



Post Project Sustainability (PPS) for Strengthening the Dairy Value Chain (SDVC)

BACKGROUND

CARE Bangladesh implemented “**Strengthening the Dairy Value Chain (SDVC)**” in two phases which were funded by the Bill and Melinda Gates Foundation. Phase I was from 2007-2012. SDVC I was the first dairy project in CARE Bangladesh to embrace a value chain approach, which observed the entire dairy sector for sustainable pro-poor growth. Building on the success and experience of SDVC I, CARE implemented SDVC II project (2013-2016) focused on overcoming additional challenges in the dairy sector such as **unstructured milk collection** and **marketing systems**, and an **unavailability of and steep prices for inputs**. Thus, the project worked in partnership with several market actors. The project had focused on implementing change through a set of interventions namely:

- Improving Productivity
- Increasing Access to Inputs
- Increasing Access to Markets
- Improving the Policy Environment
- Supporting Use of Technology and Data

One of the major private partners was **BRAC Dairy**, through which SDVC II aimed to further redefine the way milk was produced, collected, and marketed in rural Bangladesh. The project (June 2016) reported having benefitted **26,138** individual dairy producers across **7** districts¹ (northern region of Bangladesh), **89.6%** of whom were women.

After five years of the SDVC II, a Post Project Sustainability Study (PPS) was conducted out to measure **long-term sustainability of impacts** through **Market Systems Development Approach**.

OBJECTIVE

The overall objective of the study was to examine the **sustainability** of the project results to better understand whether, how, and why the SDVC project was able to make **lasting impacts** to sustain a flow of benefits over time.

1 Bogra, Joypurhat, Shirajganj, Pabna, Natore, Rangpur and Kurigram



METHODOLOGY

The study adopted a mixed methods approach where qualitative and quantitative approaches were blended to bring about impact related information at beneficiary level in terms of their income as well as the qualitative aspects to capture systemic change and sustainability across the value chain. The Assessment adhered to the **AAER** (Adopt, Adapt, Expand, Respond) framework for capturing systemic change, and draw conclusions on what changes came about at the beneficiary level, and if they had sustained and or even evolved in response to the changing market realities.

A survey was conducted with a total of 243 respondents (233 female and 10 male respondents) and 31 stakeholders were interviewed to gather information. A total of four focus group discussions were conducted with the communities (beneficiaries) to collect further qualitative information. The differences between end line and PPS were compared to draw conclusions about the impact after five years.

FINDINGS

This following section draws out the findings of the study at different levels of the value chain.

Input, Information and Services Level Changes

The project set off by linking retailers with farmers via farmer groups, where retailers were also connected to suppliers. Capacities of such retailers were also developed through

training and product orientation. SDVC then focused on engaging retailers with **Krishi Utsho (KU)**. A micro franchise model where retailers were connected to KU for ensuring high quality inputs being sourced and distributed to farmers.

The study found majority of such retail businesses continued to serve the communities. Retailers were also found to be one of the major sources of information for smallholder farmers and had reported enjoying a growth of **15-20%** in sales. Retailers also had adjusted their business practices to serve



Figure 1: A typical retail store of medicines in the Northern Districts of Bangladesh.

the women smallholder farmers (10-15%), with introduction of priority services (being served first over other clients) to women farmers at shops, home delivery of goods for women. Allowing for women farmers to have improved access to inputs. They were also found to play a facilitative role, where credit services were extended to farmers, this was found to be instrumental as a coping strategy amidst the COVID 19 pandemic related market closures and its shock which led to low demand and low prices of milk.

Similarly, the project had worked with Livestock Health Workers (LHWs) and Artificial Insemination Workers for Animal Health Services. The project had uniquely introduced female retailers, LHWs and AIs as well. The study revealed that

the most crucial point of contact for the small holder farmers for any information related to animal husbandry were the LHWs. LHWs were found to be highly active during the COVID 19 pandemic where many were found to have provided credit based services as well to beneficiaries. Retailers functioned as a vetting point, whilst AI workers were also improving their business. Female retailers, LHWs and AI workers were mostly found to be operational however the expansion of the women LHWs and AI workers remained limited to mostly the project areas. LHWs were found to maintain good working relationship with Department of Livestock Services (DLS) representatives to keep up to date and provide best services to their customer base.

Milk Collection and Sales Level Practices

One of the major components of the project was the formation of **collection points (89)** and connecting them to **chilling centres (22)**, enabled with **Digital Fat Testing (DFTs)** devices. Here farmers were able to sell milk at prices as per the **fat content**, the core determinant of milk quality. The study found that Chilling plants collections comprised of **70-80%** of milk supplied by smallholder farmers either directly or through the collection points. Chilling plant managers noted that the case of side selling to local markets and other processors have increased significantly, as the local market was offering decent milk prices, despite quality parameters.

Over the years the market has also become more competitive as other chilling points (of different companies) have been set up in the localities. During COVID 19 lockdown chilling plants faced a unique challenge - listed and non-listed farmers were opting to supply higher volumes of milk, as alternate sales channels were not functioning (local markets were closed). Thus, they started to ration volumes to ensure that farmers were supported during this crisis.

Collection points (CPs) were found to have become wholesalers of milk not only to BRAC but also other market actors including Milk Vita, Pran Dairy, Rangpur Dairy, Akiz and even local sweet makers. Many of the project assisted CPs were functioning well experiencing since they experienced increasing number



Figure 2 : Shibganj Chilling Centre



Figure 3 : Collection point where farmers sell milk based on fat content

of a farmer base as well as female farmers **(10-15%)**. The study did also find that a few of the collection points have closed mainly due to the defunct DFTs. *(BRAC has been facing problems since DFTs spare parts and support technicians are lacking in the market and have been trying to resolve the issue by engaging their own engineers)*. During COVID 19 initial stage few collection points did halt operations, however later reopened as the sector adjusted to the initial shock and were found to be operational during this study.

BRAC Dairy is one of the market leaders in the modern processed dairy segment of the milk value chain, with a market share of 24%. BRAC has also recently expanded into a diverse portfolio of dairy based products such as cheese and drinks. BRAC continues to source from collection points to their chilling centres, reporting **70-80%** of the milk being sourced from small holder farmers at a national level as

well as the regions under the study. This is reflective of the systems introduced by the project to have been internalised by the company.

Beneficiary farmers benefitted from time saved from going to market, fair prices as well as information from the project supported actors. Amidst COVID 19 lockdown BRAC alongside other processors were the redeeming feature for many farmers as they continued to source milk, whilst local markets remained mostly closed, where listed farmers of BRAC were given priority over walk in farmers. Major players such as PRAN, MILKVITA and even local players such as Rangpur Dairy have set up and increase their market presence in sourcing milk from the working regions of the project. Several chilling points have been set up in the regions and so more collection points were formed by entrepreneurs at such regional level.

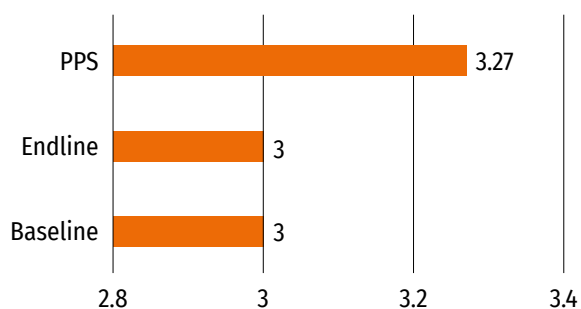
‘I started off from humble beginnings collecting 30-40 litres of milk a day in 2013 – today we collect 3500 litres of milk a day from my collection points. Thanks to the project now I earn a lot more and have been able to buy a house for ourselves’

**- Abdul Karim Koel
a farmer and a collection point entrepreneur**

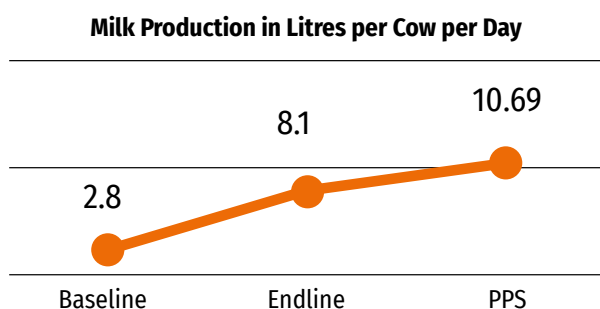
Farmer Level Practices

The project had supported farmers with several aspects to encourage better market participation through training and linkages with both backward and forward actors. The study had found that beneficiaries were practicing the learnings of the trainings as well as actively interacting with the market actors in the value chain to gain from forward and backward market related information and products.

The study found that the herd size however has increased to **3.27** fractionally higher than the end line value and base line value of **3**. The same holds true for the number of milking cows per household, which was **1.97** in 2016, moving up slightly and falling to **1.37** in 2021 as an after math of (COVID 19).



Milk production per cattle per day was found to be approximately **10.6 litres per day**, which is roughly **2 litres** higher than the end line study's highest value of average milk production being **8.1 litres**.



The study found that the farmers (**94-95%**) under the SDVC program had mostly continued to sell the produced milk to the collection points or to chilling centres directly. The FAT content of the milk was **4.91** on average over the six-year period. In 2021 it was found to be **5.14**, compared to **4.3** of the end line study

Farmers across the study areas were found to enjoy increasing prices for their milk. Prices increased nearly **15%** over the period. End line report had indicated income per day as **BDT 202.1** per day, the PPS found that the average income

to be **BDT 449** in 2021. Discounting for inflation BDT 202 in 2021 would have been worth roughly **BDT 250**, that is there is still an increase of **BDT 198** in today's terms². This increased income can be mostly contributed to the higher yield of milk and better cattle management practices.

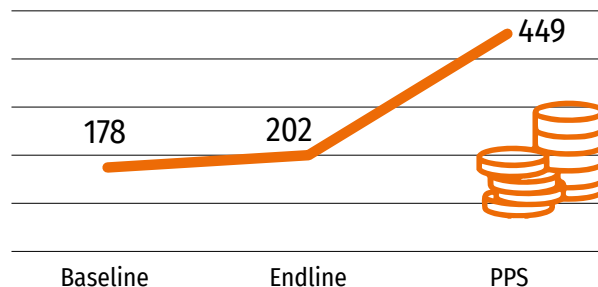


Figure 4 : Women Dairy Farmers in Shibganj

“I can save time, spending more time with my family and in house doing my chores now. SDCV’s collection point has made my life so much easier. I no longer need think about or send some of the local market... its truly a blessing”

Taslina a female farmer from Kashipur Moddo Para, of Bangura, Pabna

² Based on calculations by the author with information sourced from Consumer Price Index (CPI), Inflation Rate and Wage Rate Index (WRI) in Bangladesh, Published by: Bangladesh Bureau of Statistics (BBS)

What Worked?

A major achievement of the project was successfully connecting farmers to **milk collection centres**, this helped reduce the number of middlemen in the supply chain from farmers to BRAC dairy and other processors in the market. This enabled farmers to be able to sell higher volumes of milk to a collection point instead of local markets which usually engaged their time till the milk was sold. The study found that the training that was provided was critical as it allowed farmers to improve husbandry practices, feeding practices, make better breed selection decisions.

What Sustained?

Impact at farmer level in terms of income sustained, as the study found that majority of the farmers engaged in the project continued in the dairy sector and on average were earning BDT 404 per day. In terms of market engagement at output level and input level were found to have sustained and functioning well as well. Empowerment at farm level also sustained as the study found that women continued to be active in the making decision in terms of livestock and even family related matter, having more autonomy in terms

of how to spend the earnings as well. Enterprises nurtured under the project also sustained and prospered as we observed that input shops opened by the LHWs and retailers engaged in the Krishi Utsho franchise and beyond, keep on conducting their business. Some have even grown over time amassing a greater customer base.

The major factor that enabled sustainable practices at farm level was identified as the linkages formed by the project and the capacity building of the farmers and the stakeholders. It was found that farmers who were more willing to change their practices have been able to prosper over time despite shocks in the market. Nearly, all farmers were found to have been practicing improved husbandry methods, better feed and use of medication and vaccines.

Similarly at value chain actor levels we have seen that they were able to sustain due to their diversification of buyer portfolio, as they manoeuvred through ups and downs in the market. Entrepreneurs were found to be de-risking farmers through provision of credit lines as well as through ensuring much needed services such as medication as well as milk collection at stable prices.



Figure 5 : Farmers with cross breeds

SYSTEMIC CHANGE



ADAPT

BRAC continues to source from DFT Enabled Collection Points



RESPOND

Inputs Companies Support the development of farmers



ADOPT

BRAC established DFT enabled Collection Points



EXPAND

Formed other collection points and intends to go to the south of Bangladesh

In terms of Adopt, Adapt, Expand and Respond the study found that the major partner BRAC for milk collection and processing had not only internalised the model but also has expanded the number of chilling points enabled with DFTs. BRAC further plans to expand similarly in the southern part of Bangladesh. The dairy sector has also expanded where we see involvement of other market actors such as feed

suppliers, medicine suppliers who invested significantly in their marketing to promote improved husbandry practices as well as better input usage. The efforts of such stakeholders as well as the government also succeeded in promoting better breeds of cattle at field level as we have witnessed greater adoption of improved breeds (mostly cross) leading to higher milk yields as well.

“Over the last decade we have greater adoption of improved breeds across Bangladesh. Thanks to the efforts of the government, private sector actors and NGOs”

Dr Md. Harun-Or-Rashid
Deputy General Manager, BRAC Dairy

WAY FORWARD

CARE Bangladesh had successfully implemented the project SDVC across the two phases. The end line evaluation and final progress report captured many of the progress made and impacts at farm and value chain actor levels. The post project evaluation study findings informed that whilst some of the beneficiaries have moved onto other livelihood options most engaged in dairy farming. The most prominent contribution of the project as per the beneficiaries was connecting farmers to various market actors. Key takeaways from the post project evaluation in terms of furthering sustainable impact include:

a) Design of interventions:

Some interventions or business models are more profitable for one level of value chain actor which may not be true for the entire set of value chain actors. As evidenced by the disparity of the interest of collection point managers and the processing companies.



Figure 6 : Collection Point Staff

b) Slippage:

Any intervention promoting forms of contract or arranged farming are hard to maintain over time. While this is usually beneficial for the ones who can potentially outsource some of the products. This is not usually helpful to the ones procuring from the system, as setting up the system takes both resources both on terms of time and finance. There needs to be a mutual understanding that the system in place is transparent

and there are incentive mechanisms in place so that slippages cannot occur. The risk and benefits of such arrangements must be measured and shared to relevant stakeholders accordingly.

c) Institutional knowledge management:

Staff rotation is a vital component for continuity of work. The study found that whilst the project was ongoing various market actors' staff for example the staff of BRAC were aware of the project, its goals and the collaboration with CARE and other market actors. With time however as people moved to other stations or companies, knowledge about the project spread thin. Going forward, it is important for implementors such as CARE to investigate and support knowledge management to ensure that the goal of projects or partnerships are available to any staff joining to further the goal.

d) The right fit:

Thinking locally, regionally, and nationally is key, CARE SDVC was able to blend in the local, regional, and national level aspects into their design of interventions. This helped beneficiaries to sustain over time and recover from shocks such as COVID 19 related lockdowns, political instability that to a certain degree also hindered demand significantly. As evidenced in during COVID 19 time where local markets were closed, but beneficiaries being connected to national markets were able to sell produced milk.

In practice CARE BD was able to learn from the SDVC project and implement learnings in its SHOUHARDO and SHOMOSTHI projects not only in the dairy sector but across other sectors as well. CARE took steps to ensure local economic development as well as national level linkages.

CARE BD enlightened with these learnings can now forge better project designs and is placed to share its thoughts across the MSD platform as well enabling others to also better design, implement and monitor their work to as to bring about better impact for their projects.

Suggested Citation:

CARE Bangladesh (2021), Post Project Sustainability (PPS) Study for SDVC Project. Research Brief. Dhaka, Bangladesh



CARE Bangladesh HQ

RAOWA Complex, VIP Road,
Mohakhali, Dhaka-1206, Bangladesh

Phone: +88 02 9889009, 9889073, 9889122

Fax: +88 02 9889041