

2012

Lesson Learning Report: HSI (R)



shiree

where EEP / **shiree** works
(District and Upazila Coverage)

Innovation Round 1 & 2

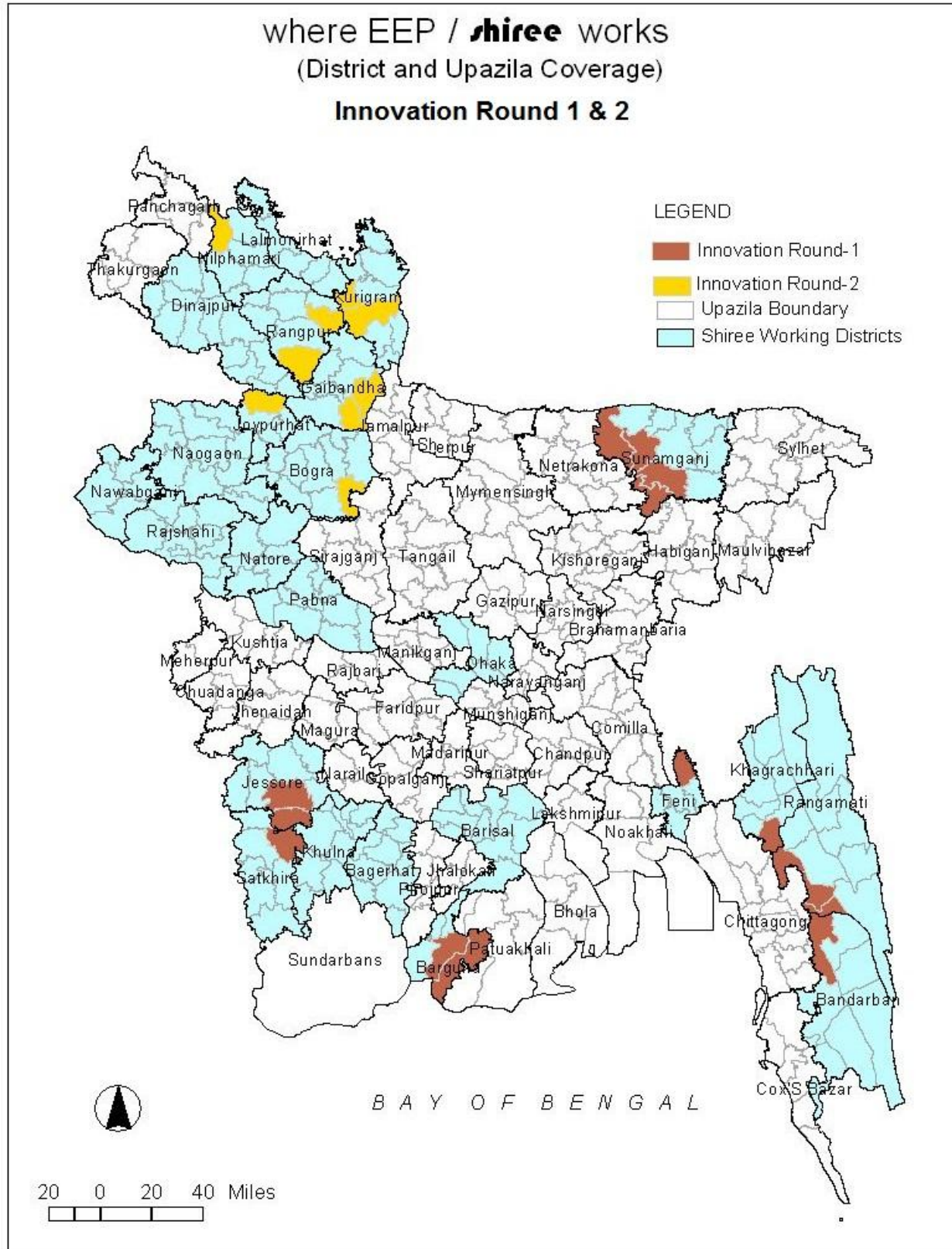


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Introduction

ECONOMIC EMPOWERMENT OF THE POOREST (SHIREE)

The Economic Empowerment of the Poorest (EEP) Project is a partnership between UKAID from the Department for International Development and the Government of Bangladesh that aims to take one million people out of extreme poverty by 2015. The programme has adopted the name *shiree* meaning steps in Bangla, reflecting the approach towards helping people to progress out of poverty. There are two *shiree* challenge funds, the Scale Fund and the Innovation Fund. Both are distributed to NGO implementing partners via a competitive process with selection made by an Independent Assessment Panel. The Scale Fund supports proven approaches to addressing extreme poverty while the Innovation Fund enables innovative approaches to be tested and enhanced in implementation. Scale Fund grants are typically of the order of £3million, covering around 10,000 direct beneficiary households each. Innovation Fund grants are also substantial, averaging £300,000 and up to 1,000 households. In August 2012 there were 36 active sub projects, 9 Scale Fund and 27 Innovation Fund working with over 200,000 households.

Inherent in the inclusion of an Innovation Fund in programme design is the objective that these projects will be closely and continuously monitored and evaluated with successes scaled up, either directly utilising available *shiree* resources, or indirectly for example through other funding routes or by influencing the design of other projects and programmes.

The *shiree* programme also has a mandate to research the dynamics of extreme poverty and of the effectiveness of interventions designed to address extreme poverty. This research and the learning from *shiree* projects feeds a growing stream of pro extreme poor advocacy activity, including the development of a Manifesto for the Extreme Poor¹. The big objective of this work is to make a significant contribution towards the eradication of extreme poverty in Bangladesh by 2021.

INNOVATION ROUNDS ONE AND TWO

The Innovation Fund is distributed via themed bidding rounds. Round One focussed on peripheral or marginalised regions exhibiting a high incidence of extreme poverty. The result of the competitive process was 6 projects located in: the Haors (CNRS, HSI), the Chittagong Hill Tracts (Greenhill, HKI), the Southern Coastal belt (Shushilan) and one in the border area of Feni District (Aid Comilla). The theme for Round Two was innovative approaches towards addressing seasonal hunger (Monga) and resulted in a further 6 projects (Action Aid, MJSKS, SKS, NDP, HSI, Puamdo) located in Monga prone regions of the North West. While the Round Two projects were initially for two years they were later extended by a year to bring them into synch with the three-year Round One projects². This gave Round Two projects more time to test and establish the intervention model and allowed for a common evaluation process.

¹ See: <http://www.shiree.org/>

² Except Puamdo ends Jan 2013

The total value of 6 Round One contracts was £1,541,283 with 7,000 beneficiaries. Round Two value was £1,794,863 with 5,465 beneficiaries.

THE LESSON LEARNING REPORTS

This is one of 12 lesson learning reports, one for each of the Innovation Round One and Two projects. The reports have been produced for three main reasons: firstly to capture and to make available the significant learning from each individual project, secondly to provide an impact assessment that can inform decisions regarding the potential scale up of project activities, thirdly to provide a vehicle for a process of interaction, reflection and appreciative dialogue between the shiree team, NGO project staff and beneficiaries, hence generating learning and helping the formulation of ideas that build on project experience even prior to the publication of the report. Each report follows a similar structure that reflects the key elements of this intensive and interactive process that spanned over 6 months.

12 individual reports have been produced rather than a single report with tables comparing NGOs. This was a deliberate choice. Each project is delivered in a different context, with a different client group (although all extreme poor), differing geographic, social and economic conditions. Furthermore each project has faced a range of external shocks (from flash floods to communal conflict) during implementation. While a similar methodology was adopted in preparing each report (see below) it is not possible to simply rank the projects in terms of impact from most to least successful. Rather the complexities of each context and the implementation challenges faced by each project need to be considered case by case. The success of any one project was heavily influenced by project design (i.e. the nature of the innovation), but perhaps to an even greater extent was contingent upon the changing circumstances of implementation and the success of the project teams, working with shiree support to adjust, evolve and enhance the project as it rolled out. Hence each report is quite long and contains a full description of how the project developed over time as well as the evaluative reflections of the implementing team and beneficiaries.

THE PROCESS LEADING TO THE REPORT

A similar process was followed during the preparation of each report. **Chapter One** was drafted to summarise the narrative of the project from design and inception through to completion. This chapter draws on the initial project memoranda as well as the output of several independent (SILPA) or Internal (Internal OPR) reviews conducted during the course of the project. NGOs were asked to submit relevant documents to inform this chapter and the chapter was reviewed and endorsed by each NGO prior to finalisation. **Chapter Two** reports the output of an Impact Survey conducted according to a standard methodology for all 12 projects. This survey was undertaken by trained enumerators under the guidance of the University of Cambridge adopting a similar methodology to that used for the Scale Fund CMS3 instrument.³ In all but one case⁴ the baseline census (CMS1) is used for before and after intervention comparisons. **Chapter Three** summarises the output of two Focus Group Discussions conducted with project beneficiaries. **Chapter Four** reports on a lesson learning workshop with the NGO team – during which the outputs of the Impact Survey were shared. The **Conclusion** is a comparison between

³ See: <http://www.shiree.org/extreme-poverty-monitor/#.UGp4U03A-a8>

⁴ HKI did not undertake CMS1

final project achievements and the original logical framework. **Annexes** include an analysis of the outcome of the **CMS2** mobile phone based “monthly snapshot” monitoring pilot⁵ and **CMS4** beneficiary responses, the **discussion guide** used for the Focus Group Discussions, a summary of the **project exit strategy**, a brief sub project **financial profile**, and a **case study**.

In all cases the report has been shared in draft, at several stages, with the concerned NGOs, feedback has been received and appropriate adjustments made. In a few cases an additional Annex has been included to provide a space for NGOs to provide an **alternative perspective** on any specific report findings with which they disagree.

The reports are quite long but they are also rich in content and we hope and expect that readers, especially development practitioners, will find them of real value.

⁵ Itself a significant process innovation

Chapter One: Summary of Project 2009-2012

DOCUMENTS CITED

- Project Memorandum, 2009; shiree and HSI
- Inception Report, 2009; shiree and HSI
- Shiree Output-to-Purpose Review, 2010; shiree
- Quarterly Change Reports and Self Review Reports; shiree
- Innovation Fund 2 Evaluation Report, 2010; shiree
- Mid-Term Evaluation Report, 2010; shiree
- Monthly and Quarterly Progress Reports; HSI

INTRODUCTION

CMS 6: Summary of HSI Interventions

HSI works in the Pirgonj and Pirgacha Upazilas of Rangpur district implementing the **Integrated Approach to Maximise the Benefit of Livestock Value Chain** project with 800 direct BHHs. IAMBLVC, launched in 2009 intends to move 800 households out of extreme poverty in Monga prone upazillas Pirgacha & Pirgonj of Rangpur District. The Project

Beneficiary Information	2009	2010	2011	2012	Cumulative	Target (according to log frame)
BHH selection complete	460	340	0	0	800	800
BHH profiles (CMS 1) complete	460	340	0	0	800	800
BHH who dropped out or migrated	0	0	0	4	4	0
BHHs receiving asset transfer	460	340	0	0	800	800
BHHs receiving cash transfer	0	0	0	0	0	0
BHHs receiving IGA/skill training/other capacity building	860	878	0	640	2378	800
Total value of assets/cash distributed					18,898,336	18,072,000
NOTE: this data is collected and reported by the NGOs to shiree as CMS 6 (reporting requirements to the Government of Bangladesh)						

Memorandum drafted in 2009 outlines the goal, purpose, activities and expected outcomes/outputs as such:

Goal

The goal is to reduce extreme poverty and hunger in the proposed working area. The project will enable the British and Bangladeshi Governments to fulfil their commitment to the UN MDGs, and specifically for shiree, Goal 1 (eradicate extreme poverty and hunger) and Goal 2 (achieve universal primary education), by 2015.

Purpose

The project intends to move 800 households out of extreme poverty in *monga* prone upazilas of Rangpur district. 90% percent of these households will be generating a monthly income of 4,000

Tk. within three years, thus contributing to their economic empowerment. This empowerment will include areas such as improving their skills, confidence and negotiation capacities. They will also be better equipped to secure their income permanently, food and round the year employment.

The immediate objective is to sustainably improve the livelihoods and income generation opportunities of extreme poor women and men (with emphasis on the former). This will be achieved by stimulating biogas promotion from large ruminants based integrated livestock production. The extreme poor will gain alternative employment and income opportunities through improved livestock production, improved fodder production, and feed supplementation including construction of biogas plants, and better access to markets and government services.

Activities

The initiative will address *monga* through four main types of support:

- Promotion of biogas plant installation technologies and utilisation, including a group of extreme poor who will become skilled masons and technicians on biogas plant installation and maintenance.
- Promotion of crossbreed heifer (milking cow) and other suitable breed (beef fattening), including the provision of asset transfer (livestock) and stipend to ensure initial livestock management and care.
- Promotion of improved fodder and livestock feed production and business as alternative income and employment opportunities, including skills development, provision of working capital for business, cash for leasing in private and public land on short and medium term basis.
- Access to markets according to a process which will include market surveys, match-making events with market actors, development of marketing skills and promotion of group marketing approach.

The innovation in this project is in the concept of using biogas for the benefit of the extreme poor. HSI has adopted two types of approach. For the BHH rearing cattle for milk and fattening it has a family-based approach, while for the biogas cooking and electricity it is a community approach. Only 179 beneficiaries are to be involved with and receive benefit from biogas related activities (i.e. cooking and lighting) out of the total 800 selected beneficiaries. The remaining beneficiaries are purely involved in more traditional asset transfer, cow rearing (milking and fattening) and skill development activities.

Expected Outcomes/Outputs:

Output 1: Improved integrated livestock rearing and waste management technologies disseminated to 800 households

Output 2: Input (including asset transfer and working capital), output and employment market linkages made available for 800 extreme poor households

Output 3: Public and private service providers facilitated and supported to service the beneficiary households and households lighting scheme biogas are established

Output 4: 740 extreme poor supported to be included in milk producing/beef fattening groups and 100 EP supported to be grouped for biogas and compost production

Output 5: Improved skills on management of different on-farm and non-farm supplementary income generating activities disseminating to 500 extreme poor households

YEAR ONE: SEPTEMBER 2009-AUGUST 2010

In its first year the project reached a total of 460 beneficiaries. HSI already selected and verified a further 340 beneficiaries (170 for milking and 170 for fattening) for the 2nd year. Household profiling was complete for all selected HHs (800). The 2010 Annual Report showed that by the end of the first year, 103 BHHs had fattened and sold cattle and milk and received a profit of 1,898,200 Tk. from which beneficiaries purchased goats and sheep, tin for repairing their houses and cattle sheds, fishing nets and leased lands, as well as ducks and hens, tube wells and paddy.

20 masons, from BHHs, started working on constructing and maintaining biogas plants after receiving training. The project provided equipment and working capital and had plans to expand on biogas and public projects. By December 2010, 6 of the small-scale biogas plants had been successfully constructed and were operational for cooking purposes for 4 BHHs each. 2 of the large-scale plants for lighting had been constructed (each for 35 BHHs) but had not started supply. 431 beneficiaries had started saving to face the *monga* period. Field facilitators visited BHHs three to four times a month and helped them keep a diary where they could record their income, expenditure and profit. In its first year, the project monitoring and evaluation were focused on output and outcome monitoring, but were interested in incorporating and adopting some impact monitoring tools.

The Output-to-Purpose Review found the project running smoothly, with little problems in procurement of assets and deliverables. The livestock element ran very well, with the project benefiting from a good relationship with the Upazilla livestock officer who was able to provide support to project staff on training, and advice on feed, fodder, vaccinations and artificial insemination. However, the limited supply of vaccines, especially for Foot and Mouth Disease, could pose limitations in the future if the project were to scale up. Local market outlets had absorbed increase in supply of both heifers and milk without noticeable price fluctuation, but the extent of its capacity to absorb more was uncertain. Project staff indicated that there were up to 5,000 extreme poor in the area that did not have access to microfinance but also noted the difficulty in finding a suitable number of beneficiaries within a close proximity to make a biogas digester feasible.

The biogas plant construction had been significantly hindered by the rainy season given that most work was underground and the low availability of sufficiently high land had been problematic. HSI also stressed the difficulty in selecting areas that had both a sufficient number of suitable beneficiaries and a location to install a bio-digester.

By the time of the OPR review, BHHs involved in cow fattening were in their second cycle, where they had sold and re-purchased a cow, at profit, in addition to increasing assets and facilitating increased consumption. Feed sellers and Fodder producers were observed to be doing well, engaged in employment and generating profits which facilitated income diversification, increased asset accumulation in addition to increased consumption (to include meat and fish). HSI signed an official agreement with local private sector firm SEED Bangladesh Foundation and GIZ to take up service of Masons for the construction of privately contracted

bio-digesters. Two large bio-digesters for lighting purposes and 46 small digesters for cooking purposes were installed – with the smaller units already hooked up to biogas fueled cook stoves and lighting in beneficiaries homes.

The relevance of bio-gas supply in local communities was outlined to be a large cost saving measure for BHHs who would spend a considerable portion of their income on Kerosene and time collecting fuel wood. Switching to biogas was expected to save BHH considerable time and money, however, consultations with BHH revealed that they were previously unable to afford much kerosene for lighting, so this assumption did not hold true. The project however has had a number of other effects. For example lighting run from generators fuelled by biogas provides the BHH the opportunity to carry out other IGA's in the evenings, while also reducing eve teasing. Biogas fuelled cook-stoves results in BHH not being exposed to deadly indoor air pollution, which can have serious and long-term health consequences.

The project also adopted a 50/50 split between milking and fattening cows, where beneficiaries do not have much input into the process. This was not viewed as a problem by beneficiaries presently as expectations for returns from milking cows were still high. However, this separation had the potential to create divisions within the groups if one started to move ahead of the other.

179 BHHs out of 800 were involved in the biogas element of the project. BHH groups were selling biogas generated electricity for lighting to 150 non-poor community members at the rate of 60 Tk. per month per bulb and accumulated this money as a part of their group savings. Project staff commented that this was due to the need for the biogas processor to be in a close proximity to several beneficiaries. Expectations for the adoption of this technology had been changed from that originally proposed in the Log Frame from 100 biogas plants by non-poor community members to 100 light bulbs from biogas run generators. All beneficiaries that the OPR team spoke to had a strong understanding of the project and the training they had received, indicating effective communication of project activities and goals from field staff.

The OPR review recommended HSI to give more time and emphasis to the biogas digesters as the livestock element of the programme was running smoothly. It was also suggested that the project conduct some basic market analysis to determine the demand for electric lighting in communities to be serviced by large bio-digesters. Beneficiaries suggested they would sell lighting to non-poor members of the community for 20 Tk., when project documents outlined they were spending considerably more on lower quality lighting. The OPR team noted that although beneficiaries were benefiting from increased income, their main use of profits surrounded asset accumulation rather than consumption. Although asset accumulation is a positive sign that the beneficiary is moving out of poverty, thought needed to be given to the effects of these assets on other aspects of their lives. The project needed to start thinking about how it could help support beneficiaries to use their profits in the most suitable and sustainable manner, helping to increase consumption while also moving towards their goal. The project also needed to enquire into possible linkages with other providers, such as the government, to bring additional support to the community, especially in the area of water and sanitation.

YEAR TWO: SEPTEMBER 2010-AUGUST 2011

Problems cited in the Self-Review Workshop in January included private credit parties (money lender, shop keepers) claiming their money as soon as they saw that BHHs received assets from the project. Group cohesion and strong involvement with UP representative was helpful in solving such problems. Project staff and group members contacted the area chairman and ward support committee to help recover the assets. Because of its benefits the project was looking to strengthen ties with UP representatives and involve them more.

The asset generating abilities of the BHHs attracted some MFIs and some institutions even provided credit to two BHHs immediately after they received assets from the project. A meeting was held with group members, LSP, UP and MFI representatives to encourage the BHHs to return the loan. They also worked to inform MFIs to not give any loans at such preliminary stages and also discussed the bad effects of micro credit within their circumstances with the beneficiaries. There was also an issue of having no place to keep their asset (cattle, poultry duck) including bio-products (cow dung). The project management team encouraged neighbours of beneficiaries to help the extreme poor and worked to provide alternative skills-based IGAs that required less space (e.g. homestead vegetable gardening).

HSI has been addressing issues outside of just the asset transfer aspect of the project like living conditions, which have been reflected on in one of the Self-Review Workshops. Through group discussions, the BHHs were taught more about health and hygiene, were linked with the UP for the installation of a tube well and sanitary latrine and encouraged the BHHs to install them using their own money. There were also attempts to access more khasland, which was seen as being a very lengthy and politicized process.

A local conflict occurred in the project area in July of 2011 by which 42 BHHs were affected by a riot in two villages. HSI and shiree worked together to implement a rehabilitation plan for affected BHHs. Miscreants had damaged the sources of drinking water, food and safe shelter. Shiree encouraged HSI to provide emergency relief, which it did within five days, though some families migrated to other places. Such a risk was not envisaged and HSI responded to ensure that conflict was stopped and continuation of project support could happen. The project also communicated frequently with the local government authorities and organized 'cluster meetings' to normalize the situation between rival communities. The UP chairman was making good progress in mitigating the situation. Now the situation is normal and good relationships have been developed within the two villages. Only three BHHs have migrated from the working area and other 39 affected BHHs have recovered from the shock. The project provided various support for their rehabilitation by rebuilding their damaged houses, replacing cattle and household equipment.

The increase in the income and assets of BHHs has attracted the interest of MFIs as they are seen as more likely candidates to be able to repay loans, so the project encouraged the BHHs to get involved with different recognized MFIs and organized match making workshops to link up the BHHs with MFIs.

In the second year, another 19 small scale biogas plants for cooking were installed by forming 19 groups with 3-4 beneficiaries. On the other hand, 4 large scale biogas plants for lighting

purposes were installed using a community based approach and taking assistance from Seed Bangla Foundation and GIZ. All of the biogas plants were successfully constructed and are now operational. As per the Project Memorandum, only 100 BHHs out of the 800 in the project have access to and use the biogas plants. At present, 87 BHHs are using biogas for cooking purposes and 242 households (92 BHHs and 150 other households) are using biogas for lighting purposes. A by-product of biogas plants is biogas slurry which is high value organic manure that creates an additional income for the biogas users. Despite these findings, the economic cost of scaling up within the project, let alone beyond it, is high and therefore question marks remain over the value for money aspect of such an innovative project.

The Innovation Round 2 Evaluation suggested that HSI assess the financial and social viability of the biogas plants. In order to make them more economically and socially viable the project may need to expand this service to non-participants within the community. It also suggested the reassessment of the quality of village level service providers to continue beyond the project phase. Participating households should be encouraged to eventually pay for the service providers (e.g. agricultural inputs, vaccinations).

The project was initially supposed to end in August of 2011, but this innovation project needed more time to exhibit reliable results. It lost a lot of time when initiating field activities and 2 years was too short a time frame to make readjustments from lessons learned. In fact, the livestock component is dependent on a time cycle of production of milk or calves or beef fattening. Additional supplemental IGA activities were required for the extremely poor target beneficiaries to supplement their income to meet their on-going household expenses including for care and rearing of their animals. The projected income level was not achieved and will remain low for some time. To reduce vulnerability, insecurity and to enhance resilience of the BHH, it is important to diversify income sources of the beneficiaries and so it was proposed that Shiree/DFID extend its support for at least another year for the following:

1. To allow NGOs to consolidate its experiences and adjust the project (if needed).
2. To enable BHH full ownership of their economic activities
3. To ensure that the BHH has a secured regular income and multiple income sources.
4. To ensure a smooth and gradual phasing out of the project through cost-sharing and reduced project inputs (financial and material inputs).

YEAR THREE: SEPTEMBER 2011-SEPTEMBER 2012

By August of 2012, HSI continued supporting all of its 800 beneficiaries. Many of the beneficiaries were given supplementary IGAs while waiting for their primary assets (cow/heifer) to produce returns. 600 BHHs received assets such as goats, sewing machines, grocery shops and tools for handicrafts and working capital support for starting 16 types of different IGAs in the extended third year. A two-day training was organised for 16 Local Service Providers in order to make them better equipped in providing support to BHHs and other local people. This is part of HSI's exit strategy to establish linkages with livestock services by training intermediaries. HSI conducted 12 batches of skill development training on supplementary IGAs for 334 BHHs including 2 batches training on year round crop production.

In the final quarter of the project, HSI-R strategised its exit plan and revised its budget based on the needs identified by the beneficiaries. Accordingly organized 5 batches of skill development

training on homestead vegetable cultivation for 127 BHHs who have their own house in own land purchased through generating the project provided assets. Likely 5 batches of skill development training on major agricultural crop production technology organized for another 134 BHHs who have leased land through generating the project provided assets. They held a match making working shop organised with milk producers and milk collectors as well as training 6 biogas engine operators for rural lighting. They connected 45 beneficiaries and two local service provider with MJSKS AIDBC project to share best practices on AI. HSI-Rangpur also linked with the WARD Support Committee for continued support beyond the project period. Additionally, they have been continuously working on connecting beneficiaries with government safety net support and with the Union Parishad for support after the project phases out.

CONCLUSION

The project has been able to run smoothly without too many major setbacks. As the livestock element was executed very well, the project can afford to focus more on the biogas digesters. A good relationship with the local government has been instrumental in the project as they have provided livestock support, sensitised private credit parties like money lenders and shop keepers to the situation of extreme poverty, and has contributed to keeping the peace in the area when there was a conflict. The project should and is taking steps to strengthen ties with local government members.

Though in the beginning of the project the BHHs would not have been able to pay back micro finance loans, some of them have made considerable strides in lifting themselves out of extreme poverty and currently do have the ability to take out loans to expand their businesses and then eventually pay them back without being too far in debt. So the project is encouraging those who can, to get involved with different MFLs and linking them with recognised ones. However, the project needs to keep a close eye on the amount they borrow and whether they can maintain their capacity to pay the loans back.

ISSUES REGARDING SCALABILITY

Only 179 BHHs out of the 800 in the project have access to and use of the large and small-scale biogas plants for cooking and lighting purposes (this has also been further disseminated among 150 non-poor households within the community). The economic cost of scaling up biogas plants in the project working area, let alone beyond it, is high and therefore the value for money aspect of such an innovative project is questionable.⁶

⁶ However, this innovation has had a positive impact on the locality in terms of time and money savings, decreasing child-labour, social harassment, pollution, and income and employment opportunities. Biogas does provide an opportunity to bring electricity to rural areas where no such facilities are available and will not be available for a few years yet.

Chapter Two: Endline to Baseline Findings

INTRODUCTION

A total of 12 projects received funding under Innovation Fund Rounds One and Two with the project period ending in September 2012⁷. The present section seeks to establish the efficiency and effectiveness of these innovation modalities in uplifting people from extreme poverty in the given communities and regions through comparing socio-economic conditions towards the end of the intervention (March/April 2012) with baseline information (2009) using specific indicators.

Objective: The objective of the Endline Study is to assess the change in socio-economic status of the project beneficiary households since the baseline in 2009.

Study design: From each organization 64 representative sample households were randomly selected to carry out an endline study. Taking advantage of the uniqueness of the household identities, the same 64 households were selected from the baseline database (which had been compiled as a census of all beneficiaries) to compare change.

Field Work: A total of 28 enumerators, 9 Research Assistants from Scale Fund organizations, 3 M&E/MIS personnel, and 1 Bengali Young Professional, under the guidance of a researcher from Cambridge University carried out the data collection for the endline study in 30 days from 16th March 2012. The entire study was managed by the Decision Support Unit at shiree and for the purpose of smooth implementation considering travel time and availability of accommodation and accessibility of sample households, the study team was divided into two smaller teams. The two smaller teams collected the data after 14 days of orientation on the questionnaire and methods.

Trained enumerators carried out interviews primarily of household heads on their socio-economic conditions using a pre-tested semi-structured questionnaire focusing on the following indicators:

- Demographic characteristic
- Household Assets
- Household income
- Household expenditure
- Loan and saving status
- Access to safe water, sanitation, electricity
- Housing condition
- Food security
- Access to safety nets

The endline questionnaire was developed by a faculty member of Cambridge University and follows closely the format used for the CMS3 panel survey instrument applied to shiree Scale fund projects. As the baseline questionnaire is to some extent different to the endline study

⁷ Except Greenhill ended June 2012, Action Aid October 2012 and PUAMDO Jan 2013

questionnaire, data analysis has been done only on the common indicators existing in both of the questionnaires.

Constraints: It should be noted that the data for the endline study for all the projects was collected during the same time period, but the baseline data was collected phase by phase at different times and seasons. Moreover, the data collected for the endline study was conducted by more trained enumerators in comparison to the data collectors of the baseline information. Therefore, the data may contain seasonal variations particularly related to economic activities in the rural context where agriculture is the single largest employment sector. It may also contain some variation due to the different levels of understanding and experience of data collectors.

Organization of the chapter: The report does not aim to compare effectiveness of innovation projects to each other but rather the socio-economic changes of BHHs of specific projects since baseline. Therefore, an analysis of each project has been done separately considering the fact that each project is different in terms of modalities, locality and targeted communities. In the following section findings from HSI-R's project are presented.

HOUSEHOLD BASIC DEMOGRAPHIC CHARACTERISTICS

Table 1.1: Basic socio-demographic characteristics according to sex of household head.

Category	Baseline		Endline	
	N	%	N	%
Male headed household	44	68.8	44	68.8
Female headed household	20	31.3	20	31.3
Both	64	100	64	100

Endline findings indicate no change in the sex of household head since the baseline. At the baseline, 69% of household heads were male and the rest were female (31%) and this remained same in endline.

HOUSEHOLD SIZE

Table 1.2: Distribution of household average size according to sex of household head.

Baseline						Endline					
Male		Female		Both		Male		Female		Both	
Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
3.57	1.35	2.40	1.18	3.20	1.40	3.77	1.19	2.25	1.25	3.30	1.39

Based on the household head category, minor changes are noticed in mean household size. Among male headed households, the mean household size has increased to 3.77 (endline) from the baseline mean household size of 3.57; while household mean size of female headed household has declined from 2.40 (baseline) to 2.25 (endline). This is consistent with the trend across the entire shiree portfolio where increases in family size occur as economic empowerment is experienced (e.g. due to returning family members).

OCCUPATION

Table 2.1: Change in primary occupation of household head.

Occupation	Baseline		Endline	
	N	%	N	%
Agricultural day labour	47	73.4	35	54.7
Other Day labour	7	10.9	5	7.8
Domestic maid	2	3.1	3	4.7
Rickshaw/van/boat/bullock/push cart	1	1.6	6	9.4
skilled labor (manual)	-	-	2	3.1
Fishing in open water	-	-	-	-
Petty trade	-	-	2	3.1
Other business	3	4.7	1	1.6
Begging	-	-	1	1.6
Others	-	-	-	-
Transport worker (bus and truck)	-	-	-	-
Does not work	2	3.1	-	-
Housewife	-	-	2	3.1
Own agriculture	-	-	3	4.7
Cottage industry	2	3.1	2	3.1
Livestock/poultry	-	-	2	3.1
Service	-	-	-	-
Scavenging	-	-	-	-
Total	64	100	64	100

The endline findings for primary occupations of beneficiary household heads of HSI-Rangpur indicate considerable change since baseline. During the baseline, the primary occupation for the majority of households was agricultural day labour (73%) and other day labour (11%). At the endline, greater diversity in the primary occupation is reported. Among 64 sample households 12 types of primary occupation are reported of which the majority of household heads (55%) are involved in agricultural labour and 9% are pulling rickshaw/van/boat/bullock/push carts. Furthermore, 5% reported their IGA as their own agriculture, 3% reported livestock/poultry and 3% petty trade as their primary occupation during endline, whereas during baseline all of these categories were absent.

Endline findings further indicate that most of the households (81%) have additional income sources beside the primary source. Nearly 36% of households have 2 additional income sources, 31% of households have 1 additional occupation and 9% of households have 3 additional occupations other than the primary one. Nonetheless, 19% of households do not have any additional income sources other than the primary one.

Table 2.2: Distribution number of other occupations of HH head according to sex of household head.

Number of other jobs	Endline					
	Male headed household		Female headed household		Both	
	N	%	N	%	N	%
0	9	20.5	3	15.0	12	18.8
1	14	31.8	6	30.0	20	31.3
2	17	38.6	7	35.0	24	37.5
3	3	6.8	3	15.0	6	9.4
4	1	2.3	1	5.0	2	3.1
Total	44	100	20	100	64	100
Test	X ² =1.59, p= 0.081					

NB: Number of occupation other than household main occupation.

INCOME

Table 3.1: Mean distribution of household monthly income (cash and in kind).

Baseline		Endline		Differences		Test
Mean	SD	Mean	SD	Mean	SD	
1325.26	480.53	8762.60	12538.54	7437.33	12638.69	t=4.70, p=1.41

Endline findings indicate a considerable change in income. The mean income in baseline was 1,325 BDT and SD is 481 BDT while in endline mean income is 8,763 BDT and SD is 12,539 BDT. The mean increase in income is 7,437 BDT. Here income includes both cash and in kind

The table 3.2 provides information of cash and in kind income separately. The mean monthly household cash income at baseline was 1190 BDT which increased to 7874 BDT in endline. Similarly, change is also observed with in kind income. The mean in kind income at baseline was 135 BDT while in endline it is 888 BDT.

Table 3.2: Mean distribution of household monthly income

Variables /Categories	Baseline		Endline		Differences		Test
	Mean	SD	Mean	SD	Mean	SD	
Cash income	1190.48	444.50	7874.43	12413.86	6683.95	12502.44	t=4.27 p=6.55
Kind income	134.78	288.62	888.17	836.98	753.38	888.34	T=6.78 P=4.75

Moreover, the daily per capita mean income also increased considerably between baseline and endline. The mean daily per capita regular income in baseline was 17 BDT which increased to 121 BDT during endline

Table 3.3: Mean distribution of household monthly regular income per capita/day.

Variables /Categories	Baseline		Endline		Differences		Test
	Mean	SD	Mean	SD	Mean	SD	
Cash income	16.16	11.61	110.48	245.63	94.32	244.29	t=4.40, p= 3.97
Kind income	0.97	1.02	10.96	11.22	9.98	10.36	t=7.70, p=1.15
Total	17.13	12.63	121.44	256.85	104.3	254.65	

Income change in percentage

The endline findings indicate that income (cash and in kind) of nearly 84% of households increased more than 55% in comparison with the baseline; however, increases in income among 13% of households remains within 15%.

Table 3.5: HH income increase according to HH total regular income in percentage.

Income increase (%)	Cash income		Income include kind	
	N	%	N	%
Up to 15	7	10.9	8	12.5
16 - 25	-	-	1	1.6
26-35	1	1.6	-	-
36 -45	2	3.1	-	-
46 - 55	1	1.6	1	1.6
55+	53	82.8	54	84.4
Total	64	100	64	100

CHANGE IN POVERTY THRESHOLDS

Table 3.6: Distribution of HH poverty level according to cash income per capita/day and sex of HH head.

Variables (sex)	Baseline								Endline							
	Extreme poverty		Poor		Non poor		Total		Extreme poverty		Poor		Non poor		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Male	43	97.7	-	-	1	2.3	44	100	26	59.1	3	6.8	15	34.1	44	100
Female	20	100	-	-	-	-	20	100	10	50.0	-	-	10	50.0	20	100
Total	63	98.4	-	-	1	1.6	64	100	36	56.3	3	4.7	25	39.1	64	100
Test	X ² =0.46, p=0.68								X ² =2.45, p=0.29							

NB: Inflation adjustment for 2011 according to rural food index inflation 12.03%.

After 2011 inflation adjustment, the percentage of households remaining below the extreme poverty line (daily per capita income below 48 BDT) at endline is 56%; however, 39% of households have crossed out of extreme poverty but also out of poverty and their daily per capita income is more than 55 BDT.

The percentage of non poor category households increases further if in kind income is included along with cash income. In the endline, 50% of households fall under the non poor category and the percentage of households earning less than 48 BDT has dropped to 44%.

Table 3.7: HH poverty level according to total income (cash & kind) per capita/day and sex of HH head.

NB: Inflation adjusted to 2011 according to rural food index inflation 12.03%.

Variables (sex)	Baseline								Endline							
	Extreme poverty		Poor		Non poor		Total		Extreme poverty		Poor		Non poor		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Male	43	97.7	-	-	1	2.3	44	100	20	45.5	4	9.1	20	45.5	44	100
Female	20	100	-	-	-	-	20	100	8	40.0	-	-	12	60.0	20	100
Total	63	98.4	-	-	1	1.6	64	100	28	43.8	4	6.3	32	50.0	64	100
Test	X ² =0.46, p=0.68								X ² = 2.49 p= 0.28							

EXPENDITURE

Table 4.1: Mean distribution of household monthly expenditures.

Baseline		Endline		Differences		Paired t-Test
Mean	SD	Mean	SD	Mean	SD	
1319.79	726.69	6785.53	7863.99	5465.74	7889.36	t=5.51 p= 1.15

Endline findings indicate considerable change in monthly expenditure. The mean monthly expenditure in baseline was 1,320 BDT while in the endline, mean expenditure is 6,786 BDT. The mean increase in monthly expenditure is 5,466 BDT. Here expenditure means cash expenditure only including irregular expenditure like housing repairs, furniture purchases etc. The daily per capita regular expenditure in endline is 46 BDT while in baseline it was 15 BDT.

Table 4.2: Mean distribution of household monthly regular expenditures per capita/day.

Baseline		Endline		Differences		Test
Mean	SD	Mean	SD	Mean	SD	
15.24	13.52	45.90	43.49	30.66	45.15	t= 5.30, p=0.001

Percentage increase in expenditure

The endline findings indicate that total monthly expenditure including irregular expenditure of nearly 81% of households increased more than 55% in comparison to baseline. However, the monthly expenditure increase for 19% of households remains within 15%.

Table 4.4: Percentage of increase in HH monthly expenditure including irregular expenditure

Income increase (%)	Regular expenditure		Total expenditure (include irregular expenditure)	
	N	%	N	%
Up to 15	10	15.6	12	18.8
16 - 25	-	-	-	-
26-35	1	1.6	-	-
36 -45	2	3.1	-	-
46 - 55	1	1.6	-	-
55+	50	78.1	52	81.3
Total	64	100	64	100

ASSETS

Increases in income may result in increases in assets, savings or expenditure. However, endline findings indicate mentionable change in asset ownership under all categories except household belongings and working equipment. In baseline, only 25% of households owned livestock and poultry was owned by 8% of households; however, at present according to endline findings 94% of households have livestock and 66% own poultry. Among the households that have livestock, 59% have more than 3 and 14% have 2 livestock, while 52% of households with poultry have more than 3.

Table 5.1 Ownership of asset household according to household head categories in percentage

Asset Type	No of items	Baseline						Endline					
		Male		Female		Both		Male		Female		Both	
		N	%	N	%	N	%	N	%	N	%	N	%
Livestock	0	33	75.0	15	75.0	48	75.0	2	4.5	2	10.0	4	6.3
	1	5	11.4	1	5.0	6	9.4	12	27.3	1	5.0	13	20.3
	2	4	9.1	2	10.0	6	9.4	5	11.4	4	20.0	9	14.1
	3+	2	4.5	2	10.0	4	6.3	25	56.8	13	65.0	38	59.4
	Total	44	100	20	100	64	100	44	100	20	100	64	100
Poultry		N	%	N	%	N	%	N	%	N	%	N	%
	0	43	97.7	16	80.0	59	92.2	16	36.4	6	30.0	22	34.4
	1	-	-	1	5.0	1	1.6	3	6.8	-	-	3	4.7
	2	1	2.3	2	10.0	3	4.7	4	9.1	2	10.0	6	9.4
	3+	-	-	1	5.0	1	1.6	21	47.7	12	60.0	33	51.6
	Total	44	100	20	100	64	100	44	100	20	100	64	100
Working equipment	0	4	9.1	1	5.0	5	7.8	-	-	6	30.0	6	9.4
	1	2	4.5	-	-	2	3.1	2	4.5	2	10.0	4	6.3
	2	-	-	2	10.0	2	3.1	5	11.4	-	-	5	7.8
	3+	38	86.4	17	85.0	55	85.9	37	84.1	12	60.0	49	76.6
	Total	44	100	20	100	64	100	44	100	20	100	64	100
Household belongings	0	2	4.5	1	5.0	3	4.7	-	-	1	5.0	1	1.6
	1	1	2.3	-	-	1	1.6	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-
	3+	41	93.2	19	95.0	60	93.8	44	100	19	95.0	63	98.4
	Total	44	100	20	100	64	100	44	100	20	100	64	100

The value of assets

Table 5.2: Mean asset value of asset transferred from shiree supported project

Variables /Categories	Endline					
	Male		Female		Both	
	Mean	SD	Mean	SD	Mean	SD
Shiree livestock	16840.45	7429.75	16983.50	4268.28	16885.15	6570.83
Agriculture	2662.50	1145.37	3240.00	1368.21	2842.96	1238.04
Business support	795.45	2702.96	-	-	545.87	2263.79
Capital IGA	1270.45	3016.66	75.00	335.41	896.87	2560.68
Khas land (decimal)	-	-	-	-	-	-
Lease or mortgaged land	-	-	375.00	1677.05	117.18	937.50
Total	21568.86	8443.90	20673.50	5031.23	21289.06	7514.90

Value of assets was not collected during baseline. Furthermore, the endline information includes value of assets transferred under the project. So it is very difficult to mention anything about change in value of assets since the baseline.

Nevertheless, general shiree selection criteria is that all beneficiary households did not own assets that value more than 5000 BDT during baseline and the mean asset value of HSI-Rangpur

transferred assets is 21,289 BDT and it is mostly livestock and agriculture input. Nevertheless the mean value of assets among HSI-Rangpur beneficiaries at the endline is 31,042 BDT, which includes mostly value of livestock and poultry.

Table 5.4: Mean distribution of household's according to assets mean value and sex of HH head.

Variables /Categories	Endline					
	Male		Female		Both	
	Mean	SD	Mean	SD	Mean	SD
Livestock	23525.00	12608.21	26025.00	12885.45	24306.25	12646.71
Poultry	734.09	1374.29	890.00	1436.79	782.81	1384.55
Working equipment	1609.65	2928.75	103.75	126.62	1139.06	2520.77
Household belongings	4262.50	2500.93	3663.00	4035.60	4075.15	3042.89
Total	30950.79	14501.82	31242.75	14759.54	31042.03	14465.74

HOUSEHOLD SAVINGS AND LOAN

Endline findings indicate that mean monthly cash income is more than mean monthly expenditure which indicates the possibility of cash savings by households separate from asset purchases. The endline findings on savings indicate change since the baseline. During the baseline no beneficiary households had any savings, whereas the endline shows that 97% of households had some amount of savings among which 25% have between 1000-5000 BDT and 13% have savings between 5001-10,000 BDT. 53% of households practice savings but savings amount is less than 1000 BDT.

Table 6.1: Distribution of household reporting to have savings as per household head category.

Category (BDT)	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
0	55	100	9	100	64	100	1	2.3	1	5.0	2	3.1
<1000	-	-	-	-	-	-	22	50.0	12	60.0	34	53.1
1000-5000	-	-	-	-	-	-	14	31.8	2	10.0	16	25.0
5001-10000	-	-	-	-	-	-	5	11.4	3	15.0	8	12.5
10001-15000	-	-	-	-	-	-	-	-	-	-	-	-
15001-20000	-	-	-	-	-	-	1	2.3	-	-	1	1.6
20000+	-	-	-	-	-	-	1	2.3	2	10.0	3	4.7
Total	55	100	9	100	64	100	44	100	20	100	64	100
Test							X ² =5.55, p=0.35					

In regards to loans, no households reported having any loans at the baseline, whereas in the endline nearly 10% of households informed having loans

Table 6.2: household percentage reporting to have outstanding loans and sex of household heads.

Sources of loan	Baseline					Endline				
	Yes		No		Outstanding mean(BDT)	Yes		No		Outstanding mean (BDT)
	N	%	N	%		N	%	N	%	
Informal without interest	-	-	64	100	-	4	6.3	60	93.8	375.00
With interest informal loan	-	-	64	100	-	1	1.6	63	98.4	248.44
Formal loan with interest MFI	-	-	64	100	-	-	-	-	-	-
Formal loan with GoB	-	-	64	100	-	-	-	-	-	-
Loan from shomity or CBO With interest	-	-	64	100	-	1	1.6	63	98.4	125.00
Other loan	-	-	64	100	-	-	-	-	-	-

HOUSING CONDITION AND ACCESS TO WATER SUPPLY, SANITATION AND ELECTRICITY

Change in wall and roof material of house

Table 7.1 Distribution of households according to wall construction materials and sex of household heads.

Materials (walls)	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
Grass/jute stick/leaves/plastic	2	4.5	-	-	2	3.1	17	38.6	7	35.0	24	37.5
Bamboo	36	81.8	20	100	56	87.5	8	18.2	4	20.0	12	18.8
Wood	-	-	-	-	-	-	-	-	-	-	-	-
Mud	6	13.6	-	-	6	9.4	-	-	1	5.0	1	1.6
Tiles	-	-	-	-	-	-	-	-	-	-	-	-
Tin/CI sheets	-	-	-	-	-	-	19	43.2	8	40.0	27	42.2
Cement/brick	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Total	44	100	20	100	64	100	44	100	20	100	64	100
Test	X ² =4.15, p=0.125						X ² =2.30, p= 0.511					

Endline findings indicate change in the quality of wall material for the majority of households. During baseline almost all house walls were made of bamboo (88%) and 10% were made of mud. However, during the endline 38% of houses have walls made of grass/jute stick/leaves/plastic and 42% are made of tin/CI sheets.

However, more positive change is observed in the roof material for the majority of households. During the baseline only 45% of households had roofs made of Tin/CI sheet while in the endline it has increased to 91%.

Table 7.2 Distribution of households according to roofing materials and sex of household heads

Materials (roof)	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
Grass/jute stick/leaves/plastic	21	47.7	10	50.0	31	48.4	6	13.6	-	-	6	9.4
Bamboo	3	6.8	1	5.0	4	6.3	-	-	-	-	-	-
Wood	-	-	-	-	-	-	-	-	-	-	-	-
Mud	-	-	-	-	-	-	-	-	-	-	-	-
Tiles	-	-	-	-	-	-	-	-	-	-	-	-
Tin/CI sheets	20	45.5	9	45.0	29	45.3	38	86.4	20	100	58	90.6
Cement/brick	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-
Total	44	100	20	100	64	100	44	100	20	100	64	100
Test	X ² = 0.08, p=0.95						X ² =3.00, p=0.09					

The house ownership table indicates that during baseline 98% of households lived in their own house which changed during the endline. In the endline 59% lived in their own houses while 38% constructed their house on land owned by others.

Table 7.3: Ownership distribution of house according to sex of household head.

House ownership	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
Owned	43	97.7	20	100	63	98.1	26	59.1	12	60.0	38	59.4
Rented	1	2.3	-	-	1	1.6	-	-	-	-	-	-
Parent	-	-	-	-	-	-	-	-	-	-	-	-
Parent in law	-	-	-	-	-	-	-	-	-	-	-	-
Live rent free with family	-	-	-	-	-	-	1	2.3	-	-	1	1.6
Live rent free with non family	-	-	-	-	-	-	-	-	-	-	-	-
Own house on khas land	-	-	-	-	-	-	-	-	-	-	-	-
Someone else's land	-	-	-	-	-	-	16	36.4	8	40.0	24	37.5
Son-daughter	-	-	-	-	-	-	1	2.3	-	-	1	1.6
Total	44	100	20	100	64	100	44	100	20	100	64	100
Test	X ² =0.46, p=0.68						X ² = 0.95, p= 0.81					

Access to safe water

The endline findings regarding access to improved water sources indicate improvement. According to the endline, 98% of households reported that they collect drinking water from hand tubewells and 2% collect from pond-river water, while during baseline 45% of households used to collect water from TW and 2% from a piped water supply. The rest used unprotected sources such as open wells (27%) and pond-rivers (2%).

Table 7.4: Distribution of households according to sources of drinking water and sex of household heads.

Sources of drinking water	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
Piped	-	-	1	5.0	1	1.6	-	-	-	-	-	-
Hand tube well	19	43.2	10	50.0	29	45.3	43	97.7	20	100	63	98.4
Open well	12	27.3	5	25.0	17	26.6	-	-	-	-	-	-
Pond-river	13	29.5	3	15.0	16	25.0	1	2.3	-	-	1	1.6
Rain water	-	-	-	-	-	-	-	-	-	-	-	-
Purchased water	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	1	5.0	1	1.6	-	-	-	-	-	-
Total	44	100	20	100	64	100	44	100	20	100	64	100
Test	X ² = 5.73, p= 0.22						X ² = 0.46, p= 0.68					

Ownership of protected source

During baseline no households owned any protected source and most of them were collecting water from community owned sources supplied by NGOs (48%) or owned by others (31%). However, endline findings indicate that 36% of households own tube wells, which also includes households having shared ownership (17%).

Table 7.5: Distribution of HHs according to ownership of hand tube wells and sex of HH heads.

Sources of drinking water	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
Owned by household	-	-	-	-	-	-	8	18.27	4	20.0	12	18.8
Shared ownership	2	10.5			2	6.9	10	22.7	1	5.0	11	17.2
Own by others	3	15.8	6	60.0	9	31.0	25	56.8	15	75.0	40	62.5
Not applicable							-	-	-	-	-	-
Public (Government)	3	15.8			3	10.3	-	-	-	-	-	-
NGO Supplied	10	52.6	4	40.0	14	48.3	-	-	-	-	-	-
Others	1	5.3			1	3.4	-	-	-	-	-	-
Total	19	100	10	100	29	100	43	100	20	100	63	100
Test	X ² =7.50, p=0.11						X ² =3.72, p=0.29					

Sanitation

Endline findings indicate some change in defecation practices since the baseline. During baseline nearly 61% of households used to defecate in open spaces and 8% in hanging latrines.

However, 8% of household used to defecate in ring slab latrines and 22 in pits. However, endline findings indicate that 31% of households defecate in ring slab latrines and open defecation has declined to 38%.

Table 7.6: Distribution of household according to place of defecation and sex of household heads.

Place of defecation	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
Open spaces	25	56.8	14	70.0	39	60.9	14	31.8	10	50.0	24	37.5
Hanging latrine	4	9.1	1	5.0	5	7.8	4	9.1	1	5.0	5	7.8
Pit latrine	13	29.5	1	5.0	14	21.9	12	27.3	2	10.0	14	21.9
Ring/slab latrine	2	4.5	3	15.0	5	7.8	13	29.5	7	35.0	20	31.3
Complete Sanitary	-	-	1	5.0	1	1.6	-	-	-	-	-	-
Others	-	-	-	-	-	-	1	2.3	-	-	1	1.6
Total	44	100	20	100	64	100	44	100	20	100	64	100
Test	X ² =8.59, p=0.07						X ² =3.96, p=0.41					

Electricity

In regards to electricity access no change has been observed since baseline regarding connectivity to mains electricity. During baseline only 2% of households were connected to electricity and during endline it is at zero. **However**, in endline 13% of households had electricity produced by small biogas plants developed under the project.

Table 7.7: Distribution of households according to connection of electricity and sex of household heads

Type of electricity connection	Baseline						Endline					
	Male		Female		Both		Male		Female		Both	
	N	%	N	%	N	%	N	%	N	%	N	%
No electricity	43	97.7	20	100	63	98.4	43	84.1	19	95.0	56	87.5
Connected to main line	1	2.3	-	-	1	1.6	-	-	-	-	-	-
Connected to other house	-	-	-	-	-	-	-	-	-	-	-	-
Connected to generator	-	-	-	-	-	-	-	-	-	-	-	-
Solar power	-	-	-	-	-	-	-	-	-	-	-	-
Others (Biogas)	-	-	-	-	-	-	7	15.9	1	5.0	8	12.5
Total	44	100	20	100	64	100	44	100	20	100	64	100
Test	X ² = 0.46, p= 0.68						X ² = 1.49, p= 0.21					

CONCLUSION

The endline findings indicate that the situation of HSI Rangpur beneficiary households has improved in the area of income, expenditure, value of assets, and savings. However, although 84% of households' income has increased more than 55%, income of 44% of beneficiary households still remains below the extreme poverty line. While a significant proportion remain below the HIES threshold it should be noted that in 2010 this accounted for 17.6% of the total population of Bangladesh whereas studies have shown that shree manages to target the poorest 2-3%. Hence beneficiaries have shown tremendous improvement and have established a positive trajectory towards transition from extreme poverty even if many remain below this threshold.

Chapter Three: Beneficiary Focus Group Discussion

INTRODUCTION

Part of the lesson learning process is to hear from the beneficiaries on how they perceive the impact of the interventions on their livelihoods. For HSI Rangpur, two Focus Group Discussions were conducted in which approximately 18 male and female beneficiaries were interviewed to gauge their experiences with the interventions. Each FGD took two to three hours and was conducted by a three-person team: one shiree Programme Manager; one shiree Young Professional; and one Research Assistant for help with translations. The discussions focused on discovering key findings relevant to economic empowerment given the geographical and social contexts of the working area.

As the FGDs were conducted in similar settings and the interventions were the same, the findings have been summarized as one.

BEFORE THE INTERVENTION

The beneficiaries were living in a state of destitution and extreme poverty before they joined the HSI-Rangpur project. They often had to go hungry because they could not afford enough food, especially during the Monga period. They could not afford to eat fish, meat or rice before. They could not afford to send their children to school. With poor sanitary facilities, they were prone to illness and disease and had no access to health care. They had bad household relations and often argued with their spouses. Their houses were made of weak material such as straw. They had intentions to improve their livelihoods, but with no capital to invest or start earning they had no way of improving their situation. They had no work or no technical knowledge and were not informed about local services. During the rainy season it was very difficult to find work and they often had to migrate elsewhere to find livelihood opportunities. If they were lucky, they would find some work as daily labourers or domestic maids, but it was unreliable and could not cover their basic needs.

DAY ONE FGD 1 AND 2

After the Intervention.

The beneficiaries of HSI-Rangpur received a number IGAs, including cows for milk and fattening, biogas plants, sewing machines, rickshaw/van, etc. Supplementary to the IGAs, they also received training on the usage of biogas plants and how to prepare compost fertilizer. They use cow dung to produce the biogas and make electricity from them. One group sells the electricity from the biogas plant to other community members. From the plant, they are powering 31 light bulbs. They also provide electricity for different programs and events, such as wedding, in the village. They charge 60BDT/month for lighting one light bulb. They have also received support for leasing land, capital for starting fish businesses and other IGAs.

Health and Nutrition.

Their health and nutrition has improved. Before, they could only afford boiled/steamed edible root. Now, they are all eating much better than before with a diversified diet and increased protein intake.

Access to Services.

Local service providers are now available in the community and provide necessary treatments for their livestock. They have been connected with the livestock officer and can contact him if there is any problem. The UP Chairman also gave them a tube well to help strengthen their cow dung processing for the biogas plant. Their kids are now in school and receive school stipends. One widow gets support now after she went to the UP to request to be included in rural road construction. They all have developed good relationship with the UP chairman and a few of the beneficiaries have even received ring slab latrines from the UP.

They go directly to community clinics for any kind of health issues. Before, they did not get proper services or attention when they would visit the clinic and as a result they would not go to the doctor when they or someone in their family fell ill.

Market Access and Mobility.

They frequently go to the market to sell milk and other products. One group has made a deal with milk collectors to set up milk collection points where they come in the morning and the evening to buy their milk product in bulk. They always compare prices to make sure they are getting fair prices. They also sell cow dung and have found that there is a high demand for bio-fertilizer in the area. They are much more mobile than before and even go to Rangpur town to go shopping.

Gender Empowerment and Decision Making.

They used to feel shy and embarrassed to speak to others. The women are now able to buy new dresses for Eid and they feel empowered to speak to others. After getting permission from their husbands, some of the women of the group went to visit MJSKS on an exposure visit.

The group shared that asset ownership does not matter here; rather, they equally share everything and take decisions together as a family. In the past, when they had household conflicts, the husbands would threaten to kick them out and would often beat them. Now they have much less conflict with their spouses. One woman said, "When my husband does quarrel with me, I say 'if you want to stay, then stay with respect for me, otherwise leave'".

IGA Suitability and Innovation.

They chose their IGAs through group discussions and speaking with HSI-R on what IGAs they were interested in undertaking. The beneficiaries who have a strong, active male at home, were able to maintain the buffalo and fatten the cows with little hassle; whereas the weaker group members took up sewing or a less physically demanding IGA. One beneficiary was very weak due to an accident, so the group sold enough cow dung to collectively purchase a cow for him.

The biogas plants have been able to lengthen the number of hours they can work with the light that they produce. Now many of them are sewing at night and their kids are able to study and read. They agreed that the biogas IGA has been the most useful and life changing for them. It was amazing for the entire community to see electricity generated from the biogas. They also use the biogas plant for cooking which not only saves them money on fuel but also provides a healthy way of cooking. Bio fertilizers are also very effective in increasing the fertility of ponds and potato fields, particularly during the rainy season.

Resiliency, Economic Security and Sustainability.

They have stored extra rice to cope during the Monga period when food and work are scarce. They also have savings in a local bank. They feel that they can manage on their own now and do not require further support from HSI.

Chapter Four: NGO Lesson Learning Workshop

INTRODUCTION

Part of the lesson learning process is to capture the experiences of the field staff involved in the innovation project. The field staff provide an essential view on the successes and challenges faced in the implementation of the innovation. They have worked closely with the beneficiaries and have had to mitigate the effect of a number of both small and large challenges on the livelihoods of the beneficiaries. In order to capture their experiences with the project, shiree held a day-long workshop with all project field staff present. The agenda consisted of:

1. Exploring challenges
2. Exploring successes
3. Summarising key lessons learnt
4. Review of the original innovation
5. Identifying potential challenges if the project were to go to scale
6. Discussing NGO feedback on report findings
7. Exit Strategy (see Annex)

CHALLENGES

All field staff from HSI-R were asked to identify challenges they felt the innovation project faced in the last three years. The challenges identified were as follows:

Targeting and working with the Extreme Poor:

- Misconceptions – many beneficiaries were suspicious that they would be converted into Christians and that their bodies (when they died) would be taken abroad
- Many beneficiaries who were initially selected did not disclose that they had some access to MFI even when they were asked in the initial selection process, causing problems later on in the project

Intervention challenges:

- Low availability of suitable land for constructing biogas chambers
- Graduation of 340 BHHs selected in the second year that only had 2 years on the project versus those that were selected in the first year
- Money lenders targeting BHHs who had received assets and demanding money back in a relatively short time frame

External Shocks:

- Rioting between two villages which could not have been foreseen
- 42 BHHs houses were burned in community violence; 18 BHHs lost their cattle through looting; it was a challenge to rehabilitate them
- The Union Parishod chairman tried to influence the selection of beneficiaries in favour of the people he knew

SUCCESES

All field staff were asked to identify successes of the project over the last three years. The successes identified were as follows:

Intervention successes:

- Increased monthly income and savings status and increase in assets
- Success on a technical level of biogas for lighting and cooking
- Beneficiaries able to sell electricity to non-poor members of the community
- Beneficiaries made their own initiatives and created linkages to their own benefit, for example growing fodder on roadside
- Mortality rate of cattle was extremely low: 3 cattle deaths out of 740 cattle (one died through snakebite, and another through acute foot disease)
- LSPs were already established in the area and were in the project for the first 2-and-a-half years; this was a key element in ensuring such a low death rate of cattle
- Good building-up of LSPs between agriculture department and local community
- Purchasing and bargaining capacity of beneficiaries greatly increased.
- Good support from local livestock department and good linkage with district livestock offices
- 8 biogas cooking plants were built by non-poor communities in the third year

KEY LESSONS LEARNT

Based on the challenges and successes realized by field staff, they were then asked to reflect on the key lessons learnt over the last three years. Their responses were as follows:

Key lessons learnt on the innovation/intervention:

- The importance of creating a system with good incentive structure for LSPs was realized. The system had been developed by HSI-R in a previous project, and all LSPs were recruited from that project. The LSPs started on a modest payroll (honorarium) and gradually phased off from the payroll and now earn income purely from their services.
- Strong communication needed between department of livestock, and with LSPs to get them to understand their role and the benefits of servicing the extreme poor. Staff reflected that if strong linkages with effective communication can be established between LSPs and local government departments then even non-technical staff, or those not trained to a high technical level, can still bring success to the project.
- Supplementary IGA support in the third year gave quick returns to BHHs to increase their income which had been slower than anticipated in the first two years.
- It was learnt that a higher and more specific support package in contingency fund for such events relating to riots was needed
- To establish biogas plants they needed strong dialogue between non-poor HHs and extreme poor HHs in the community. Richer HHs needed to be convinced that building of biogas on their land was also in their interest, which entailed explaining the cross-benefits including production of communal electricity.

Key lessons learnt in targeting and working with the extreme poor:

- They project staff reflected on the selection process and all the inception phase activities (understanding of the project) and revealed this was done on a small-scale level. If these were done at a larger level then some of the community misconceptions of the project and its intentions would have been ameliorated.
- Training and education, strong supervision and establishing relationships are all key to mitigating and dispelling rumours that led to misconceptions.
- Rigorous double-checking of selected BHHs list and cross-reference with MFIs to verify who have had access to MFI was an important learning for the project staff.

REVIEW OF THE INNOVATION

HSI-Rangpur submitted its original concept note at the beginning of 2009 and the final project proposal was won as a contract a few months later. HSI-Rangpur made relatively few changes from its concept note to its project memorandum and most of the external reports throughout the project remarked on the low number of setbacks. Part of the lesson learning process is to reflect on changes to the original innovation and most importantly look at *why* those changes took place and what it can tell us about the innovation.

The major innovation in the project concerned the integrated value chain of animal production with the central innovation on using animal waste product to produce biogas for electrical lighting and gas for home cooking. In total 242 HHs had direct access to biogas for lighting (92 direct BHHs and 150 non-poor indirect HHs). The target for the number of BHHs having access to gas for cooking from the smaller biogas chambers was 100 but only 87 BHHs eventually had access. The remaining 13 BHHs could not get access due to technical difficulties. In total the project constructed 6 biogas chambers for lighting and 25 smaller biogas chambers for home cooking. The construction costs for each biogas chamber were high; the biogas chambers for lighting cost up to 1 lakh (100,000) BDT for the construction of the chamber as well as the cost of the generator.

Upon reflection the project staff noted that they could not establish more biogas chambers for electricity due to several reasons. One was the availability of suitable land to construct these. Early in the project the project staff found that there were many villages in the working area with extreme poor households that did not have electricity but lived in villages that received electricity. In other words what the project team found was that in many electrified villages only the non-poor were receiving electricity. What this meant was that in most villages the extreme poor households had no capability or capacity to demand electricity whilst the non-poor households within the same villages did not see a need for biogas-generated electricity. Therefore it was difficult to identify villages where there were extreme poor households without access to electricity *and* non-poor households who also did not have access to electricity. HSI-R could only identify a few places which were where the biogas chambers were successful. The project staff reflected that the biogas chambers were successful here because the non-extreme poor households showed interest in the biogas chambers and supported their construction.

The project coordinator reflected that the biogas chamber component of the project could be considered a pilot-within-a-pilot. The project did not fully fund the construction of biogas

chambers for all of the BHHs and therefore only those benefitting from the biogas could be considered having been part of the full innovation. The high initial cost of constructing the chambers limited the expansion. However, another major finding was that non-poor household inclusion in the project is equally important as they supplied leasing of land for the biogas chambers and the shared cost of the maintenance and its general wider use. Thus the biogas chambers were only cost-effective with their inclusion and support.

CHALLENGES: TAKING THE INNOVATION TO SCALE

HSI-Rangpur was asked to identify challenges they may face if they were to take their innovation to scale. Although the staff was confident that their project was a big success they did identify some areas that could pose problems if the project was scaled up. As the project ends in September, the project team noted that as scaling-up would not occur straight after September, the project would suffer from institutional memory loss as staff would leave to find new jobs.

One of the critical successes of the project was the extremely low death rate of cattle, and this was especially notable as the project was primarily livestock centred. A key reason for the success centred on the high number of well-trained LSPs giving services to the BHHs. The project team expressed that at scale more LSPs would need to be recruited, in proportion to the expanded number of beneficiaries. HSI-Rangpur said that this would not be a big challenge but that greater quality control would be needed to ensure that all the LSPs were well trained and this would require more training sessions and an initial higher cost.

The biogas chambers were a pilot case within the innovation project – that not all beneficiaries would receive access to biogas chambers for electricity or cooking. Thus at a higher scale, this pilot would be scaled-up, and there are significant challenges to scaling this up due to the limitations of the working area. HSI-Rangpur staff believe that the biogas chambers for cooking have a larger scope for scaling up. A significant challenge to scale-up would be limitations in the working area, with a need to find clusters of villages instead of scattered beneficiaries, so that the gains are more highly concentrated. Another challenge identified by the team was the distribution of the usage of electricity, and that if the non-poor community started using more electricity than this could take away from the productive gains of the extreme poor and the innovation may inadvertently benefit more non-poor households than extreme poor households.

In taking the core innovation – biogas chambers for multiple extra-economic uses – to scale, the staff noted that expanding areas would only be a problem for biogas chambers for electricity. In areas connected to the electricity grid, then the establishment of biogas chambers for electricity would not be popular, and the project has already struggled to find areas that are not electrified. Staff recalled that the national government is expanding electricity supply so establishing biogas chambers for electricity would be a problem, and there would also be the other challenge referred to earlier in the report - that the non-extreme poor need to be on-board too, but the number of areas where there are non-poor living with extreme poor both without access to grid electricity is low. However, the project team thinks that constructing biogas chambers for cooking purposes would not be a challenge at scale-up. Already in the third year 8 biogas chambers for cooking were built by non-poor communities after seeing its success.

Overall the project team was happy with the progress of the project and did not see any other potential challenges at scale-up since they successfully mitigated some of the more technical issues regarding rearing livestock. In addition the team highlighted that there is no market constraints indentified as there is a huge demand for milk and eggs from livestock.

Conclusion: Progress Against Logical Framework

Objectives	Verifiable Indicators	Means of verification	Achievement	Assumption
GOAL The government of Bangladesh's MDG targets on income poverty and hunger achieved by 2015	Reduction of the proportion of people living in extreme poverty from 28% in 1991/92 to 9.5% by 2015, in line with PRSP target	Government of Bangladesh, National MDG Report, UNDP and World Bank Statistics		
PURPOSE 800 households in <i>monga</i> affected areas in Rangpur district move out of extreme poverty	90% extreme poor households have generated an average monthly income of at least BDT 4,000 after 2 years 90% EPH have doubled their physical assets after 2 years	Base-line survey Data from other relevant projects/ initiatives / institutions End of project survey Yearly beneficiaries social audit	The mean monthly income in baseline was BDT 1,325 while in endline it is BDT 8,763. The income of nearly 84% of households increased more than 55% in comparison with baseline. The mean asset value is BDT 31,042 as per endline survey report)	Global scale agencies continue to work to mitigate food insecurity
IMMEDIATE OBJECTIVE Target households sustainably improve their employment and income security during <i>monga</i> period	80% households generate additional income during <i>monga</i> period 75% target households have 3 meals a day during the <i>Monga</i> period after 1 year	Base-line survey Mid-term review End of project survey Socio-economic audit	Above 80% of households are generating additional income during <i>monga</i> period through implementing IGAs and accumulating savings. As per endline survey report, 97% of households have savings among ranging from BDT 1000-10,000.	Price of inputs and outputs do not fluctuate extremely in the local community. No large scale and / or frequent disasters (flood, drought and clod wave)

Objectives	Verifiable Indicators	Means of verification	Achievement	Assumption
			More than 75% of target households have been capable to take 3 meals a day during munga period.	
OUTPUTS				
O1. Improved integrated livestock rearing and waste management technologies disseminated to 800 households	<p>740 individuals (60% women) received training and mentoring on improved milk production/beef fattening</p> <p>20 (20% women) received training and mentoring each on fodder cultivation, feed preparation and biogas masons</p>	<p>Monitoring reports</p> <p>Annual reports</p> <p>Socio-economic observatories (sample basis)</p> <p>Experience capitalisation (on regular basis)</p> <p>Back to office reports of IC</p> <p>Financial records regarding transfer of inputs / assets / cash</p>	<p>A total of 740 EPs who got project support for milking cows and fattening cattle received training and mentoring on improved milk production/ beef fattening.</p> <p>A total of 60 BHHs (20 from each on fodder cultivation, feed preparation and biogas masons) received training and mentoring support.</p>	<p>Multiple benefits (e.g. clean fuel, high value compost) will motivate the EP to install biogas plants</p> <p>Production volumes are sufficient to attract higher market players</p>
O2. Input (including asset transfer and working capital), output and employment market linkages made available for 800 EPH	<p>800 EP (60% women) received training and mentoring in marketing</p> <p>800 EP received working capital and necessary inputs</p> <p>At least 100 EP linked with relevant market actors and employers</p>	<p>KAP survey reports</p> <p>Training modules and material</p> <p>Group resolution books</p> <p>MOUs/agreement documents between groups and dairy companies</p>	<p>120 individuals received formal training on marketing. Among the total participants 28% are women. But, informally all 800 members received mentoring support from the project staff members and LSPs on marketing issues through individual and group discussions.</p> <p>All 800 EP BHHs</p>	

Objectives	Verifiable Indicators	Means of verification	Achievement	Assumption
			<p>received inputs (including assets) and working capital for running their planned economic activities. 740 EP received cattle (50% for milk production and 50% for fattening purpose), 20 EPs received inputs and working capital for feed business, 20 EPs for fodder cultivation and 20 for mason services.</p> <p>120 EPs linked with relevant market actors and employers as a result some of the groups has been involved with group marketing of their milk and beef for better prize of their product and collective purchase of raw materials like feed for cattle.</p>	
<p>O3. Public and private service providers facilitated and supported to service the beneficiary households and households lighting scheme biogas are established</p>	<p>At least 2 relevant institutions collaborate and 80% beneficiaries received services</p> <p>Household lighting is available in at least two villages using biogas</p>		<p>Established collaboration with 2 private sectors like GIZ and "Seed Bangla Foundation". Through this collaboration, a total of 6 biogas plants for lighting purpose and 25 biogas plants for cooking purpose have been</p>	

Objectives	Verifiable Indicators	Means of verification	Achievement	Assumption
			<p>established. Besides, also established collaboration with DLS and DAE in two working Upazillas. Accordingly, 760 BHHs (95%) received training and advice.</p> <p>Six biogas lighting schemes has been established in five villages which covered 242 households (BHH=92 and non BHH=150).</p>	
O4. 740 EP supported to be included in milk producing / beef fattening groups and 100 EP supported to be grouped for biogas and compost production	<p>40 Milk producing / beef fattening groups linked with dairy company or other market actors</p> <p>100 biogas plants installed in the working communities by the non poor for cooking and households lighting and 25 biogas plant established jointly by 100 EP</p>		<p>All 50 groups have a linkages with local market actors. But due to scattered locations and lower production rate of milk, producers do not favour to establishing linkages with dairy companies. However, the project has a linkage with some dairy company, including Rangpur dairy and Pran milk.</p> <p>8 biogas plants installed by non poor community members for cooking purposes and 25 biogas plants established jointly by 87 EPs in different</p>	

Objectives	Verifiable Indicators	Means of verification	Achievement	Assumption
			working villages.	
O5: Improved skills on management of different on-farm and non-farm supplementary income generating activities disseminated to 500 extreme poor households	<p>460 individuals (276 women) received training and mentoring on improved non-farm and on-farm supplementary IGA</p> <p>40 individuals received training and mentoring year round crop cultivation in leasing land/ rented land</p>	<p>Socio-economic observatories (sample basis)</p> <p>Experience capitalization</p> <p>Back to office reports of IC</p> <p>Financial records regarding transfer of inputs/assets/ cash</p> <p>Training modules, materials and reports</p>	<p>A total of 294 (282 women) selected beneficiaries received training and mentoring on on-farm supplementary IGA who received IGA support as goat or sheep. 600 BHHs received 16 types of IGA support in third year including training.</p> <p>40 BHHs (male-28, Female-12) who got IGA support for land lease received training on year round crop cultivation technologies.</p>	

NB: Output 5 has been included in the third year.

Annex: CMS 2 and CMS 4 Findings

CMS 1 BASELINE SUMMARY

Household Target:	800			(No.)	(%)
CMS1 records available:	460		Total Household Members	1,383	
Average HH Income:	776.9	<i>Tk. per month</i>	Average HH Size:	3.2	
Average HH Expenditure:	792.0	<i>Tk. per month</i>	Male Headed HH	292	63.5
Average HH Land:	3.1	<i>decimal</i>	Female Headed HH	168	36.5
Khasland	0.5		No of under 5 children	197	
Owned land	1.5		No. of under 18 girls	282	
Not Owned land	1.1		HH having disabled member	25	3.2

SUMMARY OF CMS 2 AND CMS 4

This annex provides a brief summary of change comparing CMS 2 data from the pilot study with CMS 4 findings.

CMS 2 is a monthly snapshot that allows tracking of household livelihoods and of events capable of impacting these livelihoods. It uses innovative mobile phone technology to collect data with the survey being delivered by NGO staff during their normal round of BHH visits. The survey is short and simple, focusing on beneficiary self-assessment of change using a multiple-choice format. The data collected from HSI-Rangpur beneficiaries was a part of the pilot study of CMS2. Therefore, the data only tracks an average of 150 BHHs over a 7 month period from June 2011-January 2012 and change from intervention impact cannot be accurately monitored using only this tool.

CMS 4 provides a forum for beneficiaries to explain changes in their lives and the reasons for these changes, as well as creating a platform for NGOs to adapt and improve their innovations according to the needs of the beneficiaries. This is implemented only by Innovation Fund NGOs. The objective of CMS 4 is to undertake a participatory evaluation and review of project experience at both the level of beneficiaries and for the implementing NGO. The focus on CMS 4 is in depth understanding of the innovation, enabling identification of successes and challenges and quick feedback into project management decisions. CMS4 began in the third of 2010 and HSI-Rangpur has only carried out CMS 4 four times during the project with 10-12 HHs in a total of ten groups. This has resulted in limited findings and therefore should not be used as a sole reflection of intervention impact, but rather an additional tool to track changes in beneficiaries' lives during their participation in the project.

Chapter Two provides a more accurate quantitative summary of intervention impact using an endline to baseline comparison of key indicators- income, expenditure, savings, assets, health and confidence.

CMS 2 METHODOLOGY

The CMS-2 pilot questionnaire used a 5-point scale for responses to questions on the following indicators: income, expenditure, health status, and self-confidence. The questions asked the beneficiary to assess the change in each indicator with qualitative responses. In order to take average readings across the project the qualitative responses were converted into quantitative ones. The weights range from +2 to -2 and are equivalent to the qualitative responses, as shown in the table below:

Income	Decreased a lot	Decreased a little	Remained the same	Increased a little	Increased a lot
Expenditure	Decreased a lot	Decreased a little	Remained the same	Increased a little	Increased a lot
Health	Significantly deteriorated	Deteriorated	Remained the same	Improved	Much improved
Self-Confidence	Highly decreased	Slightly decreased	Unchanged	Slightly increased	Highly increased
Weighted Scale	-2	-1	0	1	2

For questions on savings and assets, the CMS-2 questionnaire responses were binary, with only two possible answers. The questions asked whether the beneficiary had savings or had purchased any assets in that month. The weighted score are equivalent to the qualitative responses, as shown in the table below:

Savings	Have cash savings	No cash savings
Asset	Bought an asset	No asset bought
Weight Score	1	0

To obtain a monthly value for each of the six variables the weighted average was taken for each one. For example, the monthly income variable for HSI-Rangpur would be the sum average of all the converted responses given for income.

An 'Economic' index was created as a composite of four of the above variables: income, expenditure, cash savings and asset bought. The monthly scores from each of the economic variables can be added together to give a monthly economic composite value for each beneficiary. The absolute maximum score is +6 and the absolute minimum score can be -4. Hence the formula:

$$\text{Economic} = \text{Income} + \text{Expenditure} + \text{Savings} + \text{Asset Bought}$$

A monthly Economic index value for HSI-Rangpur beneficiaries is then calculated by taking the sum average of all of the 'Economic' scores. The scale is then converted to qualitative responses based on the weighted score given equivalent to the maximum and minimum possible scores:

Decreasing Fast		Decreasing Slowly		Same	Improving Slowly			Improving Fast		
-4	-3	-2	-1	0	1	2	3	4	5	6

A 'Socio-Economic' index was created as a composite of all six individual variables. The monthly scores from all of the variables can be added together to give a monthly socio-economic composite value for each beneficiary. It uses the same formula as the Economic index and adds the extra two variables: health status and confidence. The absolute maximum score is +10 and the absolute minimum score can be -6. Hence the formula:

$$\text{Socio-Economic} = \text{Income} + \text{Expenditure} + \text{Savings} + \text{Asset Bought} + \text{Health} + \text{Confidence}$$

A monthly Socio-Economic index value for HSI-Rangpur beneficiaries is then calculated by taking the sum average of all of the 'Socio-Economic' scores. The scale is then converted to qualitative responses based on the weighted score given equivalent to the maximum and minimum possible scores:

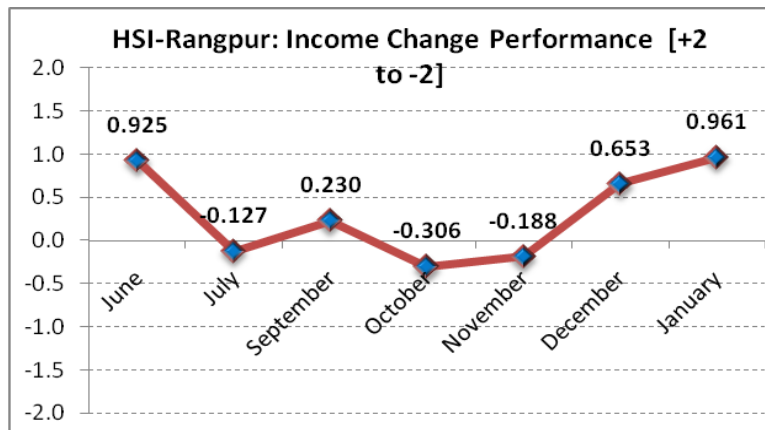
Decreasing Fast				Decreasing Slowly				Same	Improving Slowly					Improving Fast				
-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

SUMMARY FINDINGS FROM CMS 2: JUNE 2011 TO JANUARY 2012

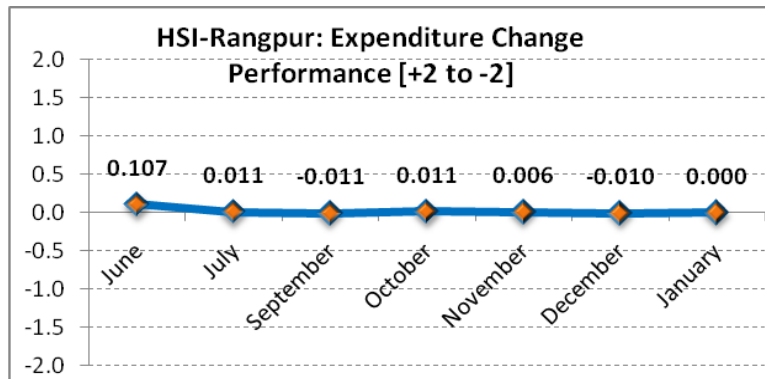
Row Labels	Income [+2 to -2]	Expenditure [+2 to -2]	Health Status [+2 to -2]	Confidence [+2 to -2]	Economic [+6 to -4]	Socio- Economic [+10 to -6]	No of Visits
HSI-2: Rangpur	0.261	0.020	1.525	0.553	1.334	3.413	
June	0.925	0.107	1.326	1.043	2.358	4.727	187
July	-0.127	0.011	1.804	0.069	0.767	2.640	189
September	0.230	-0.011	1.749	0.306	1.202	3.257	183
October	-0.306	0.011	1.120	0.410	0.601	2.131	183
November	-0.188	0.006	1.052	0.481	0.857	2.390	154
December	0.653	-0.010	1.867	0.816	1.796	4.480	98
January	0.961	0.000	1.969	1.000	2.133	5.102	128

INCOME AND EXPENDITURE: CMS 2 AND CMS 4

CMS 2

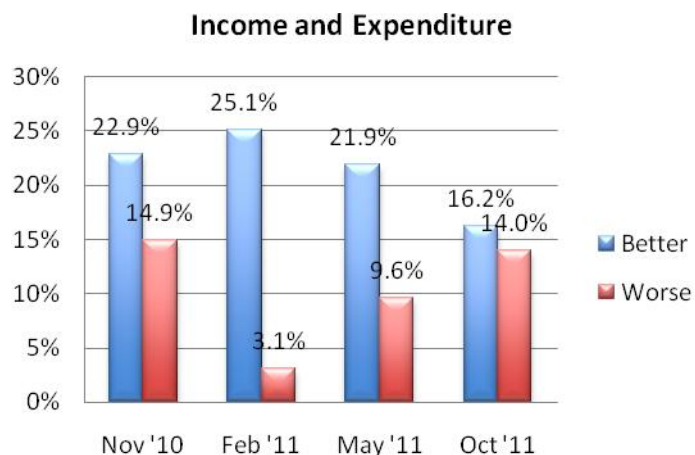


CMS 2 indicates that between July and November BHHs found no change in income and even found their income was decreasing slightly during those months. December and January saw small improvements in income change. CMS 2 also shows almost no change in expenditure among BHH between June and January 2012.



These findings also agree with subsequent CMS 4 data, which show an increase in negative responses related to changes in income in expenditure.

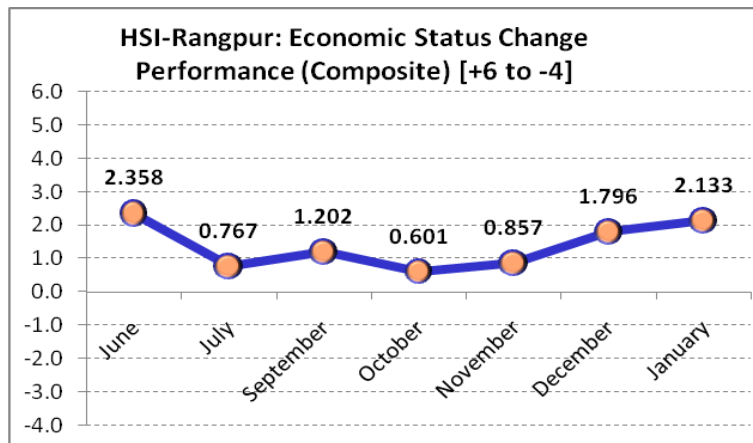
CMS 4



CMS 4 asked BHHs on a quarterly basis whether their income and expenditure were either getting better or worse in their life. The graph shows negative positive responses from BHHs with an average of 20% of BHHs saying their situation has gotten better. However, there is a decline in the last two reports with 10% and then 14% saying their situation has gotten worse. This correlates with CMS 2 findings as well.

ECONOMIC STATUS: CMS 2 AND CMS 4

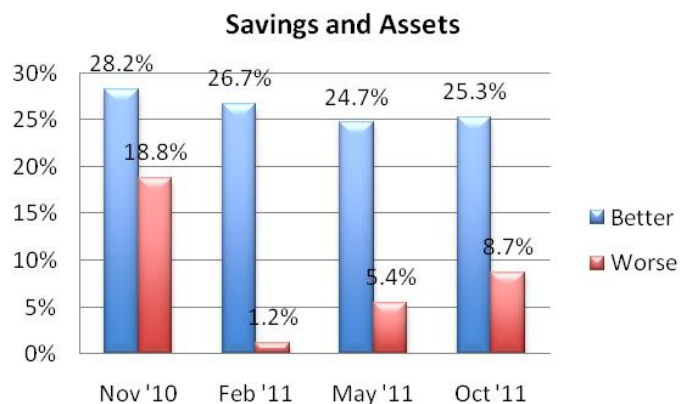
CMS 2



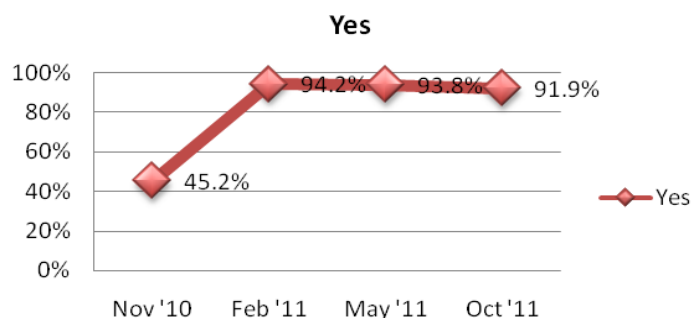
CMS 2 findings for composite changes in economic status, including: income, expenditure, cash savings and assets bought show small positive changes from June 2011. This is likely related to positive changes in savings and assets as CMS 2 data shows no change in income and expenditure from July through November.

CMS 4 also shows improvements in savings and assets, correlating with CMS 2 findings.

CMS 4



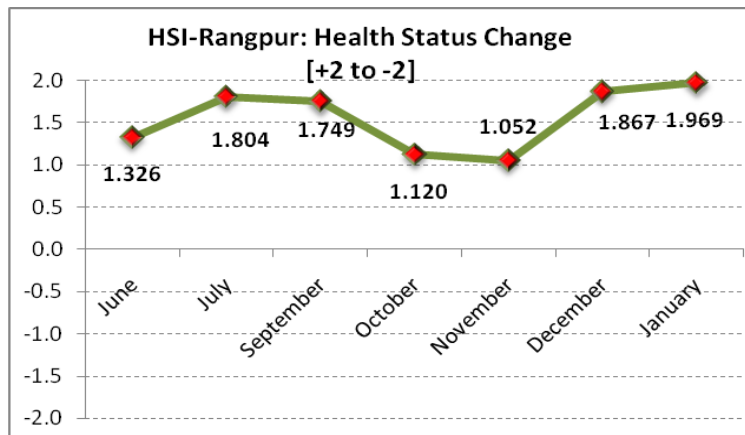
CMS 4 asked BHHs on a quarterly basis whether or not their assets and savings were getting better or worse. BHHs have indicated that both have gotten better with an average of 25% responding positively.



The second graph shows the percent of BHHs who have saved money. The chart shows that nearly 100% of BHHs have been saving money since February. This can be explained by the savings scheme embedded in project interventions.

HEALTH STATUS: CMS 2 AND CMS 4

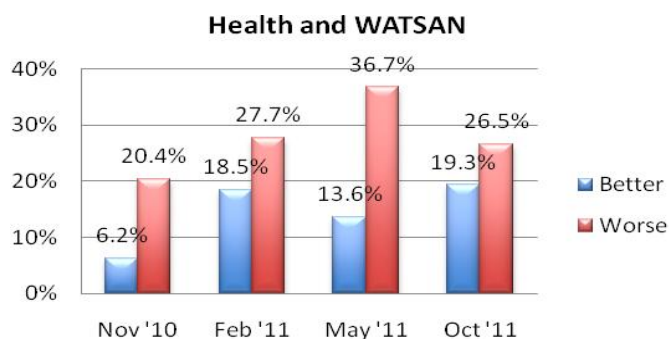
CMS 2



CMS 2 indicates that the BHHs saw between moderate and significant changes in health status between June and January.

This is not reflected in CMS 4 data which actually shows that health and WATSAN are getting worse for an average of 30% of BHHs. Approximately 15% BHHs indicated health and WATSAN were improving.

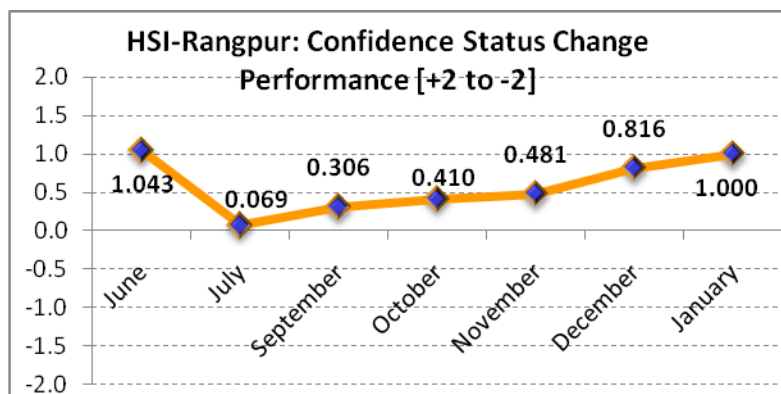
CMS 4



CMS 4 asked BHHs on a quarterly basis if their health and WATSAN was improving. The graph indicates that there has been a decline in health and WATSAN and an increase in the number of BHHs who find it is a problem.

CONFIDENCE STATUS: CMS 2 AND CMS 4

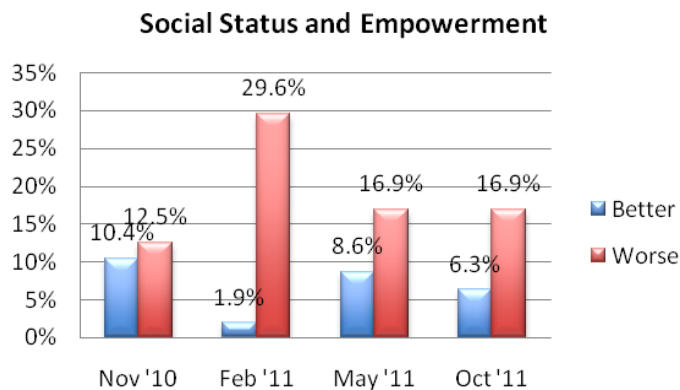
CMS 2



CMS 2 indicates that the majority of BHHs have seen slight to nearly no improvements in confidence levels since June.

This is similar to CMS 4 data which shows negative responses from BHHs regarding their confidence levels.

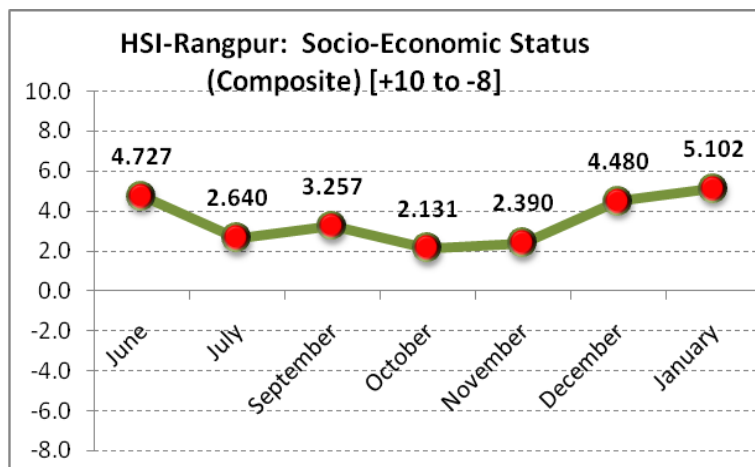
CMS 4



CMS 4 asked BHHs on a quarterly basis whether their social status and empowerment has improved. The graph shows a decline in both indicators showing that social status and empowerment have gotten worse since project interventions began. However, in both May and October, only 17% of BHH responded negatively, compared to nearly 30% in February.

SOCIO-ECONOMIC STATUS: CMS 2

CMS 2



CMS 2 findings for composite changes in socio-economic status, including: income, expenditure, cash savings, assets bought, health and confidence show positive changes from June 2011. July through November show decreases in positive responses, correlating in the slight to no change in income and expenditure during those months.

Annex: FGD Questionnaire

Aim: To reflect the BHHs' view on project's success and impact of interventions

- 1st year BHHs
- 5 to 8 beneficiaries for in-depth analysis (different locations)

Process in selecting households:

- 1) One where someone mentioned an interesting success story and why
- 2) One where it failed or did not work so well

Preamble: Thank you for taking the time to sit and speak with us today. We would like to talk to you about your experience participating in the SKS project and to understand what worked and what didn't work in the intervention. We are interested to know how the interventions have or haven't impacted your lives in different areas, what challenges you have faced over the last two-three years, and how you envision your future now that you have been a part of this project. Try to think of what you had before you joined this project and what you have now after two-three years of training and support. We will be asking questions regarding changes in your income, assets, savings, health, food intake, ability to overcome shocks (environmental or health related), relationships with key people – friends, family, moneylenders, shopkeepers, UP chairman/members, political figures – and overall well-being.

We are the students and you are the teachers today – only you know the truth and details of how the intervention worked for you. What we learn today will not directly change your position; however it will be used to improve other extreme poor programmes and better shape the way NGOs and the government work with the extreme poor. Our learnings will hopefully influence the government to sponsor programmes that actually work for the poor and improve their lives.

It is also important to understand that *"This is a safe place to share your thoughts and feelings in regards to the HSI-Rangpur project and nothing you say will impact your relationship with the project field staff."*

FGD Questionnaire:

Exploring IGA Impact

1. What was your life like one year before you joined the project? What is your life like now? Why?
2. What type of intervention(s) did you receive from the project/NGO? What is the status of your IGA now?
3. How was the IGA chosen for you? Did you ask for it or was it selected by the NGO?

4. Did you receive any previous experience or exposure to the intervention? If not, did you receive training? By whom?
5. What was your income, assets and savings before the interventions? Were there any changes in income, assets, and savings due to interventions?
6. *Where do you sell your produce? Do you get fair prices? (specific to type of IGA)*
7. Will you continue with the same types of IGAs?
8. What would you say worked best about the intervention you received? Why? What worked least well? Can you discuss why it didn't work? Would any of you have preferred to have another type of IGA? If yes, why?
9. What have been some of the key challenges you have faced during this project (regarding the implementation of the IGA)?
10. Would you recommend this IGA to other people? Why/why not? Will you be continuing with this IGA post-project involvement?
11. How long have you spent on this IGA and how has this impacted your daily routine? Did you have to give up other paid work or do less work at home? (Opportunity cost)
12. How suitable is this IGA for FHHs? Disabled? Elderly? If not, why?
13. **(For women)** If a husband operated the IGA, in what ways did his wife benefit and in what ways did she fail to benefit? What would happen if a husband or son who managed the asset later left this wife?

Other Indicators

14. What has been the community's perception of your involvement in this project? Has it improved or worsened your engagement within the community? Explain how and why it changed and what it means for you and your family.
15. How has this intervention impacted your resiliency- your ability to cope during the lean period? How has it affected your ability to respond and recover from environmental shocks?
16. Has the health conditions of your HH improved over the project period? Explain.
17. Do you have better access to health care services than before the intervention?
18. Have your food habits changed since you joined this project? Explain.
19. In general, what has this project intervention meant for you and your family? How have your kids benefitted or not?
20. *Do you feel you are more or less mobile than before? Specific for FHHs.*
21. Confidence- How mentally strong did you feel before the intervention? Do you feel more confident now? In what area are you confident and why?
22. Do you feel assured you can meet your basic needs regularly in the coming year? Why or why not? Do you feel you can prosper beyond your meeting your basic needs in the coming year? Why?
23. Empowerment- In negotiation with your husband, has your power in decision making improved since the intervention? In what areas and why? In what areas has your decision making not improved? Why?
24. Has your power in negotiations with family, community members, shopkeepers, employers, patrons, moneylenders, political official changed? If so how and why? Please explain.
25. Security/resiliency- Do you feel you are more or less able to cope with shocks? What kind of shocks and why?

26. Sustainability- Do you feel you need further assistance, such as safety net support? Why?
27. How has your future planning changed? Has your future outlook changed? How and why?
28. What has your relationship been like with the field staff? Do you feel the NGO staff respect you? Have they ever been rude to you? *This question should not be asked in front of the NGO staff to ensure honest answers.*
29. Has your access to local services improved? For example, access to sanitation and education services?

Annex: Exit Strategy

OBJECTIVE OF EXIT STRATEGY:

- i) Achieve sustainability of the project purpose so that it would be able to contribute in achieving the goal;
- ii) Guide all concerned in strengthening capacity of group and individual so that extreme poor households can lift themselves from poverty line.

Component of exit strategy	Descriptions	Comments/Action to take
Gradual reduction of staff support to group	A total 4 field facilitators were supporting a total of 50 groups of 800 BHHs. From middle of year-3; project staff support has reduced in the area of providing technical information, creating market linkages, marketing, organization development such as management of group fund, maintaining different registers etc.	Ensure weekly group meetings take place regularly by the group leaders with light support from staff Savings collection continued Maintaining all the records of group properly
Gradual linkage between the groups and the Community Platform ⁸ (now Ward Platform) of HSI's Samriddhi project	<p>The BHHs will be linked with the respective Ward Platform (WP) of Samriddhi project. After phasing out, the groups will continue their development initiatives with support from the respective Ward Platform.</p> <p>The 6 working unions of IAMBLVC project is also the working area of HSI's Samriddhi project. In each of the "Ward" of the Unions, Samriddhi project organized/ formed Ward Platform. The project is running in 42 Wards under 6 unions where Samriddhi formed Ward Platforms. In the meantime, the groups established contact with the respective Ward Platforms in order to establish formal collaboration and get future support from these Ward Platform.</p> <p>Include group requirements in the WP's work plan.</p> <p>WP would lobby/advocate with public agencies including union parishads to ensure rights and entitlements of BHHs/groups.</p>	<p>Handover the group wise BHHs list to 'Samriddhi and make them sensitize for including these groups in WPs.</p> <p>Encourage interaction between the Shiree group leaders and the ward platform leaders.</p> <p>Organize negotiation meeting between the respective groups and Ward Platform.</p> <p>Ensure participation of shiree group leaders in the existing planning, decision making and implementation events organized by Ward Platforms</p>
Promotion and	The project developed and promoted 20 Local	Facilitate LSPs to maintain

⁸ Community Platform is a local development catalyst at Ward level that aims at creating a local enabling environment for social, economic development and good local governance.

development of modalities and orientation on commercial service selling for the local service providers (LSPs) as well as the groups.	<p>Service Providers (LSPs) from the local community. These service providers received a small service charge from the project for their services (livestock and marketing related services) for the BHHs and groups until February 2012. The project oriented LSPs on commercial service selling approach during post project period to the BHHs as well as to whole communities. The project with the participation of the LSPs developed modalities on commercial service selling. Now the LSPs are continuing their delivery of services to the BHHs/groups and respective communities and the LSPs by their own initiative and without support from project.</p> <p>The project facilitated the 20 LSPs to be included with the respective upazila based Service Provider Association (SPA) in order to promote their skills and regular updates on new information/technology, and promote service markets.</p>	<p>quality and timely delivery of services to BHHs/groups and community</p> <p>Facilitate LSPs to get formal membership from respective Upazila based SPA.</p> <p>Facilitate SPA to support the new member LSPs to further strengthen their capacities and to remain in the service market.</p>
Increase dependency of BHHs on local service providers (LSP)	As per exit strategy and sustainability concern, the project in collaboration with HSI's Samriddhi Project developed capacity of the Local Service Providers (LSP) and their Service Providers Association (SPA). First one and half years, the project provided service charge to the LSPs for technical services to the BHHs and their groups. Later, the project facilitated BHHs and groups to share service charges of the LSPs against the service provided by LSPs. From March 2012, the BHHs as well as groups are sharing 90% service charge of the LSPs for their services.	<p>Encourage BHHs and groups to pay full service charge within the project period.</p> <p>Ensure quality and demanded services by the BHHs to LSPs</p>
Linking of BHHs with the existing GO, NGO and Private Sectors (Facilitate the groups to link with the government line agencies, NGOs and private sectors)	<p>The groups facilitated to link with the existing government service providers, NGOs and private sectors, so that they can raise their concerns and negotiate with the above service providers to get demand based services such as vaccinations.</p> <p>The project has already established informal linkages/collaboration with DLS, DAE, BRAC, Milkvita and Aarong. Consequently, the BHHs and groups received services (training, advice, inputs, artificial insemination, marketing etc.) from these organizations in livestock, agriculture and non agricultural domains. The BHHs and groups received services in most</p>	<p>Engage formal and informal private sectors (milk vita, Aarong, Rangpur dairy, restaurants) for selling milk of the BHHs.</p> <p>Facilitate groups to be linked with the Artificial Inseminator facilities</p> <p>Facilitate the Ward Support Committee (WSC) to be more responsive and hand over the list of BHHs to UP through the Ward platforms</p>

	cases free of cost except the services on artificial insemination.	for getting safety net support.
Strengthened HID capacity of groups and gradually shift the roles to the group leaders	<p>Emphasis given on to strengthen the HID capacity of the groups, especially of their leaders. Gradually the roles are shifting to the group leaders during the first nine months of the third year. The last three months will be the follow-up period to observe performance of the leaders.</p> <p>Human and Institutional Development (HID) capacity of the group leaders will help them to understand the benefit of respect, participation, decision making and efficient utilization of various capitals that have existed among the BHHs.</p> <p>In the second year of the project, OD related training sessions were organized for the group leaders. In the third year, different roles (like resolution writing, organization of group meetings, communication with LSPs and line agencies etc.) have been shifted to the leaders through providing regular on job accompaniment support.</p>	On job coaching to groups for performing their jobs on a regular and perfect manners.
Handover of group and beneficiary lists with provided assets to respective UP Chairman	The project already handed over the groups and beneficiary list with proved assets to respective UP chairman and UNO along with the PD's advocacy letter to seek support for the BHHs for enlisting them under govt. provided safety-net programmes.	Follow-up
Strengthening the groups for operation and maintenance of the biogas plants for cooking and lighting jointly	In the first and second year of this project, a total of 25 cooking biogas plants and 6 lighting biogas plants have been installed in different villages in the working unions through which a total 242 BHHs getting electricity facilities and 87 BHHs using biogas for cooking purpose. The biogas lighting plants are managed by the specific groups and biogas cooking plants are managed by small groups of BHHs formed with 3-4 BHHs.	<p>Follow-up through on job accompaniment and capacitate the group leaders' operational and management skills.</p> <p>Facilitate the WSC for look after the biogas plants</p>

Annex: Financial Overview

Budget Line	Total Contract budget	Total Expenditure as of August 2012
Human Resource Cost	7,263,428	7,256,758
Travelling Cost	375,671	389,338
Vehicles & Equipment	805,690	805,775
Office Rent & Utilities	335,978	342,869
Administration cost	575,421	532,041
Operational Cost	497,678	396,614
Direct Delivery to Beneficiaries	22,969,731	23,048,848
Total Direct Cost	32,823,597	32,772,243
Contingencies	60,000	-
Management Cost(Over head)	1,969,416	1,966,335
Total Cost	34,853,013	34,738,578
<i>No of Beneficiaries</i>		800
<i>Total cost per BHH</i>		43,423
<i>Direct cost per BHH</i>		28,811

Note: Amount in BDT

Annex: Case Study

Saki - begging is the only way to survive. She is living in Enayetpur village of Panchgachi Union under Pirgonj Upazilla. She is 58 now but looks 70 with a hopeless life. Her father married her off at an early age. She didn't recall the actual age of marriage. Saki gave birth to a baby girl after a year and half of marriage. Some days later, her husband left home without informing her. No food stock, money or even sellable goods was at home. Saki was distraught thinking about her unsolvable problem. After a few days, she began lending goods for money but her husband didn't come back even after one month. Neighbours were unable to lend her anything. She couldn't even manage to get a housekeeping job due to the kids. At last, she began to beg. Years passed and her only child grew old enough to marry. Like her mother, after a year and half of marriage Saki's daughter gave birth to a female baby. Suddenly, the new borne baby's father died. At that time Saki was unable to assist her daughter by providing any assets. So her daughter's life became similar to her mother's.

In 2009, Intercooperation started its SHIREE/DFID funded Innovation fund II Project in Panchgachi union under Pirgonj Upazilla. One day a project staff member met with Saki and heard her life history. As she met the beneficiary selection criteria, IC-staff enrolled her in the project.

From the Innovation Project II, she received support on milking a cow with raising a calf. She brought the cow and calf to her house and started to lead new life. She got 2-3 litres of milk every day and sold the milk at the nearest market. At milking stage the cow became pregnant and gave birth to another calf within one year. In the first phase, she got 273 litres of milk and sold it for BDT 8,400. Now she has three cattle. She also bought 3 hens for eggs.

She stopped begging and brought her granddaughter to her home and enrolled her in class III. Now she has assets worth more than BDT 40,000. Her plan is to sell one cattle and buy homestead land and then eventually buy some farmland. That land would be a permanent productive asset for her. She is also thinking to bring her widowed daughter to live with her. Presently she is living an honourable life instead of begging, and her granddaughter is a student. IAMBLVC Project has uplifted several beggars like Saki. Now they want to make them self-reliant so poverty and hunger no longer affects them.

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