

Chapter 11

Income and Quality of Life

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Increased income and changes in sources of income

Annual household income

CDSP projects have built and constructed many climate resilient structures in newly developed coastal chars. These include embankments to control floods and intrusion of saline water, drainage sluices to remove water-logging, markets to facilitate marketing and value chain for the products grown by farmers. In general char dwellers are using 30% of their own land (average 1.3 acres) as homestead for housing and homestead gardening with 70% of the land converting to productive farming e.g. ‘sorjon’, plots, fish ponds, and agricultural land. Having trained on different income generation interventions, they are now diversifying their income sources and, as a result, multiplying household incomes. The average household income for CDSP phases is shown in Table 11.1. The magnitude of household income increase has been confirmed by tracking annual outcome surveys and PCR stakeholder workshops where the farmers said their incomes have increased by three or four times.

Table 11.1. Average household income for CDSP phases.

Income source	Annual income Taka				CDSP IV increase
	CDSP IV Baseline	CDSP I & II	CDSP III	CDSP IV	
Total farm	25,998	93,515	85,369	118,473	356%
Total non-farm	45,952	214,989	223,349	178,452	288%
Total	71,950	308,504	308,718	296,925	313%

Sources: Baseline 2011, AOS 2017 (CDSP-I&II, CDSP-III) and Impact 2018 (CDSP-IV), PCR CDSP-IV 2018

- Income from farm and non-farm enterprises is estimated as being net of enterprise operating costs.
 - Average income in Taka is average for all sample households, not just the households with that income source.
 - Main farm income includes agriculture (field crops and homestead vegetables), aquaculture, livestock, poultry and forestry/trees.
 - Non-farm includes jobs and daily labour, petty trade, business, skilled work, handicrafts, and pension and social income.
- (Source: Annual Outcome Survey 2017, TR-12, pp. 14.)

Increased Land Ownership and Housing

Increased land ownership

Providing land to landless char dwellers is the unique feature of CDSP. A total of 33,522 households has received land titles covering 42,578 acres (17,238 ha) during CDSP phases I, II, III and IV (Table 11.2). Land ownership has been given with an equal share (50%) to husband and wife, ensuring wife's name is in the first place on the title deeds. In case of women who are widows, 100% ownership is given.

Table 11.2. Distribution of land settlements with areas and benefited families.

CDSP Phase	Land Settlement (acre)*	No. of Families Benefited with Land Titles (khatian)
CDSP I (1994-2000)	5,842	4,494
CDSP II (2000-2005)	10,188	7,837
CDSP III (2005-2011)	10,820	8,323
CDSP IV (2011-2018)	15,728	12,868
Total	42,578	33,522

* *Average per capita settled land= 1.3 acres (0.53 ha) where 1 ha = 2.47 acres*

Average land holding per household is found to be 1.3 acres (0.53 ha). From various different studies like annual outcome survey, impact survey and case studies, it is revealed that char dwellers are developing their land in a productive manner to adopt suitable agricultural practices e.g. making ‘sorjon’ to produce vegetables and fish, vertical gardens to increase cropped areas, and ponds for fish culture. Besides, they are building durable living houses replacing traditional thatched huts. It is noted that until they receive original land titles they seldom develop durable housing and used to live in traditional thatched huts.

With secure tenure of their land and increased income, many households have invested considerable sums (typically Tk. 100,000) in building better and larger houses. Housing has considerably improved (Table 11.3), with the quality of houses largely catching up with those in the older areas.

Table 11.3. Housing in CDSP IV.

		Baseline 2011	Impact 2017
Average size of house	Square metre	25.3	43.9
Tin sheet/brick wall	% of households	13	84.1
Tin sheet roof	% of households	16	82.0

Source: Technical Report 20: PCR, CDSP IV, pp. 22

Improved water and sanitation

Prior to CDSP IV, the baseline survey of 2011 showed that 99% of char households (27,720) used water of reasonable quality from tube-wells, but they

had to go large distances to collect this water (345 m in the dry season, and 418 m in the wet season). Now all 29,000 households have access to 1,531 DTWs installed by CDSP IV at an average distance of 60 m.

The baseline survey showed that in 2011, only 6% of households (1,680) were using hygienic latrines, Now, this has increased to 98% (27,442 households); 91% have received water sealed ring slab latrines from CDSP IV. (Source: Technical Report 20: PCR, CDSP IV, pp. 17)

Increased Asset Value

There has been larger growth in asset value than income. The share of this value by different asset classes is shown in Table 11.4. This shows that the shares of farm and non-farm assets have significantly increased while that for livestock has fallen despite growth in numbers of animals and birds. The main non-farm assets are shops (mainly grocery shops). The main farm assets are trees, timber and ponds. The main household asset is jewellery, although solar systems have also become significant.

Table 11.4. Asset value (Tk.) and share by categories of assets.

Indicators	Baseline	Status as AOS 2017		Impact at
	2011	CDSP-I&II	CDSP-III	2017
Average value per household (Tk.)	35,162	393,873	374,242	261,485
Share of value				
• Household assets	21%	19%	18%	19%
• Non-farm enterprises	3%	24%	20%	12%
• Farm assets	13%	34%	47%	41%
• Livestock and poultry	62%	14%	14%	26%
• Other assets	1%	9%	2%	2%
Total	100	100	100	100

Source: AOS 2017, pp. 13 and PCR, CDSP-IV, pp. 21

Improved food security

The improvement in food security is rated highly satisfactory (score 6) by IFAD. The reduction in food shortage and increase in self-sufficiency has been one of the indicators of CDSP project goal. The quality of food consumed has been improved - with more vegetables, eggs, meat and fish being eaten. Over one third of homestead vegetables and fruit are consumed by producers' households, virtually all households keep poultry and consume an average of 200 eggs and 14 birds per year. Impact survey data shows that, on average, each household consumed 44 litres of milk (35% of production) and 80 kg of fish (53% of production). (Source: Technical Report 20, Project Completion Report, CDSP IV, pp. 22)

Increased livelihood capital

An impact assessment on livelihoods of char dwellers has identified positive changes in the five livelihood capitals: natural, human, physical, social and financial. Highlights of these changes and their impacts are:

- Natural capital has been improved - with households getting secure access to land, and with flooding and salinity being reduced (via the development of the physical capital of water control infrastructure). Households have also invested in making land more productive - building fish ponds and fish-vegetable systems, raising land for homesteads and horticulture, and planting trees. As a result, land is now more intensively cropped, and it is possible to grow a greater range of high yielding and high value crops and to cultivate fish ponds.
- Human capital has been strengthened via the development of the capacity, skills and knowledge of char dwellers. This has come about through CDSP IV training programmes, and also via the development of social capital, with community organizations such as Farmers' Forums disseminating information and advice and helping to organize training. This knowledge and new skills have enabled people to take up new livelihoods, such as tailoring, and improve the productivity of crops and livestock.
- Physical capital has been increased via the construction of water management and communications infrastructure. Water management infrastructure has improved the natural capital, and communications

infrastructure has improved market access and social connectivity. Cyclone shelters and killas protect people and animals at times of disaster, and the shelters also house schools, while tube-wells and latrines provide households with domestic water and sanitation.

- Social capital has been generated via a range of community institutions and by programmes to empower women and build human rights. These community institutions have in turn supported efforts to get secure access to land and have disseminated knowledge to build human capacity. Water Management Groups operate and maintain the vital water control infrastructure, Tube-well User Groups maintain water supply tube-wells, and NGO groups enable access to financial capital.
- Financial capital - savings and access to micro-credit loans have provided resources for investment in natural and physical capital, and provides a buffer against unexpected health expenses, which along with loans for education, has strengthened human capital.

These five capitals have combined to significantly increase household income and enable households to diversify their livelihoods into new farm and non-farm enterprises. (Source: Technical Report No. 13, Household Impact Assessment using the five capitals of livelihood.)