

Good Practices 16: November 2016



IMPROVING MILK PRODUCTION AND MARKETING SYSTEM IN NORTHERN CHARS OF BANGLADESH



An integrated approach for the development of milk market helps poor communities living in the char lands of Bangladesh to enhance their income. The approach combines technical, organisational and marketing interventions. Md Mamunur Rashid, Md. Shafiqur Rahman and Khandaker Farzan Ahmed participated in this initiative and they share their experiences here.

CONTEXT

There are many opportunities at char lands (sand and silt landmass) in Bangladesh (Box 1) for milk production mainly because of the available grazing land. Most of the char dwellers are involved with cattle rearing. Many rich people of mainland invest money for cow rearing in char on asharing basis with the poor char dwellers. Every day huge volume of milk is produced in char areas but the marketing facility is very poor. Therefore, char dwellers fail to get a reasonable price for the milk they produce.



Box 1: Char

The riverine sand and silt landmasses known as char in Bengali are home to over 5 million people in Bangladesh. The chars - some midstream islands and others attached to the mainland - are created from river sediments and are in a constant state of formation and erosion. Emerging chars create new areas for settlement and cultivation, an important resource in a land scarce country such as Bangladesh. However, a constant threat of riverbank erosion and flooding, combined with a lack of physical infrastructure, government services and employment opportunities in the chars, makes for a vulnerable, difficult and fragile way of life.

The chars in the north-west are located in some of the most isolated and impoverished areas in the country. People on the chars are heavily reliant on low-paid and unpredictable day labour for their livelihoods. They are typically food insecure and suffer from under-nutrition. People living here are therefore highly vulnerable to environmental shocks that can have devastating effects on their livelihoods.

Commercial production and marketing of milk is still absent in char lands because of the distance from the mainland market and the cost for quick transportation. Regular milk marketing channels do not exist and milk producers depend on the local milk collectors at char. In some cases, milk collectors from the mainland, who visit char sporadically, collect milk at low prices and often on credit. Often, producers sell their produce earlier to the local collectors to secure some value. As a result, the milk has not much economic value in the char and the producers do not receive a fair price.



Most of the cattle are local breeds and the yield is very poor. The management (labour, time) of cows, whether local or cross bred is almost the same but there is a huge difference in output. For instance, the average milk production of crossbred cow is 10-12 litres/day where as from a local breed it is 2-3 litres/day.

Cattle feed is unavailable in the chars during floods and both the cattle population and the milk production reduces during this period. Many animals receive maintenance or below maintenance levels of nutrition resulting in low levels of production. Addition of even small amount of higher quality feed can have much larger effect on production. Use of fodder as cattle feed can enhance milk production as well as fat percentage of milk. Char farmers can easily cultivate fodder specially *Jambu* for feeding their own cattle as well as for commercial purposes. However, this hasn't been explored so far.

To overcome these constraints, Chars Livelihoods Programme (CLP) Box-2 was launched. Milk Market Development Project (MMDP) is a component of CLP and it was implemented from February 2013-February 2016. The objective was to increase the milk production from the chars and potentially improve the market system so that it becomes a lucrative activity for poor households in chars. RDRS implemented part of this project in Rangpur, Kurigram and Lalmonirhat districts with 950 milk producers of 38 Milk Business Groups (MBG).

Box2: The Chars Livelihoods Programme (CLP)

CLP is a livelihoods programme which aims to substantially reduce extreme poverty on the chars in North-Western Bangladesh. It provides a comprehensive package of support to the extremely poor, as well as extending support to the wider char community. The CLP is jointly funded by UK aid through the Department for International Development (DFID) and by the Australian Government through the Department of Foreign Affairs and Trade (DFAT). It is sponsored by the Ministry of Local Government, Rural Development and Cooperatives (LGRD&C) of the Government of the People's Republic of Bangladesh. It is executed by the Rural Development and Cooperative Division (RD&CD) and is managed through Maxwell Stamp PLC.

INTERVENTIONS

Intervention-1: Formation of Milk Producer Groups

- Organize discussion meetings with targeted community farmers
- Organize follow-up meetings and group formation
- Organize the need analysis meetings of the groups
- Prepare group profile and compile base-line information
- Organize orientation programme on milk market scenario
- Organize yard meeting

Intervention-2: Promotion of Access to feed and fodder:

- Identification and selection of input suppliers (feed sellers)
- Organize training for feed sellers on quality input storage and supply

- Linkage meetings with input suppliers between mainland and chars
- Establish demonstration plots of fodder
- Organize concentrate feed demonstrations
- Organize field day to demonstrate fodder cultivation

Intervention-3: Promotion of Improved Livestock Husbandry Practices and veterinary Services:

- Identification of LSPs
- Organization of coordination meeting between LSPs and milk producers
- Training on improved cattle rearing practices
- Demonstration on cow comfort
- Result demonstration on cow comfort
- Organize linkage meetings with medicine traders and retailers



Intervention-4: Improving Milk Supply Network:

- Identifying potential milk collectors
- Linkage meetings between producers and selected collectors and profiling of collectors
- Building capacity of milk collectors
- Facilitate the safe milk carrying system for the selected collectors/goalas
- Cross visits to a collective /functional milk supply system
- Linkage meetings between milk collectors and informal/formal processors
- Meeting/workshop with informal and formal processors to establish milk collection centres
- Facilitate establishment of milk collection centres

Intervention-5: Development of char-based informal milk processors

- Identification of potential milk processors at chars
- Building capacity (meetings, trainings, etc.) of the potential processors
- Facilitating the char processors in initiating the business

Intervention-6: Promoting Access to Finance

- Explore potential micro-finance sources/providers interested to work in chars
- Organize consultation meetings with the interested financial sources
- Introducing milk producer groups with the financial sources
- Facilitate the financial modalities between the financial sources and MBGs

Intervention-7: Development of Char Business Centre (CBC)

- Formation of CBC committee
- Building capacity of CBC committee
- Organize CBC committee planning meeting
- Organize exposure visits to effective collection points and institutional buyers
- Host institutional linkages workshop with milk producer groups, FBGs, buyers, input sellers
- Organize CBC future planning meeting with *Goalas*, informal/formal processors, LSPs

GOOD PRACTICES

Fodder Production and commercial feed

MMDP has promoted the production of green grass as livestock feed: it helps to increase milk production and decreases emission of methane gas from the cow dung. Milk market farmers are cultivating high yielding fodder varieties (Napier grass, Jumbo plus) in fallow land. This provides green grass for their livestock, saves money, and in some cases, helps to increase their income. Besides this, farmers are also feeding their cows ready feed to enhance fat percentage of Milk.

Cross breed Cattle promotion

When RDRS Bangladesh started its journey in chars with Milk Market development Project, we found that percentage of cross breed cattle of chars was only about 3%. This was one of the major reasons for low productivity of cattle. But after a year of project interventions, the percentage of cross breed cow is almost 30% (Holstein Frizian-80%, shahiwal-13%, Redchitagong-7%)

Cow Comfort

It is an innovative technology of Chars Livelihoods Programme where cattle can move freely without the rope hanging around their neck. As cattle are long eared animals, their production

decreases due to thyroid gland infection with Rope. We found that cow comfort plays a vital role in cattle health management.

Ensuring water for cow for 24 hours

It is very important to keep fresh water in front of cattle all time. To produce 3 litres of milk, a cow consumes at least 18 litres of water.

Milk Collection point

Milk Collection point is one of most important business approaches to connect with formal business channels. It is the point, where all the owners of cows gather at a specified time with the milk produce and after collection the milk goes to formal channels like PRAN, Milk vita centre, etc. At this point, quality of milk is tested by *Corrected Lactometer Reading (CLR)* and through this intervention farmers are getting better prices than before.



BENEFITS AND IMPACTS

CLP through MMDP is giving specific attention on the replacement of local cow with cross breed cow, promotion of better management practices and establishment of a sustainable milk collection system. The data from 550 milk producers in 22 MBGs in Rangpur clearly shows that remarkable changes have happened in char lands due to this project (Table 1). The volume of milk production increased by 87% (from 529 litres to 990 litres) and selling price increased by 7

taka/litre. This tremendous result has been observed within two years of interventions (improved feeding system like green fodder, ready feed and linkage development with formal milk channels, etc). PRAN Dairy, a leading company is now buying milk from our chars at a better price due to the good quality of milk.

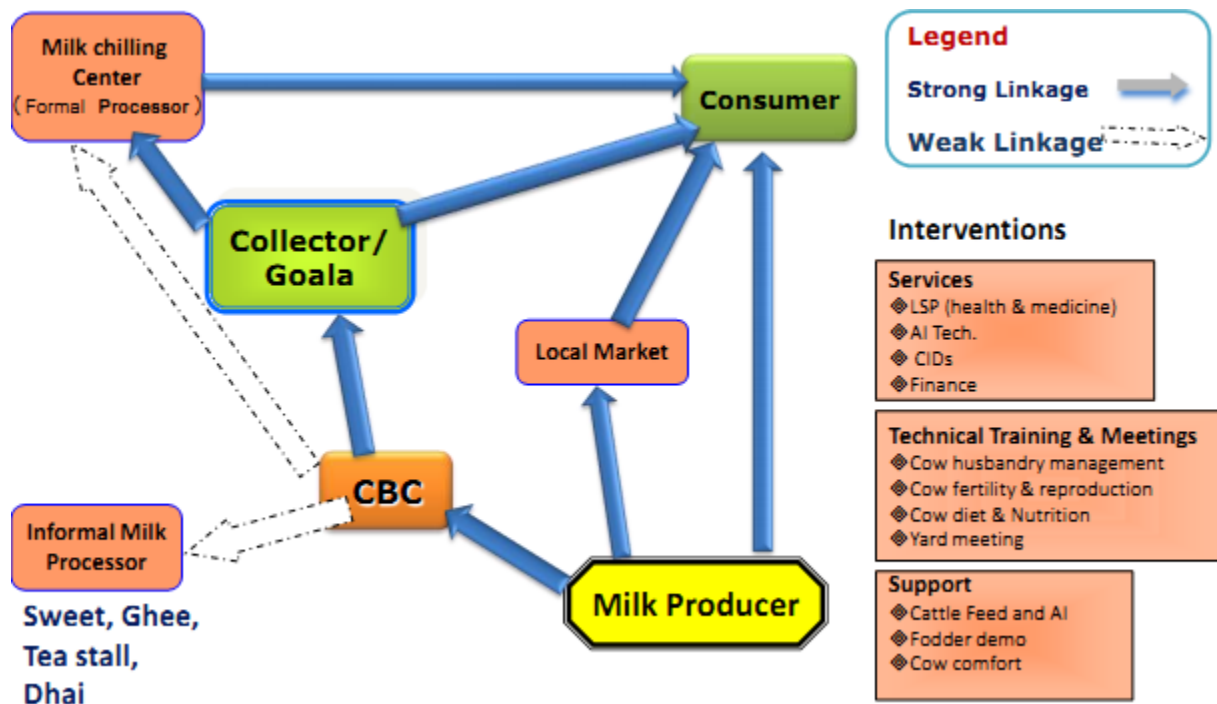
Table 1: Changes from implementation of MMDP in char lands

Name of village	#of MBG	# of MBG Member	Breed type (% Crossbred)		Average milk production per day (Litre)		Milk production/Cow (Litre)		Average milk selling price (Tk.)	
			July 2013	February 2016	July 2013	February 2016	July 2013	February 2016	July 2013	February 2016
Purbolsli	4	100	3.25	38	79	177	0.99	3.66	33	37
PurboBinbina	4	100	7.2	29	70	139	0.91	2.47	31	38
Poschimsli	3	75	1.17	18	107	117	1.47	3.95	33	39
Char Morneya	3	75	14	35	135	210	1.7	3.18	32	38
Norshing	3	75	0	29	34	96	0.68	2.21	30	40
Char Chatura	3	75	5.33	22	45	197	0.96	2.8	28	38
SonapurHorinchora	2	50	0	19	59	134	1.37	2.93	27	38
Grand Total	22	550	6.19	27.14	529	1070	1.15	3.02	31	38.29

SUSTAINABILITY AND SCALING UP

For ensuring effective backward and forward linkages, CLP introduced Char Business Centre (CBC) which is an executive committee in each working char ensuring representations from respective MBGs and other market actors in that community that are acting as the centre for collection and selling of milk of the respective community. Total 13 CBCs have formed by the active participation of char dwellers In Rangpur and Kurigram districts. These CBCs are currently acting as Chambers of Commerce of Char (CCC). All the CBCs have already got their registration from Department of Cooperatives.

CBC represents all stakeholders (LSP, Char Input Dealers, Irrigation Service Providers, Livestock Business Groups etc) and it has an executive committee having 5 members (formed from the 15 members CBC). As there is no banking facility or even micro finance organization to promote business and economy in chars, CBC is now giving loan to various businesses of chars at minimum interest (5%) from their savings. To promote milk business of char, CBC established milk collection point at CBC house and through this point, char milk is flowing to formal channels (PRAN, Milk Vitae).



The following agencies are now connected with CBC for providing necessary support:

- DLS- providing vaccines, LSP training, technology, treatment
- ACI Godrej, Misham-Agro, Lalmoni-Agro, Arab feed, EON, AIT, BRAC, etc-supplying Ready feed for beef and milking cattle
- ACI, Novartis, Square, Acme, etc-supplying medicines for livestock
- Advanta, Ispahani, ACI, etc-supplying green fodder seeds
- PRAN Dairy and BRAC Dairy-purchasing milk, supporting technical knowledge, and AI training to LSP
- Rural Development Academy (RDA), Bogra signed MoU for technical support and loans

CBC is now treated as Change maker of char. RDRS Bangladesh strongly believes that after phase-out of CLP, CBC will take the lead of all the developmental activities in chars.

LESSONS LEARNED

The need for a clear vision, attitudes and motivation: CBC members want the group to continue functioning and are willing to put efforts and resources to achieve this. This positive attitudes and motivations are driven by a clear vision of what the CBC will achieve and the benefits that these efforts will generate.

Organisational management and self-governance: The future of CBCs clearly depends on their capacities to manage themselves and shape their own development pathways. This includes the capacity to identify human resource requirements and assign roles; the capacity to set rules and to enforce them; and the capacity to develop effective operational procedures.

Business-management capacity: CBCs must be able to identify market opportunities and plan and manage business activities to access these opportunities. They would need technical backstopping and handholding support to do the same.

Developing revenue generation, planning and management skills: Revenue generation is essential to the sustainability of the CBCs. Sound planning, documentation and management of revenues is also crucial.

ACKNOWLEDGEMENT

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