to be highly inappropriate and inadequate. It would be worthwhile to draw the attention of the concerned people about some of the problems that have already cropped up

and may be resolved to facilitate the process of its future development. These may be discussed in the following broad categories:

4.11.6.1 Harmonization of Different Policies relevant to Environment.

The NEMAP has identified eleven sectors whose activities impinge on environment. Ministries responsible for development of the sectors have already issued policies that will guide their future action. On scrutiny, most of the relevant policies have been found to be generally in accord with the Environment Policy.⁵⁵ However, there seems to be some overlap between the functions prescribed for the WARPO and those for the DEO. The National Water Policy directs the WARPO to develop environmental standards and guidelines for the water sector. The DEO has a general mandate to prepare this for all the sectors. Indeed the environmental component of the Flood Action Plan known as the FAP 16 developed a set of EIA Guidelines under the Flood Plan Coordination Organization (the predecessor of WARPO) for use in the water resources sector. This was approved by the Government with the consent of the DEO. The water sector projects were following the guidelines and there was no conflict. After the promulgation of the 1997 EIA Guidelines things have changed dramatically. Water sector agencies consider the DOE Guidelines to be too stringent and some of its requirements like obtaining yearly environmental certificate in respect of completed projects as unnecessary. There is a suspicion that the 1997 Rules were promulgated hurriedly to meet donor deadlines without proper consultation with the stakeholder agencies. It is a good gesture on the part of the DEO that they have agreed to sit with the WARPO and collaborate on a new set of guidelines on the water sector that may resolve the current misunderstanding.

4.11.6.2 Capacity Building of the DEO

As has been noted earlier, there is a reasonable legal framework for carrying on the regulatory functions of the DEO. It is, however, also true that the Department just does not have the capacity to enforce them. The two ongoing TA projects are expected to help build up that capacity. While doing that it would be worthwhile to remember that the DEO is a very different kind of organization. Disciplinary specialization required for managing the emerging environmental concerns are quite new and needs diverse skills mix. Selection and career development of the future recruits are very crucial to the success of the operations of the Department. It is, therefore, an absolute imperative that the recruitment rules are properly written and a career plan is developed to attract the best talents available in the country. An integral part of the capacity building process would be to set up well-equipped laboratories so that the quality standards set up in the regulations can be implemented. A third area that needs special attention is ensuring the conduct of the activities of the DOE in a very transparent manner. The decisions of the Department, in some cases, may stop someone from doing something which he had been doing for generations and handed down to him by his ancestors. In a most densely populated country like Bangladesh, humans are the worst offenders of the environment. It is, therefore, necessary that the processes of adjudication are conducted within public view and these processes are written in clear and unambiguous terms.

4.11.6.3 Collection of Data

The DEO will need reliable data as a rational basis for making informed judgements on a variety of issues covered by its mandate. Currently, it is carrying out routine surface water quality monitoring. Many water sector agencies do also collect different kinds of data. The WARPO is engaged in building the National Water Resources Database. Prior to the determination of data collection program, the DEO may find out what is already available in the field and examine if some of these could meet its requirements. It can then concentrate on collecting those data that are not being collected by any agency or are not collected in terms of their needs. This will avoid unnecessary duplication and maximize the use of scarce resources.

⁵⁵ See Program Development Office, Integrated Coastal Zone Management Program, *Coastal Zone Management: An Analysis of Different Documents*. Dhaka: February, 2001 and Water Resources Planning Organization, Ministry of Water Resources, *Draft Development Strategy*, Vol. 3. Annex B. Dhaka: August, 2000.

4.12 Bangladesh Parjatan Corporation

Tourism has become a very competitive industry in the world in the twenty-first century. In terms of tourist attractions, Bangladesh cannot match its neighbors like India and Nepal. Leaving aside India, a review of the objective situation in Bangladesh and Nepal would reveal a big advantage for Nepal due to the legacy of the archaeological sites and the domineering presence of the Himalayan peaks. However, Nepal is a land-locked country and does not have an oceanfront and a coastal area. Though Bangladesh is a small country, it has more than 700 kms of extensive coastline with the longest stretch of the mangrove forests in the southwest and a 100 km long uninterrupted sandy beach in the southeast overlooking the Bay of Bengal. Its attractions are different from Nepal and Bhutan and there is a strong possibility for cooperation among these countries for development of tourism in this subregion. Coastal area is the key to the development of tourism in Bangladesh and is, therefore very relevant for the ICZM program being developed.

4.12.1 Mandate

Tourism sector caught the attention of the Bangladesh Government immediately after the independence of Bangladesh in 1971. The Bangladesh Parjatan Corporation (BPC) was created as an autonomous body through the promulgation of the Bangladesh Parjatan Corporation Ordinance, 1972. It has to be remembered that at the time of its creation, Bangladesh Government was committed to a philosophy of state-control of key activities including running commercial operations. The mandate of the BPC will thus show a mix of activities of both public and private nature. The mandate, as it appears in the Ordinance, is reproduced below:

- a. To promote tourism undertakings and control and regulate tourist installations and services
- b. To project the image of Bangladesh abroad for the purpose of attracting tourists by publicizing the history and culture of the country
- c. To organize reception and information facilities in and outside Bangladesh
- d. To encourage and develop domestic tourism
- e. To promote any organization, in or about Bangladesh, for the purpose of engaging in any activity falling within the functions of the Corporation, or with the previous approval of the government to associate with any such organizations
- f. To enter into tourism agreement with foreign countries with previous approval of the government
- g. To conduct and carry out research on various aspects of tourism
- h. To publish literature on tourism
- i. To acquire, establish, construct, arrange, provide and run hotels, restaurants, rest houses, picnic spots, camping sites, theaters, amusement parks, casinos, and facilities for water skiing and entertainment of tourists
- j. To establish travel agency and / or work as agent for railways, shipping companies, airlines, waterways and road transport for organizing group tours
- k. To organize shikar agencies and undertake all activities for promotion of safari tourism and maintain game sanctuaries and game reserves, fish hatcheries and fowl breeding farms
- l. To establish institutes or make other arrangements for instruction and training of persons engaged or likely to be engaged in any activity concerned with or ancillary to tourism
- m. To acquire, hold or dispose of any property movable or immovable
- n. To invest its money and fund and to vary the investments as and when it may seem necessary or proper
- o. To do all other things connected with or ancillary to any of the matters referred to in the foregoing sub-clauses
- p. To carry out any other functions as may be prescribed.

4.12.2 National Tourism Policy

Towards the end of the 1980s, Bangladesh started gradually moving from state control to more liberalized market economy. With the cooperation of the World Tourism Organization, the BPC produced a Master Plan for the development of tourism in Bangladesh. Implementation of the Master Plan recommendations needed a fundamental review of government policy on investments in the sector. The National Tourism Policy⁵⁶ provided the new framework for development of tourism in the country. The main features of the Policy are reproduced below:

- a. Increasing the facilities and infrastructures of tourist centers
- b. Investments of local and foreign capitals in private sector
- c. Providing facilities to the local tourists
- d. Restoration and development of the archaeological and historical sites
- e. Conservation of wild life
- f. Development of tourist industry at Cox's Bazar area
- g. Development of Kuakata and the sea-beach of southern Bangladesh
- h. Earmarking special areas for foreign tourists
- i. Facilitating travels on river for the tourists
- j. Games and sports
- k. Simplification of immigration formalities for the tourists
- l. Development of marketing and publicity
- m. Restructuring the legal frame works
- n. Develop places of rich tourist attractions
- o. Formation of National Tourism Council headed by the Prime Minister
- p. Formation of Interministerial Coordination and Implementation Committees
- q. Formation of Tourism Advisory Council

4.12.3 Tourism Development in the Fifth Plan

The objectives of the National Tourism Policy are supported and further advanced in the Fifth Five Year Plan⁵⁷. These may be seen in the objectives and policy on the sector that are reproduced below:

4.12.3.1 Objectives

- I. Development of low –cost integrated tourism facilities in the north-east areas, Chittagong Hill Tracts, coastal areas, hilly districts etc
- II. Implementation of priority programs and projects according to the Tourism Master Plan already developed
- III. Encouragement of private sector participation in tourism
- IV. Undertaking joint venture projects
- V. Training of personnel for the tourism industries
- VI. Projection of the natural and cultural image of the country to promote tourism both within and outside the country
- VII. Enhancing foreign exchange earning from tourism
- VIII. Public investments in the areas where private investment is lacking
- IX. Emphasis on the preservation of heritage and archaeological buildings and renovation of old buildings of historical significance.

⁵⁶ Ministry of Civil Aviation and Tourism, Government of the People's Republic of Bangladesh, *National Tourism Policy*. Dhaka: 1992

⁵⁷ Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, *The Fifth Five Year Plan 1997-2002*. Dhaka: 1998. pp 411-412.

4.12.3.2 Policies

- I. Tourism sites will be developed in collaboration with other sectors such as transport and communication, hotels, motels and catering establishments etc
- II. More 4 and 5-star hotels will be set up at Dhaka and Chittagong
- III. Private sector/NGOs will be encouraged to develop and run tourism sites and other facilities
- IV. Low cost tourism facilities will be developed for the domestic tourists
- V. Special recreational facilities will be created for expatriates working in the Export Processing Zones
- VI. One or two coastal islands will be leased to private enterprise for development of tourist resorts
- VII. Tourism Training Institute will be expanded
- VIII. Entertainment, recreation and transport facilities to be provided alongside accommodation in all tourist centers
- IX. Regional development authorities, district authorities and local councils will be associated with tourism development and promotional activities; they will be encouraged to undertake projects locally for developing domestic tourism
- X. Wildlife will be preserved through development of parks, sanctuaries and game resorts on a priority basis and wild life safari tours will be organized for development of tourism
- XI. Preservation, conservation and development of Sunderbans as a unique wild life resort area.

4.12.4 Institutional Setting

Tourism development needs the integrated use of resources and the creation of ancillary facilities by a number of public agencies. BPC's main role here is maintaining coordination so that all the bits and pieces are put together in a meaningful way to further the goals of the Corporation. For this purpose, a number of coordinating bodies was constituted according to the directions in the Tourism Policy. These are:

4.12.4.1 National Tourism Council

This is the highest level coordinating body headed by the Prime Minister with twelve other Ministers from the relevant Ministries as members. The scope of work of the Council consists of approval of national and regional plans for tourism development, review of the recommendations of the Tourism Advisory Committee and, in appropriate cases, according approval to those recommendations and ensure overall coordination for tourism development in the country.

4.12.4.2 Interministerial Coordination and Implementation Committee

This Committee is chaired by the Secretary of the Ministry of Civil Aviation and Tourism having representation of relevant Ministries and organizations. This Committee is entrusted with the task of implementing the Tourism Policy.

4.12.4.3 Tourism Advisory Council

The Advisory Council is intended to bring to the attention of the Government the different constraints faced by the private sector in making investments in the sector and give suggestions for their removal. This Council is headed by the Minister for Civil Aviation and Tourism and has sixteen government functionaries. Against the position of 20 members, the Committee has accommodated only two private sector people

4.12.5 Organization Structure

The BPC is an autonomous corporation and runs as a commercial organization. Its control and administration vest in an internal Board of Directors. The Board consists of 1 Chairman and a maximum of 4 Directors. Currently, the Board is constituted with a Chairman and three other Directors. At the headquarters, the BPC has a sanction of 260 staff against which 210 are currently working. Since the mandate of the Corporation allows it both regulatory and commercial functions, the major activities of the BPC consist of running commercial

enterprises. It owns and operates 22 different kinds of establishments ranging from managing picnic spots and duty-free shops to hotels and motels spread all over the country. To run these units, it has a sanctioned strength of 1537 people against which only 758 are in position now. Another 64 work on a daily basis.

4.12.6 Constraints to Tourism Development

There is a vast potential for development of tourism in Bangladesh but that has not happened yet. There are many constraints and a few of these like keeping the oceanfront vacant are very difficult to implement. In the context of globalization and the expanding role of the private sector, there was a need to restructure the tourism development institutions with new vision and mandate. Despite the pious proclamations in the Tourism Policy about gradual withdrawal of capital from the public sector-owned tourist infrastructures and transfer those to the private sector, nothing has happened on that score during the past ten years.

Commercial operations of the BPC are running at a subsistence level that keeps the Corporation afloat. The following Table gives a picture of its income and expenditure for the past few years:

TABLE 4.13 Income and Expenditure of the BPC during 1995-2000

Financial Year	Total Income	Total Expenditure	Pre-tax Profit
1995-96	2455.51	2218.84	236.67
1996-97	3768.76	3538.49	230.27
1997-98	4541.87	4304.26	237.61
1998-99	3776.49	3592.59	183.90
1999-00	3829.00	3528.97	300

These subsistence operations have given the BPC a false sense of accomplishment of its mission and have incapacitated it from innovative ideas for instituting an enabling environment for fostering private sector activities.

In the overall economic setting of the country, the role of the BPC seems to be highly anachronistic. It is both a regulator and a developer and this combination is always suspect from the point of view of good governance and equality of opportunity to all competitors in the sector. In this connection, the role of the Export Processing Zones (EPZ) may be compared with the requirements of tourism development. In the EPZs, the Government develops the necessary infrastructure but it does not set up any industries. Within the framework of regulations, the private sector is allowed to come in. Similar approach, with necessary adjustments, may also be taken for tourism development in Bangladesh. Tourist attractions are location-specific and their development needs sound land use and facilities planning. For this purpose, no land acquisition is necessary on a large scale; it would be based on a land use policy with strict zoning requirements. New legislation will have to be enacted to enable the Government to declare specified areas as tourist zones, bring those areas under master planning and set the details of regulation for development of the area. For doing all these work and ensure that the zoning and planning regulations are strictly followed, a highly professional and neutral body would be required. Here comes the scope of activities of a restructured Tourism Development Authority or a Tourism Development Board. In the Southeast Asian countries where tourism industry is the most well developed, public sector tourist organizations are regulatory bodies and not regulatory-cum- commercial enterprises.

It is a matter of great regret that due to lack of proper attention and failure to develop suitable policy, the scope of tourism development is gradually diminishing. The Bangladesh Army is constructing the marine drive on the coast of the Bay of Bengal from Cox's Bazar to Teknaf. But due to lack of proper legislation, people have already started construction on the oceanfront obstructing the magnificent view of the sea from the driveway.

That the BPC in its present form and with an outdated mandate is incapable of triggering any noticeable development of the sector is evident from the fact it is too much of a public sector organization. The composition of the Advisory Council is a reflection of that mentality where only two out of twenty members are from the private sector. Even if there were many more from the private sector, that would have been of little solace to concerned people in as much as these meetings are hardly convened.

4.13 Bangladesh Inland Water Transport Authority

Bangladesh is predominantly a riverine country criss-crossed by innumerable rivers and water-bodies along 24,000 kms which is roughly 7% of her total land area. Of this stretch, about 5970 and 3970 kms are navigable during the monsoon and the dry seasons respectively. The inland waterways' share of total national transportation is roughly 28% for cargo and 17% for passenger traffic.

Water conveyance capacity and navigability of these estimated channels are threatened by continuous morphological changes. The combined annual average sediment load entering Bangladesh and conveyed to the Bay of Bengal via the main rivers is estimated to be about 0.77 billion tons: varying over a range of 0.45–1.84 billion tons during the period 1956-1995.⁵⁸ It is a challenging task to keep the channels of main river routes open by extensive capital and maintenance dredging. Another dimension of this morphological change is felt every year by the phenomena of continuous riverbank erosion. Satellite image studies of the Ganges-Brahmaputra-Middle Meghna rivers show that 106,300 ha were lost to erosion while only 19,300 ha was accreted over the period 1982-92.⁵⁹ In the face of continuous change in the configuration of the riverbanks, it is also very difficult to maintain the inland river ports without recourse to huge investments on bank protection and river training.

Aware of these problems, the then provincial government created the Inland Water Transport Authority under an Ordinance of the same title in 1958. After the independence of Bangladesh, the Authority was renamed as the Bangladesh Inland Water Transport Authority (BIWTA) in 1972 through an amendment of the Ordinance.

4.13.1 Mandate

The duties and responsibilities of the BIWTA, as enumerated in the Act, are as follows:

- I. Carry out river conservancy works including river training works for navigational purposes and for provision of aids to navigation, including marks, buoys, lights and semaphore signals
- II. Disseminate navigational and meteorological information including publishing river charts
- III. Maintain pilotage and hydrographic survey service
- IV. Draw up programs of dredging requirements and priorities for efficient maintenance of existing navigable waterways and for resuscitation of dead and dying rivers, channels of canals, including development of new channels and canals for navigation
- V. Develop, maintain, and operate inland river ports and landing ghats and terminal facilities in such ports and ghats
- VI. Carry out removal of wrecks and obstructions in inland navigable water ways
- VII. Conduct traffic surveys to establish passenger and cargo requirements on the main rivers, feeders and the creek routes
- VIII. Develop the most economical facilities for passenger traffic to ensure comfort, safety and speed on the mechanized craft
- IX. Fix up maximum and minimum fares and freight rates for inland water transport on behalf of the Government as provided in section 59 of the Inland Shipping Ordinance, 1976.
- X. Approve time tables for passenger services
- XI. Develop rural water transport by processing of schemes for modernizing and mechanizing country crafts

⁵⁸ Ministry of Water Resources, Government of the People's Republic of Bangladesh, *Bangladesh Water and Flood Management Strategy: An Update following the signing of the Ganges Water Sharing Treaty*. Dhaka: May, 1998.

⁵⁹ *Ibid*, P3

- XII. Ensure coordination of inland water transport with other forms of transport, with major sea ports and with trade and agricultural interests for the optimum utilization of available transport capacity
- XIII. Conduct research in matters relating to inland water transports including development of :
- a. craft design,
 - b. technique of towage,
 - c. landing and terminal facilities
 - d. post installations
 - e. Arrange programs of technical training for inland water transport personnel within and outside Bangladesh
 - f. Maintain liaison with the shipyard and ship repair industry to meet the requirements of the inland water transport fleet repairs and new constructions
 - g. Facilitate import of repair materials for the inland water transport industries
 - h. Prepare plans and development schemes for carrying out any of the above mentioned functions
- XIV. Any other function or functions which the government may from time to time prescribe

4.13.2 National Shipping Policy

The mandate of the BIWTA is duly supported by the National Shipping Policy announced in 2000⁶⁰. The Policy first outlines the objectives and then the policy prescriptions for implementation by the concerned agencies of the Government. First, let us look at the objectives.

4.13.2.1 Objectives of the Shipping Policy

The principal objective of the Government in this sector is to facilitate the overall economic development of the country by ensuring the operation of maritime shipping and internal water transport at the highest level of efficiency and best commercial considerations after due consideration of navigational and environmental concerns. In order to fulfill the objectives set in the Fifth Five Year Plan for the shipping sector, the Ministry of Shipping (MOS) is willing to take the following actions:

- Development and maintenance of the main channels for maritime shipping and inland water transport
- Development of a communication network among the main river ports, ghats, internal container ports and depots including the development of the two existing sea ports
- Rationalization of the fleet of ships and development of shipping and country boat sector by providing necessary facilities to encourage investment
- Management of the national shipping lines and assistance for their development
- Construction of new terminal/internal container depot, procurement of required number of handling equipment and enhancing other ancillary facilities and ensuring their optimal use
- Provision of passenger and cargo transport services including landing facilities to the offshore islands
- Support regional and sub-regional maritime shipping and port facilities
- Ensure navigational security and protect shipping routes from environmental degradation
- Modernization and extension of facilities for training of cadets of sea-going vessels, sailors and workers of inland water transport
- Upgrade the salvage operation

⁶⁰ Ministry of Shipping, Government of the People's Republic of Bangladesh, *National Shipping Policy-2000*. Dhaka: October, 2000.

- Enhance the dredging capacity to maintain navigability of river routes
- Modernization of the existing laws that regulate the ships, ports and shipping according to international standards
- Optimal use of information technology in the shipping sector
- Establishment of a marine museum

4.13.2.2 Important Policy Prescriptions

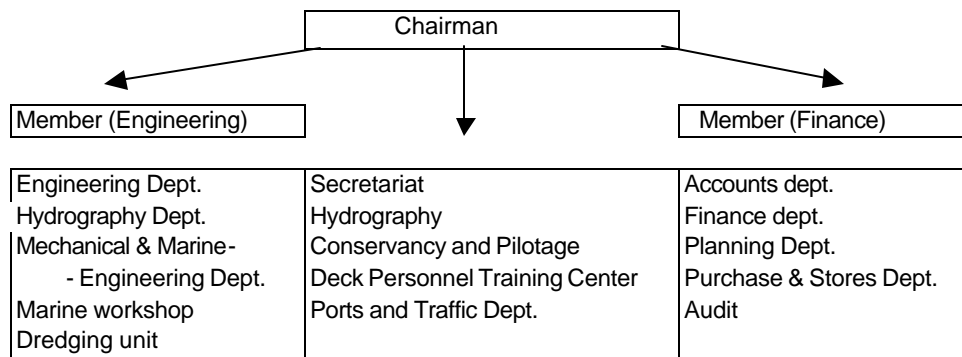
In the Shipping Policy, the MOS has added some directions that are not covered by the existing mandate of the BIWTA. However, in the present day context, these are burning issues and needs very close attention by the Authority. The new additions are enumerated below:

- Continue dialogue on floodplain management with the neighboring countries in the light of this Policy. Items for discussion may include exchange of data relating to hydrological and meteorological information, afforestation, and erosion control for preserving watersheds and preventing land degradation.
- Arrange for more effective inter-ministerial consultation to minimize the adverse effects of irrigation and flood control projects on navigation.
- Arrange for a minimum quantum of water in some identified rivers and riverine routes for maintaining navigational routes after meeting the requirements of other users.
- Promulgate regulations relating to pollution of inland riverine routes, estuaries and coastal waters by inland water transports.
- Institutionalize environmental preservation and control system including enforcement of laws and punishment of offenders.
- Create facilities for deposit and disposal of affluent
- Determine the effect of setting up new river port and container terminal on environment during project preparation
- Stop encroachment and unplanned construction of structures on river banks particularly, around inland river port areas
- Include the “polluter pay” principle while formulating regulations for environmental protection
- Demarcation of the boundaries of the foreshores of all river ports and strictly enforce the legal provisions barring any construction on those land without duly approved plans.
- Facilitate the participation of the private sector in the development of the shipping and inland water transport sector.

The new items added in the Policy are all very important in the context of the emerging concerns of environmental protection and sustainable development. However, some of the items, like dialogue with the neighboring countries on floodplain management are taken care of by the Ministry of Water Resources. This would be looked upon by the latter as an attempt to infringe into their jurisdiction. Similarly, environmental protection is the job of the Department of Environment. It has already got the necessary laws passed and is in the process of setting up an appropriate organization to do the job. Of course, in the discharge of its duties, it will need the cooperation of all concerned including the BIWTA but it does not mean that the latter would do it by itself as suggested in the Policy.

4.13.3 Organization Structure

As per section 4 of the BIWTA Ordinance, the Authority is composed of a Chairman and two other members appointed by the Government. The Chairman is the chief executive officer of the Authority and is accountable to the MOS for his actions and performance. As per organizational set up, the Chairman directly looks after the affairs of some of the departments as noted below. The affairs of the remaining departments are looked after by the Members concerned under the overall guidance of the Chairman.



Unlike most other Corporations now operating in Bangladesh, the Chairman of the BIWTA has taken too much load upon his shoulders leaving him very little time to pause and ponder over vital policy matters and to take initiatives for creating an enabling environment for carrying out the much needed reforms in the sector.

Of special significance for this review are the three departments/units whose work somehow overlaps with those of the others and may need some rationalization for economy and efficiency of all the concerned organizations. The first one to be reckoned with is the Department of Hydrography. It carries out, on a regular basis, hydrographic surveys and investigations and publishes charts and tide tables to facilitate dredging, conservancy and channel marking systems. The Department also maintains a national network of 50 water level recorders for collection of water level data. Data so collected is then processed, compiled, analyzed and published. It also operates 28 survey vessels for carrying out hydrographic survey and hydraulic investigations on inland and coastal waterways. It carries out its activities in collaboration with other organizations like the BWDB and the RHD and the Engineering Universities. It also advises the Government in framing policies on national jurisdiction of waterfronts, delineation of maritime boundaries and the UN Law of the Sea.

BIWTA has created, in partial fulfillment of one of the covenants of IWT-III project, a full-fledged dredger unit by taking it out of the Engineering Department⁶¹. This unit has a fleet of 8 dredgers only. It cannot cope with the volume of dredging to be done in any given year and has to hire the services of the Dredging Organization of the BWDB or those of the private sector.

The Conservancy and Pilotage Department of the BIWTA is responsible for planning, establishment and maintenance of the Aids to Navigation (ATN) for inland water sector and coastal shipping. Similar services are also available with Chittagong Port and Mongla Port.

4.13.3.1 Tenure of Top Management

Tenure of top management is a very important consideration in assessing the institutional capacity of an organization to perform efficiently and effectively. Turnover of the Chairmen were happening at such a rapid pace that it looked like a “musical chair” fun game rather than the serious business of running a vital corporation of the Government. The Implementation Completion Report on the World Bank assisted “Third Inland Water Transport Project” noted with dismay that during the implementation of the project during 1992-2000, the Chairmen of the BIWTA were changed eight times⁶². There were similar changes at the Member level also. The high turnover of senior officials led to a loss of institutional memory of project knowledge and, more importantly, further erosion of project ownership and commitment to reforms.

4.13.3.2 Manpower

BIWTA's activities are of a varied nature ranging from highly professional to labor-intensive manual work. This is reflected in the composition of its manpower with heavy concentration of manpower at the lowest rung of the services. The manpower situation as on June 30, 2001 may be seen from the following Table.

⁶¹ World Bank, *Implementation Completion Report on the Third Inland Water Transport Project*. November 23, 2000.

⁶² *Ibid*, P9

TABLE 4.14 Status of Manpower of the BIWTA as on 30.6.2001

Posts	Approved strength	Working strength	Vacancy
Class - I	282	198	84
Class - II	273	177	96
Class - III	961	766	198
Class - IV	800	1992	638
Labor	322		
Pilotage	592		
Floating	1068		
Total	4298	3282	1016

It will be seen from the above Table that about one-fourth of the sanctioned positions of the Authority are lying vacant for a long time. There is also a preponderance of unclassified non-regular employees. This may turn out to be useful for the organization at the time of its restructuring to the extent the non-regulars can be adjusted more easily than the regular ones. The Authority should not rush to fill in these vacancies for the reasons that there is scope for rationalization of its activities that may eliminate the necessity of filling up the posts altogether and that may pave the way for the Corporation to be totally self-financing.

4.13.4 Financial Status of the Corporation

The Corporation earns revenue from facilities and services it provides to its clientele. Unfortunately, its own earnings are not adequate to meet its financial needs and it has to look for grants from the Government. The financial status for the immediate past two fiscal years may be seen from the following Table.

TABLE 4.15 Income and Expenditure Statement of BIWTA for the FYs 1999-2000 and 2000-2001

	FY1999-2000 (in lakh taka)	FY2000-2001 (in lakh taka)
Government Grant	1775.00	1870.00
Revenue Income	4750.00	5410.00
Total Income	6525.00	7280.00
Expenditure	7938.42	8180.12

It is possible to augment revenue by significantly improving the rate of collection, by rationalizing the tariff structure for the services it provides and by better management of the foreshore area under its control. It can also examine the possibility of contracting out some of its functions rather than doing it departmentally by maintaining staff on a regular basis. The dredging operation is a case in point. It is to be noted that the BIWTA continues to show substantial losses partly because of the non-availability of Government allocations in proportion to increased dredging operations.

Besides receiving grants from the Government, it also gets funds for carrying out major development works on government relending terms. In the Annual Development Program, the BIWTA has an allocation of taka 180 million.

4.13.5 Capacity Building

Capacity of the BIWTA would be determined by its ability to deliver the services in a satisfactory manner. This is dependent primarily on two key factors. Firstly, the existence of the needed infrastructure that assists in such delivery and quality of manpower that actually delivers.

On infrastructural development, the sector has been characterized by low level of investment and asset utilization, inadequate enforcement of regulations related to vessel conditions, poor standard of vessel safety due to overloading, inadequate navigational marks and lack of proper systems and facilities for training vessel crew. The 1988 floods awakened the concerned policy

makers about the importance of the sector. A master plan for the inland water transport sector was prepared and a number of studies were carried out on vessel safety, dredging, navigation aids, hydrographic surveys, training and institutional development with donor assistance. Based on the study recommendations, Government prepared a Priority Investment Program (PIP) as a basis for the Government's Fourth Five Year Plan (1991-1995) for the IWT sector.

The World Bank assisted "Third Inland Water Transport Project" (IWT-III) intended to address some of these infrastructural and institutional issues. But the efforts were successful only partly. About 918 km of selected Class I and Class II waterways have been upgraded by providing buoys and beacons. The conversion of old gas powered lights to solar powered lights have been completed. A computerized inventory system for navigational aids and store system was developed and established at BIWTA. The system has been made operational and is functioning satisfactorily.

Besides the above, BIWTA has constructed 175 pontoons in the rural areas of Bangladesh and has leased out their operations to private entrepreneurs. The IWT-III has also financed the purchase/installation of the following: (i) most advanced electronic Position Fixing System (ii) 60 sets of high frequency transceivers (iii) 3 sets of distress monitoring systems and (iv) 5 hydrographic survey work boats and 3 accommodation barges for the hydrographic department of BIWTA.

On the institutional side, the project had targeted restructuring the organization for dredging, deregulation of freight tariffs and transfer of training function to the Department of Shipping, another sister organization under the MOS. Only freight tariff could be deregulated: the transfer component had to be dropped in the face of stiff opposition from the employees of the Corporation. A dredging Unit has been set up but other follow up action has not yet been taken thereby virtually nullifying the intent of whatever little was achieved.

4.13.6 Rationalizing BIWTA: the Unfinished Task

The inland water transport sector has dismally failed to ensure safety to its passengers: overloading, operating unfit vessels without carrying safety gadgets on board and piloting the vessels with untrained persons without any license are the common features of riverine traffic in Bangladesh. The incidence of fatal accidents has been on the rise indicating an overall deterioration of enforcement, maintenance and surveillance of safety measures. The BIWTA is handicapped in the discharge of its mandated responsibilities due to severe institutional constraints. To achieve significant improvement in the sector, all the institutions involved in the sector must be reviewed together. The approach of the IWT-III Project in considering all inland water sector institutions together within the framework of a program development is both strategic and appropriate, though it partly failed for other reasons.

There should be another IWT sector development program, which should be built on the lessons, learnt from the IWT-III experience. There should not be any mistake in taking the stakeholders into confidence on the intended reforms. It is just not possible to carry out institutional reforms without detailed discussions with the affected people who must have the opportunity to calculate the gains and the losses involved. Within the framework of such a reform effort, the following issues will need careful consideration in respect of BIWTA:

- I. BIWTA should be developed as a respectable regulatory agency with high standards and strict enforcement. To facilitate that development, regulatory functions must be brought in the mainstream of the organization assigning secondary role to such commercial operations as dredging.
- II. In Bangladesh, dredging operations are almost exclusively in the hands of the public sector. The BWDB maintains a fleet of 32 dredgers in addition to the 8 available with the Dredging Unit of the BIWTA. In the past, there were unsuccessful attempts at their merger for forming an independent commercial organization. This issue, in somewhat different form in the context of globalization, has resurfaced. This time the driving force seems to be running the operations purely on commercial basis. The MOWR has agreed in principle to carry on this exercise. For this purpose, it has engaged the Infrastructure Investment Facilitation Center (IFFC) established under the IDA financed Private Sector Infrastructure Development Project to develop different options for commercialization. The BIWTA may also proceed on similar lines. It must consider the advantage of getting the dredging operations done through contractors rather than going through the hassle of running an entire commercial operation itself. Getting rid of

this avoidable burden will give it the opportunity to concentrate on more substantive issues of developing and enforcing IWT regulations.

- III. ATN is the most important element in maritime safety administration in Bangladesh. The Conservancy and Pilotage Department of the BIWTA generally provide this service. Similar facilities also exist with the ports at Chittagong and Mongla. It is desirable to integrate these three services within an overall concept for better economy and efficiency. BIWTA has workshop facilities for ATN services at Barisal. It may be examined if the workshop can be made the locus of an integrated ATN service center by upgrading its facilities.
- IV. The activities conducted by the Department of Hydrography are more or less similar to those conducted by the Hydrology Department of the BWDB⁶³. It is desirable for the two Department to sit together and, based on comparative advantage, chalk out a complementary program to avoid overlap and duplication.
- V. Modern management techniques need to be introduced in BIWTA in phases by introducing computer technology and developing a viable management information system (MIS).

⁶³ The National Water Management Plan has also made similar recommendations. See, National Water Management Plan, *Final Development Strategy: Main Report Chapter4 (Draft)*. Dhaka: February, 2001. P30

4.14 Bangladesh Agricultural Research Council

In Bangladesh, there is a continuing decline in the availability of per capita agricultural land due to rapid increase in population and its non-agricultural demand. Strategically, there is no other option but to increase agricultural productivity through intensive cultivation. Intensive cultivation requires continued support of modern agricultural research capable of delivering timely, relevant, cost-effective and sustainable technology packages. These imperatives had led to the creation of the Bangladesh Agricultural Research Council (BARC) in 1973 through Presidential Order No 32.

BARC was established to set priorities, coordinate agricultural research programs and investments and prepare staff development programs and national research plans. For this purpose, a National Agricultural Research System (NARS) comprising ten Agricultural Research Institutes (ARIs) was formalized by executive orders from time to time. But the Council was able to fulfill its mandate only partially. The failure was inherent in the structure of the NARS developed in the later part of the 1970s. BARC is an agency of the Ministry of Agriculture with responsibility to coordinate the activities of Institutes under the control of three other Ministries. The problem was further compounded by the legal provisions in all the relevant Acts creating the BARC and the other Institutes under which Board of Governors were constituted with members of equal status. Most Institutes preferred to ignore BARC and did not maintain any contact with it. The Council was unable to monitor, evaluate and coordinate their research projects. It was, thus, strongly felt that the essential coordination role of BARC must be highlighted in its Act in more clear and unambiguous terms than had been done in the 1973 Ordinance including similar modifications in the Acts of the constituent Institutes. There was also a need to enhance the powers of the BARC.

Government has been aware of these problems and had sought to remedy them by modifying the BARC mandate and enhancing its power and functions through successive amendments of the BARC Order. In the 1990s, it was felt that the imperative of a thorough institutional reform is so pressing that piecemeal amendments were inadequate to meet the requirements of the system. In order to face the emerging challenges to the agricultural research system, a new Bangladesh Agricultural Research Council Act was passed in 1996 by rescinding the previous Order. Corresponding changes were also made in the Acts of the AIRs.

4.14.1 Mandate

The overall objective of the Council is to plan, operate, coordinate, monitor and evaluate research in the agricultural sciences relevant to the country's needs through the ARIs and partner organizations. In specific terms, the mandate, as per provisions of the new Act, are as follows:

- a. Determine and prioritize research subjects on the basis of national policy on agriculture
- b. Develop research programs relevant to agriculture that will provide guidance to the research programs of the ARIs
- c. Appraise the Government about the existing problems and prospects in the agriculture sector and advise it on the use of external assistance in agricultural research
- d. Recommend, after scrutiny and appraisal, each Institute's own financed research proposal and budget for implementation, prior to its placement before that Institute's Board of Management
- e. Approve, after scrutiny and appraisal, such research proposals and the budgets for their implementation that are intended to be implemented out of assistance received by an Institute or a partner organization from the Council either through contract or otherwise
- f. In order to ensure standard of research:
 - i) Monitor the approved program and the progress of ongoing activities of each Institute

- ii) Arrange review of approved programs and completed activities of each Institute through an outside panel of experts at an interval of five years
 - iii) Arrange for occasional review of approved programs and completed activities of each Institute through an internal panel of experts
- g. Establish and operate or help other organizations in the establishment of new research organizations, research centers, research units, libraries, information centers, museums, herbariums, germ-plasm and plant introduction centers
 - h. Advise the Government or where appropriate the concerned Institute, on modification or expansion of the number, location and scope of activities of research units or research centers, laboratories, libraries, information centers, museums, herbariums, germ-plasm and plant introduction centers belonging to Institutes under the research system with a view to bringing about rationality and pragmatism in the system
 - i. Monitor transfer of technology in the field of agriculture and take necessary steps and, in appropriate cases, advise the Government on removing the constraints being faced in the matter of dissemination and application of the newly devised technologies in the field by the ARIs and the partner organizations
 - j. Determine the terms and conditions of service of the officers and employees of the Council subject to provisions of the Act
 - k. Take necessary steps for higher education and training of the officers and employees of the Council, ARIs and, in appropriate cases, of partner organizations in the field of agricultural research and technology
 - l. Determine the necessity of representation of the Council and the ARIs in national and international conference, workshop and seminar within the framework of government policy and take necessary action
 - m. Maintain liaison with international and other countries' agricultural research organizations to ensure the effectiveness and benefits of adoption and use in Bangladesh agriculture of new inventions and equipment after quick testing
 - n. Carry out post-completion evaluation of research programs of each ARI and, in appropriate cases, of partner organizations and give them appropriate advice
 - o. Take follow up and other necessary action for meeting the needs of the above mentioned duties and other provisions of the Act.

4.14.2 Policy

The mandate of the BARC is duly supported by the National Agricultural Policy⁶⁴ announced by the Ministry of Agriculture in 1999. The relevant portion of the Policy that provides guidance to agricultural research are reproduced below:

- The Policy endorses a two-dimensional research policy that will accord priority, on the one hand, to the development of low-cost appropriate technologies to meet the needs of the marginal, small and medium farmers including women and, on the other hand, to the traditional pursuit of applied research for productivity increase.
- The NARS will be further strengthened and coordinated through periodic evaluation.
- The ongoing program for transfer of technologies evolved by the research system through the NGOs and the private sector at the field level will continue.
- The NARS, while preparing their time-bound and target-oriented research programs, will accord priority to the following subjects
 - I. Soil and Agro-ecological zone (AEZ) specific research
 - II. Research relating to the development and application of environment-friendly and safe fertilizers
 - III. Research on preservation and development of land productivity in different regions
 - IV. Region-wise research on irrigated and rain-fed cultivation

⁶⁴ Ministry of Agriculture, Government of the People's Republic of Bangladesh, *National Agriculture Policy*. Dhaka: 1999. PP 20-21.

- V. Farm management research towards achieving economy and efficiency in agricultural operations
- VI. Research for identification of different regions of the country suitable for specific crops and cropping pattern
- VII. Research on preservation of bio-diversity of different crops
- VIII. Research relating to Integrated Pest Management(IPM) and development and application of pesticides from indigenous plants
- IX. Research on improving quality and utility of various crops
- X. Research on meeting the increasing demand for food-based nutrition through increasing crop diversity
- XI. Agro-economic research on the trend and impact of domestic and export demands for different crops
- XII. Research on preservation and processing of crops and reduction of crop losses
- XIII. Research on enhanced participation of women in agricultural activities and removal of constraints
- XIV. Research relating to the development of crop varieties and technologies suitable for drought and flooded conditions
- XV. Research on the development of improved crop varieties and technologies suitable for cultivation in coastal, hilly, water-logged and salinity-affected areas
- XVI. Research on developing short duration improved varieties of seeds for different crops
- XVII. Agronomic and economic research on crop diversification
- XVIII. Research on developing improved varieties and technologies for the deep water rice
- XIX. Research on developing technologies for integrated rice cum fish culture
- XX. Research on marketing and price trends of different crops

4.14.3 Organization Structure

The BARC has a very unique organization structure; its parallel can not be found anywhere else in Bangladesh. It consists of three clusters of entities: the Governing Body (GB) and the Executive Committee (EC), the ARIs directly connected with agricultural research and the BARC Secretariat.

4.14.3.1 The Governing Body

At the apex of the Council, there is a heavy-weight 25 member Governing Body (GB) chaired by the Minister of Agriculture and co-chaired by the Minister in charge of Fisheries and Livestock as well as by the Minister in charge of Environment and Forests. The body includes the Secretaries of Agriculture, Fisheries and Livestock, Commerce and Environment and Forests. Though all powers of the Council vest in the EC, the latter can only exercise those powers subject to control and supervision of the GB. The EC is accountable to the GB for all its actions. The GB oversees the activities of the NARS and evaluates their performance at regular interval. It is also expected to give the EC the necessary policy directions and help the Council to achieve the necessary coordination.

4.14.3.2 The Executive Committee

All the powers of the Council vest in an Executive Committee consisting of the Executive Chairman of the BARC as its chairperson and all Member-Directors of BARC and all heads of the constituent Institutes as its members. This body is required to meet at least once in two months and dispose off all matters relating to the administration and operations of the NARS subject to overall control and supervision of the GB.

4.14.3.3 The ARIs

The following ten Research Institutes constitute the core of the National Agricultural Research System (NARS) and the heads of these Institutes are members of the EC. The names and the area of specialization of these Institutes are given in the following Table:

TABLE 4.16 The ARIs constituting the NARS

Bangladesh Agricultural Research Institute (BARI)	Basic, applied and adaptive research on cereals(other than rice), pulses, oilseeds, vegetables, horticultural crops etc
Bangladesh Rice Research Institute (BRRI)	Basic, applied and adaptive research on rice
Bangladesh Jute Research Institute (BJRI)	Basic, applied and adaptive research on jute production and utilization
Fisheries Research Institute (FRI)	Marine and fresh-water fisheries research
Bangladesh Forest Research Institute (BFRI)	Forestry and agro-forestry research
Bangladesh Institute of Nuclear Agriculture (BINA)	Application of nuclear technology in agriculture
Sugarcane Research and Training Institute (SRTI)	Applied and adaptive research on sugarcane
Bangladesh Tea Research Institute (BTRI)	Applied and adaptive research on tea
Bangladesh Livestock Research Institute (BLRI)	Basic and applied research on cattle, buffalo, goats, poultry, duck etc
Soil Resources Development Institute (SRDI)	Soil survey and soil classification

4.14.3.4 The Secretariat

The Secretariat of the BARC is the real operating arm of the Council. Unfortunately, determination of its structure has been held up since July 1993. BARC had started off as a project ever since its creation and a succession of projects had funded its establishment costs. The term of the last project supporting its establishment costs expired on June 30, 1993 upon which the Bangladesh Government was to pick up the threads. While the salaries of the officers and staff are being paid on an adhoc basis, the hanging uncertainty has been totally demoralizing for the junior and mid-level scientists. Promotions to posts for which BARC is responsible are held up by the authorities on the plea that no promotions can be considered till the organogram is finalized. Curiously enough, promotion to posts under the control of the Ministry of Agriculture is made meticulously despite absence of organogram. Many young and promising scientists have already left the organization and many more are waiting for the opportunity to leave. If the organogram issue is not resolved rather fast, this may cause irreparable damage to the human resources development efforts of the Council.

As per the current organogram, the Secretariat consists of nine Wings: one each for crops, forestry, soils, fisheries, livestock, agricultural engineering, agricultural economics and rural sociology, planning and evaluation and administration and finance. Each Wing is headed by a Member-Director who is supported by required number of professional and other support staff. The functions of each Wing is determined by the EC and notified by the Administration Wing for compliance by all concerned. The Member-Director, Administration also acts as the Secretary of the Council as well as Secretary of the GB and the EC. All the Member-Directors work under the direction and supervision of the Executive Chairman and are responsible to him for their activities.

Under the development budget, BARC had a sanction of 333 posts, which are now proposed to be reduced to 225. The revised proposal recommends 7Wings as against the present 9. The BARC does not have any problem with these changes. The matter has been held up on a very minor issue of appointing a Member-Director for finance. While the MOA wants an outside person as a Member-Director, the Council insists that this job can be performed by an officer of Director's level.

4.14.4 Creating Conditions for Better Research

A prime reason for initiating changes in the BARC and the ARI's Acts was to remove barriers to better research.⁶⁵ The following issues were identified as the main barriers to better research:

- Inadequate and unstable funding
- Weak research planning
- Insufficient Client Orientation
- Inadequate Scientific Incentives
- Institutional Isolation
- Ineffectiveness of BARC
- Incomplete financial capacity
- Duplication of research activities across ARIs.

4.14.4.1 Inadequate Scientific Incentives

Of the eight sets of issues presented here, inadequate scientific incentives are considered to be the most crucial for the reason that without a good breed of capable and committed scientists there cannot be any substantive research. The situation obtaining at the time of passage of the revised Act was not conducive to the development of good quality scientists. The existing rules did not reward outstanding scientific work nor did it sanction bad performance. The ARIs did not have any control over appointments, transfers, promotions and career planning. Evaluations were not linked to performance targets and job descriptions. Under the World Bank assisted "Agricultural Research Management Project", the MOA has made the commitments to facilitate a shift to autonomy for the research institutes that would give them more control over personnel management than has hitherto been possible. There is a program to revise the existing recruitment rules to ensure uniformity of qualification and other requirements and to prepare clear job descriptions for proper evaluation. The BARC Act of 1996 has made the necessary provisions for recruitment and promotions from Scientific Officers to the Chief Scientific Officers level through a recruitment committee set up by the Council on the basis of uniform recruitment rules. However, this provision could not be acted upon, as the draft rules are not yet finalized five years after the passage of the Act.

4.14.4.2 Inadequate and Unstable Funding

Next in importance to human resources development is the issue of funding. This is not peculiar to research programs but is endemic across sectors. There is a heavy dependence on donor assistance for virtually all capital expenditures and most non-salary operational costs. In desperate situations, donor funds even take care of salary costs also. However, the donors cannot be expected to support these programs indefinitely and they like to withdraw or refrain from making any fresh commitment unless Government gives some positive indication to increase its current level of funding. There has been many an occasion when the Government has failed to fulfill its commitment after the withdrawal of the donor. There are three direct consequences of this phenomenon; first is the interruption of work with the drying up of donor fund; second is the underutilization of fixed assets resources and the third is the chronic dilapidation of facilities.

It is true that the Government has severe budgetary constraints to meet adequately the needs of all the sectors. However, it has to be understood that sustained investment in agricultural research is necessary to raise total factor productivity in farming. Its justification lies in the fact that some of its fruits are public goods. The system average of allocated fund to agricultural research is less than half a percent of the agricultural GDP. There is thus full justification for increasing the revenue budgetary allocation to BARC and the ARIs. Till such time this issue is satisfactorily resolved, it would remain a major constraint to better research efforts.

4.14.4.3 The Linkage Problem

Better research is handicapped by a number of problems that can be discussed together as a linkage problem. At one level, it is an issue between the BARC and the ARIs and between the NARS and the rest of the research community. At another level, it involves relations between scientists and the extension workers, whether public, private or social as well as relations

⁶⁵ World Bank, *Staff Appraisal Report-Bangladesh Agricultural Research Management Project*. South Asia Region. Report No 14467 BD.

among scientists, extension workers, and farmers. There is an aura of secrecy maintained by the scientists while conducting research and there is very little exchange of information among the stakeholders. This lack of linkage sometimes results in recommendations that cannot be applied in the farmers' field. The situation is made worse by preference of the ARIs to install their own arrangements of technology transfer bypassing existing extension service and the NGOs. The NARS has had very little exposure to participatory research programs. To remove the linkage problems, the system has to be more responsive to the needs of the farmers and must learn to work jointly with the extension, other research organizations, NGOs, the private sector and the farmers at large.

4.14.4.4 Transparency and Accountability

There have been frequent complaints about lack of transparency in the allocation of research funds among the NARS members. As a result, there has been serious misallocation of scarce resources. Such allocation has tended to lack focus and in many cases, have been found to be inconsistent with either equity or efficiency norms.

Another reason for this lack of transparency is the concentration of both administration and finance under the same Member-Director. The situation turns worse when everything is concentrated at the top without any delegation whatsoever. And lack of professional people has always hindered the growth of a sound financial management system.

BARC's pursuit of autonomy must be matched by corresponding accountability. Lack of trust is the greatest constraint towards the development of a mutually supportive and reinforcing cooperative NARS. The Mid-term Review⁶⁶ (MTR) of the ARMP has revealed that in the matter of setting up a modern financial system very little progress so far has been made. Couple of small steps like delegation of proper administrative and financial powers and appointment of a full-time outside financial expert as the head of an independent finance unit would go a long way in meeting the financial management needs of the Council. In this regard, the recommendations of the MTR should be considered in right earnest and steps taken for their implementation.

⁶⁶ Bangladesh Agricultural Research Council, *Agricultural Research Management Project: Mid-term Review*. Main Report. October, 1998.

4.15 Coast Guard

Bangladesh has an extensive coastline measuring about 710 sq.km. With the extension of the exclusive economic zone (EEZ) upto 200 nautical miles beyond the shorelines of Bangladesh in 1974, Bangladesh resumed the responsibility for exploration and management of living and non-living resources within its 1,64,000 sq.km sea area. Roughly, nine Ministries of the Government and fourteen Agencies under their control carry on different kinds of maintenance and development functions along the coast and the territorial waters of Bangladesh. Livelihood of about 10 million people depends, directly or indirectly, on economic activities around the marine area. However, side by side the pursuit of legal activities, there is a huge underworld of smugglers, drug dealers, human traffickers and just plain pirates who virtually run a parallel economy and threaten the economic stability and integrity of the system.

In order to protect the national interests of Bangladesh in the marine areas and the EEZ, the National Parliament of Bangladesh passed the Coast Guard Act in 1994. Within the framework of the Act, the Coast Guard (CG) was established as a para-military force like the Bangladesh Rifles (BDR) on February 14, 1995. It started its operations on a very modest scale by borrowing, purely on a temporary basis, two old vessels and obtaining the services of a few officers and sailors on secondment from the Bangladesh Navy.

4.15.1 Mandate

The duties and responsibilities of the CG have been defined in the Act itself. First, it defines the marine area for which it is responsible and then enumerates its duties and responsibilities within the defined area.

4.15.1.1 Jurisdiction

The area of operation of the CG would be as follows:

- the coastal area measuring about 710 sq.km
- internal water (from the coast to the baseline)
- territorial water (from base line to 12 nautical mile)
- contiguous zone (from base line to 24 nautical mile)
- about 40,000 sq.km of EEZ (from the coast to 250 nautical mile)
- continental shelf (upto 350 nautical mile)
- estuarine rivers
- areas in and around the Sunderbans

4.15.1.2 Duties and Responsibilities

The CG shall discharge the following duties and responsibilities:

- Protect national interests within the bounds of marine waters
- Prevent illegal fishing within the territorial waters of Bangladesh
- Prevent unauthorized intrusion into and exit from Bangladesh through its territorial waters
- Deliver summons or carry out other orders of a court or other authority in respect of a vessel or a person staying in such vessel that has entered the territorial waters of Bangladesh
- Investigate the activities that pollute the environment within the marine areas of the country and take preventive measures

- Ensure the security of persons working within the territorial waters of Bangladesh
- Participate in relief and rescue operations at the time of natural disasters and rescue men and material involved in accidents
- Take steps for dissemination of information including warning during natural calamities
- Assist the Navy during the time of war
- Patrol the marine areas of Bangladesh
- Assist the concerned authorities to ensure the security of the sea ports
- Control subversive and terrorist activities within the territorial waters of Bangladesh and assist other authorities for the same purpose
- Carry out other activities as directed by the Government.

4.15.2 Organization Structure

As per provisions of the Act, the CG would be headed by a Director General (DG) who would be appointed by the Government on terms and conditions fixed by it. The Government will also appoint adequate number of Directors and Deputy Directors to assist the DG. Other officers and staff as per approved organogram would be appointed by the DG.

The Department prepared an interim organogram for 458 positions for manning 3 outposts and 2 vessels. Out of that requisition, 323 posts have been created so far. The Department has recruited 43 civilian employees while the services of 32 officers and 225 sailors have been placed at the disposal of the Department on deputation from the Navy.

The Coast Guard has set up its headquarters at a hired accommodation at Dhaka and stations at Chittagong, Mongla and St. Martins' Island. Besides, a border outpost belonging to the Bangladesh Rifles at Patuakhali has also been taken over by the CG.

4.15.3 Constraints to Effectiveness of the Coast Guard

Despite a reasonable prognosis about the capacity of the CG to protect Bangladesh coast and her territorial waters, a number of constraints are standing on its way to a full-fledged launch. Most important is the lack of logistics. The interim organogram had a provision for procurement of 12 vessels by 1995-96 fiscal year. Till now only one inshore patrol vessel has been procured. Two very old ships have been borrowed from the Navy while the Ministry of Relief and Disaster Management has provided some relief boats. These are totally inadequate and the intended operation cannot be run without heavy augmentation.

The CG has sent a proposal to the Ministry of Home Affairs for considering an organogram consisting of 4000 manpower. No decision on that has yet been communicated to the Department.

The Act of 1994 requires the Government to define the land area contiguous to the marine waters as well as other marine areas through notification in the Official Gazette. This is necessary for smooth operation of the Guard's activities and also to avoid jurisdictional conflicts. The proposal sent by the Department has not yet been acted upon by the Ministry.

Without resolving the above issues, the role of the CG will be marginal and there would be no justification for its creation.

4.15.4 Suggested Solution: Redefining the role of the Coast Guard

The main problem in a full-fledged launch of the CG seems to be financial constraints. However, Government has been providing budgetary support to a number of Agencies for surveillance and patrolling of the coastal and marine waters. In the coastal area, many activities have been prohibited under the provisions of a number of Acts. For maintaining the territorial

integrity, preservation of the natural environment and sustainable use of coastal resources, strict enforcement of these legal provisions is crucial. Some of the Acts that require surveillance and patrolling in the sea for forestalling or preventing certain undesirable or harmful activities or apprehending certain offenders for bringing them to justice are mentioned below. This may not be a complete list but it shows the magnitude of the task involved when looked in a holistic manner. These Acts are:

- The Port Act 1908
- The Passport Act 1920
- The Forest Act 1927
- The Registration of Foreigners' Act 1939
- The Foreigners' Act 1946
- The Foreign Exchange Regulation Act 1947
- The Protection and Conservation of Fish Act 1950
- The Bangladesh Control of Entry Act 1952
- The Customs Act 1969
- The Bangladesh Wildlife Preservation Order 1973
- The Territorial Waters and Maritime Zones Act 1974
- The Immigration Ordinance 1982
- The Marine Fisheries Ordinance 1983
- The Merchant Shipping Ordinance 1983
- The Narcotics Control Act 1990
- The Bangladesh Environment Conservation Act 1995

The limited budgetary allocations received by the concerned Agencies are not commensurate to meet the requirements of logistics and manpower to do the enforcement job. Understandably, their record of performance in enforcing the legal provisions is rather dismal. Besides the allocations of funds, the lack of specialization of the civilian officials to carry out duties in the sea should also be highlighted for a proper understanding of the matter.

One of the dictums of efficient and economic operation of an agency or a unit of administration is outsourcing some of its activities to an outside agency that can perform it more cheaply and effectively. At present, about a dozen government agencies are trying to cope with enforcement of legal provisions under different laws noted above. At individual agency level, the allocation is highly inadequate; but great economies of scale can easily be achieved if this task is assigned to a single specialized agency by pulling these scanty resources together. It is argued here that the enforcement function relating to all legal provisions of the above noted laws can be assigned to the CG by suitably amending these laws.

This would sound all the more rational when the question of specialization is considered. The important thing to stress here is that some jobs demand a very high level of specialization and responsibility for specialized jobs should be entrusted to those who are best suited to do it. Patrolling the sea and the high seas cannot be done by civilian officials without imparting them considerable training. The force belonging to the CG virtually live on the sea and the law has also conferred them the necessary police powers to carry out effective patrolling. With these powers, members of the force can apprehend the criminals and the offenders. After arrest, they are handed over to the police for taking legal action against them.

It is thus evident that the CG is capable of enforcing the preventive sections under different laws relating to the coast and the territorial waters that have had no perceptible result so far by departmental efforts. Should it be possible to give jurisdiction to the CG to carry out the enforcement job under the laws mentioned above, part of the financial constraint will be removed to the extent the assets and posts related to the transferred activities would also stand transferred to the CG.

5 CONCLUSIONS

In the previous two Chapters, Ministries and Agencies have been looked at as independent units of research. This was done primarily for facility of collection of data and getting an essence of their profile. Presentation of the findings and drawing up a few conclusions out of the material collected call for integrating these material. There are more cogent reasons for doing this than just the logic of a coherent presentation.

5.1 Manner of Presentation

This study is basically a study of institutions. Any serious institutional review must take cognizance of the fact that organizations do not operate in a vacuum. They are part of a wider environment and depend on it for resources and are controlled by it. We may recall Diagram 1.1 to stress the point that organizations are placed in a hierarchical order in a system, each constituting a subsystem at each hierarchical level. Thus the Agencies are dependent on their administrative Ministries while the administrative Ministries, if they are line Ministries, are dependent on the service Ministries, the Prime Minister's Office and the Parliament for the necessary resources and support. The entire governmental system is so structured that any acts of omission or commission at any of the sub-system will have systemwide ramifications. This interrelationship between lower and higher level organizations are intended to be rational; in reality, it is rarely so. Political, sociological and other considerations stand in the way of rational dispensation of organizational business.

The systems approach to institutional analysis informs us that institutional problems may be both internally and externally generated⁶⁷. Internally generated dysfunctions are those that emanate more or less from the malfunctioning of formally articulated and differentiated structure of the organization. These dysfunctions are manifested in terms of jurisdictional infringements, delay in disposal of business, lack of staff motivation, distortion of priorities, employee's disorientation and misallocation of resources. Internally generated problems, if identified properly, are amenable to rectification with firm commitment from the top management though the possibility of infringement by the higher organization will always be there. Resolution of problems generated outside the domain of the organization is beyond the control of the Agencies and, in some cases, the Ministries. These issues must be addressed and resolved by proper authority at the appropriate level of organizational hierarchy. In diagnosing institutional constraints, it is, therefore, important to identify the source that is generating the constraints. Without such a differentiation, it is difficult to develop a strategy for institutional improvements on different time horizons.

In our study, we have found the interplay of both types of constraints in different kinds of organizations. The constraints relating to such matters as organization structure, personnel management, funds and capacity-building are not peculiar to the Agencies as external constraints. These are also the same in respect of the ten Ministries studied. As of now, the Secretariat consists of forty-nine Ministries/Divisions. We venture to say at this stage that the externally generated problems to be discussed here are so generic in nature that these may be termed as universal and not peculiar to one type or cluster of organizations.

It also needs to be emphasized that the study not only found many constraints but there were some positive institutional developments. The positive side of the study consists of identification of a number of initiatives taken by the Agencies that are the essential first steps towards developing a sound and modern management system. Keeping these recent positive developments and the external-internal dichotomy in mind, we will present our findings and recommendations in the following manner:

- I. an overview of positive institutional developments
- II. Generic problems needing action of higher organizations

⁶⁷ Classification of constraints as internally and externally generated is developed as a conceptual framework in Christopher Hood, "Administrative Diseases: Some Types of Dysfunctionality in Administration", *Public Administration*, Winter 1974, pp439-454 and Peter Self, *Administrative Theories and Politics*. London: George Allen and Unwin, Second Edition, 1982

- III. Specific problems needing action by the Agencies
- IV. Implications of the institutional review for an ICZM for Bangladesh

5.2 Positive Institutional Developments

Institutional review of the selected Ministries and Agencies, on the basis of the criteria delineated for the study, reveal a satisfactory disposition with regard to a few items and these need to be acknowledged. An overwhelming majority of the Agencies have before them reasonably articulated sectoral policies to guide and steer their future course of action. In case of the LGED, DMB/DLRS and the DOLS, there are no policies like the others; however, the policy guidelines are provided either in the Fifth Five Year Plan (FFYP) or in some other approved government policy. For the LGED, for instance, the NWP covers some of its policy needs. The DMB, DLRS and the DOLS are service providers and they need updated manuals rather than policy documents which they are constantly endeavoring to accomplish. Hopefully, the forthcoming Land Policy would provide the necessary guidelines to the DLRS where necessary.

Policy provides the much needed vision that helps formulate the mission of the organization. Well drafted policies are meaningless unless action plans are developed to implement the policy directives for the benefit of the people. It is encouraging to note that a number of Agencies like the BWDB, FD, DAE, BARC, BIWTA and the WARPO undertook very difficult and unpleasant reforms as a follow up to those policies. In the case of the BWDB, FD and the BARC, these intended reforms led to the passage of new laws that redefined their mandate, scope of activities and the relationships with other stakeholders in their task environment. In case of the others, such efforts have rationalized their organization structure, procedure of work and system of delivery.

Formulation of policies has given the much needed impetus towards the development of comprehensive master plans as a first necessary step to integrated sectoral planning. The most important of these master plans is the National Environment Management Plan (NEMAP). It deals with a very sensitive subject which is a common concern across a number of important sub-sectors. This plan is duly supported by the Forestry Sector Master Plan (FSMP). There has also been a Tourism Development Master Plan for quite some time now as well as a Master Plan for the inland water transport sub-sector. The National Policy for Safe Water Supply and Sanitation is both a policy document and an action plan to the extent it provides physical targets to be achieved within a stipulated time. The preparation of the National Water Management Plan is in its final stages and is expected to be out before the end of the year. Release of the NWMP would be a major event in the history of macro-level sectoral planning in this country in as much as it would advance propositions, strategies and plans with regard to implementing the policies and principles contained in the NWP. Besides, the NWMP is expected to meet the requirements of all the water-related Agencies.

Despite institutional rigidities, the experience of joint execution of projects is mixed in terms of their success. With the exception of the DOLS, DPHE, BPC and the Coast Guard, all the other Agencies reviewed here have had some exposure to joint execution. The very fact that there have been innumerable instances of a joint execution of projects is by itself a major achievement given the culture of narrow and parochial departmentalism in the country. Such examples abound in the portfolio of projects of WARPO, DAE, LGED, BWDB, BARC, DMB and the DOF gradually diminishing in number for the FD, DLRS, DOE and the BIWTA. This experience has given us an understanding as to the real dynamics of inter-organizational cooperation in the execution of a common multisectoral project. This experience thus provides us with the much needed insight in the design of an integrated coastal zone management program within the existing institutional framework as stipulated in the GOB Policy Note.

The principle of gradual withdrawal of the public sector from activities that can be done more efficiently by the private sector and the NGOs is gradually taking hold. Steps have been taken by a number of Agencies to further intensify the involvement of the NGOs and the private sector in the delivery of services. Most of the policy documents and project components supported by external donors emphasize people's involvement in all stages of project cycle. This requires lot of motivational and mobilization work. A number of Agencies like the BWDB,

LGED, DOF, DAE, DMB and DPHE have found it both expedient and economic to engage NGOs for certain type of activities rather than employing their own staff. In certain Departments like the FD, there is still some lingering misunderstanding between them but over time, they would be able to overcome these teething problems. It has to be understood that only a couple of years back, this sort of initiative was looked upon with deep suspicion and outrage and institutional changes cannot be achieved overnight. These positive developments are presented in a tabular form below:

TABLE 5.1 Institutional Developments on certain Key Indicators

Institution	Status of Mandate	Status of Sector Policy	Status of a Master Plan of Action	Status of Reforms	Experience of Working with the NGOs	Experience of Joint Execution of Projects
WARPO	It has a statutory mandate that needs drastic revision	NWP is already released	NWMP is almost ready and would be released soon	Needs organizational restructuring and a revision of its Act	Lot of experience	Lot of experience
BWDB	The BWDB Act of 2000 has given it the much needed new mandate	NWP is already released	NWMP is almost ready and would be released soon	First round of reform already completed Next round being contemplated	Lot of experience	Lot of experience
LGED	It has a mandate but legal basis not clear	Policy guidelines are provided in the FFYP as well as such other policy documents as the NWP and the NEP	FFYP and other relevant policies provide the necessary framework	Not being contemplated now	Lot of experience	Lot of experience
DOF	As above	NFP is already released		Not being contemplated now	Lot of experience	Lot of experience
FD	As above	NFP is already released	FSMP provides the action plan	Has undergone substantial reform The Forest Act 1927 has been amended to accommodate demands of the subsector	Some experience but mistrust between the two continues	Some experience but problematic

Institution	Status of Mandate	Status of Sector Policy	Status of a Master Plan of Action	Status of Reforms	Experience of Working with the NGOs	Experience of Joint Execution of Projects
DOLS	As above	Policy guidelines are provided in the FFYP	FFYP provides the necessary framework for action	Not being contemplated now	Moderate experience	No experience
DAE	As above	The NAP and the NAEP are both released	A Strategy for Implementing the NAEP and the Strategic Plan provide the framework for action. An action Plan for implementing the NAP is also being developed	Moderate reforms are ongoing	Lot of experience	Lot of experience
DLRS	It has a mandate but legal basis not clear	Land Policy has been approved and awaiting release	It's a service-oriented and regulatory organization and its plan of action is contained in different Codes and Manuals	Suggested reforms need to be implemented	Its nature of work is such that these cannot be entrusted to the NGOs	Moderate experience
DPHE	As above	The NPSWSS is already released	The NPSWSS provides the necessary framework	Not being contemplated now	Moderate experience	No experience
DMB	As above	No Policy yet The Standing Orders fill in the vacuum	CDMP is being developed with donor support	Not being contemplated now The Bureau must have a permanent status	Lot of experience	No experience
DOE	It has a clear mandate provided in the Act	The NEP is already released	The NEMAP provides the necessary framework	Substantial reform agenda is under consideration	No experience	No experience
BPC	As above	The NTP is already released	The Tourism Master Plan provides the necessary framework	Not being contemplated now	Its nature of work does not call for any NGO partnership	No experience

Institution	Status of Mandate	Status of Sector Policy	Status of a Master Plan of Action	Status of Reforms	Experience of Working with the NGOs	Experience of Joint Execution of Projects
BIWTA	As above	NSP and the FFYP contain the necessary policy directives	The IWT Master Plan provides the necessary framework	It passed through some reform initiatives Much more is expected to come	As above	Some experience
BARC	As above	NAP is already released	No Master Plan yet FFYP and the NAP provide the necessary framework	Recently it passed through a major reform initiative leading to the passage of a new Act for the BARC	Lot of experience	Lot of experience
Coast Guard	As above	Not relevant	Not relevant	Recently set up	Not relevant	Some experience

5.3 Institutional Constraints of a Generic Nature

As already pointed out, there are some institutional constraints that are generated outside the domain of the Ministries and the Agencies. In one phrase, these may be labelled as “organization and management” issues. Such matters as creation, abolition or modification of organization structure as well as recruitment, placement, promotion, discipline, tenure, training, career planning and incentive system belong to this category.

5.3.1 Organization and Management Issues

In the Ministries and most of the Agencies, stability of tenure has come up as a major bottleneck in the long-term institutional development of these organizations. Moreover, selecting the right kind of leaders by filling in the vacancies in the top grades has been eluding a number of key Agencies like the BARC, DPHE and DOLS. Discontent over promotion is deep seated in a number of Agencies hampering important national development work.

According to the Rules of Business, personnel management of the Secretariat and in the top grades of the Agencies are centrally controlled by the Ministry of Establishment. The latter is considered a key Ministry that is always directly controlled by the Head of the Government.. Civil Service and personnel management reforms have been acknowledged by each successive government in Bangladesh to be one of the major instruments for bringing about economy and efficiency in its operations. Since liberation of the country, a good number of Committees/Commissions were set up by the Government to recommend suitable measures for constituting a modern and dynamic public administration system. The Committees/Commissions have dutifully submitted their reports but very little action has been taken on most of the major recommendations⁶⁸. Unfortunately, the whole public administration

⁶⁸ Government of the People's Republic of Bangladesh, *Report of the Administrative and Service Reorganization Committee*. Part I and II. 1973; Idem, *Report of the Pay and Services Commission 1977. Part I-The Services, Part II-Pay and other Benefits*. 1977; Idem, *Report of the Committee for Administrative Reorganization/Refom*. June, 1982; Idem, *Report of the Public Administration Efficiency Study*. Four Volumes. November 1989; Idem, *Public Administration Sector Study*. 1993; Idem, *Towards Better Government in Bangladesh*. 1993. Besides the above cited reports, there is the monumental work by the Nuren Committee chiefly devoted to rationalizing the structure of the government and the departments and corporations under its control. The Public Service Reforms Commission headed by Mr. ATM Shamsul Haque also made innumerable recommendations for improving micro-level management at different levels of the government.

reform has been looked upon by the political leaders from narrow political angles forestalling any change. On a few occasions the changes that were made by one government were even reversed by another to suit particular political ends. To cite an example, on the basis of the recommendations of the Committee on Service Structure, Government constituted the Senior Services Pool (SSP) consisting of posts of Deputy Secretary and above in the Secretariat. All the members of the twenty Bangladesh Civil Service cadres were eligible to compete for the posts under the SSP through open competitive examinations to be conducted by the Public Service Commission. Promotion within the Pool was to be given strictly on the basis of merit. But the SSP had its enemies even before its birth. Those who wanted a secure life-long career on the basis of seniority and wanted reservation of Secretariat posts in favor of a particular cadre started agitating and lobbying against it. A special committee was formed in 1985 to review the structure of the SSP. The Committee had recommended that the SSP should continue. However, a Cabinet Sub-committee, appointed in 1987 recommended its abolition which was very promptly acted upon by the Government.⁶⁹ It may be mentioned in passing that had the SSP continued, the problem of good quality managers now being faced by the administration would not have occurred at all.

Since the organization and management issues are generic in nature, there is not much that can be done at the individual Ministry or Agency level. However, the basic investigations and detailed examinations relating to improvements in the public administration of the country have been done a number of times. It is our sincere hope that the new political government to be installed after the forthcoming general elections will take the time to go through the reform proposals and take appropriate decisions to start the process of reforms in a phased manner. The imperatives of reform are so urgent that the needed action can only be postponed at a great cost to the country.

5.3.2 Matters relating to Mandate

Allocation of Business among the Ministries is a very important matter: it is the main instrument through which the scope of activities of the Ministries and the Agencies under their control are determined. Theoretically, all powers relating to the allocated business vest in the Ministries. It is then the responsibility of the Ministries to retain some of the business to themselves following the guidelines provided in the Rules of Business and delegate the rest to the different Agencies under their control. All the Agencies reviewed do indeed possess specific mandates. However, with the exception of the DOE, none could enlighten us about the source of authorization. Concerned officials tried to explain the situation by pointing out that mandates get a legal backing when corporate bodies are created under a law. However, this is not a fact that this is a practice only in case of autonomous and semi-autonomous bodies. The creation of the DOE is a case in point. It was created under the National Conservation Act, 1995 and such a law would not be cleared by the Ministry of Law, Justice and Parliamentary Affairs without a clear enumeration of the duties of the organization. It has a statutory mandate despite being a government department.

The source of authorization has become an issue for the reason that this uncertainty has created avoidable administrative bottlenecks and delay in the disposal of urgent public business. There are reasons to believe that most of these mandates were neither well thought out nor discussed inter-departmentally to reach a consensus to avoid overlap and conflict. Failure to take recourse to this consultative process has given rise to lot of ambiguities and confusion. Taking advantage of this confusion, officials of the Ministries get the opportunity to unnecessarily interfere in the affairs of the Departments. This has also led to some very serious jurisdictional infringements creating long-term interdepartmental hostilities.

Source of authorization of the mandate of the Departments is one side of the story; more serious is the perception of a lack of a comprehensive review of the Allocation of Business. The reasons for this perception has been discussed in Chapter III. It bears repetition that a fundamental and comprehensive review of the Allocation of Business is an imperative for truly reflecting the business the government ought to do for the welfare of its people and for ensuring sound public administration. This is again a generic issue and piecemeal updating the mandate

⁶⁹ The report of the Cabinet Sub-Committee may be seen in Government of the People's Republic of Bangladesh, *Report of the Cabinet Sub-committee for Examination of the Structural Organization of the Senior Service Pool (SSP) and Unequal Prospects of Promotion of Various Officers of Various Cadre Services*. 1987.

of one Ministry or the other that is taken recourse to occasionally by some enterprising Ministry would not solve the problem. Steps need also be taken to officially notify the mandates of the departments. The concerned Ministry could notify such mandate through notification in the Official Gazette. Even an ordinary notification would serve the purpose.

5.3.3 Less Control and more Accountability

The governmental system of Bangladesh is based on a system of control. All financial, personnel and planning matters are centrally controlled. One government circular that gives a line Ministry or an Agency some authority to do a certain thing is matched by half a dozen other circulars that prescribe such conditionalities as to negate that authority altogether. Well intentioned initiatives get easily lost in this network of unmitigated control.

The requirement of mandatory consultation makes things more difficult. The dysfunctions of this requirement has already been discussed. In many developing countries, the control mechanism has been replaced by a very strong system of post-facto audit. Officials are given easy access to the resources they need for implementing the Agency program. Their performance and financial management are subjected to prompt and incisive audit. Stern action is taken against gross violation of rules and financial impropriety. In Bangladesh, there are the rules but no accountability. Rules and control are looked upon as substitute of accountability. Rules are often used as a shield to cover up delays, satisfy egos and even to take recourse to corrupt practices. In the final analysis, it is not merely rules, regulations and government orders that would ensure co-ordination. These must be matched by a spirit of cooperation, achievement-orientation and a clear understanding of each other's needs for the greater good of the country. This would involve reducing the web of control, delegating more financial and administrative powers to the administrative Ministries and the Agencies, bringing about accountability and transparency in the transaction of business and a total reorientation of the bureaucracy. This is again a very tall order and again a generic issue. But such issues must be flagged as these are part of the problem.

5.3.4 Capacity Building and Modernization of Administration

These topics are part of the reform agenda awaiting government action. We understand that civil service and other structural reforms are difficult to accomplish. However, if the line Ministries would demand it with very strong determination to modernize their management system by introducing computerization and other modern tools of management, it may not be difficult to reach their goal. Knowledgeable people with many years of administrative experience are of the view that modernization has not been very earnestly sought by the higher bureaucracy itself. Some of the enterprising Secretaries have already established LAN through their own initiative with donor support without any assistance from the Ministry of Establishment or Finance. But this is not the solution of the problem. The Secretaries' Committee is the forum where these issues may be raised to urge the government to take up appropriate measures for capacity building and modernization of management by delinking these from the more difficult and the controversial ones.

5.4 Specific Issues: What the Agencies Can Do

In this section, we would like to discuss problems peculiar to a particular Agency as we believe that they are themselves capable of resolving them. But before we take up the individual cases, we would like to draw their attention to some of the issues common to them all.

5.4.1 Basic Tools of Good Management

Institutional profiles, job descriptions, rules of procedure, delegation of administrative and financial powers, preparation and updating of Manuals, recruitment and promotion rules and service rules are important tools of good management. During our review, we found that quite a number of Agencies did not have all the basic documents enumerated above. Of the fifteen Agencies surveyed, only three were in possession of all these. In some cases, these were found to be quite dated needing revision.

Training as an instrument of capacity building is neglected by most of the Agencies. Some large Agencies have the necessary physical facilities but these do not have any life. Huge public investment is being wasted. There is a need for revamping the regular training system that was operational at the time of liberation of the country.

Heads of the Agencies can do a lot if they would take a little personal interest in developing the MIS and other software. It has been found that the donors have generally been very supportive of these initiatives. But nowhere did we find the big push. Even such Agency as the WARPO that has to solely depend on the development of the softwares has to go a long way.

5.4.2 Action Program for the Agencies

We would now like to deal with each Agency individually and suggest some action program for their institutional development.

5.4.2.1 WARPO

WARPO has been conceptualized in the NWP in the image of its chief institutional device for planning and managing the water resources of the country in an integrated manner. In order to enable WARPO to assume its role assigned in the NWP, the following actions ought to be initiated without any further delay:

- The NWP has brought about many radical changes in the concept, practice, procedure and role of water sector institutions in the management of water resources. A new dimension has been added to the role of the WARPO by assigning it the Secretariat function of the National Water Resources Council and the watchdog role for maintaining the integrity of the NWMP. The WARPO Act of 1992 does not cover these responsibilities. Implementing the various directives of the NWP, WARPO would need legal cover. The first order of business in the institutionalization process would be quickly drafting a new law covering the latest developments and obtaining agreement of all concerned stakeholders as to its content and thrust. The composition of the Board of Directors, unlike the one in the present Act, must contain a mix of public and private sector people who either have considerable stakes in the future water resources planning or have demonstrated their commitment and capacity for meaningful contribution in the planning process of the sector.
- The NWP has further assigned the WARPO the task of preparing and periodically updating the NWMP as well as the NWRD. Both these assignments are now being completed with considerable donor support. This is very much justified considering the enormity of the task and the relative inexperience of WARPO staff in doing this kind of work. After this basic work has been accomplished, it would be the general expectation that WARPO would be able to do the updating by itself. However, there is no indication as to how WARPO wants to address the issue. At this point of time, it does not have any plan of action. The updating exercise would involve, at a minimum, twenty odd public agencies and a host of other private institutions, NGOs, universities and stakeholder organizations. There has to be a continuous flow of information. What are the mechanisms through which this flow can be ensured and maintained? Does WARPO need to enter into some formal arrangements with those other relevant organizations by signing memoranda of understanding or are there other mechanisms like inter-agency committees or task forces? WARPO should start a consultation process with its partner organizations and come up with an agreed methodology. It should then be refined through its exercise over a length of time and later institutionalized.
- The assigned role of WARPO as a “clearing house” for all water sector projects identified by different agencies for implementation is highly sensitive. The principal purpose of this responsibility is to prevent willful and unacceptable disregard and violation of the NWMP. The important thing to consider here is that WARPO is a central planning agency and it does not have any field outfit. The most viable way to fulfill this monitoring responsibility is to work as a technical arm of the Planning Commission when projects come up for processing at that level. For small projects that will not come up to the level of the Commission, the Thana level inter-agency committees

already constituted by the Commission may serve the purpose. Whatever may be the shape of institutional arrangements, WARPO must take the initiative to draft an administrative arrangements, hold discussions with all concerned agencies about it and finally get it approved by the NWRC. It would be a good idea to get the administrative order issued by the Planning Commission to give it a neutral cover.

- By now, WARPO ought to have a reasonably good idea as to the future size of its organization and the mix of manpower. It had been considering a number of options and has been postponing a decision on its essential choice. It must make up its mind now. It is our considered view that the purpose of the Government will be best served by retaining its present character. Turning it into a Trust will deny it the weight of a government agency and the financial benefit for which it wants to lose its character may elude it.
- Last but not the least, WARPO must have its own accommodation. Since its creation in 1991, it has changed place six times. In the process, it has lost many valuable documents, maps, equipment, electronic gadgets and other valuables that go to make up an institution. This time it is all the more necessary in as much as the NWRD is being developed which will need to be nurtured and maintained with great care and dedication.

5.4.2.2 Bangladesh Water Development Board

Over the past couple of years, the BWDB has gone through a process of substantial reforms. The reforms carried out so far, though substantial, are only the beginnings of a long-drawn process. It has to be appreciated that half-a-century old mindset and administrative culture cannot be changed in the course of a couple of years. The enabling policies, legal instruments and action plans are ready - these have to be operationalized now.

In the short and medium term, the following actions need to be taken:

- Human Resources Development
Developing the Central Training Institute at Bhagyalak as a center of continuing education for the BWDB professional staff.
Computerizing gradually all operations of BWDB through training and retraining of existing staff and installing necessary hard and soft wares
- Commercialization of the DO and the MEO
Preparatory study in ongoing. The BWDB will have to take the necessary follow up action
- Transferring FCD/FCDI projects with command area of 1000 ha or less
Without waiting for any donor financing that may not be forthcoming shortly, the BWDB should initiate work on this item with its own resources. This will give it the necessary insight for doing this type of work it has not done before,
- Management transfer of medium and large projects to beneficiary organization and joint management of projects
Before taking up this exercise with regard to existing projects, the BWDB may like to design the project organizations in the upcoming projects on these lines. This is much easier to do since there are no vested interests.

5.4.2.3 Local Government Engineering Department

- LGED has serious problems towards its ultimate institutionalization. It is true that a very strong and committed leadership has been sustaining the organization. There is apprehension that this stability is very transient as it depends mostly on the leadership of the Chief Engineer. This is contrary to the process of institutionalization where the value system has to be embedded in the psyche of the rank and file. Despite its ability to deliver outputs in a satisfactory manner, it is surprising that the LGED does not have a job description as yet. It does not also have a formal delegation of administrative and financial powers. Consequently, the financial management and accounting system in

LGED is considerably weak and fragmented. LGED also needs to develop a Rules of Procedure to institutionalize the speedy disposal of its business.

- Another major constraint to LGED's capacity building to the fullest desirable extent is its heavy reliance on the TA staff. Their presence at the HQ gives the impression that major decision-making processes are run through these people. They are not, however, the permanent staff of the organization: strategically they do not belong here. Such visible presence of the TA people is affecting the long-term institutionalization in two ways. First, the permanent staff members are not getting enough opportunities to train themselves for what the TA staff are doing. Secondly, higher salary and other facilities drawn by the TA staff have created both jealousy and frustration among LGED people with corresponding level of qualification and experience. TA staff cannot be a substitute for the regular staff of an organization. TA staff should be appointed only for those disciplines for which expertise is lacking in-house. LGED must rationalize its TA policy keeping in view the imperatives of institutionalization.

5.4.2.4 Department of Fisheries

The DOF has quite a number of institutional issues to resolve.

- First order of business is the proper setting up of the Marine Wing of the Department. Of a total sanction of 4425 staff, only 181 are allocated to the Marine side - the rest work for the Inland Fishing Director. Except for the Director, Marine and his personal staff, all other professionals and staff are based at Chittagong and Cox's Bazar. The Deputy Director, Marine has a total of 80 staff under his control. Most of the professional posts are lying vacant. The staff of the Marine office is supposed to control the catches and the conduct of fishing vessels. But they cannot supervise and exercise their control over the marine area physically for want of sea-going vessels. They are simply compiling the reports of the vessel owners and act as teachers sitting on the shore.
- DOF also maintains a Marine Fisheries Survey Management Unit with a manpower of 100 officers and employees. Its Head Quarter is at Chittagong with branch office at Cox's Bazar. It has two research vessels namely R. V. Anusandhani and R. V. Machranga. The survey office is not capable of holding the survey work as both the survey vessels are lying out of order for long, many technical posts are vacant and the personnel lacks actual technical know-how about scientific survey of the marine aquatic animals. The vessel employees are enjoying long holidays and allegedly are doing other job outside their office.
- A few surveys have been conducted since 1958. These are mostly of exploratory nature, study oriented and related to fishing feasibility. Some surveys however, have been conducted to assess the standing stock of the marine resources, particularly the demersal fish stock. But hardly any survey work has been conducted to reasonably assess the pelagic resources.
- Again the results of each survey have been highly criticized by outside professionals because allegedly these were not based on extensive and physical data. Evidently, Research Vessel Machranga conducted voyage of 4/5 days once a year from 1995 to 1997 and it is now lying out of use since June 1997. RV Anusadhani could operate once a year in 1997 and 1998 and is lying out of order since January 1999. Having regard to the migratory habits of the marine species, continuous survey of the fishery resources is necessary for assessment of the stock.
- The next item to look at is the personnel management problem. In 1980, the GOB constituted the Bangladesh Civil Service (Fisheries) cadre with initial cadre strength of 659 professionals. As of June 30, 2001 the carried over vacancy for 106 cadre posts could not be filled up due to resistance from some 152 officials who were recruited by the DOF directly. Since they were not recruited by the Public Service Commission, there is problem in their encadrement. Failure of the DOF to resolve the cadre-non-cadre issue has forced it to keep important positions vacant for a long time. The Marine

Wing is the worst sufferer of this bottleneck. Alongwith the DOLS, it should jointly work with the administrative Ministry for early resolution of the problem.

- The deficiency of the DOF that is most visible is its lack of enforcement of the different legal provisions entrusted to it for the development and conservation of the fisheries resources. As far as enforcement in the coastal waters and the sea is concerned, it has been proposed in this study that this responsibility may be given to the Coast Guard by making suitable amendments in the relevant laws. Once relieved of this burden, the DOF can then augment its vigilance capacity for inland fishing.
- Development of fisheries resources needs capacity building through manpower development. There is an acute shortage of faculty at the Fisheries Training Institute at Savar. Though this is a common feature of most of the training institutes in Bangladesh, it needs special attention of the management for its role in the sector.

5.4.2.5 Forest Department

The FD has recently passed through substantial organizational reforms. The necessary legal and administrative actions have been taken: the Department needs to take the follow up actions. Some of the important items are just highlighted here.

- Reportedly, there is serious imbalance in the deployment of professional staff. There is a shortage of professionals at the HQs and the Project Directors have to look after more than one project affecting quality of supervision and speed of implementation. The revised organogram needs to be activated.
- There is too much concentration of work with the CCF with very limited work assigned to his Deputies. The revised organogram has rectified it but has not yet been implemented.
- The new organogram has allocated an exclusive set up for the coastal area with earmarked manpower. This needs to be activated soon.
- The main responsibility of the FD is to protect and conserve bio-diversity, wildlife, forest resources and the natural environment. For efficiently running the operations of the Department, the rank and file has to clearly understand the laws and their implementation. The changed mandate of the FD would now demand of its personnel across all ranks to deal with the members of the public. This is totally a new approach unknown and not experienced by most of the employees of the Department. The FSMP envisages a triangular relationship among the FD, the NGOs and the beneficiaries. This can be perhaps achieved through a total re-orientation of curricula and courses for forestry education at the higher institutions of learning as well as in the Departmental Training Institutes. Consistent with the new mandate, the FD will have to carry out a thorough overhaul of its training system. Curriculum development, training of trainers, linking training performance with career progression are priority areas for immediate attention.
- With regard to development of managerial tools, there is much to be done. Among other things, development and use of the following are accorded the highest priority:
 - Review and update the delegation of administrative and financial powers consistent with current thrust towards decentralization
 - Establishment of a computerized database for financial, personnel and performance monitoring purposes
 - Enhancing planning capability through improved data collection, storage and analysis, improved mapping of forest area and preparing annual work plan for each Circle
 - Preparing job descriptions and rules of procedure in view of the reorganization of the Department
- In the light of their experience of working with the NGOs, the FD will have to seek ways of improving this relationship. They ought to be convinced now that the

implementation of the FSMP and the social forestry projects cannot be done by the departmental employees alone. Learning from the experience of these Agencies, the FD may think of settling the terms and conditions of cooperation beforehand through signing a MOU.

- FD also needs to remove the public perception about their Department as something like a Police Department. It has also to accustom itself about doing cooperative work with other Agencies.

5.4.2.6 Department of Livestock Service

The DOLS needs to resolve two long pending issues, both vital for its satisfactory performance and contribution to the economy of the country.

- The first relates to cadre management. The professional positions of the Department are encadred in the Bangladesh Civil Service (Livestock). From entry level to the position of the Director General, the number of these posts along with leave and deputation reserves come to 1471 which account for all class I posts in the DOLS. Government had created this cadre alongwith other professional cadres to raise the morale of the concerned officials and to facilitate all round development of the country. Unfortunately, mismanagement of the cadre has gone down to such a low level that, with the exception of six officers, the other 233 officers from above the rank of Thana Livestock Officer to that of the Director General are holding superior charges without obtaining any substantive promotions. Officers expressed their helplessness, anger and frustration over the promotion issue. The already complicated cadre issues are further compounded by mindless and narrowly focussed interference favoring the composition and privileges of particular cadres without realizing its ramifications in other cadres. The problem arose due to the Department's inability to resolve disputes of *inter se* seniority of the encadred officers. This is not a problem peculiar to this Department only. This has happened in other organizations also and some of them have been able to resolve them satisfactorily with the help and guidance of the administrative Ministry. It would be too much to expect any substantial contribution from these officials when 663 cadre posts or more than 50% of the encoded posts remain vacant due to failure to process the promotion cases. The DOLS and its officers must cooperate with the Ministry in resolving the problem.
- The other issue relates to long-term planning. The Department has not been able to develop a reliable database for long-term macro-level planning. Determination of the number of livestock is an important element in that kind of exercise. As a beginning, a "Resource Survey" may be carried out by the Department in association with some donor and the product then can be updated at regular intervals. Use of modern techniques for program management like computerization for monitoring and evaluation purposes and for financial management is virtually absent. Such old standard tools for good management like rules of procedure or delegation of administrative and financial powers are either missing or are outdated. A job description for all the relevant officials was found in one of the booklets published by the Department. This needs to be reviewed by the Department for suitable modifications and then this may be officially issued to all concerned for guidance and follow-up.

5.4.2.7 Department of Agricultural Extension

After its creation in 1984, the DAE has come a long way in delivering its services to the farmers. Evaluation of its performance has discovered a number of shortcomings the Department now seeks to remedy. The DAE would have to pursue the strategies of achieving the goals of the NAEP to remove these shortcomings.

- Enhance the capacity of the extension officials to deliver the expected services. Until recently, progress in this area has been very limited. The DAE does not have a coordinated view of HRD and there is a need for review of its training program.

- Another important component in capacity building is the development of a dependable Management Information System (MIS). Attempts were made in the past years to do it through consultants. However, too much dependence on donor assistance hinders the development of a sense of ownership, which is detrimental to long-term institutional development. This is what has happened in the DAE's MIS program development and in future this must be avoided as far as possible.
- Though the multiplicity of extension services within the MOA was consolidated, there were other extension services provided by other government organizations (GO) and the NGOs and the private sector. DAE, being the prime extension agency of the GOB, it was its responsibility to coordinate the extension services of the various providers in order to optimize the use of the resources within the system. This should be attempted now.
- It was found that government organizations tended to provide services to the rich and the articulate to make sure that the time spent on them would be fruitful. Vast multitude of poor and marginal farmers remained outside extension coverage. Government extension system should not discriminate among different farmers on the basis of the size of their land holdings or their wealth.
- Farmers are primarily concerned with management of risks. They, therefore, allocate their resources on the basis of their own calculation to maximize their return from crop, livestock, fisheries and other activities. The extension advice can not be piecemeal: there has to be a farm management approach.
- Farming system vary from place to place. The practice of issuing uniform directives from the Head Office was not conducive to meeting the needs of these diverse farming systems. There is a need to devolve these responsibilities to the local level for planning and implementation.
- Poverty alleviation is one of the main objectives of the Agriculture Policy. However, extension programs did not have any specific focus on women's involvement. Similarly, it did not have a clear policy on mainstreaming environmental issues. These issues need to be taken care of now.
- The NAEP seeks a total reorientation of the extension approach so far experienced in the country. With continually changing configuration of land-man ratio and the rising incidence of marginal and small farms, the most effective way of transfer of technologies and dissemination of information is interaction at group level. At a time when the Government is under tremendous pressure to cut public expenditure on establishment, there is a need to think of a delivery system at a much lesser cost to the public exchequer by involving the private sector and the NGOs. Retaining the present strength of staff does not seem to be sustainable in the long run.

5.4.2.8 Directorate of Land Record and Surveys

- The major problem of the Department is that of staffing. A number of Committees have recommended quite a few alternatives for revamping the capacity of the organization. But nothing much has happened. If nothing else the Department should get the vacancies filled up quickly in the interest of public service.

5.4.2.9 Department of Public Health Engineering

The DPHE has to address two institutional issues for the present.

- First is the personnel management issue. The manpower situation of the Department rests on very shaky foundations and unless these long-standing issues are resolved promptly, the capacity of the Department to deliver would sink beyond any redemption:

The posts of the Chief Engineer, Additional Chief Engineers and eight SEs have not been filled up properly for the last one decade. The present CE holds the substantive rank of a SE and this is so in respect of other senior officials in the Department. The reason for this impasse is litigation about *inter se* seniority of the concerned officers. There were similar problems in other Departments also in the wake of constitution of the new Bangladesh Civil Service (BCS) cadres. Fortunately, most of them have been able to overcome them. If others can do it, there is no reason why the DPHE cannot do it.

There is a need to create 42 posts of SDEs immediately so that the Department can go for direct recruitment of officials at the entry level followed by a chain of promotions in the higher grades to revitalize the cadre. This process would also help regularize the induction of the non-cadre officers of the Department who are waiting for absorption for a long time.

The Department has a very heavy dependence on the projects for maintenance of its establishment. With minor adjustments, the approved permanent revenue set up should be capable of delivering all the services now being performed by a parallel temporary organization. This sort of duality is wasteful, unsustainable and antithetical to the institutionalization of the mother organization. There is a 7:1 ratio of development to revenue budget for the DPHE in an average year. With declining donor assistance in the most recent years and the possibility of relinquishing some of the current DPHE functions to other agencies and to the private sector, the size of the manpower is bound to reduce. It would be worthwhile for the Department to undertake a self-analysis of the deep-rooted institutional problems and in the light of that analysis rationalize its manpower and organization structure.

- The other important issue to be addressed is the scope of its activities. In the field of both sanitation and water supply, the private sector is rather active in both the urban and rural areas. It is providing stiff competition to the DPHE in the manufacturing of concrete slabs, rings and pans. If it is a government policy to gradually withdraw from areas of operation where private sector can do better, it is for serious consideration whether the Department should continue with its manufacturing job.

5.4.2.10 Disaster Management Bureau

The DMB is relatively a new organization. The following are priority institutional issues:

- The first order of business is to set up the Bureau on a permanent footing, create the necessary positions, firm up the recruitment rules to recruit the right type of people and arrange for necessary training for their induction to the system. The practice of filling the positions by officials on short deputation will not work here and should be discontinued at the earliest opportunity.
- Permanent status must be backed by permanent office premises for the DMB. It has been found during this review that a few important Agencies do not have their own premises and they hold their offices at hired accommodation. This practice has been a great impediment to proper development of those institutions. These hired accommodations are designed by their owners as residential buildings and these cannot meet the specific requirements of technical organizations. Moreover, the owners shy away from long lease with the result that there is frequent change of office premises. In the process of movement, sometimes valuable documents are lost and equipment damaged. Investment in office premises is a necessity in the context of Bangladesh and it is more so in the case of the DMB.
- The Standing Orders on Disasters, for their compliance, envisage the following follow up actions by the concerned Ministries/Departments/Agencies:

- Fixation of focal points by the Ministry/Department/Agency Disaster Management Offices
 - Formation of Committees and preparation of plans for cooperation by concerned Agencies
 - Issuance of Action Plans regarding responsibility, duty and powers of the concerned personnel of the Agencies
 - Arrangement of necessary training and preparation of directives for concerned personnel of the Agencies.
- The above actions have not been taken by the concerned Agencies in the spirit in which these were drafted. For this a much greater effort needs to be launched by the DMB and the MDMR. They need to monitor progress on each item in their checklist at regular intervals, periodically seeking the moral support and direction from the top level Councils.
 - The other area where further efforts would be needed is the scope of disaster management. The program development by the DMB has a heavy bias towards cyclone and floods. However, millions of poor and marginal people fall victim to the vagaries of nature caused by riverbank erosion and drought. The MDMR and the DMB, in close collaboration with the MOWR and the MOA, must develop suitable programs in these two neglected areas.⁷⁰ One set of Standing Orders may be found to be too general to tackle all kinds of disasters and given the current disposition for more specific and specialized response to disasters, there may be a need for couple of more sets of Standing Orders.
 - In the matter of construction of cyclone shelters, humans rightly got the first preference. The time now has come to consider giving protection to the livestock also. They are valuable resources and in the past disasters the loss on that score has indeed been colossal.

5.4.2.11 Department of Environment

Unlike the other organizations covered in this Review, the DOE is in the process of being developed. There is no point in critiquing the existing arrangement, which the Government itself considers to be highly inappropriate and inadequate. It would be worthwhile to draw the attention of the concerned people about some of the problems that have already cropped up and may be resolved to facilitate the process of its future development. These may be discussed in the following broad categories:

- Hamonization of Different Policies relevant to Environment
The NEMAP has identified eleven sectors whose activities impinge on environment. Ministries responsible for development of the sectors have already issued policies that will guide their future action. On scrutiny, most of the relevant policies have been found to be generally in accord with the Environment Policy. However, there seems to be some overlap between the functions prescribed for the WARPO and those for the DEO. The National Water Policy directs the WARPO to develop environmental standards and guidelines for the water sector. The DEO has a general mandate to prepare this for all the sectors. Indeed the environmental component of the Flood Action Plan known as the FAP 16 developed a set of EIA Guidelines under the Flood Plan Coordination Organization (the predecessor of WARPO) for use in the water resources sector. This was approved by the Government with the consent of the DEO. The water sector projects were following the guidelines and there was no conflict. After the promulgation of the 1997 EIA Guidelines things have changed dramatically. Water sector agencies consider the DOE Guidelines to be too stringent and some of its requirements like obtaining yearly environmental certificate in respect of completed projects as unnecessary. There is a suspicion that the 1997 Rules were promulgated hurriedly to meet donor deadlines without proper consultation with the stakeholder agencies. It is a

⁷⁰ Water Resources Planning Organization, Ministry of Water Resources, Government of the People's Republic of Bangladesh, *National Water Management Plan: Development Strategy*. Dhaka: June 2001 in its Chapter on "Disaster Management" has briefly discussed about these issues.

good gesture on the part of the DEO that they have agreed to sit with the WARPO and collaborate on a new set of guidelines on the water sector that may resolve the current misunderstanding.

- Capacity Building of the DEO

There is a reasonable legal framework for carrying on the regulatory functions of the DEO. It is, however, also true that the Department just does not have the capacity to enforce them. The two ongoing TA projects are expected to help build up that capacity. While doing that it would be worthwhile to remember that the DEO is a very different kind of organization. Disciplinary specialization required for managing the emerging environmental concerns are quite new and needs diverse skills mix. Selection and career development of the future recruits are very crucial to the success of the operations of the Department. It is, therefore, an absolute imperative that the recruitment rules are properly written and a career plan is developed to attract the best talents available in the country. An integral part of the capacity building process would be to set up well-equipped laboratories so that the quality standards set up in the regulations can be implemented. A third area that needs special attention is ensuring the conduct of the activities of the DOE in a very transparent manner. The decisions of the Department, in some cases, may stop someone from doing something which people had been doing for generations and handed down to him by his ancestors. In a most densely populated country like Bangladesh, humans are the worst offenders of the environment. It is, therefore, necessary that the processes of adjudication are conducted within public view and these processes are written in clear and unambiguous terms.

- Collection of Data

The DEO will need reliable data as a rational basis for making informed judgements on a variety of issues covered by its mandate. Currently, it is carrying out routine surface water quality monitoring. Many water sector agencies do also collect different kinds of data. The WARPO is engaged in building the National Water Resources Database. Prior to the determination of data collection program, the DEO may find out what is already available in the field and examine if some of these could meet its requirements. It can then concentrate on collecting those data that are not being collected by any agency or are not collected in terms of their needs. This will avoid unnecessary duplication and maximize the use of scarce resources.

5.4.2.12 Bangladesh Parjatan Corporation

In the context of globalization and the expanding role of the private sector, there are two short comments about the BPC.

- In the face of very clear declaration in the NTP that all efforts would be made to gradually withdraw capital from the public sector owned tourist infrastructures and transfer those to the private sector, talk of institutionalization of the BPC is highly anachronistic. BPC should expedite transferring these assets at their earliest convenience.
- Instead of a commercially oriented BPC, a new tourism regulatory body should be set up leaving the field open to the private sector. In this connection, the role of the Export Processing Zones (EPZ) may be compared with the requirements of tourism development. In the EPZs, the Government develops the necessary infrastructure but it does not set up any industries. Within the framework of regulations, the private sector is allowed to come in. Similar approach, with necessary adjustments, may also be taken for tourism development in Bangladesh. Tourist attractions are location-specific and their development needs sound land use and facilities planning. For this purpose, no land acquisition is necessary on a large scale; it would be based on a land use policy with strict zoning requirements. New legislation will have to be enacted to enable the Government to declare specified areas as tourist zones, bring those areas under master planning and set the details of regulation for development of the area. For doing all these work and ensure that the zoning and planning regulations are strictly followed, a highly professional and neutral body would be required. This new role can be taken

up by the proposed regulatory body that may be called a Tourist Development Authority or Tourist Development Board.

5.4.2.13 Bangladesh Inland Water Transport Authority

- BIWTA is handicapped in the discharge of its mandated responsibilities due to severe institutional constraints. To achieve significant improvement in the sector, all the institutions involved in the sector must be reviewed together. The approach of the IWT-III Project in considering all inland water sector institutions together within the framework of a program development is both strategic and appropriate, though it partly failed for other reasons.
- There should be another IWT sector development program, which should be built on the lessons learnt from the IWT-III experience. There should not be any mistake in taking the stakeholders into confidence on the intended reforms. It is just not possible to carry out institutional reforms without detailed discussions with the affected people who must have the opportunity to calculate the gains and the losses involved. Within the framework of such a reform effort, the following issues will need careful consideration in respect of BIWTA:
- BIWTA should be developed as a respectable regulatory agency with high standards and strict enforcement. To facilitate that development, regulatory functions must be brought in the mainstream of the organization assigning secondary role to such commercial operations as dredging.
- In Bangladesh, dredging operations are almost exclusively in the hands of the public sector. The BWDB maintains a fleet of 32 dredgers in addition to the 8 available with the Dredging Unit of the BIWTA. In the past, there were unsuccessful attempts at their merger for forming an independent commercial organization. This issue, in somewhat different form in the context of globalization, has resurfaced. This time the driving force seems to be running the operations purely on commercial basis. The MOWR has agreed in principle to carry on this exercise. For this purpose, it has engaged the Infrastructure Investment Facilitation Center (IFFC) established under the IDA financed Private Sector Infrastructure Development Project to develop different options for commercialization. The BIWTA may also proceed on similar lines. It must consider the advantage of getting the dredging operations done through contractors rather than going through the hassle of running an entire commercial operation itself. Getting rid of this avoidable burden will give it the opportunity to concentrate on more substantive issues of developing and enforcing IWT regulations.
- ATN is the most important element in maritime safety administration in Bangladesh. The Conservancy and Pilotage Department of the BIWTA generally provide this service. Similar facilities also exist with the ports at Chittagong and Mongla. It is desirable to integrate these three services within an overall concept for better economy and efficiency. BIWTA has workshop facilities for ATN services at Barisal. It may be examined if the workshop can be made the locus of an integrated ATN service center by upgrading its facilities.
- The activities conducted by the Department of Hydrography are more or less similar to those conducted by the Hydrology Department of the BWDB. It is desirable for the two Agencies to sit together and, based on comparative advantage, chalk out a complementary program to avoid overlap and duplication.
- Modern management techniques need to be introduced in BIWTA in phases by introducing computer technology and developing a viable management information system (MIS).

5.4.2.14 Bangladesh Agricultural Research Council

The new BARC Act and the follow up revision of the Acts of the ARIs are the first step towards creating an enabling environment for doing better research. The following further actions need to be taken:

- The situation obtaining at the time of passage of the revised Act was not conducive to the development of good quality scientists. The existing rules did not reward outstanding scientific work nor did it sanction bad performance. Evaluations were not linked to performance targets and job descriptions. There is a program to revise the existing recruitment rules to ensure uniformity of qualification and other requirements and to prepare clear job descriptions for proper evaluation. The BARC Act of 1996 has made the necessary provisions for recruitment and promotions from Scientific Officers to the Chief Scientific Officers level through a recruitment committee set up by the Council on the basis of uniform recruitment rules. However, this provision could not be acted upon, as the draft rules are not yet finalized five years after the passage of the Act. This has to be expedited.
- Next in importance to human resources development is the issue of funding. This is not peculiar to research programs but is endemic across sectors. There is a heavy dependence on donor assistance for virtually all capital expenditures and most non-salary operational costs. In desperate situations, donor funds even take care of salary costs also. However, the donors cannot be expected to support these programs indefinitely and they like to withdraw or refrain from making any fresh commitment unless Government gives some positive indication to increase its current level of funding. There has been many an occasion when the Government has failed to fulfill its commitment after the withdrawal of the donor. There are three direct consequences of this phenomenon; first is the interruption of work with the drying up of donor fund; second is the underutilization of fixed assets resources and the third is the chronic dilapidation of facilities. It is true that the Government has severe budgetary constraints to meet adequately the needs of all the sectors. However, it has to be understood that sustained investment in agricultural research is necessary to raise total factor productivity in farming. Its justification lies in the fact that some of its fruits are public goods. The system average of allocated fund to agricultural research is less than half a percent of the agricultural GDP. There is thus full justification for increasing the revenue budgetary allocation to BARC and the ARIs. Till such time this issue is satisfactorily resolved, it would remain a major constraint to better research efforts.
- Better research is handicapped by a number of problems that can be discussed together as a linkage problem. At one level, it is an issue between the BARC and the ARIs and between the NARS and the rest of the research community. At another level, it involves relations between scientists and the extension workers, whether public, private or social as well as relations among scientists, extension workers, and farmers. There is an aura of secrecy maintained by the scientists while conducting research and there is very little exchange of information among the stakeholders. This lack of linkage sometimes results in recommendations that cannot be applied in the farmers' field. The situation is made worse by preference of the ARIs to install their own arrangements of technology transfer bypassing existing extension service and the NGOs. The NARS has had very little exposure to participatory research programs. To remove the linkage problems, the system has to be more responsive to the needs of the farmers and must learn to work jointly with the extension, other research organizations, NGOs, the private sector and the farmers at large.
- There have been frequent complaints about lack of transparency in the allocation of research funds among the NARS members. As a result, there has been serious misallocation of scarce resources. Such allocation has tended to lack focus and in many cases, have been found to be inconsistent with either equity or efficiency norms.
- Another reason for this lack of transparency is the concentration of both administration and finance under the same Member-Director. The situation turns worse when everything is concentrated at the top without any delegation whatsoever. And lack of

professional people has always hindered the growth of a sound financial management system.

- BARC's pursuit of autonomy must be matched by corresponding accountability. Lack of trust is the greatest constraint towards the development of a mutually supportive and reinforcing cooperative NARS. The Mid-term Review⁷¹ (MTR) of the ARMP has revealed that in the matter of setting up a modern financial system very little progress so far has been made. Couple of small steps like delegation of proper administrative and financial powers and appointment of a full-time outside financial expert as the head of an independent finance unit would go a long way in meeting the financial management needs of the Council. In this regard, the recommendations of the MTR should be considered in right earnest and steps taken for their implementation.

5.4.2.15 Coast Guard

- The main problem in a full-fledged launch of the CG seems to be financial constraints. However, Government has been providing budgetary support to a number of Agencies for surveillance and patrolling of the coastal and marine waters. In the coastal area, many activities have been prohibited under the provisions of a number of Acts. For maintaining the territorial integrity, preservation of the natural environment and sustainable use of coastal resources, strict enforcement of these legal provisions is crucial.
- The limited budgetary allocations received by the concerned Agencies are not commensurate to meet the requirements of logistics and manpower to do the enforcement job. Understandably, their record of performance in enforcing the legal provisions is rather dismal. Besides the allocations of funds, the lack of specialization of the civilian officials to carry out duties in the sea should also be highlighted for a proper understanding of the matter.
- One of the dictums of efficient and economic operation of an agency or a unit of administration is outsourcing some of its activities to an outside agency that can perform it more cheaply and effectively. At present, about a dozen government agencies are trying to cope with enforcement of legal provisions under different laws. . At individual agency level, the allocation is highly inadequate; but great economies of scale can easily be achieved if this task is assigned to a single specialized agency by pulling these scanty resources together. It is argued here that the enforcement function relating to all legal provisions of the above noted laws can be assigned to the CG by suitably amending these laws.
- This would sound all the more rational when the question of specialization is considered. The important thing to stress here is that some jobs demand a very high level of specialization and responsibility. Specialized jobs should be entrusted to those who are best suited to do it. Patrolling the sea and the high seas cannot be done by civilian officials without imparting them considerable training. The force belonging to the CG virtually live on the sea and the law has also conferred them the necessary police powers to carry out effective patrolling. With these powers, members of the force can apprehend the criminals and the offenders. After arrest, they are handed over to the police for taking legal action against them.
- It is thus evident that the CG is capable of enforcing the preventive sections under different laws relating to the coast and the territorial waters that have had no perceptible result so far by departmental efforts. Should it be possible to give jurisdiction to the CG to carry out the enforcement job under the laws mentioned above, part of the financial constraint will be removed to the extent the assets and posts related to the transferred activities would also stand transferred to the CG.

⁷¹ Bangladesh Agricultural Research Council, *Agricultural Research Management Project: Mid-term Review*. Main Report. October, 1998.

5.5 Implications of this Institutional Review for an ICZM Program for Bangladesh

The institutional review has revealed positive developments in some key areas while deep-seated constraints in few others. As far as the policy and planning framework is concerned, the reviewed institutions have made tremendous progress. The published policy and plan documents have provided the point of reference for the concerned agencies to sit together for dialogue for developing an integrated plan of action for such a program as an ICZM.

It has also been found during this review that quite a large number of agencies have jointly executed a number of donor-assisted or government funded development programs. Additionally, some of them have also worked very closely with the NGOs and the private sector. It is quite natural that on a few occasions there have been misunderstanding between the agencies or between an agency and a NGO but the effect of all these cannot be long lasting. Within an ever-expanding framework of cooperation, these initial problems will gradually disappear. It has to be remembered that the agencies have, for centuries, been used to work independently following the petty interests of the departments even if they were on a few occasions causing great national harm. A transition from that kind of mind-set to that of a participatory and collegial decision-making would take time. In fact, taking up programs like the ICZM provides an opportunity to these agencies to work together and learn from mistakes. Expecting that the agencies ought to be perfect in all respects before they set for a cooperative program is truly unrealistic.

In the course of this review, we were intrigued by the fact that there was no conscious attempt at designing a framework for inter-agency joint execution of projects. The first generation of these projects were premised on the innocent belief by the lead agency that, as a matter of routine, the other service delivery agencies will appear in the field when the major infrastructural works will be completed by them. This expectation largely went unfulfilled. In the next generation of projects, there was a kind of induced participation through Memorandum of Understanding between a lead agency and a partner organization. The MOUs worked out the respective duties and obligations of each signatory. This approach, in recent times, has been further solidified by bringing in other relevant agencies as active partners by assigning them specific components of projects. Though not well documented, this is a very rich experience and the PDO ought to consider this framework for co-operation while designing their own program.

Finally, a few words about the lingering constraints. In this category, a large part is occupied by personnel management problems. Most of these are beyond the control of the Ministries and the Agencies. However, there are some issues which the departmental officials themselves would be able to resolve. The heads of the Ministries and departments will have to use their power of persuasion to resolve. It has been our impression by talking to the concerned officials that these matters did not receive the attention that they deserved.

On capacity building, there are quite a large number of items that are non-controversial. These were not taken care of largely due to indifference by the top management and the casual approach to them by the donors. Whatever little investments were made in the past has largely gone waste. Should the ICZM think of investing some of its time and money on this score, they will have to do it within an integrated framework keeping in view the requirements for their sustainability.

REFERENCES

- 1 Ali, A.M.M Shawkat *Politics and Land System in Bangladesh*. Dhaka: National Institute of Local Government, 1986.
- 2 Asian Development Bank, 'Aide Memoire of the Joint Appraisal Mission for the proposed Small-Scale Water Resources Development Project ". April, 1995.Appendix 5.
- 3 Asian Development Bank, 'Report and Recommendations of the President to the Board of Directors on a proposed Loan to the People's Republic of Bangladesh for the Forestry Sector Project". October 1996.
- 4 Asian Development Bank and the United Nations Development Programme, *Development Perspectives of the Forestry Sector Master Plan: Bangladesh*. Dhaka: 1996
- 5 Bangladesh Agricultural Research Council, *Agricultural Research Management Project: Mid-term Review*. Main Report. October, 1998.
- 6 Bangladesh Water Development Board in association with Harza Engineering Company, *Strengthening of the Organizational and Implementation Aspects of the BWDB,1981-82*.
- 7 Blau, Peter M. and Marshall W. Meyer, *Bureaucracy in Modern Society*. Second Edition. New York: Random House, 1971.
- 8 Cabinet Division, Government of the People's Republic of Bangladesh, *Rules of Business*, 1996.
- 9 Datta, Anjan K. *Planning and Management of Water Resources: Lessons from two decades of Early Implementation Project*. Dhaka: The University Press Ltd, 1999.
- 10 Department of Agricultural Extension, Ministry of Agriculture, Government of the People's Republic of Bangladesh, *DAE Administrative Manual*. Dhaka: 1988.
- 11 Department of Agricultural Extension, *Strategic Plan: 1999-2002*. Dhaka: 1999.
- 12 Department of Fisheries, *Brief on the Department of Fisheries*. Dhaka: 1999.
- 13 Disaster Management Bureau, Ministry of Disaster Management and Relief, *An Introduction to Disaster Management in Bangladesh and the Disaster Management Bureau*. Dhaka:1998
- 14 Disaster Management Bureau, Ministry of Disaster Management and Relief, Government of the People's Republic of Bangladesh, *Standing Orders On Disaster*. Dhaka: August 1999.
- 15 Ehsanul Habib, *Management of Fisheries, Coastal Resources and the Coastal Environment in Bangladesh: Legal and Institutional Perspectives. PRIAP-ICLARM Working Paper Series 4*. Manila: International Center for Living Aquatic Resource Management, 1999
- 16 Food and Agriculture Organization, *Support to Master Plan for the Forestry Sector*. Second Mission Report. Project No TCP/BGD/4553. March 1997.
- 17 Government of the People's Republic of Bangladesh and the United Nations Development Programme, *Bangladesh Flood Policy Study*. Final Report. Dhaka: May 1989.
- 18 Government of the People's Republic of Bangladesh, *Report of the Land Record and Survey System Evaluation Committee*. Dhaka: July 1989
- 20 Government of the People's Republic of Bangladesh, *Report of the Administrative and Service Reorganization Committee*. Part I and II. 1973.
- 21 Government of the People's Republic of Bangladesh, *Report of the Pay and Services Commission 1977. Part I- The Services*, 1977.
- 22 Government of the People's Republic of Bangladesh, *Report of the Pay and Services Commission 1977. Part II- Pay and other Benefits*. 1977.
- 23 Government of the People's Republic of Bangladesh, *Report of the Public Administration Efficiency Study*. Four Volumes. November 1989.
- 24 Government of the People's Republic of Bangladesh, *Public Administration Sector Study*. 1993.
- 25 Government of the People's Republic of Bangladesh, *Towards Better Government in Bangladesh*. 1993.
- Government of the People's Republic of Bangladesh, *Report of the Cabinet Sub-committee for Examination of the Structural Organization of the Senior Service Pool (SSP) and Unequal Prospects of Promotion of Various Officers of Various Cadre Services*. 1987
- 26 Hood, Christopher, "Administrative Diseases: Some Types of Dysfunctionality in Administration", *Public Administration*, Winter 1974.
- 27 Management Accounting Unit, Ministry of Agriculture, *Draft Report for Third Quarter 2000-01*.
- 28 Ministry of Agriculture, Government of the People's Republic of Bangladesh, *A Strategy for Implementing the New Agricultural Extension Policy (NAEP)*. Dhaka: January, 1997
- 29 Ministry of Agriculture, Government of the People's Republic of Bangladesh, *New Agricultural Extension Policy*. Dhaka: 1996.
- 30 Ministry of Agriculture, Government of the People's Republic of Bangladesh, *National Agricultural Policy*. Dhaka: 1999.

- 31 Ministry of Civil Aviation and Tourism, Government of the People's Republic of Bangladesh, *National Tourism Policy*. Dhaka: 1992.
- 32 Ministry of Environment and Forests, Government of the People's Republic of Bangladesh, *Environment Policy and Implementation Plan..* Dhaka: 1992.
- 33 Ministry of Environment and Forest, Government of the People's Republic of Bangladesh, *National Environment Management Plan*. Five Volumes. Dhaka: NEMAP Secretariat, 1995.
- 34 Ministry of Law, Justice and Parliamentary Affairs, Government of the People's Republic of Bangladesh, *The Constitution of the People's Republic of Bangladesh*. (Corrected upto December 1998). Dhaka: 1998
- 35 Ministry of Shipping, Government of the People's Republic of Bangladesh, *National Shipping Policy-2000*. Dhaka: October, 2000.
- 36 Ministry of Water Resources, *National Water Policy*. Dhaka: 1999.
- 37 Ministry of Water Resources, Government of the People's Republic of Bangladesh, *Bangladesh Water and Flood Management Strategy: An Update following the signing of the Ganges Water Sharing Treaty*. Dhaka: May, 1998.
- 38 National Water Management Plan, *Final Development Strategy: Main Report Chapter4 (Draft)*. Dhaka: February, 2001.
- 39 Perrow, Charles *Complex Organizations: A Critical Essay*. Glenview, Illinois: Scott, Foresman and Company, 1992.
- 40 Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, *The Fifth Five Year Plan 1998-2002*. Dhaka: March 1998.
- 41 Post-Evaluation Office, Asian Development Bank, *Sector Synthesis of Post-evaluation Findings in the Forestry Sector*. August 1994.
- 42 Program Development Office, Integrated Coastal Zone Management Program, *Coastal Zone Management: An Analysis of Different Documents*. Dhaka: February, 2001.
- 43 Self, Peter, *Administrative Theories and Politics*. London: George Allen and Unwin, Second Edition, 1982
- 44 Soussan, John, Anjan Datta and Premachandra Wattage, *Community Partnership for Sustainable Water Management: Experience of the BWDB Systems Rehabilitation Project. Vol II*. Dhaka: The University Press Ltd, 1998.
- 45 Strengthening of Livestock Information Services Project, Ministry of Fisheries and Livestock, *Department of Livestock Services: An Overview*. Dhaka: 2000.
- 46 Water Resources Planning Organization, Ministry of Water Resources, Government of the People's Republic of Bangladesh, *National Water Management Plan: Development Strategy*. Dhaka: June 2001
- 47 Water Resources Planning Organization, Ministry of Water Resources, *Draft Development Strategy*, Vol. 3. Annex B. Dhaka: August, 2000.
- 48 Water Resources Planning Organization, "Final Development Strategy" Vol 2 (Main Report, Chapter 4-draft.
- 49 Wilde, Koen de (ed) *Out of the Periphery: Development of Coastal Chars in Southeastern Bangladesh*. . Dhaka: The University Press Ltd, 2000
- 50 World Bank, *Staff Appraisal Report on the Agricultural Extension and Research Projects I&II*. Credit Nos 729BD and 1215 BD.
- 51 World Bank, *Implementation Completion Report on the Third Inland Water Transport Project*. November 23, 2000.
- 52 World Bank, *Staff Appraisal Report-Bangladesh Agricultural Research Management Project*. South Asia Region. Report No 14467 BD.
- 53 World Bank, *Staff Appraisal Report on the Agricultural Extension and Research Projects I&II*. Credit Nos 729BD and 1215 BD.
- 54 World Bank, *Government that Works: Reforming the Public Sector*. .Dhaka: March, 1996.
- 55 World Bank, *Land and Water Resources Study-Bangladesh*. Asia Projects Department. December 1972.
- 56 World Bank, *Review of the Bangladesh Water Development Board*. April 1979.
- 57 World Bank, *Institutional Components of the Third Flood Control and Drainage Project*. 1985.
- 58 World Bank, *BWDB Operation and Maintenance Study*. October 1985.
- 59 World Bank, *Bangladesh-Review of Experience with Policy Reform in the 1980s*. June 1990.

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