

# JOHANNESBURG SUMMIT 2002

## BANGLADESH



## COUNTRY PROFILE



UNITED NATIONS

## **INTRODUCTION - 2002 COUNTRY PROFILES SERIES**

Agenda 21, adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, underscored the important role that States play in the implementation of the Agenda at the national level. It recommended that States consider preparing national reports and communicating the information therein to the Commission on Sustainable Development (CSD) including, activities they undertake to implement Agenda 21, the obstacles and challenges they confront, and other environment and development issues they find relevant.

As a result, in 1993 governments began preparing national reports for submission to the CSD. After two years of following this practice, the CSD decided that a summarized version of national reports submitted thus far would be useful. Subsequently, the CSD Secretariat published the first Country Profiles series in 1997 on the occasion of the five-year review of the Earth Summit (Rio + 5). The series summarized, on a country-by-country basis, all the national reports submitted between 1994 and 1996. Each Profile covered the status of all Agenda 21 chapters.

The purpose of Country Profiles is to:

- Help countries monitor their own progress;
- Share experiences and information with others; and,
- Serve as institutional memory to track and record national actions undertaken to implement Agenda 21.

A second series of Country Profiles is being published on the occasion of the World Summit on Sustainable Development being held in Johannesburg from August 26 to September 4, 2002. Each profile covers all 40 chapters of Agenda 21, as well as those issues that have been separately addressed by the CSD since 1997, including trade, energy, transport, sustainable tourism and industry.

The 2002 Country Profiles series provides the most comprehensive overview to date of the status of implementation of Agenda 21 at the national level. Each Country Profile is based on information updated from that contained in the national reports submitted annually by governments.

Preparing national reports is often a challenging exercise. It can also be a productive and rewarding one in terms of taking stock of what has been achieved and by increasing communication, coordination and cooperation among a range of national agencies, institutions and groups. Hopefully, the information contained in this series of Country Profiles will serve as a useful tool for learning from the experience and knowledge gained by each country in its pursuit of sustainable development.

## NOTE TO READERS

The 2002 Country Profiles Series provides information on the implementation of Agenda 21 on a country-by-country and chapter-by-chapter basis (with the exception of chapters 1 and 23, which are preambles). Since Rio 1992, the Commission on Sustainable Development has specifically addressed other topics not included as separate chapters in Agenda 21. These issues of trade, industry, energy, transport and sustainable tourism are, therefore, treated as distinct sections in the Country Profiles. In instances where several Agenda 21 chapters are closely related, for example, chapters 20 to 22 which cover environmentally sound management of hazardous, solid and radioactive wastes, and chapters 24 to 32 which refer to strengthening of major groups, the information appears under a single heading in the Country Profile Series. Lastly, chapters 16 and 34, which deal with environmentally sound management of biotechnology, and transfer of environmentally sound technology, cooperation, capacity-building respectively, are presented together under one heading in those Country Profiles where information is relatively scarce.

*At the release of this publication, Bangladesh had updated most of the chapters in its Country Profile except the following chapters: 4, 5, 18, 20, 33, 35, 36, 37, 38, 39, and Industry. These chapters were included in the final Country Profile and therefore they contain information that is valid.*

*To the extent that the relevant chapters are updated by Bangladesh, they shall be included in the final version of the Profile that will be posted to the United Nations Sustainable Development website: <http://www.un.org/esa/agenda21/natlinfo>*

## TABLE OF CONTENTS

CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES .....	1
CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES - TRADE.....	2
CHAPTER 3: COMBATING POVERTY .....	4
CHAPTER 4: CHANGING CONSUMPTION PATTERNS .....	5
CHAPTER 4: CHANGING CONSUMPTION PATTERNS - ENERGY .....	6
CHAPTER 4: CHANGING CONSUMPTION PATTERNS - TRANSPORT .....	7
CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY.....	8
CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH.....	10
CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT .....	13
CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING .....	15
CHAPTER 9: PROTECTION OF THE ATMOSPHERE .....	17
CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES .....	19
CHAPTER 11: COMBATING DEFORESTATION.....	20
CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT .....	22
CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT .....	24
CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT .....	26
CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY.....	27
CHAPTERS 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING .....	29
CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES .....	31
CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES .....	32
CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS .....	33
CHAPTERS 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES .....	35
CHAPTERS 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS .....	37
CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS .....	39
CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT .....	40
CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING .....	41
CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES .....	42
CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS .....	43
CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS.....	44
CHAPTER 40: INFORMATION FOR DECISION-MAKING.....	45

CHAPTER: INDUSTRY .....	48
CHAPTER: SUSTAINABLE TOURISM .....	49

### List of Commonly Used Acronyms

ACS	Association of Caribbean States
AMCEN	Africa Ministerial Conference on the Environment
AMU	Arab Maghreb Union
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CARICOM	The Caribbean Community and Common Market
CBD	Convention on Biological Diversity
CIS	Commonwealth of Independent States
CGIAR	Consultative Group on International Agricultural Research
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMESA	Common Market for Eastern and Southern Africa
CSD	Commission on Sustainable Development of the United Nations
DESA	Department for Economic and Social Affairs
ECA	Economic Commission for Africa
ECCAS	Economic Community for Central African States
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ECOWAS	Economic Community of West African States
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIDA	Foundation for International Development Assistance
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHG	Greenhouse Gas
GIS	Geographical Information Systems
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IAEA	International Atomic Energy Agency
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development
IEEA	Integrated Environmental and Economic Accounting
IFAD	International Fund for Agricultural Development

IFCS	Intergovernmental Forum on Chemical Safety
IGADD	Intergovernmental Authority on Drought and Development
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	Integrated Pest Management
IRPTC	International Register of Potentially Toxic Chemicals
ISDR	International Strategy for Disaster Reduction
ISO	International Organization for Standardization
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature and Natural Resources
LA21	Local Agenda 21
LDCs	Least Developed Countries
MARPOL	International Convention for the Prevention of Pollution from Ships
MEAs	Multilateral Environmental Agreements
NEAP	National Environmental Action Plan
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organizations
NSDS	National Sustainable Development Strategies
OAS	Organization of American States
OAU	Organization for African Unity
ODA	Official Development Assistance/Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
PRSP	Poverty Reduction Strategy Papers
SACEP	South Asian Cooperative Environment Programme
SADC	Southern African Development Community
SARD	Sustainable Agriculture and Rural Development
SIDS	Small Island Developing States
SPREP	South Pacific Regional Environment Programme
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNCED	United Nations Conference on Environment and Development
UNCCD	United Nations Convention to Combat Desertification
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change

UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNIFEM	United Nations Development Fund for Women
UNU	United Nations University
WFC	World Food Council
WHO	World Health Organization

WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wildlife Fund
WWW	World Weather Watch (WMO)

**CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## **CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES - TRADE**

**Decision-Making:** Trade decisions are made through discussions with various trade bodies/agencies/trade associations and ministries concerned under the overall macro-economic policies of the government.

The Bangladesh government has developed a result-oriented trade policy and export development strategy in which the role of domestic and international commerce is rationalized. It has adopted a policy to support organizational reforms within the Ministry of Commerce and its affiliated entities such as Bangladesh Tariff Commission, Export Promotion Bureau and also trade bodies in the private sector.

For the development of international trade, the Ministry of Commerce is operating a specialized cell supporting Bangladesh's participation in the World Trade Organization (WTO) through implementing a coordinated plan for addressing WTO obligations. The specialized cell also operates as an effective focal point for all private and public sector input to WTO implementation.

**Programmes and Projects:** Diversification and expansion of export is considered as the key to economic development. With this end in view the Government of Bangladesh has already undertaken a number of programmes and projects. These projects are spread over different sectors like ready-made garments, knitwear, frozen foods, leather and leather products, raw jute and jute goods, tea, vegetables, etc. The projects provide support to private sector in the promotion of export. For expansion and diversification of exports, a programme to support the export trade is being implemented.

Under the project entitled "Protection Analysis and Trade Cooperation and Project Coordination Unit (PCU) of BDXDP," the constraints and bottlenecks in achieving the objective of export diversification including institutional reforms on order to establish a solid foundation of providing necessary and adequate support to further strengthening the process of diversification of exports in Bangladesh is being addressed.

See also under **Research and Technologies**.

**Status:** Bangladesh has made major strides in trade liberalization. In the era of free trade, she has to find ways to become more competitive in international markets as well as diversify export products. She has adopted an export-led growth policy for her economy. Formulating and implementing effective trade policies and increasing the level of involvement of private sector will lead to increased and diversified exports. It will also help to increase types and numbers of new ventures and new markets. The government has embarked upon to establish and promote a congenial business environment that would be attractive to local and foreign investors alike.

**Capacity-Building, Education, Training and Awareness-raising:** To accomplish export-led growth, ministry, agency, and private sectors are arranging and providing training for capacity building and awareness-raising for concerned officers, exporters, entrepreneurs both in the public and private sector. For funding under the Integrated Framework, the Bangladesh government has submitted a number of capacity building projects in trade related areas to the WTO and concerned international agencies.

**Information:** Export and import related the Export Promotion Bureau and the Chief Controller of Import and Export maintain information. Information on balance of payment is maintained by the Bangladesh Bank. Bangladesh is increasingly using IT for managing its information systems.

**Financing:** Finance is available through the government revenue and development budgets.

**Research and Technologies:** Bangladesh Tariff Commission (BTC) is the main agency responsible for trade related research. As part of strengthening the research capability of BTC, a project entitled "Protection Analysis and Trade Cooperation" is being implemented. Though Bangladesh is lagging behind in technology, wind of technology is blowing here too.

**Cooperation:** Cooperation between related governmental, private sector and international agencies will help Bangladesh to achieve desired growth in trade and commerce.

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## CHAPTER 3: COMBATING POVERTY

**Decision-Making:** The decision-making structure for poverty alleviation and environmental improvements includes political commitments and decisions at the level of ministries concerned and local governmental bodies.

The strategy of the Government is to accelerate economic growth and increase investments in the priority sectors like agriculture, including through subsidies in agriculture, industries and infrastructure (rural infrastructure, in particular), education, health, and human resources development, especially of women and youth.

Major groups participating in the decision-making on poverty issues include the landless and marginal farmers, urban poor, women, unemployed young people and other vulnerable groups. Both the Government and Non-Governmental Organizations (NGOs) have to collaborate closely in combating poverty.

**Programmes and Projects:** At present, different ministries and agencies like the Ministry of Agriculture, Environment and Forest, Women's and Children's Affairs, Fisheries and Livestock, Youth and Sports, Social Welfare; Bangladesh Rural Development Board (BRDB), Bangladesh Small & Cottage Industries Corporation (BSCIC), Local Government Engineering Department (LGED) and NGOs have their own programmes that help to increase employment opportunities and income and the development of disadvantaged groups. In addition to Food for Work programmes, VDG, Rural Maintenance Programme (RMP) and the safety net programmes create employment and support the vulnerable groups.

See also under *Solid Wastes* in Chapter 20-22 of this Profile.

**Status:** In Bangladesh, poverty and unemployment are at a critical stage, and poverty alleviation represents a central theme in the national development policies and actions. Lack of income and employment opportunities, aggravated by population and labor force increase, on the one hand, and environmental degradation, lack of health care and sanitation, on the other, has made poverty problems more acute. However, the present economic growth (below 5%) and the low rate of savings and investment are not capable of breaking the poverty cycle.

Sustainable development is highly linked to economic, social and ecological factors. Poverty greatly affects the environment. The present development strategy for combating poverty, expanded health and sanitation facilities, population control, increased afforestation and social forestry involving the people would go a long way toward environmental improvement and poverty alleviation. The capacities of the governmental organizations, local governmental bodies and NGOs have to be developed, and people should be involved in the process of poverty alleviation programmes and environmental improvements. Public awareness-raising through mass media will also be helpful in this respect.

**Capacity-Building, Education, Training and Awareness-Raising:** Free primary education, special financial benefits for female students, large-scale training, and credit provisions for employing women and youth also contribute to poverty alleviation.

**Information:** Information like health condition and sanitation facilities, quality of food and calorie intake, income level, distribution pattern of income, employment, education, gender equity, etc. are prerequisites for any policy initiatives for combating a poverty-stricken society.

**Research and Technologies:** Appropriate technology and adaptable research are needed for creation of employment opportunities raising level of the people.

**Financing:** The Government finances poverty alleviation through revenue and development budgets, and NGOs have their own resources.

**Cooperation:** Inter-agencies, inter-government and inter-nation cooperation will go a long way in the eradication of poverty of the Third World Developing Countries.

## **CHAPTER 4: CHANGING CONSUMPTION PATTERNS**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## **CHAPTER 4: CHANGING CONSUMPTION PATTERNS – ENERGY**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## **CHAPTER 4: CHANGING CONSUMPTION PATTERNS – TRANSPORT**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

**Decision-Making:** A National Population Council, headed by the Prime Minister of the Republic, has been set up to provide policy guidelines and programme direction. In addition, the Ministry of Health and Family Welfare make decisions in consultation with other ministries, divisions and departments.

The Government views population growth and the fertility level as too high and make efforts to bring them to a lower level through policy interventions.

**Programmes and Projects:** The Family Planning Programme of Bangladesh, including male and female sterilization, injections, condoms and oral contraceptive pills, is providing a number of modern methods. In addition, traditional methods are being promoted in the Programme. Necessary steps have already been taken to promote Norplant in the country. In Bangladesh, Non-Governmental Organizations (NGOs) play a major role in addition to the public sector in the Family Planning Programme both in advocacy and service delivery efforts. There are many NGOs working in this field, the major ones being the Family Planning Association of Bangladesh (FPAB), the Bangladesh Association of Voluntary Sterilization (BAVS), and Pathfinder International.

**Status:** Though a small country in the South Asian green belt, Bangladesh is the ninth most densely populated country (except for some island countries) in the world today. The country's population was about 42 million in 1951 and increased to 112 million in 1991. It is estimated that the current population size (120 million in 1995) will reach about 146 million by the year 2010. The young age structure, a basic characteristic of Bangladesh's population, will continue to contribute to the increasing absolute size. The 0-14 -year old group constitutes more than 46% of the total population. Even if the average number of children per woman falls substantially lower than what it is today, the young age structure will generate continued growth for decades to come as successively larger numbers of the Bangladeshi enter their child-bearing years.

The percentage of single women among the age groups 15-19 and 20-24 has also increased over the past few years. The increase of age at marriage has an important bearing on fertility decline. The current trend of delaying marriage, if continued, will cause fertility decline and simultaneously increase the acceptance of contraceptives.

The crude death rate has gradually decreased over the past years dropping below 10 per 1,000 in 1995. In spite of the high Infant Mortality Rate (IMR) even today, a significant change has taken place in this respect during the past two decades as it dropped from 150 per 1,000 live births in 1975 to 78 per 1,000 live births in 1995. A change was also noticed in the Maternal Mortality Rate (MMR) over the past decades as it has dropped from 6.2 per 1,000 live births in 1982 to 4.5 per 1,000 live births in 1995. An increase in life expectancy at birth has also taken place in the country, rising from 48 years in 1973 to 58 years in 1995. The contraceptive prevalence rate, which was only 7.7% in 1975, increased to 48.7% in 1995. Over the past few years, the total fertility rate has shown, albeit with fluctuations, a basically decreasing trend from the level of 6.3 in 1975 to less than 4 in 1995. The desired number of children has also declined from 4.1 in 1975 to 2.5 in 1993-94. This is a positive trend towards fertility decline.

There is a priority need for the local production of contraceptives for which both local and external investments are required.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** See under **Status** and also **Chapter 6** of this Profile.

**Research and Technologies:** No information available.

**Financing:** Despite resource constraints, the government of Bangladesh has gradually increased financial allocation both in the revenue and in the development sectors. Other international agencies and development partners providing financial support for the implementation of the National Family Planning and Maternal and Child Health (FP/MCH) Programme are the World Bank, the United State Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the Asian Development Bank (ADB) and the government of Germany.

**Cooperation:** Bangladesh is receiving support from regional and international agencies to implement the national FP/MCH Programme. In addition, the governments of the Netherlands, Australia, Canada, Germany, Norway, Sweden, the United Kingdom, the United States of America, Japan, the European Economic Community (EEC), the International Desalination Association (IDA), UNFPA and other developed countries are also extending cooperation in this area by providing financial support.

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## CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

**Decision-Making:** Providing health care is a constitutional obligation of the Government. This is discharged through institutionalization and strengthening of health services in the country giving special attention to the health and family planning needs of the population that resides in the rural areas and in the urban slums. The decision making process in the health sector in Bangladesh is tuned to address the demand of that obligation.

Centrally, Bangladesh practices a cabinet system of the Government with the Prime Minister as the Head of Executive while the Cabinet has the collegial responsibility through the Minister in-charge of the Health and Family Welfare who is the focal point for decision making in health, population and nutrition sector. Two State Ministers assist the Minister. The Ministry is comprised of the Secretariat with the Secretary as the head, providing staff function to the Government and the Minister for the sector; four departments, one each for Health, Family Planning, Nursing and Drug Administration, provide the line inputs for delivering health, family planning and nutrition services to the citizens.

Local government institutions at municipal, upazilla (sub-district) and union (group of villages) levels are also required to deliver the health care services following the policy guidelines of the Government. Non-government Organizations (NGOs) and the private sector play a major role besides the public sector in the service delivery efforts.

In the public sector health care service delivery and in related policy making exercises, the stakeholders represented by community group, NGOs, professional bodies, local government and private sector are being involved gradually. There is a National Population Council and a National Nutrition Council headed by the Prime Minister to provide guidelines in formulating the policies and programmes in the sector; a National Council for Health and Population with the Prime Minister as Head will be set up. There are district and sub-district committees with members from among stakeholders to oversee the public sector service deliveries in the sector.

The Parliamentary overview of the Executive decisions is organized through Parliamentary Standing Committee for the Ministry of Health and Family Welfare (MOHFW); an MP heads this committee with eight to ten MPs including the Minister for the MOHFW and members from the opposition parties in the Parliament.

**Programmes and Projects:** The main thrust of the health programmes and projects have been the provision of primary health care based on the strategy adopted globally in Alma Ata in 1978 and later developments. In line with these global strategies the Government of Bangladesh has formulated the country's Health and Population Sector Strategy. Accordingly, the Health and Population Sector Programme (HPSP) has been launched in July 1998 to achieve client centered provision and client utilization of an Essential Services Package including other selected services. This is a five-year programme with the total outlay of US\$ 2.42 billion. In the HPSP, the poor to these services have incorporated various activities to attain sustainable delivery of health and family planning services as well as to improve quality of services along with access. Besides, there are nine other development projects in the public sector for development of health, population and nutrition. Out of these, two main projects are : National Nutrition Project and Urban Primary Health Care Project. These two projects are implementing through the assistance of IDA and ADB. These two projects have a total outlay of about US\$ 180 million.

**Status:** Health and population programmes in the past have made significant achievements, especially in lowering fertility and improving child health status. The demographic transition is well underway as Bangladesh is the only country among the 20 least developed countries where sustained fertility reduction has taken place over the last 15 years. The Total Fertility Rate (TFR) has declined by more than half since the 1970s. Child immunization has increased from 10% to 70% and there have been substantial reductions in infant and child mortality. At the same time, major challenges remain; the main cause of death remains poverty- related infectious diseases, which are exacerbated by malnutrition. Gender differential in health persists. The Maternal Mortality Rate (4.2 per 1000 delivery) is one of the highest in the world. About 70% of mothers suffer from nutritional deficiency anemia and 75% of the pregnant women do not receive assistance from a trained attendant at the time of delivery. Over 90% of children have some degree of malnutrition. Other issues of concern are overall poor utilization of government services, as well as the cost-effectiveness, sustainability and quality of service.

There is approximately one doctor for 4572 persons and one nurse for 8460 persons in the country. There is a need to increase the number of doctors and nurses; besides there is also the need to improve quality of services.

**Capacity-Building, Education, Training and Awareness-Raising:** The Government has taken up programmes aimed at producing appropriately skilled personnel to meet sectoral needs; it also includes the definition and enforcement of training standards as well as continuous assessments and reassessments of performance based training needs with respect to basic as well as in-service education. Under the current programme, efforts are continued to further improve the quality of medical and nursing education, and of paramedics and all field workers and to ensure its appropriateness to country needs.

A national curriculum committee has been set-up and is being made functional for the continuous process of curriculum development. The current status and the proportion of nurses to physicians are not in the norm of even developing country status. The career path of the nurses is being reviewed to include nurses in managerial positions.

In-service training has been given a very high priority with a view to achieving need based skill development. A detailed strategy for training of personnel involved in the delivery of Essential Services Package has been formulated. Trainings are being imparted with specific reference to job descriptions and team building in terms of social responsibility of service providers. Technical and managerial training have been combined defining structure of career building and retention of trained personnel in the respective specialty.

There is a behavior change communication (BCC) component in all the programmes and projects undertaken in the sector. The BCC component is envisaged to aim at: changing attitudes and behavior of people to improve their health status; building effective community support for health seeking behavior; changing attitudes and behavior of service providers to provide client centered services; and, promoting men's respect for special situation of the women and the girl child in the society.

**Information:** The process of developing comprehensive health management information systems in Bangladesh has a long history. In July 1998, the Unified Management Information System (UMIS) in the sector was established to ensure the effective delivery and utilization of services in view of timelines, quality, quantity, and cost, through effective flow and management of data on health, family planning, and nutrition-related activities, which includes collection, compilation, and analysis, feedback, and remedial actions.

Four sub-systems of UMIS are being implemented. These are: (1) Service Management Information Systems (SMIS); (2) Logistics Management Information Systems (LMIS); (3) Personnel Management Information Systems (PMIS); and (4) Financial Management Information Systems (FMIS). In order to fulfill the need of information, different sets of recording and reporting tools for different sub-systems as mentioned above are standardized and developed. Through these tools regular routine service statistics as well as logistics, human resource management and financial information are being generated on a continuous basis. Besides this regular flow of information, Health and Demographic Surveys are conducted every two years to upgrade the national indicators.

Current status of some of the key indicators is as follows:

Indicators	Number
Total Population (in January 2001) in million	129.20
Infant mortality rate per 1000 live births	62
Maternal mortality rate per 1000 deliveries	3.9
Proportion of children with some degree of malnutrition	90%
Proportion of children born underweight	50%
Proportion of women with nutritional deficiency anemia	70%
Proportion of women giving child birth without trained birth attendants	75%
Malaria cases per 100,000 people	357
Sputum positive TB cases per 100,000 population	2
Episodes of diarrhea per child (under five) per year	3.5
Episodes of ARI per child (per five) per year	2.2
Prevalence of Hypertension	12-15% of Population
Prevalence of Diabetes	2% of Population
Number of Population per Hospital bed	3151
Number of Population per Doctor	4572
Number of Population per Nurse	8460

**Research and Technologies:** Several research institutions and organizations including private organizations are carrying out the research activities for better policy development, planning, programming, monitoring the achievements and assessing programme impact in Bangladesh. The Government established a Policy Research Unit within the Ministry of Health and Family Welfare, to conduct policy-oriented research that assists in policy development of the health, nutrition and population sector. This Policy Research Unit pursues a strategy of providing applied, evidence-based research and policy guidance for use by key decision makers and planners in the development of health, nutrition and population sector policy.

Bangladesh Medical Resources Council (BMRC) and Centre for Medical Education continues to support basic medical, clinical and health systems research undertaken primarily by researches at medical colleges, post-graduate institutes and other related Institutes. Institute of Child and Mother Health is being supported to conduct operation research related to Child and Mother Health Support is also being provided for epidemiological and disease control research conducted by the Institute of Epidemiology and Disease Control (IEDCR). Besides these, International Centre for Diarrhea Disease Research in Bangladesh (ICDDRDB), National Institute of Population Research and Training (NIPORT) and National Institute of Preventing and Social Medicine (NIPSOM) and some other non-government organization are conducting mainly operation and health system research.

The Government and Development Partners are supporting these organizations to continue their research work.

**Financing:** The total outlay for five-year period (1998-2003) of health service delivery under public sector financing has been estimated around US\$ 3.0 billion. According to the estimate of National Health Accounts, the public sector expenditure will be around 32-33% of total health expenditure in Bangladesh. To augment the resources for health care, user charges have been introduced at tertiary level hospitals except for the poor. Government has also planned to introduce user charges on pilot basis at the district and sub-district level hospitals under hospital improvement initiative. The Government has planned to introduce Health Insurance Scheme immediately for public servants, this will help to provide better quality of services from public sector health facilities.

See also under **Research and Technologies**.

**Cooperation:** World Bank and most of the UN organizations like WHO, UNICEF, UNFPA, UNDP are continuing their support for improvement of health, population and nutrition sector in Bangladesh. Besides the World Bank and UN organization, some Bilateral Development Partners like the United States Agency for International Development (USAID), Canadian International Development Agency (CIDA), Swedish Agency for Development Cooperation (SIDA), Department for International Development (DFID), Netherlands, EU, Japan International Cooperation Agency (JICA), Islamic Development Bank (IDB), Saudi Fund for Development (SFD), Asian Development Bank (ADB), GTZ and KFW are also supporting the Government for the development of health, population and nutrition sector. The total contribution for five-year period (1998-2003) by all Bilateral and Multilateral Development Partners for the development of Health, Population and Nutrition will be around US\$1.00 billion.

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## CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

**Decision-Making:** The Cabinet and the Ministry of Housing and Public Works make Decisions, in consultation with other ministries, divisions and departments.

The Constitution of the People's Republic of Bangladesh (1972), in Articles 15 to 20, postulates that the people are the utmost concern of the state. They are entitled to enjoy the benefits of human settlements for a healthy and productive life in harmony with nature and in harmony with shared spiritual and moral values and ethical considerations. Inadequate income, poor shelter and homelessness threaten the health and security of life, particularly of the helpless children, women and men.

The Bangladesh National Housing Policy (1993) recognizes human settlements in the urban and rural areas as an integral part of culture and planning and economic development. Pursuant to the United Nations Global Strategy to Shelter (GSS), adopted by the United Nations in 1988, and the UN Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992, the government has proposed to adopt an enabling approach and environmental and disaster mitigation for achieving the goals of the strategy in the field of human settlements.

The following priority issues conform to the initiatives of the government's Development Plans, particularly in relation to: physical planning, water supply and housing sector, preparation of a national human settlements policy; infrastructure and environmental protection; urban basic services provision in the poor communities, with special consideration for poor women and poverty alleviation with income generation; improvement of access to land, finance and shelter, giving special preference for the poor including female-headed households; improvement of urban social services keeping in consideration women's requirements such as public toilets for women in business and commercial and industrial areas and parks; income generation and economic development with special opportunities for women; development of urban research and training capacity; urban management and strengthening local government; and improvement of access to transport.

In order to alleviate the existing housing problem, the Government has imposed priority for shelter development in its Fifth Five Year Plan (FFYP) 1997-2002 and has addressed several actions and future initiatives such as: (1) Preparation of land use master plan for the urban centers and the rural areas; (2) Provision of housing for government personnel and development satellite towns for different income groups living in urban areas; (3) Provision of low cost rural housing; (4) Construction of government residential buildings at administrative centers and important places; (5) Research and development in the field of building materials and construction; (6) Other priorities identified by government agencies include: development of site and services schemes for low and middle-income groups, rehabilitation of squatters and construction of multi-storied flats for allotment on hire-purchase basis. In addition, to the FFYP, priority is given on sustainable urban development, the Ministry of Housing and Public Works and other ministries have identified various activities, including preparation of Structure Plans/Master Plans for cities and implementation of these plans.

Moreover, Ministry of Housing and Public Works has prepared Land Use Plans/Master Plans for all district towns and upa-zilas. The respective City Development Authority has already prepared the Structure Plan, Master Plan and Detailed Area Development Plan for Dhaka, Chittagong and Khulna Metropolitan City.

**Programmes and Projects:** In order to alleviate the existing housing problem, the Ministry of Housing and Public Works has been implementing a number of residential projects under Annual Development Programme through various departments under this Ministry. Among them, the projects under the title of "Construction of 2,100 flats for Government officers and staffs", "Construction of 1,250 flats for sale on hire-purchase basis to Government officers and staffs", "Construction of 648 flats at Mirpur, Dhaka and 310 flats at Haliashahar, Chittagong for overseas wage earners", "Construction of 720 flats for low and middle income group on hire-purchase basis at Mohammadpur, Dhaka", "Establishment of (Purbachal) upo-shahar at Yusofgonj, Dhaka", Construction of Jhilmil upo-shahar at Keranigonj, Dhaka", "Nikunja Residential area development project", "Development of Uttara residential Model Town (3<sup>rd</sup> phase) at Uttara, Dhaka", "Development of sites and services Residential Project at Section-9 Mirpur, Dhaka", "Development of Sonadanga Residential Area at Khulna", "Development of Kalpalok Residential Area at Chittagong" and "Development of Chandrima Residential Area project at Rajshahi", etc. are important. National Housing Authority has already constructed 2600 unit of row houses at Mirpur and 1020 unit row houses at Tongi, Gajipur for rehabilitation of the slum dwellers.

See also under **Programmes and Projects** and **Chapters 13 and 20-22** (under *Solid Wastes*) of this Profile.

**Status:** The overall growth of population along with rapid urbanization during the last two decades has caused severe problem in shelter sector. Housing shortage exceeded about five million units by the end of the last century.

**Capacity-Building, Education, Training and Awareness-Raising:** Capacity-building is badly needed across the agencies at almost all levels. The Government has established four-tier local government institutions at the village, union, sub-district (upa-zila) and district levels in order to enhance capacity and promote institutional development (GOB, 1998). In addition, city corporations and municipalities will be given opportunities as well as to strengthen their capabilities to function without interruption. The decentralization policy of the Government is one important initiative in this regard.

As an attempt at capacity building and institutional development each local level institution will participate in the preparation of development programmes/projects. Besides these, training facilities will be extended for the officials of development institutions in order to make them capable to pursue sustainable development activities efficiently with the use of limited resources.

The FFYP has incorporated the following objectives related to capacity-building and institutional development: (1) make the government capable of serving the people better by establishing appropriate elected local government bodies and by providing forum for people's participation at all levels of policy planning execution; (2) bring in economy and efficiency in government operations by streamlining operations and restructuring all public organizations through a process of eliminating redundancies, inefficiency and inertia; (3) enhance the knowledge and skill of the public personnel for delivering goods and services and implementation of development programmes; (4) make the system capable of attracting the meritorious, promoting the capable and sustaining fast tracks for the best and the brightest.

**Information:** In 1990, the interim government established 26 Task Forces to prepare reports on all sectors of development planning. The Report on Social Implications of Urbanization is a comprehensive document in this context. With the formulation of a National Housing Policy in 1993, support for its implementation was provided by the Asian Development Bank (ADB) and the United Nations Development Programme (UNDP)/the United Nations Children's Fund (UNICEF) through projects on "Strengthening of Shelter Sector Institutions."

In addition, in follow-up to the "Urban and Shelter Sector Review," UNDP assisted the government of Bangladesh to formulate an Urban Sector Programme Document (NPD). There was an extensive consultative process with concerned governmental agencies, the private sector and Non-Governmental Organizations (NGOs). The NPD identified some priority issues after analyzing urban population growth, urban economy and poverty situation, shelter, land and services, transport and urban environment.

**Research and Technologies:** No information available.

**Financing:** See under **Information**.

**Cooperation:** See under **Information**.

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## CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

**Decision-Making:** The National Environment Committee, the Executive Committee of the National Economic Council (ECNEC) and the Ministry of Environment and Forest are responsible for decision-making. The National Environment Committee, headed by the Prime Minister, provides policy guidelines and directives for ensuring environment-friendly development activities in the country. The ECNEC, also headed by the Prime Minister, takes into account the environmental impacts of a particular project before approving it. In addition, environmental screening of all development projects is done by the Ministry of Environment and Forest. All development ministries, divisions, and departments, as well as Non-Governmental Organizations (NGOs), participate.

The Government's pro-nature commitment is depicted as a new Ministry of Environment and Forest and an upgraded Department of Environment was formed in the 90's. A National Environmental Action Plan was formulated with a view to promoting national environmental management system standards. Among others, noteworthy milestones are a National Environment Policy, the National Conservation Strategy and the National Environment Action Plan.

Chapter 10 of the Fifth Five Year Plan (FFYP) (1997-2002) entitled "Environment and Sustainable Development" identified the major areas of concern faced by the country, reviewed the past performances of the Government in this area and outlined objectives and strategies for preventing environmental degradation and pollution. The Government has, by now, adopted a number of policies and plans concerning environment and development. The following section provides a brief account on the important steps towards sustainable development planning in Bangladesh.

The transparency and accountability of the decision-making is addressed through the Public Accounts Committee of the Parliament; the Comptroller and Auditor General places the reports, relating to the Public Accounts of the funds expended in the sector, before the Committee for scrutiny.

*Environmental Policy and Action Plan, 1992:* It provides sector wise policy guidelines, which should be developed by the respective ministries. An implementation plan, appended to the policy, is an integral part of it. It outlines the actions that various GOB agencies and NGOs should undertake to implement the policy.

*National Conservation Strategy (NCS):* The NCS aimed to incorporate environmental considerations into the development planning process. It proposed to do so by developing a framework to address natural resource conflicts occurring in the course of socio-economic development. The NCS provided the overall framework whereby alternative uses, including conservation and protection of habitat and biodiversity, and their effects on both economy and livelihood now and in the future and impacts on the local and external environments can be assessed a rationalized in relation to its overall conservation and sustainable development objective. The team of concerned scholars and consultants who were responsible for the substance of the NCS, identified for both the overall resource base and environment of the country and for 18 sub-sectors, the status of natural resources and the environment, their availability use and degradation, the key processes of degradation and conflicting use (NCS "issues"), and (broad) Recommended Strategies as to how these resource conflicts and processes of degradation and damaging external environmental effects might be resolved and controlled for sustainable resource use (King, 1996).

*National Environment Management Action Plan (NEMAP):* NEMAP was an environmental planning exercise initiated by the Government of Bangladesh through the Ministry of Environment and Forest following the commitments made under Agenda 21 at UNCED in Rio de Janeiro in June 1992. The objectives of the NEMAP of 1995 are closely similar to those of the NCS. The key element that distinguishes the NEMAP from the NCS is the full participation of the common people, interest groups, resource users and environmental stockholders, NGOs and lobbyists in all phases of planning and implementation of its policies, programmes and projects (MOEF, 1995). NEMAP identified the key environmental issues and the actions required to halt or reduce the rate of environmental degradation, improve the natural and manmade environment, conserve habitats and biodiversity, promote sustainable development and improve quality of human life.

*Sectoral policy:* Noteworthy among the sectoral plans and policies are the Flood Action Plan 1989, National Energy Policy 1995, Power Policy 1995, National Fisheries Policy 1997, National Health Policy 1998, National Water Policy 1998, New Agriculture Extension Policy 1995, National Landuse Policy (draft), etc.

**Programmes and Projects:** *Sustainable Environment Management Programme (SEMP)*: With a grant of US\$ 26 million, SEMP is the largest environmental programme of UNDP across the world. It has 26 components being implemented by 21 Sub-Implementing Agencies (Government: 8, Professional bodies: 2 and NGOs: 11). SEMP has five broad Sub-Programmes: Policy and Institution; Participatory Ecosystem Management; Community-based Environmental Sanitation; Advocacy and Awareness; and, Training and Education.

**Status:** Some of the projects are already implemented and some others are in progress. Environmental Impact Assessment cells need to be established and developed in all the major development ministries, divisions, and departments as well as NGOs. Financial assistance is necessary for this.

**Capacity-Building, Education, Training and Awareness-Raising:** All of the above mentioned endeavours include various kinds of capacity-building, education, training and awareness-raising initiatives for different target groups, which include government officials, policy-makers, and grassroots people.

**Information:** All information related to the above-mentioned projects/programmes is being kept in the concerned departments/agencies.

**Research and Technologies:** Research activities are done through above-mentioned projects/programmes of concerned departments/agencies and some other governmental and non-governmental research organizations are also engaged in research to find out appropriate technology.

**Financing:** The Government is not in a position to finance all the programmes/projects of the country due to resource constraints. Development partners are providing financial assistance in some of the programmes/projects where their objectives are matched with their policy. Financing comes from the government of Bangladesh, the World Bank, ADB, UNDP, GEF, the International Desalination Association (IDA), and other donor agencies such as Canadian International Development Agency (CIDA), the United States Agency for International Development (USAID), the North American Aerospace Defense Command (NORAD), Japan International Cooperation Agency (JICA) and Department for International Development (DFID), etc.

**Cooperation:** Active cooperation is going on between Bangladesh and other regional organizations like SACEP, ESCAP, etc. and international/UN organizations like World Bank, UNEP, UNDP, GEF, International Union for Conservation of Nature and Natural Resources (IUCN), WWF, Asian Development Bank (ADB), JICA, European Union (EU), Canadian International Development Agency (CIDA), the North American Aerospace Defense Command (NORAD), USAID, etc.

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## CHAPTER 9: PROTECTION OF THE ATMOSPHERE

**Decision-Making:** Decisions are made by the Ministry of Environment and Forest in consultation with the Ministry of Defense (Bangladesh Meteorological Department and Space Research and Remote Sensing Organization), the Ministry of Agriculture, the Ministry of Industries and the Department of Environment. The Bangladesh Meteorological Department, Space Research and Remote Sensing Organization, Bangladesh Agriculture Research Council, and Advanced Chemical Industries are also consulted.

Mitigation of the impacts of climate change and phasing out the use of ozone depleting substances are a national priority. A strategy for mitigatory measures was prepared on the basis of which a National Plan on the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) is formulated and thereafter submitted to the third Conference of parties scheduled in Kyoto in 1997.

Following the signing of the Montreal Protocol, Bangladesh is phasing out the production and use of ozone depleting substances (ODS). Small and medium size enterprises (e.g., refrigeration units) are being converted to use ammonia-based plants (or other appropriate CFC(chlorofluorocarbon)-substitute refrigerants).

**Programmes and Projects:** A project aimed at establishing an Ozone Cell in the Department of Environment (DOE) of the Ministry of Environment and Forest to phase out ozone depleting substances (ODSs) has been in progress. Year-wise surveys on ODS are being conducted and updated. Bangladesh recently completed its aerosol sector phase out project. It is expected that about 60% of the total ODS consumption will be phased out by 2002. A draft regulatory framework has been prepared to phase out ODSs in different sectors.

There are a number of investment and non-investment projects in the pipeline in this area. A country study on climate change has just been completed under the United States Country Study Programme. Another project on Asia Least Coast Greenhouse Gas Abatement Strategy is in progress. Under these studies, inventory of Greenhouse Gas (GHG) emissions and an analysis of vulnerability impacts have been completed and both are in their refining and updating stages.

A new project, namely, "Preparation of Initial Communication on Response to the UN Framework Convention on Climate Change (UNFCCC)" has undertaken by the DOE in order to enable the country to update the previous results, fill in gaps, and enhance its scientific and technical capacity. The DOE has just started another project titled "Country Case Study on Climate Change Impacts and Assessments in Bangladesh" with a view to developing a handbook on methods of assessing the impacts climate change and adaptation measures needed by the parties to UNFCCC.

Air Quality Management Project (AQMP) is under implementation by the Department of Environment (DOE) to address several aspects including, among others, capacity-building of the DOE enforcement, awareness-building and research in order to abate and control the air pollution of the country. Moreover, a number of components under the Sustainable Environment Management Programme (SEMP) and Bangladesh Environmental Management Project (BEMP) aim to address this issue, among others.

**Status:** All these projects are still in their implementation phase.

**Capacity-Building, Education, Training and Awareness-Raising:** Training programmes are being undertaken for capacity-building of concerned governmental and non-governmental agencies to deal with the above-mentioned programmes efficiently that will contribute to the fulfillment of the national obligations in this regard. The government and NGOs are also carrying out awareness-raising and outreach campaigns through various means of communication. The 16th of September each year is International Ozone Day.

**Information:** Information is preserved as reports of programmes in specific wing of concerned department/agencies, e.g. Ozone Cell of Department of Environment.

**Research and Technologies:** Research activities are done through above-mentioned projects/programmes of concerned departments/agencies and some other governmental and non-governmental organizations are also engaged in research to find out appropriate technology to meet the country needs.

See also under **Programmes and Projects**.

**Financing:** International Donor Agencies: Montreal Multilateral Fund, ADB, UNDP, CIDA, UNEP, etc. are supporting the above-mentioned programmes.

**Cooperation:** The Montreal Protocol was signed by Bangladesh in 1990. The London Amendment was ratified in 1994, and the Copenhagen Amendment was signed in 1996. Bangladesh signed the UNFCCC in 1992. Cooperation exists between Bangladesh and the South Asian Association for Regional Cooperation (SAARC), the Southern Appalachian Critical Ecosystem Programme (SACEP), the United Nations Environment Programme (UNEP), UNFCCC Secretariat, Secretariat of the Montreal Protocol and the Global Environment Facility (GEF).

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## **CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES**

**Decision-Making:** To ensure better management as well as optimum and environment-friendly use of land, the government of Bangladesh has approved the National Land Use policy on 13 June 2001.

**Programmes and Projects:** The following projects/programmes have been implemented with a view to ensuring better management of land resources: Adarsha Gram Ii Project (EC assisted); Modernization of Land Administration (3<sup>rd</sup> phase, TA, ADB assisted); Repair and Construction of Upazila Land Office and Union Land Office (4<sup>th</sup> phase); Government Khas Pond and Dighee Development; Slum peoples rehabilitation Project at Vasantek; Char Development and Settlement Project II (Dutch assisted); and Preparation of Resettlement Policy Guidelines (World Bank-assisted).

**Status:** The above-mentioned projects are currently under implementation.

**Capacity-Building, Education, Training and Awareness-Raising:** Modernization of Land Administration is a capacity-building activity of this Ministry. This will improve the system of Records of Rights (ROR) through introducing Certificate of Land Ownership (CLO). Land Administration Training Centre (LATC) is implementing Training and awareness activities.

**Information:** Seven (7) projects (see under **Programmes and Projects**) are being implemented under the Ministry of Land.

**Research and Technologies:** There is no land-related research and technology center under the Ministry of Land.

**Financing:** Under current Annual Development Programme (2001-2002) the total allocation is 9444.00 lakh taka where Project Aid is 5089.00 lakh taka and GOB contribution is 4355.00 lakh taka. See also under **Programmes and Projects**.

**Cooperation:** See under **Programmes and Projects**.

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## CHAPTER 11: COMBATING DEFORESTATION

**Decision-Making:** Managerial and technical decisions needed for effective forest management are drafted and initiated by the Forest Department. After the approval of the Ministry of Environment and Forests, the Forest Department executes the decisions. Major financial and administrative decisions are made by the ministries concerned, including the ministries of: Environment and Forest; Finance; Establishment; Planning; and Economic Relations Division (ERD).

Forestry Sector Master Plan (1995-2015) has been prepared by Asian Development Bank (ADB) and UNDP keeping in view the present and future demand of forest and forest resources in Bangladesh. This plan explained necessary steps need to be undertaken to expand forest resources, make forest productive, develop institutional capacities and encourage people's participation. Forestry Sector Master Plan is approved by Ministry of Environment and Forest. Social forestry is one of the major components within this Master Plan.

Social Forestry has been incorporated in the Forest Act during its amendment in 2000. Forest Act is passed by the parliament. The Forest Policy (1994) has been promulgated by amending the Forest Policy 1979.

Present forest policy has emphasized massive afforestation programme through peoples' participation. The forest policy is approved in the meeting of the council of ministers in the Cabinet Ministry. Different development projects incorporating afforestation programmes are formulated by the Forest Department. Project at a cost of Taka up to crore is approved by the Minister, Ministry of Planning. Project worth taka more than 10 crore is approved by the ECNEC (Executive Committee for national Economic Council) headed by Honorable Prime Minister. NGOs are also encouraged to undertake social forestry programme in the country.

**Programmes and Projects:** During the fiscal years 1991-92 to 2000-2001 the Forest Department successfully implemented a number of development programmes including: massive afforestation/reforestation in the forestry sector with a view to fulfilling ever increasing demand of forest produces; ensuring supply of raw materials to the wood-based industries; conserving and developing forest resources and biodiversity; and strengthening the recreation facilities of the people within natural environment. Thus effort has been made to combat deforestation.

Forest Department has successfully executed social forestry programmes throughout the country for the socio-economic development of the rural poor. Forest Department has successfully implemented seven development projects in 1991-92, eight development projects in 1992-93, 12 development projects in 1993-94, 13 development projects in 1994-95, 15 development projects in 1995-96, 12 development projects in 1996-97, 11 development projects in 1997-98, 16 development projects in 1998-99, 19 development projects in 1999-2000 and 23 development projects in 2000-2001.

In the current fiscal year (2001-2002), 24 development projects are under implementation by the Forest Department. Of these three development projects are financed by Asian Development Bank (ADB), one project is financed by the World Bank, and 20 development projects are financed by the Government of Bangladesh.

See under **Programmes and Projects**.

**Status:** During the fiscal years 1991-92 to 2000-2001, Bangladesh Forest Department raised about 0.13 million hectares of different types of plantation and 31952 km of strip plantations. Besides, about 176 million of seedlings were raised during the same period of time for institutional planting, homestead plantation and sales and distribution.

People's participation through social forestry programme in Bangladesh plays an important role towards combating deforestation.

**Capacity-Building, Education, Training and Awareness-Raising:** The Forest Department is presently pursuing the identified issues of human resource development through recruitment and training, infrastructure and logistics development, genetic improvement of trees through tissue culture and clonal propagation, computerized database development, appropriate technology for *in situ* and *ex situ* conservation, etc. Bangladesh Forest Department has five institutions offering education and training in Forestry. Training arrangements are also made in different training institutes at home and abroad for officers and staffs in different fields of forestry. Forest Department is also arranging training for the departmental officers and staffs through development projects. Training for the participants in the social forestry programme is one of the important components of the Forestry Sector Project.

A nationwide massive tree plantation programme involving people from all strata of the society is launched every year in order to increase tree cover and improve country's environment. As a part of Tree Plantation Campaign, Tree Fair is also arranged to make the people aware of the importance of conservation of tree resources and environment. The Forest department as a part of the awareness programme publishes leaflets, brochures and souvenirs.

**Information:** The Forest Department is carrying out forest inventory in the hilly forest and of Chittagong, Cox's Bazar and Sylhet Forest Divisions, mangrove forest areas of Sundarban and Coastal Afforestation Divisions and plain land forest area of Dhaka, Tangail, Mymensingh and Dinajpur Forest Divisions. Resources Information Management System/Geographic Information System (RIMS/GIS) has been set-up in the Forest Department. Based on this inventory data Integrated Management Plan for different forest divisions has been prepared. A computer-based Programming Budgeting and Monitoring System (PBMS) has been designed and installed within the Forest Department as Management Information System.

**Research and Technologies:** The Forest Department is putting special emphasis on genetic research to meet the growing demand of forest products as quickly as possible. To this end, Bangladesh is trying to develop vegetative propagation technologies for indigenous species. Bangladesh Forest Research Institute and the Forest Department have already developed clonal propagation techniques of bamboo and vegetative propagation of some other fast growing species. Institute of Forestry and Environmental Sciences under Chittagong University and department of Forestry and Wood Science under the Khulna University are also involved in the research work. Bangladesh Forest Institute, Bangladesh Agricultural Research Council, Agricultural Universities are the important institutions involved in the field of forestry research and studies.

See also under **Information**.

**Financing:** Finance is provided by international donor agencies like the United Nations Development Programme (UNDP), the World Bank, the Asian Development Bank (ADB), the North American Aerospace Defense Command (NORAD), and locally through the government of Bangladesh.

**Cooperation:** Bangladesh cooperates with Food and Agriculture Organization (FAO)/UNDP, World Bank, ADB, Japan International Cooperation Agency (JICA), Regional Wood Energy Development Programme in Asia (RWEDP), Regional Participatory Watershed Management Programme, International Union for Conservation of Nature and Natural Resources (IUCN), World Commission for Protected Areas (WCPA), Ramsar Bureau, Global Environment Facilities, etc.

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## CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

**Decision-Making:** Decisions are made by the Ministry of Environment and Forest in consultation with the Ministry of Defense, Bangladesh Meteorological Department, Space Research and Remote Sensing Organization and the Department of Environment. Issues of combating desertification and drought have received due attention and are reflected in the National Environment Policy, National Water Policy, Forest Policy and Agricultural Extension Policy statements. National Environmental Management Plan identified the same issue. Forestry Sector Master Plan (1995-2015) has been prepared by UNDP and ADB and approved by the Ministry of Environment and Forest. This plan has addressed the issues of combating desertification and drought. Necessary steps need to be undertaken have been mentioned in the Master Plan. The Ministry of Environment and Forests have prepared the National Report on Implementation of United Nations Convention to Combat Desertification.

The Ministry of Water Resources has prepared draft National Water Management Plan that is under the process of approval.

National Report on Implementation of United Nations Convention to Combat Desertification, Bangladesh has been prepared and is under the process of approval and publication. This report has outlines necessary steps in connection with combating desertification in the country.

**Programmes and Projects:** Barind Multipurpose Development Authority is working in the main drought-prone area of Bangladesh. A two-day national seminar on “Combating Land Degradation and Desertification in Bangladesh was held in 1998 and was attended by 70 participants representing government agencies, education and research institutes, local bodies, specialized NGOs, journalists, donor agencies and interested individuals.

Development project namely “Forestry Sector Project.” “Social Forestry in the Guide Dam Area of Bangabandhu Jamuna Multi-purpose Bridge,” and, afforestation in the Denuded Hills of Ramgar Shitakunda Area are to a great extent towards combating desertification and drought.

See under **Status and Capacity-Building, Education, Training and Awareness-Raising**.

**Status:** Desertification process is not distinct in Bangladesh. However long spell of dry season (seven months) caused sever drought. Land degradation has occurred due to over exploitation of soil. Barind Tract is the driest region of Bangladesh, and land degradation is found all over Bangladesh. Massive afforestation through social forestry programmes has contributed to combat desertification and drought.

Integrated approach by the Ministry of Agriculture has impact in combating desertification and drought. Environmental consideration while designing embankment and roads helps in combating desertification and drought. Projects for river dressing, river restoration and wetland conservation helps in combating desertification and drought.

**Capacity-Building, Education, Training and Awareness-Raising:** The Government will take necessary actions for capacity-building, education, training and awareness-raising as has been recommended in the newly prepared National Report on Implementation of United Nations Convention to Combat Desertification in Bangladesh. However, Forest Department has launched social forestry programmes throughout the country by implementing Forestry Sector Project.

Capacity-building initiative has been made by restructuring its organogramme. Education, training and awareness-raising are important components of the development projects of the Forest Department. Both the departmental officers and staff along with stakeholders are imparted training. National Tree Fair Programme, held every year, contributed awareness-raising in tree plantation in the country.

**Information:** Forest Department has database management facilities within its RIMS/GIS unit. This unit is capable to provide various records related to forest activities and plantation maps of forest areas of Bangladesh. Such facilities might be used in the planning process of combating desertification and drought in the country.

**Research and Technologies:** Surface Water Modeling Center is carrying out research in the country. Soil research and development Institute and Bangladesh University of Engineering and Technology are also involved in such research.

**Financing:** The ADB and the World Bank are financing forestry sector of Bangladesh. Massive afforestation programmes have been undertaken through the donor financed projects as well as through GOB funded projects. The Dutch Government has been financing water sector for undertaking river restoration project. More financial and technical assistance are required from the international development agencies and development partners.

**Cooperation:** Bangladesh signed the International Convention to Combat Desertification in 1996 and after ratifying the convention the country became a party to it. Cooperation in this field already exists between Bangladesh and the South Asian Association for Regional Cooperation (SAARC) countries and the UNCCD Secretariat.

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## CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

**Decision-Making:** Major statements of the Forest Policy (1994) are to undertake massive afforestation programmes in the denuded hills of Unclassed State Forest of hill districts through government and private initiatives keeping aside areas earmarked for soil and water conservation and biodiversity conservation, to increase protected areas, to ensure participation and rehabilitation of local tribal cultivators in the process of forest settlement, production and protection. Forestry Sector Master Plan (1995-2015) has been prepared giving due attention in sustainable mountain development.

The Ministry of Agriculture, the Ministry of Hill Tracts Affairs, the Ministry of Small Scale and Cottage Industries and a number of NGOs are also involved in implementing development projects that has implications in sustainable mountain development. The Ministry of Hill Tracts Affairs and Chittagong Hill Tracts development Board are the important agencies for the sustainable development of hill districts of Bangladesh.

**Programmes and Projects:** About 9022 ha of plantation have been raised in the hilly areas under the project “Afforestation and Rehabilitation of Jhumia Families in the Unclassed State Forest and Reserved Forest Land of Chittagong Hill Tracts” from the period 1995-96 to 2000-01. About 36524 ha of plantation have been raised in the hills under the Forest Resources management project during the period from 1992-93 to 2000-01. Five thousand ha of plantation will be raised in the denuded hills under the Afforestation of Denuded Hills in the Ramgarh-Shitakunda Area project (2001-02 to 2004-05). Another 9545 ha of hilly land will be brought under plantation through project “Afforestation in the Denuded Hills of Greater Sylhet and Cox’s Bazar Districts.”

Forest Department is implementing development projects for the development of the protected areas: three national parks; three wildlife sanctuaries; and one game reserve in the hilly area of Bangladesh. Total area of these seven protected areas is 32517.54 ha.

The Upland Settlement Project (USP) is a community focused land management and agroforestry project in the Chittagong Hill tracts conceived under the preview of Chittagong Hill Tracts Development Board in 1979 and became operational in 1985. Second phase of this project started in 1995. Two thousand ethnic families were resettled through the first phase of this project and another 1000 landless and marginal jhumia families have been targeted for rehabilitation. Other ministries and agencies are also implementing development projects, which are contributing towards sustainability of fragile ecosystem in the mountain areas.

**Status:** There are three hill districts in Bangladesh. Unclassed State Forest is the major land category there and is under civil administration. Shifting Cultivation is the traditional land use practice for subsistence. Massive plantation and rehabilitation of forest dwellers through involving them in the process of forest development, undertaken by Forest Department, helps to manage fragile ecosystem in the mountain area. Watershed management in the hilly area is another initiative that needs to be undertaken urgently in support of sustainable mountain development in Bangladesh.

**Capacity-Building, Education, Training and Awareness-Raising:** In connection with capacity-building of Forest Divisions in the hilly areas, Forest Department has implemented development project “Infrastructural Reconstruction and Facilities Development of Forest Divisions in the Chittagong Hill Districts (1999-2000 to 2000-01) at a cost of Taka 97.805 million. Forest Department is also implementing Forestry Sector Project (1997-98 to 2003-04) that includes training, education and awareness-raising components for the stakeholders from hilly areas.

**Information:** Forestry and Engineering International Ltd. (FORESTAL) of Vancouver, Canada carried out an inventory of forest resources during 1961-63. The FORESTAL’s report contains detail information about forest resources in the past. Plan for a new forest inventory in the Chittagong Hill Districts has been prepared under the Forest Resources Management Project (1992-93 to 2000-01). Land records are maintained by the Ministry of Land as well as by the respective district authorities in the Chittagong Hill Districts.

**Research and Technologies:** Watershed Management and Conservation center under the Ministry of Agriculture has been carrying out necessary research in hilly areas on soil erosion and conservation. A number of academic institutions and universities are involved in research in ethnic groups. Different technologies are transferred on

pilot basis. However, there is ample scope to transfer technology that might be useful for sustainable mountain development.

**Financing:** The World Bank and the ADB are major development partners in financing forestry sector of Bangladesh. Large-scale plantation has been raised in the hilly area of Bangladesh financed by the donors through development project. The World Bank has shown interest to finance project to be implemented in the hill districts. IUCN, Bangladesh has been arranging funds to implement development projects for sustainable mountain development in the hill districts on pilot basis.

**Cooperation:** Technical assistance and cooperation is usually received from Japan International Cooperation Agency, UNDP, FAO, ADB, the World Bank, etc.

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## **CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT**

**Decision-Making:** No information available.

**Programmes and Projects:** Chapter 19 of this Profile.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** See Chapter 16&34 of this Profile.

**Financing:** No information available.

**Cooperation:** No information available.

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## CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

**Decision-Making:** The Council of Ministers (Cabinet), the Ministry of Environment and Forests (MOEF), and the Directorates are responsible for decision-making in this field. Agencies of the government of Bangladesh such as the Department of Environment, Forest, Agriculture Extension, Livestock & Fisheries, the Non-Governmental Organizations (NGOs) and local people, including ethnic groups, are also involved.

The wildlife, forests, fisheries, and environment in Bangladesh are managed, conserved and preserved respectively under the provisions of the following Acts: the Bangladesh Wildlife (Preservation) Act, 1974; the Forest Act, 1927 (amended in 1989); the Fish Act, 1950; and the Environment Protection Act (ECA), 1995 (Amendment 2000). 6 (six) areas of Bangladesh have been declared as Ecological Critical Area under the ECA.

Conservation and sustainable use of biological diversity are applied to the following areas: terrestrial biological diversity (including forests), agricultural biological diversity, freshwater biological diversity and coastal and marine biological diversity (including mangrove ecosystems).

See also under **Cooperation**.

**Programmes and Projects:** A number of programmes and projects have been undertaken in integrating conservation and environmental protection with development endeavors. Some important projects are discussed briefly in the following section.

*National Conservation Strategy Implementation Project (NCSIP):* The MOEF in 1994 started the NCSIP with an aim to piloting conservation practices in selected ecosystems with financial support from the North American Aerospace Defense Command (NORAD). The project was started with the following objectives: promotion of sustainable development through institutional development at national level and instituting conservation concerns in the national planning process; improvement of environmental management of biodiversity; raising the level of environmental awareness of various sections of the society. A number of projects have been planned under the NCSIP. Among which important projects are Tanguar Haor Wetland Biodiversity Conservation, and Conservation of Coral Resources of Narikel Jinjira (St. Martin).

*Ramsar Site Conservation Initiative - Tanguar Haor:* The NCSIP of MOEF initiated the Tanguar Haor Pilot Project (THPP) in January 2000. The goal of the Project is to ensure the long-term conservation of the globally significant biodiversity of Tanguar. To this end, the Project will carry out a restoration programme to safeguard habitats important for biodiversity maintenance, curb threats to biodiversity, reduce pressures on the natural resources by means of resource substitution and a poverty alleviation programme, and develop the local capacity for sustainable resource utilization.

*Sustainable Environment Management Programme (SEMP):* With a grant of US\$26 million, SEMP is the largest environmental programme of UNDP across the world. It has 26 components being implemented by 21 Sub-Implementing Agencies (Government: 8, Professional bodies: 2 and NGOs: 11). SEMP has five broad sub-programmes: Policy and Institution; Participatory Eco-system Management; Community Based Environmental Sanitation; Advocacy and Awareness; and Training and Education.

*Sundarbans Biodiversity Conservation Project (SBCP):* The MOEF with the financial support from the Asian Development Bank has launched the Sundarbans Biodiversity Conservation Project (SBCP). The overall objective is to “develop a sustainable management and biodiversity conservation system for all SRF resources on the basis of rational plans and the participation of all key stakeholders.” To achieve this objective, the Project aims at: improved institutional capacity to manage the SRF; adoption of biodiversity conservation and sustainable resource management measures; reduction in the poverty level of the 3.5 million people living in the impact zone through expanded economic opportunities, improved social infrastructure, improved organization for resource users, and facilitated stakeholder participation in resources management; eco-tourism and environmental awareness programmes, as well as basic public infrastructure and training; significant improvement in planning, monitoring, and applied research capacity; and reduction of pollution by effluents from KNM.

*Coastal and Wetland Biodiversity Management Project:* A PRIF study project was implemented by the Department of Environment to develop a full project proposal as per GEF guideline for another follow-up project regarding model implementation and management of priority coastal and wetland biodiversity areas in a sustainable manner. The main follow-up investment project titled “Coastal and Wetland Biodiversity Management at Cox’s Bazar and Hakaluki Haor” is expected to start in December, 2001.

**Status:** All these projects are in progress. In order to ensure coordination between these projects and also to avoid duplication and overlapping as well as smooth implementation, regular coordination meetings are held among the project personnel and some time with the donors with direct supervision of the Ministry of Environment and Forest. National Environment Management Action Plan (NEMAP) is now in its implementation phase. A number of development partners are implementing various segments of NEMAP. They are UNDP, World Bank, CIDA, and NORAD etc.

**Capacity-Building, Education, Training and Awareness-Raising:** Development projects for resource management, training, information generation and technology development, and appropriate technology for *in situ* and *ex situ* conservation are also urgent issues. Twenty-four staff persons and officials received training on the implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1995. The government of Bangladesh and the United States Fish and Wildlife Service sponsored this training programme jointly.

**Information:** All information related to the above mentioned projects/programmes are being kept in the concerned department/agencies.

The 1994 World Conservation Union (IUCN) Red List contains 65 wildlife species (reptiles, birds and mammals, no amphibian in the list) and the Bangladesh National Herbarium lists 33 threatened flowering plants for the country.

**Research and Technologies:** Research activities are done through above-mentioned projects/programmes of concerned departments/agencies and some other governmental & non-governmental organizations are also engaged in research in this specific field.

**Financing:** Financing for bio diversity activities comes from the government of Bangladesh, the World Bank, ADB, UNDP, GEF, the International Desalination Association (IDA), and other donor agencies such as Canadian International Development Agency (CIDA), the United State Agency for International Development (USAID), the North American Aerospace Defense Command (NORAD), Japan International Cooperation Agency (JICA), and Department for International Development (DEID), etc.

**Cooperation:** The Convention on Biological Diversity was signed by Bangladesh in 1992 and ratified in 1994. The Convention on International Trade in Endangered Species of Wild Fauna and Flora was signed by Bangladesh in 1973. Bangladesh is also a party to the Ramsar Convention and the World Heritage Convention.

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## **CHAPTERS 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING**

### **Decision-Making:**

*Technologies:* A National Environmental Action Plan has been formulated with a view to promoting national environmental management system standard such as ISO (the International Organization for Standardization) 49000 series and others. Bangladesh is working in collaboration with the Science & Technology Centre for Non-Aligned Movement (NAMS&T) and other developing countries.

*Biotechnologies:* Decisions are made through inter-ministerial consultations involving the Ministry of Science and Technology, the Ministry of Environment and Forests, the Ministry of Agriculture, and the Ministry of Health and Family Welfare. Vital national issues and Project Proposals on Biotechnology are placed before National Council for Science and Technology (NCST) for evaluation and recommendations, which are finally approved by the Cabinet of the Government. A 'Biosafety Guideline' has also been prepared in consultation with various experts, to be followed by the working scientists, and a 'Biosafety Act' is being framed to be adopted by the Parliament.

### **Programmes and Projects:**

*Technologies:* Two projects have been undertaken by the government on clean production processes: Industrial Pollution Control Management with financial support from the Asian Development Bank (ADB) was completed in 1995. Development and application of sectoral industrial guidelines and standards and the monitoring of compliance was completed in 1996.

*Biotechnologies* Bangladesh at present has a number of programmes and projects on Biotechnology. These projects are spread over in different fields of Biotechnology like: Plant Biotechnology, Animal Biotechnology, Fish Biotechnology, Insect Biotechnology, Industrial Biotechnology, Fish Biotechnology, etc. Most of the universities of Bangladesh and many research organizations are involved in some areas of biotechnology research, including: improvement of major crops like rice, jute, sugarcane and wheat; improvement of livestock and poultry; improvement of fisheries; upgrading of fermentation, biofertilizer and sericulture are the subjects of major interest. See also under Status.

### **Status:**

*Technologies:* Support for programmes of cooperation and assistance for the establishment of a collaborative network of research centres and for building up capacity to develop and manage environmentally sound technology is necessary.

*Biotechnologies:* Research on biotechnology was initiated in Bangladesh in 1977 as tissue culture in the department of Botany, Dhaka University. However, at a later stage, other parameters necessary for increasing agricultural production were considered under biotechnology. Most of the institutes under the National Agricultural Research System (NARS) have tissue culture facilities now. These include the Bangladesh Agricultural Research Institute, Bangladesh Institute of Nuclear Agriculture, Bangladesh Forest Research Institute, Bangladesh Jute Research Institute, Bangladesh Tea Research Institute, Bangladesh Atomic Energy Commission and Bangladesh Council of Scientific and Industrial Research. Balda Gardens and also some NGOs have also been doing research on orchids, banana and other fruits and ornamental plants. In addition to NARS, tissue culture facilities have been developed in many educational institutes such as Dhaka University, Bangladesh Agriculture University, Khulna University and the Institute of Post Graduate Studies in Agriculture. As an outcome of the intensive research on plant tissue culture protocols of plant regeneration are now available for five fruit species, 15 forest species, three vegetables species, 9 species of ornamental and medicinal plants, and also 15 field crops.

Livestock biotechnology produced 11 types of veterinary biologics for the treatment of major infectious disease of livestock and poultry. Biotechnology has been successfully applied in the production of vaccine for foot and mouth disease and rinderpest. Biotechnology in fisheries induces spawning in carps, pabda (*Ompok pabda*), gulsha (*Mystus vittatus*), catfish, Mahaseer koi (*Ananus testudineus*) and others. With this technology, 46000 kg of different fish species can now be produced annually as against only 5000 kg through natural spawning.

At present work on recombinant DNA technology is very limited.

**Capacity-Building, Education, Training and Awareness-Raising:**

*Technologies:* No information available.

*Biotechnologies:* The Government of Peoples Republic of Bangladesh has in the recent past taken measures for the uplifting of biotechnology in the country. Realizing the potential benefit of Biotechnology, the Government of Bangladesh is in the process of setting up a National Institute of Biotechnology (NIB) with the mandate of taking up appropriate research programme, training of manpower, promoting large-scale production in biotechnology, support infrastructural facilities, develop Biosafety guidelines and promote Research Organization/University-Industry interactions. The Institute (NIB) is now in its early development stage. Work on its physical development has already been started. It is expected that in about 2-3 years time the Institute will be functional. Besides, for boosting the biotechnological research in the country, the Government through S&T Special Grant Project (total amount Taka 120 million annually) substantial amount is allotted annually to the scientists of different organizations working on biotechnology. Biotechnology is now being taught in different universities for giving M.Sc. and also Ph.D degrees. Besides, seminars, training courses and workshops are organized by the Govt., Universities, and Research Organizations and also by different Scientific Associations for disseminating up-to-date knowledge on biotechnology, and also for the awareness of the public.

**Information:**

*Technologies:* No information available.

*Biotechnologies* No information available.

**Research and Technologies:**

*Technologies:* No information available.

*Biotechnologies:* Research on plant biotechnology has focused on increasing yield and nutritional status and reducing crop loss due to diseases and natural hazards. The development of submergence tolerance in rice, salt tolerant coastal rice varieties, yellow mosaic virus resistant mungbean, and nutrition-improved varieties of jute and lentil are some examples. Other aspects of biotechnology include: (i) biofertilizers where most effective rhizobial strains are screened from local sources that are capable of increasing pulse production; (ii) mushroom culture; (iii) propagation of bamboo and hybrid tree species such as Acacia and Eucalyptus; (iv) biopesticides such as neem extract (neem oil), datura (*Datura metal sims*) mixture of powdered jute, neem cake and neem oil for controlling hopper populations, ladybird beetle and spiders. The NARS institutes carry out research in four sub sectors of agriculture such as crops, forestry, fisheries and livestock. The biotechnology activities are therefore grouped into the four groups mentioned above.

**Financing:**

*Technologies:* The Government of Bangladesh funds are used though there are budgetary constraints.

*Biotechnologies:* No information available.

**Cooperation:**

*Technologies:* Bangladesh signed the Montreal Protocol to protect the ozone layer in 1987. The Bangladesh National Scientific & Technological Documentation Centre (BANSDOC) has a cooperative programme of activities with many national, regional and international information networks like the Indian National Scientific Documentation Centre (INSDOC) (India), the Pakistan Scientific & Technological Information Centre (PASTIC) (Pakistan), the National Center for Science Information Systems (NACSIS) (Japan), the Institute of Scientific and Technical Information of China (ISTIC) (China), the International Federation for Information and Documentation (FID) (the Netherlands), the United Nations Education, Science and Culture Organization (UNESCO), the European Union, among others. See also under **Decision-Making**.

*Biotechnologies:* Regional and international cooperation in any research and development activities is essential for exchanging ideas and upgrading knowledge in the relevant subjects.

## **CHAPTER 17: PROTECTION OF THE OCEANS, ALL KIND OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES**

**Decision-Making:** Decisions are made by the Cabinet and also by the Ministry of Shipping in consultation with other concerned ministries, divisions, and agencies.

**Programmes and Projects:** Land-based activities affecting oceans and coasts and needing to be implemented by Bangladesh include: (i) alternatives for pesticides and insecticides for agriculture; (ii) industries to be provided with waste recycling equipment; (iii) new industrial machineries to be designed for producing minimum wastes; (iv) facilities for storage, recycling and treatment of harmful wastes are to be built. Sea based activities include: (i) waste reception facilities to be built in ports; (ii) Coast Guard ships to be equipped with pollution detection and fighting equipment; (iii) training of personnel for functions indicated in items (i) and (ii) above.

See also under **Status**.

**Status:** “Inland Waterways Environmental Monitoring & Control” project has been implemented by the Department of Shipping (DOS), in order to strengthen the capabilities of the DOS, prevention and control environmental degradation of inland waterways caused by shipping related activities.

A laboratory was established at a cost of about 25 million taka for collection and analysis of environmental samples for monitoring the environmental status of inland waterways. The facility is equipped with sophisticated state of the art equipments for analysis of heavy metal, pesticides and other organic compound including hydrocarbon as well as micro-nutrients, in both water samples and dredge material. Base line environmental data collection is being carried out at present.

Environmental mapping and Geographical Information System (GIS) was established to obtain the relevant environmental monitoring data for management of inland waterways and then build this into a GIS. Information about following environmentally sensitive items have been prepared as environmental maps on: major fisheries and spawning areas; industries which may cause pollution of bottom sediments; major sewage discharges from urban areas; major agricultural areas causing pollution; major areas that may be polluted by accidental discharge of oil and harmful substances; areas where river banks may be eroded; major points of inland water transport activities such as ports, pontoons, oil loading or discharge terminals, industrial terminal and storage facilities for fertilizer or other hazardous cargo; major population centres located along the waterways; and, samples of the major rivers in the border to verify the degree of incoming pollution. An environmental audit was undertaken to assess the impact of inland water transport on environmental resources in Bangladesh. Si of II BIWTA inland water port, the seaport of Chittagong and Mongla and 2 BIWTA launch station, ship breaking at Chittagong, the BIWTA floating dock at Barisal, and Chittagong Dry Dock Ltd. were included in the audit.

**Capacity-Building, Education, Training and Awareness-Raising:** Personnel of Inland Waterways Environmental Monitoring and Control Project under the Department of Shipping have been trained for carrying out the environmental monitoring and control activity.

**Information:** Information required for effective management of inland waterways was collected and a data bank has been created (see under **Programmes and Projects**).

**Research and Technologies:** No information available.

**Financing:** Finance is provided by International development financing institutions and development partners.

**Cooperation:** Bangladesh signed the UN Convention on the Law of the Sea in 1982.

## **CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES**

**Decision-Making:** The National Water Council (NWC), chaired by the Prime Minister, makes decisions and provides policy guidance on key national issues relating to water resources. Decisions are also made in the inter-ministerial meetings where different agencies involved in water-related projects are represented.

The National Water Plan, started in 1983, focused on the assessment of water resources and demand by different users. It assembled a substantial amount of information, developed a range of planning models and analytical tools and recommended strategies and programmes, many of which were adopted by the Government. The Plan also produced a water policy and other proposals to institutionalize the process of water planning and long-term water resources management. Following the severe floods of 1987 and 1988, a number of studies were undertaken under the Flood Action Plan (FAP) to get a better understanding of the flood problem. On the basis of the FAP studies, a strategy for the development of water resources and the management of water and floods was approved by the government of Bangladesh in 1995.

The implementation will begin in July 1997 under technical assistance provided by the International Desalination Association (IDA). The major water user groups are farmers (marginal, landless), fishermen, boatmen, women, indigenous people and local communities. The groups' activities are organized by the local governmental agencies and Non-Governmental Organizations (NGOs). Participatory planning helps address issues of all Project-Affected People (PAP). However, significant use is required for salinity management in the coastal belt, where considerable fresh upland flow is needed during the dry season.

**Programmes and Projects:** Under the FAP, a number of projects were evaluated at the pre-feasibility level, and possible flood mitigation projects have been identified within a regional context. A few priority projects are either being implemented or ready to commence. Among the considerable achievements has been the formulation of standard guidelines for project assessment, participatory planning and environmental impact assessment.

**Status:** Of the available surface water, ninety-two percent flows into Bangladesh from outside its territorial limit. Due to massive withdrawal by India of the Ganges water at Farraka and other upstream rivers, the economy of Bangladesh has been severely disrupted, producing adverse impact on all sectors. The situation is expected to improve with the recent signing of a 30-year agreement between Bangladesh and India on sharing the water of the Ganges. Despite achievements, the National Water Plan fell short of comprehensive national water plan. It was inadequate for evaluating large-scale programmes, impacts and requirements, failed to evaluate properly and integrate a number of major projects and programmes within the sector: inadequately addressed requirements in other ministries, viz. fisheries, navigation, public health, industries, municipalities, etc.

**Capacity-Building, Education, Training and Awareness-Raising:** For capacity-building, training programmes are undertaken in terms of infrastructure development for enhancing technical skills at appropriate levels for human resources development, upgrading of inter-disciplinary planning and integrated water resources management. Water resources planning and management require the application of new technology and improved planning tools to cope with the changed circumstances.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** Assistance from international agencies, development partners and the country's own resources are utilized to implement water resource projects.

**Cooperation:** No information available.

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## **CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS**

**Decision-Making:** Decisions are made through inter-ministerial consultations involving the Ministry of Environment and Forests, the Ministry of Commerce, the Ministry of Industry, the Ministry of Agriculture, the Ministry of Health, the Ministry of Science and Technology and their respective agencies. Department of Environment (DOE) is the key agency under this Ministry to deal with this issue. Decisions are, however, made by the Cabinet when there is disagreement among the ministries and departments on a particular issue. The customs department, agricultural workers, health workers, industrial entrepreneurs, scavengers who work in the waste disposal site, Coastal Guard, and Bangladesh Rifles are also involved.

Regulation of production, import, export, transportation, storage, handling, and use of toxic chemicals and generation & disposal of hazardous waste in Bangladesh have the backing of the legislation: The Environment Conservation Act 1995 (Amendment 2000), The Environment Conservation Rules 1997, The Pesticide Ordinance 1971 and Pesticide Rules 1985 etc. But these legislations are not enough to address bio-medical hazardous waste generated from hospitals/clinics properly. So an Act on Bio-Medical Waste is planned to be prepared. A draft guideline on Bio-Medical Waste has been prepared and circulated to the hospitals and clinics. The import of all kind of waste including toxic and hazardous materials is banned in the National Import Policy of Bangladesh in accordance with the international laws, and a regulatory framework is in the process of development to prevent the illegal international traffic in toxic and dangerous products.

**Programmes and Projects:** The DOE undertaken a project title “Assessment of Environmental Health Hazards with the assistance of World Health Organization (WHO). The main objective of the Project was to collaborate with government in formulating national programmes for noise and air quality monitoring, chemical safety and water quality surveillance. Under the WHO Action Plan the following programmes were also taken up by the DOE: the establishment of Poison Information Center; and the preparation a National Chemical Profile. A proposal has been prepared using GEF format in order to get financial and technical assistance to develop National Implementation Action Plan for phasing out POPs from the country.

Plant Protection wing of Agriculture Extension Department has been working to establish Integrated Pest management (IPM) system in the country with a view to reducing the use of toxic pesticide at farmers level.

**Status:** A draft National Chemical Profile has been prepared during the biennium (1998-1999). A feasibility survey has been done in the previous biennium (1998-1999) on poison information center. A poison center for information and control of toxic chemicals and treatment of poisoned victims needs to be established. Programmes for capacity building in classification of toxic material and hazardous wastes through training personnel and transfer of sophisticated equipment for detection are necessary. Statistical data/indicators as such need to be established. Financial assistance from international development financing agencies and development partners is required for implementing obligations under Agenda 21 and for reduction of chemical risks.

**Capacity-Building, Education, Training and Awareness-Raising:** As part of capacity building and awareness raising initiatives the DOE organized a series of 10-day long and a follow-up 5-day long training workshops on chemical safety. Department of Agriculture Extension has been carrying out countrywide training programmes on IPM.

**Information:** Database on Chemical Safety is yet to be established. Reports are kept in the concerned departments and agencies.

**Research and Technologies:** Research activities are done through above-mentioned projects/programmes of concerned departments/agencies and some other governmental & non-governmental research organizations are also engaged in research in this specific field.

**Financing:** The projects and programmes are funded by WHO and GEF and regular activities are being funded by Government of Bangladesh.

**Cooperation:** Cooperation exists between Bangladesh and other South Asian countries at the regional level and the Secretariat of the Basel Convention, WHO at the international level.

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## **CHAPTERS 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC**

### **Decision-Making:**

*Hazardous Wastes:* Decisions are made through inter-ministerial consultations involving the Ministry of Environment and Forests, the Ministry of Commerce, the Ministry of Industry, the Ministry of Agriculture, the Ministry of Health and their respective agencies. Decisions are, however, made by the cabinet when of Agriculture there is disagreement among the ministries and departments on a particular issue. Involved are also the Customs department, Agricultural workers, Health workers, Industrial Entrepreneurs, Environmental workers, Coast guard, and Bangladesh Rifles. Banning the import of hazardous wastes is a national priority.

*Solid Wastes:* At the national level, the Planning Commission, the Ministry and the Division are responsible for policy-making and strategic planning. The Departments and Agencies are responsible for the execution of the projects. At the local level, the City Corporations and Paurashavas are responsible for the implementation of the project activities. The Local Government Engineering Department (LGED) has been engaged in various Urban Services Projects with components of solid waste disposal (construction of dustbins), health and sanitation (pit latrines and public toilet cum biogas facilities) with other services (see under **Programmes and Projects**).

*Radioactive Wastes:* The Bangladesh Atomic Energy Commission (BAEC) is, in principle, responsible for developing and implementing a national strategy and the necessary infrastructure for the collection, handling, treatment, conditioning, transportation, storage and disposal of radioactive wastes in compliance with the regulatory requirements, duly considering local and socio-economic conditions of the country. The ministries of Health, Industry, Science and Technology and Education are also involved. To assure adequate protection of occupational workers and members of the public, the management of radioactive wastes has been carried out in the following way: release to the atmosphere under controlled conditions as per the regulations; discharging to sewers on evaluation of related safety aspects after delay and decay; treatment and conditioning; and safe storage/disposal. Wastes are temporarily stored in the respective places of origin.

### **Programmes and Projects:**

*Hazardous Wastes:* No information available.

*Solid Wastes:* In a participatory process of local governmental institutes (municipalities) and NGOs with the LGED playing the role of a facilitator, activities in solid waste and sewage related activities, including: the Secondary Towns Infrastructure Development Project (STIDP), the Secondary Towns Integrated Flood Protection Project (STIFPP), the Slum Improvement Project (SIP), the Municipal Services Project (MSP), the Urban Basic Services Project (UBSP); the Municipal Services Project (MSP); etc. The activities of the STIDP involve, in the first phase, the installation of dustbins, twin pit latrines and shelters, public toilet with gas generators have covered ten municipalities in Bangladesh, and in the second phase, 21 municipalities all over the country will be covered. The STIFPP, covering five municipalities and Khulna City Corporation disposal, dustbins, twin pit latrines, public toilet cum biogas plants, has installed septic tanks: SIP has been designed to improve the quality of life of slum dwellers through mobilizing community resources and improving their access to government resources. The UPRP will support efforts to address the problems of the urban poor outside the boundaries of Dhaka City Corporation, focusing on slum upgrading, pilot housing and policy and institutional strengthening. The number of target families under the project is 450,000. UBSP is another urban services project aimed to alleviate the conditions of the urban poor. The MSP primarily aims to support the welfare of the urban population, particularly the lower income groups, by upgrading the physical, institutional and financial infrastructure.

*Radioactive Wastes:* The proposed waste processing and storage facility will be constructed at Atomic Energy Research Establishment (AERE) in Savar to meet the current national needs on approval by the competent authority.

### **Status:**

*Hazardous Wastes:* Human resource development in the management of hazardous wastes and equipment for detection is necessary. Financial assistance from international development financing agencies and development partners is required for environmentally sound management of hazardous wastes.

*Solid Wastes:* Technology is needed for recycling, transportation, disposal design improvement, and equipment. Capacity-building will be required at the following levels: (i) Executive agency level: technical/technological issues, support to local governmental bodies, NGOs/ Community Based Organizations (CBOs), beneficiaries; (ii) Local governmental bodies: technical/technological issues, equipment, linkage with governmental agencies and support to NGOs/CBOs.

*Radioactive Wastes:* The operation and maintenance of a 5MW research reactor, the production of radio-isotopes, the use of radio-isotopes in industry, medicine and research have resulted in the generation and accumulation of radioactive wastes, warranting safe, planned and proper management so as to protect humans and the environment (at present and in the future) from the undue risks of ionizing radiation. Significant quantities of solid and liquid wastes, mostly low-level, are being generated during the operation and maintenance of the TRIGA (Training, Research, Isotope production, General Atomics) reactor facility, production of radio-isotopes, research, industry and other institutional activities in Bangladesh.

### **Capacity-Building, Education, Training and Awareness-Raising:**

*Hazardous Wastes:* No information available.

*Solid Wastes:* No information available.

*Radioactive Wastes:* No information available.

### **Information:**

*Hazardous Wastes:* No information available.

*Solid Wastes:* No information available.

*Radioactive Wastes:* No information available.

### **Research and Technologies:**

*Hazardous Wastes:* No information available.

*Solid Wastes:* No information available.

*Radioactive Wastes:* No information available.

### **Financing:**

*Hazardous Wastes:* No information available.

*Solid Wastes:* No information available.

*Radioactive Wastes:* Financing for this sector comes from the Ministry of Science and Technology, the government of Bangladesh. Bangladesh cooperates with the International Atomic Energy Agency.

### **Cooperation:**

*Hazardous Wastes:* Bangladesh signed the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in 1989. Cooperation exists between Bangladesh and other the South Asian Association for Regional Cooperation (SAARC) countries and the Secretariat of the Basel Convention.

*Solid Wastes:* Bangladesh cooperates with India, China, and Pakistan in the areas of technology dissemination, recycling, and sanitary landfill.

*Radioactive Wastes:* No information available.

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## CHAPTERS 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS

**Women:** Decision-Making: Constitutionally, women in Bangladesh have equal rights with men in all spheres of the state and public life. Articles 9, 10, 18, 19, 28 and 29 of the Constitution have clearly endorsed equality between women and men. Programmes and Projects: A project namely “Skill Training and Employment Promotion for Women through Strengthening of Technical Training Centres” for employment of women has been undertaken. It needs more financial support to cover all over Bangladesh. Status: Representation of women in government was 11.21%. The presentation of women in government was 10.10% in 1996. As per data, 2000, the percentage of women working in fifteen major ministries and their implementing agencies was 15%. At the local government level, in the last Union Parishad Election, a total of 120 women contested for the position of chairmen and 20 (17%) of them won. Number of women contested for nine general seats of Union Parishad was 456 of which 110 (25%) won the elections. A total of women 12,723 won the election out of 43,969 women contesting in the reserved seats of the Union Parishad. Out of total 12.92 crore people counted in the 2000, 6.34 are females. Capacity-Building, Education, Training and Awareness-Raising: Curricula and educational material promoting dissemination of gender-relevant knowledge are being revised. Policies and strategies for achievement of equality in all aspects of society are being drawn up, including issuing a strategy by the year 2000 to eliminate obstacles to full participation of women in sustainable development. Mechanisms are being developed to assess implementation and impact of development and environment policies and programmes on women. Cooperation: The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) was ratified by Bangladesh on 6 November 1984, excluding the Clauses 2.13 (a), 16(1)(c) and (f), as they conflict with Shariah law. On the basis of advice of the Inter-ministerial Committee of the MWCA set up in 1996, the Government withdrew reservations on the Article 13(a) and 16.1(f) of the CEDAW. The withdrawn articles are related to a) the right to family benefits and b) the same rights and responsibilities with regard to guardianship, wardship, trusteeship and adoption of children, or similar institutions where these concepts exist in national legislation - in all cases the interests of the children shall be paramount. During the United Nations Millennium session, the Government of Bangladesh ratified the Optional Protocol and Bangladesh was one among ten countries, who ratified this. This shows government commitment towards implementation of the CEDAW.

**Children and Youth:** Status: The total population of Bangladesh is nearly 120 million, 30% of whom are youth. The Department of Youth Development imparts skill development training to unemployed youth whose unemployment rate in 1992 was 0.5%, and, in 1996, 2.33% (the age group of 15-30-year olds is considered youth in Bangladesh.) The breakdown of the youth population of Bangladesh is 14 million of educated youth/12 million of uneducated youth, 24 million of employed youth/12 million unemployed youth, and 26 million of rural youth/10 million of urban youth. Capacity-Building, Education, Training and Awareness-Raising: The goal set in Agenda 21 of ensuring that by year 2000 more than 50% of youth—gender balanced—have access to appropriate secondary education or vocational training will be reached by the year 2010. The Department of Youth Development has proposed to allocate Tk.24,650 million under the prospective plan for the period of 1994-2010. Under this plan, a total of 30,000,000 young people will be trained and at least 60% of them will be self-reliant. Since the inception of the Department, 434,802 unemployed youths have been trained in various trades by June 1996, and out of these, 60% were self-employed. The ratio of the trained self-employed youth between male and female youth is 70:30. The National Youth Federation and the Jatiya Tarum Sangha are the most important fora promoting dialogue between the youth and government at all levels as well as the mechanisms permitting youth access to information and opportunity to present their views on implementing Agenda 21.

**Indigenous People:** No information available.

**Non-governmental Organizations:** No information available.

**Local Authorities:** Decision-Making: The government supports local Agenda 21 initiatives, and there are at least four local Agendas 21 involving 0.5% of the population, approximately 2% of whom is women and youth.

**Workers and Trade Unions:** Decision-Making: So far, thirty-three International Labour Organization (ILO) conventions including convention No.100 named 'Equal Remuneration Convention 1951', have been ratified by the Government of Bangladesh and about fifty Labour Laws have been enacted. The Department of Inspection for Factories and Establishment was set up pursuant to the ratification convention – 81. Safety and health laws like the Factories Act, Worker's Compensation Act, among others already exists. Status: A project called occupational Health Analysis and Accident Prevention Training was financed by the Government, but it could not achieve its target due to lack of funds and expert assistance.

**Business and Industry:** Decision-Making: There are governmental policies encouraging the efficiency of resource use, including reuse, recycling, and reduction of waste per unit of economic output.

**Scientific and Technological Community:** Status: Not much has been changed in the area of improving exchange of knowledge and concerns between the science and technology community and the general public.

**Farmers:** No information available.

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## **CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** See under the heading **Financing** in the various chapters of this Profile.

**Capacity-Building, Education, Training and Awareness-Raising :** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Cooperation:** No information available.

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## CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

**Decision-Making:** No information available.

**Programmes and Projects:** Among steps taken to enhance scientific understanding, improve long-term scientific assessment, and building of capacity and capability are: imparting Science & Technology education in the universities and other educational institutions; conducting Research & Development activities in the research organizations including universities; organization of an annual science fair in the country; and organization of seminars, workshops and conferences on various topics of interest in Science & Technology, and so forth. See under **Research and Technologies** in the various chapters of this Profile.

**Status:** No institutional framework has been established to improve cooperation among scientists by promoting interdisciplinary research programmes and activities. So far no studies have been undertaken to evaluate the scientific knowledge of the people. But for sustainable development, studies relating to this knowledge should be undertaken, and the Bangladesh Council of Scientific and Industrial Research (BCSIR) is going to conduct such a study.

**Capacity-Building, Education, Training and Awareness-Raising:** See under **Programmes and Projects**.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

**Decision-Making:** The government's national education focus is on national education for all by the year 2000. Enrollment in primary schools increased from 12.6 million in 1991 to almost 15.2 million in 1994 while the completion rate increased from 41% in 1991 to 60% in 1993. To improve the quality of education, a competency-based curriculum has been introduced. Free textbooks are provided to all students in grades I to IV, and a broad programme of in-service teacher training has been introduced. Youth and women have actively been involved in the implementation of programmes for the promotion of education, public awareness and training. Community participation in educational management and the delivery of services has been introduced through school management committees, local education committees and parent-teacher associations.

**Programmes and Projects:** A number of programmes for training of teachers, teacher educators and education administrators have been undertaken. For reorientation of education towards sustainable development, the expansion of general education is not enough to transform the population from liabilities to assets. It must be accompanied by job-oriented education in order to enable them to undertake income-generating activities. Therefore, Bangladesh's aim is to introduce a job-oriented education system. To increase public awareness, different programmes are being implemented under the Ministry of Education, such as the World Teachers Day, Education Week, etc. Female education awareness programme is being implemented under the International Desalination Association (IDA) assisting the Female Secondary Assistance Project. For promoting training; double shift programme for B.Ed. (Bachelor of Education) and M.Ed. (Master of Education) has been introduced in the existing Teachers' Training Colleges (TTC's). In-service training of secondary school teachers is also in progress. 10,000 trainees in B.Ed. programme, 2,400 trainees in M. Ed. programme and 16,560 teachers in in-service training will be trained in phases.

**Status:** Education and training have improved, but they still do not meet the national development requirements, especially in terms of quality.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## **CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES**

This issue has been covered either under Chapter 2 or under the heading **Cooperation** in the various chapters of this Profile.

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## **CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS**

This issue deals mainly with activities undertaken by the UN System.

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## **CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS**

This issue has been covered under the heading **Cooperation** in the various chapters of this Profile.

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## CHAPTER 40: INFORMATION FOR DECISION-MAKING

**Decision-Making:** Although the technological gap between developed and developing countries is on the increase, Bangladesh has considerable experience in using the modern information technologies as well as in maintaining an acceptable data base at the national level. Bangladesh National Statistical Council, as the apex body providing policy guidelines and Bangladesh Bureau of Statistics under the Statistical Division of the Ministry of Planning of the government is responsible to collect, process, and disseminate all statistics on behalf of the government.

Access to and free flow of information from the public offices are constrained by various laws, rules and regulations. Amendment in the existing laws and enactment of new laws would be required to eliminate these legal barriers. National Parliament will decide finally on the draft laws prepared by the Ministry of Law, Justice and Parliamentary Affairs aided by the Cabinet Division, Ministry of Establishment or any other relevant Ministry or Division.

In Bangladesh there are many laws prohibiting the disclosures of official document and information. Following are the most important: Official Secrecy Act, 1923; Evidence Act, 1872; Rules of Business, 1976; The Government Servant (Conduct) Rules, 1979. The Official Secret Act, specially the section 5, makes all disclosure and use of official document for unofficial purpose a criminal and punishable offence. According to the section 123 and 124 of the Evidence Act, 1872 no one is permitted to give evidence derived from unpublished official records relating to "Affairs of State" without approval of the appropriate authority. Section 26(1) of the Rules of Business imposes bar on government servants to communicate information even to the officials belonging to the other government offices. Section 19 of the Government Servants (conducts) Rules, 1979 also prohibits the divulgence of information of official nature to non-official persons or to official persons of other government offices.

It is now widely believed that freedom of information can play a vital role in the process of economic development by preventing the financial irregularities as well as in achieving political freedom and social justice. In this light, the Public Administration Reform Commission (PARC) has made an observation that Article 39 of the Bangladesh Constitution could be interpreted liberally so as to invoke justification for constitutional and legal framework for freedom of information. It may be mentioned that Article 39 of the Constitution of Bangladesh ensures freedom of expression as one of the fundamental right. Two draft Bills prepared and recommended by the PARC in this connection are also waiting for political decision for placement in the parliament. The bills are: Freedom of Information Bill, 2000 and replacement of the Official Secrecy Act, 1923 by the National Security Act, 2000. The main feature of the Freedom of Information Bill is that every person shall have the freedom to seek information from a public authority. The PARC also recommended for the necessary amendments in the Evidence Act, 1872 and The Government Servants (conducts) Rules, 1979 to make these Acts consistent with the proposed Freedom of Information Bill.

**Programmes and Projects:** See under the headings **Status** and **Information** in the various chapters of this Profile, including this chapter.

**Status:** Chapter 40 of the Agenda 21 of the UNCED emphasized on bridging the data gap between national and to improved the availability of information to make the Agenda 21 to work effectively. To make even playing fields for the actors of the sustainable development, sufficient data as well as free access to information are two most important prerequisites. To facilitate the decision making process in this regard, the chapter 40 is divided into the following two: bridging the data gap; and improving information availability.

*Bridge the Data Gap:* Bangladesh Bureau of Statistics (BBS) is responsible to collect, process and disseminate all statistics on behalf of the government. To accomplish its job, the BBS conducts three decennial Censuses, viz. Population Census, Agricultural Census and Economic Census and a large number of regular and ad-hoc sample surveys. These three censuses define the nation's statistical universe. The BBS has seven subject matter wings including one computer wing, mainly responsible for processing of data as well as providing tabulation to the subject matter wing for publication. The BBS through its various publications provide detail information on Bangladesh environment, area, settlement, forest, biotechnology, fresh water, solid waste, population, household, labour and manpower, agriculture, industry, energy, transport and communication, foreign trade, national accounts, prices and wages, education, health and family planning, consumption and nutrition, planning and development etc.

Apart from the BBS, various research organizations and NGOs collect data for own consumption from both primary and secondary sources, which are also used as valuable resources. State owned Bangladesh Telephone and Telegraph Board and few other private companies provide services like computer networking, internet, website, email, on-line etc. which are primarily available in the capital city and other important urban areas.

In spite of the information facilities as narrated above, reliable data integrating environment and development in the field of atmosphere, biodiversity, oceans, toxic chemicals and hazardous waste, women groups, health and other natural resources are very limited. On the other hand, ambiguities still exist regarding the policy and support to introduce and utilize IT in public agencies. Inter-departmental and intra-departmental linkages are yet to be established through computer network: Local Area Network (LAN) for intra-departmental and Wide Area Network (WAN) for inter-departmental network. Appropriate steps still lack for large-scale use of fibre optics and establishing links with the super highway through submarine cable connection.

With the paradigm shift in the economic policy favouring market, the demand and supply patten of data generated by the BBS has also been changing. Demand for data for the development of macro-economic policies and macro-economic management, for designing and monitoring social safety net, poverty alleviation programme etc. on the increase to the government, NGOs and donors. Private entrepreneurs and foreign investors are in need of timely and quality macro data for market assessment and investment decision.

On the supply side, shift is made by replacing the obsolescent technology by the modern one and procedure for data general and revolutionary changes in Information Technology for data dissemination and exchange. The BBS also maintains a website and email accounts by using the modern Internet facilities.

*Improving Information Availability:* Countering the old dogmatic belief that state activities are the secret domain of the government, access to information is considered to be the basic right of human beings in the free world. Freedom of information is a prerequisite for the good governance based on transparency, accountability, rule of law, check and balance etc. State secrecy, concealment of fact, denial of access to information negates the essence of open and democratic form of government. The popular perception is that in most of the developing countries, the official secrecy has become an instrument of oppression rather than a weapon to govern the country in peace.

**Capacity-Building, Education, Training and Awareness-Raising:** Different Political Parties, NGOs, media and Civil Societies are playing active role in creating public awareness for the freedom of expression, access to information as well as for people's participation in the decision-making process. Necessity of a database on environment-related actions has also been recognized in the chapter on 'Environment and Sustainable Livelihood' of the Fifth Five Year Plan document of Bangladesh. It is suggested in the plan document that The Federation of Chamber of Commerce and Industry and other business groups should consult with the international counterparts to establish a database in environment-related actions, including: ways to conduct environmental audit; improved factory housekeeping; models for process modification; examples of smart products design and its adoption in Bangladesh; consolidation of inefficient units; methods for conservation and recycling of inputs; and methods of upgrading of energy systems.

The Government assistance is also offered to the private sector for establishment of linkages with various green business networks, such as 'the Natural Step' and similar groups for getting updated information on international agenda on this field. According to the Fifth Five Year Plan, in parallel with the development of a more incentive-based environmental policy framework, the government will take steps to ensure that basic data on pollution levels, and perhaps even firm-specific compliance, are up-to-date and available to the people.

**Research and Technologies:** The BBS has replaced its obsolescent technology of data collection, processing and dissemination by computer and Internet based modern technology. The BBS also maintains a website and email account. Many other public authorities maintain their own websites from where members of the public can avail updated information on the activities of those public offices.

**Financing:** Mainly the government from its own budget is financing activities under this topic. However, the United Nations Development Programme (UNDP) funded the Public Administration Reforms Commission that recommended for the Freedom of Information Bill. But the terms of reference of the PARC cover a wide range of reforms issues connected with administration.

**Cooperation:** Growing instances of cooperation between the government, development partners and NGOs have been witnessed on different issues of environment. A World Bank mission suggested five areas of further studies and actions in this field: preparation of renewable energy development programme; a feasibility study and assessment of wind resources; a socio-economic survey of photovoltaic pilot project for the Rural Electrification Board; assistance to Grameen Shakti's photovoltaic market development project; and field visits and training for staff involved in renewable energy development.

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## **CHAPTER: INDUSTRY**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## CHAPTER: SUSTAINABLE TOURISM

**Decision-Making:** Tourism can significantly contribute to sustainable development and particularly to alleviation of poverty and the protection and conservation of the natural, cultural and social environment. With keeping this view in mind, the government has constituted two very important committees for achieving policy goals. The first one is the National Tourism Council (NTC) headed by the Honorable Prime Minister. The second is the Advisory Committee of Tourism headed by the Minister in charge of Tourism.

The first meeting of the National Tourism Council was held in May 2000. The Honorable Prime Minister chaired the meeting. The meeting reviewed the whole gamut of the Tourism sector and emphasized the role of Tourism in the socio-economic development of the country. Pursuant to this decision, a Task Force with Chief of Army as Convener and Secretary, Ministry of Civil Aviation and Tourism and Chairman, the Bangladesh Parjatan Corporation (BPC) as members has prepared a comprehensive plan for development of Tourism industry in country. The BPC is a National Tourism Organization (NTO) of the country works as a support organization of the Ministry in its policy formulation and implementation, promotional programme.

The Task Force determined five objectives for sustainable development of Tourism in Bangladesh: development of regional tourism, which will exploit the social, cultural and traditional bondage of the people of neighboring countries; development of international tourism, which will target tourist visiting neighboring countries to have transit in Bangladesh and golf players of Japan and Korea for participating in tournament in Bangladesh; conservation of eco-system of coastal zone and islands of Bangladesh and simultaneously build up eco-tourism in the area based on the natural bio-diversity; development of amusement and entertaining facilities in order to lengthen period of stay of tourists; involvement of the private sector actively in the overall tourism activity of the country. Bangladesh has also taken a decision to observe the International Eco-Tourism Year 2002 in a befitting manner. Eco-Tourism is a significant part for the sustainable development.

**Programmes and Projects:** The BPC in addition creates and operates physical facilities at cities and tourist sites for travel facilitation by analyzing the environment sensitivity. The important elements involved in the sustainable growth of tourism include:

- *Development of Tourist Site:* This includes conservation of tourist sites, i.e. archaeological, natural and cultural-traditional fairs, festivals and pilgrimage, and also to develop new events of interest to tourists;
- *Access:* This includes entry port to the country, i.e. availability of international entry routes by air, road and sea, internal road and river communication and telecommunication facilities;
- *Accommodation and Foods:* This includes building up of standard hotels and other types of accommodation at cities and tourist sites and making provision of hygienic food;
- *Cultural and Amusement Facilities:* This includes creation of facilities at sites and tourist spots so to enable tourist to pass their evenings in amusement;
- *Public Health & Emergency Health Service:* This include overall development of country's public health facilities and general awareness among the people about healthy way of living, and development of a good network of health services so that tourist can get easy emergency health care at the time of need.

The projects which BPC can take up in collaboration with other agencies for development of international tourism are "development of Cox's Bazaar as a tourist town", "Urban plan for development of Kuakata as a beach town", "Planned development of Marine Drive being constructed along the Cox's Bazaar – Teknaf sea shore", and "Development of Exclusive Tourist Zone (ETZ) in St. Martin Island or Sonadia Island or Nijhumdip by depopulating these islands". Ministry of Forest & Environment has undertaken a project to conserve bio-diversity, establish a marine park and develop eco-tourism in St. Martin Island. After the completion of this project BPC will operate the eco-tourism in this island.

**Status:** Since its inception in 1972 by the Presidential Order No.143, BPC has been accomplishing its entrusted responsibility to sustainable development, promote and embellish the tourism industry in Bangladesh. As a NTO, the foremost objectives of the corporation are to promote tourism in Bangladesh, build up a positive image of the country abroad, elevate infrastructure at tourist sites, provide services to tourist and flourish resources that exist in Bangladesh, *vis-à-vis* contribute to the steady growth of national GDP.

**Capacity-Building, Education, Training and Awareness-Raising:** Tourism is a technical and multidimensional industry. This industry encompasses many disciplines like information and publication, package tours, travel agency, hotel operations and catering services etc. BPC as such, gives special emphasis on training of manpower. It has built an institute named National Hotel & Tourism Training Institute (NHTTI) in 1974 at Mohakhali. The Institute provides trained manpower to the sector. Many of these trainees are employed abroad. Some private institutes have come up recently. The PATC and the Development & Planning Academy are also utilized for training of manpower. It is a member of World Tourism Organization (WTO) & Pacific and Asia Travel Association (PATA). The government subscribes to these organizations. They hold seminars and workshops for disseminating knowledge and information for guiding and sustainable development of tourism business of the world. They also provide technical assistance to conduct various studies.

See also under **Information**.

**Information:** Information regarding tourism is being distributed to the domestic and foreign tourists from the Tourist Information Center (TIC). Apart from this, the corporation has undertaken assorted programmes for publicity, advertisement on tourism development and marketing promotion at home and abroad. These include advertisement in some reputed foreign newspapers and magazines covering publication of tourism related articles. Participation in various international tourism fairs is an important regular activity. Advertising in the National Television as well as in the various domestic newspapers and magazines are also noticeable. Meanwhile as a part of publicity and marketing activities a video film named “Visit Bangladesh” has been produced. Colorful brochures and folders have been published. Besides, with a view to popularizing the cultural attractions, effective steps have been taken.

**Research and Technologies:** No information available.

**Financing:** The government has declared tourism as an industry and identified it as a “thrust sector” considering its steady growth and sustainable development. The government has kept 300 crore taka in the current Fifth Year Plan for private sector and 12 crore for public sector tourism development.

**Cooperation:** No information available.

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