



Char Development and Settlement Project, Bangladesh

Inception Report CDSP IV

Government of Bangladesh / IFAD / Government of the Netherlands

Implementing Government Agencies:

- Bangladesh Water Development Board (BWDB)
- Ministry of Land (MoL)
- Local Government Engineering Department (LGED)
- Department of Public Health Engineering (DPHE)
- Department of Agriculture Extension (DAE)
- Forest Department (FD)

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List of Abbreviations/ Glossary

ADP	Annual Development Plan
AE	Assistant Engineer
Aman	Monsoon season rice
Bahini	Armed gang
BC	Bitumen Carpeted
Boro	Winter season rice
BWDB	Bangladesh Water Development Board
CDS	Coastal Development Strategy
CDSP	Char Development and Settlement Project
DAE	Department of Agriculture Extension
DG	Director General
DC	Deputy Commissioner
DPC	Deputy Project Coordinator
DPHE	Department of Public Health Engineering
DPP	Development Project Pro forma
DTL	Deputy Team Leader
EKN	Embassy of the Kingdom of the Netherlands
EMG	Embankment Maintenance Group
FE	Field Engineer
FF	Farmers Forum
FO	Field Officer
Ghat	Landing place for boats
GMC	Group Management Committee
HBB	Herring Bone
HFPP	Health and Family Planning Facilitator
ICS	Improved Cooking Stove
ICZM	Integrated Coastal Zone Management
IFAD	International Fund for Agricultural Development
IMED	Implementation Monitoring and Evaluation Division
IRRI	International Rice Research Institute
Jamabandi	Settlement case
Jotdar	Powerful person having big agricultural farm
KAP	Knowledge Attitude Practice
Khabuliyat	Deed of agreement
Khal	Canal, creek
Khas	Government owned land
Khatian	Record of right
Killa	Earthen raised field, used as shelter for cattle
LADC	Local Area Development Committee
LCS	Landless Contracting Society
LGED	Local Government Engineering Department
LGI	Local Government Institution
Madrassa	Religious school
MoL	Ministry of Land
Mouza	Small geographical unit
MRA	Micro finance Regulatory Authority

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NGO	Non Governmental Organization
O&M	Operation and Maintenance
PA	Project Agriculturist
PC	Project Coordinator
PCD	Project Coordinating Director
PD	Project Director
PIM	Project Implementation Manual
PMC	Project Management Committee
PP	Project Pro forma
PSF	Pond with Sand Filter
PTO	Project Technical Officer
PTPS	Plot To Plot Survey
PWD	Public Works Datum (local topographical level)
QCE	Quality Control Engineer
QC team	TA Quality Control team
Rabi	Crop season from November/ December to March
RDC	Revenue Deputy Collector
RFLDC	Regional Fisheries & Livestock Development Component
RMG	Road Maintenance Group
RPA	Reimbursable Project Aid
Samaj	Local community
SAE	Sub assistant Engineer
SDE	Sub divisional Engineer
SE	Superintendent Engineer
SFG	Social Forestry Group
SO	Sectional Officer
SLS	Social and Livelihood Support
TA	Technical Assistance
TBA	Traditional Birth Attendant
TL	Team Leader
ToT	Training of Trainers
TUG	Tube Well User Group
UP	Union Parishad
Upazila	Sub-district
WARPO	Water Resources Planning Organisation
WBM	Water Based Macadam
WMA	Water Management Association
WMF	Water Management Federation
WMG	Water Management Group
WMO	Water Management Organization
XEN	Executive Engineer

1. Introduction and background

The Meghna Estuary forms the central and most dynamic part of the coastal zone of Bangladesh. It is being shaped by a very complex set of interactions between physical processes. Factors that are particularly important in determining the outcome in terms of *accretion and erosion* are the sediment load, its transport and its distribution; the discharge of water and the water levels; and tidal forces and estuarine circulation. On average, around 1.1 billion ton of sediment is carried down by the Ganges-Brahmaputra-Meghna river system, the largest sediment load in any river system in the world. About one fifth of the sediment load is retained in the estuary, forming the raw material of the land accretion process. Surveys, based on satellite pictures, have shown that each year there is a net accretion of around 20 km²: newly formed land of about 52 km² minus eroded land of around 32 km². The accretion seems to be accelerating over the past decade. The accretion dominates around islands south and south-east of the Noakhali mainland, and south-west of Bhola. The average yearly erosion of 32 km² means that, with an assumed density of 800 people per km², each year approximately 26,000 people (about 4,500 households) will lose their land in the estuary. Many of them will move to newly emerged lands.

The project aims to support the livelihoods of settlers in recently emerged chars. When a new char becomes fit for cultivation, the river-eroded families from adjacent areas start migrating into the newly formed land for shelter and livelihood. A power broker, in many cases with ancestral links to newly accreted char land, tends to extend support and patronage to settlers. This type of autonomous settlement leads to a situation in which the official process of land settlement cannot start with a clean slate. Settlers are already present in new chars with active control over land before the official process has even started. Powerful people, commonly known as *jotdar*, and the settlers controlled by them, occupy the land. The immigration is illegal, because the land is under control of the Forest Department (for a period of 20 years after the start of the first forestation activities). The illegal immigrants and occupiers of land ruthlessly begin with felling trees, constructing thatched houses on raised mounds and digging ponds for drinking water and a little fish culture. The Forest Department is just not able to protect the plantations because it lacks the manpower and it faces influential opponents with political connections. Armed gangs (*bahinis*) are the local strong arm of the *jotdars*. They often impose a regime of fear and terror on the settlers, often violating basic human rights. They extract large amounts of money from the settlers in exchange for the control over and use of a piece of land and for “protection”. Many Forest Department officials leave the occupied areas. No institutions are present, except *samaj* (local communities), and mosque- and *madrassa* committees.

The land, with usually a level of less than 3m PWD, is subject to regular flooding. There is no access to drinking water, especially in winter and no system of communication. For food, the settlers are dependent on a low-yielding rice *aman* crop, some *rabi* crop and little fish grown in ponds or caught in open waters. Some income is derived from tending cattle. People have no official title on the land they occupy. They are vulnerable to a set of risks such as flooding, storms and salinity intrusion.

To support the livelihoods in such a scenario and to make the intended improvements stick, CDSP and all its stakeholders are confronted with a multitude of challenges:

- fill the institutional vacuum: bring government institutions, including local government, to the remote chars; form field level, community based, organizations; intensify the work of NGOs; and create the conditions for private sector development;

- improve the law and order situation: lessen the dependency on the *jotdars* by providing official land titles, strengthen the bargaining position of the settlers, see below, establish police camps;
- strengthen the asset base of the settlers and their position in the struggle of control over natural resources (land settlement; formation of groups as Water Management Organizations, Social Forestry Groups);
- address a part of the vulnerabilities by enhancing physical security: peripheral embankments, sluices, drainage channels; elevated roads and cyclone shelters;
- broaden the economic base: introduce suitable agricultural technologies with the aim of increasing cropping intensity and yields; improve aquaculture and support live stock development; promote non-crop income generating activities, especially for women; facilitate in provision of credits; establish a road network and support developments of markets, so the local economy can establish ties with the outside world and private sector institutions, as banks, shops, small factories, workshops etc., find it more attractive to start business in the chars;
- increase access to social services as drinking water, sanitary facilities and health care: provide tube wells and latrines, promote establishment of registered schools in cyclone shelters, support informal education through NGOs, and establish health services.

It is clear that these challenges cannot be addressed through activities in a single sector or by one single organization. In accordance with the core principles of an Integrated Coastal Zone Management (ICZM) approach, only a well coordinated multi-sector and multi-agency program of interventions is up to the task. The institutional framework of such coordination has already been established under previous CDSP phases and has proven to be effective.

CDSP IV will focus its activities on the development of five new chars: Char Nangulia, Noler Char and Caring Char (these three chars are contiguous to each other); Urir Char and Char Ziauddin. The total extent of these chars is around 30,000 ha, with an estimated population of 155,000 in 28,000 households. The six components of the project are: protection from climate change; climate change resilient infrastructure; land settlement and titling; livelihood support; institutional development; and studies and surveys. The project will continue support for CDSP I, II and III areas for Operation and Maintenance activities and land settlement (in particular in Boyer Char). It will also look to the future by conducting feasibility studies in areas where future char development programs might be undertaken.

The present report is the Inception Report. It is a contractual obligation of the main consultant to deliver the report to the project authorities within a period of three months after the start of the project. During this Inception Period, from 1 March 2011 (signing date of the TA contract with EKN) till 31 May 2011, the Technical Assistance team was mobilised and introduced to the donors and the implementing agencies at all levels. Discussions took place with donors, the agencies, the local government institutions and beneficiaries about the planning and shape of project activities and frequent orientation visits to the CDSP IV char areas were made. Main events were the local Project Introduction Workshop in Noakhali on 19 April and the 10 Stakeholder Consultation Meetings in the five Chars in the period 25 April – 16 May. The main findings of these events are presented in **Annexes 15 and 16** respectively.

The text of the Implementation Plan (part of the consultant's Technical Proposal), submitted by the consultant as part of the tender procedure, is included in this Inception Report. In addition the appraisal reports and the Project Implementation Manual (PIM) are used and frequently referred to. For general descriptions texts from the recent publication *Moving Coastlines* are used. The report is obviously based on, and does not contradict, the six Development Project Pro-formas (DPP) of the six implementing government agencies. The Inception Report will, after approval by the project authorities, serve as the Project Document, alongside the six DPPs.

After this introductory chapter, the report will in succession deal with the objectives of CDSP IV (next chapter) and the project areas (in Chapter 3). In many ways, Chapter 4 forms the heart of the Inception Report, giving an overview of the project interventions, grouped under the six project components. Chapter

5 is on the project organization. It dwells on the major parties participating in CDSP IV, on the coordination mechanisms, on monitoring and reporting. The chapter concludes with the time frame, including a time table and the major milestones. The financial aspects of CDSP IV are subject of Chapter 6. It covers the fund flow from the three main sources: the Government of Bangladesh, the Government of the Netherlands and the International Fund for Agricultural Development (IFAD). The concluding chapter, Chapter 7, gives extensive attention to aspects of sustainability and assesses the risks facing the project.

2. Objectives of CDSP IV

The Logical Framework (see **Annex 1**) gives a clear distinction of the objectives of CDSP IV at three levels: goal (or long term development objective), purpose (as intermediate objective between interventions and goal) and outputs (direct result of interventions).

The **overall objective** of the project is to reduce poverty and hunger for poor people living on newly accreted coastal chars, which would be achieved via improved and more secure livelihoods. The **purpose** is therefore to improve and enhance the security of the livelihoods of the settlers in the project areas. This applies in particular for the 28,000 households in the CDSP IV project areas. The purpose would be achieved through the following **outputs**:

- effective management of water resources, protection against tidal and storm surges, improved drainage;
- climate resilient internal infrastructure for communication, markets, cyclone shelters, provision of potable water and hygienic sanitation;
- provision to the settlers of a legal title to land;
- improved livelihoods and household resilience;
- institutional development in order to create an enabling institutional environment;
- knowledge management through undertaking and disseminating surveys and studies and by learning from and contributing to ICZM efforts.

The objectives at output level directly follow the results of the actual project activities and do indeed address the major problems that are at stake in the chars. Major challenges can, substance wise, to a large extent be addressed independently from each other. There are however interconnections at a practical level. For example, number and size of bridges and culverts (part of output “climate resilient infrastructure”) have a direct bearing on the water management in the area concerned (output “water resources managed effectively”). Having a title on the land that a family occupies (output “secure land titles”), will substantially contribute to their socio-economic position and capability to cope with the vulnerabilities in the chars (output “improved livelihoods and household resilience”). And all these four outputs feed, for a large part via the Monitoring and Evaluation system, into the output “knowledge management and into lessons for ICZM”, and vice versa.

Whether the combined outputs will lead to the correctly defined project purpose of “improved and more secure rural livelihoods for 28,000 households in coastal chars” depends for a part on the quality and sustainability of the outputs (see Section 3). With infrastructure that does not meet acceptable norms, with field level institutions that do not function well, with agricultural technologies that are either flawed or not adhered to by the farmers, with a land settlement component that is marred by legal hurdles, the purpose will prove to be elusive. However, if quality standards are met and prerequisites for sustainability are in place, the combined outputs will indeed lead to the envisaged purpose. An emphasis should be put on the combined outputs: only the whole package will invoke the desired situation at purpose level. Another condition is that a fruitful cooperation is maintained with other development programs, in particular the Regional Livestock and Fisheries Development Component (Department of Livestock and Department of Fisheries, with support from Danida). Fisheries and livestock are essential components of livelihoods in the chars. Even then, the identified risks will still have to be taken into account (no major natural disasters, economic growth and stability, an enabling law and order situation in the chars).

The link between more secure rural livelihoods and long term goal (“reduced poverty and hunger for poor people living on newly accreted chars”) is closely associated with the issue of sustainability (without it, no long term impact) and indeed with market developments in the price of food, as indicated in the Logical Framework. The last years, and even weeks, have shown how volatile this price can be. Project interventions (as for example the communication network) facilitate the connections with the economy beyond the project area (local globalization). Regional and national market movements will be felt in the chars. High prices favour the surplus farmers (of which there will not be many), but will adversely impact the situation of all those households that have not enough yield to cover the whole year. Most of them are dependent on work as a day labourer in the chars or elsewhere. If rice prices increase faster than the wages, their purchasing power will diminish.

3. Project areas

3.1 Introduction

As stated in Chapter 1, the focus of the activities of CDSP IV will be five chars, with a total area of about 30,000 ha and a population of around 155,000 in 28,000 households. Three chars are located next to each other and form a part of the mainland: Char Nangulia, Noler Char and Caring Char. Urir Char is still an island, while the fifth char, Char Ziauddin, is located on the mainland, surrounded by earlier developed CDSP areas. The following sections (3.2 to 3.4) provide more detailed information on these chars. A summary of size and population is given in Table 3.1.

Table 3.1 Coverage of area and population

Char	Area	Feasibility study estimates 2006*		Mission estimate	
	Hectares	Households	Population	Households	Population
Nangulia	8,990	8,430	46,583	12,000	67,000
Noler	2,690	4,760	27,892	6,000	33,000
Caring	6,850	4,000	19,500	6,000	33,000
Ziauddin	1,943	1,420	8,015	2,000	11,000
Urir	10,300	1,716	10,404	2,000	11,000
Total	30,773	20,326	112,394	28,000	155,000

* For Urir char, population as per survey of 2008

The table shows there is a considerable difference between the findings as reported in the feasibility studies of 2006 and those of the Project Design Mission (Appraisal Mission) of 2009. In this report the number of households as estimated by the 2009 mission is used.

CDSP IV will also continue attention for CDSP I, II and III areas. The main subject of this attention will be Operation and Maintenance (O&M) of infrastructure. For the CDSP III area (Boyer Char), considerable efforts have still to be directed to the completion of the land settlement program.

Annex 2 provides an overview map of all CDSP areas (2a), an overview of CDSP IV (2b) and maps of Char Nangulia, Noler Char and Caring Char (2c), Urir Char (2d) and Char Ziauddin (2e).

3.2 Char Nangulia, Noler Char, Caring Char

The area consists of the following three main chars:

- Char Nangulia, with an area of about 8,990 ha (22,200 acres) and an estimated population of 67,000 in 12,000 households;
- Noler Char of about 2,690 ha (6,650 acres) and a population of approximately 33,000 in 6,000 households;
- Caring Char of about 6,850 ha (16,920 acres), with around 33,000 people in roughly 6000 households; these households are concentrated on the higher part of Caring Char of around 3,800 ha.

The total area amounts to 18,530 ha (45,770 acres) with a current population of about 133,000 in 24,000 households.

Nangulia and Noler Chars appeared around the 1970's. Present land levels for Char Nangulia are between 2.75 and 4.75 m PWD and for Noler Char between 2.25 and 3.75 m PWD. Caring Char appeared later and is less developed and inhabited (land levels between 2.00 m and 4.00 m PWD). Nangulia and Noler chars are next to each other, only separated by the Mamur Khal. To the south of these two chars is Caring Char, only separated from them by the Caring and Mamur Khals. Nangulia Char is further bordered by polders 59/3B and Char Majid (in the north and west) and by a developing, yet to be named, char. Noler Char is further bordered by the Hatiya river in the west (with on the other side Boyer Char), the Meghna River in the southwest and by Caring Khal in the south and southeast, at the other side of which is Caring Char. Caring Char is for a greater part still an emerging char in the Meghna River, by which it is bordered in the south and east sides.

All three chars are located within Noakhali District. The whole area is part of two Upazilas (Subarbachar and Hatiya) and of three Unions (Char Clerk of Subarnachar Upazila, and Chanandi and Mohammadpur of Hatiya Upazila).

3.3 Urir Char

In the Meghna Estuary, erosion and accretion along the boundaries of the chars or islands are very common morphological processes. Urir Char is a perfect example. Since its emergence in the early 1970s, Urir Char has shown a very dynamic character and developed through erosion, accretion and shifting of several kilometres. During the last 35 years the landmass of Urir Char increased from 12 km² to 100 km². At the same time the char shifted about 8 kilometres towards the north.

The land levels in Urir Char vary from 3.67 m to 4.78 m PWD in the north to south direction and from 3.85 m to 4.03 m PWD in the east to west direction. Average land level can be taken as 4.08 m PWD. The total land area of Urir Char including fallow and muddy land is about 13,824 ha (around 33,000 acres) of which about 36.8 % has been brought under cultivation. About 48.7 % of the study area is fallow and muddy land. At present the fallow lands are partially used for grazing. Mangrove forestland has been developed and is occupying 7.8% of the total area.

The estimated total population is 11,000, distributed over 2,000 households.

There are two parts of the area broadly known as "Urir Char". One part falls under Urir Char Union of Sandwip Upazila of Chittagong District, comprising an area of approximately 21,694 acres (*mouzas*: Char Lakshmi, Piadogi, Shamaserabad and Char Badu). Another part of 10,760 acres is located in Char Elahi Union of Companiganj Upazila under Noakhali District (*mouzas*: Char Umed, Char Rahman, Char Balua and Char Gazi Mijan).

3.4 Char Ziauddin

Char Ziauddin accretion was started in 1970 and people started living there in 2001. It is named after a district magistrate. The char is under the jurisdiction of Char Jubilee Union. The char is located west of Char Mora Dona near Boyer Char, in the southwest corner of Subarnachar Upazila under Noakhali District. Boyer Char lies to the south, CBD-1 to the north and the Baggardona River to the west. The area is on an average about 5 km in length and 3 km wide approximately. Present land levels vary from 3.20 m to 3.71 m PWD.

Settlers of Char Ziauddin mainly came from Ramgati (50%), South Hatiya (25%) and the mainland (25%). The estimated total population is 11,000 and the number of households 2,000. However, some new squatters (around 200 hhs) have moved in and are occupying the Matua and Elahi's fish project in this char. According to the survey and information from Department of Forest, the size of the area is 1,943 hectares (4,799 acres). The settlers occupied 2,114 acres land without official title. Six big fishery projects occupy approximately 1,000 acres. Of these six, the two biggest projects each occupy 300 acres.

4. Project components

4.1 Introduction

This chapter is in many ways the centre piece of the Inception Report. It sums up all the activities that are planned to be carried out during the project period. The activities are not described in great detail. More information can be found in the three feasibility studies that have been conducted as part of CDSP III and in the Working Papers of the Design Completion Report (especially nos. 5 to 11). During the preparation of the actual implementation, more detailed information will be collected and produced (surveys, designs etc.). The chapter follows the six project components: protection from climate change (4.2), climate resilient infrastructure and water supply and sanitation (4.3), land settlement and titling (4.4), livelihood support (4.5), institutional development (4.6) and knowledge management (4.7). Wherever feasible, the activities of each (sub-) component have been divided into three sub-sections for each of the main project areas: Char Nangulia/Noler Char/Caring Char, Urir Char and Char Ziauddin.

4.2 Protection from climate change

4.2.1 Water management

Introduction

The water management infrastructure in CDSP IV for protection from climate change consists of embankments, drainage sluices, drainage channels (khals) and closures. In addition provisions are made for buildings for WMG's and for maintenance of water management infrastructure in CDSP I, II and III areas, and for maintenance during construction in CDSP IV areas.

The design of embankments will be based on the following guidelines:

- sea-facing embankment: crest level of 7.00 m PWD, crest width of 7.3. m, sea side slope 1:7 and country side slope 1:3;
- interior embankment: crest level of 7.00 m PWD, crest width of 4.3. m, or if used for road 5.50 m; river side slope 1:5 and country side slope 1:3;
- dwarf embankment: crest level of 5 m PWD, crest width 3.00 m, or if used for road 5.50 m; river and country sides slopes 1:2.

The drainage sluices are designed to drain the design volume of water from the polders. The structure has flap-gates at the river side and slide gates (vertical lift gates) at the country side in order to prevent saline river water entering the polders, but make it possible to maintain a certain level of water inside the polder. The design criteria are the same as applied in previous CDSP phases: a five day duration rainfall with a recurrence interval of 10 years.

For O&M activities in the CDSP I, II and III areas, the O&M agreements between BWDB and WMG's is an important set-up, these agreements have been signed for all three areas. Based on the yearly maintenance requirement, prepared by WMOs, the O&M budget will be allocated. During the Introduction Workshop stakeholders suggested the following distribution of available O&M funds: CDSP I 10%, CDSP II 30%, CDSP III 40% and CDSP IV 20% on an average. This division of funds was agreed by all concerned implementing agencies. Strengthening of WMO's in CDSP I, II and III areas, and their involvement in O&M by BWDB, supported by TA will continue under CDSP IV.

Recruitment of sufficient BWDB staff at Dhaka - and field level, is a crucial condition for successful implementation of planned activities.

Char Nangulia, Noler Char and Caring Char

Based on current land levels, Char Nangulia and Noler Char will be empoldered, while Caring Char will stay an unprotected area for the time being. Out of four possible options, the option was selected to establish one polder, with two drainage units and with Mamur khal and Caring khal inside the polder.

Embankments

To create the polders, the following embankments will be constructed: 17.5 km of sea dyke; 23.5 km of interior dyke and 13.25 km of dwarf embankment. **Annex 3** gives a map with the locations of the embankments on Char Nangulia and Noler Char.

Drainage sluices

The specifications of the sluices are given in Table 4.1.

Table 4.1 Specifications of the sluices in Char Nangulia and Noler Char

	Number of vents	Size of vents (m)	Sill level (m PWD)	Drain time (hours)
DS-1 (Char Nangulia)	9	1.5 x 1.8	0.00	72-96
DS-2 (Char Nangulia)	5	1.5 x 1.8	0.00	72-96
DS-3 (Noler Char)	7	1.5 x 1.8	0.50	72-96

Drainage channels

Char Nangulia already faces drainage problems due to blocked and silted channels. For Noler Char this is a potential problem. Table 4.2 and Table 4.3 give the khals that will be (re-) excavated with the aim of alleviating and avoiding drainage congestion.

Table 4.2 Khals to be (re-) excavated in Char Nangulia

Sl. No.	Description of channel/ khal	Length (km)
1	Nangulia khal	12.80
2	Katakhali khal-1	8.85
3	Bhuiyer khal	5.68
4	Katakhali khal-2	11.80
5	Nunar khal	5.90
6	Hasan Raja khal	3.00
7	Kuralanka khal	9.40
8	Boro khal-1	3.00
9	Boro khal-2	3.35
	Sub-Total:	63.78
10	Borrowpit khal-I (Eastern side)	12.0
11	Borrowpit khal-II(Western side)	2.83
	Total	78.61

In addition, 12 km of Caring khal will be re-excavated.

Table 4.3 Khals to be (re-) excavated in Noler Char

Sl. No.	Description of channel/ khal	Length (km)
1	Chanandi khal	2.425

2	Milon khal	6.000
3	Hoar khal – I	5.000
4	Hoar khal - 2	5.400
5	Adarshagram khal	1.850
6	Mannan Mosque khal	2.250
7	Haddir khal	2.000
8	Musapur khal	1.500
	Sub-Total :	26.425
9	Borrowpit khal-I (Caring Khal side)	12.3
10	Borrowpit khal-II (Hatiya River Side)	10.2
	Total	48.925

In Caring Char 13 km of khal (re-) excavation is planned, the exact locations are still to be decided.

Closures

Eight closures of khals are planned in Char Nangulia and five in Noler Char.

WMG Buildings

Office space for WMG's will be built in all three chars: 11 or 12 in Char Nangulia, 5 or 6 in Noler Char and 3 in Caring Char.

Urir Char

A network of 282 km of creeks and channels is spread over Urir Char. Sedimentation of these channels is a considerable problem. There are no water management structures. Four water management development options have been considered, from a zero option to a full fledged protected area. Due to the highly dynamic character of the morphological processes, the preferred option is to avoid any embankments and to concentrate for the time being on re-excavation of existing channels (89 km) and improvement of links between them. This is expected to reduce the area under tidal flooding with about 50%. The impact on the drainage congestion and the water logging would be even greater. Interventions in CDSP IV will thus be limited to re-excavation of drainage khals (initial and follow-up works). Also three centres for LADCs will be built.

Drainage channels

Initially, the re-excavation works will be limited to 20 km. If these khals can be kept clean, for instance by building cross-dams at the outfalls in the dry season, the program will be expanded to 89 km.

Table 4.4 Drainage khals to be (re-)excavated in Urir Char

Sl. No.	Name of drainage channel / khal	Length (km)
1	Khal No.3	6.15
2	Khal No.2	6.03
3	Forest/Nursery khal	6.03
4	Hoque khal	6.72
5	Keranir khal	6.45
6	Killar khal	3.79
7	Doer khal	5.60
8	Karitas khal	2.00
9	Bazar khal	2.60
10	Anchumajir khal	4.67
11	Mohajan Sukanir khal	5.54

12	Islam member khal	4.65
13	Jalforer khal	3.19
14	Miar killar khal	4.50
15	Khoarer khal	6.18
16	Khal no.4/ Kallar khal	5.82
17	Funir khal	1.55
Total		81.47 km

There is a provision for 89 km of khal excavation, leaving a balance of 7.53 km for other khals.

Char Ziauddin

The drainage system in Char Ziauddin basically consists of two parts. The western side of the char drains into the Baggar Dona River and the eastern side to the stretch of water between the two cross dams in Hatiya River, now lake, one at Char Baggar Dona and one just below the outfall of Banshkhali khal. The network of secondary drainage khals is however not functioning well due to siltation and man-made blockades. This system of khals needs to be invigorated through re-excavation. The interventions under CDSP IV will therefore consist of re-excavation of drainage channels and construction of drainage sluices. In addition two centres for Water management Groups will be established. Protection by embankments was already taken care of in previous CDSP phases. Construction of 2 buildings for WMG's is planned in Char Ziauddin.

Drainage sluices

Three drainage sluices were planned to be built, with flap gates at the riverside and vertical lift gates at the country side. These three single-vent sluices (with vents of 1.5 x 1.8 m), were to be constructed at the outfalls of Mutuki khal, Baggar Dona khal and Noy Tikker khal (see **Annex 2** for the map). However, additional field visits made it clear that only two sluices are required, because Noy Tikker khal drains to Hatiya River (now lake) and then through Gabtali sluice to the Meghna. It is proposed to shift one sluice to Dighir khal (Boyer Char, Jarir Dona part).

Drainage channels

In total, 38 km of khals will be re-excavated. Table 4.5 provides the details. In the budget, funds are also allocated for follow-up re-excavation of the network of khals.

Table 4.5 Re-excavation of drainage channels in Char Ziauddin

Sl. No.	Name of drainage channel / khal	Length (km)
1	Re-excavation of Mutuki khal (North of Mohammadia Bazaar to Baggardona River)	6 km
2	Re-excavation of Baggardona khal with its branch (Hashem shop to Baggardona River)	6.5 km
3	Re-excavation and widening of Moradona khal (Hashem shop north boundary of Char Ziauddin)	3 km
4	Re-excavation and widening of Kaichyar khal (Hashem shop to Chowdhury Majhir shop via Mohammadia Bazaar)	9 km
5	Re-excavation of CDSP Bazaar khal with its two branches (CDSP Bazaar to Hatiya River)	5 km
6	Excavation & re-excavation of Sapner khal and extention to link with branch of Kaichyar khal.	6 km
7	Re-excavation of Mora khal (Chowdhury Majhir	2.5 km

shop to west boundary of Char Moradona)	
Total	38 km

4.2.2 Social forestry

Introduction

The objectives of the forestry activities in CDSP IV are:

- establishment of shelter belts to protect chars from storms and cyclones;
- formation of social forestry groups (SFG)
- generation of benefits for members of Social Forestry Groups, both from employment by the Forest department in plantation activities and from a share in the income generation by selling of tree products;
- production of fuel wood to alleviate the severe fuel shortages that now exist in the project areas;
- generation of income from homestead forestry and nurseries.

The Forest Department will be responsible for all plantation activities, except on homesteads. NGOs will look after home stead forestry and will provide support to private nurseries. Training will be organized for staff of the Forest Department, NGOs, SFGs, WMGs, Local Government institutions and others. Also information- and awareness campaigns will be organized.

350 households will have to be rehabilitated from the areas where foreshore dyke plantation is planned. This will have to be coordinated with the land settlement program.

Maintenance work for foreshore plantation including dykes (100 ha), roadside plantation (60 km), embankment plantation (6.50 ha) and cluster village plantation (32 nos.) in the CDSP-III area will be undertaken as per DPP CDSP IV.

In the following sections the plantation activities in each of the five chars are described, the number of social forestry groups is summarized below in Table 4.6. The social forestry activities in the additional chars still have to be formulated. For example in these chars road construction over 30 km is planned, hence road side plantation is required, covered by 20 SFGs.

Table 4.6 Formation of Social Forestry Groups (SFG) in CDSP-IV

Sl. No.	Name of Char	Mangrove Plantation	Block Plantation	Foreshore Plantation	Canal Plantation	Road Plantation	Embk. Plantation	Total
01	Nangulia	13	-	26	45	19	21	124
02	Noler Char	-	-	9	25	9	15	58
03	Caring Char	20	-	-	6	6	-	32
04	Char Ziauddin	-	-	-	20	6	-	26
05	Urir Char	27	65	-	40	9	-	141
Total :		60	65	35	136	49	36	381

Char Nangulia, Noler Char and Caring Char

Embankment plantation

Embankment plantation will be carried out over 31.5 km in Char Nangulia and 9.5 km in Noler Char. In Noler Char an additional 13.2 km of plantation along the dwarf embankment is planned, however this is not mentioned in the DPP.

Road- and canal side plantation

In Char Nangulia the social forestry works will include 37.8 km and 90.6 km of road and canal side plantation respectively. In Noler Char this will be 17.4 km and 48.9 km and in Caring Char 12 km and 13 km.

Drainage khal plantation

Along side 78.6 km of drainage khals trees will be planted in Char Nangulia. For Noler Char this will be 63.3 km and for Caring Char 6.5 km.

Foreshore plantation

A total foreshore area of 260 ha in Char Nangulia and 90 ha in Noler Char will be used for plantation of non-mangrove species. For mangroves, the foreshore plantation will be 400 ha in Char Nangulia and 600 ha in Caring Char.

Plantation at institutions and on killas

Around 40 institutions in Char Nangulia, 20 in Noler Char and 20 in Caring Char plantations will be established. In addition, 10 killas in Caring Char will be planted.

Urir Char

Road- and canal side plantation

In Urir Char roadside plantations will be done for a length of 19 km, canal side over 81.5 km.

Foreshore plantation

On an area of 800 ha mangroves will be planted.

Social forest block plantation

A social forestry block plantation of 645 ha will be established.

Plantation at institutions and killas

Around 10 institutions and on six killas plantations will be established.

Char Ziauddin

Road- and canal side plantation

In Char Ziauddin the length of roadside plantation will be 12.0 km, of canal side plantation 38 km

Plantation at institutions

Around five institutions plantations will be established in Char Ziauddin.

4.3 Climate-resilient infrastructure and water supply and sanitation

4.3.1 Internal infrastructure

Introduction

Rural roads will connect the cluster villages, farms, markets etc. with the feeder roads and embankments. These roads will improve the communication both inside the area and with the surrounding areas. This will help giving people access to outside markets, both to sell their own products as to buy necessary goods. The roads will be constructed in three stages: first earth, then from earth to HBB (herring bone) and then BC (bitumen carpeting). In stead of HBB some roads may be constructed with water bond macadam (WBM). The proposed rural roads are R2 type of LGED Standard, the specifications are:

- crest width: 5.5 m; (width of pavement 3.7 m for Union roads and 2.4 m for village roads)
- side slope: 2 : 1 or 1.5 : 1
- crest level: 4.5 m PWD.

However, experience from CDSP III at Boyer Char shows that a crest width of 5.50 m is not adequate for the main road, used by buses. So for main roads a crest width of 7.30 m will be applied.

To minimize road crossing with existing channels the new road alignments are planned parallel to the existing channels if possible, to keep the number of bridges and culverts at a minimum. In addition the re-excavated earth (spoil) of the khals can be used for the construction of the roads. This will also minimize the wastage of land for road construction.

Despite the fact that embankments will protect the areas, there is still a high cyclone risk, also in the embanked areas. To provide the necessary security and safety for the population against natural calamities like tidal bores, cyclones and storm surges, emergency shelters have been planned. These shelters are multipurpose buildings, which can be used for other purposes as health- and educational facility and place of social gathering as well. Killas are planned to accommodate cattle in times of flooding.

A provision is made for maintenance of internal infrastructure in CDSP I, II and III areas, and for maintenance during construction in CDSP IV areas. During the Introduction Workshop stakeholders suggested the following distribution of available maintenance funds: CDSP I 10%, CDSP II 30%, CDSP III 40% and CDSP IV 20% on an average.

Char Nangulia, Noler Char and Caring Char

Rural roads

In Table 4.7 and Table 4.8 the proposed roads for Char Nangulia and Noler Char are shown respectively. For Caring Char 25 km road is proposed to connect this area with the other two chars, however these figures are tentative and have to be rearranged among the 3 chars.

Table 4.7 Roads for Char Nangulia

Sl. No.	Description of Roads	Length (km)
1	Purba Char Majid – Bhumihin Bazar and Janata Bazar – Mamur khal	5.05
2	Kamlar Market – Chholeman Bazar and Chhonkhola Police Camp- Sayedpur-1 Jame Mosque-Mamur khal	10.72
3	Kerani Bazar – Belal Bazar (via Abu Taher Miar Bazar)	4.80
4	Bhumihin Bazar-Kaladur Bazar-Hemayetpur- Sayedpur Mosque	5.63
5	Belal Bazar Road – Chankhola Police Camp	5.67
6	Darbesh Bazar – Bhumihin Bazar	2.40
7	Bashkhali Sluice – Islam Bazar	3.50
	Sub-total	37.77 km
	Additional roads	
8	On existing coastal embankment (approach to Purba Char Majid)	5.50
9	From new embankment across Hatiya river closure to Boyer char	1.00
10	On new embankment to east of Caring char connecting to Chankhola	2.00
	Total	46.27 km

Table 4.8 Roads for Noler Char

Sl. No.	Description Road	Length (km)
1	Islam Bazar to Saddam Bazar	4.75
2	Thanar Hat to Azimghat	2.60

3	Saddam Bazar to Killar Bazar	3.72
4	Thanar Hat to Madrasha Bazar upto Mamur khal	2.35
5	Bangla Bazar to Chairman Ghat	1.96
6	Thanar Hat to Chanandi Ghat	2.07
	Sub-total	17.45 km
7	Additional road on new embankment from Char Rashid to Patur Char	14.00
	Total	31.45 km

The road connecting Purbo Char Majid with the proposed bus stand near Bathankhali Bazar will have a crest width of 7.30 m.

Bridges and culverts

The numbers of bridges and culverts are presented in Table 4.9 below as per DPP, however these figures are tentative and have to be rearranged among the 3 chars.

Table 4.9 Bridges and culverts

	Char Nangulia	Noler Char	Caring Char	Total
Bridges	8	1	9	18
Box culverts	1	1	4	6
Pipe culverts	8	8	18	34

Markets

Four rural markets will be built. Two rural markets will be established in Char Nangulia, and one each in Noler Char and Caring Char. The design will be based on LGED's manual for Growth Centre Planning. It will, among others, consist of land raising, construction of an open sales platform, internal roads and drains, a toilet block, a fish and meat shed, and a multipurpose shed. A tube well will be installed, a women's shop unit established and each market will have a special raised area as truck parking space.

Clustered villages

Two clustered villages are planned, one in Char Nangulia and one in Noler Char, to accommodate households that are living on the alignment of the embankment or outside the embankment.

Cyclone shelters and killas

The total number for Char Nangulia is 20, for Noler Char 10 and Caring Char 12. The exact locations will be determined after consultations with the population. In addition in Caring Char 10 killas will be constructed.

Other infrastructure

CDSP IV will construct two new Union offices, one at Janata Bazaar in Char Nangulia for Chandi Union and the other at Mainuddin Bazaar in Boyer Char. Also in Janata Bazaar accommodation will be built for female staff of government agencies and NGOs. Four ghats will be established: one each in Char Nangulia (at the Hatiya river closure cross dam) and Noler Char (at the drainage sluice) and two in Caring Char.

Urir Char

Rural roads, bridges and culverts

A road network of in total 31.5 km in a combination of Union- and village roads has been laid out for ensuring proper movement of people and transportation of agricultural goods. WBM without carpeting may be the best option for Urir Char

Bridges and culverts have been proposed at road intersections with drainage channels. There are three bridges existing in Urir char. An additional two new bridges, six box culverts and eight pipe culverts will be

needed. Drainage channel flow volume, drainage channel width, road width and flood plain location were taken into consideration for locating the bridges and culverts.

Cyclone shelters and killas

In addition to the one existing cyclone shelter, four new ones will be built. Six killas are planned to accommodate cattle in times of flooding.

Markets

In Urir Char one village market will be constructed.

Char Ziauddin

Rural roads

Rural roads will connect the markets, proposed cyclone shelters, embankments etc. The same applies as in the other chars: these roads will be built in three stages. In Char Ziauddin, 25.5 km of roads will be constructed.

The rural roads are proposed on the canal banks, which minimizes the number of necessary bridges/culverts. Still, five bridges, six box culverts and 12 pipe culverts will be built.

Cyclone shelters

Two emergency shelters are proposed in Char Ziauddin.

Markets

In Char Ziauddin one village market will be constructed.

Additional infrastructure in neighbouring chars

In the second year the project will assess the feasibility of providing some basic internal infrastructure to char areas near the CDSP project chars. Areas that will be considered are: Char Maxamul (on the Noakhali mainland, close to Urir Char), Jahajir Char (new island char, east of Char Nangulia), chars in the main channel of the Meghna estuary east of Ramgati (such as Dhal Char, Teliar Char, Char Ghazaria), and chars at the southern end of Hatiya island.

Roads

A lump sum of Tk. 30 million has been reserved for roads and culverts for these chars. In Boyer Char 5 km road from Hatiya Bazar to Tankir Bazar will be widened with two meters.

Cyclone shelters and killas

For the time being, 12 multipurpose cyclone shelters and six killas can be provided to these chars.

Markets

In Boyer Char 3 village markets will be constructed.

4.3.2 Water supply and sanitation

Introduction

One deep tube well will be provided for 15 to 20 households and one for each cyclone shelter will also be installed. If required, test tube wells will be sunk.

Inception Report CDSP IV

One latrine will be given to each individual household. The budget for latrines in the NGO livelihood program is 200 Taka for carrying cost. An additional Taka 500 will be provided to the poorest households to build the super structure for the latrine.

Ponds with sand filter (PSF) schemes will be installed where water supply from deep tube wells is not feasible. However it is hoped that sufficient functioning tube wells can be sunk.

Char Nangulia, Noler Char, Caring Char

Water supply

1,220 Deep tube-wells will be provided in the three chars and eight test tube wells. Of this total, 607 wells will be installed in Char Nangulia, 313 in Noler Char and 300 in Caring Char. In Nangulia three test tube wells will be sunk, two in Noler Char and three in Caring Char.

Ten ponds with sand filter (PSF) schemes may be built in Nangulia, 5 in Noler Char and 3 in Caring Char, if required.

Latrines

For the three chars combined 24,000 pit latrines will be provided: In Char Nangulia 12,000, in Noler Char 6,000 and in Caring Char 6,000.

Urir Char

Water supply

There already 56 existing tube wells in Urir Char. Additionally, 64 more tube wells will be required to serve the current population. Four test tube wells will be sunk as well. Three PSF will be provided, if required.

Latrines

There are already 481 latrines at Urir Char. Additionally, 1,235 more latrines will be required.

Char Ziauddin

Water supply

Deep Tube-Wells: There are already 10 functioning tube wells (out of 15 that have been installed), while an additional 20 tube wells will be installed under a Danida supported programme. An additional 45 deep tube wells have been budgeted under CDSP IV. In addition, five test tube wells will be sunk.

Fifteen ponds with sand filter (PSF) and 15 rainwater harvesting schemes will be provided in Char Ziauddin.

Latrines

One single pit latrine is provided for each household (1,420) plus additional ones for an increase in the number of households. In total, 1,500 latrines have been planned.

Maintenance in CDSP I, II and III areas

A budgetary provision is made for maintenance in previous CDSP areas.

Neighbouring chars

For the chars in neighbouring areas mentioned at the end of 4.3.1, provisionally, 150 deep tube wells are reserved. And from expected savings of latrines 1000 may be shifted to Boyer Char.

4.4 Land settlement and titling

4.4.1 Land settlement policy and procedure

In CDSP, the land settlement process generally follows the Government's *Agricultural Khas Land Management and Settlement Policy of 1997* and the procedures laid down in the *State Acquisition and Tenancy Act of 1950*. However, certain adjustments have been made by CDSP in order to make the process more efficient and transparent and to bring it closer to the settlers. These adaptations have in principle reduced the cumbersome and lengthy land settlement process to the following eight stages:

- 1 information about the upcoming *khas* land settlement is disclosed in the locality through public notice and local meetings;
- 2 under the general supervision of the Deputy Commissioner, the "plot-to-plot" survey of the new chars is carried out (see below);
- 3 objections to the "plot-to-plot" survey are received through public notice;
- 4 the Upazila Committee holds public hearings in the field for disposal of the objections and selection of landless households. Settlers are assisted in filling up the official forms quickly and correctly;
- 5 the AC (Land) officially initiates the settlement cases (*jamabandi*) for each family, gets approval from the Upazila Committee and forwards these to the District Committee for necessary approval;
- 6 District Committee approves the list and the Deputy Commissioner approves the *jamabandi* cases and sends these cases back to the AC (Land);
- 7 after approval by the District Committee, the AC (Land) executes *khabuliyats* (deed of agreement) with the settlers and gets the *khabuliyats* registered by the registering authority in the field.
- 8 *Khatians* (records of right) are prepared and handed over to the settlers, along with registered *khabuliyats* and physical possession of the land is delivered, where necessary.

4.4.2 Settlement activities in CDSP IV

Char Nangulia, Noler Char and Caring Char

Estimated target of households to be settled

Initial surveys indicate that of the total area of about 52,100 acres, approximately 39,500 acres are pure khas land. Experience has learned that roughly 25% of the area will be needed for collective goods as roads, embankments and cyclone shelters. That would leave 29,600 acres for distribution among landless households. On average each household can get the maximum allotment of 1.5 acres. In view of the available khas land, this would mean that around 20,000 families could receive a title. If there are indeed about 1600 households already sheltered in the area up to the feasibility period, many of these families have not yet got a title. In the meantime many more people are reportedly lodged in the area. After the plot-to-plot survey, see below, it can be assessed what the actual situation is. The exact target for the land settlement operation in Char Nangulia, Noler Char and Caring Char can then be determined.

The 21 mouzas (local areas) of the three chars are located in Subarnachar- and Hatiya Upazila of Noakhali District. There is currently a boundary dispute between the two Upazilas in Char Nangulia. This issue has to be resolved soon after CDSP IV starts.

Plot-to-plot survey

A plot-to-plot survey will be conducted to make an exact inventory of the available khas land, of the households that are illegally settled on the khas land and of the plots these households are occupying. Recently the government has given the directive to produce plot maps by the "Digital Mapping System", for which surveyors of DGLR&S are required. If these surveyors are not provided, the "Plain Table System" method will be used, with the approval of MoL, as was done in previous CDSP phases. In that case, surveyors can be engaged through the District Administration as per provisions of the Survey and Settlement Manual. The plot-to-plot survey will be carried out under responsibility of the Deputy Commissioner of Noakhali. The ACs (Land) will supervise the activities, with support from the Technical

Assistance team. The costs for the surveys will be paid out of the Technical Assistance budget. The complete plot-to-plot survey will take approximately two years, but actual settlement activities can start for those mouzas for which the plot-to-plot survey has been completed.

Urir Char

The project will not undertake any land settlement activities in Urir Char. For about 14,377.11 acres out of the total net area of 25,217.08 acres of khas land, land settlement has been started or already completed under the normal program of district administration. For 2,371.49 acres the process has already been completed (1050 households received land), while for 8,760.98 acres this process is still ongoing. Other categories under the 14,377.11 acres are public land, forest land and ancestral claims. The process of settlement may further be continued and more areas may also be involved in this process in future under the normal settlement program of the Upazilas and not under CDSP IV.

Char Ziauddin

Estimated target of households to be settled

According to the reconnaissance survey (2007) and information from forest officials, the size of the study area is 1,943 hectares (4,799 acres). At present Forest Department has no claim over the land. Still, an official decision has to be taken that Char Ziauddin is available for CDSP type of interventions in the future. The total area is khas land except a small portion in the Mouza of Char Mohiuddin adjacent to Mohammadia Bazaar. In the study area already about 1,500 hhs have settled without valid and legal documents.

It is expected that roughly 20% of land will be needed for community purpose i.e. roads, embankments, cyclone shelters, markets, mosques or religious places, grazing fields, community ponds etc. This would mean that 960 acres (20% of 4,799) can not be used for settlement of households. The other 3,839 acres are available for settlement and distribution among 1500 hhs. Providing 1.5 acres average to each hh, 2,250 acres of lands will be needed, against an availability of roughly 3,800 acres.

Plot-to-plot survey

Also in Char Ziauddin a plot-to-plot survey will be undertaken along the lines sketched above for Char Nangulia, Noler Char and Garing Char. This plot-to-plot survey will be completed before mid-2012.

Boyer Char

Boyer Char was the main area where CDSP III was operational. CDSP III handed over 12,083 khatians (6,185 of CDSP III and residual 5,898 of CDSP II). The land settlement activities of CDSP III could not be completed within the project period of CDSP III. It belongs to the tasks of CDSP IV to complete the settlement operation in Boyer Char. As can be seen in Table 4.10 below, of the target of 9,500 cases, 6,185 households have received a title (khatian). This leaves a balance of outstanding cases of 3,315. These cases will be taken up in CDSP IV.

Table 4.10 Situation of land settlement process in Boyer Char at the start of CDSP IV

Nature of Work	Progress as on 1/3/2011
Target as per Plot to Plot Survey	
Approval of sheet Maps of PTPS	32
Consolidation of FTPS Works	9500
Hearing of Landless Families	8950

Landless families selected	8945
Settlement Case initiated	8142
Jamabondi cases prepared	8142
Jamabondi cases approved by Upazila Committee	8142
Sent to District Committee for approval	7755
Approval of the list of the landless by District Committee	7755
Case-to-case approval by the DC & Cases sent back to AC (L) office	7715
AC (L)'s order for Salami realization and execution of Kabuliyat at Tahsil.	7706
Kabuliyats Executed by Landless	7397
Registration of Kabuliyats	7325
Khatian Preparation	7179
Realization of khatian fees & opening holding for landless	6185
Khatian distribution	6185

4.4.3 Land Registration Management System (LRMS)

CDSP developed software to modernize the land record system in the Upazila- and District land offices. The system includes provisions for keeping records of all government- and non-government land, for records of mutation, movement of records and for maintenance of registers used in Upazila offices of the AC(Land) and of Union land offices. Presently, the system is partly used in different Upazilas and is fully operational in Hatiya Upazila. At the initiative of the Ministry of Land, a pilot activity has been conducted under CDSP III in Companiganj Upazila of Noakhali District and Ramgati Upazila of Lakshimpur District, with a view to assess the applicability of the system in other Upazilas of the country. The pilot was done under the supervision of the AC(Land) and the UNO of the two Upazilas. Their report is expected in the first months of CDSP IV. On the basis of the report, the government may take further actions.

Under CDSP IV, the system will be further strengthened at project level, i.e. in the project areas of CDSP III and IV and made fully functional for all CDSP settlement cases. The recorded data will be expanded and will include, during the land settlement process, updated information for Register-I, II, VII (four parts) and XII. A short term consultant will be fielded to advise on the best way forward to make the system fully functional. The establishment of a multi-use system network, that would involve a MAN (Metropolitan inter-Upazila Area Network), will be considered as an option.

4.4.4 Land acquisition by implementing agencies

Because considerable parts of Char Nangulia have already been settled and titles have been provided to individual owners, the agencies that need land for their infrastructure to be built under CDSP IV (in particular BWDB and LGED) in some cases will have to **acquire land from individuals**. During planning of sites for structures, the agencies concerned should try to avoid selection of sites in places where the land has already officially been awarded to individual owners. Also, land settlement activities under CDSP IV, should take into account the planned location of infrastructure. In case land acquisition has become unavoidable, the following procedure to acquire land will have to be followed under the Acquisition and Requisition of Immovable Properties Act of 1982:

- 1 the implementing agency (as Requiring Body) has to submit an application to the Deputy Commissioner concerned, using the prescribed pro-forma;
- 2 the application will be supported by the "Minimum Requirement Certificate" issued by the head of the concerned Ministry, the schedule of land with particulars of the owners, inventory of the properties, a map showing the alignments, and the plan approved by the authorities of the agency;

- 3 approval of the District Land Allocation Committee is required;
- 4 approval by the Deputy Commissioner up to 16.5 acres of land and by the Ministry of Land for over 16.5 acres will be required;
- 5 rate report from the Registration Office is required in respect of movable and immovable properties;
- 6 affected landowners have to be served with an acquisition notice;
- 7 funds have to be placed at the disposal of the Deputy Commissioner for payment to the affected landowners;
- 8 after payment, the acquired land can be possessed.

The formal acquisition procedure has to be followed by the concerned Project Director for **acquisition of public khas land** required for infrastructure. However, the following official procedure is followed as per provisions of the Circular no 9/1995 issued by the Ministry of Land under memo no. Mol / Sec- IX- 18/94-141–Misc. Dated-14.3.1995:

- 1 the Implementing agency (as Requiring body) would submit an application to the Deputy Commissioner of the district in prescribed pro forma, proposing allocation of khas land in the public interest and implementation of any development scheme, which have been duly approved by the competent authority of the government;
- 2 the application will have to be supported by the 'Minimum Requirement Certificate' issued by the head of the concerned Ministry, schedule of land with particulars of the possessors if any, inventory of the properties, map showing the alignments plan approved by the concerned authorities of the agency;
- 3 the Deputy Commissioner will assess and fix up the cost of the land as per govt. rules and forward the proposal to the Ministry of Land with a recommendation for approval. After the approval of the govt. the requiring body will deposit the costs as assessed for the land in the govt. account and then the Deputy Commissioner will arrange making over the possession of the land to the requiring body;
- 4 failure to comply with the provisions of the circular and occupying land without approval of the govt. is treated to be an unauthorized act / offence under the government rules.

4.4.5 Training and Orientation on land settlement

The officials involved in survey and settlement activities will be trained at different levels for effective PTPS attributes, including digitalization of maps and record management at land offices.

4.5 Livelihood support

4.5.1 Agricultural support

Introduction

The unprotected coastal chars are vulnerable to regular flooding and have saline soils. In most of the unprotected lands along the coast only one rice crop is possible in the aman season, when heavy rains temporarily decrease the salinity of the higher layers of the soil. In the winter (rabi) season, at some places an additional crop is possible. The overall cropping intensity of the five new chars in the CDSP IV project area is 144%, with low crop yields: for rice around 1.5 tons per hectare. When protected, the salinity will, over the years, gradually decline, while the possibilities of controlling water levels substantially improve the agricultural potential of the land. Results from previous phases of CDSP show that this potential can be realised if the vastly different environment of an embanked polder is combined with a targeted extension approach. Introduction of high yielding crop varieties is an important element of the development strategy.

Agricultural support in CDSP IV will have the following sub-components:

- strengthening of agricultural extension services;
- support for homestead agriculture and agro-forestry by contracted NGOs (see 4.5.2);
- surveys and monitoring.

Strengthening and development of extension services

DAE, with support of the TA team, will be responsible for providing extension services to all five chars. These services will be mainly focused on the areas that will have water management systems: Char Nangulia, Noler Char and Char Ziauddin. But Caring Char and Urir Char will certainly not be excluded.

The practice of CDSP III of forming **Farmer Forums (FF)** will be followed, which is in line with the New Agricultural Extension Policy of 1996. The objective is to recruit a membership of 8% of the households into FFs. Assuming an overall total of 28,000 households this means a target of 2,250 FF members. With an average number of 25 members in a group, this would mean establishment of 90 FFs under CDSP IV. The aim is to have 33% female farmers in the FFs. The 90% of the households that do not have a member in the FF will be reached through other activities such as demonstration plots and field days. FF guidelines will be developed in the project.

DAE, with support of the TA team, will be responsible for the design and development of the **training programme** for the FFs, including timing and frequency of training sessions, modules and curricula. Field staff of DAE will actually conduct the training. At the outset of the project, DAE will provide Training of Trainer (ToT) courses for the concerned field staff. The initial course will be of about two week duration, with regular refreshing events to learn from the experiences to date and to include new technologies. Development of training materials will be done by DAE. In many cases such materials already exist. For example, the agricultural manual, produced under CDSP III, is very relevant for all the training courses. To further support FF members, some agricultural input supplies like power tillers, thrashers and sprays will be procured and distributed.

DAE officials working at head quarters will be trained abroad on crop production in coastal areas in suitable countries. A representative from the Ministry of Agriculture, Planning Commission and IMED may be included.

In each of the chars, small **demonstration plots** for selected crop interventions (20 to 33 decimals) will be established. In addition some block demonstrations will be done as well, if the need is felt to do so. The project will provide the demonstration farmers (that will be FF members) with inputs related to the tested intervention, such as seeds and fertilizer, and other key materials.

In addition DAE will organise **field days** at successful demonstration plots. The aim would be to reach a large number of the non-FF members.

Motivational tours to and **exchange visits** with other char areas will be arranged; most likely areas that were part of previous CDSP phases. At least 10% of female farmers will be included in motivational tour and exchange visits.

Surveys and adaptive research

At the beginning of CDSP IV, a survey will be carried out in all five chars to identify the productivity zones, defined by flooding depth and soil salinity. The same was done in CDSP III. These zoning exercises will help providing direction to formulating targeted extension support (training curricula, demonstrations). At the same time, the survey will result in a set of baseline data. One has to bear in mind that the situation during the survey will be different from the situation after construction of protective embankments and drainage systems (at least in three of the five chars). The extension packages should evolve over time, taking into account the progress of the establishment of water management related infrastructure. Adoption of high yielding varieties, crop yields and soil salinity will be subject of regular monitoring.

IRRI is, with IFAD support, undertaking **research on the effects of climate change on agriculture** in coastal areas (Support to Agriculture Research for Climate Change Adaptation in Bangladesh). Like in Boyer Char, where there is already one, research plots will be established in CDSP IV areas and the project will extend the necessary support.

Organization and Management

As in earlier phases of CDSP the Deputy Director of the Department of Agriculture Extension for Noakhali will lead the DAE activities as Project Director. The DAE PD will hire directly, on a contract basis, a Project Agriculturist (PA), two Project Technical Officers (PTO) and 6 Field Officers (FO). The PA will deputise for the DAE PD in management of the project, while the two PTOs will supervise field activities, each taking charge of a part of the area. One will be placed in the union office at Janata Bazar in Char Nangulia, with access to Nangulia-, Noler- and Caring Chars. The other PTO may be stationed in Char Majeed and cover the Northern part of Nangulia-, Urir-, and Char Ziauddin.

Nangulia Char will have two FOs, with one FO being stationed in each of Noler-, Urir-, Caring-, and Char Ziauddin. Draft terms of reference for the staff are in the draft Project Implementation Manual. The Project Director of DAE, Noakhali will recruit these staff as per DPP in the initial stage of the project.

4.5.2 Social and livelihood support

Introduction

The Social and Livelihoods Support (SLS) component will focus on social and economic development of households, especially women and children in the selected chars, Nangulia -, Noler -, Caring -, Ziauddin - and Urir Char. Approximately 28000 households live in these five chars. The sub-component of social and livelihood support will be implemented at field level by NGOs. These NGOs will be contracted by the Lead consultant and funded from the Dutch grant for technical assistance. The selection of NGOs will be done through quality based tendering at fixed cost basis. Before group formation and before any program intervention, respective NGOs will conduct a base line survey, including basic data on population, number of households, occupation, status of assets, housing condition, sanitation facilities, educational information etc.

Objectives and sub- components of SLS

The social and livelihood support component implemented by NGOs has the following objectives:

- providing essential services to support poverty reduction, such as health, disaster management, and household level climate change adaptation;
- facilitating micro finance services, which will enable poor people to take advantage of the improved environment;
- supporting the activities of government implementing agencies for CDSP IV, such as for water and sanitation, where NGOs form deep tube well user groups and organize the installation of latrines;
- promoting human rights and legal awareness, especially for women.

The scope of NGO support will be slightly different from CDSP III, because the live stock sub- component has been dropped and activities for climate change adaptation have been included. It is expected that livestock (and fisheries as well) will be taken up by the Danida funded Regional Fisheries and Livestock Development Component (RFLDC). The Social and Livelihood Support component is divided into the following sub components, which are briefly described below:

- a. Group Formation, Micro finance and Capacity Building;
- b. Health and Family Planning;
- c. Water and Sanitation;
- d. Homestead Agriculture and Value Chain Development;
- e. Legal and Human Rights;
- f. Disaster Management and Climate Change.

Group formation, micro-finance and capacity building

After completion of the base survey, the surveyed areas will be divided into small units for **group formation** on the basis of numbers of households and geographical and social conditions. At village level groups will be formed comprising about 25 members, but with at least 15 members of whom a majority will be women. Male groups may be formed if it is felt necessary in certain circumstances, but male groups will be separated from women groups. A Group Management Committee (GMC) will be formed consisting of

five members. The positions in the GMC are: Chairwoman, secretary, cashier and the remaining two are general members. Partner NGOs will form a total of 1120 groups covering all 28000 households in the project areas, so that ultimately the NGO groups will have more or less a100% coverage of the area. Group members will meet every week at a fixed time and venue. The meeting place will be decided on consensus of the majority of the group members. Group formation will have to be completed within 8-10 months from the start of the NGO program. Project funds will be provided for establishing new groups only not for the groups formed before launching of CDSP-IV. Detailed lists of new groups so far formed under the project will be verified and checked by the TA Team for payment as well as for delivery of services. Selected NGOs will have to fulfil the target for all sub-components assigned for NGO services.

Earlier phases of CDSP and experiences elsewhere in Bangladesh have underlined the great need for **micro finance**. Because of a lack of access of formal financial institutions to the project areas, char dwellers are deprived of participating in productive activities. The micro finance programme of the NGOs under CDSP IV will bring credit facilities to the chars that will enable char dwellers, especially women, to invest in productive activities and to set aside savings they can make. The loan will be providing without collateral and the selection of members eligible for credit, will done by designated officers after consulting with other members of the groups. That is why only NGOs will be selected that are capable to provide micro finance services. In practice this will mean they have to be a member of the PKSf network and of the Micro finance Regularity Authority (MRA). In order to avail credit facilities and other facilities the members are required to full fill certain criteria, e.g., be regular at meetings, follow project rules, deposit savings on a regular basis, be well disciplined, and have support from other members of the group. Micro finance groups meet regularly and are a good forum for providing technical training and social support. New technologies can be promoted through a combination of training and loans for investment.

Since micro-finance in the project areas is relatively new, it is important for members to orient them on micro-credit management, micro-credit discipline, rules and regulations as well as on basic knowledge of income generation activities and its management. This is equally important to operate other sub-components, especially health and family planning, water and sanitation, and homestead agriculture. A manual for micro-finance group members will be developed in the project.

The selected NGOs will follow their own norms and practices regarding savings, credit and selection of members, in line with project needs ensuring all households access to micro-credit. NGOs generate income from micro-finance that makes them less dependent on donor funding and allows them to sustain operations after the end of the project.

The project will provide funds for **capacity building** of group members and of NGO's micro-finance staff. For example all members will receive a day long non-residential field level training on "savings and micro credit management" and two days training on "income generating activity management".

To this end partner NGO's will recruit and engage 104 professional staff (13 Branch Managers, 13 Branch Accountants and 78 Credit Officers). All of which will receive training as mentioned below:

- a) The 78 Credit Officers will receive five days residential training on "Micro-finance management and book keeping" two times in the project period.
- b) All credit officers will receive two days long residential "winter vegetable" and "summer vegetable" production training two times within project period.
- c) All 13 Branch Accountants will receive five days residential training on "Book keeping and accounts management" Four times during the project period.
- d) All Branch managers will receive five days residential training on "Micro-finance management and Book keeping" and "Branch level business Planning for micro-finance" and Branch manager will also

receive a three days specialized training on “Disaster preparedness and mitigation” four times during project period.

- e) All Branch Managers and Credit Officers will receive three days training on “Gender” two times during the project period.

All these staff trainings will be organised by the TA team from outsourced & reputed training providers (individuals or organizations). Where possible, the TA Team will conduct Knowledge Attitude Practice (KAP) surveys for both beneficiaries and NGO staff jointly with the partner NGOs.

Health and family planning

Health service facilities, especially birth control and immunization programs have reached up to Union level. But unfortunately most of the char inhabitants are deprived of these facilities, since the services do often not go beyond the old mainland and not reach the chars. So, after the floodwater recedes, people become victim of diarrhoea and other water borne disease. On the other hand, in the dry season the level of ground water goes down, so people become sick as a result of shortage of drinking water, until a proper network of tube wells is established. Due to the long distance to the existing health service it is very difficult for sick people to avail treatment. The NGO programme under CDSP IV will contribute to mitigate the negative effects of this situation. Below are the components and activities of the health and family planning program that will be carried out by the project within its timeframe, implemented through the partner NGOs. A manual on health and family planning may be developed during the project period.

- a) Each NGO branch will establish a clinic. A total of 13 Paramedics will be appointed for Clinical services. This clinic will provide maternal, child health and family planning services. To ensure the safe delivery of the pregnant women there can be done ante-natal care through paramedic’s in the NGO clinics. If the Paramedic identifies high risk or any other complicated situation of a pregnant mother, she will be advised to transfer to government hospitals. Health facilitators will ensure breast-feeding & post-natal care services. The clinic will also provide general health services. Through family planning program high fertile couple selection, newly-wed couple counselling, side effect management of contraceptive, referral system can be develop in this component for effective birth control & behaviour change of the couple.
- b) Traditional birth attendants (TBA) will be selected through a survey. A total of 195 TBA will receive 15 days basic training and a yearly refresher training. Each TBA will serve approximately 150 households. The project will supply a kit box to all TBA.
- c) A total of 39 Health and Family Planning Facilitators (HFPPF) will be trained for health and family planning services. They will receive three week training.
- d) Training and Orientation will be provided to the village doctors. Two village doctors will work in the jurisdiction of each branch.
- e) Every year World Health Day will be observed. NGOs will organize a program for observing the day.
- f) Linkage will be established with the government vaccination programs and other health initiatives.

Water and sanitation

The first steps of the water and sanitation programme will be mass campaigns to raise awareness among char dwellers about water and sanitation issues. This will prepare the ground to ask people for contributions for installation of deep tube wells. NGOs will select suitable locations for tube wells with the help of beneficiaries. DPHE and the Technical Assistance team will work together to monitor the selected locations for tube wells. NGOs will collect the contributions and hand them over to DPHE, which will install the wells. For this purpose, Tk 4,500 will be collected from each tube well user group (TUG) as contribution money. DPHE will install a total of 1479 tube wells in the five Chars and some other Chars. NGOs will form user groups around each tube well. These tube well user groups will be the institutional base for operation and maintenance of the wells and for dissemination of health information related to water and sanitation. NGOs will train these groups through weekly sessions on hygiene education and operation and maintenance of tube well and latrines. The user groups consist of women only. Each TUG will be

consisting of 15 or more households. Two caretaker families from each tube well will receive 3 days training. Project will supply tube well maintenance kits to the caretakers (one kit per tube well).

In addition DPHE and TA team will monitor the distribution of about 27000 latrines. The project will provide Tk200 to each household as carrying cost of latrines rings and slabs. The households will install the latrines by their own initiatives but the NGOs will have to ensure the proper installation and use.

The project may provide an additional sum of around Tk500 to those households who need support to construct a super structure.

Each Water and Sanitation Coordinator of NGO will receive training on water and sanitation programme management. This training would be organised by the TA team. This training for 3-days (one batch of 13 persons, i.e. one person per branch) will focus on water and sanitation problems in the project areas. The training content includes linkage between water/sanitation and health component, management aspects like formation of TUG, beneficiary contribution collection, coordination with DPHE, distribution of latrines, monitoring and evaluation, as well as repair & maintenance. Each NGOs Water and Sanitation Coordinator will work as water and sanitation trainer. A manual on water & sanitation implementation may be developed under the project.

Homestead agriculture and value chain development

Homestead agriculture, basically gardening, has many advantages for the population. It provides nutritious food to the dwellers and generates income, employment and goods to trade. For poor families, homestead gardening is the only source of daily subsistence food and micronutrients. In homestead gardening, charwomen have a more active role than men, and children sometimes assist them. Therefore most of the vegetable producers will be female.

Each NGO branch office will have a specialised agriculturalist (diploma in agriculture), the Agricultural Coordinator, to implement this component. These coordinators will get a 5 days ToT course from external specialists (via the TA team) each year for the first three years of the project. They will be responsible for conducting training and for coordinating the field activities.

The following activities will be financed and performed under this sub-component:

- 1 Farmer training on crops: The focus of the training will be homestead vegetables (summer and winter) and fruit crops. A total of 10,000 group members (or their family members) will be trained for one day on selected vegetable and fruit crops on the basis of demand and opportunities to introduce new technologies; 5000 group members will receive a one day refreshers training;
- 2 Training on nursery preparation: Selected farmers (125) will be trained on nursery plant production and management for six days. There would only be six batches of farmers trained; this training would be centrally organised by the TA team;
- 3 Demonstrations: About 9,000 technology demonstrations will be carried out with the project providing the new technology inputs and a signboard, and farmers proving their labour and other inputs;
- 4 For dissemination of the results of successful demonstrations, 270 field days will be organised;
- 5 Visits and local tours will be organised for 75 batches of farmers. They will visit Boyer Char in particular, and other successful examples of homestead crop development in the earlier CDSP areas.
- 6 A total of 360 high value and 720 low value crop demonstration will be organised.

Planning and implementation of these activities:

- 1 At the start of CDSP IV the Agricultural Coordinators from NGO branches, supported by the TA team agricultural advisors will carry out a brief study into the current status of homestead agriculture and high value crops in all project chars. This study would also identify key production constraints and opportunities for CDSP IV interventions, including potential new crops and technologies. This will form the basis of a menu of possible interventions for each season, and facilitate the discussion with NGO group members to select their priority areas for project support.

- 2 In following seasons, areas for project interventions would be identified at a yearly meeting, where key stakeholders participate, including leaders of Water Management Organizations, DAE and the TA team.
- 3 When proposing new crops or the use of new inputs (including new crop varieties) the availability of market outlets and a supply chain for inputs will be taken into account. If needed, proposals may be made to support market access or the development of a supply chain by the private sector.
- 4 Agricultural credit: NGOs will be providing micro-finance to group members. It may be helpful to devise special loan products for new crops (such as seasonal loans) as part of a package to promote specific crops.
- 5 Training and Training materials: NGO training would aim to reach all households who are interested to receive training. This training should be focused on specific vegetable and fruit crops and technologies. More lengthy training would be provided for operators of tree nurseries. NGO or DAE staff, private sector providers and progressive farmers may provide training. The project (through the TA team) would provide training of trainers. As with DAE training, participatory and practical approaches should be used. Training manuals on the selected agricultural interventions will be prepared, along with training materials such as flip charts, posters and leaflets.
- 6 Demonstrations and field days: demonstrations will be carried out to show farmers crops and technologies that are new to the area. Only inputs related to the intervention will be provided and demonstrations organized in clusters with signboards for maximum visible impact, with a plot size appropriate to the crop and location (in homestead or attached field). Results of each demonstration will be recorded by the NGO. Field days would be organized to disseminate the results of successful demonstrations, and further feedback from farmers may be obtained from these events.
- 7 Plant health management: NGOs will participate in the plant health clinics organized by DAE, which would cover both field and homestead crops.
- 8 Motivational tours: NGOs will organize visits by farmers from CDSP IV chars to see examples of successful high value crop production and homestead tree planting. Boyer char is an obvious destination for such tours, but with many other agricultural programmes in the region, farmers may also benefit from visiting other projects.
- 9 Field monitoring, progress report and seasonal workshop: the TA M&E unit in collaboration with the staff of NGOs would develop a monitoring format for the agricultural programme. NGO staff will conduct monthly field monitoring and report on the progress of activities.
- 10 Farmers from the CDSP IV project chars will participate in the seasonal participatory workshop. Resource persons from NGOs and other stakeholders will act as facilitators. Seasonal progress reports of four chars will be presented by the NGOs. A plenary session will be conducted by the NGOs in collaboration with farmers. The TA team agricultural advisor will coordinate the workshop and produce a report on the proceedings.
- 11 Value Chain Development: NGOs will assess the need for value chain development. This activity will help to create employment, increase income and sales ability of the char dwellers. The TA team will provide training to NGOs staff (13 No.) for implementing this activity. Through chain management NGOs staff will identify constraints and remove them for better performance. Each branch will implement one value chain development activity each year.

Legal and human rights

Background research in the project and CDSP-III areas shows that settlers lack good knowledge about property rights; especially about land rights, the registration process etc, and also generally about family laws (marriage law, registration etc). That places settlers in a vulnerable position. Women rights issues within the family and rights issues in broader society need to be addressed. The objective of the sub-component is to inform the members and community about several critical laws and human rights issues through training and other awareness raising activities. This activity will benefit from links to agencies that promote human and legal rights – such as OXFAM, BLAST and Action Aid. A training manual on legal and human rights will be developed in the project.

Below are the components and activities that will be implemented and financed under the legal and human rights sub-component:

- 1 20% of the beneficiaries will receive 5 days awareness training for NGO group members on human rights, land and family laws. A total of 224 batches will be trained. The trained group members will disseminate their learning's.
- 2 orientation meetings for local stakeholders: Local stakeholders such as UP members, imams, marriage registrars and other influential people in the community will be annually invited to provide information and orient them on human rights and legal issues to constructively engage in achieve project activities;
- 3 observation of days: Annually the project will observe in collaboration with the community and important stakeholders human, women and children right days to raise the level of awareness about the issues;
- 4 training project staff members: Project staff members (13 persons, one staff per branch) will be trained on human rights and legal issues (two weeks long training). This training will be organised by the TA team.

Disaster management and climate change

Coastal areas are most vulnerable to natural and man-made disasters. Cyclones, tidal surge, storm, river erosion, drought etc occur frequently. These disasters cause considerable hardship. People lose their homes, resources and even lives due to river erosion. Sometimes people fall victim to disasters due to lack of proper information and knowledge. CDSP IV will perform elaborate training program and inputs distribution to raise awareness among the char people. The participants will learn about disaster preparedness, how to save themselves as well as their resources from the disaster and about the publicity broadcast “signals” including the disaster. They will also learn to tackle man made disasters like fire, deforestation, etc.

The project area and participants are specifically vulnerable to climate change and disasters. The focus will be on awareness on climate change issues, and disaster preparedness. A number of pilot activities to introduce improved technologies such as improve stove, bio-digesters, and wave/flood protection measures such as house-plinth-raising to demonstrate effectiveness of these technologies for replication through private initiatives. This activity will benefit from linkages with OXFAM which has a major disaster management and climate change initiative in Bangladesh and is already active in some project chars – but on a limited scale. A training module on disaster management and climate change may be developed during the training.

The following activities will be implemented:

- 1 training of selected group members/family members on disaster preparedness and mitigation to develop cadres of skilled people and teach the community about disaster preparedness, and mitigation issues. It will be a day long local training (2 persons per group) that will focus on possible disasters (cyclone, floods, damage of embankment etc) in project chars, possible preparedness measures, community mobilisation, post-disaster mitigation etc. Micro-credit group members or suitable family members may be selected for the training;
- 2 refresher course will be organised on the same issues every year;

- 3 organise meetings with other stakeholders and work with local (UP) disaster management committee and Red Crescent;
- 4 observe Environment and Disaster Management Day ensuring maximum participation of all stakeholders in the community;
- 5 organise local persons (women and men) to train on production of improved cooking stove (ICS) so that the trained persons promote and make ICS as a business;
- 6 similarly experienced masons will be trained on construction of bio-digesters.
- 7 a special initiative will be undertaken to raise plinth of 500 households (very poor households) in Caring char to protect homestead from rising wave and floods. The selected households will be provided with equivalent of 10 days of labour cost to raise their own house-plinth and homestead. In addition 500 houses will be braced to withstand storms. Both these initiatives have already been tested by OXFAM in Caring Char.
- 8 project staff will be trained on climate change and disaster management issues. The TA team would organise a two-week training course for 13 persons (one person per NGO branch) on climate change and disaster prepared issues including the above mentioned project activities, management of the project activities, monitoring and reporting.

Selection of NGOs

The TA team, through tendering, will select 3 - 5 NGOs, who have the financial resources and capacity to provide all type of micro-finance products and other services that meet the requirements of the project (beneficiaries). The area covered by an NGO is divided into so-called branches, see **Table 4.11** for the tentative break-up; the activities of the NGO's will be implemented from their branch offices. Each partner NGO will work for a geographical area, covering on average 2000-2500 members per branch, which is sufficient to operate a viable micro-credit branch. Assuming there are an estimated 28,000 households (Appraisal Missions estimate) in the five new chars, the following division is the tentative break-up of the project area among the NGOs:

Table 4.11 Break-up of project areas among NGOs

1 st NGO (4 branches)	Noler (3) + Caring (1)	1 NGO
2 nd NGO (4 branches)	Nangulia (2) + Caring (2)	1 NGO
3 rd NGO (4 branches)	Nangulia (3) + Ziar (1)	1 NGO
4 th NGO (1 branch)	Urir char (1)	1 NGO

After completion of NGO selection, NGOs will either rent or build branch offices with sufficient space and a separate paramedical centre.

The coordinator of each NGO will have the overall responsibility of implementation and coordination of all project activities with the NGO branches. He/she will also coordinate with the TA team and respective specialists. Each NGO will have their monthly and quarterly review meetings.

Monitoring and reporting

Monitoring will be conducted monthly, data analysed and the necessary steps taken to improve the situation that is being monitored. Various TA staff members and supervisors will undertake data gathering at different levels of the program. Data collection forms and formats will be prepared for this purpose, together with the NGOs. The forms available in the Project Implementation Manual of IFAD will be used as well. The object will be to standardize the data collection exercise and to ensure the collected data can be analysed and comparisons be made. The NGO Coordinator will be the main supervisor in each NGO and will supervise activities in an average of four branches. Beside this, the Chief Executive Officer of NGO will have the overall responsibility for achieving the objectives and physical targets of all activities of the project. Each NGO will submit the following reports: (i) monthly expenditure reports,(ii) monthly program reports (quantitative target and achievement by sub-component by branch) and (iii) quarterly descriptive reports that will briefly describe project activities during the quarter, successes and challenges etc.

The following records will constitute the basic monitoring data: performance report, training report, project progress report and project completion report. The managers at the specific levels in the program will be responsible for ensuring that the necessary data is collected, analysed and acted upon. A participatory approach will be encouraged.

A well-structured MIS will generate monthly trend-reports at branch, area and partner NGO level. The data, generated from the MIS will also provide valuable inputs for research, periodical reviews and product development. Internal monitor will assess the progress of the programme and make periodical reports for management decision-making and information to donors and other stakeholders. Audited financial statements will be made available at the end of each operational year for information and accountability.

After one year, an evaluation of the program will be conducted with particular focus on the wider policy issues pertaining to this program. Specific among these will be the relevance of the program objectives, the impact made, the efficiency and effectiveness of converting inputs to outputs, the sustainability issues and the lessons learnt over the period.

4.6 Institutional development

4.6.1 Field level institutions

Introduction

As in CDSP III, implementing agencies, with support from the Technical Assistance team, will instigate the formation of community based groups that will closely be involved in planning and implementation of project interventions and in operation and maintenance after the project is completed. These groups give shape to the concept of people's participation, an important element in the project's approach. The groups in question, here termed as field level institutions, are Water Management Organisations, Tube well User Groups, Farmer Forums, Social Forestry Groups and Labour Contracting Societies. After a general introduction to each of these groups, information will follow on field level institutions in each of the five chars. Groups to be formed by NGOs are dealt with elsewhere in this report (see 4.5).

As will be seen, in the formation of the field level institutions, a gender balance is aimed at. For WMG's, the target is a female participation equal to that of males. For Farmer Forums, the aim is to have one third women members. SFG's will have about 40% female members and the groups to be formed by NGO's (see 4.5 above) are exclusively or pre-dominantly women. The Tube well User Groups consist of women only. LCS may be men or women groups only or mixed, but priority will be given to involvement of women.

Water Management Organization (WMO)

Participatory water management is a central feature in char development programmes. In this respect the "Guidelines for Participatory Water Management" (GPWM) as approved by the Ministry of Water Resources in 2001 will be followed. The Guidelines distinguish three different levels of WMO's: Water Management Group (WMG), Water Management Association (WMA) and Water Management Federation (WMF). If no water management infrastructure is built and the area stays essentially unprotected, no WMO's will be established. Instead, a Local Area Development Committee (LADC) will be formed for overall development of the area.

Water Management Group (WMG)

Formation

First, the water management systems of the whole project area are identified. Then each water management system will be divided into several water management blocks. While dividing into blocks, besides hydrological considerations, social factors such as units or communities (Samaj) will also be taken into account. Meetings will be held in the blocks to inform people with regard to the forthcoming project as well as to discuss about the aims, objectives and functions of WMG's. Then the people at each block informally elect or select three men and three women as their representatives in the WMG. WMG's will be registered under the Cooperative Rules with the Department of Cooperatives. The membership is open,

and other people will join the WMG over time, or even directly from the start. If it is clear that there are more people who are interested in becoming members of WMG's, this will be taken into account in the formation process. Each WMG has a Management Committee of 12 members, of which at least 30% are women.

Functions

Effectiveness of the WMG in assessing and solving water management problems is the overriding concern of the WMG. Hence the major functions of WMG's are the following:

- project/ area planning, implementation monitoring, participatory evaluation process
- operation and maintenance of sluices;
- participate in quality control of all interventions under the project;
- maintenance and management of khals, embankments, roads, bridges, culverts etc.;
- maintaining linkage with BWDB, LGED, LGIs and other local level institutions;
- prepare annual plans for maintenance of water management infrastructure;
- support in implementation and monitoring of all interventions under the project;
- set up information centres in order to provide useful information on subjects relevant to the people of the area through booklets, magazines, posters, one to one discussion etc.;
- fund generation through subscription and local resource mobilization;
- fund generation through works contracted from implementing agencies for maintenance of water management infrastructure and social welfare.

Water Management Association (WMA)

A Water Management Association (WMA) is formed with 4-6 representatives from each WMG and it deals with water management issues at the level of the whole polder. The Chairperson, Vice-Chairperson, Secretary and Treasurer of each WMG are the general members of the WMA. Those general members of the WMA elect or select a 12-member Management Committee similar as the WMG's.

Water Management Federation (WMF)

The upper tier of the WMO-structure is formed by the Water Management Federation. A WMF is formed by taking representatives from the WMA's. It basically operates at the District level or for bigger CDSP water management areas.

Local Area Development Committee (LADC)

If no water management infrastructure is built and the area essentially stays unprotected, WMO's will 'not be established in the area. Instead, a Local Area Development Committee (LADC) with around 15 members will be formed for overall development. This is the case in Caring- and Urir Char. For this purpose, the total area will be divided into different clusters / local Samaj. Representatives from the clusters / Samaj will form the LADC. The LADC will work for a physical development plan and for implementation of that plan. If water management activities are started in future, the proposed LADC will be transformed into a Water Management Organization (WMO) as per the Guidelines for Participatory Water Management (GPWM).

Tube well User Groups (TUG)

With the assistance of NGOs, Tube well User Groups (TUG) will be formed for all planned deep tube wells to be installed in the project area. The members of the TUG will be 100% women with an average of 15-20 women in every group. The TUG will be responsible for collection of contribution money from all members and for operation and maintenance of the tube wells. These groups may also develop in micro finance groups.

Farmers Forum (FF)

Following DAE's New Agriculture Extension Policy (NAEP), the group approach will be adopted in all agriculture extension activities. Following the concept of NAEP, CDSP has adopted a group approach in

agriculture extension through formation of Farmer Forum's (FF). The size of each Farmer Forum will be around 20 to 30 members, with the aim of having 33% female members. A Farmer Forum is a group of settlers with farming as their main occupation and interested in new technologies and willing to participate in crop production programmes. The groups will be formed by DAE with the assistance of NGO's.

Social Forestry Group (SFG)

To ensure peoples participation in forestation activities, a social forestry approach will be applied through which the settlers will be involved in planning, implementation, monitoring, maintenance and management of the plantation. For this purpose, Social Forestry Groups will be formed for every 2 km of road- and canal side plantation, 1.5 km of embankment plantation, 20 ha of foreshore plantation and 20 ha of mangrove plantation. Each group will have 20-30 members, with about 75% men and 25 % women.

Labour Contracting Societies (LCS)

The main objective of LCS is involvement of local people in construction work. They may be engaged instead of contractors for earthwork in the construction and maintenance period. The set-up of LCS is to form a group of landless labourers from the local area. If it is socially accepted women LCS's can also be formed. The LCS is enlisted as D-class contractor with the executive agencies. The size of the LCS is around 70 members. Through LCS, implementing agencies can provide project benefit directly to the landless project beneficiaries. LCS will be engaged in particular by BWDB and LGED for their earthwork activities. The quality of work done through LCS is in general much better than the quality of works of regular contractors. In the GPWM, it is mentioned that at least 25% of the earthwork will have to be executed by the involvement of LCS. The LCS's are organized by NGO's, by Bangladesh Rural Development Board (BRDB) or by the respective WMO's or LADC's. An additional advantage of the LCS concept, if implemented via WMO's, is creation of ownership and facilitation of future O&M by WMO: LCS will continue to maintain their section of road, embankment, khal etc. Development of specific guidelines for LCS and embankment – (EMG) and road maintenance (RMG) groups through WMO is foreseen during the project period.

Char Nangulia and Noler Char and Caring Char

Water Management Organisation (WMO)

Local people in the several focus group discussions proposed to form WMG's at grass root level as per the jurisdiction of the Union Ward. Char Nangulia is located in four Unions, with a total of ten Wards covering the area. Following the preference of the local population, this would mean having 11 to 12 WMG's in the area. These WMG's will form one WMA. Following the same principle, five to six WMG's will be formed in Noler Char, with also one WMA. Another option is to form one WMA for both Nangulia and Noler Char, depending of the opinion of the WMG's involved.

Tube well User Group (TUG)

With a view on the proposed number of tube wells, 1220 TUG's will be formed: 607 in Char Nangulia, 313 in Noler Char and 300 in Caring Char.

Farmer Forum (FF)

It will be decided at a later stage exactly how many groups will be formed in Noler Char, Char Nangulia and Caring Char. The groups will be formed by DAE with the assistance of NGO's. WMO's may facilitate the formation and establishment of FF's. It is estimated that approximately 38 FF's will be formed in Char Nangulia, 20 in Noler Char and 15 in Caring Char.

Social Forestry Group (SFG)

It can be estimated that around 200 SFG's will be formed: 125 in Char Nangulia, 60 in Noler Char and 30 in Caring Char. More details can be found in Table 4.6.

Local Area Development Committee (LADC)

Because no water management infrastructure will be built in Caring Char, no WMG's will be formed. LADC's will be established instead. It is estimated that three LADCs will be formed. The UP Chairman will be president of the LADC, while the UP members are ex-officio member of the LADC.

Urir Char

Present situation

The degree of organization among the settlers in Urir Char is very low. Apart from a number of mosque- and market committees and a few NGO groups, there is no institutional capacity at field level to plan for and participate in a multi-sectoral development effort. There is therefore a compelling case to promote community-based organizations that can enhance the cohesion in the social fabric of the society and can be involved in CDSP activities.

LADC

Because Urir Char will also stay an unprotected area, Local Area Development Committees (LADC) will be formed as is the case in Caring Char. It is expected that three LADC's will be formed. The RFLDC project agreed to use the LADC's as their CBU.

Tube well User Groups (TUG)

With a view on the proposed number of tube wells, 64 TUG's will be formed, which will cover around 2,000 households.

Farmer Forum (FF)

Based on the principle of including representatives of 20% of the households in a FF and on an average membership of 25 for each FF, it is estimated that 10 FF's will be formed in Urir Char.

Social Forestry Group (SFG)

It is planned that about 141 SFG's will be formed in Urir Char: 27 mangrove plantation, 65 block plantation, 40 khal plantation and nine for road plantation.

Char Ziauddin

Water Management Group (WMG)

In Char Ziauddin two WMGs will be established, one in each of the two hydrological units. One WMG will work in the western side and one in the eastern side of the char.

Farmer Forum (FF)

Probably around 7 FF's will be established in Char Ziauddin.

Social Forestry Group (SFG)

In Char Ziauddin 26 SFG's will be formed: 20 for plantation along drainage channels and six for road plantation.

Tube well Users Group (TUG)

Tube well users groups will be formed with 100% female members, consisting of 8 members for each tube well. In Char Ziauddin 45 deep tube wells will be sunk, so 45 TUGs will be formed.

4.6.2 Implementing agencies

Training

A part of the training activities in CDSP IV will target staff members of the six implementing agencies. In the first project year, this will consist of short training events with the aim of familiarising officials on coastal development issues, on the concept of integrated coastal zone management and in particular on the

institutional set-up of CDSP IV and the interventions that will be implemented under the project. In later project years a decision will be taken on possible more training events aimed at staff of implementing agencies. "On the job" training of staff of implementing agencies will occur throughout the project period through the normal and routine contacts between this staff and the Technical Assistance team.

Internalisation

The existing Internalisation Committees in the six agencies, established during the CDSP III period, will be maintained. In the first project year, a short term consultant will assist the Committees and the Technical Assistance team in formulating the activities of and the support to the Committees during CDSP IV.

Overseas study tours

Budgetary provisions (RPA budget, Special Accounts) have been made for overseas study tours of staff of implementing agencies. In the first project year, the Technical Assistance team will make a proposal for these study tours and will submit the proposal to the Project Management Committee and subsequently to the development partners.

4.6.3 Local government institutions

As with the implementing agencies, only a limited part of the training programme is aimed at the local government institutions (at Upazila and Union-level). Orientation workshops on the coastal issues, on ICZM and on the contents and modalities of CDSP IV will be held in the first project year. In later years similar one- or two day events may take place. As a spin-off of planning and implementation of project activities, including the dialogue with the LGI's, the project will further contribute to the capacity building of the LGIs.

4.6.4 Gender Action Plan

In the first year a Gender action Plan will be drawn up, that will be a guideline for many of the institutional development interventions described in the previous sections. The Project Implementation Manual provides an example for such a plan. After discussion and approval of the plan in the Project Management Committee, the plan will be implemented throughout the project period and will be closely monitored by the Technical Assistance team. The aim of the plan is to make stakeholders in the project more gender sensitive and to ensure women participation in the institutions instigated by the project as much as is possible in the given circumstances. Ultimately the interventions should lead to a gender balance in the distribution of benefits and of an improved socio-economic position and status for women in the chars. The following aspects may be mentioned in this respect.

Gender Focus in CDSP-IV

Gender issue will be an integral part of all policies and guidance of the project. Gender specific questions and considerations will be systematically integrated into the programme planning, implementation, monitoring and evaluation.

Gender Mainstreaming and Integration

Gender mainstreaming in the project will be ensured through active participation of men and women in all project activities (from planning to implementation, operation and maintenance) and at all levels (field level, government agency level, NGO level and in the TA Team).

Initiatives for Gender Equality

Gender inequality poses a major impediment to achieving development that is sustainable. In the project there are avenues for improving the situation:

- i) provision for awareness creation about gender issue at all levels of all sectors, agencies and NGOs;
- ii) appoint sufficient female staff especially at the field level to promote better communication with women;

- iii) significant percentage of women will be included in all local level groups and committees and their opinions and views will be solicited and given consideration;
- iv) women will be provided with equal opportunities and access to information, knowledge, and opportunities to participate in project activities as men;
- v) gender training and gender sensitization programme will be incorporated at all levels on a regular basis.

Major Areas of Action

- i) Initiative will be taken for making all sectoral staff aware and concern about women's development activities in the project;
- ii) Attempts will be taken for creating favourable atmosphere for inter-agency interaction on gender;
- iii) Steps will be taken for gender balance in recruitment and zero tolerance for gender discrimination;
- iv) A well planned gender campaign utilizing different media and messages will be organized;
- v) The staff both male and female of all involved agencies will be provided training and periodical orientations;
- vi) Discussion with concerned agencies and NGOs for providing women friendly working environment in the field;
- vii) The department will form different groups according to their needs, such as Farmer's Forum (FF), Social Forestry Groups, Tube Well Users Groups and WMGs and Micro-Finance Groups;
- viii) A good number of (gender awareness) training will be imparted to community people as well as agencies and NGO staff;
- ix) Gender appraisal will be included into participatory monitoring and evaluation;
- x) Well planned cross visit for female members of relevant group will be conducted;
- xi) Experience sharing workshop for female community leaders will be organized.

4.7 Knowledge Management

4.7.1 Monitoring & Evaluation

Introduction

A comprehensive M&E system is planned for CDSP IV. This will aim to:

- generate information for impact monitoring at the project objective and goal level to measure the impact of the project against the log frame objectives;
- generate information on project activities and outputs for project planning and management;
- as far as possible this should include IFAD RIMS (Results and Impact Management System) indicators that IFAD requires all projects to use in reporting to IFAD.

The proposed system consists of four elements:

- (a) activity monitoring;
- (b) process monitoring;
- (c) outcome monitoring;
- (d) impact monitoring.

RIMS anchor indicator surveys

Mid-term, at the end of the third project year, and at the end of the project period, surveys will be carried out to measure the two key "anchor indicators". These key indicators are nutritional status, measured through the extent of stunting and wasting among children under five, and the composite asset index. The IFAD standard methodology will be used. The RIMS baseline survey of 2009, conducted as part of the project design process, will be used as benchmark.

Outcome monitoring surveys

Annual outcome monitoring surveys will gather information on Logical Framework goal- and purpose level indicators. In addition to these indicators, the outcome monitoring surveys will incorporate data on land tenure, land retention, cropping intensity and coverage of HYV rice varieties, which means a continuation of the practice in previous CDSP phases. The annual surveys will be carried out in the CDSP IV areas, and also in CDSP I, II and III areas. The survey forms in IFAD's Project Implementation Manual will be used. In addition, the outcome surveys will cover information on project services received by the settlers, such as membership of field level institutions, training and micro-credit. This will enable an analysis of the relation between results and inputs. The annual outcome surveys will also include a section on the views of the population on how their situation has changed through project interventions. The total sample for the annual surveys will be 600: 200 from CDSP I and II, 200 from CDSP III and 200 from CDSP IV. The same households will be followed throughout the project period. The surveys will be carried out by the Monitoring and Evaluation section of the TA-team. The detailed methodology for the annual outcome monitoring surveys will be finalized at the end of the first project year.

Soil salinity survey

Soil salinity surveys in CDSP I, II and III areas will be continued and will be extended to CDSP IV areas. The same methodology will be used as in previous CDSP phases. Data will be collected four times a year (February, April, August and December). Analysis of the collected samples will be done by the Soil Resources Development Institute in Noakhali.

Participatory monitoring and evaluation

The main aim of participatory monitoring and evaluation (PME) will be to obtain direct feedback from the households in the CDSP IV project areas on the delivery of services by the implementing agencies and the use of these services by the population. The core of these surveys will be regular visits of Field Monitoring Officers of the M&E section of the TA-team to a sample of field level institutions, formed under the project. These are WMOs, SFGs, LCSs, NGO-groups, Tubewell User Groups and Farmer Forums. In the first six months of the project the methodology (including selection of groups, frequency of visits, questionnaires) for these PME exercises will be formulated.

Knowledge Attitude Practice (KAP) surveys

The Knowledge Attitude Practice surveys are a method of evaluating the effectiveness of training and other forms of knowledge transfer. They focus on three questions: have the participants retained the knowledge of the technology (K), do they have a positive attitude to the technology (A) and did they practise the technology (P). These surveys will be conducted by a combined team of training-, technical- and monitoring staff. The detailed methodology and the training areas to be covered will be developed in the first six months of the project.

Other surveys

There is a range of subjects for which information will be collected, in addition and complementary to the surveys mentioned above. Such surveys will focus on the use of infrastructure provided by the project (for instance roads, markets, cyclone shelters, public toilets, pond with sand filter schemes etc. More broad topics such as environmental monitoring, women's empowerment and the interaction between health, nutrition and poverty will be subject of studies as well.

Gender specificity in surveys

All surveys will be as gender specific as possible. It is an important aim of the project to strive for a gender balance if it comes to the distribution of benefits generated by project intervention. This aim will be reflected in the structure and methodology of the surveys.

4.7.2 Feasibility studies new chars

During CDSP IV, three feasibility studies will be undertaken with the aim to identify and preliminary formulate future programs for interventions in coastal char areas. In these studies the involvement of the

present six implementing agencies may also be reviewed. Involvement of The overall study area will be limited to the central, and most dynamic, part of the coastal zone, delineated roughly by Sandwip island in the east and Bhola island, possibly Pathuakali in the west. In the process, three phases can be distinguished: (1) screening of the whole area to make a long list of chars that look promising as location for future char development efforts (in year 1); (2) further narrowing down of the long list to three chars that deserve the highest priority, largely based on criteria as stability of the char, prospects for settlement of landless households and law and order situation (in year 2); (3) undertaking of feasibility studies for the three selected char areas (in years 3, 4 and 5). For the screening, assistance from institutes like CEGIS and IWM will be called in. The further selection process will be carried out by a team consisting of members of the Technical Assistance team and representatives of the six implementing agencies and the participating NGO's. The feasibility studies themselves will be done under the responsibility of the TA-team (under the ultimate responsibility of the PMC). Parts of the study will be sub-contracted to others (Bangladeshi institutes and consulting firms) after a tender process. Parts will be implemented by members of the TA-team. Also the formulation of the Main Report for each of the three feasibility studies, combining all the different inputs, will be done by the TA-team.

4.7.3 Relation with Integrated Coastal Zone Management (ICZM)

Based on the Coastal Zone Policy of 2005, the Coastal Development Strategy (CDS) was developed and adopted by the Government in 2006. The CDS identifies nine strategic priorities: (a) ensuring fresh and safe water availability, in the context of regional water resource management (b) safety from manmade and natural hazards (c) optimising the use of coastal lands (d) promoting economic growth with an emphasis on non-farm rural employment (e) sustainable management of natural resources (f) improving the livelihoods of people, especially of women (g) environmental conservation (h) empowerment through generating and disseminating information (i) creating an enabling institutional environment. The work of CDSP IV arguably covers to a greater or lesser extent all nine priorities. The data collection done by the project under the abovementioned series of surveys will provide valuable information on the possibilities to indeed achieve fulfilment of the priorities and on the status of the priorities themselves. This information can be used in any re-formulation of the CDS.

CDSP IV will make all required information available for the Integrated Coastal Resource Data base of WARPO and will maintain regular contacts with WARPO to this effect.

The Coastal Zone Policy includes an institutional framework for ICZM, with an Inter Ministerial Steering Committee at policy level and an Inter Ministerial Technical Committee. The latter is chaired by the secretary of the Ministry of Water Resources. CDSP IV can be represented in the Technical Committee, in the event this Committee is indeed established. The project will closely follow events in this regard and will provide support for the strengthening of the framework.

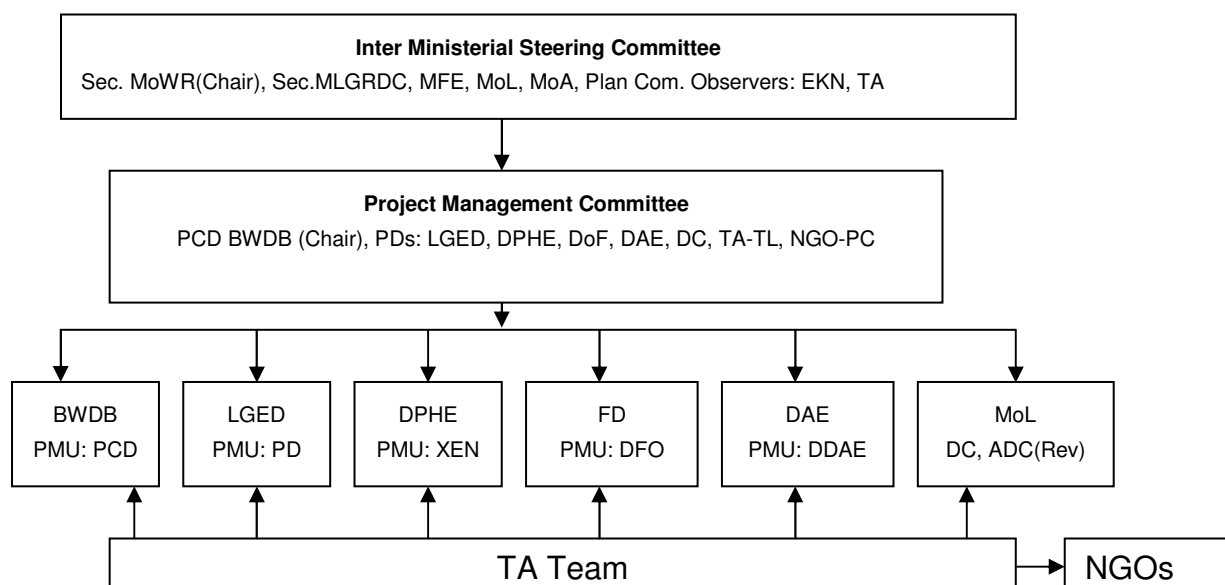
Following the spirit of ICZM, the project will maintain open and constructive relations with other development efforts in the region and elsewhere. A good example is the existing cooperation with the Danida supported Regional Fisheries and Livestock Development Component. It will be considered to draft and sign a Memorandum of Understanding to provide modalities for the cooperation.

On several fronts, plans exist to draft regional plans for the coastal zone. CDSP IV can contribute to the plans to provide the necessary inputs from its own knowledge base and from its own field experience in the active, dynamic part of the coastal zone. The selection of areas for the planned feasibility studies will be integrated in the plans if they are actually formulated.

5. Project organization

5.1 Overall institutional set-up

The institutional set-up of the project is depicted in the figure below. The top two levels are formed by the coordinating bodies at national level (the Inter Ministerial Steering Committee) and at project level (the Project Management Committee). The six implementing agencies report to and are coordinated by the PMC. The agencies are supported by the Technical Assistance team. The TA-team contracts the NGOs for specific social and livelihood support activities.



5.2 The governmental implementing agencies

As in CDSP III, there will be six implementing agencies in CDSP IV: Bangladesh Water Development Board (BWDB), Local Government Engineering Department (LGED), Department of Public Health Engineering (DPHE), Ministry of Land, Department of Agricultural Extension (DAE) and the Forest Department (FD).

BWDB

BWDB is the lead agency among the implementing agencies. It is responsible for the coordination at project level of all interventions and at the same time for the implementation of the water management related infrastructural works, such as embankments, sluices and drainage channels. BWDB will be responsible for periodic maintenance. With assistance from the Technical Assistance team, BWDB will establish and support Water Management Organisations. The staffing of the BWDB's Project Management Unit at Dhaka and Noakhali level will be as indicated in Table 5.1. It should be noted that the Noakhali staff is residing under BWDB Feni Circle, not under PCD. Accounts are handled in the Feni RAC office.

Table 5.1 BWDB Project Management Unit Staffing

	Dhaka	Noakhali
Project Coordinating Director	1	
Executive Engineer	2	1
Sub-Divisional Engineer	2	2
Assistant Engineer	3	
Sub-Assistant Engineer	1	3
Accounts Officer	1	
Accountant	1	
Senior Assistant Accountant / Assistant Accountant	1	
Upper Division Clerk	1	1
Computer Operator / Typist	1	1
Driver	3	1
Guard	1	1
MLSS	2	2
Assistant Extension Officer		1
Extension Overseer		6

For operation of the dredger, to be procured under CDSP IV, a manpower set-up is foreseen of in total 12 persons, all based in Noakhali.

LGED

LGED is responsible for all internal infrastructure. The main objects of construction are rural roads, bridges, culverts, cyclone shelters, rural markets, clustered villages and Union Parishad Complexes. The Project Management Unit of LGED will be headed by the Project Director (a Super Intending Engineer based at the head quarters in Dhaka) and will have the following staffing:

Table 5.2 LGED Project Management Unit Staffing

	Dhaka	Noakhali
Project Director	1	
Assistant Engineer	1	1
Sub-Assistant Engineer	1	2
Accountant	1	1
Computer Operator	1	1
Driver	1	1
MLSS	2	2
Staff for LCS supervision		
Sub-Assistant Engineer		8
Community Organiser		5
Work Assistant / Surveyor		10

DPHE

DPHE will be responsible for public water supply and sanitation. The instalment of deep tube wells is the most important drinking water intervention. In areas where aquifers do not provide reliable drinking water ponds with sand filters (PSF) and rain water harvesting devices will be constructed. Each household will be provided with a sanitary latrine (rings and slabs), while also public toilets will be established at market places. The Project Director of DPHE will be the Executive Engineer Noakhali. The Project Management Unit will have the following staff:

Table 5.3 DPHE Project Management Unit Staffing

	Dhaka	Noakhali
Project Director*		1
Assistant Engineer		1
Sub-Assistant Engineer/estimator		2
Accountant		1
Computer/data entry Operator		1
Driver		1
MLSS		1
Staff for LCS supervision		
Sub-Assistant Engineer		2
Community Organiser		1
Work Assistant		1

Ministry of Land

The main task of the Ministry of Land will be the allocation of khas land to landless households (land settlement and entitlement). The Ministry will also further expand the introduction of the Land Management Record System (LRMS) and be responsible for the agreements with implementing agencies that require land for public infrastructure. The Project Director for this project component is the Deputy Commissioner of Noakhali District. In the Project Management Committee (PMC) of CDSP IV, he will be represented by the ADC Revenue/ Senior Assistant Commissioner. This official will also be in charge of the Project Management Unit of the Ministry of Land. The PMU is staffed as follows:

Table 5.4 MoL Project Management Unit Staffing

Positions	Revenue		CDSP-IV	
	Noakhali	Noakhali	Surbarnachar	Hatiya
Project Director	1			
Additional Project Director	1			
Deputy Project Directors	3			
Assistant Project Director	3			
Project Settlement Coordinator	1			
Assistant Project Settlement Coordinator	1			
Kanungo			2	2
Surveyor			2	2
Office Assistant-cum-Accountant		1		
Computer Data Entry Operator		1	2	2
Office Assistant			1	1
Chainman			2	2
MLSS		1	1	1
Driver		1		

DAE

The main aim of the activities of DAE is the enhancement of food security of the char dwellers through adoption of improved agricultural methods (introduction of crop varieties suitable in the coastal environment and of modern techniques of crop production). The extension methods will be based on a dialogue between farmers and DAE staff. To this effect, DAE will be responsible for establishing Farmer Forums. The Project Director is the Deputy Director DAE in Noakhali District. Personnel will be deputed to the project (apart from the PD an accountant, a computer operator, a driver and a MLSS); no new staff will be recruited for the project. Three persons will be employed through outsourcing: a project agriculturalist, a

project technical officer and a field officer. A PMU will be established at the headquarters of DAE in Dhaka, with the PD in charge. Also a Project Management Committee will be set up for the DAE component, chaired by the Director Field Services.

Forest Department

The Forest Department will be responsible for all tree plantations in the project, such as road- and embankment plantations, plantation along drainage khals, foreshore plantations (mangrove and non-mangrove). The principles of social forestry will be followed in these activities. The Department will form Social Forestry Groups, with the assistance of NGOs and the Technical Assistance team. The Project Management Unit for this component will be established in the office of the Divisional Forestry Officer in Noakhali. The DFO Noakhali will be the Project Director on behalf of the Forest Department. The staff pattern for CDSP IV is given in the table below. As can be seen, a part of the staff is current staff, paid out of the revenue budget, and a part will be recruited just for the period of the project.

Table 5.5 Forest Department Project Management Unit Staffing

Post	Revenue staff	Project staff	Total number
Divisional Forest Officer	1		1
Assistant Conservator of Forest (ACF)	2		2
Range Officer (RO)	3		3
Forester	10		10
Plantation Mali		8	8
Computer Operator		1	1
Accountant		1	1
Office Assistant		1	1
Peon/photocopier/MLSS		1	1
Boat driver		1	1
Boat helper		1	1

5.3 The Technical Assistance team

The Technical Assistance team is contracted by the Embassy of the Kingdom of the Netherlands. After a tender process, the contract for the technical assistance was awarded to Euroconsult Mott MacDonald of the Netherlands, in a consortium with BETS Consulting Services and Socioconsult Limited of Bangladesh. The staffing pattern for senior- and mid-level staff is presented in Table 5.6 below.

Table 5.6 Technical Assistance Team: Senior and Mid-Level positions

Senior Advisors	No. of posts	Technical/administrative staff	No. of posts
Team Leader (International)	1	Accounts Officer	1
Deputy Team Leader (Institutions & Infrastructure)	1	Assistant Land Settlement Adviser	1
Deputy Team Leader (NGO & Livelihoods)	1	Logistic Officer	1
Land Settlement Adviser	1	Project Area Co-ordinators	4
Senior Quality Control Engineer	1	Social Forestry Co-ordinator	2
Quality Control / Design Engineer	1	NGO Sector/ Gender Specialists	4
M&E and Knowledge Management Adviser	1	Project Agriculturist	1
Gender and Social Adviser	1	Project Engineer	4
Agricultural Adviser	1	Office Manager	1
Social Forestry Adviser	1	MIS and Computer Specialist	1
Financial Adviser	1		

The overall strength of the team for the whole project period of six years is: Expatriate advisers: 60 months long term (input of the full time Team Leader) and 24 months short term; Bangladeshi advisers 660 months long term and 72 months short term; mid-level technical and administrative staff 1,440 months long term and support- and field staff 3,456 months long term. In **Annex 4** the Staffing Schedule is presented. In **Annex 5** the names and designations of staff per 1 June 2011 is presented.

The Technical Assistance team has a variety of *functions*:

- advising and supporting the six governmental implementing agencies;
- monitoring the quality control activities of the implementing agencies and advising IFAD with regard to loan disbursements to be made; the Guidelines for Quality Control as applied in CDSP III and as included in the Project Implementation Manual of IFAD, will be used;
- selecting the NGOs, and coordinating and supervising their work;
- commissioning studies and surveys;
- undertaking training activities;
- generating knowledge from the results of the project interventions and facilitating the feed back of relevant knowledge and information into future project activities and into the further development of ICZM in Bangladesh.

Three observations have to be made with respect to these functions. *Firstly*, there is a potential tension between the advisory and support functions with regard to the implementing agencies on the one hand, and the monitoring of quality control and recommendations on payments on the other hand. In previous phases of CDSP this tension has manifested itself occasionally, but meetings between the agency concerned and management of the Technical Assistance-team have always led to a situation in which both functions could be fulfilled to the full extent. *Secondly*, the activities for which the Technical Assistance team has an initiating and leading role (the last four of the abovementioned functions) always take place under the responsibility of the Project Management Committee and the Project Coordinating Director of the BWDB. All activities will be tabled and discussed in the meetings of the PMC before they are started, and progress will be reported to the PMC. The *last observation* is that the sub-contracting, and in most cases tendering, for those activities for which that is required (for instance NGO selection, commissioning of studies), will be done by the main consulting firm. The Technical Assistance team as such is not a legal entity and cannot enter into contracts. The Technical Assistance team will, however, do all the work during preparation and implementation, and will be in charge throughout the process (under responsibility of the PMC, as pointed out above).

To stimulate the *coordination within the team*, a management team will be formed, consisting of the Team Leader, the two Deputy Team Leaders, the Financial Adviser and the Monitoring and Evaluation Adviser. This management team will meet every first day of the working week. Meeting with the full Technical Assistance team will be organized every two weeks.

The *control of the quality of the work* of the staff of the Technical Assistance team will be hierarchically organized. The diagram with the structure of the team, as depicted in the Tender Document provides the necessary information. In principle, the quality of the work of the field staff is controlled by a senior consultant or directly by one of the two Deputy Team Leaders (for instance the NGO Sector Specialists and the Project Area Coordinators). The Team Leader controls the quality of the outputs of the Gender and Social Adviser and of the Monitoring and Evaluation Adviser. The quality of the work will be a recurrent topic in the meetings of the above described management team. The Team Leader is overall responsible for the quality and he reports to the Project Manager in the head office of the main consultant. The Project Manager is ultimately responsible for the quality of the work towards the client. The most important instruments of quality control will be desk study of reports, field visits to check the quality of activities at grass root level, and discussions with the concerned implementing agencies and Technical Assistance staff.

Technical and managerial back-up for the Technical Assistance team will be provided through support of short term national and international consultants. Fields that are supported by short term inputs include project management, planning, among others inception report, annual plans and budgets, feasibility studies, institutional issues related to water management and WMO's, social forestry, extension approaches, land registration and management, Monitoring & Evaluation. With a view on the composition of the team of long term experts, additional support in civil engineering is probably not required. The tentative ST international input is indicated in the staffing schedule in **Annex 4**. In addition in **Annex 6** brief Terms of Reference for the most likely ST inputs are presented. Any input of short term national and international consultants will be based on a well defined need for the expertise, reflected in dedicated, detailed Terms of Reference for the required input, approved by the PMC. On a day-today basis, the Project Manager at the head office of the main consultant will provide managerial support to the Team Leader, while the financial department at the head office will extend assistance to the Financial Adviser.

The size of the project area, and the fact that relevant stakeholders are seated in Dhaka, brings a number of logistical issues. The Technical Assistance team will have two *offices*. The main office will be in Noakhali at the premises of the BWDB, in Sonapur. A liaison office, with largely administrative functions, will be maintained in Dhaka. It is foreseen that the Team Leader, the two Deputy Team Leaders and the Financial Adviser will visit Dhaka with a certain frequency. The possibility to locate the Financial Adviser in the premises of the BWDB PCD will be explored. Field offices will be continued or established in Boyer Char (covering Boyer Char), in Char Ziauddin in the Forest Bit Office, in Char Majid (temporary, to cover Char Nangulia, Noler Char and Caring Char in the starting up phase), in Char Nangulia in Kaladur Bazar, in Noler Char in Saddam Bazar/ Thanar Hat bazar (for Noler Char and Caring Char). In Urir Char a site office will be rented in Colony Bazar.

As far as **transport** is concerned, it is required to have a total of seven vehicles available in the project at any given moment during the first half of the project. Four vehicles can be transferred from CDSP III, which means that three vehicles have to be procured in the first year. Of the seven, one car will be stationed in Dhaka, six in Noakhali and at field offices. Three new cars have probably to be procured at the start of year 4 of the project, to replace the old four vehicles. The existing speed boat is to be posted at Chairman ghat (Boyer Char), for transport to Noler- and Caring Char. A new speedboat (to be purchased in the first year) will be for the communication around Urir Char and between Urir Char and the mainland. The project needs to purchase *office equipment and furniture* for the new offices, as well as to replace old materials.

5.4 Coordination mechanisms

The highest level of coordination is in the hands of the Inter Ministerial Steering Committee (IMSC), with the Secretary Ministry of Water Resources in the chair. Members will be the Joint Secretaries of the parent Ministries of LGED, DPHE, DAE and Forest Department, and of the Ministry of Land, the Joint Chief of MoWR, and representatives of IMED, ERD and the water/irrigation wing of Planning Commission. The PCD of CDSP IV will act as Member-Secretary, while a representative of the Embassy of the Kingdom of the Netherlands and the Team Leader of the Technical Assistance team will have an observer status. The IMSC will have functions with regard to policy issues, planning, monitoring of implementation, coordination and internalisation and dissemination of lessons and results of CDSP IV and previous phases. See **Annex 7** for the complete Terms of Reference. The IMSC will preferably meet once in every six months but at least once a year.

The central decision making body and the main coordinating mechanism with regard to planning and implementation of project interventions is the Project Management Committee. This Committee is chaired by the PCD of the BWDB, with the PDs of the other five implementing agencies as member. In case of the Ministry of Land, the (Senior) Assistant Commissioner appointed by the Deputy Commissioner Noakhali will attend the PMC meetings on behalf of the DC. The Team Leader of the Technical Assistance team and the Deputy Team Leader responsible for NGOs are members as well. The Team Leader will act as secretary to the PMC and will advise the PCD in all PMC matters. The Office of the PCD of BWDB will serve as secretariat of the PMC. Main functions of the PMC are related to planning, monitoring of

implementation, coordination and knowledge management and dissemination. For the full Terms of reference see **Annex 8**. The PMC will aim at meeting once a month, but will certainly have a meeting every three months.

Coordination bodies at the level of clusters of activities can be formed, if the need is felt to do so. Project implementing agencies may organise their own coordination committees. For instance, the Ministry of Land will form a district Project Monitoring Committee, chaired by the DC of Noakhali. Members will be the ADC Revenue, the RDC, concerned UNOs and ACs (Land), the (Senior) Asst. Commissioner of the Land Settlement PMU and the Land Settlement Adviser of the Technical Assistance team. It will report to a Project Monitoring Committee in the Ministry of Land, headed by the Joint Secretary (Development). Other implementing agencies could follow this example.

5.5 Monitoring of the project and reporting

The main monitoring bodies of the overall project, overseeing the interventions across the board, are the Inter Ministerial Steering Committee at policy level (with meetings preferably twice and at least once a year) and the Project Management Committee at implementation level (with meetings at least once in three months, but usually once every month).

Monitoring of the implementation of field activities in each of the implementing agencies will be carried out by the respective Project Directors. The Team Leader of the technical Assistance team will monitor those activities for which the team takes the first responsibility for execution, such as for instance the Monitoring and Evaluation System and the feasibility studies.

The project will be supervised from the side of the development partners by IFAD, with active participation of the Embassy of the Kingdom of the Netherlands. Annual supervision will be the main instrument, complemented by regular meetings between the management of the Technical Assistance team and IFAD and embassy staff.

The project will provide consolidated Progress Reports on activities and finance, covering a period of six months (January to June and July to December), not later than two months after completion of the six months period. With a view on the starting date of the project (1st March 2011), the first Progress Report will cover only four months (March to June). The Progress Reports will be based on Annual Work Plans and Budgets (AWPB), covering calendar years, which will be submitted before 1st November of the preceding year. The APWB will be accompanied by a Procurement Plan for 18 months, for which the form provided in the Project Implementation Manual (PIM) of IFAD will be used. In addition the reporting routine of CDSP III will be continued, which means that a series of Mission Reports and Technical Reports will be produced. It will be considered to have a separate series of M&E reports.

5.6 Training

There is no scope to recruit a separate training coordinator in the TA Team. However, the experience of the previous phases of CDSP shows that there is a need to coordinate the many trainings, orientations and workshops on various issues for the beneficiaries, field level institutions, LGIs, and for the officials of the implementing agencies.

The training activities will be looked after by the TA Team and will be reported and communicated to all concerned through the progress reports and other documents as required. Deputy Team Leader (Institutions & Infrastructure) will take overall responsibility of training activities. Field level personnel will organize and implement the training activities as per schedule.

The TA Team will formulate a detail training plan in dealing with the training aspects of CDSP-IV. The initial step is to prepare a long-term training plan that would cater the needs for all stakeholders groups. A short-term local consultant will be hired to develop the long-term training plan. In addition TA Team may hire a training consultant (resource person) as required from time to time for training related activities like module development, facilitating courses, organizing workshops etc.

It should be noted that the training activities under the NGO components will be dealt with, implemented and reported upon separately as per the ToR of the NGO activities.

5.7 Time table and milestones

The time table of project key activities under the project components as described in Chapter 4 and their milestones are presented in **Annex 9**. It also indicates the time schedule for reporting. The time table for construction activities of BWDB is dictated by the monsoon seasons: Construction of embankments and other water management infrastructure is only possible during the dry season, from 1 December till 1 June. The same holds true for the LGED infrastructure development activities, be it to a lesser degree.

6. Project finances

6.1 Project costs and financing

Overall project costs are estimated at US\$ 83.47 million. The project will be financed by IFAD (56.66% of total costs), the Government of the Netherlands (25.95%) and the Government of Bangladesh (16.42%). In addition there will be a contribution from the population in the project areas (0.97%).

The IFAD loan of US\$ 47.3 million will be used for 74.28% of the costs of protection from climate change component (US\$ 28.57 million), 65.83% of the costs of the internal infrastructure component (US\$ 37.69), 53.36% of the land settlement component (US\$ 7.6 million) and 89.44% of the agricultural development sub-component (US\$ 0.96 million).

The grant from the Government of the Netherlands of US\$ 21.66 million will be used to fund 6.39% of the protection from climate change component (US\$ 28.57 million), 11.51% of the costs of the internal infrastructure (US\$ 37.69 million), 100% of the NGO support (US\$ 4.58 million) and 100% of the Technical Assistance (US\$ 10.91 million).

The contribution from the Government of Bangladesh of US\$ 13.705 million will cover taxes and duties, salaries, operating costs and infrastructure.

The contribution of the NGOs through micro credit is estimated at US\$ 4.8 million and of the population at US\$ 0.811 million.

A Component wise summary of the total cost of the Project for the six year period is presented below in Table 6.1.

Table 6.1 Cost component wise summary of project cost

Slab	Cost Components	Total Cost in US\$ 000
01	Protection from Climate Changes	28.57
02	Internal Infrastructure	37.69
03	Land Settlement and titling	00.76
04	Support to livelihood	05.54
05	TA and Management Support	10.91
	Total Project Cost	83.47

The detailed cost of the Project in Bangladeshi Taka and US Dollar for the six year period is furnished in **Annex 10**.

A summary of the total cost of the project and percentages of financing for the six year period is presented in Table 6.2 below:

Table 6.2 Project cost and percentages of financing

Slab	Financer	US Dollar	Percentage
01	IFAD	47.30	56.66
02	GoN	21.66	25.95
03	GoB	13.70	16.42
04	Beneficiary Contr.	00.81	00.97
	Total	88.347	100.00

The Component wise Cost of the Project is shown in **Annex 11** and the Financing Plan of the Project in **Annex 12**.

6.2 Fund flow

Funds for Infrastructure

The part of the grant from the Government of the Netherlands meant for infrastructure (protection from climate change and internal infrastructure, in total US\$ 5 million) will be channelled through IFAD. The IFAD loan will flow to a Special Account maintained in BDTK at a nationalized schedule bank. This account will be operated by the Project Coordinating Director of BWDB. The fund from this Special Account will flow to the six Project Accounts maintained in BDTK at a nationalized schedule bank which will be operated by the six implementing agencies. The transfers from this Special Account to the bank Accounts maintained by the six implementing agencies will be made on a quarterly basis under RPA.

The grant from the Netherland Government will flow to another special Account maintained in BDTK at a schedule bank in Bangladesh which will be operated by the TA Team. The funds from this Special Account will flow to the bank Accounts maintained in BDTK at a schedule bank by the NGOs and TA Team. The transfers from this Special Account to the bank Accounts maintained by NGOs and TA Team will be made on a quarterly basis as an advance based on the Annual Work Plan and Budget (APWB).

Funds for TA and NGO support

The Netherlands Government has signed an agreement with the main consultant, Euroconsult Mott MacDonald for the implementation of the Technical Assistance. This contract includes the support to the NGOs. The money will flow from the Embassy of the Kingdom of the Netherlands in Dhaka to the consulting firm on the basis of half yearly invoices against the Technical Assistance budget and the AWPBs. The technical Assistance budget is part of the contract with the consultant.

The consultant will make disbursements to the NGOs and will include these payments in the quarterly invoices. Outsourced activities, as for instance the preparation of feasibility studies, will follow an open tender procedure. This procedure will have to be approved in advance by the Project Management Committee and the Netherlands Embassy. The Technical Assistance budget is taken up as **Annex 13**.

The Technical Assistance team will maintain accounts in Bangladesh and will maintain proper records and documentation of all expenditures. Financial statements will be sent each month to the head office of the consulting firm in the Netherlands. The head office will maintain consolidated statements, in which the expenditures done in the Netherlands or elsewhere are included. The consulting firm will have its own auditing procedures. The Netherlands embassy can engage an external firm to audit the Technical Assistance accounts.

6.3 Fund disbursement by financiers

IFAD will make an initial advance of about 10% of the loan and grant into the Special Accounts in order to expedite the start-up of the activities, once the IFAD loan becomes effective and ERD has requested the advance. Replenishment from the Special Accounts by IFAD will occur by way of withdrawal applications. These applications will be prepared by the Technical Assistance team and will be supported by appropriate documents and statements of expenditures. The withdrawal applications will be signed by the Project Coordinating Director (PCD) and submitted to IFAD for approval. The Technical Assistance team will on a regular basis compile and consolidate eligible project expenses based on inputs provided by the six implementing agencies. Separate withdrawal applications have to be drawn up and submitted for the loan and for the grant.

The implementing agency and the Technical Assistance team will follow the Guidelines for Quality Control (as developed in previous CDSP phases and as taken up in the PIM of IFAD) in the process that leads to withdrawal applications.

The funds to the implementing agencies are to be disbursed under the RPA concept. The implementing agencies will incur the cost of the respective components and pay the selected Service Providers (Contractors) from their own funds, subject to the certification of the bills of the Contractors by the TA Team. The implementing agencies will submit their bills for payment to the PCD on quarterly basis. The PCD will pay to the implementing agencies on the basis of the certifications of the TA Team. No payment will be made by the PCD over the value as has been certified by the TA Team.

6.4 Procurement

Procurement of goods and services will follow the Public Procurement Regulations (PPR) of 2008, provided they are consistent with IFAD Procurement Guidelines. The procurements must be included in the Procurement Plan and approved by IFAD in advance.

Labour intensive and low value physical works will be implemented by Labour Contracting Societies (LCS), with materials procured by the concerned implementing agency. Contracts with LCSs will be awarded under the direct procurement method, as permitted by PPR regulation no.18 (1) (a).

Also for the work done by contractors and for purchase of project goods (as vehicles, office equipment etc.), the NOTM applies. If any equipment has to be procured abroad, the International Competitive Bidding (ICB) method will be used.

6.5 Financing Rules

Financing rules have been adopted for each of the Project Cost components. The taxes and duties are to be paid by the Government of Bangladesh (GoB Taxes). The cash contribution for the civil works, salaries, and operating costs is called Government of Bangladesh Cash (GoB Cash). Financing of all civil works would be divided between IFAD (75%), GoN (10%) and GoB Cash (15%) – the GoB share being sufficient to cover any taxes that may be payable. Office equipment, computers and office furniture for implementing agencies are financed by IFAD (90%) and GoB Cash (10%) – the GoB share should be sufficient to pay any taxes. Other items (including forest planting), training and studies implemented by the GoB partner agencies will be financed 100% by IFAD, with operating costs (vehicle running, office costs etc.) being funded 85% by IFAD and 15% by GoB Cash.

6.6 Accounting and auditing

As mentioned above, there will be two Special Accounts and six Project Accounts. The Technical Assistance team will identify and place an order for appropriate project accounting software. This will be done in consultation with IFAD, and may include the following:

- (a) financial data entry procedures;
- (b) creation of data base;
- (c) auto recording System in Cash Book, Bank Book, General Ledger, Subsidiary Ledger;
- (d) preparation Trial balance;
- (e) implementation of Budgetary Control system;
- (f) performance Analysis through Budget variance;
- (g) Financial Reporting; and
- (h) Other Reporting.

The Technical Assistance team will submit annual financial statements of project expenditures for each fiscal year to IFAD and the Netherlands embassy, not later than sixty days after the close of each half year. The implementing agencies will maintain the below mentioned records and send certified copies of these records to the Technical Assistance team on a monthly basis. This will be done within the first seven days of the following month. The records are:

- Cash Book for RPA and GoB funds;
- Bank statement of Project Account and Sub Project Accounts where applicable;
- Bank reconciliation statement;

- Supporting vouchers and documents;
- Advance Register.

The Technical Assistance team will enter the transactions into the project accounting software and generate a monthly trial balance. It will also produce Project Financial Statements on quarterly and on annual basis.

TA Team will engage an independent internationally recognised external auditing firm with concurrence of PMC. Auditing will be based on Terms of Reference approved by IFAD. The Technical Assistance team will ensure that the audit report indeed covers the Terms of Reference. Auditing will follow International Standards of Auditing as applicable in Bangladesh. Certified audit reports have to be submitted to IFAD not later than six months after the closing of the financial year (1st July to 30th June). Draft Terms of Reference for the external audit can be found in the Project Implementation Manual of IFAD.

6.7 Training on financial systems

IFAD staff will provide training right at the start of the project to the relevant members of the Technical Assistance to make them familiar with the systems of accounting and disbursements. If required, staff of the implementing agencies will be trained as well. The training modules will be detailed in consultation with IFAD.

7. Sustainability and risks

7.1 Introduction

This last chapter of the Inception Report dwells on the sustainability of the project (7.2.) and on the risks the project faces in achieving its objectives (7.3.). The sustainability is analyzed at the level of project outputs (7.2.1.), with regard to the CDSP process (7.2.2.), at local level (7.2.3.) and ant national level (7.2.4.). The risks are first identified (in 7.3.1.), subsequently at output-, purpose- and goal level. Section 7.3.2 makes an effort to rank the risks. The ranking is summarized in a risk matrix (taken up as **Annex 14**). Concluding the chapter, section (7.3.3.) looks at the role of the Technical Assistance team in mitigating the identified risks.

7.2 Sustainability

7.2.1 Sustainability of the project outputs

For all infrastructure (water resources related as well as internal infrastructures as roads, bridges, cyclone shelters, tube wells etc.) the arrangements for funding and implementation of O&M is crucial with respect to sustainability. Well prepared maintenance plans and adequate allocations for maintenance on the budgets of the agencies concerned, are necessary conditions. For management of water resources, well-functioning WMOs are required, as well as enough field staff of, in particular, BWDB. In maintaining the protective tree plantations (foreshore, embankments, roads), trained and motivated SFGs are of vital importance. Well trained and functioning TUGs, to be formed by DPHE and NGOs, are required for O&M of tube wells. Close relations should be maintained with other development efforts as MIDPCR and the Danida supported Rural Roads project, both with LGED.

Experiences in CDSP I and II show that a great majority of the households that received an official land title, stay on the land. Still, some families sell their land, which is illegal, and many of those move out of the area. This outmigration has increased over the last years, since new chars as Char Nangulia, Noler Char and Caring Char, became inhabitable and since the expectation grew that land in these new chars would be settled under a CDSP program. Selling of land became attractive, due to the steep increase in land prices. A prerequisite to the sustainability of this particular output is that settlers are convinced that they can have a decent livelihood at their present location. Only then they will not sell the land and not move on to other areas. Prerequisites for improved livelihoods and household resilience are strong field level groups (Farmer Forums, NGO groups), adequate staffing of agencies, especially DAE and continued presence of NGOs, also after the project is completed. As with the land settlement output, it is important that all other outputs are delivered successfully and at the same time. The whole package will enhance the probability on sustained, improved livelihoods. Adaptation of appropriate agricultural technologies for salt affected lands and of cultivation methods that decrease the salinity will contribute to sustainability. The cooperation with other projects, such as RFLDC, aiming at increasing other sources of income, is essential as well.

Whether the knowledge generated by CDSP IV is applied in a sustained way, will depend on the relevance of the knowledge and on the way dissemination takes place. Internalization into participating agencies (for instance by incorporating acquired knowledge into standard training events) is of importance. Knowledge should also be imparted to the field level institutions through training and extension efforts. Knowledge, but also experience with the management system in CDSP, can help to make the ICZM approach and the institutional translation sustainable.

7.2.2 Sustainability of the CDSP process

In this proposal, sustainability of the CDSP process is defined as the capability of institutions to continue with the CDSP approach of cooperation and consultation in the project areas after project completion, and as the capability of in particular state agencies to undertake similar programs as CDSP in other char areas. Prerequisites for the continuation of the process in the project areas are strong and self-reliant field level institutions (such as WMOs, SFGs etc.), effective and motivated local government (Union- and Upazila level), adequately trained field staff of key state agencies and an effective District Administration. In particular the relations in the triangle communities/ local government/ agencies, will determine the sustainability of the process. The maintenance plans, to which all three sides have agreed, form a core element in that pattern of relations.

Whether implementing agencies, and their parent Ministries, are willing and capable to carry out CDSP-like programs in new chars, depends on the extent to which CDSP experiences and lessons have been internalized by the institution, but also on resources as staff and budget. The CDSP-management model (based on the principle of common planning and implementation with coordination to the extent that it is really needed; with an umbrella DPP and DPPs for each agency, an IMSC and a PMC) seems a generally accepted model. Certain procedures (as for example the streamlined and more transparent land settlement process and the identification of productivity zones for agriculture) have been adapted because they are seen as an improvement.

7.2.3 Strategies to ensure sustainability at local level

At field level: Field level institutions as WMOs, SFGs, FFs and LCSs, have a key role in sustaining the results of the project. Strong community based institutions will put pressure on agencies to continue to deliver the services in order to sustain the outputs. As remarked above, their relation with local government and state agencies is vital in the continuation of the CDSP process. An important strategy of the project would thus be to strengthen the field level organizations: training, advice, monitoring their activities, implementing surveys in a participatory manner (the system of the Community Score Cards, for instance, has an element of strengthening the settlers). A strategy to ensure sustainability of the land settlement component has to include: a very strict application of the procedures of land settlement; a strengthening of the position of the settlers versus vested interests that are eager to buy the newly acquired land (or forcefully grab it); massive information campaigns that selling of land is illegal and that migrating to newer chars will not help, because no land will be allocated to households that already received land. Satisfactory achievement of other outputs also will support the retention rate: a more secure environment with improved economic opportunities will keep people in the same location.

At Local Government Institution (LGI) level: Unions and Upazilas are expected to contribute to O&M of infrastructure in their jurisdiction, together with state agencies as BWDB, LGED and DPHE, and the Water Management Organizations. The signing of O&M agreements between all these parties will enhance the chances of sustainability at local government level. The fact that Union Chairmen are advisory members of Water Management Groups is important in this respect. They have to play a key role in the triangle between community/ local government/ government agency. A new Upazila, formed by a part of Char Nangulia, Noler Char, Caring Char and Boyer Char, would bring LGIs closer to the settlers in those areas and would contribute to the solution of the ongoing unfortunate situation that there are no elected Union members in Boyer Char, because of the uncertainty whether the area belongs to Hatiya- or to Subarnachar Upazila. Elements in a strategy for sustainability will thus be: support for O&M agreements; training of LGI members on their role in the aforementioned triangle; promotion of the idea to form a new Upazila in contacts with the District Administration and local Members of Parliament; Project Management Committee and National Steering Committee (where a high level representative of the Ministry of Local Government is a member).

At District level: Since the Deputy Commissioner of Noakhali will be the Project Director of this component, the District Administration is closely associated with the land settlement interventions of CDSP IV. Involvement with other components will be stimulated by regular meetings with the DC and his staff about

the project as a whole and by trying to put CDSP related issues on the agenda of the monthly meetings of the District Development Coordination Committee.

7.2.4 Strategies to ensure sustainability at national level

To ensure sustainability of the outputs, important policy decisions at national level are related to an increase of allocations (on the revenue budget) for O&M for the implementing agencies. Though allocations for O&M have increased over the years (for BWDB from Taka 100 crore in 2003-04 to Taka 420 crore in 2009-10), more funds are required. A second decision to ensure sustainability would be to shift O&M costs from project budgets (development budget) to the revenue budget. Project staff, including the TA-team, can raise this issue in the Inter-Ministerial Steering Committee. Other important policies at national level to ensure sustainability of outputs, purpose and goal, are in the economic field, outside the purview of the project. The continuation of the CDSP-process, explained as the continued capability to plan and implement similar programs, would be supported by maintaining the six Internalization Committees (one in each implementing agency) that were established during CDSP III. Dissemination of information on the project will strengthen the commitment of authorities and institutions at national level to continue with char development programs.

7.3 Identification of risks and risk mitigating measures

7.3.1 An overview of the risks

At output level: There are many risks to the project, both internal and external, that can impede the progress and quality of project implementation. A major one internal to the project is that *good quality staff* of the implementing agencies, including the NGOs, is not available to the extent as the respective DPPs or contracts stipulate. The six government agencies have to post the staff for execution of project interventions conform their respective Development Project Pro-formas. In earlier CDSP phases this has not always been the case. The *non-availability of funds* at the right time is a second risk that can be avoided by the implementing agencies. In the past, it has happened that contractors could not be paid, which caused delays in further work by the same contractors. The fact that certain materials *required for construction are not available* on the market and unexpected increases in market prices are real risks, threatening the progress of the infrastructure development component. *Problems with the acquisition of land* where structures have to be built are a risk. The absence of good quality contractors that are willing to take on works in remote char areas is another risk in this respect. *Collusion between contractors* can cause delays in tender procedures, because of necessary re-tendering. Also *low quality work of construction* can cause delays, due to the time required for the rectifications, and thus threaten the intended achievements at purpose level. *Coordination of all involved institutions* is at the heart of the ICZM approach and of the management model of CDSP. The long term goal, the project purpose and the outputs can only be achieved if the planning of interventions is properly coordinated and the implementation is done by each implementing agency, with a constant view on what other agencies are doing. The proper platforms where coordination can take place are the Project Management Committee and the Inter-Ministerial Steering Committee. Regular monthly meetings of the PMC, preferably in Noakhali, and maximum attendance of PDs in these meetings, are essential. In addition, discussions on CDSP can take place in the Development Coordination Committees at District- and Upazila level and in the NGO coordination meetings, organized by the TA-team. The preparation of maintenance plans is an important subject for a coordinated approach, involving state agencies, local government and local communities. As argued earlier, *sufficient allocations for O&M* are absolutely necessary to sustain project outputs.

Political support is a prerequisite for approval of CDSP IV at national level, while support of elected politicians as Members of Parliament, Upazila Chairmen and Union Chairmen is indispensable for a smooth implementation of project activities. Opposition of local politicians can severely impede the progress of the project. *Political stability* and consequently the absence of frequent "hartals" will facilitate project implementation. The same can be said, with more emphasis, of a calm *law and order situation* in the project area. Both the safety of the settlers as of project personnel is at stake when law and order are

missing. As described elsewhere, the chars are in the initial phases of development areas where the government and the law enforcing agencies are hardly present and where the rules are made by the *jotdars* and *bahinis*. The experience is that, over time, the situation will improve, due to the impact of project interventions and the enhanced presence of the government.

Erosion of embankments, also newly constructed ones, is a risk in many areas in the Meghna estuary. Although modelling can help to avoid construction in places with high risks, shifts in the flow of the Meghna have proven to be difficult to predict. The establishment of *foreshore plantation* can mitigate impact of wave action on embankments and accelerates stabilization of the land outside the embankment. The conditions to successfully carry out foreshore plantation have to be consciously created (see further Section 4.3., Risks at output level). *Salinity of the soil* hinders growth of crops (water cannot enter the roots) and poses a risk to economic uplift. Although already high-yielding rice varieties have been identified and introduced with higher salt resistant properties, and cultural practices (as mulching of the soil) have been promoted in CDSP-areas, more work on appropriate technologies for salt affected lands should be undertaken. The *knowledge on groundwater in coastal areas* is still fragmented and guidelines for the use are not yet formulated (though use for irrigation purposes is discouraged). The access to safe drinking water can be impeded if unexpected changes in ground water quality would occur. In the western part of Boyer Char, even at a depth of 800 to 1200 feet, test tube wells have produced water with a too high salt (and iron) content. Although early indications, from existing tube wells, are favourable for the new chars (Nangulia, Noler, Caring), groundwater quality will be a concern throughout the life of the project, and after.

A number of risks are related to the land settlement component. The fact that char lands have emerged in relatively recent times at locations that used to be a part of the Bay of Bengal, is often leading to *disputes about the jurisdiction of the area*. Proper surveys are often not done, could not be completed or have changed because of the dynamic nature of the physical properties of the area. These disputes between Districts and/or Upazilas and Unions can cause huge delays in the land settlement process, because it is unknown how to channel the settlement cases. There is as yet no well developed mechanism to solve such boundary issues. Claims that people owned land on the same location where new land has emerged (*ancestral claims*) can lead to lengthy court cases, hampering the progress of allocation of "khas" land to landless households. *Vested interests and elites* that have protected or initiated the work of the *jotdars* can try to recapture lost ground by applying all kinds of tactics to disrupt or delay the settlement, or to illegally buy back allocated land. *Unfavourable weather conditions* are an obvious risk for many of the project activities, especially the development of infrastructure. Storms and exceptional high water levels can damage uncompleted embankments and roads, and can flood trenches where sluices and culvers are built etc. An early onset and late continuation of the monsoon season can severely shorten the duration of the period of a series of construction activities. Bad weather can damage agricultural production, can cause farmers to revert to traditional methods and hamper adaption of modern technologies.

At purpose level: Risks that play a role at purpose level are in particular the absence of occurrence of natural disasters, the lack of economic growth and economic instability, an unfavourable law and order situation with continued influence of vested interests and of the connected *jotdars* and *bahinis*. The lack of political support and of political stability would make achieving the project purpose more difficult. All the identified risks at output level have an indirect influence at purpose level: insufficient outputs will not lead to improved and more secure rural livelihoods for 28,000 households in coastal chars.

At goal level: Even with a successful implementation of all project interventions and with realization of the project purpose, the long term goal of reduced poverty and lower incidence of hunger is under threat if the food prices, especially rice prices, increase faster than the wages. As explained, those settlers that cannot produce enough for their own household have to rely on additional streams of income. The additional income will usually come from labour on the basis of daily wages.

7.3.2 A ranking of the risks

The aforementioned risks are a collection of apples and oranges. They are widely different in nature and they play a role at different levels. It is therefore difficult to give one particular straightforward ranking. Based on the experience in earlier CDSP phases, during the implementation of project activities, so at **output level**, major obstacles were: the non-availability of funds at the time they were urgently needed for payment of construction of infrastructure; unfavourable weather conditions that formed a set-back for progress of construction activities; shortages of field staff of implementing agencies; boundary conflicts and subsequent court cases that severely impeded the progress of the land settlement component. The influence of these risks is felt at **purpose level** as well, in case outputs are not adequately delivered, the progress towards improved and more secure livelihoods is impeded. Risks, specifically tied to the purpose level, such as natural disasters, adverse law and order situation, and slow or negative economic growth and instability, can probably be ranked in this order (greatest risk first). If the real price of rice would rise relative to wages, the **goal** of reduced poverty and hunger for poor char settlers would indeed be jeopardized.

7.3.3 Activities of Technical Assistance team aimed at mitigation of risks

First of all the TA-team will monitor the occurrence of the risks. If occurrence is signalled and communicated early, timely action in the form mitigating measures will be taken.

Risks at goal level: The TA-team obviously has no influence on the level of the rice price. The team can contribute to minimize food shortages by supporting and advising on the introduction of suitable agricultural technologies. It can monitor levels of poverty and incidence of hunger, and report on it to relevant authorities through the Project management Committee.

Risks at purpose level: *Natural disasters* are beyond any ones sphere of influence, but the improved water management and peripheral protective infrastructure do mitigate the consequences. The TA-team cannot take any measures to stimulate *economic growth and stability*, except in the CDSP IV project areas themselves. Through its involvement with the establishment and further improvement of the communication network, the team contributes to the integration of the local economy in the project areas into the wider regional and national economy. As was demonstrated in the previous CDSP phases, in particular in Boyer Char during CDSP III, the sheer presence of the project, including the TA-team, helps to give the settlers strength and gives them the conviction they can own and control land without the patronage of the *jotdars* and their *bahinis*. The start with institutionalization (formation of groups) and the greater visibility of the government (for instance the arrival of police camps), gradually weakens the forces that cause *the lack of law and order*.

Summarizing, the TA-team has largely a very indirect influence on risks at purpose level and can take the following measures: strict monitoring of quality control regarding infrastructure development; assistance with the formation of field level institutions; promoting information dissemination activities (for example through local information centers); monitoring and providing information to, in particular, the District Administration on the law and order situation.

Risks at output level: The TA-team can support the conclusion of maintenance agreements between all parties involved in O&M (state agencies, WMOs, LGIs) and collect data on the implementation of such agreements (in essence, a continuation of the practice in CDSP I, II and III areas). By proving this information to the coordinating mechanisms as PMC and NSC, it can raise the issue of *sufficient O&M allocation by implementing agencies* in the meetings of these platforms. At the same time, the TA-team can promote the shifting of budget lines for O&M from the project budget (and thus the national development budget) to the revenue budget. Problems with the *timely availability of funds* for project activities and with the *availability of staff of government agencies* and NGOs can be signalled and raised in bilateral meetings with the Project Directors of concerned organizations as well as in the meetings of the Project Management Committee. *Issues related to contractors* can be discussed with the Executive

Engineers and the Project Directors of BWDB, LGED and DPHE; direct contact between TA-team members and contractors should be avoided.

The TA-team can stimulate the *coordination between all stakeholders* by pushing for regular monthly meetings of the Project Management Committee (the Team Leader is secretary of the PMC). It will organize at least monthly coordinating meetings with all involved NGOs at Noakhali, while the Project Area Coordinators will chair monthly meetings at field level, together with the NGO sector specialists and field staff of NGOs. The TA-team can hardly play a role in preventing *boundary conflicts* (between Districts, Upazilas or Unions), but can be supportive in bringing those conflicts to a solution. In CDSP III this has, for instance, happened by assisting the government in preparing the defence in several court cases. The TA-team can also promote discussions among involved parties (for instance the Commissioner Chittagong Division, Members of Parliament from the area, Deputy Commissioners), without being party to the conflict itself. Through occasional contacts with MPs, the TA-team can foster *political support* for the project, though the past has proven that the char settlers themselves are most effective in gathering that support. Through publications, support at national and international level can be created and sustained. Through its contacts, the TA-team can contribute to prevent *undue regulatory influence on interference in the work of NGOs*.

The TA-team can certainly contribute to an environment in which *foreshore plantation* can be successfully implemented. It is essential to explain to families that have settled in an area that will fall outside the planned embankments, that they have the same rights on land as all other settlers and that they will be relocated inside the embankment, with compensation of shifting costs. In CDSP IV, LGED instead of MoL is entrusted with rehabilitation activities for effected/ displaced people. LGED will make a relocation program in association with the district administration. It is also important that Social Forestry Groups are formed consisting of “outside” settlers, so that they can benefit from the produce of the foreshore plantations. Though not without problems, the foreshore plantations in Boyer Char have for a large part been implemented. The agricultural section of the TA-team will work towards the identification and subsequent adaptation of technologies that are suitable in *salinity affected lands*. Contacts with research institutes, with the IRRI supported project Support to Agricultural Research for Climatic Change Adaptation in Bangladesh, and field testing, will be necessary steps in that direction. Through monitoring of tube well water and through the construction of test tube wells, *changes in the groundwater quality* can possibly be detected. The causes can however not be determined, nor the way to combat the causes. What can be done is the shifting to other methods of drinking water supply, such as ponds with sand filters and rain water harvesting schemes.

Previous CDSP phases have shown that especially the establishment of field level institutions, and the start of the process to allocate land to landless households, have strengthened the will of the settlers to become independent of the *bahinis* that guided and controlled their original settlement. Gradually, the *law and order situation* has improved, further supported by the greater presence of government, including police camps. There is no reason to believe that this development will not occur in the CDSP IV areas (in particular Noler Char and Caring Char).

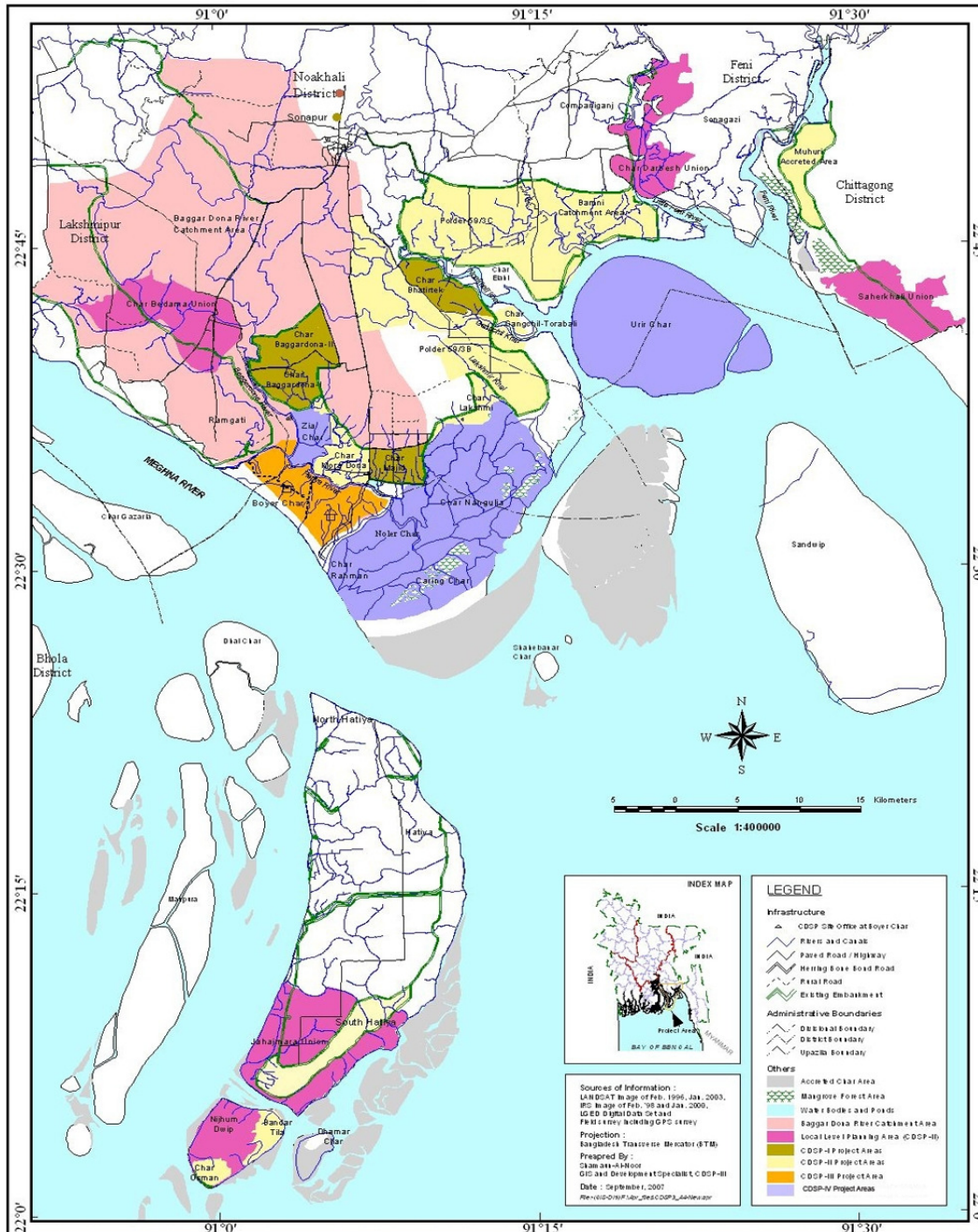
Annex 1. CDSP IV Logical Framework

Narrative summary	Indicators	Means of verification	Assumptions
<p>Goal</p> <p>Reduced poverty and hunger for poor people living on newly accreted coastal chars</p>	<ul style="list-style-type: none"> ▪ Reduction of 25% in number of children stunted and number under-weight ▪ 50% increase in household assets ▪ No. hhs with 5 months or more of food shortage reduced from 46% to 23%. 	Impact surveys at baseline, mid-term and completion (RIMS)	Real price of rice does not rise relative to wages
<p>Purpose</p> <p>Improved and more secure rural livelihoods for 28,000 households in coastal chars</p>	<ul style="list-style-type: none"> ▪ 20,000 hhs reporting increased agricultural production ▪ 28,000 hhs with more livestock ▪ 40,000 people* in income earning occupations ▪ 21,000 hh with access to improved water supply and sanitation 	Impact and outcome surveys undertaken by the M&E unit.	<p>No major natural disasters</p> <p>Economic growth and stability</p> <p>Law and order in char areas</p>
Outputs	<i>Immediate outcomes in italics</i>		
<p>1. Water resources managed effectively to protect land from tidal and storm surges, improve drainage, and enhance accretion</p>	<ul style="list-style-type: none"> ▪ 10,000 ha of land empoldered ▪ 41 km of embankment and 17.5 km of foreshore protected by plantation ▪ 31 water management and 490 social forestry groups ▪ 80% WMG rated effective/ sustainable ▪ 70% empoldered land has reduced soil salinity and flooding 	<ul style="list-style-type: none"> ▪ Field surveys of soil sanity and drainage. ▪ Project reports from BWDB and FD ▪ Participatory monitoring of community orgs. 	<ul style="list-style-type: none"> ▪ Sufficient allocations for O&M by the Government. ▪ Possible to carry out successful foreshore plantation
<p>2. Climate resilient infrastructure for communications, markets, cyclone protection, potable water and hygienic sanitation.</p>	<ul style="list-style-type: none"> ▪ 160 km road constructed ▪ 25 bridges & 72 culverts built ▪ 9 markets constructed ▪ Reduction in transport costs ▪ 60 cyclone shelters & 24 livestock refuges constructed. ▪ No. people* using cyclone shelters ▪ No. children* at school in shelters ▪ 1380 water supply points operational & no. of hh supplied. ▪ 26,735 hygienic latrines operational ▪ 17,600 women earning from LCS 	<ul style="list-style-type: none"> ▪ Project reports from LGED ▪ Participatory monitoring feedback and surveys ▪ Project reports from DPHE 	<ul style="list-style-type: none"> ▪ Sufficient allocations for O&M by Government. ▪ No unexpected changes in groundwater quality due to sea water intrusion.
<p>3. Secure land title granted to 20,000 households.</p>	<ul style="list-style-type: none"> ▪ 26,000 target group hh getting secure title to land 	<ul style="list-style-type: none"> ▪ Project reports from MoL 	<ul style="list-style-type: none"> ▪ Vested interests & elites do not disrupt land settlement.
<p>4. Improved livelihoods and household resilience</p>	<ul style="list-style-type: none"> ▪ 5,600 farmers* attending agric. extension events ▪ 20,000. farmers* report adoption 	<ul style="list-style-type: none"> ▪ Participatory monitoring feedback and surveys ▪ KAP surveys 	<ul style="list-style-type: none"> ▪ DAE able to post staff to implement agricultural

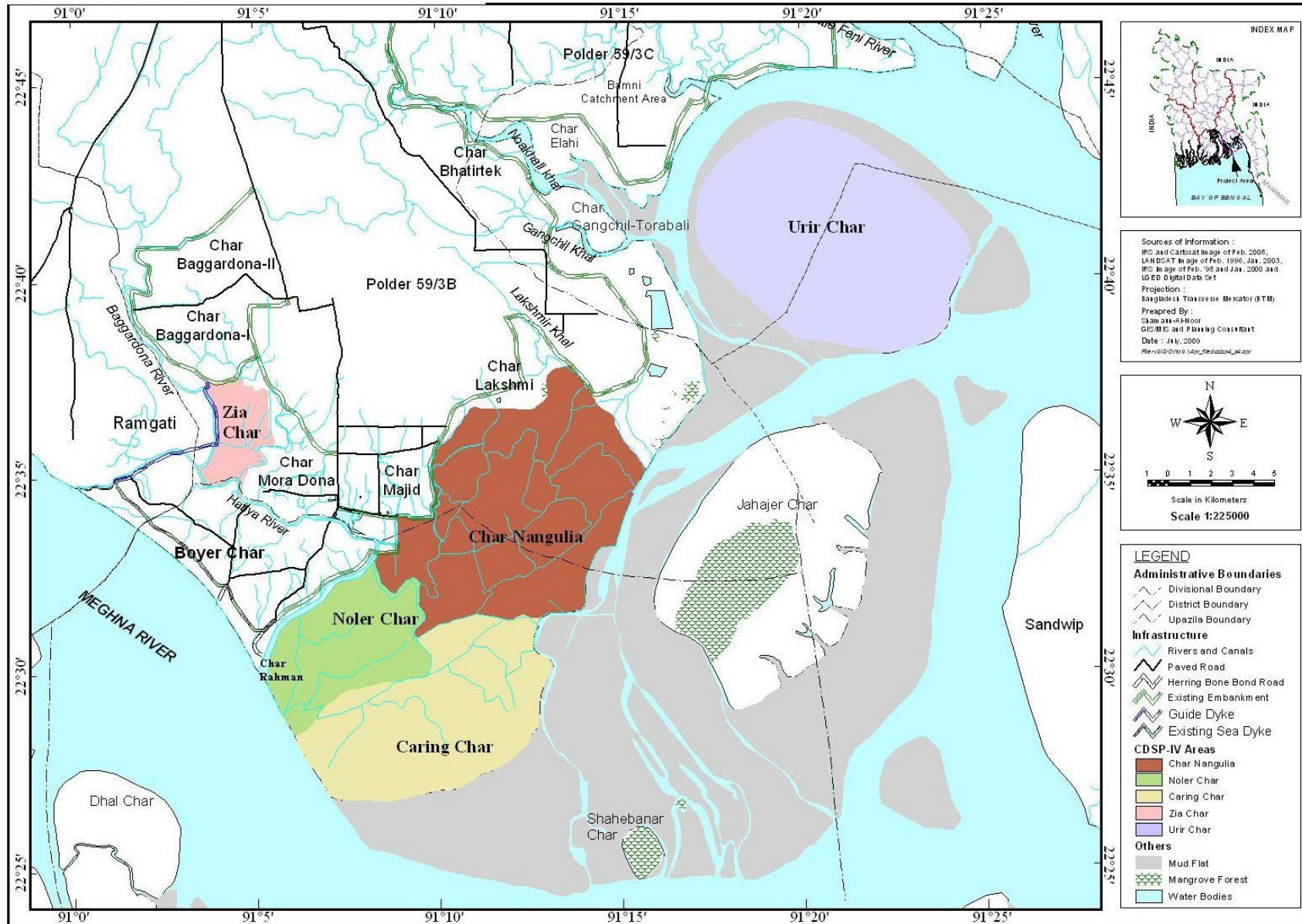
	<p><i>of improved agricultural technologies</i></p> <ul style="list-style-type: none"> ▪ 28,000 women in 1120 NGO group ▪ <i>Amount of savings and no. of loans</i> ▪ 234 health workers & 13 clinics ▪ <i>No. people* using health services</i> ▪ 28,000 women trained in IGA ▪ <i>No. people* with improved employment & own enterprises</i> ▪ 28,000 women attend rights-based training and events ▪ Indicators of improved rights 	<ul style="list-style-type: none"> ▪ Project reports from DAE and NGOs 	<p>development programme.</p> <ul style="list-style-type: none"> ▪ Appropriate technologies for salt affected land available. ▪ NGOs not subject to undue regulatory interference.
5. Knowledge management and lessons for Integrated Coastal Zone Mgt (ICZM).	<ul style="list-style-type: none"> ▪ Project reports, studies workshops and other events 	<ul style="list-style-type: none"> ▪ Project reports 	<ul style="list-style-type: none"> ▪ Government continues to support coastal development
Activities			
<p>1. Protection from climate change: (a) sea dykes; (b) internal embankments; (c) drains and canals, (d) water control sluices, (e) Water Management Organisations; (f) water infrastructure maintenance; (g) formation of social forestry groups; (h) tree planting on embankments, roadsides, foreshores & mudflats roadsides etc; (i) plantation caretaking</p>			
<p>2. Climate resilient infrastructure: (a) village and union roads and bridges; (b) cyclone shelters & killas; (c) rural markets; (g) deep tube wells; (e) drinking water ponds and rainwater collection; (f) hygienic latrines; (g) Labour Construction Societies for construction. (h) O&M user groups; (l) market management committees; (j) infrastructure maintenance</p>			
<p>3. Land settlement and titling: (a) Surveys to assess availability of land and current ownership status; (b) selection of target group households; (c) process of land titling; (d) computerised land record management system.</p>			
<p>4. Livelihood support: (a) formation of groups; (b) identification of appropriate technologies; (c) capacity building of service providers; (d) crop training and demonstrations; (e) other skill training; (f) access to livelihood opportunities and markets; (g) promotion of better health and hygiene; (h) social support and rights; (i) disaster preparedness and climate change resilience.</p>			
<p>5. Technical assistance and management support: (a) support from TA team for implementing agencies; (b) quality control; (c) specialised training; (d) M&E system; (e) studies of development of new chars; (f) dissemination and sharing of experiences.</p>			

Annex 2. Maps of CDSP

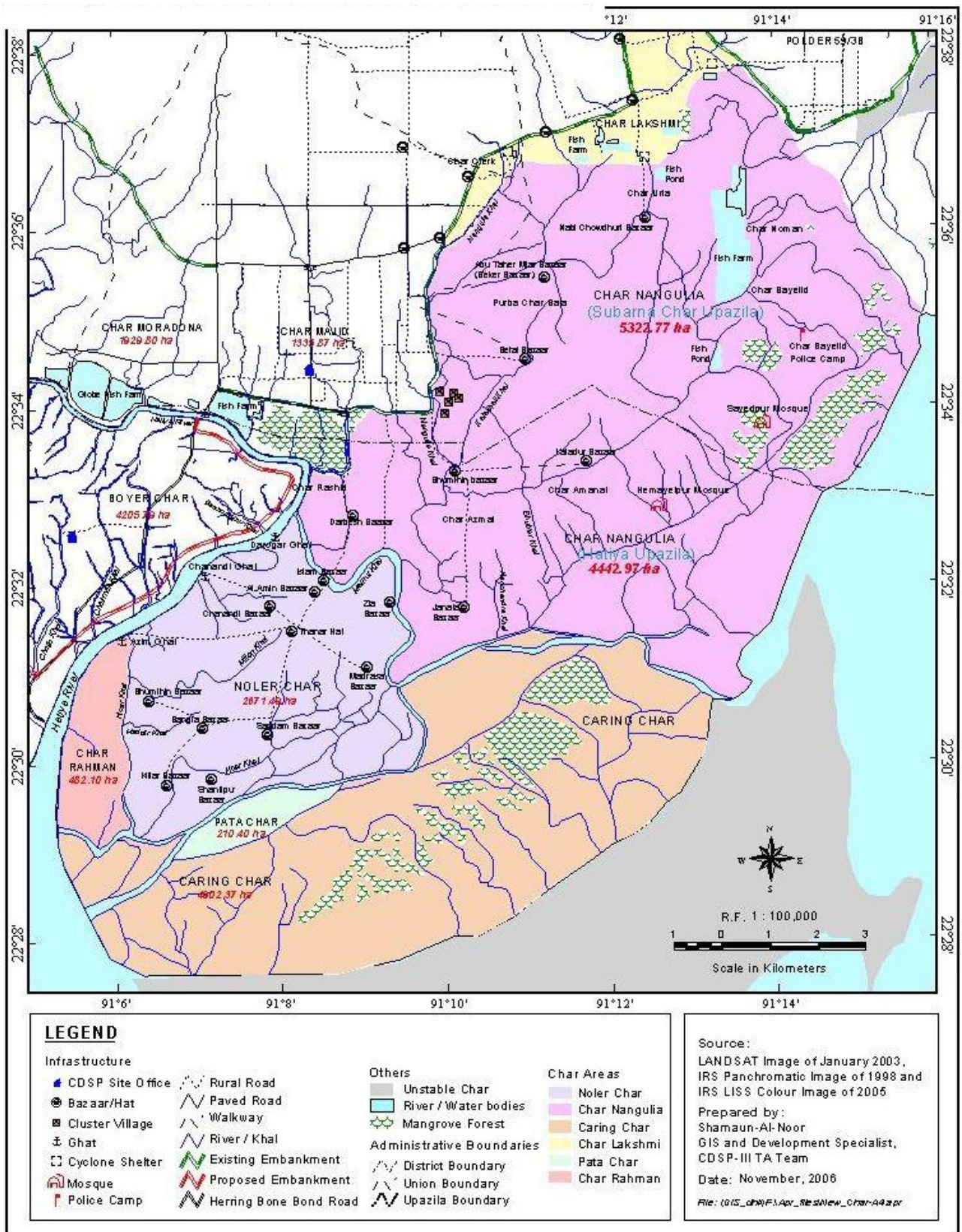
Annex 2a CDSP areas



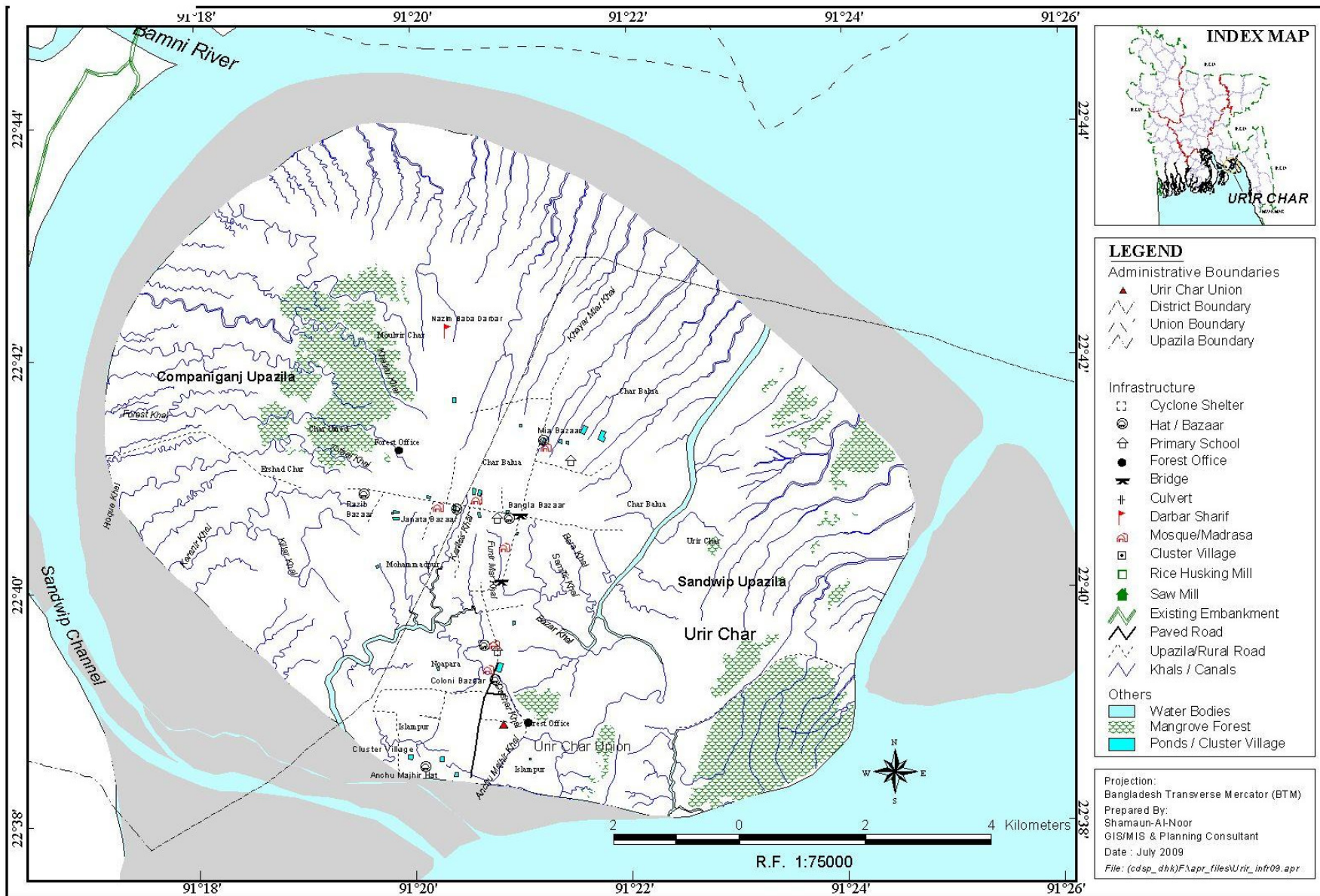
Annex 2b Overview Map of CDSP IV Areas



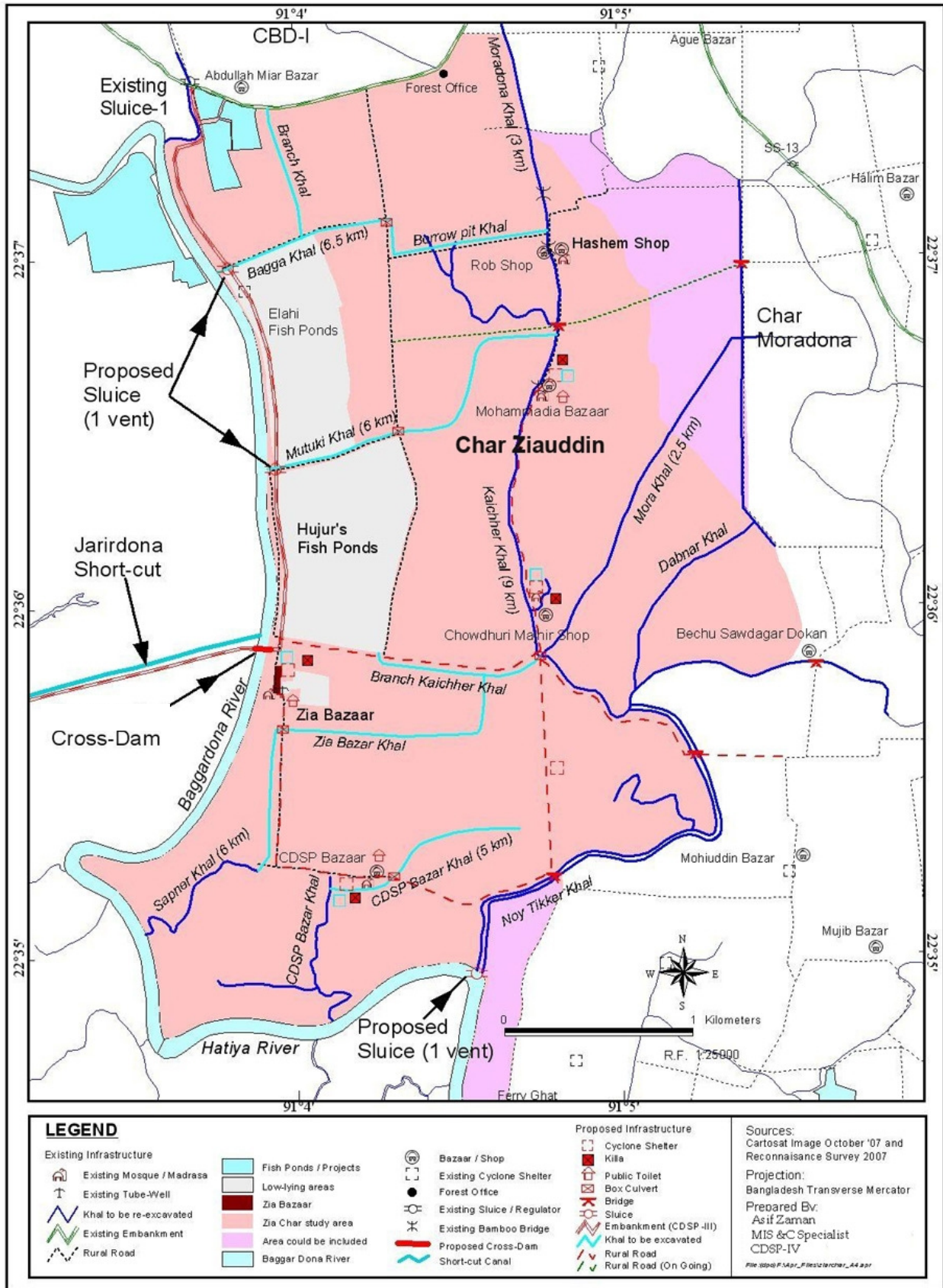
Annex 2c Map of Char Nangulia, Noler Char and Caring Char



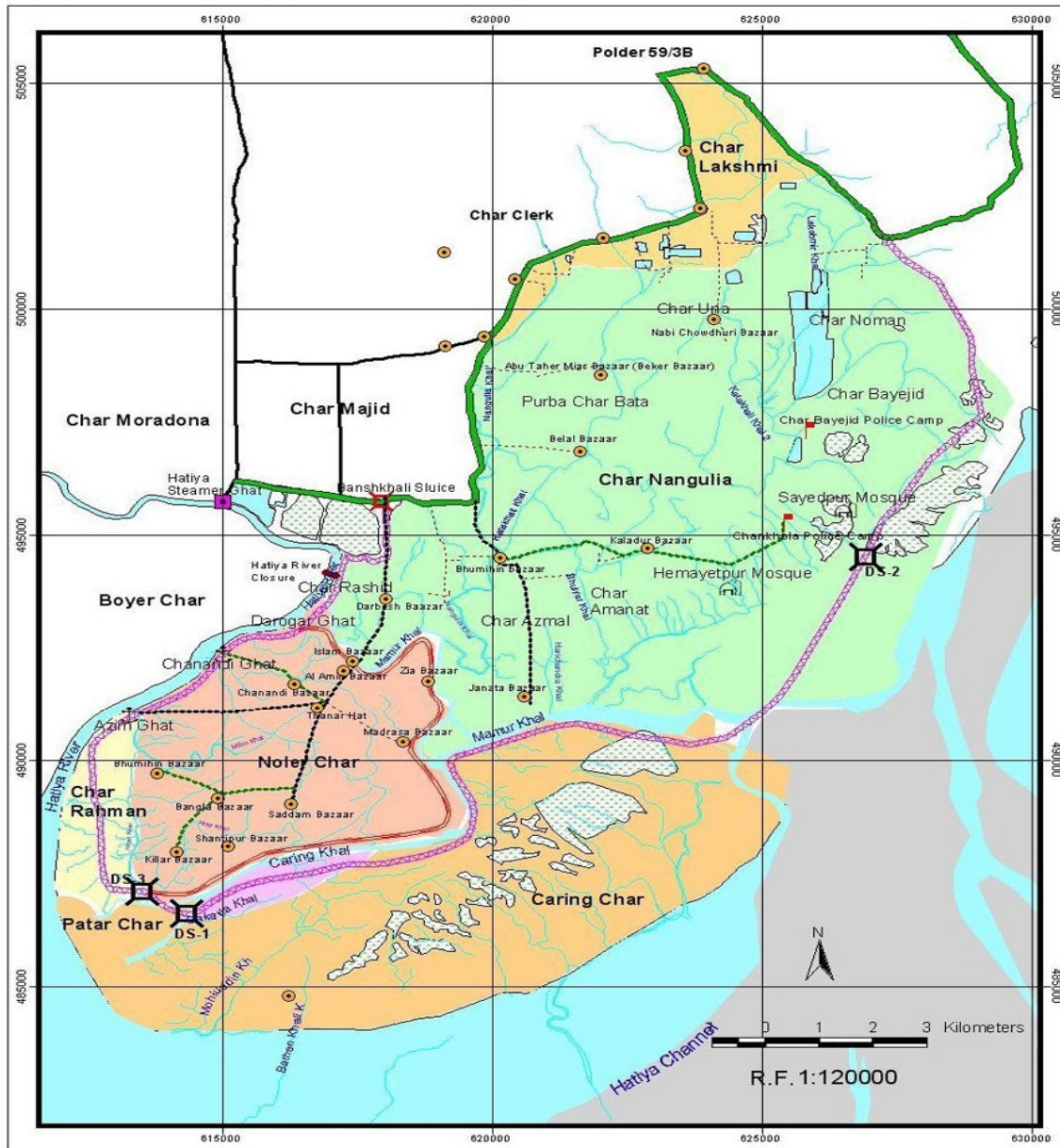
Annex 2d Map of Urir Char



Annex 2e Map of Char Ziauddin



Annex 3. Map of Embankments on Char Nangulia, Noler Char and Caring Char



<p>LEGEND</p> <ul style="list-style-type: none"> Bazar/ Hat Ghat Mosque Police Station Cluster Village Existing Sluice Proposed Sluice Existing Paved Road Existing Rural Road On Going RRIMDP Road Completed RRIMDP Road Embankment (Existing) Embankment (Proposed) Dwarf Embankment (Proposed) Khal Hatiya River Closure River/ Water Bodies Mangrove Forest 		<p>Bangladesh Water Development Board Char Development and Settlement Project- IV</p> <p>Embankments and Sluices</p> <p>Char Nangulia, Noler Char and Caring Char</p> <p>Map Prepared by : Asif Zaman MIS & C Specialist</p> <p>Date : May 10, 2009</p>
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Annex 4. Staffing Schedule

Annex 5. Present Project Staffing

Status of Project personnel as per 1 June, 2011

Sl.		Designation	Date of Joining	Remarks
Technical Assistance Team: Senior Positions				
1	Jan van der Wal	Team Leader	01 March, 2011	Euroconsult Mott MacDonald
2	Mr. Md. Zainal Abedin	DTL (Institutions & Infrastruc	01 March, 2011	BETS
3	Mr. Sadequul Islam	DTL (NGO & Livelihoods)	03 April, 2011	BETS
4	Dr. D.K. Chowdhury	Land Settlement Advisor	01 March, 2011	BETS
5	Mr. Mihir Kumar Chakroborty	Senior Quality Control Engineer	01 March, 2011	Socioconsult
6	Mr. Md. Mahfuzur Rahman	Quality Control Engineer	02 May, 2011	BETS
7	Monitoring & Evaluation Adviser		BETS
8	Ms. Showkat Ara Begum	Gender and Social Adviser	02 May, 2011	Socioconsult
9	Agriculture Adviser		BETS
10	Mr. Robiul Islam	Social Forestry Adviser	02 May, 2011	BETS
11	Dewan Nazrul Islam	Financial Adviser	02 May, 2011	Socioconsult
Technical Assistance Team: National Mid Level Positions				
1	Mr. Bishnu Pada Debnath	Accounts Officer	31 March, 2011	BETS
2	Md. Nurul Islam	Assistant Land Settlement Adviser	03 April, 2011	BETS
3	Mesbahuddin Ahmed (Bahar)	Logistic Officer	02 May, 2011	Socio Consult
4	Md. Maksudur Rahman	Project Area Coordinator 1	01 March, 2011	BETS
5	Md. Liaquat Ali Khan	Project Area Coordinator 2	02 May, 2011	BETS
6	Md. Alauddin	Project Area Coordinator 3	02 May, 2011	Socioconsult
7	Md. Basedul Alam Siddiqui	Project Area Coordinator 4	Will Join 26 May	BETS
8	Md. Zahirul Islam Chowdhury	Social Forestry Coordinator 1	02 May, 2011	BETS
9	Social Forestry Coordinator 2		BETS
10	Md. Abul Bashar	NGO Sector Specialist 1	09 May, 2011	Socioconsult
11	Motaher Hossain	NGO Sector Specialist 2	02 May, 2011	Socioconsult
12	Md. Antaz Uddin	NGO Sector Specialist 3	Will Join 01 June	Socioconsult
13	Md. Zulfiker Ali	NGO Sector Specialist 4	04 May, 2011	BETS
14	Radheshyam Sturadhar	Project Agriculturist	02 May, 2011	Socioconsult
15	Zulfiquer Azeez	Project Engineer 1	07 April, 2011	BETS
16	Sankar Chandra Saha	Project Engineer 2	01 March, 2011	BETS
17	Md. Morshedul Hasan Siddiki	Project Engineer 3		Socioconsult
18	Md. Nasir Uddin	Project Engineer 4		BETS
19	Ms. Raka Monaem	Office Manager	01 March, 2011	BETS
20	Asif Zaman	MIS and Computer Specialist	02 May, 2011	BETS
Supporting Staff				
1	Shilpi Regina Gonsalves	Administrative Assistant	01 March, 2011	BETS
2	Sazedul Kabir	Computer Operator	03 April, 2011	BETS
3	Fatema Begum	WMO/G Facilitator	02 May, 2011	BETS
4	Nahid Farhana Akter	WMO/G Facilitator	02 May, 2011	BETS
5	Mohamed Ali	Surveyor (Engineering)	02 May, 2011	BETS
6	Habibur Rahman	Surveyor (Land)	02 May, 2011	BETS
7	Mati Lal Das	Consolidator (Land)	03 April, 2011	BETS
8	Md. Delwar Hossein	Consolidator (Land)	02 May, 2011	BETS

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9	Flavian Gonsalves	Driver	01 March, 2011	BETS
10	Md. Gaiz Alam	Driver	01 March, 2011	BETS
11	Md. Aminul Haque	Driver	03 April, 2011	BETS
12	Abdul Latif	Driver	02 May, 2011	BETS
13	Md. Abdul Jalil Miah	Driver	02 May, 2011	BETS
14	Md. Abdul Hai (Bahar)	Driver - DPO	01 March, 2011	BETS
15	Md. Jahiruddin Shobuj	Peon	01 March, 2011	BETS
16	Gopal Chandra Roy	Peon	03 April, 2011	BETS
17	Protap Daring	Peon, DPO	01 March, 2011	BETS
18	Md. Nizamuddin	Guards, Boyar Char	01 March, 2011	BETS
19	Bino Farnandez	Guards, Noakhali	03 April, 2011	BETS
20	Md. Abdul Kader	Cook, Char Majid (CM)	01 March, 2011	BETS
21	Md. Shamsul Haque	Cook, Urirchar	02 May, 2011	BETS
22	Mohammad Kabir	Speedboat Helper (Char Majid)	02 May, 2011	BETS

Annex 6. Short Term Technical and Managerial Assistance

Technical and managerial back-up for the Technical Assistance team will be provided through support of short term national and international consultants. Fields that are supported by short term inputs include project management, planning, among others inception report, annual plans and budgets, feasibility studies, monitoring and evaluation, institutional issues related to water management and WMO's, forestry, extension approaches and land registration and management, Monitoring & Evaluation. With a view on the composition of the team of long term experts, additional support in civil engineering is probably not required. The tentative ST international input is indicated in the staffing schedule. On a day-to-day basis, the Project Manager at the head office of the main consultant will provide managerial support to the Team Leader, while the financial department at the head office will extend assistance to the Financial Adviser.

In the budget there is provision for 4 months input of international experts and 12 months national experts per year, in total 24 and 72 months input respectively for the project period. Any input of short term national and international consultants will be based on a well defined need for the expertise, reflected in dedicated, detailed Terms of Reference for the required input, approved by the PMC.

Inputs of the following consultants are tentatively foreseen, requirement for other inputs may emerge as the project develops:

International

Koen de Wilde, Institutional Development Specialist

Koen de Wilde has a long association with ICZM in general and with CDSP in particular. With his experience as Team Leader of CDSP I and II and CTA of CDSP III, he will support the TA Team with the following inputs:

- general planning of the project;
- development of the Inception Report;
- development of annual work plans and budgets;
- preparation and guidance of feasibility studies for new chars;
- relation with ICZM.

Hero Heering, WMO, M&E and Social Forestry Specialist

Hero Heering worked with IPSWAM, was Social Forestry Specialist and Project Manager of CDSP III and is Project Manager of CDSP IV; he will support the TA Team with the following inputs:

- institutional issues related to formation of WMO's;
- assessment of the M&E requirements in the project;
- development and implementation of the M&E system;
- social forestry activities;
- general project management issues that may arise.

Harvey Demaine, Extension Specialist

Harvey Demaine is Senior Adviser of the DANIDA funded Regional Fisheries & Livestock Development Component and very familiar with the situation in the chars; he will support the TA Team with the following inputs:

- extension approaches;
- agricultural (extension-) activities;
- fisheries and livestock activities.

Wim Romp, ICT-, M&E System and - Modelling Specialist

Wim Romp is head of Euroconsult Mott MacDonald's ICT department and has a vast experience with developing M&E and other ICT systems, including for the DFID funded Bangladesh English in Action Program; he will support the TA Team with the following inputs:

- assessment of the M&E system requirements in the project;
- assessment of M&E systems and software used by IFAD and EKN in Bangladesh;
- development and set-up of the CDSP M&E system and establish the link to the present project data bases;
- development and set-up of the CDSP Financial system;
- review the land records management system (LRMS) in use by the project, and add a digital survey system;
- establish data processing and – reporting procedures.

National

As far as inputs of national consultants are concerned, there will be requirement for supporting inputs in almost all fields of activities of the project.

Annex 7. Responsibilities of the Inter Ministerial Steering Committee (IMSC)

The Inter Ministerial Steering Committee (IMSC) is the highest coordinating body of the project. This Committee is chaired by the Secretary Ministry of Water Resources (MoWR) and consists of Joint Secretaries of the parent Ministries of the other five involved implementing agencies, and the Joint Chiefs of MoWR and of the water/irrigation wing of Planning Commission. The Project Coordinating Director for BWDB will act as Member-Secretary of the IMSC. A representative of the Embassy of the Kingdom of the Netherlands (EKN) and the TL of the TA team would participate with observer status. The Office of the BWDB Project Coordinating Director would serve as secretariat of the IMSC.

The IMSC will preferably meet once in every six months but at least once in every 12 months.

The responsibilities of the IMSC can be summarised as follows:

Policy

- Discuss policy- and conceptual papers on char development and settlement issues in general, especially with reference to the Coastal Zone Policy and the Coastal Development Strategy.
- Discuss and approve policy documents on char development and settlement issues in the framework of CDSP IV.

Planning

- Discuss and approve the Inception Report.
- Discuss and approve the Annual Work Plan and Budget of the overall project.

Monitoring of implementation

- Discuss the overall six monthly Progress Report
- Discuss and decide on any implementation issue that the Project Management Committee has referred to the IMSC.

Coordination

- Discuss and resolve any inter-agency cooperation issue that the Project Management Committee has referred to the IMSC.
- Provide coordination on the implementation of the Coastal Zone Policy and the Coastal Development Strategy by the parent Ministries of the six implementing agencies.

Internalization and dissemination

- Discuss and approve the implementation strategy of the internalisation and dissemination activities under CDSP IV.
- Discuss and approve the internalisation activities aiming at senior management of the six implementing agencies and of their parent Ministries.
- Discuss and approve major dissemination activities aimed at civil society and at the media.

Annex 8. Responsibilities of Project Management Committee (PMC)

The Project Management Committee would be the central decision making body of CDSP IV. The PMC would be chaired by the Project Coordinating Director (PCD) of BWDB, with its members being the PDs of LGED, MOL (with the Senior Assistant Commissioner/ Assistant Commissioner appointed by the DC to support CDSP land settlement attending PMCs on behalf of the DC), DPHE, DOF and DAE; the NGO Project Coordinators; and the Team Leader (TL) of the TA team. The TL is, at the same time, an advisor to the PD, and the TL will act as secretary to the PMC. The Office of the PCD BWDB would serve as the secretariat of the PMC.

The PMC would aim to meet once a month but should at least meet once in every three months.

The responsibilities of the PMC can be summarized as follows:

Planning

- Discuss and approve the Inception Report and recommend it for approval by the National Steering Committee.
- Discuss and approve guidelines for project implementation.
- Discuss the Annual Development Plans and Annual Work Plan and Budget of the six Implementing Agencies.
- Discuss and approve the overall Annual Work Plan and Budget, which incorporates these six plans and also includes all other CDSP IV activities not directly related to one of the agencies.
- Discuss the Annual Work Plan and Budget for the NGO programme (Social and Livelihood Support).
- Discuss and formulate recommendations on changes in the individual Development Project Pro-formas.
- Discuss and approve the Terms of Reference for Feasibility Studies for future char development programmes and the draft Feasibility Study reports
- Discuss and approve any changes to the composition of the TA team and to inputs by short-term consultants.

Monitoring of implementation

- Continuously monitor progress of project activities against the DPPs, the Inception Report and the subsequent AWP.
- Discuss the progress reports of the six individual agencies and discuss and approve the overall six-monthly Progress Reports.
- Discuss financial reports of the six individual agencies and discuss and approve the financial report as it is included in the overall Progress Report.
- Discuss and resolve any disputes that might arise between any of the agencies with regard to matters of implementation.
- Discuss and resolve any disputes between any of the agencies and NGOs participating in CDSP with regard to matters of implementation.
- Discuss any dispute issues related to the disbursement of funds by the donors (IFAD and the Netherlands government).
- Review, prioritize and approve proposals from partner agencies or TA team regarding short term consultancies.

Coordination

- Discuss and approve coordination mechanisms and processes among the parties involved in CDSP, including NGOs, in particular at District and field level.

- Maintain and continuously assess the relations and interactions between CDSP and the agencies responsible for the development of the coastal zone, in particular with regard to the implementation of the Coastal Development Strategy.
- Discuss and approve working papers for the meetings of the IMSC.

Knowledge management and dissemination

- Develop and monitor implementation of programmes for lesson learning from the CDSP concept and achievements (working methods; information; organizational culture) in the participating agencies.
- Stimulate the internalisation of the CDSP concept and dissemination of CDSP achievements within the organisation of the six Implementing Agencies.
- Discuss the preparation of the Technical Reports published under the responsibility of the PMC and share its contents after publication and decide on the dissemination of those Technical Reports.
- Discuss the contents of reports published by short term consultants under CDSP IV and decide on the dissemination of these reports.
- Discuss and approve a programme for dissemination of CDSP experiences and achievements among a wider public (such as char dwellers, Local Government Institutions, other Implementing Agencies, Upazila and District administration, Members of Parliament, policy makers, senior bureaucrats, local and national media, development partners).
- Discuss any report, article or study of any source relevant to the objectives and activities of CDSP IV and decide on further dissemination of those publications.

Miscellaneous

- Decide on all major day-to-day issues within the framework of the project documents.
- Discuss and decide on any other matter related to the smooth functioning of CDSP IV.

Annex 9. Time schedule and milestones

Annex 10. Cost of the Project

SL #	IA	Ministry	GOB	IFAD RPA			Total Tk	US Dollar	
				Loan	Grant	Sub-total			BC
1	2	3	4	5	6	7=5+6	8	9=7+4+8	10
1	FD	MEF	16,174.60	301,825.00	363.00	302,188.00		318,362.60	4,548.04
2	MoL	MoL	24,720.00	28,280.00		28,280.00		53,000.00	757.14
3	DAE	MA	6,924.50	60,591.50		60,591.50		67,516.00	964.51
4	LGED	LGRD	499,535.00	1,555,683.50	280,836.50	1,836,520.00		2,336,055.00	33,372.21
5	DPHE	LGRD	41,567.00	181,020.00	22,740.00	203,760.00		245,327.00	3,504.67
6	BWDB	MoWR	370,412.00	1,183,600.00	1,212,119.00	2,395,719.00		2,766,131.00	39,516.16
Total			959,333.10	3,311,000.00	1,516,058.50	4,827,058.50		5,786,391.60	82,662.74
NGO						-			
BC						-	56,770.00	56,770.00	811.00
Total			959,333.10	3,311,000.00	1,516,058.50	4,827,058.50	56,770.00	5,843,161.60	83,473.74
Percentage			16.42	56.66	25.95	82.61	0.97	100.00	100.00
US\$			13,704.76	47,300.00	21,657.98	68,957.98	811.00	83,473.74	

Legend:

BC = Beneficiary Contributions

IA = Implementing Agency

Annex 11. Component wise cost of the Project

SL	Cost Components	MD	MoL	DAE	LGED	DPHE	BWDB	LP	Total
1	Protection from Climate Change								
	Water Resources Management						2,086,953.00		2,086,953.00
	Social Forestry	318,362.60							318,362.60
	ST	318,362.60	-	-	-	-	2,086,953.00	-	2,405,315.60
2	Internal Infrastructure								
	CC protection Infrastructure				2,336,055.00				2,336,055.00
	Water and Sanitation					245,327.00		56,770.00	302,097.00
	ST	-	-	-	2,336,055.00	245,327.00	-	56,770.00	2,638,152.00
3	Land Settlement		53,000.00						53,000.00
4	Support for Livelihood								
	Agriculture Development			67,516.00					67,516.00
	NGO Support						320,820.00		320,820.00
	ST		-	67,516.00	-	-	320,820.00	-	388,336.00
5	TA Management						763,974.00		763,974.00
	Grand Total	318,362.60	53,000.00	67,516.00	2,336,055.00	245,327.00	2,766,131.00	56,770.00	5,843,161.60

Annex 12. Financing Plan of the Project

SL	Cost Components	IFAD	GoN	GoB	BC	Total
1	Protection from Climate Change					
	Water Resources Management	1,183,600.00	127,325.00	370,412.00		1,681,337.00
	Social Forestry	301,825.00	363.00	16,174.60		318,362.60
	ST	1,485,425.00	127,688.00	386,586.60	-	1,999,699.60
	USD	21,220.36	1,824.11	5,522.67	-	28,567.14
	%	61.76	06.39	16.07		100.00
2	Internal Infrastructure					
	CC protection Infrastructure	1,555,683.50	280,836.50	499,535.00		2,336,055.00
	Water and Sanitation	181,020.00	22,740.00	41,567.00	56,770.00	302,097.00
	ST	1,736,703.50	303,576.50	541,102.00	56,770.00	2,638,152.00
	USD	24,810.05	4,336.81	7,730.03	811.00	37,687.89
	%	65.83	11.51	20.51	2.15	100.00
3	Land Settlement	28,280.00	-	24,720.00		53,000.00
	USD	404.00		353.14		757.14
	%	53.36		46.64		100.00
4	Support for Livelihood					
	Agriculture Development	60,591.50		6,924.50		67,516.00
	NGO Support		320,820.00			320,820.00
	ST	60,591.50	320,820.00	6,924.50	-	388,336.00
	USD	865.59	4,583.14	98.92	-	5,547.66
	%	14.84	82.61	1.70		100.00
5	TA Management		763,974.00			763,974.00
	USD		10,913.91			10,913.91
	%		100.00			
	GT	3,311,000.00	1,516,058.50	959,333.10	56,770.00	5,843,161.60
		70.00	70	70	70	70
	USD as per DPP	47,300.00	21,657.98	13,704.76	811.00	83,473.74

Annex 13. TA Budget

Technical Assistance for Char Development and Settlement Project Phase IV

FEZ/IM-112

Summary

Summary (EUR)							
Category	2011	2012	2013	2014	2015	2016/2017	Total
	Euro	Euro	Euro	Euro	Euro	Euro	Euro
Technical Assistance Staff							
Professional Staff	591,390	591,390	591,390	591,390	591,390	591,390	3,548,340
Technical & management staff	110,280	110,280	110,280	110,280	110,280	110,280	661,680
Support and field staff	123,240	123,240	123,240	123,240	123,240	123,240	739,440
Operating Expenses							
Vehicles and equipment	278,750	15,650	11,750	8,550	2,850	2,350	319,900
Studies and Surveys	100,500	6,000	106,000	118,500	121,000	18,500	470,500
Training and Workshops	31,500	25,500	28,300	14,800	19,700	9,950	129,750
Contracted Services	13,500	11,500	13,500	11,500	11,500	11,500	73,000
Recurrent Cost	105,700	105,700	105,700	105,700	105,700	105,700	634,200
Site Office Construction							
Site Office Construction	50,000	0	0	0	0	0	50,000
Total base cost	1,404,860	989,260	1,090,160	1,083,960	1,085,660	972,910	6,626,810

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Summary (EUR)							
Physical and price contingencies, 5%	70,243	49,463	54,508	54,198	54,283	48,646	331,341
Total TA including contingencies	1,475,103	1,038,723	1,144,668	1,138,158	1,139,943	1,021,556	6,958,151
Social and Livelihood Support							
Cost of contracted NGOs	604,500	773,000	609,800	515,600	398,300	375,800	3,277,000
Physical and price contingencies	17,000	71,000	92,500	107,900	107,400	125,200	521,000
Total including contingencies	621,500	844,000	702,300	623,500	505,700	501,000	3,798,000
Total value of TA contract including NGOs	2,096,603	1,882,723	1,846,968	1,761,658	1,645,643	1,522,556	10,756,151

Annex 14. Risk Assessment Matrix

Risks	Probability of occurrence	Impact	Risk level	Mitigation measures	Responsible agency	TA Role	Residual risk level
Output level							
Land settlement disputes	High	High	High	Strict application of procedures	MoL; District Administration	Monitoring and advice	Medium
Court Cases	High	High	High	Positive measures at court	MoL; District Administration	Monitoring and advice	Medium
Upazilla Boundary Disputes	High	High	High	Adequate attempts for disposal	MoL; District Administration; DGLRS	Monitoring and advice	Medium
Insufficient allocation of funds for O&M	High	High	High	Lobby at agencies for adequate funding	Implementing agencies	Continuous attention	Medium
Unfavourable weather conditions during construction	Medium	High	High	Adequate planning and adherence to plan	Implementing agencies/ contractors	Verification and advice	Low
Shortage of good quality staff with impl. agencies	High	Medium	Medium	Stick to the staffing stipulated in the DPP's	Implementing agencies	Assess and report in PMC meeting	Medium
Non-availability of funds	Medium	High	Medium	Timely fund requisition	Implementing agencies	Continuous attention	Medium

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Risks	Probability of occurrence	Impact	Risk level	Mitigation measures	Responsible agency	TA Role	Residual risk level
Non-availability of construction material	Medium	Medium	Medium	Supervision of adequate procurement by contractor	Implementing agencies	Verify and alert implementing agency	Low
Problems with landacquisition at construction sites	Medium	High	Medium	Early acquisition	Implementing agencies	Verify and alert implementing agency	Medium
Absence of good quality contractors	Medium	High	Medium	Strict tendering procedures; intensive field supervision	Implementing agencies	Strict monitoring of quality	Low
Collusion between contractors	Medium	Medium	Medium	Strict tendering procedures	Implementing agencies	Strict monitoring of tender process	Low
Low quality of construction works	Medium	Medium	Medium	Implementation quality control procedures; checking of bills	Implementing agencies	Monitoring quality of works; checking of bills	Low
Erosion of embankments	Medium	High	Medium	Maintaining sufficient set- back distance; fore-shore plantation	BWDB; FD	Verification and advice	Medium
Unfavourable weather condi- tions during construction	Medium	Medium	Medium	Adequate planning and adherence to plan	Implementing agencies/ contractors	Verification and advice	Low

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Risks	Probability of occurrence	Impact	Risk level	Mitigation measures	Responsible agency	TA Role	Residual risk level
Re - salination of soil	Medium	Medium	Medium	Appropriate technologies/ varieties	Department of Agricultural Extension	Advice	Low
Salinity of groundwater	Medium	High	Medium	Alternatives like PSF and RWH; groundwater monitoring	DPHE	Verification and advice	Medium
Absence of good quality staff with NGO's	Medium	Medium	Medium	Adequate selection (criteria)	PMC/ TA Team	Tendering; NGO program management	Low
NGO's not able to provide micro-finance service	Medium	High	Medium	Adequate selection (criteria)	PMC/ TA Team	NGO program management	Low
Law and order situation in the project area	Medium	Medium	Medium	Project implementation; close relation with DC and SP	All		Low
Absence of sufficient coordination between agencies	Low	Medium	Low	Regular PMC-, Inter-Ministerial- and other Coordinating meetings	PCD BWDB	Convene PMC meetings; stimulate attendance	Low
Absence of good quality staff with consultants	Low	Medium	Low	Adequate management and recruitment	Consulting firms	Project Management	Low
Purpose level							

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Risks	Probability of occurrence	Impact	Risk level	Mitigation measures	Responsible agency	TA Role	Residual risk level
Natural disasters	High	High	High	Preparedness and resilient infrastructure; adequate designs	All	Creation of awareness	Medium
Lack of economic growth/ economic instability	Low	Medium	Medium	Productive farms; strong livelihoods	DAE; NGO program	Management of NGO program	Medium
Political instability	Medium	Medium	Medium	Good relations at all levels	All		Low

Annex 15. Project Introduction Workshop

Major Findings of the Project Introduction Workshop of CDSP-IV held at Noakhali on 19-04-2011 (General - and component wise small group discussion findings)

Group No.	Agency/ Others	Findings/ Recommendations
Group - 1	BWDB	<ul style="list-style-type: none"> - Opinion and cooperation of local people must be considered during site selection for infrastructure and other activities. - Active participation of stakeholder is needed in quality control of infrastructure. - Opinion of local stakeholder and other organizations must be taken into account in preparing the Annual Work Plan through consultation meeting and workshops. - Formation of WMG, SFG, TUG, FF, & NGO groups might be started in the beginning of the project. - Maintenance should be done 15% for CDSP-I, 25% for II, 45% for III and 15% for CDSP-IV areas
Group - 2	LGED	<ul style="list-style-type: none"> - Opinion and cooperation of local people/field institutions will be consulted in site selection for infrastructure. - Active participation of stakeholder is needed in local conflict resolution. - Design to be finalized at the beginning to start the infrastructure soon - One man/ women cannot be leader more than one field institutions if possible. - Agencies, TA concerned and local people will work together for better implementation - Maintenance should be done as per real field requirements in CDSP-I,II, III areas
Group - 3	DPHE	<ul style="list-style-type: none"> - Opinion and cooperation of local people/field institutions and UP and NGOs will be consulted in site selection for DTW, Latrine and collection of contribution money. - Active participation of stakeholder/leaders is needed in local conflict resolution. - One man/ women cannot be leader more than one field institutions if possible. -Agencies, TA concerned and local people will work together for better implementation -Maintenance should be done 10% for CDSP-I, 10% for II, 70% for III and 10% for CDSP-IV areas
Group - 4	MoL	<ul style="list-style-type: none"> - BWBD, LGED & FD propose to concern Deputy Commissioner for land acquisition/possession for implementation of the project activities. - Proposed land/blocks for administrative infrastructure, educational institutions, religious institutions, graveyard/Sashan and play ground etc. must be demarcated in the areas. - It is urgently needed to demarcate the boundary line of Hatiya and Subornachar Upazila for interventions in Char Nangulia. They recommended organising mass campaign. - Maintenance should be done 10% for CDSP-I, 20% for II, 50% for III and 20% for CDSP-IV areas
Group - 5	DAE	<ul style="list-style-type: none"> - Productive planning can be taken to improve the socio-economic condition of farmers as "One house, One firm". - Homestead gardening in 5-10 decimal plot and mixed fruits gardening in 15-20 decimal plots can be established.

		- Fund allotment & placement, regular monitoring and evaluation must be done as per proposed plan.
Group - 6	FD	<ul style="list-style-type: none"> - To accelerate smooth implementation of project activities, the training and motivation tour need to be organized for local stakeholders. - Land for Foreshore and mangrove plantation must be demarcated and allotted in the beginning of the programme. - Annual Work plan must be implemented timely.
Group-7	LGI (Union Parishad)	<ul style="list-style-type: none"> - Opinion of different occupational stakeholders should be considered during selection of schemes. - WATSAN programme may be included for outsider people of the project area (adjacent UP), if possible. - One person can not be selected as leader more than one group/committee/ organization, but he can be selected as a member of different groups/committees.
Group - 8	Representatives of local stakeholders	<ul style="list-style-type: none"> - Land should be given to the landless as per their present possession (plot to plot survey is urgent). - Re-excavation of branch khal/connecting khal with main khal should be implemented for smoothen drainage. - More bridges, culverts and market infrastructures are needed in the areas than proposed in DPP. - School, College and Madrasha may be established for better educational facilities. - Absentee Khatian/ Nothi should be cancelled in land settlement process.
Other common findings		<ul style="list-style-type: none"> -On an average maintenance fund could be allocated 10% in CDSP-I, 30% in CDSP-II, 40% in CDSP-III and 20% in CDSP-IV areas. -Field level coordination meeting to be held at least once in every two months with IAs, TA, NGO representatives -Organizing coordination meeting once in every six month at District level with the representatives of all concerned stakeholders, agencies and projects. -Organizing stakeholder's consultation meeting or mass meeting to share project plans and interventions at field level as part of campaign. -Necessary training, orientation and workshop recommended to be organized for skill and capacity development

Annex 16. Stakeholder Consultation Meetings

Major Findings of the stakeholder's consultation meetings (SCM) held at CDSP –IV char areas

SL	Date	Name of the Char	Location/Venue	Findings/ Recommendations
1	26.04.11	Char Ziauddin	Keranir Hat	<ul style="list-style-type: none"> -Local people demanded starting CDSP –IV soon - One local leader demanded to construct a bridge over Jajir Dona short cut channel to facilitate communication between Ramgoti and Noakhali. - Local people demanded to stop present land settlement avoiding CDSP process. -Formation of two WMG to be started soon. -Participants indicated test tube well sites selection. - Local people demanded to include Char Mohiuddin Mouza for land settlement in CDSP-IV and one cyclone Shelter in Ziar Bazar soon.
2	03.05.2011	Char Nangulia	Janata Bazar	<ul style="list-style-type: none"> -Concern UP members and agencies field official's attended the meeting. -Local people demanded to develop Janata Bazar as growth centre and demanded to re-excavation of cannels. -Local people demand paved road -Women's participation was discussed and decided to involve them in all development
3	04.05.2011	Char Nangulia	Solaimon Bazar	<ul style="list-style-type: none"> -Concerned UP Chairman and members organized and attended the meeting. -Local people demanded to develop Soliman Bazar as growth centre. Local people demanded to re-excavate cannels to remove drainage congestion. -Local people demanded for pavement of main roads.
4	04.05.2011	Char Nangjlia	Kaladur Bazar	<ul style="list-style-type: none"> -Proposed number of bridge/culverts are insufficient, should be increased. -Demanded to construct CDSP site office at Kaladur Bazar (land available). - Local people demanded to develop Kaladur bazar as growth centre.
5	10.05.2011	Urir Char	Janata Bazar	<ul style="list-style-type: none"> - They demanded to start khas land distribution process soon. - They requested to start construction works of Noakhali-Urir Char cross dam Immediately. -Local people demanded to establish a High School, clinic and they demanded to construct UP complex at Janata Bazar. -Local people gave their commitment to extend all source of cooperation to the CDSP officials. -Women will participate in all development interventions.
6	10.05.2011	Urir Char	Colony Bazar	<ul style="list-style-type: none"> -They demanded to start khas re-excavation, one cyclone shelter at colony Bazar, ghats, and some killas and growth centre at Colony Bazar. -They demanded for cross dam between Nokahlai and Urir char -They demanded one MBBS Doctor at Urir Char for health services

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SL	Date	Name of the Char	Location/Venue	Findings/ Recommendations
				-They appreciated the proposal of CDSP-IV and RFLDC jointly at Urir Char -One CDSP site office rented at Urir Char that day.
7	11.05.2011	Noler Char	Saddam Bazar	-Embankment should be constructed first -Health Clinic should be constructed. -CDSP site office may be established at Saddam Bazar. -Local people gave their commitment extending all source of cooperation to the CDSP concern.
8	11.05.2011	Noler Char	Thanar Hat Bazar	-PTPS will be started soon. -Mamur khal to be re-excavated for drainage improvement -Thanar har bazaar to be developed under CDSP-IV. -Bridge/Culvert should be constructed in the Thnarhat-Champa ghat road in the first year. -Families already received land at Boyer Char will not get at Noler Char.
9 and 10	16.05.2011	Caring Char	Batankhali Bazar	-The TA team and implementing agencies staff members were present. -All proposed plans and future activities were informed to the participants -Interventions on livelihood through NGOs and other agencies were presented and they agreed -Land settlement process was elaborated. -Local people, police officials gave their commitment on extending support to CDSP-IV concerned. -Male participants shown their interest to involve women in all development activities -About 700 male and female attended the meeting. -Meeting no 10 was planned at Caring Char in Majib Bazar. This meeting however could not be held due to the security situation. Hence the people of Majib Bazar attended to the meeting at Batankhali Bazar.