Char Development and Settlement Project CDSP B (AF) Bangladesh





Evidence Based Lesson Learned and Good Practices across CDSP Phases

> (LRP 1977-1991) (CDSP Phases 1994-2022)



July 2022



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)
- Forest Department (FD) and NGOs



Table of Contents

Preface Abbreviations Acknowledgements **Executive Summary** 1. Introduction 2. Evolution of CDSP 2.1 Land Reclamation Project (LRP) (1978-1991) 2.1.1 Ownership of land 2.1.2 Implementing agencies (GOB and NGO) in LRP 2.1.3 Key lessons learned from LRP 2.2 CDSP Objectives 2.3 CDSP Management 2.4 Formal coordination mechanisms in CDSP 2.5 Supportive Partner NGOs 2.5 Alignment with Country Policies 3. CDSP Monitoring Evaluation and knowledge Management Framework **3.1 Assessment of Impact Framework** 3.2 Knowledge Management 4. CDSP's major interventions, achievements and lesson learned 4.1 Polder Development in Coastal Chars 4.2 Establishing Cluster village (CV), DTWs 4.3 Recognition of CDSP 4.3.1 National Award for Tree Plantation 2016 and 2018 4.3.2 IFAD Gender Award for Asia and the Pacific Region 2017 4.3.3 British Expertise International Awards 2018 4.4 Feasibility studies for CDSP's next phase 4.5.1 CDSP-I Key interventions and achievements 4.5.2 CDSP-I Key Lessons Learned 4.6.1 CDSP-II Key interventions, achievements 4.6.2 CDSP-II Key Lessons Learned 4.7.1 CDSP-III Key interventions, achievements 4.7.2 CDSP-III Key lessons learned 4.8.1 CDSP-IV Key interventions, achievements 4.8.2 CDSP-IV Key lessons learned 4.9 Inception of CDSP-B(AF) 5. Examples of best practices in place of CDSP Phases I to IV 5.1 Sorjon - an innovation for maximizing farm income on poorly drained saline coastal land 5.2 Vermi-composting Enriches Unfertile and Saline Soil of newly accreted Coastal Char Land 5.3 Land Titling Becomes the Means of Secured Settlement and Livelihoods for Char Dwellers 5.4 Non-farm IGA products-Caps/Ropes produced by char women earning foreign currencies 5.4.1 Cap Sewing- an export oriented non-farm IGA product by char dwelling women 5.4.2 Rope making-an export oriented IGA and environment friendly product by char women 5.5 Examples of best practices in implementation of CDSP 5.5.1 Harmonized project implementation model (GO-NGO agencies) 5.5.2 Land titling (permanent deed document) 5.5.3 Participation of women in field level institution (FLIs)

5.5.4 Formation of Labour Contracting Society (LCS) who get direct works contract without tender

5.5.5 Formation of Social Forestry Group (SFG) for post-harvest tree sharing agreement

Preface

This report on evidence based lessons learned and good practices across CDSP Phases has been written as a follow up step of recommendation and agreed actions of IFAD Supervision Mission 2021 fielded for the Char Development and Settlement Project-CDSP B(AF). SM's recommendation was to write lessons learned and good practices identified during implementations of different interventions under project components of the development projects: Land Reclamation Project (LRP) and 5-project phases of CDSP Phases I-IV including current CDSP B(AF).

This report combines and summarises all efforts and initiatives in the light of lessons learned and best practices followed by project beneficiaries. This report documents how specific interventions have been very useful and are contributing to bring positive changes in livelihoods and life styles in a sustainable manner.

The innovative approaches and techniques have been applied and promoted to the project beneficiaries with full technical and specialized support by both GoB and NGO implementing agencies and grant supported technical assistance.

The author is very thankful to all those who have helped by providing relevant information.

Kiran Sankar Sarker, Monitoring and Evaluation and Knowledge Management Adviser, CDSP B (AF) Email: <u>kiran.sankar.sarker@gmail.com</u>

Abbreviations and Glossary

ADP	Annual Development Plan
AE	Assistant Engineer
Aman	Monsoon season rice
AWPB	Annual Work Plan and Budget
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
CEGIS	Centre for Environment and Geographical Information Services
CTA	Chief Technical Adviser
DAE	Department of Agriculture Extension
DDP	Delta Development Project
DES	Directorate Estuarine Survey
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
EDP	Estuary Development Programme
ESPP	Estuary Studies and Pilot Project
FE	Field Engineer
FF	Farmers Forum
FO	Field Officer
GMC	Group Management Committee
HBB	Herring Bone Brick
ICZM	Integrated Coastal Zone Management
IFAD	International Fund for Agricultural Development
IMED	Implementation Monitoring and Evaluation Division
IRRI	International Rice Research Institute
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
LADC	Local Area Development Committee
LCS	Landless Contracting Society
LGED	Local Government Engineering Department
LGLD	Local Government Institution
Madrassa	Religious school
MES	Meghna Estuary Study
MIDPCR	Market Infrastructure Development Project in Charland Regions
MoL	Ministry of Land
Mouza	Small geographical unit
NGO	Non Government Organization
PA	Project Agriculturist
PA PC	
rt	Project Coordinator

PCD	Project Coordinating Director
PD	Project Director
PIM	Project Implementation Manual
PPD	Pilot Polder Division
PMC	Project Management Committee
PP	Project Proforma
PSF	Pond with Sand Filter
РТО	Project Technical Officer
PTPS	Plot To Plot Survey
PWD	Public Works Datum (local topographical level)
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
RRMAIDP	Rural Roads and Market Access Infrastructure Development Project
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
ТА	Technical Assistance
TBA	Traditional Birth Attendant
TL	Team Leader
ТоТ	Training of Trainers
TUG	Tube Well User Group
UP	Union Parishad
Upazila	Sub-district
WAPDA	Water and Power Development Authority
WBM	Water Based Macadam
WMA	Water Management Association
WMF	Water Management Federation
WMG	Water Management Group
WMO	Water Management Organization

Conversions:

Weights and measures

1 decimal (dec)	$= 40.5 \text{ m}^2 = 0.01 \text{ acres}$
1 acre (ac)	= 0.405 ha $= 100$ decimals
1 hectare (ha)	= 2.47 acres = 247 decimals
1 bigha	$= 1,350 \text{ m}^2 = 33 \text{ decimals}$
1 maund	= 40 kg

Executive Summary

Lessons learned are the documented information that reflects both the positive and negative experiences of a project/program. Such documented lessons learned provide future project teams with information that can increase effectiveness and efficiency. Hence, lessons learned play a vital role in the success of a project/program. This document describes how lessons learned from monitoring and evaluation have influenced the design/decisions concerning a specific project – the Char Development and Settlement Project (CDSP 1994-2018) which has been jointly funded by the Governments of Bangladesh and the Netherlands since 1994. Later on the International Fund for Agricultural Development (IFAD) cooperated with credit funds for phase IV of CDSP in 2011 and continued with additional funding for the CDSP B (AF) project. The Char Development and Settlement Project is a unique and successful integrated project in design, supervision, monitoring, and implementation its programs/interventions and achieved objectives.

The second chapter describes the pre-project status. The Ganges-Brahmaputra-Meghna delta contains newly emerged '*char*' islands resulting from the deposition of sediment. These mighty rivers flowing into the Bay of Bengal are continuously changing. Satellite pictures show that each year about 52 km² of newly formed land accretes, and about 32 km² erodes from the coasts. Hence, the result is a net 20 km²/year deposition of sediments. The newly accreted coastal land belongs to the Ministry of Land, Government of Bangladesh.

The Government of Bangladesh tends to bring coastal chars under productive human settlement with the goal of a better economic situation for char dwellers. To reduce the social, institutional and environmental vulnerability faced in char areas, development interventions were necessary to provide a sense of security at different levels and to unleash the development potential that the chars offer (Wilde, 2000).

Land Reclamation Project (LRP) was the first project related to reclamation of land and redistributing land to the landless. The LRP was initiated in 1978 along with the EIP¹ and DDP² funded by the Dutch; evolving in parallel with these two projects and implemented by the BWDB. LRP was based on two development parts: (i) The water based part consisted of studying the estuary and possibilities for future development and (ii) the land based development part consisted of the Char Bagger Dona I polder.

After several project extensions, LRP terminated in 1991. The appraisal mission concluded that Char Development would be better served if the LRP was split into two separate projects: (i) one project for surveys and studies (water-based) and (ii) the other for land development (land based).

Key lessons learned from LRP were (i) a joint approach involving relevant Ministries and NGOs was essential, (ii) continued survey and study of coastal morphology (trends of accretion and erosion) was also essential (but outside the scope of the future CDSP) and (iii) a systematic and transparent system of land allocation, including land rights for women was critical and could best be achieved through full involvement of the Ministry of Land.

In order to continue both planning and land development activities, the LRP was then split into two separate projects: (i) the Meghna Estuary Study (MES), for water-based surveys and trials, and (ii) the Char Development and Settlement Project (CDSP-I), a land-based rural development project with the aim 'to bring about an improvement in the economic situation and in the living conditions of the coastal chars'

The first three phases of CDSP I-III were implemented solely with grant support from the Government of the Netherlands and the Government of Bangladesh. In the fourth phase of CDSP, the International Fund for Agriculture Development (IFAD) came forward with credit support for the Government of Bangladesh.

¹ EIP-Early Implementation Projects of BWDB.

² Delta Development Project of BWDB.

Having a gap of 12 months, the current CDSP B (AF) project was initiated on 1st July 2019 for a period of three years, later extended and will be completed by 30 June 2024. The command area included areas of CDSP I to CDSP IV including some additional chars (i.e. Dhal Char, Char Kolatoli, Char Mozammel and Char Maksumul Hakim) of future CDSP V.

The Partner NGOs have participated with a role in implementing CDSP's social and livelihood support component. BRAC was selected as Lead PNGOs in CDSP-I and CDSP-II, but in other phases all PNGOs had equal roles and were supervised by the TA team of CDSP. Table-1 shows the participation of each PNGO in their respective CDSP phases.

CDSP become a multi-disciplinary and multi-agency development effort, undertaking a set of different interventions within the same geographical area in the timeframe of its phases. The administrative basis is an umbrella Development Project Proforma (DPP) of BWDB, with separate DPPs for the participating GoB agencies. This common planning and coordinated implementation, but with each agency doing what it is best at and each agency with its own money flow, is now recognized as being a "best practice" method of implementing multi-sectoral programmes in Bangladesh.

In CDSP each of the GoB agencies has its own government project document (Development Project Proforma – DPP), Project Director and project implementation unit (placed within their existing offices in Noakhali district). The head of administration for Noakhali district, the Deputy Commissioner (DC), was ex-officio Project Director of the land settlement component as land settlement and ownership falls under the jurisdiction of the DC at the district level.

CDSP has been very keen to keep compliance with country/national policies during implementation of its interventions and has thus been implemented by six GoB agencies and partner NGOs and supported by a TA team mobilized by the Government the Netherlands.

The third chapter is about a comprehensive Monitoring and Evaluation (M&E) and Knowledge Management (KM) system that has been in place having processes and systems designed to capture future information needs. Key elements in existing MEKM system include: (i) process monitoring, (ii) outcome monitoring, (iii) impact monitoring (baseline vs completion), (iv) lessons learned and evidence-based documentation, (vii) IFAD core indicator tracking (on outreach, outputs and outcomes chosen from IFAD 39 core indicators), (V) IATI standard reporting system and (ix) other surveys and studies.

During CDSP a significant effort was put into knowledge management (KM). With help from IFAD and support from TA short-term international consultants, a KM strategy was drawn up and implemented. This included establishing a project website (<u>www.cdsp.org.bd</u>) with useful information on the project and as a means of sharing documents on project results. A number of useful experiences were shared through "good practice" leaflets and lessons learned and videos were also produced.

The fourth chapter describes in brief all CDSP Phases' major interventions, achievements and lessons learned. It includes a couple of national and international award winning events which were a source of prides for all connected with CDSP. This chapter concludes by mentioning the inception of CDSP's new phase name CDSP B (AF) which has been launched in July 2019 for a period of five years up to June 2022.

Chapter five briefly describes several examples of evidence-based best practice cases identified during CDSP Phases I to IV. Such successful and sustainable good practices could not be possible if and only project key intervention of land settlement on reclaimed lands are not in place for the project beneficiaries.

1. Introduction

Lessons learned are the documented information that reflects both the positive and negative experiences of a project/program. Such documented lessons learned provide future project teams with information that can increase effectiveness and efficiency. Lessons learned play a vital role in success of a project/program. This document describes how lessons learned from monitoring and evaluation have influenced the design/decisions concerning a specific project like the Char Development and Settlement Project (CDSP 1994-2018) which has been jointly funded by the Governments of Bangladesh and the Netherlands since 1994. Later on the International Fund for Agricultural Development (IFAD) cooperated with credit funds for phase IV of CDSP in 2011 and continued with additional funding for the CDSP B(AF) project. The Char Development and Settlement Project is a unique successful integrated project in design, supervision, monitoring, and implementation of its programs/interventions and achieved objectives.

2. Evolution of CDSP

Pre-project status: The Ganges-Brahmaputra-Meghna delta has newly emerged 'char' islands resulting from the deposition of sediment. These mighty rivers flow into the Bay of Bengal and are continuously changing. Satellite pictures show that each year about 52 km² of newly formed land accretes, and about 32 km² erodes from the coasts. Hence, the result is a net 20 km²/year deposition of sediments carried by the mighty rivers-the Padma (Ganges), the Meghna and the Jamuna (Brahmaputra) from the Himalaya during their journey to the Bay-of-Bengal.

By the law the newly accreted coastal land belongs to the Ministry of Land, Government of Bangladesh under the title '*khas*' land. Institutionally the new char lands are virgin territory where service deliveries of government agencies are rarely present. Living conditions on the chars are harsh, the land is completely inaccessible and can only be reached by boat and on foot. The people living there are exposed to nature and the land is flooded on a regular basis. There is no safe drinking water, any kind of health services and sanitation, no agriculture inputs, no education, no social structure. As a result coastal chars are reigned over by so-called '*jotdars*' and '*bahinis*'/*'mastans*' the local power holders who extract money for temporary protection from the poor char dwellers illegally.

The Government of Bangladesh tends to bring coastal chars under productive human settlement with the goal of a better economic situation for the char dwellers. To reduce the social, institutional and environmental vulnerability faced in char areas, development interventions were necessary to provide a sense of security at different levels and to unleash the development potential that the chars offer (Wilde, 2000).

2.1 Land Reclamation Project (LRP) (1978-1991)

Land Reclamation Project (LRP) was the first project related to the reclamation of land and redistributing land to the landless. The LRP was initiated in 1978 along with the EIP³ and DDP⁴ funded by the Dutch, evolving in parallel with these two projects and implemented by the BWDB. LRP was based on two development parts: (i) The water based part consisted of studying the estuary and possibilities for future development and (ii) the land based development part consisted of development of Char Bagger Dona-I.

The objectives⁵ of the project were formulated as follows:

³ EIP-Early Implementation Projects of BWDB.

⁴ DDP-Delta Development Project of BWDB.

⁵ p 12, Experiences of the Char Development and Settlement Project, Technical report No. 7, CDSP III)

- To set up an organization within BWDB to carry out surveys and studies in order to develop a long term policy for land accretion works in the southern delta of Bangladesh.
- To try out various methods to accelerate the accretion of land in order to define those methods that are possible.
- To implement experimental schemes with the purpose of promoting a faster and more effective use of newly gained lands, so that food production can increase and conditions made viable for poor farmers.

In LRP work on the feasibility study on the Sandwip-Noakhali Cross-Dam was divided into two phases:

- The first phase consists largely of collection of data in geo-technical, hydrographic and socioeconomic surveys.
- The second, the knowledge gained in the survey phase was to be translated into planning and predesign in order to determine the feasibility of the scheme.

The LRP was based on the creation of chars and the idea of reclaiming this 'new land' from the sea and using it for settling people. The main target was to redistribute this land to landless people and by so doing, enhance socio-economic uplift though land accretion oriented works and infrastructural development works of char lands. The concepts of Target Group, Landless Contracting Society and Embankment Maintenance Groups were evolving also in the LRP.

To develop a suitable for the development of new land, a Pilot Polder was established at Char Bagar Dona, including a 40 ha agricultural research plot.



2.1.1 Ownership of land

Re-distribution of newly accreted char land by LRP started in 1985 in the Char Bagar Dona polder known as CBD-I. A total of 895 families from 30 cooperative society have been given 2.5 acres of *khas* land (2.00 acres for cultivation and 0.50 acre for homestead, pond, kitchen garden) per family. They were housed in 30 cluster village communities, one for each cooperative and settled on the banks of 30 ponds. Land *kobiliot* (a form of collective *khatians/jot khatians*) was registered in favour of each president and secretary of each cooperative for a period of 15 years. *Jot khatian* has been done due to temporary settlement. During CDSP II and CDSP III, these collective *khatians* were split up and re-distributed among 913 members. (Source: p. 13, Impact of the Char Development and Settlement Projects I, II and III, Technical report No. 7, CDSP III).

2.1.2 Implementing agencies (GoB and NGO) in LRP

The LRP was successfully implemented by two GoB implementing agencies, these were:

- Bangladesh Water Development Board (BWDB), Ministry of Water Resources: responsible for construction and maintenance of all water management related infrastructures as embankments, sea dykes, irrigation inlets, drainage canals/khals and culverts.
- Ministry of Land (MOL): responsible for all activities related to the process of land settlement and for the strengthening of land settlement bureaucracy.

Pilot Polder Division (PPD) engaged a team of consultants to carry out research and extension work in various fields including agriculture (field crops and home gardening), aquaculture, livestock, health, education and credit. A national NGO named 'Nijera Kori' was engaged under a separate contract for social mobilization, group development and training of new shelters.

After several project extensions, LRP terminated in 1991. The appraisal mission concluded that:

- Char Development would be better served if the LRP was split into two separate projects: one project for surveys and studies (water-based) and one for land development (land based).
- The development activities executed in the pilot polder should be brought under the appropriate government agencies.
- After more than ten years testing land development approaches, the new land based project should evolve from its pilot stage to a project directed at developing new areas. Consequently, the LRP was concluded and two separate projects were formulated: the Char Development and Settlement Project (land based) and the Meghna Estuary Survey (water based). Both the projects started in 1994.

(Source: p. 13, Impact of the Char Development and Settlement Projects I, II and III, Technical report No. 7, CDSP III).

2.1.3 Key lessons learned from LRP were (i) a joint approach involving relevant Ministries and NGOs was essential, (ii) continued survey and study of coastal morphology (trends of accretion and erosion) was also essential (but outside the scope of the future CDSP) and (iii) a systematic and transparent system of land allocation, including land rights for women was critical and could best be achieved through full involvement of the Ministry of Land.

The lessons learned and experiences of LRP gained during a decade and a half intervention period of surveys and trials of land accretion to the development of new land, concluded and shifted the main focus of surveys and studies. In order to continue both planning and land development activities, the LRP was then split into two separate projects: (i) the Meghna Estuary Study (MES), for water-based surveys and trials, and (ii) the Char Development and Settlement Project (CDSP-I), a land-based rural development project.

2.2 CDSP Objectives

The long-term development objective of CDSP is defined as: 'To bring about an improvement in the economic situation and in the living conditions of the coastal chars' and the project objectives are:

- Promotion of an institutional environment to sustain CDSP and similar interventions.
- Accumulation and dissemination of data and knowledge on the coastal areas.
- Direct improvement of the economic and social situation of people in a number of coastal *char* areas in a sustainable way.

The first three phases CDSP I-III were implemented solely with grant support from the Government of the Netherlands and the Government of Bangladesh. In the fourth phase of CDSP, the International Fund for Agriculture Development (IFAD) came forward with credit support for the Government of Bangladesh.

Having a gap of 12 months, the current CDSP B(AF) project was initiated on 1st July 2019 for a period of three years and should be completed by 30th June 2024. The command area included areas of CDSP I to CDSP IV including some other chars (i.e. Dhal Char, Char Kolatoli, Char Mozammel and Char Maksumul Hakim) of a future CDSP V.

The PNGOs have participated in their role as implementer in CDSP's social and livelihood support component. BRAC was selected as Lead PNGO in CDSP-I and CDSP-II, but in other phases all PNGOs had equal roles and were supervised by the TA team of CDSP. Table-1 shows the participation of each PNGO in respective CDSP phases.

Implementing	CDSP	CDSP	CDSP	CDSP	CDSP	Key Responsibilities	
Agencies	1	П	III	IV	B(AF)		
GoB Agencies							
BWDB	\checkmark		\checkmark			Construction of water control	
(as Lead)						structures etc.	
MoL						Land titling and settlement of land	
LGED						Development of rural infrastructure	
DPHE		\checkmark		\checkmark		Water supply (DTWs)	
						and sanitation	
DAE						Agricultural extension services	
FD						Establishment of shelter belts	
PNGOS							
BRAC						Social and livelihood development	
SSUS						(i.e. micro credit and group	
DUS						development, water and sanitation,	
SDI						poultry & livestock, fisheries, legal &	
N-RAS						human rights, climate change &	
Upoma						disaster management, health and	
YPSA						family planning and homestead &	
HASI						value chain development.)	
Note:							
 In CDSF 	In CDSP-I there were 5 GoB agencies who were associated implementing partners:						
Department of Agricultural Extension, Ministry of Health, Ministry of Education,							
Department of Fisheries and Department of Livestock Services.							
Departm							

Table-1: CDSP implementing agencies (GoB and PNGOs)

BRAC acted as lead agency in CDSP-II and CDSP-III.

• CDSP B(AF) has recruited PNGOS under the LGED component.

2.3 CDSP Management

CDSP has become a multi-disciplinary and multi-agency development effort, undertaking a set of different interventions within the same geographical area in the timeframe of its phases. The administrative basis is an umbrella Development Project Proforma (DPP) of BWDB, with separate DPPs for the participating GoB agencies. This common planning and coordinated implementation, but with each agency doing what it is best at and each agency with its own money flow, is now recognized by many of being a "best practice" method of implementing multi-sectoral programmes in Bangladesh.

In CDSP, each of the GoB agencies has its own government project document (Development Project Proforma – DPP), Project Director and project implementation unit (placed within their existing offices in Noakhali district). The head of administration for Noakhali district, the Deputy Commissioner (DC), was ex-officio Project Director of the land settlement component as land settlement and ownership falls under the jurisdiction of the DC at the district level.

2.4 Formal coordination mechanisms in CDSP

There are two formalized forms of coordination: (i) an inter-ministerial steering committee (IMSC) at national level meeting every six months, chaired by the Secretary of the Ministry of Water Resources (MOWR). It has as members representatives of the parent Ministries of the six participating agencies. A representative of EKN and IFAD are member/observers of the IMSC. The Team Leader of CDSP TA team was invited as observer as well, and (ii) a Project Management Committee (PMC), chaired by the Project Coordinating Director (PCD) of the BWDB component with the Project Directors for each sub-component as members; the TA Team Leader was a member of the PMC. The TA Team have also contracted and managed partner NGOs (PNGO) implementing the Social and Livelihood Support sub-component.

The activities of each IA and the PNGOs for each year was set out in a single Annual Work Plan and Budget (AWPB). The AWPB was drawn up by each IA, coordinated by the TA team and approved by the PMC. Physical construction works were procured and implemented by each IA, along with other activities such as training, with the TA team providing quality control and monitoring progress. The PNGOs implemented the social and livelihood support sub-component, supervised by NGO specialists in the TA team, with microfinance funds coming from their own resources and from the savings of group members. The TA team also provided a limited amount of specialized training, carried out a number of studies, including outcome and impact surveys and feasibility studies for the development of new *chars* in the next phase of CDSP. This work of the TA team was approved in advance by the PMC.

2.5 Supportive Partner NGOs: The integration in CDSP went further than only the government agencies. In the coordination mechanisms NGOs were also represented by an NGO programme having 5-8 subcomponents not included by Government agencies. These sub-components were; microcredit and capacity development, water and sanitation, poultry and livestock, fisheries, legal and human rights, climate change and disaster management, health and family planning and homestead and value chain development.

This holistic approach in CDSP with interventions across a wide range of different sectors is a model for the development of coastal communities to avoid the future risk of climate change. The Government of Bangladesh is now trying to replicate this model in other char areas to help the coastal communities to adapt to the changing climate.

2.5 Alignment with Country Policies (Ref: CDSP book; *New Land New Life* p.20)

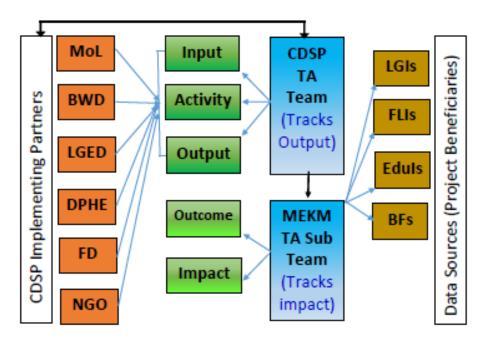
CDSP has been very keen to maintain compliance with country/national policies during implementation of its interventions. Therefore CDSP is very well aligned with MDGs, SDGs, and several important government policies as follows:

- The Coastal Development Strategy (2006); including Integrated Coastal Zone Management.
- National Strategy for Accelerated Poverty Reduction 2009-11
- Bangladesh Delta Plan 2100
- Agricultural Khas Land Management and Settlement Policy 1997 (including 1998 amendment)
- Social Forestry Rules 2004 (amended in 2010 and 2011)
- Guidelines for Participatory Water Management (2001) followed by GPWM rule 2014
- New National Agricultural Extension Policy 1996
- National Agriculture Extension policy 2012

3. CDSP Monitoring Evaluation and knowledge Management Framework

CDSP has been implemented by six GoB agency and partner NGOs and supported by a TA team mobilized by the Government the Netherlands. A comprehensive M&E system is in place having processes and systems designed to capture future information needs. M&E system is to:

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



CDSP Monitoring Evaluation and Knowledge Management Framework

Notes: LGIs -> Local Government Institutes, FLIs -> Field Level Institutes, Eduis -- Educational Institutes BFs: Direct project beneficiaries who are receiving goods and services from CDSP

Figure-1: CDSP M&E Management Framework

Key elements in the existing MEKM system include: (i) process monitoring, (ii) outcome monitoring, (iii) impact monitoring (baseline vs completion), (iv) lessons learned and evidence-based documentation, (vii) IFAD core indicator tracking (on outreach, outputs and outcomes chosen from IFAD 39 core indicators), (V) IATI standard reporting system and (ix) other surveys and studies.

3.1 Assessment of Impact Framework: CDSP development initiatives have resulted in many changes and impacts in the lives of poor char dwellers. MEKM unit has used the Robert Chambers' fundamental concept of five livelihood capitals for assessing impacts on CDSP households. (For more details refer to Technical Report 13, CDSP IV).



Figure-2: Five Capitals of Sustainable Livelihood

3.2 Knowledge Management: During CDSP a significant effort was put into a knowledge management (KM). With help from IFAD and support from TA short-term international consultants, a KM strategy was drawn up and implemented. This included establishing a project website (<u>www.cdsp.org.bd</u>) with useful information on the project and as a means of sharing documents on project results. A number of useful experiences were shared through "good practice" leaflets and lessons learned and videos were also produced.

4. CDSP's major interventions, achievements and lessons learned

4.1 Polder Development in Coastal Chars

During the life cycle (1994-20200) of CDSP several coastal chars/and low-lying waterlogged areas were developed and brought into human settlement:

- 4 polders: CBD-1, CBD-II, Char Majid, and Char Bhatir Tek in Noakhali district during LRP and CDSP-I (1994-1999).
- 7 areas including 5 non-polder areas in Noakhali, Laksmipur, Feni and Chittagong during CDSP-II (1999-2005).
- 2 areas in Noakhali and Laksmipur districts during CDSP-III (2005-2011)
- 5 chars (Char Nangulia, Noler Char, Caring Char, Urir Char and Char Ziauddin) during CDSP-IV.
- All command areas of CDSP-I to IV including 3 new chars: Char Maksumul Hakim, Char Kolatoli Dal Char and Char Mozammel under proposed CDSP-V during CDSP-B (AF) (2019-2022). (Ref: New Land, New Life: A Success Story of new land resettlement in Bangladesh).

The most common interventions across all phases of CDSP were-land titling and feasibility studies where land titling secured settlement about 45,825 acres (18,330 ha) to 35,251 poor landless char dwelling households.

	Land Settlement	Total Benefited
CDSP Phases	(Acres)	(Families)
CDSP I (1994-2000)	5,842	4,494
CDSP II (2000-2005)	10,188	7,837
CDSP III (2005-2011)	10,820	8,323
CDSP IV(2011-2018)	17,560	13,508
CDSP B(AF) (2019-2022)*	1,415	1,089
Total	45,825	35,251

Table-3: Land Settlement Achievement across CDSP Phases

Source: p. 22, CDSP B (AF) DPP of MoL. * so far in CDSP-B

4.2 Establishing Cluster Village (CV), DTWs, hygienic latrines as means of settlement in coastal chars

Establishing cluster village (CV), DTWs and hygienic latrines were also common interventions as a great means to rehabilitate and provide settlement to the landless poor rural population. This can be more appropriate for coastal char dwellers, encouraging to live socially where governmental institutional arrangements and services were really scarce.

During CDSP Phases (I to IV), 108 cluster villages, 2,660 DTWs and 41,518 hygienic latrines have been provided to coastal char dwellers. As a result, their living conditions have improved significantly. They have now access to safe drinking water and hygienic latrines. Incidence of water-borne diseases has reduced.

Table-4: DTWs, Hygienic latrines and cluster village during CDSP Phases

Infrastructure	CDSP I	CDSP II	CDSP III	CDSP IV	Phase Totals
DTWs (No.)	-	561	600	1,475	2,636
Test tubewell	-	-	18	6	24
Hygienic latrines (No.)	4,000	3,379	8,500	25,639	41,518
Cluster Villages (No.)	34	51	21	2	108

4.3 Recognition of CDSP

It is very encouraging for members of the project team: Government officers, and staff, NGO workers and the Technical Assistance Team, with their colleagues in Government Ministries, in the International Fund for Agricultural Development and Embassy of the Kingdom of the Netherlands and, of course, the project beneficiaries and participants to have special recognition for project's successes and achievements, as follows.

4.3.1 National Award for Tree Plantation 2016 and 2018

The Government of Bangladesh has awarded the National Tree Plantation Award twice - Award 2016 and Award 2018, presented by the Honorable Prime Minister Sheikh Hasina, to the Forest Department, Implementing partner of CDSP IV, in recognition of the very successful plantations. The Forest Department is one of the six government implementing agencies involved and is establishing settlements to protect the coastal chars from storms and cyclones. During 2011 to 2017, the Forest Department has successfully established 7,400 ha of mangrove plantation, 200 ha of foreshore plantations and more than 260 km of roadside plantations, 80 km of plantations have also been established along drainage channels.



4.3.2 IFAD Gender Award for Asia and the Pacific Region 2017

In recognition of the Gender Equality in Land Settlement to landless families, the Char Development and Settlement Project IV has been awarded the IFAD Award for Asia and the Pacific Region for 2017.

Land titles are granted in the joint names of husband and wife, with the wife's name coming first on the title deed. This is exceptional in the context of Bangladesh, where women are generally excluded from ownership of land. This often puts them in an extremely vulnerable, dependent, and disadvantaged position.

Receiving an official title to land has far-reaching positive consequences. For example, divorce rates, polygamy and violence against women have significantly decreased. Furthermore, women's social status has increased as a result of their land ownership and they now enjoy somewhat more influence in the home.

The practice of having the women's name first has now followed in other places in Noakhali district.





4.3.3 British Expertise International Awards 2018

CDSP IV has been awarded another international recognition "International Positive Social Impact Award 2018". The award has been received by Euroconsult Mott MacDonald from British Expertise International.

4.4 Feasibility studies for CDSP's next phase

The feasibility studies have been done in the final year of each CDSP phase so that continuation of next phases could be started without any gap between phases. This was a unique good practice of CDSP which has been maintained across all phases of CDSP I-IV.

4.5.1 CDSP-I Key interventions and achievements

During CDSP-I project period a total of 3,584 ha of land was developed as cultivable land from a gross area of 44,410 ha land recovered. Quiet a good number of infrastructures like 34 cluster villages, 25 km of embankment, 100 km of drainage canals (khals), 2 water control sluices, 17 cyclone shelters, 62 km rural roads, 15 km paved roads, 49 drainage culverts and bridges, 4,000 hygienic latrines were developed. As a result a total of 47,069 char dwellers from 7, 389 households were benefited. (For details refer to Table-5).

Table-5: Development of	of Char Areas and	Benefited Po	pulation in CDSP-I
-------------------------	-------------------	--------------	--------------------

CDSP Phases	Name of Char	Gross Area (hectare)	Net Cultivable Area (hectare)		Population Benefited
CDSP I	Polder CBD II	2,065	1,440	2,367	15,077
	Char Majid Polder	1,320	924	2,440	15,541
	Char Bhatirtek polder	1,748	1,220	2,583	16,451
	Total	5,133	3,584	7,389	47,069

Source: pp.11, Inception Report CDSP B (AF), September 2019

4.5.2 CDSP-I Key Lessons Learned

In LRP and CDSP I, many sectors were included in the projects. The experience of CDSP was that:

- This type of project could better focus on a few core sectors, rather than try to cover all. Core sectors were considered to be: land settlement, physical infrastructure including water and sanitation and the productive sector.
- Char development under LRP and CDSP I was identical with polder development, while chars are already inhabited long before polder development can take place. Attention to these unprotected char areas should therefore be considered as an integrated part of char development. Any physical intervention in char areas has influence upon the upstream and downstream areas; a more regional (catchments area) approach for future development of char areas is therefore considered important.

Designing next phase of CDSP: In design of CDSP-II the sectors land settlement (of MoL), physical infrastructure including water and sanitation (of BWDB, LGED and DPHE) and productive sector (of DAE) were included in compliance with the lessons learned stated above.

4.6.1 CDSP-II Key interventions, achievements

During CDSP-II project period a total of **16,366** ha of land was developed as cultivable land from a gross area of 23,719 ha land recovered. Quiet a good number of infrastructures like 4 land offices, 7 WMG Centres, 51 cluster villages, 37 km of embankment, 165 km of drainage canals (khals), 13 water control sluices, 25 cyclone shelters, 245 km rural roads, 15 km paved roads, 109 drainage culverts and bridges, 3,379 hygienic latrines were developed. As a result a total of 179,992 char dwellers from 28,256 households were benefited. (For more details refer to Table-6).

Development of ICZM Framework: CDSP-II contributed to the development of the ICZM framework through participation in the ICZM forums. The ICZM context in CDSP is reflected in the project objectives and in the incorporation of the 'ICZM building blocks': (i) study on fresh water storage, (ii) study on coastal agriculture, (iii) the local level planning pilot.

CDSP	Name of Char	Gross Area	Net Cultivable	Households	Population
Phases		(Hectare)	Area (Hectare)	Benefited	Benefited
CDSP II	South Hatiya polder	2,759	1,904	3,332	21,223
	Moradona	1,793	1,237	2,989	19,043
	Gangchil Torabali	743	513	333	2,123
	Char Lakshmi	944	651	1,036	6,600
	Polder 59/3B	3,486	2,405	3,872	24,662
	Polder 59/3C	12,825	8,849	14,786	94,189
	Nijumdwip Char Osman	519	358	822	5,236
	Nijumdwip Bandar Tila	650	449	1,086	6,916
	Total	23,719	16,366	28,256	179,992

Source: pp.11, Inception Report CDSP B (AF), September 2019

4.6.2 CDSP-II Key Lessons Learned

The CDSP II experience resulted in 'lessons learned' which were important for the formulation of the follow-up CDSP III project. The most important ones were:

- the multi-agency setting of CDSP appeared to be successful, which was rather unique in Bangladesh in the early nineties, but it appeared that the agency commitment could be enhanced if each had their own project Proforma/Development Project Proforma (DPP).
- Mainstreaming of char development in the national agencies at the various levels was considered a next step. A future project should therefore focus on the creation of a favourable institutional environment for char development rather than on project implementation.
 (Ref: Page 13, Experiences of the Char Development and Settlement Project II, Published by Royal Dutch Consulting Engineers and Architects and Sheltech consultants Pv. Ltd.)

Designing next phase of CDSP: In design of CDSP III lessons learned regarding multiagency setup with each agency's separate DPP was introduced.

4.7.1 CDSP III Key interventions, achievements

During the CDSP-III project period a total of **4,620** ha of land was developed as cultivable land from a gross area of 6.600 ha land recovered. Quiet a good number of infrastructures like 21 cluster villages, 100 community ponds, one channel closure, 22 km of embankment, 27 km of drainage canals (khals), 3 water control sluices, 22 cyclone shelters, 51 km rural roads, 13 km paved roads, 8,500 hygienic latrines and 600 DTW and 18 test tube-wells were developed. As a result a total of 65,000 char dwellers from 9,500 households were benefited. (For more details refer to Table-7).

CDSP Phases	Name of Char	Gross Area (Hectare)	Net Cultivable Area (Hectare)	Households Benefited	Population Benefited
CDSP III	Polder Boyer Char	6,600	4,620	9,500	65,000
	Total	6,600	4,620	9,500	65,000

 Table-7: Development of Char Areas and Benefited Population in CDSP III

During the CDSP-III period, another achievement was improvement of drainage congestion and salinity impact at upper Baggar Dona/Bhulua river by digging the Jarirdona shortcut channel serving about 60,000 ha in Noakhali and Lakshmipur Districts.

4.7.2 CDSP III Key lessons learned

The CDSP III experience resulted in changes to the situation, characteristics, approaches and strategies to consider for future programming in coastal char areas:

- **Poverty alleviation**: The provision of a land title to landless families formed the core of the efforts to reduce poverty levels in coastal char communities. This was followed by improvements in water management and agricultural practices, leading to higher farm incomes. In addition, general economic uplift of the project areas created employment opportunities.
- **Integration:** The integration approach is based on the premise that the social and economic situation in the chars, marked by a set of vulnerabilities, cannot be meaningfully improved by one

single intervention, nor by one government agency. CDSP is a multi-discipline and multi-agency development effort, undertaking a set of different interventions within the same geographical area in the timeframe of a project. The administrative basis is an umbrella Development Project Proforma (DPP), with separate DPPs for the participating agencies. NGOs were represented, because an NGO programme was implemented as well, in the same area and in the same period. CDSP is very much in line with the strategies of the Coastal Development Strategy, which is based on the principles of Integrated Coastal Zone Management (ICZM).

- **Participation**: Involvement of the settlers in the chars with planning and implementation of project activities has been given shape through the formation of community based, field level institutions such as the Water Management Organizations, Social Forestry Groups, Farmer Forums, Labour Contracting Societies and NGO microfinance groups.
- **Gender equality**: It has been a conscious strategy in the project to pursue that the consequences of interventions would as much as possible equally benefit men and women, and that both women and men would be involved in the participation in project planning and implementation. This is manifested in the project policy to set as a target a 50-50 male and female membership in field level institutions (FLIs).
- **Internalization**: As mentioned in section 1.1, consolidation of achievements of earlier phases, was one of the aims of CDSP III. Internalization was understood as incorporating concepts and experiences of CDSP I and II into the approaches and working methods of the participating government agencies. The aim was to make these agencies better prepared for future char development programmes. This has proven to be a difficult task, with limited but, at the same time, significant achievements. (Ref: pp. 1-2, CDSP III project Completion Report, September 2011.)

In design of CDSP IV the approaches like participation of field level institutions (FLIs), integration i.e. involving partner NGOs giving implementation responsibilities of social and livelihood support component were considered on a priority basis. The intervention of cluster village has been reduced due its earlier poor performance in CDSP I through III.

4.8.1 CDSP-IV Key interventions, achievements

During the CDSP-IV project period a total of **17,618** ha of land was developed as cultivable land from a gross area of **25,533** ha land recovered. Quiet a good number of infrastructures like 6 channel closures, WMG Centres, 21 km of embankment, 144 km of drainage canals (khals), 6 water control sluices, 39 cyclone shelters, 7 markets, 86 drainage culverts and bridges, 135 km rural roads, 153 km paved roads, 25,639 hygienic latrines and 1,475 DTWs, 6 test tube-wells, were developed. As a result, a total of 65,000 char dwellers from 9,500 households were benefited. (For more details refer to Table-8).

Key factors for success of CDSP IV have been close cooperation of the six GoB Implementing Agencies and four PNGOs, with coordination, technical and management support from a skilled and experienced TA team. The fact that the project is in its fourth phase means that the development approach is now well tested and known to all involved - both char dwellers and government officials. CDSP IV made some small changes that seem to have worked well – particularly in the way the PNGOs were contracted and managed.

CDSP Phases	Name of Char	Gross Area (hectare)	Net Cultivable Area (hectare)	Households Benefited	Population Benefited
CDSP IV	Polder Char Nangulia	8,530	5,970	15,133	89,167
	Polder Noler Char	2,560	1,790	6,152	36,297
	Caring Char	2,200	1,540	2,638	15,564
	Polder Char Ziauddin	1,943	1,360	2,380	14,042
	Urir Char	10,300	8,300	2,725	16,078
	Total	25,533	17,618	29,028	171,148

Table-8: Development of Char Areas and Benefited Population in CDSP IV

Source: pp.11, Inception Report CDSP B(AF), September 2019

4.8.2 CDSP-IV Key lessons learned

CDSP-IV project completion report documented the following key lessons learned:

- The current scope of CDSP IV activities is broad enough. As it is, health services and support for livestock, fisheries and forestry have had relatively little technical attention from IFAD missions.
- Future planning of char development needs to have the best possible forecasts of possible areas at risk to erosion.
- CDSP IV was a big investment per hectare of land developed and per household benefitted, but the economic and financial analysis shows that the returns have justified this investment.
- There were suggestions at PCR workshops that four additional government agencies should be included in future phases of CDSP to cover health, education, fish and livestock But, arguably CDSP is already over-complex, with six government implementing agencies plus NGOs, and its efforts suffer from being too diffused. Technical aspects of health services, livestock and aquaculture did not get much attention, and there were no specialists in these areas on IFAD supervision missions (nor were there any forest specialists).
- Cyclone shelters with polders have an enclosed ground floor. Primary schools often do not need all the ground floor rooms as well as the first floor, and there is potential for them to share shelters with other users. Spare rooms could be used as bases (office, meeting room, information centre) for WMG and other FLIs. (Source: pp.viii-ix, 52-57, Technical Report No. 20, CDSP IV PCR, April 2018.)

Designing next phase of CDSP IV: The approach followed by CDSP-B (AF) has in essence been modelled on the experiences gained during the implementation of the successive phases of CDSP. This approach is characterized by an emphasis on people's participation through the establishment and strengthening of Field Level Institutions (FLI) and effective coordination of the contributions of key service providers (both GoB institutions and NGOs) with the requirements of the FLI. Field Level Institutions that are facilitated by the Project include Water Management Organisations at different levels (WMG, WMA and WMF), Social Forestry Groups, Tube well User Groups, Farmers Forums, Labour Contracting Societies and Micro Credit & Savings Groups. In each of these groups a specific gender balance is assured. Key service providers include the five GoB Implementing Agencies of the Project (Bangladesh Water Development Board, Forest Department, Local Government Engineering Department, Department of Public Health Engineering, Ministry of Land), Local Government and NGOs, with BWDB acting as the Coordinating Agency.

4.9 Inception of CDSP-B(AF)

In July 2019 CDSP-B(AF) was launched with the following overall development objective of CDSP-B(AF) and specific objectives:

The overall development objective of CDSP-B(AF) 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.

A first specific objective of the Project will be to consolidate the achievements of the earlier CDSP phases I to IV. The Project will continue support for CDSP I, II, III, & IV areas with operation and maintenance activities and land settlement. Security for people and livelihoods has already been provided during these phases via climate resilient infrastructure and by providing poor households with legal title to land.

A second specific objective of the Project is the preparation of future investments in char development in the Southeastern delta.

5. Examples of best practices in place of CDSP Phases I to IV

Coastal char lands are newly accreted lands which are physically different from other parts of Bangladesh and where Government services are rarely present. These areas are low lying and consequently vulnerable to flooding and cyclones from the Bay of Bengal. Soils are high in salinity and low in organic materials. Poor landless peoples migrate here for settlement. By nature they have only options of agricultural work, fishing on the rivers and rearing of cattle. Due to lack of industry they have to stay many months of the year without work. CDSP has initiated a couple of Income Generating Activity programs that include both farm and non-farm IGAs like introduction of innovative agriculture technology, tailoring, cap sewing, handicrafts.

5.1 Sorjon – an innovation for maximizing farm income on poorly drained saline coastal land

Introduction: Sorjon is a system of integrated vegetable and fish production. In *sorjon*, vegetables are cultivated on ridges with fish in the ditches between these ridges. On Char Nangulia the ridges are mostly around one metre wide at the top and spaced two metres apart – although in places ridges and spacing can be wider than this. Ridges are about 60 to 90 cm high, which means crops are kept above the water, even during the wet season. The ditches between the ridges hold water for six to eight months per year and can be used to cultivate fish as well as being a source of water to irrigate the crops.

This section describes the ideal case of the system as adopted by farmers in Char Nangulia, and assesses the benefits that accrue to farm households.

Case study of 'sorjon' farmer (Mr. Shah Alam, Husband and Ms. Rehana, Wife)

Rehana Begum and her husband Shah Alam migrated from Bhola in 2015. Shah Alam used to farm leased land there, but his crop failed. He paid Tk 2,60,000 to get possession of this plot of 0.80 acre at Alamin samaj. The PTPS has now been done so they are hopeful of getting a *khatian* soon.



They have developed 0.70 acres, almost all their land, as sorjon. This cost Tk 40,000 in hired labour charges (20 men for 20 days) plus Shah Alam's own labour. He then spent Tk 20,000 on stakes and netting to support the crops and Tk 20,000 on crop inputs. This was funded via a loan from a moneylender on Bhola. Unusually, Rehana was not an NGO group member and but later she has joined in the NGO SDI.

Replication of 'sorjon' on farm practice across low-lying coastal chars









5.2 Vermi-composting Enriches Unfertile and Saline Soil of Newly Accreted Coastal Char Land

Introduction: Use of chemical fertilizers decreases nutritional quality of food and soil fertility over the years. It also impairs the power of 'biological resistance'. Organic wastes returned to the soil can maintain, enhance soil quality, fertility and productivity. Vermi-composting is a nutrient-rich fertilizer as well as a soil conditioner. It has been shown to increase plant growth and yield as well as suppressing key pests and diseases of horticultural plants in both the homestead and in field soils.

Initiative of CDSP: Char Development and Settlement Project (CDSP) has been working in newly accreted unproductive char lands having high percentage of salinity. Homestead vegetable production by char dwellers is being promoting through the Social Livelihood Support Component (SLS). In March 2014 the Project introduced vermicomposting plants in char areas through its four partner NGOs: BRAC, SSUS, DUS and SDI. The farmers have been given practical field demonstrations on 'how to produce vermicompost' with assistance of NGOs and supported by CDSP-IV. Farmers have well accepted the technology and are producing vermi-compost using their available organic wastes. Till 2017, a total of 1,487 sets of vermi-composting plants have been distributed to 1,487 farmers selected from 5 chars: Char Nangulia, Noler Char, Char Ziauddin, Caring char and Urir Char. The cost of each set was about Tk. 1,000. The distribution of 1,487 sets by PNGOs were: BRAC-717, SSUS-288, SDI-212 and DUS-270 sets.



Benefits with regard to plant nutrition and soil fertility: Char farmers are now quite knowledgeable by through practice that worm humus act as an "appetizer" for plants, increasing their capacity to absorb water and nutrients. Earthworm humus contains the essential nutrients of nitrogen (N 2-3%), phosphorus (P 1.5-2.25%) and potassium (K 1.85-2.25%) in much larger quantities than are present in the soil or in comparable compost. It improves soil health, can insulate plant roots' temperature, control weeds, reduce soil salinity and erosion. It accelerates root zone growth and protects plants against various pests and diseases and is a low cost and sustainable technology for organic farming. From a study of four cases, it was found that use of vermi-compost contributed up to 16% of household income.

Outcome and impact of vermi-compost intervention: Farmers experienced a faster rate of seed germination and rapid growth of seedlings and they are getting better production use of vermi-compost. Water holding capacity improves when vermi-compost is used repeatedly in crop fields. Use of vermi-compost significantly reduces growth of weeds (nearly 50%). There is less attack of pests and diseases due to use of vermi-compost and farmers getting 30% to 40% more production than before due to its use.

Replication of 'vermi-composting' non-farm practice across low-lying coastal chars



5.3 Land Titling Becomes the Means of Secured Settlement and Livelihoods for Char Dwellers

Land settlement has been an essential component of the CDSP project, right from the start of CDSP I in 1994. The ultimate aim of this component is to provide hitherto landless households with a title to the land in newly developed chars. Up to June 2018, CDSP has completed four phases and then on 1st July 2019, CDSP B (AF) began its journey aiming to be completed by June 2024. During CDSP phases I, II, III and IV a total 35,251 land titles (*khatians*) having 45,825 acres (18,330 ha) of Government *khas* land has been distributed (per family land has become 1.3 acres or 0.53 ha). According to Government policy, each land title/*khatian* is handed over to the landless family – husband and wife, each receiving 50% equal ownership ensuring the wife's name is written first. In case of windows/destitute women, 100% is in her name. This instance has secured the right of women and empowered them significantly. In 2017, IFAD's Gender Award 2017 has been given to CDSP for their achievement in regard to women's empowerment.





Providing a land title directly contributes to the main objective of CDSP: improving the livelihoods of settlers in coastal char areas. It considerably broadens the asset base of the households. The legal security that the document gives to the settlers really stimulates them to invest in their newly acquired land, which has a positive effect on the agricultural production. Being landowners, the social status of the households is enhanced and the self-confidence of the settlers is increased. During the CDSP IV period, a total of 28,239 individuals have borrowed USD 23 million from partner NGOs without any collateral. (Source: Technical Report 20, CDSP IV Project Completion Report). It is found from studies that char dwellers are developing their land with ponds for fish culture, improved crop land, plant nurseries, better houses etc.

Replication of secured settlement and livelihoods by Char Dwellers









5.4 Non-farm IGA products – Caps and Ropes produced by char women earning foreign currency

5.4.1 Cap Sewing- an export oriented non-farm IGA product by char dwelling women

Introduction

Wearing of Islamic cap/*Taqiyah* is traditional in Arab culture. Muslim men often wear them during the five daily prayers. There is high demand of such caps in Middle East Islamic countries. Char women make such caps during their free times and sell to local vendors who are brokers on behalf of the exporters.

More than 100 char women have been trained by CDSP in cap sewing. CDSP hired an experienced local trainer Ms. Munni of Tankir Bazar, Boyer Char for the 30 days in-house practical training. Interested women were selected from different char areas. For each finished cap women are used to receive Taka 500-1000 depending on the designs.



Cap sewing becomes very popular IGA in char areas. Now this IGA is being operated by more than 500 char women. Due to high demand, they do not need to go to market for sale, the broker of the exporting agency comes to their doors for collection of finished products. Many times the women are receiving the input cotton material as a contracted producer for cap sewing.

Replication of secured settlement and livelihoods by Char Dwellers



Women of Char Baggar Dona sewing caps



Women of Char Ziauddin sewing caps



5.4.2 Rope making export oriented non-farm IGA and environment friendly product by char women

Introduction

Hogla (in Noakhali known as *Daripata*) is an aquatic tall grass growing in clusters. Its scientific names is *Typha elephantiana* of family *Typhaceae*. It may grow up to two to five meters. The leaf blades are flattened and composed of parenchymatous spongy tissue. The perennial plant is growing mostly in the Sundarban Forest as well as along coastal districts - Bhola, Patuakhali, Lakhshmipur and Noakhali.



Naturally Grown Daripata





Naturally grown Daripata near Khasherhat



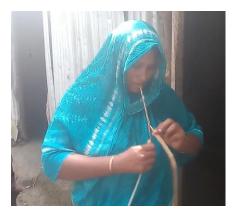
Rope Made from Daripata

Economic value and environment Friendly Crop: The Daripata plant is an economic crop. Mats, fences and roof thatch are made of it. It is also used to cover piles of fishes in box which keeps them fresh. Hogla grass is extensively used to make mats. In coastal Char areas of Boyer Char, baskets, ropes and different kind of handicrafts are also made out of the dried materials.

An important non-farm income generating activity (IGA): A couple of families of Boyer Char, Hatiya are making traditional rope from Daripata. We have found that those ropes are exported to Middle East countries by some vendors due to its environmentally friendly behaviour- easily decomposable to soil and it improves soil health, so it is used as a replacement of plastics or nylon ropes which are not decomposable and deteriorate soil health.

A case of non-farm IGA rope making operated by Ms. Nasima (Nurunnahar): Nasima (and her husband Mr. Jahir are resident of Twin-House No. 3 of Cluster Village, Near Tankir Ghat, Boyer Char, Hatiaya, Noakhali. Nasima uses Daripata (Hogla) plants.





Dry Daripata is brought from Bhola where it grows well.

It is supplied by a known vendor who also purchases the whole production as soon she makes it in bundles of 5000 hath (2,500m). She gets Tk. 200 for each 500m of rope.

For making rope from Daripata, Nasima uses the practice of making *veni* with her hair. At the start, she takes three pieces of Daripata and uses the style of the *veni* making process. When the rope becomes about 30-40 cm long, she then ties the rope to a stand or pillar/bamboo. Then she continues to make longer rope.



For marketing purposes, the rope is twisted giving an oval shaped bundle that contains about 5,000 hath (2,500 m). Nasima reported that they sell a twisted bundle of 5,000 hath (2,500 m) at Tk. 1,000. She is used to earning a minimum of Tk.2,500 to Tk. 3,000 each month.

5.5 Examples of best practices in implementation of CDSP

There have been several experiences and cases of best practices in place in CDSP. These include:

5.5.1 Harmonized project implementation model (GO-NGO agencies)

CDSP has been working with six GoB agencies (MoL, LGED, DPHE, FD, DAE and BWDB as Lead IA) and four NGOs in a harmonized project implementation model where there have been six DPPs, one for each GoB implementation agency led by a Project Director/Project Coordinating Director. In addition, this has been supported by GoN funding with a Technical Assistance team led by the TA Team Leader. The TA team was provided by a consortium of international and national consulting companies procured and funded by the Government of the Netherlands.

5.5.2 Land titling (permanent deed document)

Land settlement to poor landless coastal char dwelling family is given in return for Tk 1.00 only. The title given is in the name of the husband and wife (50% : 50% share) where the wife's name is put in the first position in the deed document. In the case of a widow or destitute women she receives a 100% share.

5.5.3 Participation of women in field level institution (FLIs)

CDSP has ensured the inclusion of women for participation in six types of FLIs. These are:

- 984 Microfinance and Group Savings (NGO groups) for group savings and MF operation (BDT 1,767 million, borrowers 26,373); 100% women,
- 1,388 Tube-well User Groups for DTW maintenance; 100% women.
- 62 Water management group (WMG) for operation of water control structures; 45% women.
- 664 Social forestry groups (SFGs) for raising and maintenance of plantations; 41% women.
- 97 Farmers' Forum/organization (FF) for accessing agricultural services from DAE, 42% women.
- 74 Labour Contracting Societies (LCS) enlisted as contractors to work with GoB agencies; 37.8% men, 16.2% women and 46% mixed

5.5.4 Formation of Labour Contracting Society (LCS) to get direct work contracts without tender

Three implementing agencies have policies to employ poor unemployed women and allow them to form LCS groups. These IAs are DPHE, BWDB and LGED. LCS groups get the work from these agencies without participating in tendering to work as a contractor. They can get from 25% to 100% of the work depending on the types of work.

5.5.5 Formation of Social Forestry Group (SFG) to be eligible for post-harvest tree sharing agreement

Forest Department (FD) has a chartered responsibility for raising plantations on reserved and vested forests, and Government *khas* land. As a CDSP implementing agency, the FD is responsible for to implementing activities in social forestry that include:

- Establishment of shelterbelts to protect the chars from storms and cyclones.
- Plantation on developed embankment, canals, roadsides, foreshores, newly accreted mangrove areas.
- Production of fuel wood to alleviate the severe fuel shortages that now exist in these chars.
- Generation of income from homestead forestry and tree nurseries

FD has organized 664 social forestry groups (SFGs). The members of SFGs are responsible to support raising plantations and take care of those plantations in relation to physical protection. They have short-term and long-term benefit tripartite agreements involving SFGs, FD and local government institutions (Union Parishad). The agreed ratio is 55% Beneficiaries, 20% Landowner, 10% FD, 5% UP and 10% TFF (fund for next rotation), realized after final harvest of the timber and firewood.

6. Conclusions

CDSP is a land-based rural development project to give settlers security and purpose. CDSP Phase I started its journey in 1994 as a follow-up of the Land Reclamation Project (LRP), and successfully completed CDSP Phase IV; the current CDSP Phase B (AF) began in 2019 and is expected to be completed by 2024. Making evidenced-based documentation on lessons learned and good practices was very challenging, involving tracking the events of two and half decades of implementation. Due to the availability of CDSP's physical library resources and the eLibrary within the CDSP website (http://cdsp.org.bd), our work became easier.

We were very careful to identify *char* lands and the reclamation of land towards settlement as slow and steady processes and, in this context, CDSP has to conduct a great deal of research and experimentation. When identifying evidence, the lessons learned and recommendations from the end of each phase, and the reasons for the success and failures of specific interventions have been carefully documented. Quite a good number of case studies were available for phases II and IV.

Another interesting point to note that due to presence of four NGOs: BRAC, SSUS, DUS and SDI who were able to mobilize collateral free microcredit for the project beneficiaries, CDSP could use this platform to deliver need-based farm and non-farm IGA training for the project beneficiaries in the areas of cultivation of crops, homestead agriculture, poultry and livestock rearing, fish culture including development of value chains and encouragement of female participation. Successful and sustainable good practices was only possible if the project key intervention of land settlement on reclaimed lands was in place for the project beneficiaries.

Publications and reports consulted

- 1. Land Reclamation Project, BWDB. "Land Reclamation on Char Baggardona: Technical Factors", LRP Technical Report no. 4.
- 2. Ir. A.E.M. van Vilsteren. "Settlement Structure and Domestic Water Supply in the Char Baggar Dona pilot Polder", LRP Technical Report no. 10, Land Reclamation Project, BWDB.
- 3. Char Development and Settlement Project, BWDB. "Inception Report, Main Report, 8 March 1995".
- Char Development and Settlement Project, BWDB. "Final Report, CDSP I", 1st September 1994 31st August 1997, Directorate of Land Accretion and Estuary Development (MoWR) and Consultants for Development Programmes (CDP), Haskoning and Sheltech.
- 5. Char Development and Settlement Project, BWDB. "Experiences of the Char Development and Settlement Project II, a project in the Coastal Chars of South-Eastern Bangladesh" 2000-2005, Consultants for Development Programmes The Netherlands, Royal Dutch Consulting Engineers and Architects, The Netherlands and Sheltech Consultants Pvt. Ltd. Bangladesh.
- 6. Dewan A. H. Alamgir, at el. "Impact of the Char Development and Settlement Projects I, II and III", Technical Report no. 7, Euroconsult Mott MacDonald, BETS, and Socioconsult.
- 7. Char Development and Settlement Project, BWDB. "CDSP III Project Completion Report", 1st October 2005 to 28th February 2011, Euroconsult Mott MacDonald, BETS, and Socioconsult.
- 8. Kiran Sankar Sarker, at el. "Household Impact Assessment Using the Five Capitals of Livelihood Approach, Technical Report No. 13", Char Development and Settlement Project (CDSP-IV), Sonapur, Noakhali, Bangladesh.
- 9. Char Development and Settlement Project CDSP IV, BWDB. "CDSP IV Project Completion Report", May 2011 to June 2018, Euroconsult Mott MacDonald, BETS, and Socioconsult.
- 10. Char Development and Settlement Project CDSP B (AF), BWDB. "Inception Report CDSP B (AF)", September 2019, Technical Report No. 20, Government of Bangladesh / IFAD / Government of the Netherlands, Euroconsult Mott MacDonald, BETS, and Socioconsult.
- 11. Char Development and Settlement Project CDSP IV, BWDB. "Agricultural developments", January 2019, Euroconsult Mott MacDonald, BETS, and Socioconsult.
- 12. "New Land, New Life, a success story of new land resettlement in Bangladesh". Edited by: Andrew Jenkins, Char Development and Settlement Project (CDSP), Bangladesh, Natasha Haider, Euroconsult Mott MacDonald, The Netherlands.