

### 1.1 Context

Bangladesh, the largest deltaic flood plain in the world, slopes gently from the north to the south, meeting the Bay of Bengal at the southern end. The coast of Bangladesh is physiologically and ecologically diverse, and environmentally vulnerable.

Preparation of a Master Plan for Agricultural Development in the Southern Region was initiated following the meeting of the Bangladesh Development Forum in 2010. The Cabinet Division of the Government of Bangladesh felt the need and asked the Ministry of Agriculture to coordinate the preparation process. Later, the Ministry of Agriculture requested the Food and Agriculture Organization of the United Nations (FAO) to facilitate the process of its preparation.

The Ministry of Agriculture and FAO, in the Country Programming Framework (CPF) 2010, identified the southern region of Bangladesh as one of the major potential areas for agricultural development, poverty reduction and food security. Later the Government prepared a Country Investment Plan (CIP) for agricultural development and food security in 2011 which entails a road map towards investment in agriculture, food security and nutrition. The programme was inserted in the Sixth Five Year Plan (SFYP) 2011-2015 as the Master Plan for Agricultural Development in the Southern Region of Bangladesh.

FAO developed a concept note on the Master Plan through a consultative process. The Government approved the concept note and requested FAO to facilitate the formulation process of Master Plan for Agricultural Development in the Southern Region. The Master Plan has been aligned with the SFYP and other planning documents (Figure 1.1).

The Master Plan covers three hydrological regions- South Central (SC), Southwest (SW) and also Southeast (SE) of the coastal zone, which includes 14 districts (Figure 1.2). Reserve forests, un-classed state forests, coastal plantations and protected areas (1.286 million ha) have been excluded from the purview of this Master Plan. Because of wide diversity in forestry, it needs a different management system and hence a separate master plan is suggested.



Figure 1.1: Linkage of the Master Plan with national policies and programmes

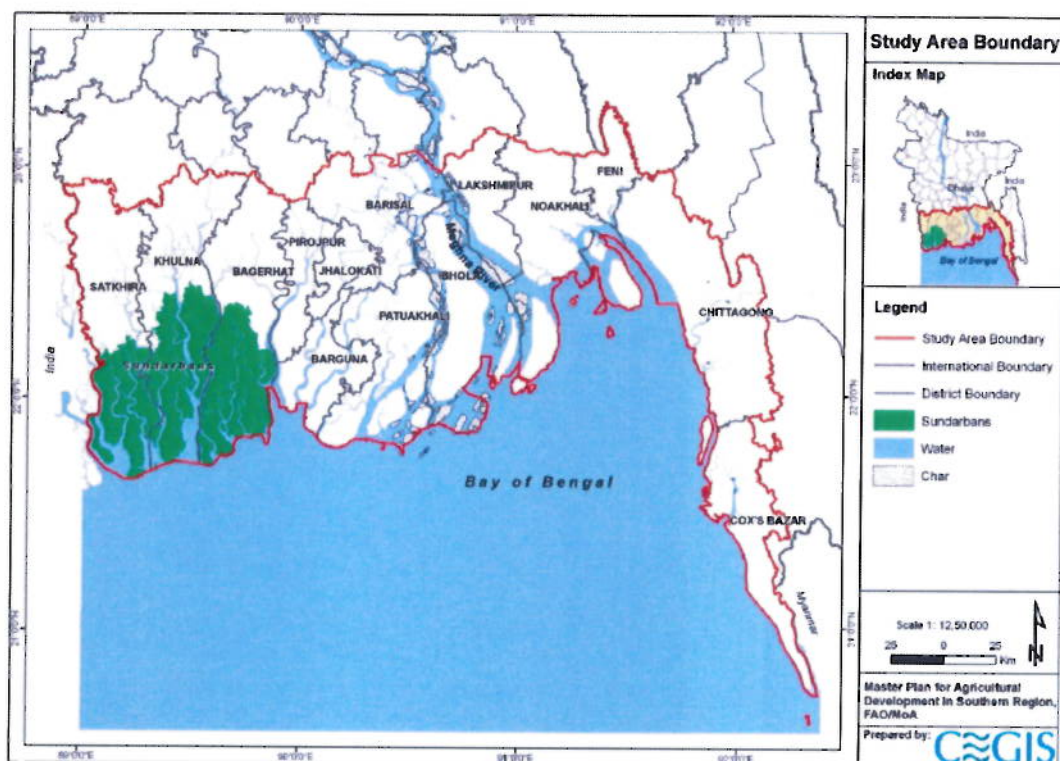


Figure 1.2: Study area

## 1.2 Linkage with CIP

In 2010, the Government of Bangladesh prepared the CIP, which provides guidance on investments in agriculture. The CIP has put strong emphasis on regional issues to address food security. The coastal districts have generally been identified as a disadvantaged region in terms of poverty, food insecurity, environmental vulnerability and limited livelihood opportunities.

The CIP is a planning, fund mobilization and alignment tool. It supports public investment to increase and diversify food availability in a sustainable manner and improve access to food and nutrition security for the country. It provides a coherent set of 12 priority investment programmes to improve food security and nutrition in an integrated way. These programmes have been grouped under three components, such as, food availability, food access and food utilization.

The government has also recognized the current state of the southern region and especially mentioned for a need in the SFYP to prepare a Master Plan for the southern region of Bangladesh. The Master Plan for Agricultural Development in the Southern Region provides a detailed plan, investment need and priority programmes, which is directly linked with the CIP. The Master Plan further elaborates the CIP in eight programme areas with a regional focus that would operationalize the CIP. Ancillary to the CIP programmes, irrigation and drainage improvement, polder management and agricultural credit have also been incorporated in the Master Plan. These programmes would supplement initiatives on production of and access to food through



infrastructure development, productivity enhancement, employment generation and livelihoods improvement.

### 1.3 Objectives

The declared objective of the Master Plan is "to provide a road map for an integrated agricultural development in the coastal zone of Bangladesh aiming at sustainable food security, poverty reduction and livelihood development for the poor." The Plan particularly focuses on, among others, the following:

- a. increasing agricultural productivity;
- b. improving water management and rejuvenating productivity of degraded lands;
- c. developing climate resilient infrastructure and improving surface water irrigation system; improving productivity of brackish water shrimp and capture fisheries;
- d. promoting smallholder poultry and dairy development;
- e. promoting agribusiness development through improving agricultural marketing through value addition activities.

It is expected that the combined outcome of all these interventions will lead to enhanced productivity, balanced growth, value chain management, increased employment and improved access to food and nutrition through appropriate institutional arrangements and sustainable resource management.

The Master Plan covers the period to 2021.

### 1.4 Current Policies and Programmes

The Master Plan has been developed with cognizance of several other policies and programs that are on board. It is vertically and horizontally linked with a host of government policies and plans that substantiates the government's declared objective for sustainable development along with economic growth and poverty reduction.

#### *Perspective Plan 2010-2021*

The government has embarked on a Perspective Plan covering the period from 2010 to 2021 which aims at implementing Vision 2021. "Achieving food security" and "pursuing environmental friendly development" have been specifically mentioned under broad development goals of the Perspective Plan. This would be translated through successive five year plans. Priority attention in planned crop intensification in the coastal zone has been particularly mentioned in the plan document.

#### *Sixth Five Year Plan 2011-15*

The Sixth Five Year Plan (SFYP) provides strategy, framework and guidelines for reducing regional disparity, developing human capacity, managing land constraints, using natural resources, increasing agricultural productivity, household income and employment and ensuring food security. "Ensuring food security" has been outlined as a key strategy in the SFYP. In case of food production, climate change adaptation strategy in the agriculture sector will be prioritized.

Particular attention would be given to develop and adopt technologies and improved agricultural practices in ecologically vulnerable areas such as saline prone areas and flood and drought prone locations. Special emphasis is given to development of agro-processing and non-farm economic activities in the backward regions. Master Plan for Agricultural Development in the Southern Region of Bangladesh has particularly been mentioned for integrated development in agriculture in southern regions.

#### ***Country Programming Framework 2010***

The Ministry of Agriculture and FAO prepared the Country Programming Framework (CPF) which identified southern part of Bangladesh as an ecologically stressed and economically deprived area, and considered it as a thrust area for agricultural development and food security.

#### ***Bangladesh Climate Change Strategy and Action Plan 2009***

Bangladesh Climate Change Strategy and Action Plan (BCCSAP) was prepared in 2008 by the government and revised in 2009. This is a comprehensive strategy to address climate change challenges in Bangladesh specifically in the coastal zone and has six thematic areas: (a) food security, social protection and health; (b) comprehensive disaster management; (c) infrastructure development; (d) research and knowledge management; (e) mitigation and low-carbon development; and (f) capacity building and institutional strengthening. Forty four programmes have been identified and prioritized within these six thematic areas.

#### ***National Adaptation Programme of Action 2009***

The country launched the National Adaptation Programme of Action (NAPA) in 2005 which identified 15 priority activities, including general awareness raising, capacity building, and project implementation in vulnerable regions with special focus on agriculture and water resources. NAPA was further updated in 2009 and identified 45 adaptation measures with 18 immediate and medium term adaptation measures.

#### ***National Food Policy 2008***

The Ministry of Food and Disaster Management prepared the National Food Policy, which strives for adequate and stable supply of safe and nutritious food with interventions in technology generation, use and management of water resources, supply and sustainable use of agricultural inputs, crop diversification and market infrastructure development.

#### ***National Poultry Development Policy 2008***

The Ministry of Fisheries and Livestock prepared the National Poultry Development Policy for the development of poultry industry. It put emphasis on the development of indigenous and backyard poultry, promotion of commercial poultry and regulations to combat contagious diseases.

#### ***National Livestock Development Policy 2007***

The Ministry of Fisheries and Livestock adopted the National Livestock Development Policy to address the key challenges and opportunity for a comprehensive sustainable development of the



livestock sub-sector through creating an enabling policy framework. It especially emphasized promotion of smallholder dairy and poultry development and sustainable improvements in productivity of milk, meat and egg production including processing and value addition.

#### ***Coastal Development Strategy 2006***

The Coastal Development Strategy (CDS) of the Ministry of Water Resources focuses on the implementation of the Coastal Zone Policy 2005. The CDS was approved at the second meeting of the Inter-Ministerial Steering Committee on ICZMP held on 13 February 2006. This strategy is an attempt to unlock the potentials of the coastal zone along with strategies to mitigate natural and human-made hazards and to preserve, restore and enhance coastal ecosystems. The CDS focuses on participation and partnership.

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

The Ministry of Water Resources developed the Coastal Zone Policy in 2005 which is of immense importance to agriculture and livelihoods in the coastal zone. Among the recommended measures is sustainable use of coastal resources and, to that end, limiting harvesting, extraction or utilization to the corresponding cycles of their regeneration. Efforts will be given to make sustainable resource use, e.g. agriculture, forestry and fishing including aquaculture taking advantage of the complementarities and trade-offs between competing uses.

#### ***Land Use Policy 2001***

The Ministry of Land enacted the Land Use Policy in 2001 focusing on importance of afforestation, environment and mutual sustainability of land use. The main objective is to ensure best possible use of land resources and delivery of land related services to the people through modernized and efficient land administration for sustainable development with accelerated poverty reduction. It especially highlighted the need for land zoning in the coast. Subsequently, the Ministry of Land has taken up a pilot project on the study of detailed coastal land zoning in two districts of plain land.

#### ***National Water Management Plan 2001***

In order to guide the management of the country's water resources, Water Resources Planning Organization (WARPO) prepared the National Water Management Plan (NWMP) in December 2001. NWMP is a framework plan for relevant ministries to define strategies to prepare projects, and acts as a guideline for those who are responsible for the maintenance and delivery of water and water-related services and development of water resources.

#### ***National Agriculture Policy 1999***

The National Agricultural Policy (NAP) 1999 of the Ministry of Agriculture emphasized regional agricultural development. It states that target oriented research and extension programs would be conducted for region-wise adaptations. It supports climate change adaptation investment in agriculture to mitigate environmental vulnerability. Subsequently, the Ministry of Agriculture has prepared a Draft National Agriculture Policy 2012. The draft policy, in addition to many other areas, emphasizes agricultural marketing linkage and infrastructure development.

***National Water Policy 1999***

The National Water Policy (NWP) of the Ministry of Water Resources was the first ever water policy document on water resources management for the country pronounced in January 1999. It considers framing rules, procedures and guidelines for combining water use and land use planning for agriculture. It highlights the importance of preparing and implementing sub-regional and local level water management plans. It calls for improvement of resource utilization through conjunctive use of all forms of surface water and groundwater.

***National Fisheries Policy 1998***

The National Fisheries Policy was developed by the Ministry of Fisheries and Livestock in 1998. The policy concentrates on, in addition to enhancing production, conserving fish habitats from damage and taking appropriate care during the implementation of all developmental activities, such as, flood control, irrigation and drainage, agriculture, industry, road and urban development.

***Environment Policy and Implementation Plan 1992***

The Ministry of Environment and Forests pronounced the Environmental Policy and Implementation Programme in 1992. Consideration was given in the policy to favour investments to adaptation for coping with adverse impacts of natural calamity, salinity intrusion in rivers, land erosion, rapid reduction of forest area, variable climatic and weather conditions and other environmental problems.

***Coastal Environmental Management Plan for Bangladesh 1988***

In the late 1980s, the Economic and Social Commission for Asia and the Pacific (ESCAP) took the first initiative to formulate a coastal management policy in Bangladesh. A report titled "Coastal Environmental Management Plan for Bangladesh" was produced that addressed the most obvious problems of the coastal zone. Integration of socio-economic considerations into environmental issues was one aspect of the study.

**1.5 Methodology**

The Master Plan has been prepared by the Ministry of Agriculture with technical assistance from the Food and Agriculture Organization of the United Nations (FAO). The preparation process included a multi-disciplinary team of national experts; backstopped by FAO's technical divisions and continuous consultations with the government line agencies, National Agricultural Research System (NARS) institutes, Consultative Group on International Agricultural Research (CGAIR) centers, development partners and other stakeholders including farmers, local government institutions, the academia, community-based organizations (CBOs), the private sector and the civil society. A set of interventions have been selected through stakeholder consultations at the agency and regional levels. Prioritization and investment needs have also been determined through stakeholder consultations. A set of interventions have been selected through stakeholder consultations at the agency and regional levels. Prioritization and investment needs have also been determined through stakeholder consultation.

Regional consultations were held in Khulna, Barisal, Noakhali and Chittagong (Table 1.1).



- Seven consultations were held in the beginning to identify issues and to generate ideas on challenges and potentials, and to collect quantitative and qualitative data of regional relevance;
- After the preparation of the first draft report, second round of consultations were held in the same locations to determine prioritization and investment needs of recommended interventions.

Table 1.1: List of regional consultations

Location	Date	Venue	No. of participants
<b>First round</b>			
Chittagong	15 May 2011	DAE	35
Noakhali	16 May 2011	BDS	35
Barisal	24 May 2011	DAE	45
Barisal	25 May 2011	DAE	90
Chittagong	4 July 2011	CVASU	70
Noakhali	3 July 2011	LGED	90
Khulna	16 July 2011	Circuit House	80
<b>Second round</b>			
Barisal	29 January 2012	DAE office	49
Khulna	14 February 2012	DAE	55
Chittagong	7 March 2012	BFRI	45
Noakhali	8 March 2012	RHD	37

Some physical information has been obtained from the Soil Resource Development Institute (SRDI) and Center for Environmental and Geographic Information Services (CEGIS).

The preparation of the Master Plan involved the following processes and activities:

- formation of an Inter-Ministerial Committee (IMC) and a Government of Bangladesh Technical Group in March 2011;
- constituting the study team by FAO;
- literature review;
- field visits by members of the study team to collect primary data from local level officials of government agencies, farmers and other stakeholders;
- regional consultation in Khulna, Barisal, Noakhali and Chittagong for identifying issues and generating ideas;
- meeting and interaction with key professionals of relevant government agencies to generate data and to validate data obtained from the field;
- backstopping support and input from FAO technical divisions;
- sharing of the first draft in the IMC;
- regional consultations for validation and prioritization in Khulna, Barisal, Noakhali and Chittagong;
- sharing of the final draft in the IMC; and
- finalization of the Master Plan in June 2012 accommodating comments and feedback from IMC members.