

Char Development and Settlement Project Phase IV Bangladesh

Progress Report No 12

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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)
- and NGOs

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List of Abbreviations/ Glossary

ADP	Annual Development Plan
AE	Assistant Engineer
AEO	Assistant Extension Officer
<i>Aman</i>	Monsoon season rice
<i>Bahini</i>	Armed gang
BC	Bitumen Carpeted
<i>Boro</i>	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
<i>Ghat</i>	Landing place for boats
GMC	Group Management Committee
HBB	Herring bone bond
HFPF	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
<i>Jamabandi</i>	Settlement case
<i>Jotdar</i>	Powerful person having big agricultural farm
KAP	Knowledge Attitude Practice
<i>Khabuliyat</i>	Deed of agreement
<i>Khal</i>	Canal, creek
<i>Khas</i>	Government owned land
<i>Khatian</i>	Record of right
<i>Killa</i>	Earthen raised field, used as shelter for cattle
LADC	Local Area Development Committee
LCS	Labour Contracting Society
LGED	Local Government Engineering Department
LGI	Local Government Institution
<i>Madrassa</i>	Religious school
MoL	Ministry of Land
<i>Mouza</i>	Small geographical unit

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MRA	Micro finance Regulatory Authority
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 Datum	Public Works Department Datum (local topographical level)
(S) QCE	(Senior) Quality Control Engineer
QC team	TA Quality Control team
<i>Rabi</i>	Crop season from November/ December to March
RDC	Revenue Deputy Collector
RDPP	Revised Development Project Pro-forma
RFLDC	Regional Fisheries & Livestock Development Component (former DANIDA funded Project)
RIMS	Result and Impact Monitoring Survey
RMG	Road Maintenance Group
RPA	Reimbursable Project Aid
<i>Samaj</i>	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	<i>Union Parishad</i>
<i>Upazila</i>	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
XO	Extension Overseer

1. Introduction

The fourth phase of the Char Development and Settlement Project, CDSP IV, started on 1 March 2011, with the mobilisation of the TA team. The financing agreement between IFAD and the Government of Bangladesh was signed in Rome on 9 May 2011, while the Administrative Arrangement between the Netherlands and Bangladesh was signed in Dhaka on 4 January 2012. The Inception Report of CDSP IV was submitted to the Embassy of the Kingdom of the Netherlands (EKN) and IFAD on 31 May 2011. The Inception Report serves as the Project Document, alongside the DPPs of the six project implementing agencies, which provide detailed information on the project. The Annual Work Plan and Budget 2016 – 2017 was submitted to EKN and IFAD in April 2016, and approved on condition of second revision of DPPs. The arrangement between GoN and IFAD regarding CDSP IV was amended in December to align the GoN contribution with the IFAD project implementation period till 31 December 2018. The TA contract between GoN and consultants was extended accordingly till 31 December 2018, with staffing reduced to those essential for project completion.

The focus of the activities of CDSP IV is 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 and water supply and sanitation; land settlement and titling; livelihood support; institutional development; studies and surveys. The project continues support for CDSP I, II and III areas with Operation and Maintenance activities and land settlement (in particular in Boyer Char). It also looks to the future by conducting feasibility studies in areas where future char development programs might be undertaken.

Second Revision of DPPs of all six Implementing Agencies to cover the extended project period is completed or about to be finalised, except for DAE: The Ministry of Agriculture did not agree to extend the project period for DAE.

Main activities and achievements during this half year reporting period were the preparation of infrastructure development works as planned under the AWPB 2016 – 2017, in particular tendering the major part of the remaining works. The BWDB tenders of Mamur Khal 2 and Caring Khal closures, which failed last year due to non-completion of RDPP 2, were now successful and closures are planned to be done in February 2017.

For a table wise overview of overall project achievements and financial progress and planning, expenditure – and component wise, please refer to **Annex 4**, which presents the IFAD format.

After this introductory chapter, the present Progress Report No 12 deals in succession with the objectives of CDSP IV (next chapter) and the project areas and population (in Chapter 3). Chapter 4 gives an overview of the project activities during the reporting period, grouped under the six project components. Chapter 5 is on the project organization. The project finances are in Chapter 6. The concluding Chapter 7 pays attention to the risks facing the project and its manifestation during the reporting period.

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 will 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.

3. Project areas and population

3.1 Introduction

As stated in Chapter 1, the focus of the activities of CDSP IV is on 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*		Appraisal Mission estimates	
	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 also continues attention for CDSP I, II and III areas. The main subject of this attention is Operation and Maintenance (O&M) of infrastructure involving WMGs. 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 IV areas.

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 (Subarnachar 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 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. Implementation status per component

4.1 Introduction

This chapter gives an overview of the status of project interventions by 31 December 2016. It sums up the activities that have taken place during the reporting period, grouped under 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).

4.2 Protection from climate change

This component concerns construction of water management infrastructure in CDSP IV by the Bangladesh Water Development Board (BWDB) for protection from climate change, consisting of embankments, drainage sluices, drainage channels (khals) and closures. Also 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.

In addition this component concerns social forestry activities by the Forestry Department (FD), including establishment of shelter belts to protect chars from storms and cyclones (see 4.2.2).

4.2.1 Construction of water management infrastructure by BWDB

For a complete overview of BWDB activities reference is made to the Inception Report paragraph 4.2.1. Up to 31st December 2016 construction work was completed for all of the groups of sea facing embankment (16.762 km) both in Char Nangulia and Noler Char. But during the past few years the sea dyke from Mamur khal outlet towards the direction of sluice DS-2 has eroded over 10 km by transverse current of Hatiya/ Sandwip Channel; bank erosion is also severe along the Meghna river bank at Caring Char and Noler Char. To construct the retired sea facing embankment safely, the alignment of the embankment has been shifted to inside, both at Nangulia and Noler Char; consequently the embankment length increased from the original length of 16.762 km to 32.28 km proposed in RDPP-2. Second revision of DPP was approved by the Planning - and concerned Ministry, including the extension of the project till end 2018, as suggested by MTR of March 2015.

Interior dyke construction (22.58 km) is completed for all groups at Char Nangulia and Noler Char and 6.197 km out of 8.732 km is completed at Char Ziauddin.

Construction work of dwarf embankment at Noler Char is completed, but the dwarf embankment constructed along Mamur khal eroded by transverse tidal flow over about 3 km and a retired embankment will be required at this part, which may be constructed from GoB maintenance funds during construction.

For an overview of progress and planning of works under BWDB, see **Annex 3**, Table 1. For a summary of achievements and financial progress and planning of the same, see **Annex 4**, Table A1, which presents the IFAD format.

Up to 31st December 2016 overall physical progress in BWDB activities was 65%, against 68% planned. A major change was made for quantity and budget amount in RDPP2.

Monitoring of coastal erosion along Meghna River East bank and Hatiya /Sandwip Channel

In December 2013 IWM completed their Assessment of Erosion Vulnerability of the East bank of Meghna River; the study recommended a relocation of DS-3, which was done accordingly. The study also gave an indication of the stability and rate of erosion of the coast from Jarirdona River in the north along Boyer Char and Noler Char up to Caring Char in the South. As a follow up to the erosion study and in line with discussions and advice of the 2014 Supervision Mission, TA Project Engineers have installed benchmarks along the coast line of the project for regular monitoring of the erosion. Latest measurement was taken late August 2016 and it was found that present erosion is still alarming from the outlet of Mamur khal to North

East of drainage sluice DS-2 and in the meantime sluice DS-2 is engulfed. Erosion is also still alarming along the full periphery of Caring Char. Erosion at sluice Gabtali in Boyer Char has reduced significantly.

Average erosion at **Boyer Char** during last monsoon was found to be about 20 m, with erosion of 26 m/year around Gabtoli sluice and maximum 35 m near Tankir sluice at the south part of the polder.

Average **Noler Char** erosion during last monsoon was found to be about 60 m, with least at the mouth of Hatiya River (12 m). Erosion at Musapur Mosque close to proposed DS-3 was 68 m. FD already completed dyke construction for 15 ha and plantation is completed close to sluice DS-3 and at the mouth of Hatiya River.

At **Caring Char**: Since measurement started in September 2014 up to late October 2016 total erosion at sluice DS-1 is 631m, last monsoon it was 84 m. At the Southern part near Bathankhali ghat it is 804m in total and 391 during last monsoon. At the Eastern side near Gour Nitai Mondir road it is 1,700 m in total. FD constructed earthen dyke for foreshore protection at river side of DS-1 for 15 ha and plantation will be started soon. The envisaged construction sites of cyclone shelters in the southern part of Caring Char have been relocated further away from the coastline, but because of the severe recent erosion three cyclone shelters at Bathankhali Bazar, Dhanshiri Samaj and Gour Nitai Mondir became vulnerable and a decision was taken to suspend the construction work and to observe the future trend.

In an unexpected development from monsoon July/ August 2014 onwards at **Char Nangulia**, at the coastal stretch from sluice DS-2 to Bashar Bazar, more than 10 km length of foreshore and embankment immersed in the Hatya-/ Sandwip Channel. The most likely cause of this severe erosion is the formation of a new char in Hatya-/ Sandwip Channel in front of this location, diverting the river flow towards the bank. A revised alignment for construction of a retired embankment was adopted for the eroded part of the embankment. Further development of the erosion is closely monitored by the project. Since measurement started in September 2014 up to late October 2016 the average erosion was 363 m per year, with a maximum of 1,007m in total at Sluice DS-2, which was ultimately engulfed by the river in August 2016.

Construction of peripheral embankment

Construction work was completed for the full RDPP-1 mentioned length of 16.762 km (12.22 km at Char Nangulia and 4.542 km at Noler Char) of sea facing embankment along the Meghna River and Hatya/ Sandwip Channel by June 2014. But due to Sandwip Channel erosion and shifting of the alignment to a safer place the total length of sea dyke increased to 32.28 km (Char Nangulia: 23.78 km and Noler Char: 8.50km). During the reporting period field survey and design were completed, estimate prepared and tender floated for 11.30 km retired sea dyke in 9 packages at Char Nangulia and Noler Char.

Construction work is completed for the length of 19.585 km interior dyke (13.828 km in Char Nangulia and 8.76km in Noler Char) as per RDPP-1/ RDPP-2 planning along the Eastern bank of Hatiya River, Southern bank of Caring khal and at the North East side of Char Nangulia.

Physical work is completed for 6.2 km in three schemes for retired dyke at Char Ziauddin out of 8.73 km proposed along Jarirdona and Baggardona River in Char Ziauddin and Boyer Char as per RDPP-2; Tender procedure was completed and work order is under process for the remaining 2.535 km in two packages.

Overall physical progress achieved for Interior dyke up to 31st December 2016 was 95% against planned 96%.

Construction of dwarf embankment

Construction work of 13.88 km dwarf embankment stated in RDPP along Caring khal and Mamur khal in Noler Char is already completed in full length. Few portions are eroded by Mamur khal erosion and require maintenance, which will be done from GoB maintenance funds of the project in FY 2016 - 2017.

Construction of drainage sluices

DS-1 (10v-1.5x1.8m) over Caring khal for Char Nangulia: Construction work was completed including gate fabrication and installation by June 2015, the sluice is not yet functioning as the Mamur khal -2 Closure and Caring Closure are not yet completed.

Sluice DS-2 (5v-1.5x1.8m) over Katakhal khal-2 at Char Nangulia: Construction work was completed including gate installation by June 2015 and it was opened before monsoon in 2015. By this sluice drainage congestion and salinity intrusion were fully controlled at Katakhal khal catchment area. But due to severe erosion of Sandwip channel the structure was lost in 2016 monsoon.

Sluice DS-3 (7v-1.5x1.8m) over Hoar khal-1 at Noler Char: Construction work started last year and achieved 30% physical progress. Early December 2016 contractor mobilized after monsoon and started bailing out water from the pit and installation of dewatering sets.

3 Sluices over Dighir khal, Mutuki khal and Baggard khal at Char Ziauddin: Construction work was completed including gate fabrication and installation by June 2015. The sluices are functioning well.

Construction of closures

Construction work was completed for Mamur khal-1 closure at Char Nangulia in FY 2012 - 2013. Construction of closure over Katakhal khal-2 was completed within the contract of sluice DS-2. Closure over Millon khal at Noler Char was completed in May 2016.

BWDB reviewed and revised the location of Mamur khal-2 closure following the suggested option of MTR Mission, as the river bank erosion at Char Nangulia and Caring Char is very severe. Design, estimate and tender procedure for the closure over Mamur khal-2, the closure over Caring khal in Char Nangulia and 2 closures over Hoar khal-1 & 2 at Noler Char are done, W.Os are under process and contractors started mobilization for the works.

Initial excavation and final re-excavation of drainage khals

In RDPP-2 there is a program for 145 km initial excavation of drainage khals in the 5 chars. On priority basis as per drainage congestion initial excavation is going on. Up to 31st December 2016 initial excavation of drainage khal was completed for 37.36 km at Char Nangulia, 34.5 km at Noler Char, 18.5 km at Char Ziauddin and 1.85 km at Caring Char, in total 92.21 km.

Overall physical progress is 64% against planned 70%. During the reporting period field survey and design were done, estimate prepared and tender floated for initial excavation of Nangulia khal and Bhuiyar khal over 18.15 km length in 6 packages at Char Nangulia. Tender was floated for 4 khals for initial excavation of 10.50 km at Urir Char.

Re-excavation of drainage khals over 12.00 km in Noler Char, as mentioned in RDPP-2, will be started when initial excavation will be mostly completed, i.e. to remove silt in the 2nd stage if required.

Construction of WMG Centre Buildings

In RDPP 2 there is provision for 24 WMG centres. Construction work is completed for 11 WMG Centres at Char Nangulia, 3 at Noler Char and 2 at Char Ziauddin by WMG as LCS. Overall physical progress is 67%.

Acquisition/ purchase of land and landed properties or assets

Detailed field survey was done for land plan preparation along Jarirdona khal in Char Ziauddin and at Boyer Char and estimate is under process for submitting to DC office. An action plan was made for extensive field survey and preparation of estimate for submission of land plan for the retired dyke at Char Nangulia, Noler Char and Caring Char. The process is still ongoing and the expectation is that it will not hamper implementation.

Rehabilitation of affected households

Selection and listing of affected households during construction of embankment and sluices were done and 92 families already received compensation money, which is 26% of the target 384. Estimate & listing is under process for the remaining families.

O&M of infrastructure of CDSP I, II, III & IV areas

Since inception, maintenance work is completed for Tk.645.59 lakh for the maintenance of sluices, embankments and drainage khals in the CDSP old areas under CDSP IV (Sluices: Tk. 303.64 lakh, embankments: Tk. 168.25 lakh and re-excavation of khals/channels: Tk. 173.70 lakh). During the reporting

period no work was completed by BWDB owing to damp season. During the reporting period estimate was prepared for the re-sectioning of 2,857 m embankment at estimated cost of Tk. 85.19 lakh.

Maintenance of Gabtali sluice

Protective work of Gabtali sluice up-stream and down-stream diversion canals was completed from CDSP-IV maintenance fund at cost Tk. 269 lakh since March 2014 and Protection from erosion of Meghna left bank at the mouth of the outlet channel of Gabtali sluice was completed by June 2015 for a contract amount of Tk. 597 lakh from GoB Climate Change Trust Fund (CCTF), providing CC block placement and dumping. Erosion rate at the outlet of Gabtali along the Meghna left bank is no more alarming.

4.2.2 Social forestry by Forest Department

The Forest Department is responsible for all plantation activities, except on homesteads. NGOs look after homestead forestry and provide support to private nurseries. Training is organized for staff of the Forest Department, NGOs, SFGs, WMGs, Local Government Institutions and others. Also information and awareness campaigns are organized under the social forestry program. For an overview of achievements and financial progress and planning by FD, see **Annex 4**, Table A2, which presents the IFAD format.

By following the Social Forestry approach, the settlers are involved in planning and implementation. Through a benefit sharing agreement, the forestry component of CDSP IV has a poverty reduction impact as well. During the reporting period the Social Forestry Adviser and the Social Forestry Coordinators jointly with the FD personnel contributed to the implementation of AWPB 2016 - 2017.

Formation of groups for social forestry

At the core of the social forestry approach is the Social Forestry Groups (SFG). Such groups are formed for every 2 km of roadside plantation, 1-1.5 km of embankment plantation, 1 km of canal plantation, 10 ha of foreshore plantation and 25 ha of mangrove plantation. Each group has about 20-25 members, with roughly 70% men and 30% women. The formation itself is implemented by a team consisting of staff of the Forest Department. Before the formation of SFGs is taken up, the population of the different chars is informed about the social forestry program through mass meetings and motivational workshops.

In the reporting period 32 meetings have been organized in Char Nangulia, Noler -, Caring Char and in Char Ziauddin to introduce the social forestry approach and explain about plantation activities, the modalities of the program and the roles and responsibilities of the different parties, including the beneficiaries themselves. During the reporting period 16 SFGs have been formed following the approved format in consultation with local people, NGOs, field staff of the Forest Department and the TA team. The cumulative number of SFGs up to 31 December 2016 is 484.

Land lease and benefit sharing workshop

On the basis of the number of SFGs formed land lease and benefit sharing agreement workshops are conducted. The process of establishing such agreements between the Forest Department, land owning agencies (for instance Ministry of Land, LGED, BWDB), the SFGs, the Union Parishad and, if applicable, the community based organisation as WMOs, is taken care of. For the long-term sustainability and successful implementation of the social forestry plantation program, the appropriate and proper sharing of benefits among the stakeholders is essential. The agreements create a sense of ownership and ensure the right on government land and usufruct rights on trees and produces that will be derived from the plantation programs, both in the short and in the long run. In addition they stipulate the plantation activities, the modalities of protection, maintenance, management and harvesting.

During the reporting period 11 SFGs (275 members) have received tri-parties signed agreements and the cumulative number of agreements received by SFGs is 379 out of 468.

Establishment of nurseries

For all kinds of plantations the Forest Department is ensuring quality seedlings from their own existing nurseries, from newly established nurseries or from other sources. Nurseries have been established on various locations for 650 ha mangrove plantations in Char Akram and Char Nur Islam. In these nurseries

around 3,250 seed beds have been raised, the seed bed size is 40 ft x 4 ft. Also soil collection and preparation is going on for raising seedlings for non-mangrove species in poly bags. Seedbeds have been prepared for non-mangrove species in poly bags for 6 km roadside -, 17 km embankment-, 110 ha foreshore -, 21 km canal -, 3 ha non-mangrove block- and 2 institutional plantations.

Road -, non-mangrove block -, canal - and institutional plantations

As per RADP, FD has a plan for 6 km roadside -, 29 km embankment-, 18 ha non-mangrove block-, 100 km canal- and 2 institutional plantations in 2016 - 2017. In the reporting period, preparatory work for the entire plantation plan is going on.

Foreshore plantations

In this year 110 ha (Noler char 15 ha, Nangulia 40 ha and Musapur 55 ha) foreshore plantation is planned. Before tendering for making the dykes, FD discussed the issue with the local leaders and in the District Coordination Meeting, which is presided by the DC. PD, FD also issued a letter to DC for land requisition. FD already floated tender for 110 ha dyke construction.

Mangrove plantations

Mangrove contributes to improving coastal areas as natural habitat for birds and fishes and for protection against natural hazards like cyclones and tidal waves.

As indicated above, in 2016 - 2017 there is a plan for 650 ha mangrove plantations. Site selection is done and nurseries have been raised. This will play an important role in providing breeding grounds and habitats to a variety of fishes and other marine species of high commercial values, including mud crabs, molluscs and prawn.

Plantation Maintenance

Mangrove forestation, predominantly with Keora, Gewa and Baen species, was established on 1,750 ha in Char Nurislam, Char Nangulia (char Amin) and Tengar Char in 2015 – 2016 and on 1,000 ha in Char Balua and Char Nur Islam in 2014 - 2015. The maintenance work of the above mentioned mangroves is partly done. The maintenance of strip, canal, block and Institute plantations established in 2015 - 2016 and 2014 - 2015 were also done partly in the reporting period.

Watcher Recruitment

To make the plantations a success in the reporting period 56 new watchers have been deployed for a period of two years (for non-mangrove) and 88 (for mangrove) for a period of 6 months.

Capacity building

In order to familiarize with the CDSP IV program and in particular with the social forestry methodology and to enhance the capabilities of the SFGs for the year 2016 – 2017, FD have planned 70 batches of two days duration training courses and 70 batches one day duration benefit sharing agreement workshops. In this reporting period SFG formation has been going on. FD will also provide one day duration follow-up training for 160 SFGs in 2016 - 2017. Of these, in the reporting period FD conducted 30 batches follow-up training. 8 Batches one day duration workshops with LGI, NGO and the Public will be conducted in 2016 - 2017. FD will also provide two day duration training courses for the 7 batches of watchers; each batch contains 25 members.

Outcome of forestry plantations

- 2,850 SFG members collected 997,500 kg fuel wood (tree branches) from the plantations of 2012-2013 and 2013-2014, which provided additional supply of cooking material for the settlers, which is very scarce in the chars, especially in the lean season. From Arhar (Pigeon pea) of 54 km areas, settlers collect seeds as pulse, which is rich in protein. The leaf of the pigeon pea is used as fodder crop for the live-stock and the branches for fuel wood. It has also an ecological impact through nitrogen fixation into the soil.
- 5,287 Beneficiaries received ownership of 688,180 non-mangrove trees from embankment, road, canal, foreshore and block plantations. Trees are also protecting the embankment and habitants inside the embankment from tidal floods and cyclone surges.

- Mangrove forests are rich in biodiversity providing a habitat for a wide variety of animal and plant species. It helps in sediment deposits through burial as well.
- Embankment, roadside, canal and mangrove forests provide protection and shelter against extreme weather events, such as storm winds and floods as well as erosion.
- Storage of carbon in plants takes place through accumulation in living biomass.

4.3 Climate-resilient infrastructure and water supply and sanitation

This component concerns construction of climate-resilient infrastructure by LGED, including (rural) roads, bridges and culverts, cyclone shelters and killas, ghats and markets. In addition, in the water supply and sanitation program, DPHE is providing test tube wells; deep tube wells and single pit latrines (see 4.3.2).

4.3.1 Construction of internal infrastructure by LGED

At the starting of LGED activities progress was hampered due to several times tender failure for abnormal quoted rates and price hike of construction materials and labour with respect to LGED schedule rate. This problem was solved in June 2013 by joint assessment of market prices by LGED and TA team. Now, up to 31st December 2016, overall physical progress achieved by LGED is 78% over planned progress of 81%. During the reporting period construction work was only doable for cyclone shelters, including field raising, women accommodation in Char Nangulia and RCC box culverts. Over all physical progress is not prominent as it was dull season. In some items physical progress is less than that of PR-11, as project targets increased in RDPP-2 compared to RDPP-1.

Benefits/ outcome from construction of internal Infrastructures by LGED

Thanks to the construction of over 315 km paved/ earthen roads and a large number of culverts and bridges a huge improvement of road communication system has been realised for the 155,000 people of the five project chars. At present Char Nangulia and Noler Char are connected to Boyer Char and Noakhali main land by roads and may be travelled without river or khal crossing, using all kinds of vehicles in all seasons.

Since the completion of 25 cyclone shelters the char dwellers of the five project chars have scope to take shelter during any disaster and also to use the buildings as schools.

Paved Roads (BC paved width- 3.70m)

Out of 27.60 km paved roads as proposed in RDPP, work is completed or ongoing for 25.41 km (12.60 km in Char Nangulia, 6.64 km in Noler Char and 6.075 km in Char Ziauddin).

Up to 30th June 2016 over all physical progress was 92% where planned 95%. During the reporting period 9% progress was achieved.

Out of 25.61 km paved roads as proposed in RDPP-2, work is completed or ongoing for 25.16 km (11.70 km in Char Nangulia, 7.39 km in Noler Char and 6.07 km in Char Ziauddin).

Up to 31st December 2016 over all physical progress was 96% where planned 97%. During the reporting period no significant progress was achieved as it was not construction season, but design and estimate were completed and tender floated for the remaining 0.75 km road at Noler Char.

Paved Roads (BC paved width- 2.40m)

15.00 Km paved roads, as proposed in RDPP-2, is completed (10.4 km in Char Nangulia, 3.60 km in Noler Char and 0.90 km in Char Ziauddin).

Up to 31st December 2016 over all physical progress is 100%.

HBB Roads (paved width- 3.70m)

Out of 32.19 km HBB roads, as proposed in RDPP-2, work is completed / ongoing / w.o. under process for 25.90 km (Noler Char 11.95, Caring 6 km and Urir Char 7.95 km). Further work cannot be started before completion of BWDB Mamur khal closure-2, Caring khal closure with approach embankments and Noler Char retired dykes, as these remaining roads are planned over the BWDB embankments.

Up to 31st December 2016 physical progress achieved was 66%, where planned 72. No physical progress during the reporting period for damp season but estimate was prepared and tender floated for 1.59 km road at Noler Char.

HBB Roads (paved width- 3.00m)

Out of 93.00 km HBB roads as proposed in RDPP-2, work is completed/ ongoing or tender floated for 89.5km (42.92 km in Char Nangulia, 20.35 km in Noler Char, 4.00 km in Caring Char, 10.58 km in Char Ziauddin and 11.70 km in Urir Char).

Project target is reviewed from 74.5 km to 93 km in RDPP-2.

Accordingly up to 31st December 2016 physical progress achieved is 72% where planned 75%. No physical progress during this reporting period, but field survey done, estimate prepared and tender floated for 9.95 km road in Char Nangulia, 3.75 km in Noler Char, 1.36 km in Char Ziauddin and 2.65 km in Urir Char, in total 17.71 km.

Earthen roads (5.50m/ 4.3m crest width)

Out of 148 km earthen roads as proposed in RDPP-2, work is completed, ongoing, work order under process or tender floated for 135.86 km (58.44 km in Char Nangulia, 23.84 km in Noler Char, 16.66 km in Caring Char, 13.32 km in Char Ziauddin and 23.6 km in Urir Char).

In RDPP-2 project Target is reviewed to 148 km from 140 km.

Accordingly up to 31st December 2016 physical progress achieved was 76%, where planned 80%. No physical progress during reporting period as it was damp season, but field survey done, estimate prepared and tender floated for 15.89 km road in Char Nangulia, 2.41 km in Noler Char and 1.55 km in Char Ziauddin, in total 19.85 km road.

Construction of RCC Girder Bridges

Out of 4 RCC Girder Bridges (Bridge length: 20 m - 36 m) as proposed in RDPP-2 work is completed for all 4; 2 in Char Nangulia and the other 2 in Char Ziauddin.

Up to 31st December 2016 over all physical progress was 100% as per plan.

Out of the other 3 bridges as proposed in RDPP-1 the bridge over Mamur khal in Noler Char was designed and construction completed as 4 vents box culvert, considering no navigation, low cost and time-saving for construction. The bridge over Caring khal was dropped for budget saving for BWDB and the bridge over Bhuiyar khal is also planned to be built as multi vent box culvert for the same reasons as mentioned above; construction will start after completion of BWDB Mamur khal Closure-2 and its link khal.

Construction of Box Culverts

In original DPP only 18 RCC box culverts were proposed, which were increased to 69 in RDPP-1 and again to 93 in RDPP-2 as per field necessity and replacement of bridges. Out of these 93 RCC box culverts work is completed/ ongoing or tender floated for 80 (35 in Char Nangulia, 23 in Noler Char, 6 in Caring Char, 6 in Char Ziauddin and 10 in Urir Char).

Up to 31st December 2016 over all physical progress was 72% against planned 73%. 13% Progress was achieved during the reporting period, design was completed, estimate prepared and tender floated for 13 RCC box culverts, individual or integrated with roads' packages.

Construction of U-drains/ Pipe Culverts

In original DPP 70 U-drains/ pipe culverts were proposed, which were increased to 123 in RDPP-1 and again to 140 in RDP-2 as per field requirement. Out of these 140 U-drains/ pipe culverts work is completed, ongoing or tender floated for 134 (67 in Char Nangulia, 22 in Noler Char, 2 in Caring Char, 18 in Char Ziauddin and 25 in Urir Char).

Up to 31st December 2016 over all physical progress was 81% against planned 84%. 9% Progress was achieved during the reporting period, design completed, estimate prepared and tender floated for 21 U drains integrated with roads' packages.

Construction of Cyclone Shelters

Due to abnormal price hike of construction materials and labour in the present market the number of cyclone shelters was reduced from 60 to 42 in the revised DPP.

Out of 42 cyclone shelters cum primary schools proposed in RDPP-1 and later in RDPP-2, work is completed/ ongoing/ w.o. issued/ tender floated for all 42 (16 in Char Nangulia, 9 in Noler Char, 2 in Char

Ziauddin, 4 in Urir Char and 2 in Char Maximul Hakim; one at Char Mozammel, one at Dhal Char and the other at Char Kolatoli, which is designed as 3 storied building considering office/ lodging facilities for CDSP-V period.

Up to 31st December 2016 over all physical progress was 81% against planned 83%. 3% Progress was achieved during the reporting period.

Cyclone shelter field raising started for 23 nos. and achieved 28% physical progress.

Construction of Public Markets

Out of 7 village markets as per RDPP, work started/ w.o. issued/ tender floated for all 7, which 3 by LCS (1 at Janata bazaar in Char Nangulia- completed, 1 at Thanarhat Bazar in Noler Char – 80% done and one at Boyer Char- construction done); and for the other four through contractors, work is completed at Zia Bazar in Char Ziauddin, at Kaladur Bazar in Char Nangulia, and at Bathankhali Bazar in Caring Char; and work started and achieved 10% physical progress at Urir Char.

Up to 31st December 2016 over all physical progress achieved was 85% against planned 89%, where 2% progress was gained during the reporting period.

Construction of Union Parishad Complexes

Out of 2 UPC as per RDPP, work is completed for Chanandi Union Parishad Complex at Janata bazaar in Char Nangulia and work is on-going for Horoni Union Parishad Complex at Mainuddin Bazar in Boyer Char, which achieved 90% physical progress.

Up to 31st December 2016 over all physical progress achieved is 95% against planned 96%, where no progress was achieved during the reporting period.

Construction of Cluster Villages

In RDPP-2 Cluster village construction is planned at Char Nangulia and Noler Char. A new concept is adopted here to make the CVs sustainable by giving allotment of 50 decimal of agricultural land along with the allotted homestead for livelihood purpose. Both cluster villages are proposed to be constructed at Char Nangulia considering availability of free Khas land. Design and estimate are under process for construction of these cluster villages, but the land allocated for the construction of both the CVs at Char Nangulia close to drainage sluice DS-2 is under threat by Sandwip channel erosion. *Progress is delayed in search of a new location following the severe erosion of Sandwip Channel at Sluice DS-2 location.*

Construction of Killas

There is program for construction of 17 *killas* in RDPP-2: 7 at Caring Char, 6 at Urir Char and 4 in surrounding chars. Work is completed/ for 7 *killas* at Caring Char and work started for 6 at Urir Char (Noakhali & Chittagong). Work order was issued for 2 *killas* at Dhal chars and Char Mozammel.

Up to 31st December 2016 over all physical progress achieved was 71%, against planned 78%. No progress was achieved during the reporting period.

Construction of Ghats

Construction of 1 *ghat* was in RDPP-1, which was dropped in RDPP-2 as low cost ghats are not feasible in char areas and to save money for BWDB/ LGED other items.

Construction of bus stand

There is a program for construction of a bus stand at Char Nangulia in RDPP-1, which is dropped in RDPP-2 as there is no necessity at present and to save budget for BWDB.

Widening of bus road

This item is dropped in RDPP-2, as there is no field necessity at present and to save budget for BWDB.

Roads and culverts in Other Chars

Up to 31st December 2016 over all physical progress achieved was 36% against plan 49%. As per RDPP-2 revised budget is Tk 338.4 lac in place of Tk. 120 lac mentioned in RDPP-1. Actually RDPP-1 mentioned work was completed by June 2016.

Women staff shed

Construction of women accommodation at Kaladur Bazar in Char Nangulia was shifted to Janata Bazar close to Chanandi UP. Achieved 80% progress against planned 75%, where 40% progress was achieved during the reporting period.

O&M of infrastructure CDSP I, II, III & IV area

From the road pavement maintenance and periodic maintenance of road items under CDSP IV, work is completed for the following sections:

- i) Char Jabbar–Steamer Ghat– Boyer Char road from ch 00- 5500m.
- ii) Hatiya Bazar- Moyinuddin Bazar-Tankir bus-stand road ch. 00-5000m at Boyer Char in CDSP-III area.
- iii) RHD (Totar Bazar)-Shantirhat-Kazir Dokan road from ch. 00-3000m in 1st contract and
- iv) Ch. 3022m- 4813m in the 2nd contract at Char Majid in CDSP-I area.
- v) Maintenance of paved road RHD-Bhuirhat-Banshkhali sluice-Kazir shop road ch 00-3022 at Char Majid in CDSP-I area.
- vi) Char Laxmi-Boyerchar road at Boyerchar ch 6092m-10150m.
- vii) Mobile maintenance of emergency work at CDSP old areas and CDSP-IV.
- viii) Periodic maintenance of Char Majid Janata Bazar via Bhumihin Bazar road –ch 00-3450m.
- ix) Periodic maintenance of Manjumiar Bazar-Kazir Dokan road from ch. 00-3845m.
- x) Periodic maintenance of Jubair Miar Raster Matha-Banshkhali sluice –Manumiar Bazar-Bhumihin Bazar road from ch 1000-3900m.
- xi) Periodic maintenance of Chiyakhali Bazar-Bhuyiarhat Bazar-Kanchan Bazar-Pariskar Bazar-Atkopalia Bazar GC road from ch 10231-12811m.

Total expenditure was made for Tk. 757.60 lac.

During the reporting period Work started for the maintenance work of HBB road Part A: Banshkhali sluice-Darbesb Bazar-Chamoaghat road Ch. 1990-7856 m and Part B: Thanarhat Bazar-Champaghat Ch 00-2600 m at Noler Char through two LCS groups.

From the road off pavement (earth) maintenance, work is completed for:

- xii) RHD –Bhuyiarhat- Banshkhali sluice-Kazir shop road ch 00-3022 at Char Majid in CDSP-I area.

Total expenditure made for road off pavement maintenance is Tk. 20.16 lac.

From the repair and maintenance of buildings and structures, work is completed for:

- xiii) Maintenance work of cyclone shelter cum primary school at A) Ali Bazar, B) Hatiya Bazar, C) Nabinagar, D) Mainuddin Bazar in Boyer char, CDSP-III area by 1st contract.
- xiv) Maintenance work of cyclone shelter cum primary school at A) Tankir Bazar, B) Mohammadpur bazaar in Boyer char, CDSP- III area by the 2nd contract.
- xv) Maintenance work of cyclone shelter cum primary school at A) Jalil Commander Bazar, B) Nabipur Bazar, C) Didar Bazaar and D) Dasdag Bazar in Boyer char, CDSP-III area by the 3rd contract.
- xvi) Maintenance work of cyclone shelter cum primary school at A) South Char Clerk, B) Noapara and C) South Char Laxmi- Polder 59/3B in CDSP-II area at Subarnachar by the 4th contract.

Total expenditure made for building maintenance is Tk. 61 lac.

Overall progress achieved for maintenance work is 83% up to the 31st December 2016. Total expenditure was made for Tk. 818.90 lac. During the reporting period 2% progress was achieved. In RDPP-2 maintenance budget is reviewed from Tk. 904.73 lac to 1004.73 lac, considering necessity of maintenance at CDSP-IV areas during construction.

4.3.2 Water supply and sanitation by DPHE

One deep tube well is provided for 15 to 20 households and one for each cyclone shelter will also be installed. Test tube wells are sunk to get advance information on the aquifers of the project area. One latrine is given to each individual household, which will take care of the superstructure them self. 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.

For an overview of progress and planning of works under DPHE see **Annex 3**, Table 3. For an overview of achievements and financial progress and planning of the same, see **Annex 4**, Table A4, which presents the IFAD format.

Up to the end of December 2016 overall physical progress for DPHE was 72% against planned 75%, where 4% progress was achieved during the reporting period.

Physical progress is less than that of PR-11 as project target increased in RDPP-2 compared to RDPP-1.

DPHE activities are discussed below in detail.

Benefits from water supply and sanitation activities

Due to sinking and installation of more than 1,100 DTW in the five project chars and also at the surrounding chars, most of the population are getting the benefit of pure drinking water. And in combination with the installation of around 19,500 sanitary latrines contamination of Diarrhoeal diseases has reduced to a minimal level, which can be concluded e.g. from the PNGO statistics of saline packets demand and distribution, which saw no demand of saline packets during the reporting period, while it was 2,00,000 on average during the early days of the project.

Deep hand Tube Wells

Since inception of the project in March 2011, out of 1,532 DTWs as per RDPP-2, sinking and installation is completed for 1,138 (Char Nangulia 576, Noler Char 276, Caring Char 171, Char Ziauddin 52, Urir Char 48 and 15 at Teliar Char). Platform construction is completed for 1,127.

Up to 31st December 2016 overall physical progress of deep tube wells was 74% against planned 76%, Only 1% progress is added during the reporting period as the RDPP-1 target is almost finished and the additional 378 nos. as per RDPP-2 are yet not finally approved.

In the meantime estimate was prepared and tender floated for 168 tube wells, including the remaining 26 of RDPP-1 (Nangulia 75, Noler Char 45, Char Ziauddin 30 and Urir Char 18 =168) containing the clause "work order to be issued subject to approval of 2nd revision of DPP".

Test Tube Wells

Sinking and installation of 6 test deep tube wells as mentioned in RDPP was done: 3 at Char Ziauddin and 3 at Char Nangulia including platform construction.

Total progress achieved is 100%, as per RDPP allotment.

Single pit latrines

Since inception of the project in March 2011 till the end of December 2016 construction was completed for 19,722 single pit latrines, 19,417 were distributed and 19,073 installed.

Up to 31st December 2016 physical progress achieved was 73% over planned 78%, while 2% progress was achieved during the reporting period.

Estimate was concurred and work-order is under process for construction of another 1,570 (Nangulia 1,370, Noler Char 200 = 1,570) through LCS.

Pond with sand filter

If required, as per RDPP-2, 2 ponds with sand filter will be installed where ground water is found unusable due to salinity or other reasons at Char Nangulia. There is a plan for PSF construction in AWPB 2016 – 2017 if required.

Rain water harvesting schemes

If required, as per RDPP, 2 rain water harvesting schemes will be installed where ground water is found unusable due to salinity or other reasons at Char Ziauddin. There is no plan for RWHS construction in AWPB 2016 – 2017.

O&M of infrastructure of CDSP I, II and III

Work is completed for maintenance of 12 public toilets at Boyer Char from GoB maintenance funds under CDSP IV amounting Tk. 3.88 lac. Estimate was concurred and tender floating is under processing for re-

sinking of 9 non-functioning tube wells from GoB maintenance fund in CDSP-IV area. Field survey is ongoing for selection of deep tube wells' maintenance in CDSP I, II & III and also in CDSP-IV areas.

4.4 Land settlement and titling by MoL

As per DPP of CDSP IV (Land part), the Ministry of Land is involved in the following activities of the project:

- i. Completion of the residual settlement activities of CDSP III
- ii. Settlement of the landless households in government khas lands of CDSP-IV areas of Hatiya and Subarnachar Upazilas of Noakhali District and
- iii. Modernization of the Land Records Management System (LRMS).

The Deputy Commissioner Noakhali acts as the Project Director of the Land part of the project on behalf of the Ministry of Land. The Additional Deputy Commissioner (Revenue) acts as the Additional Project Director. RDC and UNOs act as the Deputy Project Directors while the AC (Land)'s act as the Assistant Project Directors of the project in their respective Upazillas.

Land settlement is an essential component of the CDSP IV project. According to Government regulations, newly emerged land has to be distributed to the landless (Policy for settlement of agricultural khas land of 1997), including a title on the land to a maximum of 1.5 acre per household. It is the task of the Government to apply the law and initiate and complete the process of land settlement, i.e. providing eligible households with a title. The Ministry of Land is one of the six partner implementing agencies of CDSP. In the project, innovative procedures are followed which brings the whole settlement process closer to the people, is more transparent, shortens the duration and makes it far less costly for the settlers.

During the reporting period, the position of the Additional Project Director, who also holds the position of ADC (Revenue), has fallen vacant due to transfer and no replacement has yet occurred. AC (Land) of Subarnachar Upazila has also been transferred to another place and a new AC (Land) has not yet joined in the vacant post. Meanwhile, a new AC (Land) of Hatiya Upazila has joined in the month of November 2016.

In the month of August 2016 Assistant Director of the Implementing Monitoring and Evaluation Department (IMED) of Planning Ministry visited the project area. During his visit two formal Khatian (Title deed of land) distribution programs were held, one in Char Ziauddin and another in Saddam Bazar area. Besides these two programs monthly formal Khatian distribution events were held in Hatiya and Subarnachar areas.

Progress on the various stages of settlement activities is presented below. For an overview of achievements and financial progress and planning of MoL, see **Annex 4**, Table A6, which presents the IFAD format.

Completion of the settlement cases of CDSP III

Due to the court case No.4/2009 regarding boundary issue of Noakhali and Lakshmpur districts all sorts of residual works has been stopped in the CDSP III areas for the last several months. So, during the last six months, no progress has been achieved here.

The stage wise activities so far achieved before the status quo imposed by the court are as follows:

Table 4 - 1 Status and progress of land settlement activities in CDSP III area

Stages of work	Total CDSP IV Target (HHs)	Target for 2016 - 2017 (HHs)	Progress during the period (HHs)	Overall progress (HHs)
Hearing & landless selection	1,000	0	0	393
Jamabondi preparation	1,885	0	0	1,181
Jamabondi approval by: Upazila Committee	1,885	0	0	1,181

District Committee	2,272	0	0	1,609
Kabuliyat:				
Execution	2,630	0	0	1,093
Registration	2,698	0	0	1,130
Khatian Preparation	2,883	0	0	1,144
Khatian Distribution	3,842	0	0	2,138

Land Settlement in CDSP IV areas

The stage wise activities of the land settlement program have been performed during the period under review as detailed here under:

Table 4 - 2 Status and progress of land settlement activities in CDSP IV areas

Stages of work	Total CDSP IV Target (HHs)	Target for 2016 - 2017 (HHs)	Progress during the period (HHs)	Overall progress (HHs)
Hearing & landless selection	14,000	1,950	1,571	13,395
Jamabondi preparation	14,000	1,800	1,570	13,139
Jamabondi approval by:				
Upazila Committee	14,000	1,800	1,570	13,139
District Committee		1,800	1,570	13,134
Kabuliyat:				
Execution	14,000	2,400	1,122	10,875
Registration		2,163	1,147	10,690
Khatian Preparation	14,000	3,994	2,860	9,757
Khatian distribution	14,000	3,994	2,897	9,709

Conduct of technical surveys for PTPS

The project target of PTPS has already been achieved several months ago. 11,113 Acres PTPS were done in the survey season 2011 – 2012, 9,484 acres in 2012 – 2013, 11,758 acres in 2013 – 2014 and lastly 8,032 acres PTPS were done in 2014 - 2015 season. In total 40,387 acres PTPS have been completed, which is the 94 % of the total original project target of 43,107 acres and PTPS was declared completed. Rest of the PTPS (6%) could not be done because some areas were found lying outside the embankment, erosion, legal problems etc.

Eventualities in PTPS and other settlement activities

I. Progress on the 2nd Revision of the DPP

For two years' project extension till end December 2018 and to accommodate government declared 8th pay scale, the proposed 2nd revision DPP of MoL has got approbation by the Planning Ministry on 29th September 2016. Accordingly, Ministry of Land has issued the government administrative approbation on 15th November 2016.

II. Meetings of the Monitoring and Management Committees

During the reporting period 2 PMC MoL (Project Monitoring Committee of Ministry of Land) meetings were held on 17/08/2016 and 26/10/2016 in the Ministry of Land. In addition, six DPMC (District Project Management Committee) monthly meetings were also held at the PD office in Noakhali. In these meetings month-wise project progress and target were reviewed thoroughly and many contemporary important issues were discussed and disposed. Land Settlement Advisor and ALSA of TA Team attended the meetings regularly.

III. Implementation of LRMS

Work on the up-grading and modernization of the existing LRMS software has already been completed. Online based modified LRMS (Land Records Management System) software is now running smoothly in the district and Upazila level project offices.

IV. Court Case related to boundary dispute

Judgement of the court case No.330/94, related to the boundary dispute between Noakhali and Lakshmipur districts, has gone against the Noakhali district administration's interest. Noakhali district administration has filed an appeal case in the higher court. Till the disposal of the appeal case stalemate will continue in the settlement activities of Baggar Char Mouza (1,559.50 acres) under Char Ziauddin.

Outcome of Khatian (Land title) distribution

Since inception of CDSP IV 9,709 khatians (land title documents) have been distributed and received by the landless families. In each Khatian husband and wife have equal share over the land and women's name is written first in the khatian. Monitoring exercises indicate that providing this title directly contributed to the main objective of CDSP: already they have improved their livelihoods. It considerably broadens the asset base of the households. They are now eligible to take loans from banks keeping the land titles as mortgage. The legal security that the documents are giving to the settlers is certainly stimulating them to invest in their newly acquired land, which has a positive effect on the agricultural production. Being legal landowners, the social status of the households has been enhanced and the self-confidence of the settlers has increased. In addition, when wife's name is mentioned first in the legal document, landless women are feeling more honoured, illegal selling of land has become harder and empowerment of women has been raised.

4.5 Livelihood support

4.5.1 Agricultural support by DAE

The unprotected coastal chars are vulnerable to regular flooding and have saline soils. Only one rice crop is possible in the T. Aman season, when heavy rains temporarily decrease the salinity of the higher layers of the soil. In the winter (Rabi), an additional crop is possible at some places. The agriculture benchmark survey revealed that the overall cropping intensity in the CDSP IV project area was 127%, which is very low compared to the national average of 191%. Crop yield was also low at 1.5-2.0 tons per hectare. The salinity will gradually decline over the years when the area is protected. Introduction of high yielding crop varieties is an important element of the extension development strategy in CDSP IV.

Agricultural support in CDSP IV has the following sub- components:

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

For an overview of achievements and financial progress and planning of DAE, see **Annex 4**, Table A5, which presents the IFAD format. For homestead and agro forestry by contracted NGOs, see the paragraph on social and livelihood support (4.5.2).

Status of RDPP- 2 revision of DAE

IFAD Midterm Review Mission 2015 recommended a second revision of DPPs of all CDSP IV implementing agencies by recasting unspent money for an extended period up to December 2018. Accordingly DAE submitted their RDPP - 2 to the concerned authority for approval. But the Ministry of Agriculture has regretted to extend the proposed RDPP - 2, 2nd time and advised to complete the project activities of DAE within 31st December 2016 vide MoA memo 270 dated 30th August, 2016 and memo 367 dated 22nd November, 2016. Hence the present report is prepared based on project target and cumulative progress.

Strengthening and development of extension services

In line with the New Agricultural Extension Policy of 1996, formation of Farmers Forums (FF) is a core approach of extension services. In the initial years of the project, i.e. from 2011 to 2013, formation of FF started with an average number of 30 members in a group and 90 FFs had been formed; after formation 106 orientations were organized. A total of 2,700 farmers were involved in these 90 FFs with 38% of female representatives. In 2013 - 2014 a strengthening of Farmers Forums was launched and 30 more

farmers (30+30=60) were included in each FF group with 42% female, hence a total of 5,400 farmers are involved in 90 FFs. Remaining farmers of the project are reached through activities such as demonstration plots and field days. In 2014 - 2015, 6 Farmers Associations were formed and on 22nd November, 2016 a Farmers Federation as per Guidelines for Participatory Farmers Organization (GPFO). All management committees at all tiers of farmer's organisation were elected by the general members. The char wise distribution of the Farmers Organizations (FO) is as follows:

Table 4 - 3 Char wise distribution of Farmers Organizations

Name of Char	Farmers Forums	Associations	Federation
Char Ziauddin	7	1	1
Char Nangulia	37	2	
Noler Char	25	1	
Caring Char	15	1	
Urir Char	6	1	
Total	90	6	

DAE field officers with the support of TA team have been continuing a strengthening program of FF groups to develop institutional capacity, record keeping and refresh their individual tasks and responsibilities. In these meetings, detailed discussions were held on objectives of FF formation, stakeholder's participation, GPFO, AWPB 2016 - 2017, involvement of NGOs and project interventions by DAE.

Training of Trainers (TOT) and technical update of project staff

A total of 13 ToT training courses of project staff and field staff (FO & SAAO) of DAE and Agriculture Coordinators of PNGOs working in the project area were organized as per project plan. A detailed technical training module was developed and agricultural experts of various organizations, BADDC, DAE, SRDI, BRRI, BARI, BWDB, ATI and Private Entrepreneurs contributed to the trainings as resource persons, with the support of TA team. Duration of the training was 14 days.

Guidelines for Farmers Organizations

The draft "Guidelines for Participatory Farmers Organizations" (GPFO) were developed in Bengali and English in line with the New Agricultural Extension Policy 1996 and approved in a seasonal workshop held on 22nd January, 2013. As per decision of PMC, DAE is now practicing these in the project area.

Technology dissemination

One day technical training

DAE with the support of TA team conducted at field level one day technical training of FF members in Kharif-I, II and Rabi seasons for 1,100 batches (Char Ziauddin 106, Char Nangulia 475, Noler Char 303, Caring Char 104 and Urir Char 102) as per project target. To conduct this program season wise, three separate training modules have been developed. The contents of training are covering the three seasons. Hand-outs of topics were provided to the participants. A total of 5,400 farmers (30 per batch) participated in the trainings in different events and contents as per project target. Training contents covered all technologies of crop production, IPM, processing and post-harvest technology of 3 seasons. Various technological posters, leaflets, booklets, banners and festoons were presented and also inputs were distributed such as seeds, fertilizers as practical training materials.

Four days technical training (residential)

Four days technical trainings (residential) on Kharif-I, Kharif-II and Rabi season were conducted by DAE for 95 batches, as per project target, at N-RAS training centre, Noakhali. There were 20 participants in each batch, so a total of 1,900 participants attended the trainings. Officers of related departments such as DAE, BARI, SRDI, Bina, BADDC, ATI, Market actors and TA team were the resource persons on their respective subjects. Practical hands-on training was organized in the fields of BADDC agro service centre, BADDC seed processing centre Feni, BADDC Horticulture centre Comilla, Horticulture centre DAE Feni, and

at 3 private farms in Noakhali and Feni. Hand-outs of topics and HYV seeds/ saplings were provided to the participants.

Motivational tours

In total 72 events (batches) motivational tours were organized with 15 members (farmers and market actors) in each group, as per target. Hence a total of 1,080 FF members/ market actors participated from all the chars.

The participants visited the following places:

- BADC Agro service centre, Noakhali
- BADC/ DAE Horticulture centre, Comilla/ Feni
- BADC Seed processing centre, Feni and BADC Seed Multiplication farm, Feni
- Individual farmers plots at CDSP areas
- Private agro-farms, Noakhali/ Feni
- Nimshar Bazaar of Comilla for value chain market linkage
- Shitakundu, Mirersorai of Chittagong country bean production and value chain area
- Private Mushroom centre, Feni /Comilla.

Demonstration plots

As per AWPB 2016 - 2017, 30 demonstrations have been established at farmer's field in the 5 chars in this Rabi season. 1,080 Demonstrations have been established at farmer's fields in the 5 chars in all cropping seasons during the entire project period. Out of these 360 were of high value crops (HVC) and 720 of low value crops (LVC). These demo activities have resulted in significant changes in technology and variety adaptation in the project area. These changes are reflected in the following paragraphs i.e. on field days and yield performance of different crops.

Introduction of Boro crop

Boro crop has been introduced and is practiced by the farmers in the last 3 - 4 years in Char Nangulia, irrigated by pond water, shallow tube wells etc. It covers about 2,000 ha, where earlier no crop was cultivated during rabi season; they are harvesting 6.5 - 7.5 tons/ ha.

Organizing field days

As planned for the entire project period, eighty four field days were organized during Rabi, Kharif-I and II seasons for showing the success of adaptability and technology dissemination through demonstration among the farmers of the project. Some new crops and varieties of rice, pulses and oil crops were introduced in the area such as short duration (105-110 days) variety BADC hybrid -2 in T.aman season, which yielded 4.5-6.5 ton/ha, BRRIdhan 52 (yielded 4.5-5.0 tons/ha), BRRIdhan 62 a zinc fortified variety (yielded 3-3.5 tons/ha), SL-8 hybrid (yielded 7.2 tons/ha) and hybrid Hira (yielded 7.3 tons/ha) and varieties of other crops. Regarding hybrid vegetables in Rabi and Kharif I season, it was found that the farmers harvested 2-3 times higher yields than from their existing traditional varieties. More than 6,720 farmers, market actors, agri-entrepreneurs, FLI representatives and local elites attended the result demos and technology transfer ceremonies of the area. They all showed their interest to cultivate these HYVs, hybrid varieties, saline tolerant, short duration, submerging tolerance and nutritional support varieties, which were introduced, and adaptable from following cropping seasons onwards. Below para shows the yield performance of main crops.

Yield performance of main crops (tons/ ha)

Rice:	Aus: HYV	3.2-3.9
	T.aman: HYV	4.0-5.2
	Hybrid	4.5-6.5
	Boro: Hybrid	6.0-7.3
Vegetables:	(Cucumber, Okra, Bitter gourd, Country bean, Tomato, Cabbage etc)	10-30
	Potato:	30-35
	Water melon:	20-30.

Seasonal workshops

Twelve seasonal workshops were organized by DAE in the project period, following the 3 cropping seasons: Kharif-I, Kharif-II and Rabi. DAE officers and field staffs, representatives of related departments such as BADC, BARI, BRRI, Bina, SRDI, ATI, Seed Certification, NGOs, TA team members and farmers' representatives of all chars participated in these workshops. After each presentation, a general discussion and group exercise was held. Recommendations of the workshops were incorporated in seasonal and annual reports.

Value chain workshops

Six value chain workshops were organised as per plan. Representatives of related departments, market actors, and wholesalers, agricultural entrepreneurs from outside project/ districts, loan giving agencies, producers, NGOs and farmers representatives of all chars participated in these workshops. After each presentation a general discussion and group exercise was held. Recommendations of the workshops were recorded properly for future implementation. Of those some issues such as linkages between local and upmarket actors, provide training and support of inputs for weighing materials, establishment of collection centre, supply plastic crates etc. have been established by from the project. Financial support from banks and other financial institutions are essential for continued future development of value chain in the CDSP-I, II, III and IV areas.

Annual workshops

One annual workshop was organized during the period and three in total. All DAE officers and staffs, representatives of all research organizations, all members of farmer's federation, concerned departments, value chain market actors and PNGOs attended the workshops. In the workshop detail activities of DAE were discussed including bottlenecks and recommendation for future potential technology.

Seasonal reports

During the period 6 seasonal reports have been published by DAE with the support of TA team and in total 48 (volumes) were published up to December 2016, containing the implementation status of project interventions. In these reports the details of all activities of DAE are documented and presented with supporting pictures.

Annual report

One annual report was published in the reporting period and in total 2 during the project period, containing all aspect information on project objectives, activities, progress, performances, constraints, char-wise salinity status and results in the project chars.

Awareness raising technical leaflets, festoons etc

A total of 9,000 posters, 27,000 folders/booklets and 1,600 festoons were published and distributed among the farmers for awareness building and used as materials in above mentioned practical trainings. These are containing various adapted technologies on modern agricultural practices, applicable for coastal areas. These training materials were distributed to the farmers in various trainings and orientations and also used as training materials.

Input distribution

Input support to the farmers is an effective tool to disseminate technology for immediate implementation of field activities. Hence, 18 tons of HYV seed, 149 tons non-urea fertilizer, 140 hand sprayer, 1,500 plastic drums, 180 rice threshing machines, 20 digital balances and 3,900 sex pheromone traps have been distributed among the farmers of the area. During input distribution ceremonies among others PD, DAE, Upazilla Chairman, UNO, Upazilla officials of Subarnachar and TA team members attended.

Surveys and adaptive research

Monitoring of soil salinity is a regular activity of the DAE field officers and the average comparative test results are given below:

Table 4 - 4 Salinity monitoring test result (ECe, ds/m)*

Name of char	Nov 2011	April 2012	Dec 2012	April 2013	Nov 2013	April 2014	Nov 2014	April 2015	Nov 2015	April 2016	Nov 2016
Char Nangulia	11.2	25.3	5.3	16.1	2.0	7.2	1.7	6.3	2.9	7.6	2.0
Noler Char	4.8	28.0	4.2	13.0	4.0	9.8	3.7	13.0	4.7	7.6	6.0
Caring Char	6.6	32.2	3.9	15.1	4.5	11.0	4.0	11.0	4.7	10.1	6.0
Char Ziauddin	10.6	14.2	2.3	3.1	1.6	2.8	1.1	1.6	1.5	2.5	1.6
Urir Char	8.5	16.1	7.1	11.1	4.6	10.3	2.3	14.0	4.1	10.9	3.7
Average	8.2	23.2	4.6	11.7	3.3	8.2	2.6	9.2	3.6	7.7	3.8

*ECe, dS/m= Electrical conductivity, desi Siemen/ meter. Top soil=0-10 cm.

Through different studies and research findings and from the above test results of CDSP IV, it is observed that salinity in char areas is lowest in November - December and highest in April. From the above test results it is revealed that average salinity levels show a declining trend from the previous years except in Caring Char and Urir Char as these chars are unprotected. However it will take more time to draw a conclusion on the salinity trend in the future after completion of all project interventions such as embankments, canal re-excavation and construction of sluices.

The negative effect and influence of salinity on crop production in different stages of the growing period is given below:

Table 4 - 5 Effect of salinity on crop production

EC (dS/m)	Soil salinity class	Characteristics
<-2	Non-saline	Effect negligible
2-4	Few saline	Yield very sensitive. Crops may be restricted
4-8	Slightly saline	Yield of many crops restricted
8-12	Moderately saline	Yield satisfactory for tolerant crops
12-15	Strongly saline	Yield satisfactory for few tolerant crops
>15	Extremely saline	Yield satisfactory for very few tolerant crops

Soil nutrient status in the project area

Soil nutrients of the area were surveyed by SRDI and it was found that the overall status of the soil fertility is poor in the project chars, except sulphur, which is abnormally high compared to the optimum level. To improve the soil health, a number of activities has been undertaken, like Daincha cultivation for green manuring, Quick compost and Vermi compost preparation.

In below table the nutrition status of the soil in the different CDSP IV chars is presented.

Table 4 - 6 Nutrient status of soil in the CDSP IV areas

Sl No	Component	CZ	CN(S)	CN(H)	NC	CC	UC	Optimum
1	Nitrogen (%)	0.09	0.1	0.09	0.08	0.09	0.1	0.27
2	Phosphorus (ppm)	14.14	12.78	11.17	6.26	16.41	7.45	22.5
3	Potassium (me/100g)	0.21	0.29	0.17	0.18	0.17	0.24	0.27
4	Sulphur (ppm)	173.37	143.25	127.86	45.82	87.68	156.01	22.5

5	Zinc (PPM)	0.86	0.85	0.92	0.91	0.85	0.85	1.35
6	Boron (PPM)	0.11	0.1	0.09	0.1	0.1	0.15	0.45
7	PH	7.63	7.79	7.72	8.16	8.03	7.97	-
9	O.M	1.87	2.1	1.82	1.53	1.87	1.93	5%

Note: ppm = parts per million, me=mili equivalent, CZ-Char Ziauddin, CN(S)-Char Nangulia Subarna char, CN (H)- Char Nangulia Hatiya, NC-Noler Char, CC-Caring Char.

Rain water harvest technology

Rain water harvest technology was introduced at farmer's fields for pit crop irrigation during the dry period Rabi and Kharif-I season to combat salinity. Resulting in above mentioned cultivation of Water melon, Cucumber, Sweet gourd etc, which contributes to in increasing cropping intensity of the area.

Findings of surveys in 2015 - 2016

Following a decision of the Project Management Committee (CDSP IV) DAE part meeting held on 5 April, 2016 at DG, DAE conference room, the Planning, Project Implementation & ICT Wing of DAE has formed a team consisting of seven members headed by Director (PP&ICT wing) DAE to monitor the on-going project activities and to measure the impact of the project interventions. The objective of the study is to know present status of the farmers' living standard and how many technologies or approaches are adopted, practiced and implemented by them. To ascertain what the changes are in socio-economic development of the project area and to know percentage increase of crop production by irrigation facilities and other infrastructural facilities. The monitoring team completed the study from 19 to 23 May 2016 at Char Nangulia, Noler Char, Caring Char and Char Ziauddin of Noakhali district. The monitoring report revealed that about 55% of households are in the category small, 28% in marginal and the remaining 17% in the medium category. Land under cultivation indicator measured that field crops area covered the maximum cultivable land at 56%, followed by vegetables 35%, Orchards 2% and others 7%. The M&E report stated that the average cropping intensity in all chars has increased from (MTAS) 172% to 184%. The maximum cropping intensity was found to be 206% in Char Ziauddin (same as before) followed by 183% (3% increase) in Caring Char, 180% (+5%) in Noler Char and 165% (+6%) in Char Nangulia. Cropping intensity increases indicate improved cropping pattern and introduction of a new pattern in the project area. For irrigation pond and canal water are the main source. Farmers adopted modern production technologies learned by various extension activities such as one day training, four day training, motivational tour, demonstrations and field days. Farmers cultivated modern rice variety BRRIdhan27, 48, 55, 65 Binadhan14 in Kharif-I season and BRRIdhan40, 52, 56, 57 and 62 in Kharif-II season. It was found that the farmers harvested 2-3 times higher yields than that of their existing traditional varieties. All the farmers have shown their interest to cultivate these HYVs. Majority of the farmer collect their seed from seed dealers which was rated 44%, followed by farmers own seed 23%. Farmers also collect seed from other farmers 17% and other seed sources 16%. For the livelihood development of project beneficiaries six government agencies work together. The sample farmers were evaluated on agricultural and non-agricultural income versus expenditure indicators to observe the overall progress at individual level. Of the sample farmers 91% responded "Yes" to the comments on changing living pattern. They claimed that the project contributed positively to bring a dramatic change in their lives.

Project yield contribution

During the pre-project period farmers used their traditional local rice varieties such as Rajashail, Kajalshail etc, with unknown quality seeds and they harvested only 1.5-1.8 ton/ ha. After introduction of HYV/ hybrid varieties and modern technologies the yield with ensured quality seed became 3.5-7.5, depending on the different seasons. Hence total rice production increased from 31,079 to 98,490 ton and vegetables from 4,400 to about 10,000 ton. Yield of other crops such as water melon, pulses and oil seed crops also increased significantly.

Publications of DAE in the context of CDSP IV

- Technical Report 2 and 3
- Guidelines for Participatory Farmers Organization (GPFO)
- Coastal Agriculture Resource Book "Coastal Agriculture under Unfavorable Ecosystem"
- Training Modules - 3
- Seasonal Reports - 48 volumes

- Periodic Agriculture Survey Report, 2014
- Mid-Term Agriculture Survey Report, 2015
- Monitoring and Evaluation report, 2016
- Strategic plan for value chain development
- Annual Reports – 2.

Inter-agency coordination

Support to BADC for appointment of seed dealers in project chars

Six seed dealers were appointed by BADC and they are active to make HYV seeds available in different locations of the project with the support of DAE and TA team. In addition the project has active co-ordination with all the NARS (National Agricultural Research Systems) agencies under the MoA.

Support to Bangladesh Jute Research Institute (BJRI)

Continued support was given to BJRI for conducting a trial research project in Boyer Char and Noler Char to develop a saline tolerant variety. The institute is planning to extend their activities to Caring Char as well, to be sure of sufficiently extreme saline conditions.

4.5.2 Social and livelihood support

The focus of the Social and Livelihood Support (SLS) component of the project is on social and economic development of households in the five chars, especially women and children. Approximately 28,000 households live in these five chars. So far 27,654 households have been identified in the whole project area. The sub-component is implemented at field level by partner NGOs. Four PNGOs were selected to perform the assignment. The selected partner NGOs with their working areas are given in the table below:

Table 4 - 7 PNGOs assigned areas

SI #	Name of NGO	Number of branches	Name of working chars
1	Brac	6	Char Nangulia, Noler Char, Caring Char, Char Ziauddin
2	Sagorika Samaj Unnayan Sangstha (SSUS)	3	Char Nangulia, Noler Char, Caring Char
3	Dwip Unnayan Songstha (DUS)	2	Char Nangulia, Noler Char
4	Society for Development Initiatives (SDI)	2	Urir Char, Char Nangulia

Human resources and management set up of the NGO component

Each PNGO has deployed a program coordinator to supervise its activities in the various branches. The higher management of the PNGOs are providing management support and at the same time the TA team is providing both technical and management support. In each branch there are a Branch Manager, six Credit Officers, an Accountant and an Assistant Accountant cum office assistant, Coordinators for Legal and Human rights, for WatSan, for Homestead Agriculture & Value Chain Development, for Disaster Management and Climate Change, for Fisheries, for Poultry & Livestock and for the Health and Family Planning Program; a Medical Assistant and three Health and Family Planning Facilitators. The Branch Manager is responsible for coordination of all the activities of the social and livelihood component in the branch. The Credit officers take care of the base line survey, group area demarcation, group formation, group meetings, borrower selection, loan disbursement, savings and loan instalment collection and other project activity related issues. The Accountant and Assistant Accountant are responsible for the microfinance and financial transactions in the branch and they prepare the financial reports. Coordinators and other staff are responsible for implementation of the sector programs.

The recruitment of staff in the project was completed in 2012. Staffs were recruited as per design and need of the project. Among recruited staff the male female ratio is 3:1. In the month of October 2014 two new sub-components were started. For this purpose, TA team recruited one NSS for Fisheries and another for Poultry & Livestock. Moreover PNGOs recruited 6 coordinators for Fisheries and 6 for the Poultry &

Livestock programs to cover the five chars through 11 branches. The status of the staff of PNGOs by end December 2016 is given in the table below:

Table 4 - 8 Status of staff of PNGOs

PNGO	NGO Coordinating Office Staff						Branch Office Staff													Total Staff			% Female staff	
	NGO Director	Coordinator	NGO component manager	Area manager	Accountant	Office assistant	Sub-Total	Branch Manager	Accountant	Assistant accountant-cum office assistant	Credit Officer	LHR Coordinator	Disaster Coordinator	WatSan Coordinator	Agri. Coordinator	Paramedics	HF-PF	Support staff	Fisheries coordinator	Poultry Livestock coordinator	Sub-Total	Female		Male
BRAC	1	1	0	1	1	4	5	3	5	2 3	5	5	5	5	5	1 6	5	3	3	88	23	69	92	25
SSUS	1	1	0	1	1	4	2	2	2	1 2	2	2	2	2	2	6	2	1	1	38	11	31	42	26
DUS	1	1	0	1	1	4	2	0	2	0 9	2	2	2	2	1	5	2	1	1	31	07	28	35	20
SDI	1	1	0	1	1	4	2	0	2	1 1	2	1	2	2	2	4	2	1	1	32	07	29	36	19
Gr. Total	4	4	0	4	4	16	11	5	11	55	11	10	11	11	10	31	11	6	6	190	48	157	205	23

Capacity building and skill development of beneficiaries

To involve beneficiaries in income generating activities and at the same time to increase knowledge and awareness in different income generating sectors, trainings and refresher courses are offered to group members of PNGOs. The participants have already taken loans from the PNGOs to utilize the loan as per learning's from the training. The training on IGAs is continuing and all beneficiaries will receive training on various courses during the remaining project period. In the reporting period 74 beneficiaries received training on non-farm income generating activities. The cumulative number up to December 2016 is 22,076 (farm 21,902; non-farm 174).

Sub components of the Social and Livelihood Support component

The Social and Livelihood Support component is divided into the following sub components:

- Group Formation, Micro finance and Capacity Building;
- Health and Family Planning;
- Water and Sanitation;
- Homestead Agriculture and Value Chain Development;
- Legal and Human Rights;
- Disaster Management and Climate Change.
- Fisheries (**started since October 2014**)
- Poultry & Livestock (**started since October 2014**)

The performance of the 8 sub components is briefly described below, for a more extensive description of the activities reference is made to Progress Report No 9.

Group Formation, Micro finance and Capacity Building

In the reporting period no new members have enrolled and 26,373 members were enrolled in 984 groups up to December 2016, which is 95% of the households. An NGO group has 27 members on average.

PNGOs are collecting savings from the enrolled members on a weekly basis in the group meeting. Tk. **66,58,656** was collected during the reporting period and **total savings is Tk. 9,55,79,754** up to December 2016. Average savings per member is Tk. 3,624.

PNGOs are disbursing loans as per beneficiaries' choice and skill. During the period 6,584 loans were disbursed amounting **Tk.17,77,90,000** and in total 74,202 loans were disbursed up to December 2016, amounting Tk. **124,52,60,000** among 24,826 borrowers (All of them received first loan from the project). The average loan size in the reporting period was Tk.16,782. The total member coverage by loans is **94%**.

Death benefit: If any micro credit group member dies, the nominee of her family will get a financial benefit from the project amounting Tk. **2,550**. In addition PNGOs are providing an equal amount of money from their organization's fund. In the reporting period no families have received death benefit from the project and **334** up to December 2016.

Outcome of the Microfinance Program

So far **22,076** beneficiaries were trained on farm- and non-farm IGA, which is **79%** of the members. They are investing their microcredit funds in various income generating activities like poultry rearing, cow rearing, goat rearing, summer vegetable cultivation, winter vegetable cultivation, fish culture, beef fattening and agro-nursery-farming, including nursery development.

124 Trained women tailors (non- farm) are operating tailoring houses in a profitable way. All of them became an earning member of their families. Their monthly income ranges between Tk 1,000 to 15,000. About 25% of the women tailors became master tailors and they are providing training to girls and women with reasonable fees. **50** Trained women are earning Tk 4,000-5,000 by making nicely designed caps, which are exported to Arabian and other countries.

110 Women are involved in developing plant nurseries. These women are producing and selling seedlings, fruit saplings and medicinal plants to char dwellers. They are earning Tk 20,000-50,000 from their nursery business. Some of them have invested in secondary income generating activities like poultry farms, carrier-vehicles like 'Nochimon (local mechanised carrier)' and paddy threshing machine (Paddle threshers).

Health and Family Planning program

Health forum is an important tool to make participants aware through imparting health education on various issues. In the health forum the HFPP creates awareness among the community on family planning, nutrition, hygiene, immunization, on pregnancy related care and on common diseases. During the reporting period 4,107 health forums were conducted and 40,653 forums were conducted up to December 2016. Medical Assistants of the health and family planning program have been paying visits to the health forums to monitor and develop the quality of the forum. 313 Health forums were visited in the reporting period and in total 3,587. In addition HFPP is paying visits to households. Normally a HFPP visits five households per day in an afternoon session. At the time of house visits they also monitor the oral pill consumption. 11,597 Households were visited (repeated) in the reporting period and 137,966 (repeated) up to December 2016.

In the **static and mobile clinics** 12,058 Patients received treatment during the reporting period and 163,305 beneficiaries received treatment up to December 2016. Medical Assistants of the clinics usually refer the patients, which they cannot diagnose or are unable to give proper treatment, to the doctors of Upazilla and district general hospitals. In the reporting period 200 patients were referred and so far in total 2,666 patients were referred. Usually the people in the project area had performed circumcision of boys by local unskilled people. After intervention of the project, the people are performing the same by the Medical Assistant (MA) of the clinic. In the reporting period 147 baby boys were circumcised and 667 up to December 2016.

185 **TBA**s (Traditional Birth Attendants) attended the refresher trainings 6 times and HFPPs and MAs have visited all TBAs 6 times in the reporting period.

In the reporting period 956 **pregnant women** received **treatment and check-up** and in total 11,451. 587 Pregnant women and 397 lactating mothers were served iron tablets and 6,810 and 5,366 respectively were given tablets up to December 2016.

TBAs handled 1,265 deliveries in the reporting period, which makes in total 12,034. During the reporting period 30 **extremely poor pregnant women** received financial support and 85 received support up to December 2016.

Contraceptive distribution: Reduction of the birth rate in the project area is one of the objectives of the Health and Family Planning program. Medical Assistants are discussing with male groups or individuals to make them aware on family planning and to convince them to adopt family planning methods; if the husband of the couple is convinced, the female can easily use the family planning method. 776 Group counselling's were performed in the reporting period and in total 3,931; in the reporting period 43,218 cycles were distributed and in total 365,440 cycles of pills were distributed; 4,730 injections for the reporting period and 13,002 up to December 2106 were given. Family planning method user rate in the project stands at 77%.

To reduce diarrhoea the Health and Family Planning Facilitators are working for raising awareness on safe drinking water, net and cleanliness. No Packets of ORS have been distributed among the households in the reporting period and 896,268 were distributed up to December 2016, which covered 27,654 households.

To create **awareness among the local influential persons** on the health and family planning program and various health issues, a daylong **orientation** is given to the local elite (imams, school teachers, UP chairmen and members, etc). They are involved in implementing the project activities. Medical Assistants and HFPFs conduct the orientation as per CDSP IV guide line. 136 Local leaders received orientation in the reporting period and 2,342 up to December 2016. In addition several meetings were conducted with civil surgeon, Deputy Director of family planning Noakhali, Upazilla Health & Family Planning Officer (UH&FPO) Subornachar Upazilla. CDSP IV interventions, achievements and future plans were discussed with them.

Training and practical session on food processing and cooking system: To develop the capacity of staffs on method of modern and hygienic food processing and cooking system, first the staffs of the program were given training on the subject .The duration of the training was 3 days. Two batches of training were completed with 48 participants, both Health and Family Planning Facilitators (HFPF) & Medical Assistants. Both theory and practical sessions were included in the training module. Trainers from BRAC conducted the training. In the reporting period refreshers training was given to all 48 participants at the time of field visits, through individual contacts.

Orientation on food processing and cooking system: The project char dwellers usually cook their food using traditional method; huge nutrients loss occurs and misuse of food through this traditional food processing and cooking system. Most of the families do not prepare any special food for pregnant and lactating mothers, neither special food for babies. To make the people aware about loss and misuse of traditional food processing and cooking system and to save nutrient especially for pregnant women, lactating mother and babies, HFPFs of the program are conducting orientation sessions in the field and subsequently it is discussed in the health forum as an important issue. In the reporting period 41 orientation sessions were conducted in different Samaj, and up to December 2016 65 sessions were held.

Height & Weight measuring of babies (0-5 yr): The RIMS surveys revealed that stunting among babies and small children is a problem in the project area. Medical Assistants are measuring the height and weight of the babies/ children less than five years of age. The measurement is taken quarterly for each baby. 90 Babies are under observation and their height and weight are recorded.

Exploring patients' fee collection: For the sustainability of clinics in the project area even after phasing out of the project, TA team and partner NGOs are conducting mass meetings in the area with all stake

holders. In the reporting period 38 such meetings were held with different groups and 48 up to December 2016.

Medicine sale by PNGOs: For the convenience of the beneficiaries, project management decided to create a revolving fund for medicines of BDT 10,000 for each PNGO branch. Medicines are purchased and sold among the beneficiaries with minimum profit made by PNGOs. In the reporting period PNGOs sold medicines worth BDT 5,73,775 and cumulative it became BDT 47,81,445 up to December 2016.

Outcome of the health and family planning program

Knowledge on health and family planning of staffs and volunteers like Traditional Birth Attendant's has been developed significantly, resulting in good deliberation of the program and eventually good practices among the beneficiaries of the CDSP project areas.

Superstition regarding family planning methods has been reduced and use has gone up to 77%. Population is controlled as per suggestion and counselling by NGO staff and based on joint decision taken by husband and wife. The birth rate in the project area has reduced significantly, resulting in better health of mother and children in each family. Maternal mortality rate in the project is 1 per thousand while the national average is 18. Birth rate is 3 per thousand while national average is 36. Child mortality (0-5 yr) is 10 per thousand while the national average is 38. Growth rate of babies is normal and stunting is becoming less as we are observing and collecting information. Rate of immunization of 0-1 year baby is increasing and at the same time tetanus has been reduced significantly as women are given anti tetanus vaccine as we observe. Safe drinking water use is about 100%. Quality of home delivery is significant, so that delivery women seldom need to go to hospital or clinic for delivery.

Infection and complication due to traditional circumcise has been reduced as circumcision is performed by the Medical Assistants. Treatment cost and monthly patient turnover in the project clinics is reducing

Water and Sanitation Program

Paucity of safe water and inadequate sanitation are the vector of water and excreta borne diseases. Improving water and sanitation is known to have significant beneficial impact on health and hygiene in families and households. The support inspires people around the project to take action towards achieving safe water uses, sanitation and hygiene for all.

Staff Capacity Building

The WATSAN sub-component of CDSP IV is under implementation at field level through the PNGOs. TA team has trained 13 coordinators and is providing on the job training and refresher courses with field finding issues for implementation and to enhance skills and capability of work for effective program activities.

Awareness meetings

WATSAN coordinators have conducted 208 credit group meetings and so far 2,241 (two or more times a group). Separately 1,406 monthly meetings were held with TUG members and 11,280 up to December 2016. They discuss issues of sanitation and hygiene, for changing behaviour and attitude and to develop skills on DTW operation and maintenance.

TUG formation

Tube well user groups (TUGs) are formed for each DTW. 14 TUGs were formed in the reporting period and 1,388 up to December 2016. 1,373 Selected sites were submitted to DPHE. PNGOs collect beneficiaries' contribution money at the rate of Tk.4,500 per tube-well. So far contribution money for 1,248 tube wells has been submitted to DPHE.

DTWs use and platform

1,138 DTWs were installed and 1,128 functioning tube wells are being used. In the reporting period no platforms were constructed and 1,127 up to December 2016. Tube well management groups have

maintained 19 platforms in the reporting period, in total 153, with 691 small repairs being done by CTF members at their own cost.

Care Taker Family training and Kit box distribution

PNGOs have distributed tube well maintenance kit boxes to trained care taker families 1,128 up to December 2016. 2,255 CTF members received training with focus on water and sanitation issues, repair and maintenance of tube well.

Single pit latrines

Through coordination with DPHE, PNGOs ensured distribution of 344 sets latrines in the reporting period and 19,417 up to December 2016. No latrine sets were installed in the reporting period and in total 19,073. 764 Superstructures were completed in the reporting period and 19,020 up to December 2016.

The Drive to ensure 100% Sanitation and Outcome of the activities

No open defecation, use of hygienic latrines by all, proper maintenance of latrines for continual use and improved hygienic practice are the factors of 100% sanitation. Special drives and campaigns were organised to meet this sanitation target. 207 Imams of mosques were mobilized to discuss awareness building on hygienic use of latrines. 578 School meetings were conducted (5 or more times) with students & teachers in which 31,224 participants attended. 205 Adolescent orientation meetings were organized where 2,467 adolescent girls participated to create awareness on basic sanitation and hygiene.

Water, sanitation and hygiene promotional activities progress, with focus on household water treatment, safe storing of water, hand washing with soap at critical moments and hygienic disposal of human excreta. The key indicators of behavioural outcomes for the Water and Sanitation sub-component are:

Major intervention	Outcome/ Indicators
Availability of safe drinking water	86 % of HHs has access to safe water available within average 150-200 meter distance from DTWs installed by the project.
Safe storage of water	100% HHs are used to store water in safe storage containers in safe places.
Access to basic sanitation service	75% of HHs has access to an improved sanitary facility.
Use of soap or ashes in the latrine	72% of HHs has soap and water at a hand washing point inside latrine.
Hand washing with soap at critical moments	65% of HHs with soap and water at a hand washing point commonly used by family members.
Changes due to safe water and sanitation	Significant reduction of water borne diseases like Diarrhea, Hepatitis, Scabies etc. and 65% health improvement.

Homestead Agriculture and Value Chain Development

CDSP IV is implementing a Homestead Agriculture and Value Chain Development program to reduce malnutrition and to increase the income of households by agricultural production of beneficiaries through technology transfer, using training, demonstration plots, motivational tour and distribution of input support.

Farmers training on fruits and vegetables: During the reporting period 1,360 farmers received training on fruits and vegetables and 13,520 up to December 2016. All trained farmers received inputs (seeds, saplings, fertilizer, etc.) through PNGOs.

Demonstration plots: During the reporting period 817 farmers received orientation on high value crop demonstration and in total 7,278 demonstration plots were established (1,600 mixed fruits orchards and mango orchard, 5,678 farmers received vegetable seeds/ mustard oil cake/ pheromone trap). 38,940 Saplings of different fruits were distributed up to December 2016.

Vermi compost: To encourage organic farming, reduce cost of production and improve soil health condition, 336 Vermicompost plants were established during the reporting period and 1,171 up to December 2016.

Motivation tours and field days: For extension of new technologies and introduction of best practices in the project area, one motivation tour for farmers was organized during the reporting period and 45 up to December 2016. 26 Field days were organized in the reporting period and 245 up to December 2016, with the aim to make farmers more knowledgeable and introduce new varieties to produce more fruits and vegetables.

Active nurseries: 125 Nurseries were developed in the project area of which 110 are actively involved with sapling production. In the reporting period 114,207 saplings were produced and 1,726,013 up to December 2016. In the reporting period 188,596 saplings were sold worth Tk.1,155,940 and so far 1,090,436 saplings sold worth Tk.8,478,256.

Collections Point Management Committees (CPMC): 11 CPMCs were formed earlier. In the reporting period 22 meetings were held with all committees and 33 up to December 2016. Each group consists of 40 growers and 10 market actors, so in total 440 growers and 110 market actors are actively cooperating in the project area. They were trained on pre-season vegetable production and selling plan.

Rain water harvesting schemes: In the coastal area Rabi season crop production is very difficult because of major constraints such as i) scarcity of water, ii) drought, iii) soil salinity and iv) low water retention capacity of the soil. The Homestead Agriculture and Value Chain Development component has established 44 rain water harvesting schemes on a pilot basis for dry season irrigation. Each scheme covers 50 to 100 decimal of land (depending on harvester's capacity) for drip irrigation of pit crop vegetables in Rabi season and early cultivation of e.g. cucumber in Kharif 1 season.

Outcome of the Homestead Agriculture and Value Chain Development program

After receiving training on cultivation of homestead vegetables and fruits, the project beneficiaries and farmers are now producing a huge quantity of vegetables for their family consumption and for selling in the retail and wholesale markets. A few production figures up to December 2016: Country bean seed 2,409 ton, country bean 961 ton, cucumber 4,664 ton, bitter melon 1,619 ton, sweet melon 116 ton, yard long bean 633 ton, tomato 104 ton, snake melon 357 ton, ridge melon 298 ton, okra 2171 ton and chilli 85 ton. In total 12,417 tons product have been sold local, in neighbouring districts and in Dhaka/ Comilla/ Chittagong through value chain whole sale markets!

Women farmers are earning income from plant nurseries, established by them with the use of microcredit from PNGOs. They are investing their profit in secondary income generating activities like paddy thresher, 'Nochimon' local carriers and poultry farms. They are benefiting a higher level of income and enjoying better livelihood in their families than before joining CDSP.

Project area beneficiaries are using Vermicompost in their fields. Some farmers are earning money by selling the Vermicompost and worms in the project area

Legal and Human Rights

The main objective of this sub component is to provide group members access to information about law, disseminating the law through legal literacy classes, raising awareness about legal rights, and empowering the poor, especially women, both legally and socially by encouraging them to take legal action.

Meetings with group members: The LHR coordinators are conducting meetings with NGO group members. The purpose of the meetings is to make the people aware on LHR and social issues. The meeting is held after the credit group meeting. In the reporting period 1,057 meetings with NGO group members were held and 6,926 up to December 2016.

Child Rights Day observation: To make the project area people aware on rights of children, Child Rights Day are observed in all branches of PNGOs; normally a rally and a discussion meeting are held on that

day. People from all walks of society attend the occasions. 11 Events Child Rights Day were observed in 11 branches in the reporting period and 62 events up to reporting period December 2016.

Human Rights Day observation: To make the project area people aware on Human Rights, Human Rights Days are observed in all branches of PNGOs; a rally and a discussion meeting are usually held on that day. People from all walks of society attended the occasions. 11 Events Human Rights Day were observed in 11 branches in the reporting period and 62 events up to reporting period December 2016.

Orientation meetings with local social leaders: An orientation meeting for local stakeholders such as Union Parishad members, imams, marriage registers and other influential people in the community is annually organized to disseminate information on human rights and legal issues and to constructively engage them to minimize unlawful activities in the society and develop a sustainable society. The orientation is provided to them in the branch office. After the orientation an action plan is prepared, and follow up is given by the LHR coordinators of the component. 100 Persons received orientation in the reporting period and 1,575 up to December 2016.

Training of beneficiaries on legal and human rights: To raise mass awareness among the PNGO group members is one of the objectives of the LHR program. The program adopted various activities to perform the same. One of them is training of selective beneficiaries. 20% Of the beneficiaries receive training on legal and human rights on seven basic laws. This 20 % is member of the group management committee, they act as **law implementation committee** and they disseminate the message and take action against any violation of human rights. In the reporting period 700 selected beneficiaries received training by 28 events from PNGOs and total recipients are 5,174 by 207 events up to December 2016.

Legal courses for beneficiaries: Courses on LHR are conducted by the LHR promoters in each and every group in the project. The duration of the course is 22 days. In the reporting period 15 courses were organized for 367 beneficiaries and 533 courses up to December 2016 for 13,173 beneficiaries. For completing each course, the LHR promoter receives Tk.2,000 (Tk.1,500 from the project and Tk. 500 from beneficiary contribution; course participants contribute Tk. 20 each for the course).

Law Implementation Committee (LIC) meeting: After completion of each course of LHR in the group, a law Implementation committee is formed comprising 9 members, headed by the best performer in the LHR course. The committee makes linkage with all local level institutions including Union Parishad and assists to implement the program, disseminate and collect information regarding early marriage, dowry, divorce etc. in the Samaj. Each committee conducts a meeting once in a month and discusses about the progress and updated information of social issues. In the reporting period 819 meetings were held and 4,321 up to December 2016. Soon after hearing information on an event they try to solve the problem with the local people. Thus they are prohibiting e.g. early marriages in the project area. LICs stopped 3 early marriages in the reporting period and 93 were prohibited up to December 2016.

Marriage registration: The rate of marriage registration in the project area is very low compared to the main land. People in the area are not well aware to perform the same. In our LHR program special emphasis is given to registration of marriages. The staffs of the program collect the information and undertake necessary measures in this regard. It is observed that the rate of marriage registration is increasing gradually. In the reporting period 355 marriages were registered including few dues of previous period and up to December 2016, 3,206 out of 3,246 were registered with Kazi (marriage register) office.

Outcome of the Legal and Human Rights Activities

After successful implementation of the activities under the LHR sub-component of the SLS component, child marriage, multiple marriage, dowry and illegal divorce rates have reduced significantly compared to the pre-project status. Through observing the days of human rights, woman rights and child rights day the communities are more aware and have active involvement with the society as well as the country.

Disaster Management and Climate Change

To enhance the implementation process and to involve the union disaster committees, **meetings** are organised by PNGO's Disaster Coordinators with **union disaster committees** and other (e.g. Red Crescent) stakeholders. Discussion matters of the meetings were various issues of disaster and finding ways to build cooperation with each other and on how to coordinate activities. To strengthening the activities of union disaster committees, auxiliary disaster management committees were formed in the branches. These auxiliary disaster management committees hold meeting in presence of Red Crescent and members of existing union disaster Management Committees to make a formal relation with the Union Disaster Management Committee and other stake holders. Action plans were prepared on issues discussed in the meeting and follow up is given by coordinators. In the reporting period no meetings were held and 64 meetings were held up to December 2016.

To make the group members aware about **disaster preparedness and mitigation**, the staffs of the sub-component are conducting meetings with group members. Gradually meetings were held in all groups. 896 Meetings were held in the reporting period and 7,368 meetings were held up to December 2016 in different locations of PNGO groups.

Training on disaster preparedness to selective group members: To raise mass awareness in the project area, selected group members are trained on disaster mitigation and preparedness. The trained members disseminate the issues to the other people in the community. In the reporting period 1,449 beneficiaries attended the refresher training and 3,397 up to December 2016.

House strengthening and plinth raising: This program is implemented on pilot basis. The objective is to strengthen and raise the platform of a few houses, so that it survives during flooding tidal surge and that people will observe the activity and replicate it for their own house. This activity is targeting mainly Caring Char. No houses were strengthened and no plinths raised in the reporting period, 417 of both up to December 2016.

Training on improved cooking system: To mitigate the crisis of fuel wood and to protect the house and environment from pollution, this activity is implemented in the whole project area. Project provided training to 260 (F-240, M-20) persons on improved cooking systems and is continuing campaigning and motivation to increase the number of users gradually. In the reporting period 724 cooking systems were established in all branches and 5,765 were established so far.

International Environment day and National Disaster preparedness Day observation: In order to raise awareness among the people, on the fixed days these days are observed. People from the community, teachers, students, leader of different local level institutions and local elites are participating in the occasions. A rally and a discussion meeting are held and materials and saplings distributed to mark the days. 62 And 64 events respectively were observed up to December 2016.

Bill board preparation: To disseminate and easy understand the message on Disaster Management and Climate Change, Bill boards are prepared and put in places where many people are moving and watching. 13 Such billboards were prepared up to December 2016.

Signal flag: To provide community people early warning of disaster, in each branch 3 locations were selected with the management committees, where flags and other materials were supplied and stored. At 117 locations flags and other materials were supplied so far.

Hand mike distribution: At the time of disaster the concerned coordinators will disseminate the message of disaster to take precautionary measures. 12 Hand mikes for danger signal broadcasting were distributed so far.

Outcome of the Activities of Disaster management: Thanks to the trainings, refreshers and group meetings on the issue all HHs of the project are aware about disaster preparedness and the signs of disaster signalling. In all areas union disaster management committees are active during the pre- and post-

disaster period. During the cyclonic storm “Roanu”, in May 2016, the volunteers of Union Disaster Management committees actively participated in signal flag hoisting, making the community danger level of signalling and in mobilizing people to take shelter. As a result about 6,500 people took shelter in the nearest project cyclone shelter and most of the people went to a safe place.

Already 22% of the project HHs is using improved cooking system for their daily cooking purpose.

Poultry and Livestock

CDSP IV started the Poultry and Livestock component in the project area in October 2014. Due to lack of service from government and non-government organizations, beneficiaries were demanding support from CDSP IV. Poultry and Livestock rearing is one of the important sources of livelihood for the settlers/farmers in the project area. Livestock is a crucial part of household’s economy as a source of food and of financial and social security, while backyard rearing of poultry (chickens, ducks and pigeons) is an important source of subsistence. The average number of birds for each household is 10 chicken and 5 ducks (baseline survey, 2014). In case of livestock and poultry, productivity was affected by high levels of mortality, especially in chicken and ducks. Typically between 50-70% of each clutch of baby chicks /ducklings was lost by disease (probably Newcastle/Ranikhet disease and duck plague) due to lack of vaccination service. CDSP IV is now implementing the poultry and livestock program to reduce the poultry and livestock mortality and to increase the income of households by rearing poultry and livestock by proper management and care. During the reporting period the program activities were as follows.

Meetings with group members: The poultry and livestock coordinators (total 6 persons, one person for two branches) are conducting meetings with NGO group members. The purpose of the meetings is to make people aware through discussion about improved rearing system, veterinary health care and other technical issues related to poultry and livestock. The meetings are held after the end of the credit group meeting. In the reporting period 343 and in total 1,649 group meetings for awareness build up were held up to December 2016.

Poultry worker refreshers training: In the reporting period 143 Poultry workers received one day refreshers training in the PNGO branch offices.

Fodder Cultivation and Management Training: In the reporting period 220 selected beneficiaries received training on saline tolerant fodder cultivation and management techniques to reduce shortage of quality green grass for livestock during dry and rainy season in the project area. Each trainee received grass seeds and fertilizer as input support from the project.

Poultry vaccination Program: To improve productivity and reducing poultry mortality CDSP IV started a poultry vaccination program from May 2015, which is implemented by PNGOs. During the reporting period 752 poultry vaccination programs were conducted and 2,094 up to December 2016. In the reporting period 80,475 and in total 233,797 poultry (both chickens & ducks) were vaccinated. 74,634 Poultry were given vaccine for the first time, which indicates newly generated poultry flock in the project area. The total use of vaccine is 90%, which indicates the satisfactory use of vaccine. The following table shows the PNGO wise poultry vaccination status.

Table 4 - 9 Poultry vaccination status in CDSP IV areas

PNGO	Poultry vaccination Programs (nos)	Used Vaccine dose / bird	Vaccinated poultry (nos)	Vaccination (%)	Total 1 st time vaccinated poultry (nos)
BRAC	340	32,000	29,505	92	29,178
SSUS	60	12,500	9,996	80	5,257
DUS	312	31,200	30,943	99	30,337
SDI	30	13,500	10,031	74	9,862
Total	742	89,200	80,475	90	74,634

Para-vet selection and training: To decrease prevalence of common diseases, ensure vaccination and veterinary care for livestock in the project area, 12 persons (1 person per branch) were selected for a Para-Vet development training program. The technical part of this training program was conducted by resource persons from the Department of Livestock Services, Bangladesh Livestock Research Institute (BLRI), and from the District Artificial Insemination Centre. After 15 days residential training participants were awarded a certificate on primary treatment and vaccination of livestock, authorized by District Livestock Officer, Noakhali. Para-vets also received a surgical bag as input.

Livestock Vaccination and Treatment: During the reporting period 49 livestock vaccination programs were conducted in the project area and 320 up to December 2016. In the reporting period 4,635 livestock (cattle & buffalo) were vaccinated and 25,700 up to December 2016. During the reporting period 5,304 livestock were given primary treatment and 13,179 up to December 2016.

Special trial program on Sonali crossbreed poultry rearing: During the reporting period a special trial program was undertaken on Sonali cross breed poultry rearing (one cock family- includes a single cock and nine hens) in semi intensive system for 13 families under three PNGOs branches in Char Nangulia. The average flock size of Sonali chicken was between 20-10 per family. The Sonali is a cross-breed of Rhode Island Red (RIR) cocks and Fayoumi hens and has a similar phenotypic appearance as that of local chickens. Sonali birds are well adapted to the country's environmental conditions, so they require less care and attention than other breeds, making it easier for women and children to rear. In the trial the Sonali birds in semi intensive system were housed with netting and a small shelter made by wooden boards or bamboo and corrugated iron sheet (tin). The semi intensive Sonali birds are feed homemade unbranded feed made by local ingredients like broken maize, rice polish, soybean, broken rice, broken lentils, dried fish etc. Green vegetable waste or kitchen waste is also supplied with fresh drinking water. All birds are getting vaccination and others veterinary support via the PNGOs branches from the project.

Technical support to beneficiaries: During the reporting period, poultry and livestock coordinators have provided technical and management support to 278 cattle rearers, 128 goat rearers, 291 homestead poultry rearers and 139 beef fatteners and in total 1,174, 612, 1,152 and 438 respectively up to end December 2016.

Outcome of the poultry and livestock program

Due to implementation of the poultry and livestock program in CDSP IV, project area people have become more aware about improved rearing system of poultry and livestock, and about vaccination and treatment of animal diseases.

About 70% of the HHs now has access to poultry & livestock vaccination and treatment service. The increasing number of treated livestock indicates easy access. Due to the vaccination program for poultry and livestock reduced poultry mortality and prevalence of common diseases of poultry and livestock is visible in the project area.

Beneficiaries are getting necessary technical support and veterinary care for their poultry and livestock from our skilled persons (Poultry workers and Para-vets). The number of Poultry and livestock is increasing day by day. People's income from the sector is increasing and they can invest additional income in production, family expenses and education for their kids. In addition there is creation of livestock based employment opportunity and improved family nutrition through increased consumption of milk, meat and eggs.

A linkage has been established between Para-vets and DLS which help them to become more technically sound. Para vets are also involve with veterinary medicine business with small dispensaries in local bazaars which ensure quality Vet- products in char areas and it gives them Tk. 6,000 to 10,000 monthly income from primary treatment and medicine business.

Fisheries

Similar to the Poultry and Livestock Component CDSP IV started the fisheries component in the project area in October 2014. The following activities were performed in the reporting period and up to December 2016.

Staff Training: TA team has provided 5 days training to the 6 Fisheries Coordinators on basic fish culture, feed and pond management. In addition one day refresher on fish culture management was held with 6

fisheries coordinators. The objective of refresher was to review the knowledge gained in the training and at the same time to share modern knowledge and technology on fish culture.

Pond Selection: After completion of the baseline survey, NSS and Coordinators of fisheries selected 18,189 ponds (perennial 6,256 and seasonal 11,933), which cover 186,379 decimals (755 ha) of water bodies for fish culture in CDSP IV areas

Training on fish culture management of perennial ponds: The objective of training was to develop the knowledge and at the same time to share modern technology on fish culture management with the annual fish farmers. 4,418 Beneficiaries were trained on fish farming.

Training on fish culture management of seasonal ponds: The objective of the training was to develop the knowledge and at the same time to share modern technology on fish culture management with the seasonal pond fish farmers. 1,022 Seasonal pond owner beneficiaries were trained on fish farming.

Training on fingerling production management: To develop the capacity of the fish nurserers and to acquaint them with modern farming technology and management, a 3 day long training was organized by TA team. Nursery management, Quality fingerlings production and management were the main objectives of the training. The training was facilitated by the NSS (fish). 108 Farmers were given training. The trained persons are in operation in the field and producing good quality of fingerlings.

Meetings with group members and household visits by fisheries coordinators: The six fisheries coordinators are conducting meetings with NGO group members. The purpose of the meetings is to make people aware about improved fish culture technology and other technical issues related to fisheries. The meetings are held after the end of the credit group meeting. In the reporting period 597 group meetings were held and in total 2,259. 1,962 HHs were visited by the Fisheries Coordinators and in total 6,674 up to December 2016.

Spawn collection, Fingerlings production and release: 54 Newly trained nurserers have collected 47.5 Kg of fish spawn (Rui, Katla, Silver carp, Bighead, Mrigle, Kalibous, Sarputi and Grass carp) from Rajlaxmi fish hatchery of Rajganj of Begumganj Upazilla, Noakhali and released these into the prepared 54 nursery ponds. So far 95 nurserers released 76.8 kg of spawn in 95 nursery ponds. 75% Cost of the spawn was given as an input support from the project and remaining 25% was borne by the nurserer. In all the nursery ponds together approximately 60 lac fingerlings will be produced. In the reporting period 27,00,000 fingerlings were sold by 95 nurserers to 5,440 annual and seasonal fish farmers in the project area; in total 30,67,202 fingerlings were sold (total price was Tk.46,14,500) up to December 2016. Nurserer's income range was Tk.15,000 to Tk.50,000.

Demo fish farmers training, input distribution and fish production: The objective of the training was to develop the knowledge and share modern technology on fish culture management. 2 Days training were held at the branch areas to establish model fish farmers and extend modern technology among the surrounding traditional fish farmers. 720 Model fish farmers were trained on fish farming. The trained farmers have received 4,58,800 fingerlings from 95 nursery farmers and 13,750 kg fish feed up to December 2016 as an input support from the project. In the reporting period 21.52 MT fish was produced by 120 demo fish farmers and in total 21.52 MT, the total price was Tk 26,87,500 up to December 2016. Demo farmer's income range was Tk 12,000 to Tk.16, 000.

4.6 Institutional development

4.6.1 Field level institutions

It has been demonstrated in many parts of the world that development initiatives are more effective for poverty reduction when all stakeholders, especially citizens and marginalized communities are actively involved in the planning, implementation and monitoring of development programs. Moreover effective development calls for the "ownership" of processes of change by those who will embody them in the future.

In most cases, external interventions have negative implications at local level because it often leads to a lack of ownership on the part of local communities. For avoiding such a situation in future CDSP IV is adopting a multi-dimensional approach which requires an institutional basis at community level in order to promote a participatory process as well to make the efforts sustainable. Moreover community-owned processes would only be transformative if it is driven and self-organized by internal forces and dynamics of changes. In order to promote such a process in the project areas six implementing agencies and four PNGOs, with support from the Technical Assistance team, are working for strengthening and capacity development of field level institutions (FLIs), established to involve them in planning and implementation of project interventions such as infrastructure development for better water management, social forestry, agriculture extension and livelihood and in operation and maintenance after the project is completed. The institutions formed are Water Management Groups (WMG); Water Management Associations (WMA); Tube well User Groups (TUG); Farmer Forums (FF); Social Forestry Groups (SFG); Labour Contracting Societies (LCS) and Women Credit and Savings Groups. In **Annex 9** a complete overview of FLIs is presented.

The formation of WMGs, LADCs and FFs was completed by the end of 2012 as per project target. The formation of WMA in Noler Char and Caring Char was completed in December 2015 and the formation of WMF in CDSP IV area is under process. This process needs some careful consideration, as the thinking is now floating whether WMF should be established on project basis or local administrative boundary basis. In order to come to a concrete decision promoting a participatory process, the project is planning to organize a workshop involving the representatives of all WMGs and WMAs. The formation of TUGs is already completed, except for some additional DTWs, while formation of SFGs and LCS is still on-going as these are to be formed on the basis of works to be implemented in the respective areas. For the status of the formation of the Social Forestry Groups please refer to paragraph 4.2.2, for Farmers Forums please refer to paragraph 4.5.1 and for the status of women credit and savings groups and TUGs by PNGOs, please refer to paragraph 4.5.2 above. In addition TA Team continued support to the WMOs in the CDSP-I, II & III areas.

Formation of Water Management Federation (WMF)

After long discussion held with BWDB, representatives of WMGs and WMAs it has been decided that one Water Management Federation (WMF) will be formed involving the representatives of Char Nangulia Water Management Association (WMA), Noler Char and Caring Char Water Management Association (WMA) and representatives of Boyer Char Water Management Association (WMA). Accordingly planning meetings with those WMAs have been organized and it was realized that Char Nangulia WMA and Boyer Char WMA were formed in 2012 and 2013 in accordance with the cooperative procedures as no guidelines were yet approved then by Water Resources Ministry. But it is now mandatory, after the approval of Participatory Water Management Rules 2014, that all water management organizations need to be formed in accordance with that Rules. Realizing this ground situation, attempt has been made in this reporting period to reorganize the WMAs on priority basis and subsequently to form the WMF including the representatives of those reorganized WMAs. It may appear that the process is taking much time but BWDB is very much involved with the process right from the beginning and they are very orthodox to follow the guidelines that have been spelled out in the Participatory Water Management Rules 2014 including the time frame, although they do not have enough manpower to fulfil the formalities.

Formation of Water Management Association (WMA)

One WMA was formed in Noler Char and Caring Char areas in December 2015 which has 40 members with 5 representatives (Male 27 and Female 13) from each of the 8 WMGs. The Nangulia WMA met six times out of target 6 during this time at Kaladur Bazar CDSP IV site office. Average attendance in those meetings was 67 percent. Since its formation the WMA met 36 times and discussed issues like: construction of a new sluice as DS2 has been eroded by river, payment of security money by BWDB as the WMG centres have been completed, provide furniture for the WMG centres in order to organize meetings in those centres, river erosion threat to the area, water management problems, particularly removal of water logging, audit of WMGs due to non-availability of relevant officials from BWDB, increase of membership in all WMGs, practicing participatory water management rules - 2014, land settlement

issues, infrastructure development such as excavation of khals, protective works required to stop the erosion, new earthen roads, construction of new cyclone shelter in Char Laxmi area as there is no cyclone shelter, construction of additional pit latrines, reconstruction of the road from Soleman Bazar to Haji Idris Bazar.

Formation of Water Management Groups (WMG)

As per project design, all activities related to WMOs are primarily the responsibilities of BWDB but only one extension official (who is also very irregular) is available in Noakhali Division since September 2016, and no posting of a new AEO in CDSP IV was done yet. During this reporting period the TA Team continued the strengthening and capacity building related activities of WMGs and WMAs in the four chars (in Char Nangulia - 11 WMGs & 1 WMA, in Noler Char - 5 WMGs, in Caring Char - 3 WMGs and 1 WMA in Noler Char and Caring Char and in Char Ziauddin – 2 WMGs) as per target. But due to non-availability of BWDB extension officials on a regular basis, not all activities of WMOs are discharging in an effective manner like regular auditing of all registered WMGs, registration of rest of the WMGs, including organizing the training courses outlined in the Annual work plan for CDSP IV, although a detailed training program including required budget has been developed and forwarded for approval. As the training programs could not start yet due to non-availability of fund it will be a challenging job to complete the training courses included in the Annual work plan for 2016 - 2017.

WMG Registration by BWDB

As per agreement between PCD, CDSP IV and Chief Water Management of BWDB 19 WMGs (11 in Char Nangulia, 5 in Noler Char, 2 in Char Ziauddin and 1 in Caring Char) are registered by the BWDB as per Participatory Water Management Rules 2014. Two newly established WMGs in Caring Char are in the process of registration from BWDB. Registration of WMOs (WMGs and WMA) in CDSP-III, II and I areas is also under process. The process for registration of WMGs in CDSP-III, II and I areas is getting relatively slow due to the procedure laid down in the rules (it is mentioned in Participatory Water Management Rules - 2014, that at least 55% of the water users within the proposed operational area needs to be enrolled in WMG as members). Detailed discussion was held with BWDB to find out a workable option in this regard. But as no extension officials are available in Noakhali BWDB Division the process is taking more times than expected. Another point is that as there is no registration authority of BWDB available in Noakhali, so the WMO representatives have to travel to Feni in order to collect application forms and other documents required for registration. BWDB should develop some effective mechanism to expedite the registration process which will be less costly and less time consuming on the part of WMOs.

Construction of WMG's and LADC office buildings

Construction of 11 Water Management Centre buildings was completed in Char Nangulia, and another 3 in Noler Char and 2 in Char Ziauddin out of the total target of 24. It is planned that construction of WMGs centre by respective WMG will have two-fold benefits like the quality of the works will be ensured and the WMG members will get some financial benefits out of this construction. But the respective WMGs received very limited benefits due to the lengthy payment procedure followed by BWDB. But the respective WMGs received very limited benefits due to the lengthy payment procedure followed by BWDB and the respective WMGs have spent more money than the approved estimates due to their limited capacities. WMGs are now organizing their respective meetings in their centres on regular basis. It is planned to provide furniture from savings on the budget for WMG centres.

Maintaining of books, registers and formats by WMGs was closely monitored and guided by the concerned Project Area Coordinators (PAC) and Gender Field Coordinators (GFC) during this period too as their routine task. Monthly meetings were also facilitated by concerned PACs and GFCs. The status and details of WMGs and WMA are shown in the following table.

Table 4 - 10 Status of WMGs and WMA in CDSP- IV areas (July – December 2016)

SL	Name of Char	FLIs: WMG	No. of Shamaj	No. of HHs	No. of members in WMG/ WMA			No of meetings held during the reporting period
					Male	Female	Total	
1	Char Ziauddin	2	13	2,180	39	38	77	5 meetings for one WMG & 6 meetings for one WMG 1 male member increased.
2	Noler Char	5	28	7,020	105	78	183	6 meetings for each WMG held
3	Caring Char	3	22	3,742	45	44	89	6 meetings held
3	Char Nangulia	11	83	13,837	251	199	450	6 meetings for each WMG held
Total		21	146	26,779	440	359	799	
Char Nangulia		1 WMA	83	13,837	30	14	44	6 meetings held
Noler Char & Caring Char		1 WMA	50	10,762	27	13	40	6 meetings held
Total		2	133	24,599	57	27	84	

As can be seen in the table in Noler Char and Caring Char all monthly meetings of the 8 WMGs were held as planned. In Char Ziauddin most of the monthly meetings were held, 11 in total. In Char Nangulia 66 meetings were held during this reporting period. Average attendance in those meetings was 46% in Noler Char, 67% in Caring Char, 58% in Char Ziauddin and 46% in Char Nangulia. The WMGs enrolled only one new male member in Char Ziauddin. The effort is continuing to increase the enrolment of new members It has been observed during meetings in Char Nangulia and Noler Char that river erosion, including the loss incurred by WMG centres construction and fish culture have restricted the local people and is demotivating them to be members of Water Management Organizations.

Six monthly meetings of **Char Nangulia** WMA were held in this reporting period and the average attendance in those meetings was 67%.

In **Noler Char** all monthly meetings of the 5 WMGs were held i.e. 30 meetings as per target. Average attendance of these meetings was 56%. Respective WMGs prepared list of possible beneficiaries for enrolling them as new members but river erosion emerged as potential threat for the area resulting in a slow process on the part of local communities.

In **Char Ziauddin** 11 monthly meetings of the 2 WMGs were held during this reporting period and the average attendance in those meetings were 58%.

In **Caring Char** all 18 meetings of the 3 WMGs were held during the reporting period and the average attendance in those meetings was 67%.

WMOs in CDSP III

10 WMGs and 1 WMA were established in CDSP III area, i.e. in Boyer Char. Ten WMGs have 414 total members out of which 241 male and 173 female as 47 male and 3 female members have increased during this reporting period. WMA has 40 members of which 25 male and 15 female. The WMA organized three meetings during this reporting period and the average attendance was 80%. A special meeting of this WMA was organized jointly by BWDB and TA team in order to reorganize this WMA as it was established in accordance with the cooperative procedure. This initiative was taken to establish this WMA in accordance with the procedure of Participatory Water Management Rules-2014 as a process of establishment of WMF with the representatives of WMA.

The ten WMGs organized 56 meetings during this reporting period. Male attendance and female attendance in those meetings were 54% and 63% respectively, with the average attendance 58%. These ten WMGs have accumulated a capital of Taka 2,315,703 as their savings, share and profits from economic activities undertaken by them.

The following activities were taken by WMGs/ WMA during the reporting period:

1. WMGs continued their efforts in removing cross dams and fishing traps with the support of Local Government Institutions (LGIs) from their respective canals to remove water logging in the area.
2. WMGs repaired road and embankment at Boyer Char.
3. WMA has been leading all operation, maintenance, social services and linkage and coordination with LGIs, other projects and implementing agencies independently in Boyer Char.
4. The issues discussed in the WMA and other WMGs meetings were:
Enrolment of new members, capital accumulation by local resources mobilization, resolving drainage problems by re- excavating khals at different locations, stop the river erosion in Tankir and Chatla area, operation maintenance of sluices and other structures during monsoon and scope to generate more employment opportunities particularly in the non-farm sectors like small and cottage industries.
5. The main issues raised by the local community during the interaction were: stopping the river bank erosion, removal of water logging from their respective areas by making the existing canals operative and resolve the crisis created in demarcating the boundary lines between Hatiya and Ramgati.

WMOs in CDSP II

In CDSP-II areas 39 WMGs, 7 WMA and 2 WMF were established under CDSP-II. Most of the WMOs are still active with little support from TA Team and almost no support from BWDB. WMG, CBD-1 organized 6 meetings during the reporting period with average attendance 50%.

Six WMGs in **Polder 59/3B**, Zillar, Montaz, Korim, Gopal, Nabagram and Kalmi, organized 23 meetings in this period. It has been reported by the WMGs committee members that they normally organize meetings whenever they feel necessary like for the operation schedule of their sluice, repair of the embankment etc. The WMG representatives make liaison with BWDB and other implementing agencies whenever they feel necessary. The representatives suggested that if CDSP-IV can make some efforts to develop their capacities by providing formal trainings on Group management and Leadership development, book-keeping and accounts maintaining etc, this would help them to continue their effective efforts in keeping their WMOs operational.

The community people in Zillar area raised that the existing sluice is inoperative as one of the bands is completely damaged so they requested to repair the damaged sluice, so that it can help them in draining out the water during the rainy season. They also pointed out that a WMG centre is yet been constructed in Zillar, Momtaz, Karim and Gopal. So they requested BWDB to take initiative to construct WMG centres in those areas, it will help them to organize their meetings on regular basis and they can continue their WMO activities in more effective way.

In **Polder 59/3C-Bamni** 11 WMG, 3 WMA and 1 WMF were established during CDSP-II period. During that phase only 3 WMAs were registered by Cooperative department but no WMGs were registered at that time. Since the Participatory Water Management Rules-2014 are formulated by BWDB, the option was to registrar the WMGs first and then WMA; the registration should be done by BWDB. So according to that procedure, previous registration of 3 WMAs has been cancelled by the cooperative department and 8 WMGs have already been registered by BWDB. The other 3 WMGs are in the process of registration.

These 8 registered WMGs (Char Elahi, Char Lengta, Diarra Balua, Musapur Bagdara, Char Fakira, C.G.A, Sonadia and Jagdananda) have organized 43 meetings in total during this reporting period with average attendance 85%. In those meetings they mainly discussed to close the area which is now open due to

washed out of the structure including the embankment in 2009. So their main concern is to close the area in order to safe their crops and livelihoods from the incoming saline water.

WMGs-Gangchil operates smoothly the 12-vents regulator, met 12 times in the reporting period with average attendance 84%. A cross dam was constructed at the mouth of outfall channel in the post monsoon this year. They prepare a maintenance plan on regular basis and among 3, all WMGs have already been registered by BWDB and one has been registered during this reporting period.

In **South Hatiya** 20 WMGs, 3 WMAs and 1 WMF were established during CDSP-II period in accordance with the provision of Cooperative rules but as Participatory Water Management Rules- 2014 are approved by the Ministry of Water Resources, all these WMOs are dismantled and three new WMGs have organized following the PWMR-2014 and they got the registration from BWDB. WMGs organized 14 meetings in this reporting period and the average attendance was 60%. No follow up from TA or BWDB side last six months except occasional telephonic contact. The embankment, sluices and canals and cyclone shelters in many cases are illegally occupied by local squatters, as was reported by local people and WMOs. WMOs are frequently demanding the maintenance of cyclone shelters, re-excavation of canals and maintenance of earthen and paved roads which were all constructed during CDSP-II. The WMOs continued savings collection and deposition in the bank account through meetings. The WMOs are very much in the position to involve in O&M activities, which can help them in streamlining their organizational basis and also encourage the local people to be involved in WMO's activities. As a follow-up they requested BWDB to allocate some O&M activities in their respective areas.

WMOs in CDSP I

Four WMGs were established in CDSP-I areas (Char Majid, Char Baggardona-II, Nobagram and Kolmi). The following activities were taken by these WMGs:

1. WMGs continued maintaining linkages with government agencies particularly with BWDB and LGED.
2. Yearly audits were not accomplished by WMGs, as no officials of the registration authority (in case BWDB) are currently available.
3. All WMGs reviewed O&M status and requirement in their areas and prepared a draft maintenance plan.

Local Area Development Committee (LADC)

The formation of Local Area Development Committees (LADC) was completed in Urir Char and Caring Char by the end of December 2012 as per LADC guidelines. Both the chars are unprotected, so Local Area Development Committees were established instead of WMGs.

In **Caring Char**, all 3 LADC have already been re-constituted as WMGs as per the demand of the LADC members and also according to the procedure of the project; their performances are reported in the WMGs/ WMAs sections above.

In **Urir Char** 17 meetings were held in the last six months out of the target 18. Average attendance in those meetings was 71%. The table below presents the status and details of the LADCs:

Table 4 - 11 Status of LADC during July - December 2016

SL	Name of Char	FLIs: LADC		No. of Shamaj	No. of HHs	No. of members in LADC			Remarks
		Target	Achieved			Male	Female	Total	
1	Urir Char	3	3	21	2,510	67	15	82	17 meetings held out of 18
Total		3	3	21	2,510	67	15	82	

Issues discussed in the regular monthly meetings of LADCs are as follows:

Construction of a cross-dam between Urir Char and Noakhali; Land settlement to the people living in char areas need to be formalized; construction of 4 more cyclone shelters in Urir Char, consistent with the current demand as soon as possible; improved law and order situation; removal of local drainage congestion by excavating canals in different locations; more deep tube wells and pit latrine installation.

Additional issues discussed in the LADC meetings at Urir Char

- Local people demand to include Urir Char as an operational area of forthcoming CDSP V.
- Local people requesting to start land settlement and to take initiative to solve the court case of district boundary demarcation line.
- About 2 km. homestead area in the south western part of the char has already been eroded by the river and the erosion is continuing. Local people requested to take measures in order to stop the erosion.
- Local people demanding additional 40 km earthen roads in Urir Char.

Labour Contracting Societies (LCS)

A Labour Contracting Society (LCS) is a group of adult persons, male or female, having homogeneity in respect to gender, physical strength, skill and socio-economic status, who come from the house-hold of landless labourers or share croppers and who depend on manual labour as their main source of income. The main objective of LCS is involving local people in construction work (see also the Inception report). The number of members in an LCS depends on the nature of the works to be carried out within a given time frame. It is formally recognized that LCS can be considered as D-class contractor and eventually work orders can be issued to LCS without inviting any tenders. Moreover implementing agencies will make efforts by providing trainings (mostly on-job) in order to develop their capacities. The main objectives of LCS are to generate additional employment opportunities in the slack period (when employment opportunity is limited at local level, resulting in people migrating to other areas for their employment) and encourage female members to get involved in economic activities.

WMGs facilitate as affiliating institution the formation and mobilization of new LCS in all areas. TA Team set a target to form 74 LCS in the jurisdiction of 21 WMGs and 3 LADC so that each WMG can supply required number of LCS on the basis of works to be implemented in their operational areas. LCS can work on all activities related to earthen road construction/ rehabilitation, canal re-excavation, all maintenance work including tree plantation, road carpeting, pipe casting, latrines production, culvert installation, market development and cyclone shelters compound development as independent male or female or as mix of males and females group.

Char wise LCS information is stated in the following table:

Table 4 - 12 Status of LCS July – December 2016

SL	Name of Char	FLIs: LCS		Length of work	No. of members in LCS			Remarks
		Target	Achieved		Male	Female	Total	
1	Caring Char	9	7	3.5 km road	182	86	268	Male-5 Female-2
2	Noler Char	22	21	4.26 km rd; 500 sets latrines; 1 market dev; 2,268 m HBB road.	454	141	595	Female-2 Male-12 Mixed-7
3	Char Nangulia	35	32	5.2km rd; 1,350 sets latrines; 1 market; 8 cyclone shelter dev. and 1000m HBB road.	470	220	690	Male-4 Female-7 Mixed-21
4	Char Ziauddin	2	2	1km rd. & 100 sets latrines	63	3	66	Male-1 Mixed-1

5.	Urir Char	2	2	1.2 km. rd const.	95	-	95	Male-2
6.	Boyer Char	4	4	1 market dev.	47	21	68	Male-3 Female-1
Total		74	68	15.16 km rds; 1,950 sets latrines; 3 market dev; 10 field dev; 3,268m HBB road constr.	1,311	471	1,782	Male-27 Female-12 Mixed-29

Agency wise LCSs

There are 52 LCS for LGED work and 16 for DPHE work (latrine production). Respective implementing agencies are following their organizational guidelines as CDSP does not have its own guidelines. PMC through concerned XENs monitors directly the payment to LCS to smoothen their payments. Gradually more LCS are formed and mobilization of LCS in market development is progressing well. Most of the markets will be developed through LCS. The staffs of implementing agencies still need to be activated more for LCS purpose at field level. TA Team continued their efforts through one LCS Facilitator. More WMG centres will be constructed in the coming year. The bill payment for WMG centre construction needs to be simplified, allowing WMGs to receive their due bills within the shortest possible time.

Outcomes of Labour Contracting Society (LCS)

The statistics shows that 1,782 LCS members (1,311 male and 471 female) received additional employment for 53,976 person-days so far in different infrastructure works initiated by CDSP IV. They received Tk. 13,543,241 as their wages from those works. These financial benefits encouraged them to start new economic activities (like cattle- rearing, garments selling, small trading etc, depending on the local conditions) in order to generate regular income round the year as the LCS works are not available round the year. This opportunity creates new avenues for male and female WMG representatives to develop linkages with the traditional business men in Dhaka and Chittagong in order to ensure better prices of their commodities which are produced at local level. As these representatives are somehow advanced, they are now in the process of mobilizing the other members to invest their accumulated capital in feasible economic activities which will indeed provide additional employment as well as income.

It has been spelled out in the objectives of LCS that this program has two-fold objectives: to generate seasonal employment for the really deserving poor people and to create scope for womenfolk to get involved in economic activities, which will encourage them to interact with other social and economic forces at local level. Information collected from different LCS groups reveals that during this reporting period LCS program has created 2,218 person days of employment. LCS participants received in total BDT 654,021 as wage from these works. It has been reported by the participants that they spent part of this amount for their survival and part of the amount they invested in other feasible income generating activities from where they will be able to receive regular income like low-cost garments selling, cattle rearing, fish culture and pretty trading. It is visible in the locality that women are selling their products in the local markets. In many families children are now going to school with a bright hope for their future.

It is now evident in the CDSP area that the involvement of poor people in economic activities is the most important means to accelerate the process of social and economic empowerment of the poor people in general and the women in particular. Empowerment is the scope and ability to influence decisions, so from that perspective it is now visible in the area that lot of women are playing a very important role in family decisions as well as at community level. It appears that most significant impact of LCS is to change the mind-set of the poor people realizing the fact that they can influence matters affecting their lives.

Outcomes of the Institutional Component of CDSP IV

The Field Level Institutions (FLI) established by CDSP IV are not the end result of this endeavour; rather these are considered as effective means to promote a sustainable development process in the local areas even beyond the life of CDSP. It is demonstrated that these institutions are instrumental in providing government services in remote areas where these services were not visible in the past.

These institutions are now in the process to develop linkages with other market forces including their respective local government institutions as they feel by now that all problems encountered by them cannot be addressed only by them. So they are developing partnership with other social and economic forces in order to reduce their dependency on external forces, which is the basic objective of all development initiatives. Previous phases of CDSP have also established that these institutions are contributing significantly in managing O&M of their infrastructure, market development and management, ensuring basic services providing by public agencies and resolving local conflicts.

As many field level institutions have been formed within the purview of the project like WMOs, FFs, SFGs, TUGs and micro-credit groups organized by the partner NGOs it is now the time to develop some form of community based organization (CBOs) involving the representatives of all FLIs so that a broader outlook of these institutions can be covered which will help in activating these institutions beyond the life of CDSP.

4.6.2 Local government institutions

During the reporting period TA Team continued the informal discussions and interactions with the Upazila Chairmen, UP Chairmen and members concerned. Occasionally the UP Chairmen and members are participating in WMO's meetings, whenever their involvement is required, although many WMO members have been elected as LGI representatives. A process has started to formalize the participation of LGI representatives in particularly in WMA meetings and subsequently WMO representatives will participate in UP coordination meetings in order to deal with local issues. Specifically water management issues require wider participation to be resolved jointly and to promote a process for developing partnership at local level.

Challenges for sustainable WMOs

The institutional development process is implemented in all phases of CDSP without major constraint or interruption. At this point of CDSP IV, few issues appear as challenges for the sustainability of the efforts made by the project.

- River erosion in the project areas

Although the rate of erosion seems to be reducing at present, river erosion in some of the project areas (Char Nangulia and Caring Char) poses a serious threat to all development initiatives including the community based organizations promoted by the project. It is observed that some WMG members are not in a position to continue their involvement with the respective institutions as they have to migrate to other areas due to losing their homesteads by river erosion. On the other hand river erosion is also affecting the trust of the local people on CDSP as they have the impression that CDSP is always with them whenever they have any need but now they are witnessing that river erosion is not only washing out their property but it also damaging the resources and infrastructure which have been built by CDSP itself. From that point of view the local people expect that CDSP should intervene in river erosion in order to save the huge resources and infrastructure CDSP developed so far in the area.

- Non-availability of BWDB Extension Officials

The project design of CDSP IV requires the continuous input of BWDB Extension officials for establishing, strengthening and capacity development of WMOs. Unfortunately no extension officials are available at Noakhali Division since the beginning of 2016. Although TA members are trying to support those WMOs, TA team are not in a position to provide all the services required by them like arrangement of funds for conducting training courses, auditing of WMOs in accordance with the provision made in Participatory Water Management Rules-2014 etc. Considering the life of CDSP IV, these activities are very much required to develop their capacities so that they can continue as a vibrant organization after the life of CDSP IV.

One extension overseer was posted in Noakhali Division in September 2016, but he has to keep himself busy with other activities outside of CDSP as well and he is reportable to his superior in Feni. So his deployment in the division will not solve the problems and give the efforts required by BWDB extension wing to strengthen the WMOs as per requirements of the local community.

4.6.3 Gender Action Plan

This part of the report aims to make an assessment of the progress of gender and social related activities in CDSP IV during the reporting period July - December 2016 including the challenges and constraints encountered by the womenfolk in the project area. Since gender inequality poses a major impediment to development, the project aims to mainstream gender issues and concerns and to create equal opportunities for women through active participation of men and women in all stages of the project through establishing various field level institutions. These attempts and the activities so far and the progress on social and gender aspects are furnished below.

For the purpose of encouraging participation of women in all FLIs, separate group meetings and group discussions and individual contacts with women and mixed groups were organized as one of the effective strategies. The status of female membership and participation in meetings in the various FLIs is indicated below.

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Table 4 - 13 Distribution of membership in WMGs/ LADC and their MC by gender

Name of Char	Name of FLIs	No of FLIs	Total members	No of female members	Total members in MC	No of female members in MC	% of female in MC	Remarks
Char Nangulia	WMG	11	450	199	132	56	42%	According to GPWM the participation of women in MC to be at least 30% of the members
Noler Char	WMG	05	183	78	60	23	38%	
Char Ziauddin	WMG	02	76	38	24	9	38%	
Caring Char	WMG	03	89	44	36	12	33%	
Char Nangulia	WMA	01	44	14	12	4	33%	
Noler Char	WMA	01	40	13	12	3	25%	
Urir Char	LADC	03	82	15	36	11	31%	
Total		26	964	401	312	118	38%	

Participation of women in management committees, in leadership development and in group management and increased overall mobility of women are playing an important role in improving the position of women in society and minimizing social conflicts.

Table 4 - 14 Attendance of members in monthly meetings of WMGs/ WMA/ LADC by gender

Name of Char	Type of FLI	Number of FLIs	Number of meetings held	Attendance			% of female attendance
				Male	Female	Total	
Char Nangulia	WMG	11	66	700	550	1,250	44%
Noler char	WMG	05	30	335	275	610	45%
Char Ziauddin	WMG	02	11	118	129	247	52%
Caring Char	WMG	03	18	190	170	360	47%
Char Nangulia	WMA	01	6	126	56	182	31%
Noler Char	WMA	01	6	120	60	180	33%

Urir Char	LADC	03	17	274	61	335	18%
Total		26	154	1,863	1,301	3164	41%

Farmers Forum

The women members of FF are becoming knowledgeable on technical know-how through receiving training, orientation, demonstration etc. Most of the women are engaged in homestead vegetable cultivation, fish culture and poultry and livestock rearing. In absence of their husbands they are now able to perform their own activities. They are involved in marketing of their own products in the local market. They are skilled in post-harvest technology, seed preservation, weeding and harvesting on a limited scale too. Their participation in these fora has helped women significantly in developing linkages with other social and economic forces, e.g. the outside traders which can ensure a fair price for the commodities they are producing at local level.

Table 4 - 15 Distribution of membership in Farmers Forums by gender

Name of Chars	No. of FFs	Male	Female	Total	% of female members	Comments
Char Nangulia	37	1,319	901	2,210	41%	According to the Gender Action Plan female membership in Farmers Forum should be at least 33 %, present average is 42%.
Char Ziauddin	07	274	146	420	35%	
Noler Char	25	839	661	1,500	44%	
Caring Char	15	396	504	900	56%	
Urir Char	06	310	50	360	14%	
Total	90	3,138	2,262	5,400	42%	

There were no changes in female membership of FFs during the reporting period.

Outcome of Involvement of women in Farmers Forum (FF)

In general the wives of farmers in CDSP areas are considered as farmers also instead of wives of farmers and they are involved in many agricultural activities like homestead gardening, seed preservation, Vermi compost preparation and selling, including selling of their products in the local markets by themselves. This scenario created the scope for the char women to get involved in the production process as well as to interact with other market forces to sell and buy inputs and their own products. Virtually this situation allows the women to take the decision in order to make their investment operational and effective. In some cases they discuss the issues with their family members, but still they have to take the decision themselves. So the whole process is contributing significantly in empowering those women socially and economically.

Social Forestry Group (SFG)

Women members' participation in SFG and social forestry activities can be understood from the following table.

Table 4 - 16 Distribution of membership in Social Forestry Groups (SFG) by gender

Name of Char	No. of SFG	Male	Female	Total	% of female members	Comments
Char Nangulia	215	3,092	2,283	5,375	42%	According to Gender Action Plan female membership in SFGs is supposed to be at least 33%.
Noler Char	95	1,309	1,061	2,370	45%	
Char Ziauddin	31	401	374	775	48%	
Caring Char	55	875	500	1,375	36%	
Urir char	74	1,495	355	1,850	19%	
Char Maksumul	14	177	173	350	49%	
Total	484	7,349	4,746	12,095	39%	Present average is 39%.

Women are involved in road site tree plantation, pit preparation, fencing, watcher, maintenance etc. Women are capable and getting benefits from social forestry activities. The following table provides their membership in the Management Committees (MCs) of SFGs.

Table 4 - 17 Distribution of membership in Managing Committees of SFGs by gender

Name of Char	No. of SFG	Male	Female	Total	% of female in MC	Comments
Char Nangulia	215	1092	843	1935	44%	According to the Guideline of SFG female membership in the Managing Committee of SFGs is at least 33%, now it is 41%.
Noler Char	95	514	341	855	40%	
Char Ziauddin	31	160	119	279	43%	
Caring Char	55	309	186	495	38%	
Urir char	74	448	218	666	33%	
Char Maksumul	14	67	59	126	47%	
Total	484	2,590	1,766	4,356	41%	

Outcome of Social Forestry Groups particularly from the perspective of Women

Women are very much involved in the social forestry activities like tree plantation, care taking of the planted trees and also maintenance of those trees. As beneficiaries of this program the women came to the contract agreement with forest department and the concerned local government institutions, specifying that the women will receive 55% benefit of the return when the trees will be harvested. Involvement of women in any kind of economic activities somehow allows them to interact with other social and economic forces of the community and this is creating the scope to claim their due share from the concerned economic activities and also customizes them to raise their voices against any discrimination in the society.

Labour Contracting Societies (LCS)

During this reporting period 1,427 labor days for the women LCS members were created in different activities initiated by CDSP IV. Table 4 - 12 provides a picture of the performance of LCS. The information collected from different chars revealed the fact that the women participating in the LCS works benefitted in many ways, like the money they received as wage and the profit they invested in other activities like tree plantation, poultry rearing, children education and upgrade the house-compound by raising the level. It has been observed that many women invested their money in the areas where they feel comfortable and familiar to. It was also visible that women purchased cultivable land, improved their house and invested in fish culture, pretty trading etc. In general the LCS activity opened up the avenue for them to look forward to improve their social and economic position in the community.

Land settlement

MoL distributed 2,897 khatians among the landless in the reporting period, out of which 232 have been received by women headed households with 100% ownership of land. The remaining khatians were received by wives and husbands having equal share of land ownership. FLIs as well as women beneficiaries have participated in the land settlement related activities like in hearing sessions and khatian receiving.

Outcome of Land settlement on women’s position

Establishment of ownership rights on land allows the womenfolk to feel more empowered, manifested in active participation in family and society decision making like children’s education/ marriage, buying/ selling of family assets, raising voice against any women violence etc. Ensuring the ownership rights on productive assets on the part of the women contributed significantly in changing their mind-sets towards more equal partnership between wife and husband, which encourages them to take part in major family

decisions as well as at the community level. Women are receiving more honour from society than before. Moreover more decent housings are now visible in those remote areas instead of huts as the ownership rights are now officially established.

Various gender issues:

- 10 Events of one day training courses on Gender orientation were organized during this reporting period where 300 members participated, including 110 women.
- An Evaluation Workshop on Gender Empowerment was organized by GWAB during this reporting period and it was discussed elaborately in that workshop how the supportive activities of GWAB can contribute in streamlining the Gender Issues in different projects supported by EKN, including the possible scope to continue the efforts by GWAB.
- Three discussion meetings were held on early marriage in 3 chars, where WMG women leaders, Community elites, marriage registers and school going girls were present. Early marriages in the community are reducing due to awareness created among the people. Three early marriages were stopped by the community people in the reporting period.

4.7 Knowledge Management

4.7.1 Monitoring & Evaluation

Comprehensive M&E and MIS systems are used in CDSP IV. These 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 of the project.
- Generate information on project activities and outputs for project planning and management.

The M&E system consists of four elements:

- a. Activity monitoring
- b. Process monitoring
- c. Outcome monitoring and
- d. Impact monitoring.

In line with the annual work plan 2016 -2017 the following activities were taken up in the reporting period:

- Annual Outcome Survey 5th round 2016 (on-going)
- Participatory Monitoring and Evaluation 8th round
- Knowledge Attitude and Practice (KAP) Survey 8th round.

Annual Outcome Survey 2016

Annual Outcome Survey is conducted to capture 2nd level results achieved through project interventions. So far four outcome surveys have been conducted and results thereof published accordingly. The current outcome survey was being conducted from 18 December 2016 with the same objectives as before: (i) to gather information on purpose and goal level log frame indicators, which are not covered adequately by RIMS impact monitoring (ii) to collect evidence for a “results chain” with changes in physical environment and/ or improved technology, leading to changes in cropping patterns, resulting in increased crop yields and/ or income and (iii) to gather information on the project services received by respondents, such as membership of project groups, training and micro-credit. Outcome data from 600 sampled households are being gathered through 4 individual field investigators (FIs) and one survey supervisor cum data entry analyst. The draft annual outcome survey report 2016 is planned to be produced in February 2017.

Participatory Monitoring and Evaluation

The overall objective of PME is to provide a quick and flexible insight into the progress of the project. Details of the PME objectives are as follows:

1. To provide valuable feedback to project management, implementing agencies and partner NGOs on the implementation of activities and delivery of outputs
2. To give project management an initial indication of the effectiveness of components in terms of economic empowerment and poverty reduction and also
3. To generate feedback from project participants on a range of topics.

During this reporting period the 8th cycle of PME has been conducted by the MEOs through 41 PME sessions in 6 FLIs (NGO, TUG, WMG, Marker Committee, FF and SFG). MEOs used PME tools/ FGDs having different key checkpoints/ issues for each FLIs. Sessions were held in the meeting places of each type of group. Group members were informed and gathered by Managers, Coordinators and Credit Officers of respective PNGOs. The group leaders of FLIs have played a vital role in gathering their group members. In case of WMA, WMG, FF, Market Committee and the respective President and Secretary have organized their members. There were 5 sessions for SFG, FF and Market committee, 11 sessions for TUG and NGO groups, and 4 sessions for Water Management Groups (WMG) in different chars of the CDSP IV areas. A total of 654 (71% out of 926) group members from the 6 types of FLIs actively participated in the sessions and on average 16 participants were present per session. For detailed information please refer to the table and the short write ups below.

Table 4 - 18 Overview of 8th cycle PME

Groups	No. Of sessions	Group members		Issues/ checkpoints for discussion
		Total	Present (%)	
NGO group	11	267	178 (67%)	(i) Sources of micro-credit/loans, (ii) production and consumption of homestead gardening, (iii) rearing poultry birds and animals, (iv) health and family planning, (v) income earning by women, (vi) enterprises owned/operated by women, (vii) household food security, (viii) socio-economic condition, (xi) education & communication.
TUG	11	177	134 (76%)	(i) Hygienic and sanitation conditions, (ii) sources of safe water and distance thereof, (iii) sanitary latrine and impact of use of contaminated water and (v) health and nutrition.
WMG	4	137	69 (50%)	(i) Formation of WMG, (ii) development of communication system, (iii) water drainage & removal of cross-dams, (iv) educational institutions, (v) active participation of women in water management and society and (vi) social and family conditions.
Market committee	5	59	42 (71%)	(i) Establishment of markets/ value chain centres and development of market, (ii) communication systems in place, (iii) forward and backward linkages, (vi) encourages local producers to sell their products, (v) marketing imported products, (vi) dealing with local & external wholesalers and (vi) participation of women in weekly market days.
FF	5	150	111 (74%)	(i) Conditions of agricultural land, (ii) flood and water logging, (iii) sources & preservation of seeds, (iv) knowledge about HYV crops, (v) production & utilization of organic fertilizer, (vi) utilization pesticides, (vii) cropping intensity, (viii) homestead gardening and (ix) cost of cultivation & incomes from farming.
SFG	5	136	120 (88%)	(i) Process of participation into social forestry groups (SFG), (ii) concept and usefulness of SFG, (iii) knowledge about environment and climate, (iv) knowledge about social forestry guidelines and laws

				thereof, (v) benefits available from social forestry, (vi) share of benefits from social forestry as per agreement with Forest Department (FD) and (vii) signing social forestry agreement with FD and receiving the copy of agreement
Total	41	926	654 (71%)	

PME of PNGO Groups

Main objectives of formation of NGO groups are (i) to empower women char dwellers, (ii) to encourage group savings, and (iii) to generate income through utilizing of microcredit available from PNGOs. 984 PNGO groups have been formed. The group members (26,373 no's) have made net savings of Tk. 9,55,79,754 in total till Dec 2016, so on average each group member has generated Tk.905 per year.

After joining with CDSP IV, PNGO group members have been provided training on both farm- IGAs like homestead vegetables, fruit crops nursery plant production and non-farm IGAs like tailoring and cap sewing by PNGO Agricultural Coordinators of PNGOs and TA Team members. Now-a-days, demonstration is considered as one of the best method of practical and appropriate technology transfer. The project has successfully established 7,278 demonstrations on mixed fruit gardening, vertical gardening, vermin compost, quick compost and homestead gardening. Besides, DAE also conducted 360 high value crop and 720 low value crop demonstrations for the farmers. In the PME sessions, it has been found that many women members are regularly participating in group savings and they have access to micro-credit from PNGOs, which is much preferred than from traditional money lenders. They have invested their microcredit funds to profitable income generating activities like homestead gardening, plant nursery production, small business, poultry birds rearing, tailoring shop, and cow rearing.

Observed Values Obtained from PME Sessions of NGO Groups

Observations: No. or Percent	No. of PME Sessions	No. of HH/Members	No. HH/Members-Present	No. of HH with Increased-Prod	No. of HH with Increased-Consumption	No. of HH with Increased-Sales	No. of HH Owning-Duck	No. of HH Owning-Chicken	No. of HH Owning-Cow	No. of HH Owning-Goat	No. of HH with Increased-Duck	No. of HH with Increased-Chicken	No. of HH with Increased-Cow	No. of HH with Increased-Goat	No. of HH Received H&FP Services	No. of Women with Direct IGAs	No. of HH with Improved Food Security
Nos.	11	267	178	178	178	171	175	178	149	32	105	125	83	6	178	110	146
%			67	100	100	96	98	100	84	18	59	70	47	3	100	62	82

Eighth PMEs for PNGO groups have been conducted with 11 PNGO groups with the presence of 178 (67% of 267) members. PME data reveal that homestead vegetable production and consumption thereof increased by 100% and sales by 96% respectively. About 82% Women are directly involved with income generating activities and 16% women involved newly with IGAs. Nearly all families (99%) are rearing poultry chicken and ducks (chicken 100% and duck 98%). PME data show that families with cows have 47% increase and 59% increase in case of poultry birds. PME data reveal that the food deficit period of 82% families has reduced and 77% families are enjoying better quality food items than before. Now, 70% families are living in newly built houses. Health condition of 77% families has improved. All families have reported that they send their school going kids to nearby schools. Some schools are in place in the newly built cyclone shelters. The PME participants have gratefully acknowledged for the development infrastructures built and interventions taken by CDSP IV.

PME of TUG groups

Key objectives of formation of TUG are (i) to establish at all levels that installed DTWs are for common use and not the property of any individual or private bodies, (ii) to ensure proper repairing and maintenance

collectively and (iii) to ensure implementation of joint decisions in all kinds of issues related to water and sanitation. TUGs have been established by PNGOs supported by CDSP IV. 1,138 DTWs have been installed till December 2016 and all DTWs are being looked after by 2,255 women Care Takers, selected from the TUGs. All women Care Takers have been trained by the project.

Observed Values Obtained from PME Sessions of TUG Groups

Observations: No. or Percent	No. of PME Sessions	No. of HH/Members	No. HH/Members-Present	No. of HH with Training	No. of HH Practice Training Knowledge	No. of HH Collecting Water less than 500 m Distance	No. of HH with Sanitary Latrines	No. of HH Using Latrines Use Hygienically	No. of HH with Improved Health
Nos.	11	177	134	134	122	134	134	123	128
%	-	-	76	100	91	100	100	92	96

Eighth PME cycles for TUGs have been conducted, involving 11 TUGs. Eleven PME sessions have been conducted with the presence of 134 (76%) TUG members. Currently 100% TUG group members are practicing good hygienic and sanitation behaviour to keep them clean, well and healthy. Now 100% families have hygienic toilets, but 92% families use toilets hygienically and they do not have to face any shyness socially and awkward situation before guests for toilet usage. They (100%) are using fresh water in household works and drink safe water due to installation of DTWs at different locations i.e. at 50, 100 and 200 meter distance. They keep their children clean and safe. Incidence of water borne diseases like diarrhoea, jaundice, scabies have reduced and they are not suffering from it frequently like in the past and 96% HHs reported to be with better health status. It has been observed that less than 1% DTW-platforms found cracked and broken which have been repaired by the Care Taker Family members.

PME of Water management Group (WMG)

Key objectives of formation of WMG are (i) to increase peoples’ active participation in the areas of water management (i.e. reducing loss of water, optimum utilization of water in irrigation, conservation water, infiltration of saline water and drainage of excess water), (ii) maintenance & smooth operation of water control drainage infrastructures built by BWDB and other agencies, and (iii) to keep informed respective agencies about problems identified in existing water control infrastructures.

Eighth PMEs for WMGs have been conducted with 4 WMGs with 137 members and of these 69 (50%) members were present at the PME sessions. The members thankfully mentioned that many WMGs meetings are being held in their Water Management Centres, recently established by CDSP IV project. They reported also that due to development of water management structures like drainage canals, sluices, flood protection embankments, bridges and culverts, they can now move from one place to another, like markets, schools and health centres very easily. They can export their crops and vegetables to other districts transported by light and heavy duty trucks and pick-ups. As WMG members they look after various water management structures and do repairs and maintenance where needed voluntarily. Due to establishment of 22 new cyclone centres and establishment of schools inside of those, they are sending their kids to schools. In the past (pre-project period) there very were few schools and they were running in temporary tin-shed structures. Many times BWDB provides repairs and maintenance works to them on contract basis. Some WMGs management committees are still weak and keep groups savings and other funds in their hands and do not deposit these to the bank. In such WMGs, attendance of members in monthly meetings is poor and democratic change process is not at a satisfactory level and members are very irregular in depositing monthly group savings.

PME of Market committees

The objective of formation of market committee is (i) to create better marketing facilities, (ii) to strengthen forward and backward linkages, (iii) to promote hygienic conditions in and around the market, (iv) to

promote one stop shopping from farm to the wholesalers, retailers/ customers. In the early days and in the years 2001-2005, there were a very limited number of shops (2 to 5 shops), and hardly one or two markets on each char. The number of shops increased in time, based on demand of commodities consumed by char dwellers. There are more than seven markets built by the project where more than 1,200 shops are operational. Every market has its own market committee to look after its management and onward development. 5 Market committees were assessed. There were 42 members (71%) present out of 59 members. The market committee members mentioned that due to development of road and other communication infrastructures, both sellers and buyers have increased significantly. Most markets have their own weekly market days when many wholesale and retailers come to the market to sell and buy their goods. Now farmers sell their products such as seeds of country beans and beans, cucumber, bottle gourd, papaya, sweet cucumber, coconuts, okra, rabi crops and rice. They also sell and buy poultry birds, cows and goats. The market committee members mentioned that nearly 27 wholesalers use to visit markets for buying goods and products directly from farmers. Participating members reported that usually more women come to the weekly market days than at normal market days to sell their produce and also to purchase daily livelihoods and clothes. The markets are contributing in development of value chain and exporting local products to distant markets, located in other districts or even in the capital city.

PME of Farmers Forum (FF)

The key objectives of organizing Farmers Forum (FF) are (i) to enable farmers to make better use of their land, to support increasing family income through agricultural IGAs, (iii) to increase capability of women through training in the fields of homestead gardening & post-harvest technologies and (vi) to make women farmers active earning members of their families. Ninety 90 Farmers Forums (FFs), 6 FF associations and one FF federation have been successfully formed, which are now functional. The members of these FLIs have been drawn from 5,400 farming families (each owing at least 30 decimal of cultivable land) and are spread over five chars under CDSP IV command areas. Department of Agricultural Extension (DAE) has promoted agricultural technologies adapted to saline conditions and resilient to climate change.

Observed Values Obtained from PME Sessions of FFs

Observations: No. or Percent	No. of PME Sessions	No. of HH/Members	No. HH/Members-Present	No. of HH reported on Salinity declining (out of (25%)-Yes	No. of HH reported on Salinity declining (out of (50%)-Yes	No. of HH reported on Salinity declining (out of (75%)-Yes	No. of HH reported on declining water logging-Yes	No. of HH reported on declining flood-Yes	No. of HH reported increase of production	No. of HH reported increase of sales	No. of HH reported reducing food insecurity	No. of HH reported intake of quality food	No. of HH reported use of Micro-finance
Nos.	5	150	111	37	47	27	77	26	106	78	84	83	90
%			74	33	42	24	69	23	95	70	76	75	81

For 2nd part (FF): There were 55 FFs having 150 farmers as members, but out of 150 members, 111 members were present during PME sessions. I have calculated as:

$$= 111/150 \times 100 = 74\%$$

Eight PME cycles for FFs have been conducted with 5 FFs, with 150 farmers each; 111 (74%) farmers were present in 5 PME sessions. Most families have about 150 decimal of khas land. Char dwellers had very limited knowledge about HYV crops. At present, 97% of surveyed farming families are using knowledge about HYV and related HYV varieties of seeds. PME data reveal that 95% farming families have increased crop production and 70% families have increased production for sales after own consumption. Farmers have better knowledge and skills and due to training activities supported by CDSP farmers now can produce vermin, composted fertilizer and they are using these in their land. As a result

they do not need to purchase chemical fertilizer. Few of them are using stored rain water for farming from their rain water harvester. Farmers reported that in the past cultivation cost was cheaper, now-a-days they have to spend more money than before due to use of mechanized farming, e.g. use of tractor and power tiller. About 76% participants mentioned that due to practice of homestead gardening they are better and secure in respect of seasonal food security. About 75% farming families responded with improved and quality food intake by themselves than before and 81% farming households are using micro-credit for purchase of agricultural implements like power tiller, shallow water pumps for dry season irrigation, paddle thresher for paddy. The interviewed farmers opined that still there is lack of salinity tolerant varieties.

PME of Social Forestry Groups (SFGs)

The key objectives of organizing Social Forestry Group (SFG) are (i) to improve the socio-economic well-being of rural people, (ii) to plant more trees or manage forests through the participation of stakeholders, and (iii) to reduce forest depletion and maximize land productivity. The social forestry approach has been fully adopted under CDSP IV with specific objectives of (i) establishment of shelter belts to protect chars from storms and cyclones, (ii) 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 and production of fuel wood to alleviate the severe fuel shortages that exist in the project areas. Till December 2016, 484 SFGs have been formed by Department of Forestry which are now fully operational and SFGs having 12,095 members.

Observed Values Obtained from PME Sessions of SFGs

Observations: No. or Percent	No. of PME Sessions	No. of HH/Members	No. HH/Members-Present	No. of HH collected grass for cows from Social Forests	No. of HH collected fuel wood for cooking from Social Forests	No. of HH received Sharing agreement
Nos.	5	136	120	44	73	120
%			88	37	61	100

First PME cycle for SFG has been conducted with 5 SFGs where there were 136 farmers and 120 (88%) farmers were present in the 5 PME sessions. SFGs have tri-parties benefit sharing agreements that allow them to enjoy both short term benefits like collection of fuel wood and produces like vegetables and fruits, temporary employment as labours for raising nurseries and planting trees and long term benefit from final cuts of plantations. The agreement allows them 45% benefit from mangrove plantations and 55% from other types of plantations over dykes and road sides. PME shows that 89 (75% of 120) members are well aware about 55% and 45% benefits, on the other hand 31 (26% of 120) members are little bit less aware about the benefit shares. PME data show that 44 (37% of 120) members have collected fodder grass for their cattle. All members have received benefit sharing agreements. 73 members (61% of 120) have collected fuel wood from social forestry plantation sites for cooking.

Knowledge Attitude and Practice (KAP) Survey

Knowledge, Attitude and Practice (KAP) surveys are a method of evaluating the effectiveness of training or other forms of knowledge transfer. It is a brief and focused assessment tool which aims to show if respondents who have attended training or other skill development events:

1. Have retained Knowledge of the technology (K)
2. Have a positive Attitude towards the technology (A)
3. Actually Practise the technology (P).

CDSP IV is working with six GoB agencies and four Partner NGOs (brac, DUS, SDI & SSUS) for the development of newly accreted char lands and changing socio-economic conditions of char dwellers. Huge

hands on training and counselling have been provided through formation of field level institutions including NGO groups. If the trainees (members of such groups) are not using (or practising) new techniques or technologies provided through training, that would indicate that there exist some problems and barriers which need to be identified. Any knowledge problems indicate that the training was not effective in allowing trainees to retain the knowledge, and there is a need to improve training methodologies or training delivery. Should there be an attitude problem re-examination of viability of the technical information is required.

M&E team of CDSP IV has been conducting KAP surveys every six months since January 2013 and onwards. In this reporting period 495 randomly selected farmers from the list of training participants provided by the four partner NGOs were interviewed. In this connection questionnaires on different activities have been developed with the help of concerned of TA team (Project Agriculturalist, NGO Sector Specialists). The areas where KAP surveys have been conducted are:

- Technical training on field crops with 55 participants from Farmers Forums
- Technical training on IGA (Homestead gardening, Poultry rearing, Cow rearing, Goat rearing and Fish culture) with 275 participants from NGO groups
- Training on Legal and Human Rights with 55 participants from NGO groups
- Health and Family Planning with 55 participants from NGO groups
- Disaster response planning with 55 participants from NGO groups.

For KAP surveys farmers/ participants are randomly selected from the training registers available with the Managers of PNGOs. If it is observed that a farmer due to random selection has been a respondent of previous KAP surveys then he has been dropped and another farmer is selected. The staff members of PNGOs have been very helpful for the two M&E Officers in locating household/ farmers. Till December 2016, 8 cycles of KAP surveys have been conducted on different intervention groups.

KAP Cycles from 2013 to December 2016

Intervention (FI)	Field crops & homestead gardening (FF)	Homestead Gardening (NGO)	Poultry Rearing (NGO)	Goat Rearing, (NGO)	Cow Rearing (NGO)	Legal & Human Rights (NGO)	Health & Planning (NGO)	Disaster Preparedness (Fish cult (NGO)
Cycles	8th	8th	8th	7th	7th	7th	7th	5th	2 nd

The comparative results between the 1st cycle to 8th cycles of KAP surveys show that all of the surveyed HHs are practicing their knowledge and skills gained from training on **field crop and homestead gardening**. Both knowledge and practice levels of the farmers of NGO Group have a gradual increase for the intervention areas of homestead gardening. For example increase in knowledge level by 68% and practice level by 42% when compared with the year 2013. Similar reflection has been found in practice level i.e. increase by 37% in the case of crops and homestead gardening by FF members compared to year 2013.

KAP data reveal that there has been huge increase (64%) both in knowledge level and in practice level in the areas of poultry rearing by NGO group members. This has been due to introduction of poultry and livestock as sub-component of social and livelihood support (SLL) component. The participants have responded with grateful acknowledgement that they are getting services of poultry workers, trained by hired specialists, organized by CDSP IV. They are getting services of poultry workers in the form of vaccination in lieu of minimum service charges.

In the area of legal and human rights, both knowledge level and practice levels of NGO group members have increased, 56% in knowledge level and 22% in practice level compared to 2013. In the area of disaster management participants’ knowledge level has increased by 34% and practice level has increased by 47% when compared with 1st KAP cycle recorded in 2014.

Both knowledge level and practice levels of NGO group members have a gradual increase in the areas of health and family planning services. KAP data show that there are gradual changes in positive directions in most areas.

The 1st cycle of KAP data on NGO group members who have been trained on fish culture have been recorded last reporting period January - June 2016. In the current reporting period 2nd cycle of KAP on fish culture has been recorded. Survey data reveal that knowledge level about aquaculture has creased by 36% and practice level increased by 14% when compared with 1st KAP survey recorded in the previous reporting period.

Table 4 - 19 Results of KAP Surveys

A. Field Crops and Homestead Gardening for Farmers Forum Members						
KAP Cycle	Knowledge level (%)			Practices level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2013)	50	49	1	63	37	-
Second Cycle (Jul-Dec 2013)	21	57	22	78	21	-
Third Cycle (Jan-Jun 2014)	13	48	39	84	12	2
Fourth Cycle (Jul-Dec 2014)	10	54	36	84	15	1
Fifth Cycle (Jan-Jun 2015)	0	17	83	100	0	0
Sixth Cycle (Jul-Dec 2015)	0	15	85	100	0	0
Seventh Cycle (Jan-Jun 2016)	2	9	89	100	0	0
Eighth Cycle (Jun-Dec 2016)	0	18	82	100	0	0

B. Homestead Gardening for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practices level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2013)	40	56	4	54	48	1
Second Cycle (Jul-Dec 2013)	17	68	16	77	21	2
Third Cycle (Jan-Jun 2014)	10	60	30	70	28	2
Fourth Cycle (Jul-Dec 2014)	11	57	32	90	10	0
Fifth Cycle (Jan-Jun 2015)	5	61	34	81	19	0
Sixth Cycle (Jul-Dec 2015)	2	53	45	86	14	0
Seventh Cycle (Jan-Jun 2016)	0	41	59	94	6	0
Eighth Cycle (Jul-Dec 2016)	0	28	72	96	4	0

C. Poultry Rearing for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practices level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2013)	50	47	3	25	67	8
Second Cycle (Jul-Dec 2013)	34	47	19	38	50	12
Third Cycle (Jan-Jun 2014)	18	63	19	51	45	04
Fourth Cycle (Jul-Dec 2014)	12	71	17	47	42	11
Fifth Cycle (Jan-Jun 2015)	6	70	24	82	37	12
Sixth Cycle (Jul-Dec 2015)	8	59	33	62	31	7
Seventh Cycle (Jan-Jun 2016)	2	59	39	81	14	5
Eighth Cycle (Jul-Dec 2016)	0	59	67	89	4	7

D. Goat Rearing for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practice level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2013)	53	45	2	19	67	14
Second Cycle (Jul-Dec 2013)	33	56	11	24	62	14
Third Cycle (Jan-Jun 2014)	20	57	23	30	65	5
Fourth Cycle (Jan-Jun 2015)	10	64	25	56	22	22
Fifth Cycle (Jul-Dec 2015)	22	52	26	27	67	6
Sixth Cycle (Jan-Jun 2016)	20	61	19	26	71	3
Seventh Cycle (Jul-Dec 2016)	0	73	27	28	67	8

E. Cow Rearing for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practice level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2013)	46	50	4	18	74	8
Second Cycle (Jul-Dec 2013)	30	60	10	34	51	15
Third Cycle (Jan-Jun 2014)	25	59	19	41	48	11
Fourth Cycle (Jan-Jun 2015)	0	17	83	100	0	0
Fifth Cycle (Jul-Dec 2015)	12	57	31	43	47	10
Sixth Cycle (Jan-Jun 2016)	5	61	34	50	45	5
Seventh Cycle (Jul-Dec 2016)	0	41	59	50	22	5

F. Legal and Human Rights for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practice level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2013)	65	33	2	4	66	30
Second Cycle (Jul-Dec 2013)	55	38	7	6	51	43
Third Cycle (Jan-Jun 2014)	36	36	27	7	23	71
Fourth Cycle (Jan-Jun 2015)	6	53	41	23	15	62
Fifth Cycle (Jul-Dec 2015)	6	57	37	24	17	59
Sixth Cycle (Jan-Jun 2016)	7	62	31	21	20	59
Seventh Cycle (Jul-Dec 2016)	0	42	58	26	15	59

G. Health and Family Planning for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practice level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2013)	44	54	2	57	19	24
Second Cycle (Jul-Dec 2013)	19	62	19	63	13	24
Third Cycle (Jan-Jun 2014)	12	53	35	66	13	21
Fourth Cycle (Jan-Jun 2015)	8	57	35	69	11	20
Fifth Cycle (Jul-Dec 2015)	8	54	38	65	11	24
Sixth Cycle (Jan-Jun 2016)	5	55	40	74	8	18
Seventh Cycle (Jul-Dec 2016)	0	40	60	72	4	24

H. Disaster Preparedness for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practice level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2014)	12	66	22	32	24	45
Second Cycle (Jan-Jun 2015)	5	34	21	28	32	0
Third Cycle (Jul-Dec 2015)	10	65	26	71	27	2
Fourth Cycle (Jan-Jun 2016)	4	58	38	75	24	1
Fifth Cycle (Jul-Dec 2016)	0	58	56	79	21	

I. Fish Culture for NGO Group Members						
KAP Cycle	Knowledge level (%)			Practice level (%)		
	Poor	Moderate	Good	Practiced	Not practiced	No responses
First Cycle (Jan-Jun 2016)	8	63	29	84	15	1
Second Cycle (Jul-Dec 2016)	0	35	65	98	2	0

4.7.2 Knowledge Management

CDSP IV is maintaining strong compliance with the Knowledge Management Strategy of IFAD. As part of this strategy CDSP IV has developed a good practice database through *the good practice template*. During the July - December 2016 reporting period several good practice cases have been identified and reported by CDSP IV staff members. These are:

- A Case of Self Dependency Using Micro-credit by Hosneara-SDI
- Using environment friendly improved cooking system by NSS-LHR & DM
- Practicing: Feeding babies nutritious food by Dr. Arafat Rahman, Janata Bazar Branch, SSUS
- Adaptation of permanent method of family planning by NSS, H&HP

For more interesting and relevant information, videos and pictures you may visit following links:

- www.cdsp.org.bd
- www.cdsp.org.bd/video.php
- www.vimeo.com/cdspiv
- www.photo.cdsp.org.bd

4.7.3 Training

During the reporting period a large number of training activities for Field Level Institutions, officials of concerned implementing agencies and staff and beneficiaries of partner NGOs were organised by TA Team, IAs and PNGOs of CDSP IV. The details of the training activities are presented in **Annex 8**.

4.7.4 Feasibility studies new chars

During CDSP IV, feasibility studies are 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 is ensured through PMC. The overall study area is limited to the central and most dynamic part of the coastal zone, delineated roughly by Sandwip Island in the east and Bhola Island, possibly Tetulia River under Patuakhali in the west. The first Feasibility Study concerning Maksumul

Hakim, later called Cluster of Chars, was completed in the previous reporting periods. The final report of the second feasibility studies, covering the island chars Kola Toli, Dhal Char and Char Mozammel, were finalized by the consulting firms in September 2016. Another feasibility study was completed, concerning Incorporation of Food Security Issues in the Context of Climate Change in the CDSP Project Areas in a Further Phase. The study was also completed in September 2016.

4.7.5 Linkages of CDSP IV to other development efforts

The following events concerning linkages of CDSP IV to other development efforts are still active.

Linkage with the Jute Research Institute

The researchers of Bangladesh Jute Research Institute (BJRI) are continuing their research activities and demonstrations in Boyer Char and Caring Char on research for improved jute fibre.

Gender and Water Alliance Program Bangladesh (GWAPB)

GWAPB has provided a set of full resource document in October 2016 that include brochures, fact sheet and flyer of GWA Bangladesh, policy brief of Gender in Africa, Why Gender matters in IWRM; A tutorial for water management (Bengali version), posters and booklet on 11 thematic areas of travelling exhibit.

Blue Gold Project

Regular contacts are maintained with the Blue Gold Project, which we consider our sister project; exchange visits were made and workshops attended.

Bangladesh Delta Plan 2100

Regular contacts and meetings were held with the Bangladesh Delta Plan 2100 Project. A concept note for studying the Nangulia erosion problem was prepared jointly. CDSP V is in the project portfolio of Delta Plan.

Food security Network (EKN)

CDSP IV is member of the Food Security Network of EKN and participates in the activities.

IFAD Projects in Bangladesh

CDSP IV maintains close contacts with other IFAD funded projects in Bangladesh, to exchange experiences and lessons learned.

5. Project organization

5.1 Project coordination

Three Project Management Committee (PMC) meetings, the 48th to 50th, were held during the reporting period, all three in Dhaka. To celebrate the event, the 50th PMC meeting was attended by First Secretary Food Security, EKN, Laurent Umans. The meetings reviewed among others preparation of the IFAD Supervision Mission, agency wise progress, problems and bottlenecks, fund flow & management, reimbursement, social and livelihood progress by PNGOs, feasibility studies, trainings, DPP revisions, and maintenance in CDSP-I, II and III areas. Composition of the PMC is given in **Annex 5** of this report.

During the reporting period various discussions/ coordination meetings were held with EKN and IFAD. On 17th October an introductory meeting with the new IFAD Country Program Manager, Mr Thierry Benoit, was held at LGED. PMC and TA team attended the meeting as well as Mr Nigel Brett, former CPM, and Philipp Baumgartner, Rome based Country Program Officer.

PCD and TL had several discussions with Bangladesh Delta Plan 2100 TL and consultants, to exchange ideas on future CDSP planning and how to align with the Delta Plan.

TL had various meetings with GoN Inspection Missions (IOB) from the Water - as well as from the Food Security Sector.

5.2 The governmental implementing agencies

CDSP IV is implemented by six implementing agencies: Bangladesh Water Development Board (BWDB), Local Government Engineering Department (LGED), Department of Public Health Engineering (DPHE), Ministry of Land (MoL), Department of Agricultural Extension (DAE) and the Forest Department (FD). For a description of their staffing for CDSP IV reference is made to the Inception Report paragraph 5.2.

5.3 The Technical Assistance team

In **Annex 6** the CDSP IV staffing per 30 December 2016 is presented, including the date of joining the project.

5.4 Reporting

During the reporting period the following CDSP IV reports were produced:

- CDSP IV Progress Report No 11, January – June 2016, September 2016.
- Three Feasibility Studies of Cluster of Island Chars, Char Mozammel, Dhal Char and Char Kola Toli, IWM and DDC, September 2016.
- Three CDSP IV Feasibility Studies of Cluster of Island Chars, Char Mozammel, Dhal Char and Char Kola Toli, TA Contribution, September 2016.
- Three CDSP IV Feasibility Studies of Cluster of Island Chars, Char Mozammel, Dhal Char and Char Kola Toli, Integrated Main report, IWM and DDC, September 2016.
- CDSP IV Technical Report No 11, Feasibility Study on incorporation of Food Security Issues in the Context of Climate Change in the CDSP Project Areas, September 2016.

6. Project Finances

6.1 Introduction

For an overview of overall project achievements and financial progress and planning, expenditure – and component wise, please refer to **Annex 4**, which presents the IFAD format. Implementing agency wise achievements and financial progress and planning are presented in Annex 4 as well.

In line with the approved budget of AWPB 2016 – 2017, Withdrawal Applications No. 9A (for IFAD Loan) and 9B (for GoN Grant for Civil Works) were submitted to IFAD to account for expenditures incurred by the project during January to June 2016. The expenditures submitted for justification by IFAD were US\$ 6,692,215.10 against IFAD Loan and USD 783,723.33 against GoN Grant. These were duly accepted by IFAD.

6.2 Project cost

Overall project cost were estimated at Tk. 5,833.98 Million (US\$ 83.34 Million) as per DPP which as per First Revision of DPPs (RDPP 1) was Tk.6,120.15 Million (US\$ 81.70 Million) at an enhanced exchange rate of BDT 77 to US\$1 for first projection of project operation up to December 2016. Then there has been a second revision of DPPs (RDPP 2) for the extended period of project operation up to December 2018. Total project cost as per RDPP 2 (RDPP 1 for only DAE component as it ended in December 2016) is US\$ Tk. 6,875.90 Million (US\$ 89.30 Million) at an exchange rate of BDT 77 to US\$ 1. The IFAD Loan remains the same at US\$ 47.35 Million as no additional funds were made available. GoN Grant increased with Euro 551,845 to cover the cost of the extended TA contract till 31 December 2018. Applying the exchange rate of BDT 77 the total GoN Grant amounts to US\$ 19.83 Million. There has been an increase in GoB cost from US\$ 13.71 Million to US\$ 15.66 Million mainly due to additional requirements for BWDB infrastructures and salary increase of government employees from July 2015. The contribution of the beneficiaries is included in the total project and is now US\$ 6.50 Million, from previously US\$ 0.811 Million, because of more savings than originally expected by the beneficiaries, and some increase in the number of deep tube wells. It excludes the micro-credit provided by PNGOs.

The Project is financed by IFAD (53.02% of the total cost), the Government of the Netherlands (22.21%) and the Government of Bangladesh (17.55%) and by the contribution of the population in the project areas (7.22%). The detailed cost of the Project in Bangladeshi Taka and US Dollar for the original project period of six years up to December 2016 under the original DPPs is furnished in Annex 10 of the Inception Report. A Component wise summary of the total cost of the Project for the eight year period up to December 2018 under the second revised DPPs is presented in **Table 6 - 1** below.

Table 6 - 1 Cost component wise summary of project cost

No	Cost Components	Tk. Million	USD Million
01	Protection from Climate Change	2,382.01	30.95
02	Internal Infrastructure	2,715.72	35.27
03	Land Settlement and titling	76.91	0.99
04	Support to livelihood	381.25	4.95
05	TA and Management Support	823.12	10.69
06	Beneficiary Contribution	496.89	6.45
	Total	6,875.90	89.30

A summary of the total cost of the project and percentages of financing for the eight year period is presented in **Table 6 - 2** below.

Table 6 - 2 Project cost and percentages of financing

No	Financer	Tk Million	USD Million	Percentage
01	IFAD	3,646.27	47.35	53.02
02	GoN	1,527.14	19.83	22.21
03	GoB	1,205.60	15.67	17.55
04	Beneficiary Contribution	496.89	6.45	7.22
	Total	6,875.90	89.30	100.00

The detailed Component wise Cost of the Project and the Financing Plan of the Project are shown in Annex 11 and 12 of the Inception Report respectively.

6.3 Annual Budget 2016 - 2017

The budget for the period and the cumulative budget July 2016 – June 2017 are presented in **Table 6 - 3** below, the financing plan in **Table 6 - 4** below. The detailed, agency wise budget is presented in Annex A of Volume 2 Financial Tables of the Annual Work Plan and Budget 2016 - 2017.

Table 6 - 3 Budget 2016 – 2017 (Figures in Million)

Slab	Cost Components	Budget 2016 – 2017		Cumulative Budget up to 2016 – 2017	
		BDT.	US\$	BDT	US\$
01	Protection from Climate Change	780.81	10.14	1,975.05	25.65
02	Climate Resilient Infrastructure	462.54	6.01	2,395.47	31.11
03	Land Settlement and Titling	9.16	0.12	57.75	0.75
04	Support to livelihood	53.02	0.69	346.50	4.50
05	TA and Management Support	149.44	1.94	639.10	8.30
06	Beneficiary contribution	17.17	0.22	105.49	1.37
	Total budget	1,472.14	19.12	5,519.36	71.68

Table 6 - 4 Budget Financing Plan 2016 – 2017 (Figures in Million)

Slab	Cost Components	Budget 2016 – 2017		Cumulative Budget up to 2016 – 2017	
		BDT.	US\$	BDT	US\$
01	IFAD	813.45	10.56	3,123.12	40.56
02	GoN	291.23	3.78	1,272.81	16.53
03	GoB	350.29	4.56	1,011.78	13.14
04	Beneficiary contribution	17.17	0.22	111.65	1.45
	Total budget	1,472.14	19.12	5,519.36	71.68

Contribution of IFAD

Of the contribution from IFAD for the eight year project period of TK. 3,646.27 Million (US\$ 47.35 Million) a sum of TK 813.45 Million (US\$ 10.56 Million) is projected to be incurred during the financial year 2016 – 2017 against which a sum of TK 201.02 Million (US\$ 2.61 Million) has been spent during the half year from July to December 2016.

Contribution of GoN

The contribution from the Government of the Netherlands for the eight year project period is TK.1,527.14 Million (US\$ 19.83 Million). A sum of TK 291.23 Million (US \$ 3.78 Million) is projected to be incurred during the financial year 2016 – 2017 against which TK 117.59 Million (US\$ 1.53 Million) was spent during the half year from July to December 2016.

Contribution of GoB

The contribution from the Government of Bangladesh for the eight year project period is TK. 1,205.60 Million (US\$ 15.67 Million). A sum of TK 350.29 Million (US\$ 4.56 Million) is projected to be incurred during the financial year 2016 – 2017 against which TK 51.88 Million (US\$ 0.67 Million) was spent during the half year from July to December 2016.

6.4 Procurement Plan 2016 - 2017

Procurement of goods and services follow the Public Procurement Regulations (PPR) of 2008, provided they are consistent with IFAD Procurement Guidelines. During the financial year 2016 – 2017 procurement of works and goods will be made to the tune of TK. 972.68 Million (US \$12.63 Million). The component wise summary Procurement Plan is presented in Table 6 - 5 below.

Table 6 - 5 Summary Procurement Plan 2016 – 2017

Slab	Cost Components	Tk million	US\$ million
01	Protection from Climate Change	621.23	8.07
02	Internal Infrastructure	351.45	4.56
	Total Procurement Plan	972.68	12.63

The detailed Procurement Plan is presented in Annex B of Volume 2 Financial Tables of the Annual Work Plan and Budget 2016 - 2017.

6.5 Funds received from IFAD

Withdrawal Application numbers 9A for IFAD Loan and 9B for GoN Grant for Civil works were submitted to IFAD in October 2016 asking for funds during the reporting period for reimbursement of US\$ 5.28 Million and US\$ 0.62 Million respectively to the Safe Account. Payments of the same amounts were received in the Safe Account in November 2016. Total fund received was US\$ 5.90 Million.

6.6 Distribution of IFAD Funds to Implementing Agencies

Funds have been distributed among IAs during the reporting period as indicated in Table 6 - 6 below.

Table 6 - 6 Status of IFAD Funds per Implementing Agency

Slab	Components	IA	Total AWPB for 2016 – 2017		Requisitioned		Received		Authorized amount by MOF	Advanced BDT (Million)	Balance BDT (Million)
			BDT	US\$	BDT	US\$	BDT (Million)	US \$			
1	Protection from Climate Change										
A	Water Resources Management	BWDB	425.60	5.53	212.80	2.76	212.80	2.76	383.10	186.27	196.83
B	Social Forestry	FD	73.97	0.96	36.99	0.48	36.99	0.48	36.95	35.00	1.95
	Sub-Total		499.57	6.49	249.79	3.24	249.79	3.24	420.05	221.27	198.78
2	Internal Infrastructure										
A	Protection from climate change	LGED	263.96	3.43	131.97	1.72	131.97	1.72	350.00	139.00	211.00
B	Water and Sanitation	DPHE	41.69	0.54	20.85	0.27	20.85	0.27	65.00	00.00	65.00
	Sub-Total		305.65	3.97	152.82	1.99	152.82	1.99	415.00	139.00	276.00
3	Land Settlement and Titling	MoL	2.08	0.03	1.04	0.01	1.04	0.01	2.10	0.00	2.10
4	Support to Livelihood										
	Agriculture Development	DAE	6.15	0.08	3.08	0.04	3.08	0.04	3.10	2.20	0.90
	Total		813.45	10.57	406.73	5.28	406.73	5.28	840.25	362.47	477.78

6.7 Expenditures from IFAD Funds

The expenditures from IFAD funds in the period 1st July 2016 to 31st December 2016 against the approved ADP budget allocation and payable against ADP and RADP for the financial year 2016 - 2017 are as detailed in **Table 6 - 7** below.

Table 6 - 7 Expenditures from IFAD Funds (Figures in Tk Million)

Slab	Component	IA	AWPB		Funds Received		Expenditure incurred Cumulative
			For 2016 - 2017	Cumulative	For the period	Cumulative	
1	Protection from Climate Changes						
a	Water Resources Management	BWDB	425.60	2,157.62	186.27	1,186.62	722.39
b	Social Forestry	FD	73.97	534.87	35.00	300.30	205.68
	Sub-Total		499.57	2,692.49	221.27	1,486.92	928.07
2	Internal Infrastructure						
a	Protection from climate change	LGED	263.96	2,627.47	139.00	1,611.53	1,240.96
b	Water and Sanitation	DPHE	41.69	217.90	00.00	97.95	119.37
	Sub-Total		305.65	2,845.37	139.00	1,709.48	1,360.33
3	Land Settlement and titling	MoL	2.08	41.69	0.00	21.98	27.33
4	Support to Livelihood						
	Agriculture Development	DAE	6.15	82.74	2.20	47.55	64.36
	Total		813.45	5,662.29	362.47	3,265.93	2,380.09

6.8 Expenditures from GOB Funds

The expenditures reported from GoB funds in the period 1st July 2016 to 31st December 2016 against the approved ADP and RADP budget/ allocation and payable against ADP and RADP for the financial year 2016 - 2017 are as detailed in **Table 6 - 8** below.

Table 6 - 8 Expenditures from GOB Funds (Figures in Tk Million)

Slab	Component	IAs	ADP		Funds Received Cumulative by 31 December 2016	Expenditures Incurred Cumulative by 31 December 2016
			For 2016-2017	Cumulative		
1	Protection from Climate Changes					
A	Water Resources Management	BWDB	181.00	535.40	212.42	212.42
B	Social Forestry	FD	2.90	15.40	12.57	12.57
	Sub-Total		183.90	550.80	224.99	224.99
2	Internal					

	Infrastructure					
A	Protection from climate change	LGED	90.00	508.60	405.05	405.05
B	Water and Sanitation	DPHE	10.50	63.20	30.24	30.24
	Sub-Total		100.50	571.80	435.29	435.29
3	Land Settlement and titling	MoL	7.00	28.80	23.41	23.41
4	Support to Livelihood					
	Agriculture Development	DAE	1.00	9.40	5.01	5.01
	Total		292.40	1,160.80	688.70	688.70

6.9 Expenditures from GoN Funds

6.9.1 Expenditures from GoN funds for infrastructure development

So far BDT Million 92.21 has been spent from GoN funds for infrastructure for BWDB, BDT Million 14.44 for DPHE, BDT Million 162.96 for LGED and BDT Million 0.24 for FD. The total amount spent for infrastructure development from GoN funds so far is BDT Million 269.85.

6.9.2 Expenditures from GoN funds for TA

Expenditures for Technical Assistance in the period 1 July – 31 December 2016 amounted to Euro 937,527 while total expenditures up to 31 December 2016 are Euro 8,122,342. The status of the Technical Assistance budget per 31 December 2016 is presented in **Annex 7**.

6.10 Financial Progress against budget

The gross financial progress from inception of the project till December 2016 is about 62% with BDT 4,250.97 Million (US\$ 55.21 Million) spent out of a provision of BDT 6,875.90 Million (US\$ 89.30 Million) under 2nd Revised DPP. If the current year's (2016 - 2017) budget of US\$ 19.12 Million is achieved, then the total financial progress up to June 2017 will be about 80%. Agency wise and overall detailed financial - and physical progress is presented in the Financial Tables in **Annex 4**.

6.11 Development in Financial Operations

A two-day Asia Pacific Region (APR) Financial Management Workshop of IFAD was held in Bangkok on 6-7 December 2016. Co-sponsored by the APR Division of IFAD the program was designed and led by the APR Team of Financial Management Services Division (FMD). Almost all IFAD major projects in the APR participated in the workshop. Representatives from the Projects (27), Governments (9), Supreme Audit Institutions (7), participated in the program among others. Financial Adviser of CDSP IV Project attended the program. In total 70 participants and 12 countries were represented. Basic theme of the program was to highlight the FMD-APR's mandate to support a better, bigger and smarter way of working for achieving IFAD's purpose in line with the Strategic Framework 2016 - 2025.

7. Assumptions and risks

In reference to the elaborate risk assessment in Chapter 7 of the Inception Report, the following assumptions/ risks are mentioned in the AWPB 2016 – 2017 in particular. Their status is as follows:

■ *Sufficient quality staffing of the implementing agencies*

It is assumed that agencies will provide staffing for CSDP IV according to their respective DPPs. BWDB has to formalize the position of the present Assistant Extension Officer and make it full time, and arrange required extension overseers (XO), to ensure that farmer participation is more than just a TA activity.

■ *Timeliness of availability of funds*

It is assumed that sufficient funds are made available to implement the planned project activities. *Care has to be taken that ADP and in particular RADP cover AWPB 2016 – 2017.*

■ *Law and order situation in the project areas*

It is assumed that the project areas are sufficiently safe for access of project staff and for contractors, hired to execute the works. *At Urir Char the law and order situation has improved over the last years.*

■ *Weather conditions and natural calamities*

It is assumed that weather conditions are sufficiently normal to allow smooth implementation of construction activities during the construction season; works should start as early as possible after the dry season sets in. *Weather conditions were mainly normal during the reporting period.*

■ *Political support and stability*

Continued support from local politicians and bureaucracy is essential for implementation of the project. *Powerful people in Hatiya part of the project area have taken bricks from newly constructed HBB roads over more than 2 km. Agencies should give proper attention to stop this practice.*

■ *Availability of construction materials*

Construction materials tend to be scarce on the market, in particular in the coastal areas; early tendering may help. *Availability and transport of materials was an issue at Urir Char, but the situation has improved.*

■ *Successful selection of NGOs and quality staffing*

Selection of good quality local NGOs and their staffing is a condition for successful implementation of the livelihood support program. Performance of PNGO's is satisfactory, but continued proper supervision of staff by PNGO management is required.

■ *Cooperation of all institutions and functioning coordination mechanisms*

It is assumed that cooperation between implementing agencies and coordination by PMC and IMSC continue to be adequate. *This certainly was the case; regular PMC meetings were held during the reporting period and functionality and attendance are high.*

Annex 1. CDSP IV Logical Framework

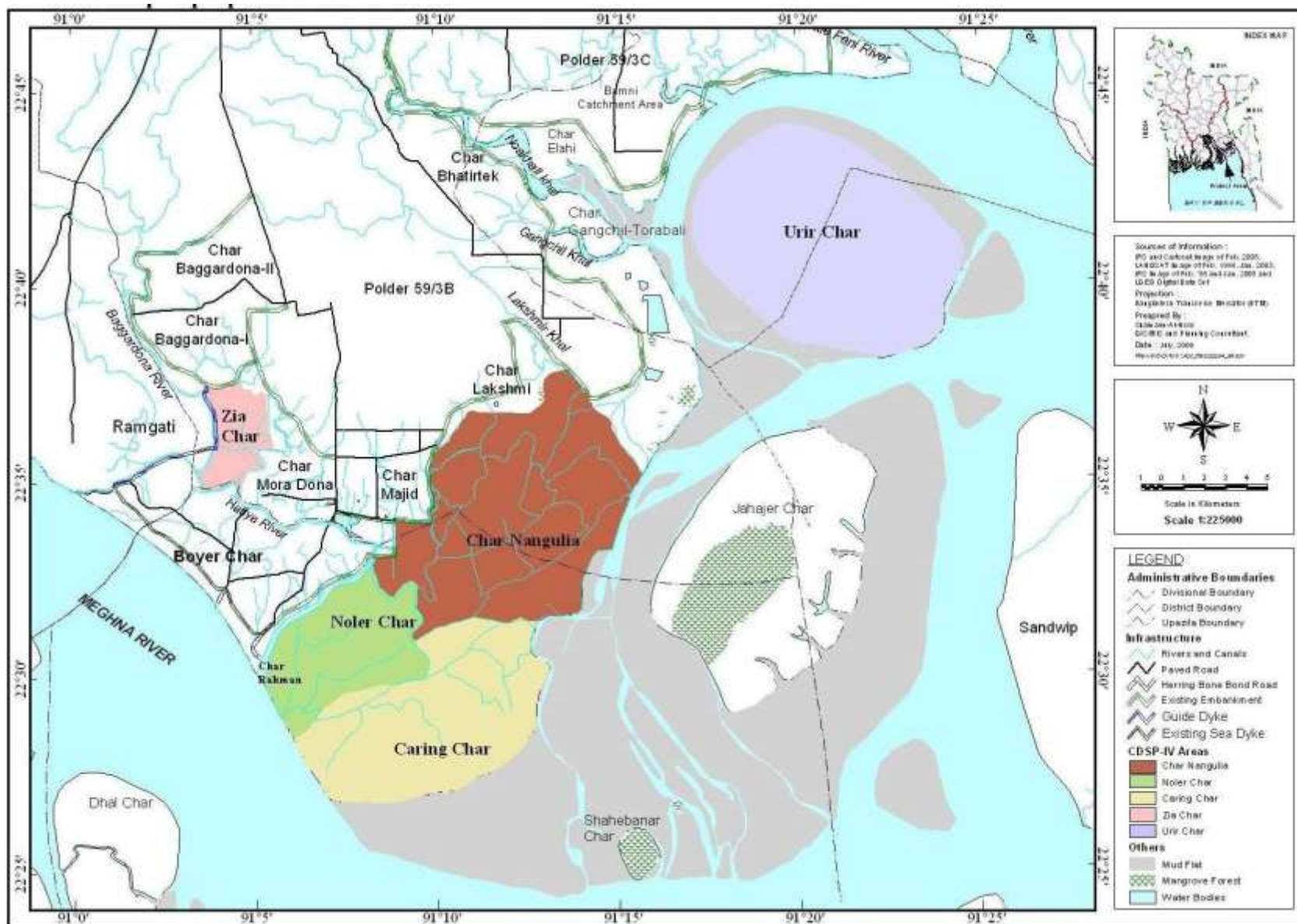
Narrative summary	Indicators	Means of Verification	Assumptions	Progress as of 31 December 2016
Goal Reduced poverty and hunger for poor people living on newly accreted coastal chars	<ul style="list-style-type: none"> - Reduction of 25% in number of children stunted and number under-weight - 50% increase in household Assets - No. hh 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	<ul style="list-style-type: none"> Stunted – No changes Under weight- 14% reduced Malnutrition- 4% reduced - 260% HH has increased assets - 24% HH with >5 months food shortage
Purpose Improved and more secure rural livelihoods for 28,000 households in coastal chars	<ul style="list-style-type: none"> - 20,000 hhs reporting increased agricultural production - 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.	No major natural disasters Economic growth and stability Law and order in char Areas	<ul style="list-style-type: none"> - 13,600 (68%) - No data - 27,654 HH
Outcome				
1. Water resources managed effectively to protect land from tidal and storm surges, improve drainage, and enhance accretion	<ul style="list-style-type: none"> - 80% WMG rated effective/sustainable - 70% empoldered land has reduced soil salinity, flooding and improved drainage 	<ul style="list-style-type: none"> - Project progress report - Field surveys of soil salinity and drainage. - Outcome survey 	_ Possible to carry out successful foreshore plantation	<ul style="list-style-type: none"> - 82% WMO - 65%-68% - 4 Annual outcome surveys - 1MTR RIMS
2. Improved road communication, available infrastructure for multipurpose use and ensured safe water and hygienic sanitation	<ul style="list-style-type: none"> - Better communication in different places - No. of people having access to shelter - No. of children at school in shelter - No. of hh having access to safe water and hygienic sanitation - 	<ul style="list-style-type: none"> - Project progress report - PME report - Outcome survey 	_ No unexpected changes in groundwater quality due to sea water intrusion.	<ul style="list-style-type: none"> - 242 km road constructed - 14,000 have access to shelter - School started in 80% of 30 shelters - 27,654 HH access to safe drinking water and 19020 HH have access to hygiene latrine
3. Secure possession of land	<ul style="list-style-type: none"> - Nos. of households maintaining possession of land 	<ul style="list-style-type: none"> - Project progress report - PME and outcome survey 	Vested interests & elites do not disrupt land settlement.	<ul style="list-style-type: none"> - 16,351 HH - 9,709 HH received khatians
4. Improved livelihoods and household resilience	<ul style="list-style-type: none"> - 20,000 farmers report adoption of improved agriculture - Nos. of women involved with their own IGA 	<ul style="list-style-type: none"> - Project progress report - Outcome survey - PME report 	_ Appropriate technologies for salt affected land available. _ NGOs not subject	<ul style="list-style-type: none"> - 18,200 farmers (91% adoption) - 22,076 female farmers (farm & non-farm)

	<ul style="list-style-type: none"> - % hh using H&FP services - % of women are aware about legal rights 		to undue regulatory interference.	<ul style="list-style-type: none"> - 27654 HH using H&FP services - 13,173 women are aware about LHR
Outputs				
1. Area empoldered by embankment and foreshore protected through plantation	<ul style="list-style-type: none"> _ 10,000 ha of land empoldered. _ 50 km of embankment and 200 ha of foreshore protected by plantation _ 31 water management and 630 social forestry groups 	<ul style="list-style-type: none"> _ 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 	<ul style="list-style-type: none"> - 11,680 ha - 59 km - 21 WMG, 3 LADC, 2 WMA - 468 SFG
2. Climate resilient infrastructure for communications, markets, cyclone protection, potable water and hygienic sanitation.	<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. _ 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. 	<ul style="list-style-type: none"> - 242 km - 4 bridges, 169 culverts - 6 market - No data - 30 shelters - None - 1,138 DTWs - 27,654 HH - 19,018 Operational - 1,782 LCS members (male-1,311 female-471)
3. Secure land title granted to 20,000 households.	<ul style="list-style-type: none"> _ 20,000 target group hh getting secure title to land 	<ul style="list-style-type: none"> _ Project reports from MoL 	Vested interests & elites do not disrupt land settlement.	<ul style="list-style-type: none"> - 16,351 HH - 6,812 HH received khatians
4. Improved livelihood support for the households	<ul style="list-style-type: none"> _ 5,400 farmers* attending agric. extension events _ 28,000 women in 1120 NGO group _ 234 health workers & 13 clinics _ 28,000 women trained in IGA _ 28,000 women attend rights based training and events _ 240 Fish Nurserers and _ 1680 model fish farmers _ 60 poultry workers & 12 paravets 	<ul style="list-style-type: none"> _ Participatory monitoring feedback and surveys _ KAP surveys _ Project reports from DAE and NGOs _ Project reports 	<ul style="list-style-type: none"> _ DAE able to post staff to implement agricultural development programme. _ Appropriate technologies for salt affected land available. _ NGOs not subject to undue regulatory interference. 	<ul style="list-style-type: none"> - 5,400 farmers (100%) - 26,373 women - 185 HW and 11 clinics - 22,076 women trained (farm-& Non-farm) - 13,173 women trained on LHR - 108 Fish Nurserers - 720 model fish farmers - 60 poultry workers & 12 paravets

<p>5. Knowledge management and lessons for Integrated Coastal Zone Mgt (ICZM).</p>	<p>_ Project reports, studies workshops and other events –</p>	<p>_ Project reports</p>	<p>Government continues to support coastal development</p>	<ul style="list-style-type: none"> - Progress Report-12 - Technical report-11 - Mission Report-9 - KAP report-8 - PME report- 8 - Feasibility Study- 3 - MTR RIMS- 1, baseline 1, Mid-term 1
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<p>Activities</p>	
<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. Map of CDSP IV areas



Annex 3. Status of Infrastructure Development

Table 1 BWDB

Table 2 LGED

Table 3 DPHE

Annex 4. Annual Plan and Achievements (IFAD Format)

Summary by Expenditure Account

Summary by Component

A1 BWDB

A2 Forest Department

A3 LGED

A4 DPHE

A5 DAE

A6 MoL

Summary Physical Plan and Achievement by Component

Annex 5. Composition of Project Management Committee of CDSP IV

1. Mr. Md. Shamsuddoha
Project Coordinating Director, CDSP-IV
BWDB, Dhaka.
2. Mr. Badri Munir Firdaus
Project Director, CDSP-IV
Deputy Commissioner, Noakhali.
3. Mr. M. A. Halim Khan
Project Director, CDSP-IV
DPHE, Dhaka.
4. Mr. Mohammad Rezaul Karim
Project Director, CDSP-IV
LGED, Dhaka.
5. Mr. Pranab Bhattacharjee
Project Director, CDSP-IV
DAE, Noakhali.
6. Mr. Md. Amir Hosain Chowdhury
Project Director, CDSP-IV and DFO
FD, Noakhali.
7. Mr. Jan W. K. van der Wal
Team Leader, CDSP-IV
Member Secretary PMC.
8. Mr. Md. Bazlul Karim
Deputy Team Leader (NGO & Livelihood), CDSP-IV.

Three PMC meetings (48th – 50th) were held during the reporting period, all three in Dhaka.

Annex 6. CDSP IV Staffing per 30 June 2016

Sl.	Name	Designation	Date of Joining
1.	Mr. Jan W.K. van der Wal	Team Leader	1/3/2011
2.	Mr. Mihir Kumar Chakroborty	Deputy Team Leader (Infrastructure)	1/3/2011
3.	Mr. Md. Bazlul Karim	Deputy Team Leader (NGO & Livelihoods) and Agricultural Adviser	7/7/2011
4.	Mr. Md. Rezaul Karim	Land Settlement Adviser	15/9/2013
5.	Mr. Sailendra Saha	Institutional Adviser	6/9/2015
6.	Mr. Md. Mahfuzur Rahman	Quality Control / Design Engineer	2/5/2011
7.	Mr. Sajjad Ahmed Khan	Financial Adviser	1/1/2014
8.	Mr. Kiran Sankar Sarkar	Monitoring Evaluation & Knowledge Management Adviser	1/1/2015
9.	Ms. Irin Sultana	Gender and Social Adviser	15/9/2013
10.	Mr. Md. Robiul Islam	Social Forestry Adviser	2/5/2011
11.	Mr. Yahiya Shawon	Accounts Officer	12/4/2012
12.	Md. Nurul Islam	Assistant Land Settlement Adviser	3/4/2011
13.	Md. Mijanur Rahman	Project Area Coordinator (Char Nangulia)	18/1/2016
14.	Md. Liaquat Ali Khan	Project Area Coordinator (Urir Char)	2/5/2011
15.	Md. Alauddin	Project Area Coordinator (Char Ziauddin)	2/5/2011
16.	Md. Basedul Alam Siddiqui	Project Area Coordinator (Noler Char, Caring Char)	26/5/2011
17.	Md. Zahirul Islam Chowdhury	Social Forestry Coordinator	2/5/2011
18.	Md. Zulfiker Ali	NGO Sector Specialist Micro Finance	4/5/2011
19.	Md. Abul Bashar	NGO Sector Specialist LHR & Disaster Management	9/5/2011
20.	Motaher Hossain	NGO Sector Specialist WATSAN	2/5/2011
21.	Md. Antaz Uddin	NGO Sector Specialist Health & Family Planning	1/6/2011
22.	A.B.M. Shamsuddin	NGO Sector Specialist (Fisheries)	16/11/2014
23.	Ms. Jannatul Naim	NGO Sector Specialist (Livestock)	23/11/2014
24.	Zulfiquer Azeez	Project Engineer (West)	7/4/2011
25.	Sankar Chandra Saha	Project Engineer (East)	1/3/2011
26.	Md. Abul Hossain	Project Engineer (Urir Char)	18/9/2011
27.	Shajjadur Rahman	Project Engineer (Char Ziauddin)	14/11/2011
28.	Radheshyam Sutradhar	Project Agriculturist	2/5/2011
29.	Ms. Raka Monaem	Office Manager & Accounts Officer (Dhaka)	1/3/2011
30.	Md. Liakhat Ali	Agriculture cum Forestry Coordinator	21/7/2013
31.	Mesbahuddin Ahmed (Bahar)	Logistic Officer	2/5/2011
32.	Md. Mizanur Rahman	MIS & Computer Specialist	20/1/2014

Sl.	Name	Designation	Date of Joining
33.	M.A. Kader	Monitoring & Evaluation Officer	2/10/2011
34.	Ms. Khaleda Akter	Monitoring & Evaluation Officer	2/10/2011
35.	Md. Sanaullah	Account Assistant (NPO)	15/5/2013
36.	Ms. Shilpi Regina Gonsalves	Administrative Assistant (Noakhali)	1/3/2011
37.	Zahidur Rahman	Administrative Assistant (Dhaka)	15/6/2011
38.	Md. Rafiqul Islam	Data Collector (PCD Office)	15/6/2011
39.	Ms. Fatema Begum	Gender Field Coordinator	2/5/2011
40.	Ms. Nahid Farhana Akter	Gender Field Coordinator	2/5/2011
41.	Md. Hasanul Bashar	Field Engineer (Extra)	6/3/2016 to 9/6/2016
42.	Aminul Islam	Field Engineer (Extra)	6/3/2016 to 9/6/2016
43.	Sazedul Kabir	Computer Operator	3/4/2011
44.	Abul Kashem	Computer Operator	30/6/2011
45.	Mohamed Ali	Surveyor (Engineering)	2/5/2011
46.	Nazrul Islam	Surveyor (Engineering)	1/4/2013
47.	Ziaur Rahman	Surveyor (Engineering)	1/12/2014
48.	MD Abdul Khaleque	Surveyor (Engineering)	1/11/2014
49.	Habibur Rahman	Surveyor (Land)	2/5/2011
50.	Md. Kamal Uddin	Surveyor (Land)	1/6/2011
51.	Mati Lal Das	Consolidator (Land)	3/4/2011
52.	Md. Delwar Hossein	Consolidator (Land)	2/5/2011
53.	Md. Shodiul Islam	LCS Facilitator	1/1/2012
54.	Flavian Gonsalves	Driver	1/3/2011
55.	Md. Gaiz Alam	Driver	1/3/2011
56.	Abdul Latif	Driver	2/5/2011
57.	Md. Abdul Jalil Miah	Driver	2/5/2011
58.	Md. Akter Hossain	Driver	15/9/2011
59.	Md. Abdul Hai (Bahar)	Driver, DPO	1/3/2011
60.	Chandra Bushion Majumder	Driver	1/7/2014
61.	Md. Jahiruddin Shobuj	Peon	1/3/2011
62.	Gopal Chandra Roy	Peon	3/4/2011
63.	Md. Abul Hossain	Peon	12/7/2011
64.	Protap Daring	Peon, DPO	1/4/2011
65.	Md. Jewel	Guard, Boyer Char	1/11/2012
66.	Bino Fernandez	Guard, Noakhali	3/4/2011
67.	Mosharref Hossain (Manik)	Cook/ Manager, TL- & Guest- house	1/3/2011
68.	Md. Abdul Kader	Cook, Char Nangulia	1/3/2011

Sl.	Name	Designation	Date of Joining
69.	Md. Shamsul Haque	Cook, Urir Char	2/5/2011
70.	Md. Waziullah	Cook, Char Majid (CM)	15/9/2011
71.	Mohammad Kabir	Speedboat Helper (Boyer Char)	2/5/2011
72.	Md. Jahir Uddin	Peon cum cook	1/2/2012
73.	Bashir Ahmed	Office Assistant (PCD Office)	15/4/2013
74.	Md. Shah Alam	Cleaner/Peon	18/05/2014
75.	Khalequzzaman	Day guard (DPO)	9/10/2012

Annex 7. Status of Technical Assistance Budget per 31 December 2016

Euro

Sl. No.	Budget Item	Total Budget	Previous Claims	Claim July-Dec. 2016	Total claimed	Balance
1	Professional Staff	4,416,245	2,745,955	341,424	3,087,379	1,328,867
2	Technical/ administrative Staff	1,086,299	553,067	170,626	723,693	362,606
3	Support and field Staff	924,129	497,288	108,160	605,449	318,680
4	Equipment/ Vehicles	191,546	124,611	1,057	125,669	65,877
5	Studies and surveys	414,872	311,211	24,376	335,587	79,285
6	Training and Workshops	116,750	53,696	3,690	57,386	59,364
7	Contracted services	65,000	22,274	4,139	26,413	38,587
8	Recurrent Cost	755,523	506,700	59,634	566,334	189,190
9	Office Construction	50,000	50,000	0	50,000	0
<i>Sub-total TA</i>		<i>8,020,364</i>	<i>4,864,802</i>	<i>713,106</i>	<i>5,577,908</i>	<i>2,442,456</i>
10	Contingencies	210,881	31,700	-3,658	28,042	182,839
<i>Sub-total TA incl. contingencies</i>		<i>8,231,245</i>	<i>4,896,502</i>	<i>709,448</i>	<i>5,605,950</i>	<i>2,625,295</i>
11	Social and Livelihood support	3,076,749	2,288,313	228,079	2,516,392	560,357
<i>Sub-total Social & Livelihood</i>		<i>3,076,749</i>	<i>2,288,313</i>	<i>228,079</i>	<i>2,516,392</i>	<i>560,357</i>
Total TA contract		11,307,994	7,184,815	937,527	8,122,342	3,185,653

Annex 8. Training provided by TA Team, IAs and PNGOs July – December 2016

SI No.	Title of Training/Workshop	Facilitated by	Duration	Batch	Participants			
					Male	Female	Total	
1.	Awareness training on marriage register to UP member & Elites	PNGOs	1 day	4	68	32	100	
2.	Awareness training on LHR	PNGOs	2 days	28	275	525	700	
3.	Annual refreshers training on Disaster & Climate change	PNGOs	1 day	58	674	775	1449	
4.	Refresher Training on TBA	PNGOs	1 day	74	0	1110	1110	
5.	Field Day Observation on Fruit & Vegetable cultivation	PNGOs	1 day	26	0	520	520	
6.	Refresher training to Poultry workers	PNGOs	1 day	20	0	143	143	
7.	Orientation of Rural Elite on Health & Family Planning	PNGOs	1 day	7	136	0	136	
8.	Legal Human Rights Education (LHRE) Class	PNGOs	22 days	15	0	367	367	
9.	Training on Fruits & Vegetable cultivation (Winter)	PNGOs	1 day	68	0	1360	1360	
10.	DTW training to Caretaker family	PNGOs	3 days	1	0	14	14	
11.	Human Rights Day observation	PNGOs	1 day	11	810	1877	2687	
12.	Child Rights Day observation	PNGOs	1 day	11	1150	1366	2516	
13.	Demonstration on Food Processing & Cooking System	PNGOs	1 day	4	0	41	41	
14.	Motivation Tour of Fruits & vegetables cultivation	PNGOs	1 day	1	0	11	11	
15.	Refresher Training on Gender	TA Team	1 day	100	190	110	300	
16.	Annual Workshop	DAE	1 day	1	44	4	48	
17.	Workshop on uses of Cyclone Shelter	LGED	1 day	2	27	18	45	
18.	Follow-up training on Social Forestry to Mitigate Climate change	FD	1 day	30	458	292	750	
19.	Training on Non-farm IGA (Tailoring)	PNGOs	30 days	1	0	24	24	
20.	Training on Non-farm IGA (Cap Sewing)	PNGOs	3 days	2	0	50	50	
Total					464	3,832	8,639	12,371

Annex 9. Overview of FLI's 31 December 2016

SL	Name of Area/ Polder/ WMG/ LADC	No of FF	No of SFG	No of NGO group	No of TUG	No of LCS
	Nangulia					
1	Dorbesh Khal- WMG	4	26	37	63	4
2	North Nangulia Khal- WMG	3	03	44	71	3
3	South Nangulia Khal-WMG	5	13	71	85	6
4	Bhuiyar Khal-WMG	3	22	41	67	5
5	Nonar Khal-WMG	3	21	19	45	2
6	North Katakhal Khal-01 WMG	3	17	41	54	1
7	South Katakhal Khal-01	3	26	31	51	2
8	North Katakhal Khal-02 WMG	4	13	45	59	0
9	South Khatkhal -02 WMG	3	22	30	47	2
10	Boro Khal- WMG	3	32	31	56	3
11	Lakshmi Khal- WMG	3	20	33	47	3
	Total	37	215	423	645	31
	Noler Char					
1	Howar Khal-01- WMG	5	21	45	79	3
2	Rahamat pur Khal- WMG	5	16	51	79	7
3	Chanandi Khal- WMG	5	09	37	60	5
4	Milon Khal- WMG	4	16	40	58	2
5	Alamin Khal- WMG	6	33	44	76	4
	Total	25	95	217	352	21
	Caring Char					
1	Bathankhal-LADC	3	19	54	71	2
2	Shahabani Bazar- LADC	4	11	36	46	4
3	Mujib Bazar- LADC	5	18	34	14	0
4	Caring Khal –WMG	3	7	56	48	1
	Total	15	55	180	179	7
	Char Ziauddin					
1	Char Bagga Khal –WMG	3	11	45	35	01
2	Motobi Khal- WMG	4	20	35	70	01
	Total	7	31	80	105	2
	Urir Char					
1	LADC-01	2	0	28	9	0
2	LADC-02	2	8	35	33	1
3	LADC-03	2	39	21	25	1
	Total	6	47	84	67	2
1	Boyer Char/Teliur, Char Muksumul, Bangchur, Kolatoli	0	41	0	40	5
	Grand Total	90	484	984	1388	68