2012

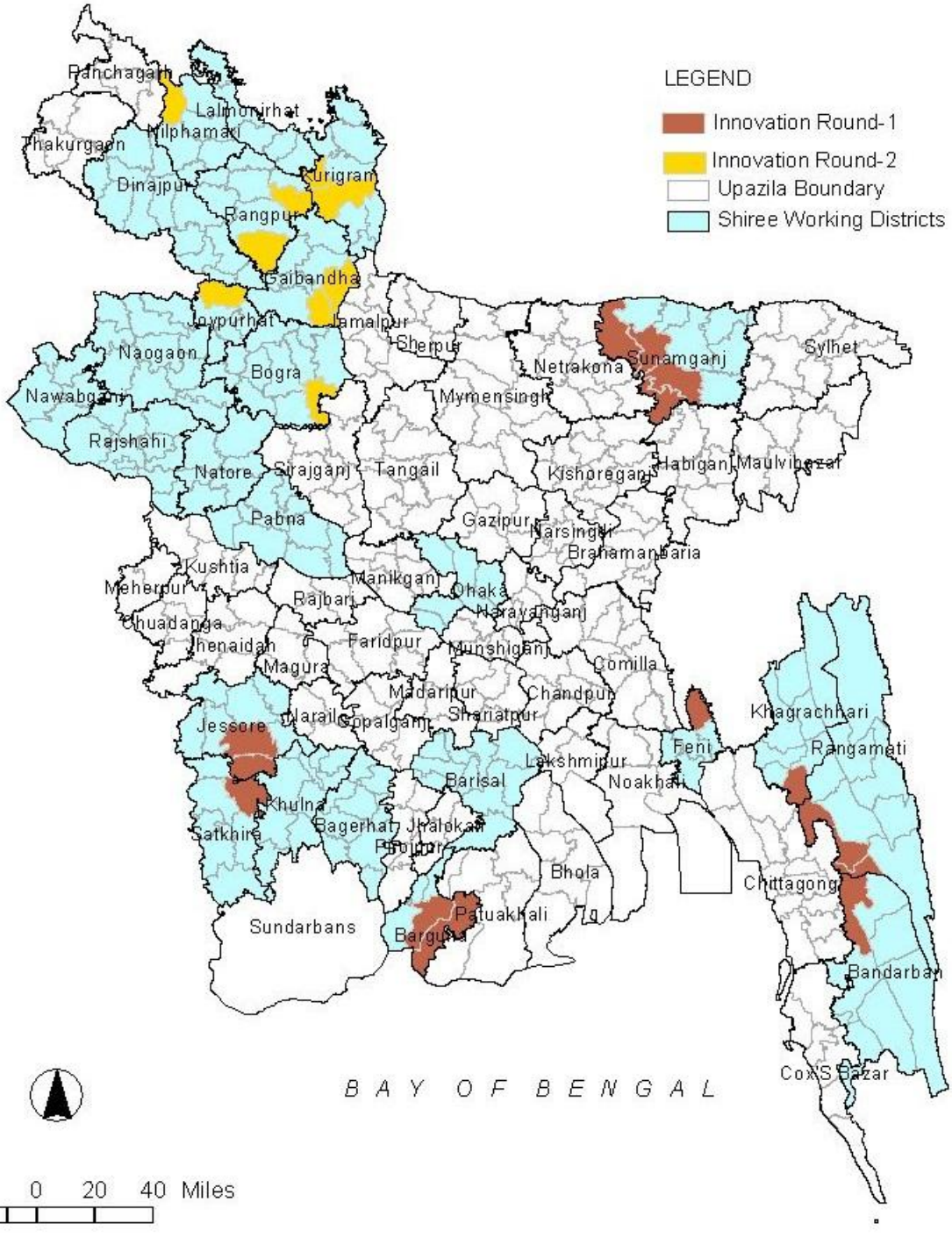
Lesson Learning Report: MJSKS

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 Poor[1]. 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 projects[2]. 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 case[4] 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 pilot[5] 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

- Inception Report, 2009; shiree and MJSKS
- Mid-Term Evaluation Report, 2010; shiree
- Shiree Annual Reports 2010 and 2011; www.shiree.org
- Project Memorandum, 2009; shiree and MJSKS
- Innovation Fund Round 2 Evaluation Report, 2010; shiree
- Monthly and Quarterly Progress Reports; MJSKS
- Quarterly Change Reports and Self-Review Workshops; shiree
- Innovation Fund Output-to-Purpose Review, 2010; shiree
- MJSKS Lesson Learning Reports; MJSKS
- Livestock Lesson Learning Workshop; shiree

INTRODUCTION

CMS 6: Summary of MJSKS Interventions

Beneficiary Information	2009	2010	2011	2012	Cumulative	Target (according to log frame)
BHH selection complete	635	0	0	0	635	635
BHH profiles (CMS 1) complete	0	635	0	0	635	635
BHH who dropped out or migrated	0	1	0	0	1	0
BHHs receiving asset transfer	0	620	0	0	620	620
BHHs receiving cash transfer	635	635	634	0	1904[6]	635
BHHs receiving IGA/skill training/other capacity building	635	635	634	0	1904	635
Total value of assets/cash distributed					18,289,553[7]	15,450,510
NOTE: this data is collected and reported by the NGOs to shiree as CMS 6 (reporting requirements to the Government of Bangladesh)						

Mahideb Jubo Somaj Kallayan Somity (MJSKS) is an Innovation Fund Round 2 (IF2) NGO and implements the **Artificial Insemination in Dairy and Beef Cattle** Project (AIDBC) in Ulipur and Rajarhat Upazila of the *monga*-prone Kurigram district. The duration of the project was initially set at two years from 1st September 2009 to 31st August 2011. MJSKS received a one-year extension after a review of the project, to give more time for the project to test its innovation and ensure a level of sustainability regarding graduation of its beneficiaries. The project is due to end in August 2012. The Project Memorandum drafted in 2009 summarizes the project goal, purpose, activities and expected outcomes/outputs as such:

Goal

The Goal of the project 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

[6]Some BHHs received multiple IGA training

[7]Funds were taken from the contingency fund to replace the cows that had died.

the UN MDGs, and specifically for shiree, Goal 1 (eradicate extreme poverty and hunger) and Goal 2 (achieve universal primary education), but 2015.

Purpose

The purpose of the project is to address the issue of *monga*– a seasonal period of food insecurity brought on by low levels of employment opportunities. This would be achieved through the immediate objective of converting each household into a smallholder dairy farm via the key component of the project: asset transfer of *estrus synchronisation* as a part of artificial insemination (AI) on transferred cow/heifer. Employment generation through rearing livestock would result in improved income and nutritional status. The innovative aspect of the livestock project lies in the use of technology. Each BHH is given a cow or heifer that is provided *estrus synchronisation* and AI twice over the life cycle of the project. The synchronisation is initiated in the annual AI cycle in order to improve the fertility of cattle and ensure the milking period overlaps with the seasonal *monga* within the working area.

Activities

- MJSKS will select 620 extreme poor BHH having no valuable income generating assets and 15 BHH with access to shared cow or heifer to be included the synchronisation process;

- In order to overcome hardship during *monga* year one (2009) and assist in maintaining their assets MJSKS will provide each BHH a conditional cash transfer at Tk.750 for three months and cattle feed support of at least Tk.400 each month for three months;

- The 620 selected BHHs will receive a one-time cattle housing support allowance of Tk.500 and their cows or heifers will receive *estrus synchronisation* and artificial insemination free of cost from November onwards;

- In order to ensure a high caloric intake of the HH members, during the pregnancy each BHH will receive cattle feed support of Tk.400 for two months. The BHH will supplement the feeding of their cattle for the remaining period of the pregnancy through the sale of manure during the first three months of pregnancy;

- Following the birth of the calf, the synchronisation process will be repeated in the following year free of cost;

- Two training programmes will be provided on animal husbandry, one on utilisation of homestead through gardening for skills development of the participants, and a 'Learning Day' in each village in order to mainstream *estrus synchronisation*;

- In order to expand the use of this technology into the wider community, exposure visits will be organised between core beneficiaries and non-poor groups;

- In order to maximise output for homestead gardening various agricultural inputs will be provided to BHH including Cassava, Sweet Potato and Napier Grass.

Expected Outcomes/Outputs

1. 620 reproductively sound cows/heifers and immediate *Monga*-support distributed to 635

participating households.

2. *Estrus synchronisation* and Artificial Insemination technology disseminated to direct and indirect beneficiaries.

3. Knowledge and inputs disseminated on home gardening tuber crops to 635 households.

YEAR 1: SEPT 2009-AUGUST 2010

The first year activities of the project cover the period from September 2009 to August 2010. The inception period of the project totalled 4 months from September 2009 to December 2009 and MJSKS completed this successfully, from recruitment of staff to purchase of cattle for distribution to beneficiaries. MJSKS selected 635 BHHs which were all verified by shiree. In the same quarter MJSKS launched project activities as per project plan. MJSKS was able to procure 620 cows/heifers and transfer these assets to the 620 BHHs expecting to receive them. All cattle were purchased in a one-month time frame within the inception period. These were selected by physical inspection only for health and reproductive soundness by veterinarians (the technical staff) and the majority of these were selected by rectal palpation method for soundness of female reproductive organs. The approximate value of each transferred asset totalled Tk.16,476 per BHH. MJSKS successfully completed the first round of cattle rearing training to all BHHs. In addition to receiving cow/heifer, all 635 BHHs received monga support by November 2009. All beneficiaries were oriented on project interventions (understanding of Artificial Insemination &Estrus Synchronisation) and in the first year 147 calves were born from the cows which were pregnant during the purchase or from the replaced pregnant cattle.

A revised work plan was created taking into account lessons learnt in the first 4 months. Initially there was no plan to incorporate group meetings into project activities, but after the inception period it was decided to include a bi-weekly group meeting. The meetings were designed to enhance social awareness, health, hygiene, and sanitation conditions; the change in frequency of meetings was justified on the level of effectiveness. The technical staff learnt that assessing through rectal palpation in cattle was the most effective way of detecting reproductive health and aiding AI. Another major lesson learning included understanding that the dependent poor (i.e. ill health, old age, disabled) face constraints in their ability to rear cattle, and therefore this had to be taken into consideration in terms of direct support.

In the first year all types of vaccinations (anthrax, BQ, FMD, HS) and deworming of cattle and calf were completed according to plan. 367 cattle were treated for ailments, with treatment for diseased cattle done by project veterinary officers. 339 cattle (53.4%) were induced with hormones under the Estrus Synchronisation method. In addition 454 heifers/cows (71.5%) were artificially –inseminated by BRAC trained AI technicians working in the project Unions. Using AI technology, 322 BHHs (50.5%) received a 2nd round of skills development training on cattle rearing by the end of Year 1. All beneficiaries undertook training and activities on cultivation and production techniques of tuber crops: sweet potato and cassava. Non-poor farmers were also engaged and 11 learning days and 4 exposure visits between beneficiaries and non-poor farmers were arranged within all project working areas.

In January 2010 a severe cold wave blew over Kurigram and the beneficiaries were helpless to protect against it. MJSKS therefore provided all BHHs with adequate winter clothing from the contingency fund approved by shiree.

MJSKS encountered setbacks within the first 6 months stemming from the initial purchase of cattle. 109 cattle had to be replaced due to infertility problems which were not detected earlier. They had to be replaced by pregnant cattle and as such could not benefit from the innovative aspect of the project. MJSKS staff realised that infertile cattle would be unproductive and rearing them for a long period would come at a loss for the beneficiaries. Shiree gave approval of this replacement and all the cattle were replaced from the selling amount of the infertile cattle rather than from the unspent balance of the cattle purchase line. As such, 109 infertile cattle were replaced. The Review of Innovation Round 2 Report from June 2011 highlighted that MJSKS faced a number of problems in the initial stages of the project dealing with procurement of good quality heifers and the problem of infertility. In an internal report MJSKS highlighted that this problem was a real challenge and that wrong selections were due to the limited skills of the veterinarians during the one-month period. They concluded that not all of their veterinarians were skilled enough in identifying reproductive problems of cattle. MJSKS decided to take professional assistance from shiree and other experts and were benefited in this regard.

A major learning for MJSKS in its first year was that BHH's cows/heifers should be in optimum health for the implementation of *estrus synchronisation*. In an internal report MJSKS noted that they did not give adequate time to BHH's cattle for health improvement due to reaching a target of synchronising cattle before the *monga* period, which is why, in some cases, synchronisation with the hormone failed. MJSKS highlighted that preventative measures for health need adequate time (at least two months) before synchronisation. Not all the necessary vaccines were available in the ULO (FMD and BQ), so MJSKS discussed with shiree and obtained approval to use contingency funds for procuring private manufactured FMD vaccine. In addition, MJSKS reported that they did not ensure effective training for its beneficiaries during the first round of livestock rearing training. MJSKS noted that it did not provide sufficient time for quality training as they had to complete all training for 635 BHHs straight after cattle purchase within one month. In the Self-Review Report from December 2010, MJSKS noted that more time was needed during the primary selection of cows/heifers to avoid wrong selection of the foundation stock and quick replacement of infertile cattle to avoid financial losses to the beneficiaries and to the overall project further down the line.

MJSKS realized that instead of hardship support for three months, the money would be better utilized for feeding the heifers to groom them for better reproductive performance. Outputs from agricultural activities (to support the upkeep of the cattle) were not as expected and resulted in BHHs spending money above the expected amount on the heifer's upkeep. This was due to insufficient space and poor soil on homestead for cassava and sweet potato cultivation prompting MJSKS to consider other options for homestead gardening. Cassava in particular is not preferred as a food crop and is very seldom used in Bangladesh; as such it was an inappropriate choice. In addition, the cattle feed support for three months was found to be insufficient. The Review of Innovation Round 2 Report stated that MJSKS needed to re-examine its feed stipend arrangement as it was not adequate to see beneficiaries through until the cows

started to provide adequate returns. It was noted that beneficiaries were unsure how they would arrange to provide for their cattle after the stipends ended, with implications on the impact on the health of the heifers, in turn affecting their fertility status. MJSKS decided that feed support should be extended until the cattle came into production and in the period of its first lactation.

Other major lessons learnt included the issue of the 15 shared cattle. In the locality, the majority of shared cattle owners reared bull for beef purposes, with the intention of selling it in the local market over a short space of time. The sharing of heifer/cow was much less practiced. MJSKS reported that 86 of their beneficiaries were old aged and single member HHs as well as 264 female headed households. In an internal report MJSKS stated that most of these BHHs found it difficult to rear cattle and therefore needed additional support and linkage with neighbouring BHHs.

YEAR 2: SEPT 2010-AUGUST 2011

The Review of Innovation Round 2 Report notes that despite delays and problems in the first six months of the project, it had achieved its targets by April 2011. The report describes the project as innovative, citing the technological advancement and approach which has never been tried in Bangladesh. The report further noted that artificial Insemination is not 100% guaranteed – the GoB success rate is around 50-60%, however, MJSKS has been able to demonstrate a 60-70% success rate. The first Service Conception Rate was only 51% which is within international standards of 50-55% for heifers.

In Year 2 there was further replacement of 2 cattle due to cattle death. 42 infertile cattle (6.6%) were replaced by pregnant cattle. 407 heifers underwent *estrus synchronisation* while an additional 467 were artificially inseminated during the second year of the project by BRAC trained AI technicians. 483 calf births were reported in the second year of the project. All BHHs received refresher training from the project on Sweet Potato and Napier grass cultivation for homestead gardening. For the sustainability of quality livestock services for the beneficiaries and community, the project introduced Local Livestock Workers (LLW) and started delivering livestock services like vaccinations, de-worming and treatment of diseased livestock by these LLWs. 261 cattle were treated for ailments by the LLWs under the guidance of MJSKS project veterinary officers. All BHHs received one round of refresher training on cattle rearing and 49.5% received second round skill development training. All BHHs received refresher training production techniques for the cultivation of sweet potato, cassava and fodder cultivation. 244 non-extreme poor households were contacted by beneficiaries and project staff to promote the uptake of the technology. 329 non-extreme poor cattle rearing farmers adopted the AI technology at their own cost. A second round of learning days were organised with the same 11 villages as the previous year. BHHs received milk production from their cattle within the first 3 months of the second year of the project.

A major lesson learnt, as highlighted by the Self-Review Workshop Reports, was the difficulty for BHHs to maintain adequate fodder and feed for cattle especially during the lean period. MJSKS learnt that it is important to provide additional cattle feed support during this *monga* period. MJSKS noted that biological (post-parturition) complications arise more frequently in artificially inseminated cattle at the last stage of pregnancy when cow/heifer are not fed to an

optimum level. The problems were magnified due to increases in the price of cattle feed and human food. In the July 2011 Quarterly Change Report 19.2% of BHHs reported nutrition and food security as a problem due to price hikes of food. Poor growth was exhibited in much of the local calves and MJSKS noted that unavailability of suitable land for Napier grass cultivation resulted in low production. In the one-year extension proposal MJSKS note that the production of Napier grass is not sufficient for the cow and calf. Those beneficiaries who cultivated Napier grass received insufficient production to sustain their cow.

From the issue of cattle feeding MJSKS learnt further action was needed. A mass awareness programme on proper feeding was initiated early in Year 2 as well as a proposal to increase the stipend for cattle feed. Cattle feed support was increased to 3 months from January 2011 at Tk.500 per BHH, which was approved from the contingency budget. MJSKS increased field monitoring, campaigned for improved feeding of cattle and organised additional rounds of BHH training on cattle feeding. Advocacy with local landowners & the UP to give limited access to unused/underused land (khasland) was initiated. MJSKS learnt that increased follow-up for proper calf feeding was needed, since many beneficiaries were interested on the immediate returns from milk but not from the future asset – the calf. Crossbred calves needed more feed than regular calves. MJSKS encouraged its BHHs to feed their calf from the selling of milk for cash. The Review of Innovation Round 2 Report also noted the scarce and high price of cattle feed and fodder as well as the limited support service from local government line departments. The report also stated that homestead gardening is usually limiting unless it is well planned to sustain supplemental income.

Ensuring good link-ups with local government, especially with the livestock department, was another lesson MJSKS learnt during Year 2. FMD vaccine is usually in low supply, thus the risk of cattle disease increases. In order to avoid this, MJSKS ensured continuous communications and inclusive involvement of the DLO and ULO with the project. MJSKS vaccinated the calves in the first quarter against FMD from their vaccine reserve. The lack of technical knowledge of the LLWs was another source of learning as many could not diagnose or recommend primary treatment for livestock diseases properly. Field based capacity building of LLWs through monthly meetings was established. Another significant finding was the unwillingness of AI technicians to repeat AI cases where there was failure and increased charging for further rounds of AI.

According to an internal survey conducted by MJSKS of all beneficiaries in April 2011, it was revealed that the average value of cattle owned per BHHs stands at 39,412 Tk. after 15 months of cattle rearing.

In March 2011 the average milk production of BHH's cattle increased after the additional cattle feed support of Tk.500 per month was provided from the project for three months. From CMS-4 data, in March 2011 36.3% of BHHs reported their lives were much better due to income from selling milk and availability of daily labour. This figure stood at 36.2% in July 2011. Although MJSKS had established links with BRAC milk collection centres, the prices offered were usually quite low. In the July Self-Review Workshop Report MJSKS decided that linkages with local sweet shops were better alternatives for milk selling. In addition, cassava production on homestead gardens was not as productive for all BHHs as the topography of the soil was not

suitable. MJSKS decided that other local vegetables could be grown instead and would provide training on this. A major learning was that such a project relies heavily on the time cycle of production of milk or calves, from which income is derived. In the one-year extension proposal MJSKS highlighted that cows milk for around 5 to 6 months, then they become pregnant again, become 'dry' and need to be fed continuously for up to one year. Therefore, income from cows is virtually non-existent.

In the July 2011 Self-Review Workshop MJSKS highlighted progress made on encouraging BHHs to diversify their earning sources. However, coming to the end of the second year it was recognised that additional supplemental IGA activities are required for the BHHs to diversify income sources and supplement their income to meet on-going household expenses. The Review of Innovation Round 2 Report also highlighted the need for supplemental IGAs to ensure day-to-day income.

YEAR 3: SEPT 2011-SEPT 2012

In the one-year extension proposal MJSKS indicated supplementary IGAs would be provided according to BHHs' choice and according to existing skills, to allow for quick sideline income generation. The additional amount stands at Tk.6200 BDT per BHH. 620 BHHs received supplementary IGAs selected according to HH needs and skills. In the October 2011 Self-Review Workshop Report MJSKS noted some positive change could be seen through the diversification of project activities initiated in Year 3. As of January 2012, 159 calves have been born and 34 cattle have been replaced by pregnant cattle. Total cattle population stand at 1,473 for 635 BHHs and 240 BHHs own 3 or more cattle. Additionally, 316 cattle are pregnant. A second orientation was completed for all BHHs due to the minor alterations to project activities.

A key lesson learnt regarding IGAs has been disease susceptibility of old age beneficiaries. MJSKS decided that an introduction of a supporter system for IGA management was needed to assist them. Although MKSJS have highlighted the issue before, the addition of a second IGA made this issue more apparent. MJSKS decided to raise further awareness among the communities for old aged poor people. In addition, careful selection of IGAs for old aged beneficiaries was adhered to following shiree's Guidance Note on IGA selection for old aged beneficiaries.

In the final quarter of the project, MJSKS drafted en exit strategy to plan for the phase out of project activities. This included organising an advanced training of LSPs on AI and further linkages with extension service providers. They also set up a livestock monitoring software using mPower mobile phones. The software contains detailed information of each animal for 200 households. It also contains responses from the Project Veterinary Officer to the users on cattle health, treatment and other management issues.

CONCLUSION

MJSKS was able to select all of its beneficiaries, procure and transfer all 620 heifers and provide initial skills training all in the first four months of the project. MJSKS delivered refresher training and other inputs in a timely matter and was able to provide AI and estrous synchronisation to most of the heifers. One of the more significant lessons learnt by MJSKS was the downside to procuring all heifers in a one month window during the inception period. 109

cattle had infertility problems and had to be replaced by pregnant heifers. However, MJSKS was able to provide AI to the rest of the heifers and the success rate of conception was noted as being higher than average. MJSKS provided stipends and other support on time and made changes to the arrangements where it was feasible, and always involved shiree for support and advice on the changes. Through communication with shiree in November 2010, other shiree partner NGO technical staff (livestock) participated in staff development training held by MJSKS to improve their technical skills. In October 2010, 2 veterinary intern students worked with MJSKS for practical field learning. In October 2011, MJSKS and shiree jointly hosted an Experience Sharing Workshop on Livestock to develop a common understanding for improving livestock project deliverables. The homestead gardening production of cassava and sweet potato proved not to be successful, and as a result MJSKS altered this part of the project to regular vegetable cultivation. In addition, MJSKS learnt that cattle rearing for the extreme poor is a time-consuming affair with low immediate returns and ensured that supplementary IGAs were negotiated into the budget when the project was extended for a third year. According to the External Review report of Year 2, low staff turnover aided in timely and quality delivery for the HHs. In fact, two of the project's frontline staff were awarded Field Officer of the Year (FOOTY) by shiree in October 2011 for their contribution to eradicating extreme poverty.

ISSUES REGARDING SCALABILITY

MJSKS required considerable technical support in regards to livestock interventions. At a scaled up level, the ability to provide efficient technical support to a much larger group of beneficiaries would need to be taken into consideration as well as the cost effectiveness of the interventions. Furthermore, despite initial technical and other lapses the value of accumulated assets, such as cross-bred calves and especially the improved heifers that were born are very valuable for extreme poor beneficiaries and the nation. A concise and effective monitoring system would need to be developed as well as supplementary quick return IGAs in order to generate year-round income for BHHs if the project were to be successful at scale.

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 2012[8]. 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

[8] Except Greenhill ended June 2012, Action Aid October 2012 and PUAMDO Jan 2013

fund projects. As the baseline questionnaire is to some extent different to the endline study 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 MJSKS'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	41	64.1	39	60.9
Female headed household	23	35.9	25	39.1
Both	64	100	64	100

Endline findings indicate change in the sex of household head since baseline. During baseline, 36% of household heads were female and the rest (64%) were male, while in the endline female headed households increased to 39% and the percentage of male headed households declined to 61%.

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
3.61	1.26	1.26	1.57	2.88	1.46	3.82	1.25	1.68	1.03	2.98	1.57

Based on household head category, contrast observation is noticed in regards to change in household size. Among male headed households, the mean household size increased to 3.82 (endline) from the baseline size of 3.61 and household mean size of female headed household increased from 1.26 (baseline) to 1.68 (endline).

OCCUPATION

Table 2.1: Change in primary occupation of household head.

Occupation	Baseline		Endline	
	N	%	N	%
Agricultural day labour	27	42.2	28	43.8
Other Day labour	7	10.9	1	1.6
Domestic maid	9	14.1	4	6.3
Rickshaw/van/boat/bullock/push cart	5	7.8	9	14.1
skilled labour (manual)	2	3.1	-	-
Fishing in open water	3	4.7	3	4.7
Petty trade	-	-	4	6.3
Other business	-	-	1	1.6
Begging	9	14.1	3	4.7
Others	-	-	-	-
Transport worker (bus and truck)	-	-	-	-
Does not work	2	3.1	-	-
Housewife	-	-	3	4.7
Own agriculture	-	-	1	1.6
Cottage industry	-	-	1	1.6
Livestock/poultry	-	-	6	9.4
Service	-	-	-	-
Total	64	100	64	100

The endline findings for the primary occupation of beneficiary household heads indicate considerable change since the baseline. At the baseline the primary occupation for 11% of households was other day labour (47%) and a similar percentage of households were begging (14%) or working as domestic maids (14%). In the endline the primary occupation under these categories was reduced considerably and increased under livestock/poultry (9%) and rickshaw/van/boat/bullock/push cart related profession (14%).

Endline findings further indicate that almost all households (94%) have additional income sources besides the primary source. Nearly 45% of households have 2 additional income sources, 41% of households have 1 additional occupation and 6% of households have no additional occupation other than the primary one.

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

Number of other jobs	Endline					
	Male headed household		Female headed household		Both	
	N	%	N	%	N	%
0	4	10.3	-	-	4	6.3
1	17	43.6	9	36	26	40.6
2	14	35.9	15	60	29	45.3
3	3	7.7	1	4	4	6.3

4	1	26	-	-	1	1.6
Total	39	100	25	100	64	100
Test	X^2= 5.71, p= 0.222					

NB: Number of occupation other then 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	
1003.64	680.03	4569.73	2707.43	3566.09	2027.4	t=8.853, p=1.162

Endline findings indicate a considerable change in income. The mean income in baseline was 1004 BDT and SD is 680 BDT while in endline mean income is 4570 BDT and SD is 2707 BDT. The mean increase in income is 3566 BDT. Here income includes income both cash and in kind.

Table 3.2 provides information on cash and in kind income separately. The mean monthly household cash income at the baseline was 937 BDT which increased to 3626 BDT at the endline. Similarly, change is also observed in kind income. The mean in kind income at the baseline was 225 BDT while at the endline it is 944 BDT.

Table 3.2: Mean distribution of household monthly income

Variables /Categories	Baseline		Endline		Differences		Test
	Mean	SD	Mean	SD	Mean	SD	
Cash income	936.56	393.96	3625.67	2422.69	2689.11	2028.73	T= 5.863, p= 3.461
Kind income	225.11	191.11	944.06	1154.25	718.95	963.14	T= 3.513, p= 1.398

Moreover, the daily per capita mean income also increased considerably between baseline and endline. The mean daily per capita regular income at the baseline was 13 BDT which increased to 58 BDT at the 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	11.92	3.86	43.98	24.56	32.06	20.70	T=3.273, p=1.747
Kind income	4.26	4.86	14.4	18.4	10.14	13.54	T=4.257, p=3.866
Total	13.07	4.04	58.38	42.96	45.31	38.92	

<u>Income change in percentage</u>

The endline findings indicate that income (cash and in kind) for nearly 97% of households has increased by more than 55% compared to the baseline.

Table 3.5: Household income increase according to household regular income and total income in percentage (including in kind income).

Income increase (%)	Cash income		Income include kind	
	N	%	N	%
Up to 15	-	-	-	-
16 - 25	-	-	-	-
26-35	1	1.6	-	-
36 -45	2	3.1	1	1.6
46 - 55	1	1.6	1	1.6
55+	60	93.8	62	96.8
Total	64	100	64	100

CHANGE IN POVERTY THRESHOLDS

Table 3.6: Distribution of household poverty level according to cash income per capita/day and sex of household 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	41	100	-	-	-	-	41	100	28	71.8	4	10.3	7	17.9	39	100
Female	23	100	-	-	-	-	23	100	18	72	4	16	3	12	25	100
Total	64	100	-	-	-	-	64	100	46	71.9	8	12.5	10	15.6	64	100
Test									X^2=0.747, p=0.688							

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

After inflation adjustments for 2011, the percentage of households remaining below the extreme poverty line (daily per capita income below 48 BDT) at the endline is 72%; however, 16% have crossed not only the extreme poverty line but also the poverty line and their daily per capita income is more than 55 BDT. The percentage of non poor households increases further if kind income is included along with cash income. In the endline 45% of households fall under the non poor category and the percentage of households earning less than 48 BDT drops to 42%.

Table 3.7: Distribution of household poverty level according to total income (cash and in kind) per capita/day and sex of household 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	41	100	-	-	-	-	41	100	20	51.3	3	7.7	16	41	39	100
Female	23	100	-	-	-	-	23	100	7	28	5	20	13	52	25	100
Total	64	100	-	-	-	-	64	100	27	42.2	8	12.5	29	45.3	64	100
Test									X^2=4.208, p= 0.122							

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

EXPENDITURE

Table 4.1: Mean distribution of household monthly expenditures.

Baseline		Endline		Differences		Paired t-Test
Mean	SD	Mean	SD	Mean	SD	
1052	388.52	3561.12	2354.83	2509.12	1966.31	T=4.817, p= 3.165

Endline findings indicate considerable change in monthly expenditure. The mean monthly expenditure at the baseline was 1052 BDT while at the endline, mean expenditure is 3561 BDT. The mean increase in monthly expenditure is 2509 BDT. Here expenditure means only cash expenditure and includes irregular expenditure like house repairs, furniture purchases etc. Nevertheless, the daily per capita regular expenditure at the endline is 38 BDT while at the baseline it was 13 BDT.

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

Baseline		Endline		Differences		Test
Mean	SD	Mean	SD	Mean	SD	
13.39	4.1	38.30	23.07	24.91	18.97	T=4.095, p=2.411

Percentage increase in expenditure

The endline findings indicate that total monthly expenditure including irregular expenditure of nearly 89% of households has increased by more than 55% compared to the baseline; however increases in total monthly expenditure for 5% of households remains within 15%.

Table 4.4: Increase in HH monthly regular and total expenditure including irregular expenditure

Income increase (%)	Regular expenditure		Total expenditure (includes irregular expenditure)	
	N	%	N	%
Up to 15	6	9.4	3	4.8
16 - 25	2	3.1	-	-
26-35	2	3.1	3	4.7
36 -45	2	3.1	1	1.6
46 - 55	2	3.1	2	3.1
55+	50	78.3	55	88.7
Total	64	100	64	100

ASSETS

Increases in income may result in increases in assets, savings or expenditure. Endline findings indicate mentionable change in the ownership of assets under all categories except household belongings. In the baseline only 2% of households owned livestock and poultry was not owned by any households; however, at present 100% of households have livestock and 81% own poultry. Among the households who have livestock, 81% have more than 3 and 69% have more than 3 poultry.

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	40	97.56	23	100	63	98.4	-	-	-	-	-	-
	1	1	2.44	-	-	1	1.6	1	2.6	-	-	1	1.6
	2	-	-	-	-	-	-	7	17.9	4	16	11	17.2
	3+	-	-	-	-	-	-	31	79.5	21	84	52	81.3
	Total	41	100	23	100	64	100	39	100	25	100	64	100
Poultry													
	0	41	100	23	100	64	100	7	17.9	5	20	12	18.8
	1	-	-	-	-	-	-	1	2.6	1	4	2	3.1
	2	-	-	-	-	-	-	5	12.8	1	4	6	9.4
	3+	-	-	-	-	-	-	26	66.7	18	72	44	68.8
	Total	41	100	23	100	64	100	39	100	25	100	64	100
Working equipment	0	-	-	-	-	-	-	-	-	1	4	1	1.6
	1	9	21.95	4	17.13	13	20.31	2	5.1	5	20	7	10.9
	2	11	26.82	13	56.52	24	37.5	5	12.8	7	28	12	18.8
	3+	21	51.21	6	26.08	27	42.18	32	82.1	12	48	44	68.8
	Total	41	100	23	100	64	100	39	100	25	100	64	100
Household belongings	0	1	2.1	-	-	1	1.6	-	-	-	-	-	-
	1	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-
	3+	40	97.9	23		63	98.4	39	100	25	100	64	100
	Total	41	100	23	100	64	100	39	100	25	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	18696.28	2914.11	20170.8	2710.13	19272.27	2906.19
Agriculture	6092.54	1143.32	5725.02	1200.10	5948.97	1170.38
Business support	1932.94	2823.68	1536.84	2686.96	1778.21	2756.36
Capital IGA	1326.67	2175.19	612.8	1701.40	1047.81	2019.87
Khas land (decimal)	-	-	-	-	-	-
Lease or mortgaged land	-	-	-	-	-	-
Total	28048.42	2430.49	28045.46	1936.11	28047.26	2234.09

The value of assets was not collected at the baseline. Furthermore, endline information includes the value of the assets transferred under the projects. As a result it is very difficult to mention anything about change in the value of assets since the baseline.

Nevertheless, general shiree selection criteria is that all beneficiary households do not own assets valued more than 5000 BDT at the baseline and the mean asset value of MJSKS transferred assets is 28,047 BDT, mostly livestock and agriculture inputs. Nevertheless, the

mean value of assets of MJSKS beneficiaries at the endline is 52,206 BDT which includes mostly the 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 and poultry	45580.77	13033.95	42676	16632.99	44446.09	14488.02
Working equipment	1815.38	2392.14	724.6	1485.72	1389.30	2140.14
Household belongings	5308.72	3570.94	1645.2	873.90	3877.6	3350.80
Total	56125.13	15840.43	46091.64	16477.90	52205.80	16707.14

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 apart from asset purchases. The endline findings on savings indicate change since the baseline. At the baseline not a single household had savings but endline findings show that 91% of households have some amount of savings.

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	41	100	23	100	64	100	3	7.7	3	12	6	9.4
<1000	-	-	-	-	-	-	18	46.2	13	52	31	48.4
1000-5000	-	-	-	-	-	-	16	41	7	28	23	35.9
5001-10000	-	-	-	-	-	-	2	5.1	1	4	3	4.7
10001-15000	-	-	-	-	-	-	-	-	-	-	-	-
15001-20000	-	-	-	-	-	-	-	-	1	4	1	1.6
20000+	-	-	-	-	-	-	-	-	-	-	-	-
Total	41	100	23	100	64	100	39	100	25	100	64	100
Test							X^2=2.730, p=0.604					

In regards to loans, not a single household reported having loans at the baseline while in the endline only 3% of the 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	-	1	1.6	63	98.4	2000
With interest informal loan	-	-	64	100	-	-	-	64	100	-
Formal loan with interest MFI	-	-	64	100	-	-	-	64	100	-
Formal loan with GoB	-	-	64	100	-	-	-	64	100	-
Loan from shomity or CBO With interest	-	-	64	100	-	1	1.6	63	98.4	4000
Other loan	-	-	64	100	-	-	-	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	34	82.5	20	87.0	54	84.1	25	64.1	18	72	43	67.2
Bamboo	1	2.5	-	-	1	1.6	-	-	2	8	2	3.1
Wood	-	-	-	-	-	-	-	-	-	-	-	-
Mud	-	-	-	-	-	-	-	-	-	-	-	-
Tiles	-	-	-	-	-	-	-	-	-	-	-	-
Tin/CI sheets	6	15.0	3	13.0	9	14.3	12	30.8	5	20	17	26.6
Cement/brick	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	2	5.1	-	-	2	3.1
Total	41	100	23	100	64	100	39	100	25	100	64	100
Test	X^2=0.64, p=0.72						X^2=5.209, p=0.157					

Endline findings do not indicate change in the quality of wall material for the majority of households. At the baseline almost all house walls were made of Grass/jute stick/leaves/plastic (84%) and at the endline it reduced to 64% and house walls made of tin/CI sheets increased to 27% from 14%. Furthermore, no change in roof material is reported at the endline.

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	-	-	5	21.7	5	7.9	-	-	4	16	4	6.3
Bamboo	-	-	-	-	-	-	-	-	-	-	-	-
Wood	-	-	-	-	-	-	-	-	-	-	-	-
Mud	-	-	-	-	-	-	-	-	-	-	-	-
Tiles	-	-	-	-	-	-	-	-	-	-	-	-
Tin/CI sheets	41	100	18	78.3	59	92.1	38	97.4	21	84	59	92.2
Cement/brick	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	1	2.6	-	-	1	1.6
Total	41	100	23	100	64	100	39	100	25	100	64	100
Test	X^2=9.44, p=0.004						X^2=7.179, p=0.028					

The house ownership table indicates that during baseline 84% of households lived in their own house which changed at the endline. At the endline, 50% live in their own house while 50% have constructed their house on khasland (14%) and land owned by others (31%).

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	34	82.5	20	87.0	54	84.1	23	59	9	36	32	50
Rented	1	2.5	-	-	1	1.6	-	-	-	-	-	-
Parent	-	-	-	-	-	-	-	-	-	-	-	-
Parent in law	-	-	-	-	-	-	-	-	-	-	-	-
Live rent free with family	-	-	-	-	-	-	-	-	1	4	1	1.6
Live rent free with non family	-	-	-	-	-	-	-	-	-	-	-	-
Own house on khas land	-	-	-	-	-	-	5	12.8	4	16	9	14.1
Someone else's land	-	-	-	-	-	-	10	25.6	10	40	20	31.3
Other	6	15.0	3	13.0	9	14.3	1	2.6	1	4	2	3.1
Total	41	100	23	100	64	100	39	100	25	100	64	100
Test	X^2=6.384, p= 0.094						X^2=4.383, p= 0.357					

Access to safe water

The endline findings regarding access to improved water sources indicates no change.

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	-	-	-	-	-	-	-	-	-	-	-	-
Hand tube well	41	100	22	95.7	63	98.4	38	97.4	25	100	63	98.4
Open well	-	-	-	-	-	-	1	2.6	-	-	1	1.6
Pond-river	-	-	-	-	-	-	-	-	-	-	-	-
Rain water	-	-	-	-	-	-	-	-	-	-	-	-
Purchased water	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	1	4.3	1	1.6	-	-	-	-	-	-
Total	41	100	23	100	64	100	39	100	25	100	64	100
Test	X^2=1.76, p=0.36						X^2=0.651, p=0.420					

Ownership of protected source

At the baseline 23% of households owned protected sources and the majority of households were collecting water from sources owned by others (71%). Endine findings indicate minor changes as now 34% of households own tube wells, which also includes households having shared ownership (9%).

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	10	22.5	2	9.1	12	17.7	11	28.2	5	20	16	25
Shared ownership	3	7.5	1	4.5	4	6.5	4	10.3	2	8	6	9.4
Own by others	26	65.0	18	81.8	44	71.0	23	59	18	72	41	64.1
Not applicable	-	-	-	-	-	-	1	2.6	-	-	1	1.6
Public (Government)	2	5.0	1	4.5	3	4.8	-	-	-	-	-	-
NGO Supplied	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-			-	-	-	-	-	-
Total	41	100	22	100	63	100	39	100	25	100	64	100
Test	X^2=2.20, p=0.53						X^2=1.537, p=0.674					

Sanitation

Endline findings indicate a positive shift in defecation practices since the baseline. At the baseline nearly 16% of households used to defecate in open spaces, 56% of households used to defecate in ring slab latrines and 27% in pits. However, in contrast, endline findings indicate that 84% of households defecate in ring slab latrines and open defecation has decreased to 8%.

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	7	17.5	3	13.0	10	15.9	2	5.1	3	12	5	7.8
Hanging latrine	-	-	-	-	-	-	-	-	-	-	-	-
Pit latrine	8	20.0	9	39.1	17	27.0	2	5.1	-	-	2	3.1
Ring/slab latrine	26	62.5	10	43.5	36	55.6	34		20	80	54	84.4
Complete Sanitary	-	-	1	4.3	1	1.6	1	2.6	-	-	1	1.6
Others	-	-	-	-	-	-	-	-	2	8	2	3.1
Total	41	100	23	100	64	100	39	100	25	100	64	100
Test	X^2=4.85, p=0.18						X^2=6.057, p=0.195					

Electricity

In regards to access to electricity no change has been observed since the baseline regarding connectivity to electricity. At the baseline only 2% of households had a connection to electricity and at the endline it mostly remains the same as only 3% of households reported to have electricity. However, at the endline access to generators was reported by 2% of households.

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	40	97.5	23	100	63	98.4	36	92.3	25	100	61	95.3
Connected to main line	1	2.5	-	-	1	1.6	2	5.1	-	-	2	3.1
Connected to other house	-	-	-	-	-	-	-	-	-	-	-	-
Connected to generator	-	-	-	-	-	-	1	2.6	-	-	1	1.6
Solar power	-	-	-	-	-	-	-	-	-	-	-	-
Others							-	-	-	-	-	-
Total	41	100	23	100	64	100	39	100	25	100	64	100
Test	X^2=0.58, p=0.063						X^2=2.018, p=0.365					

CONCLUSION

The endline findings indicate that the situation of MJSKS beneficiary households have improved in the area of income, expenditure, value of asset, savings and sanitation. However, although 82% of households' income has increased by more than 55%, 42% of beneficiary households still remain below the extreme poverty line. This should not be taken as diminishing the success of the project as it is largely a reflection of the level of extreme poverty of those enrolled on the programme who, despite significant improvements in their livelihood, remain below the HIES threshold which, in 2010, accounted for 17.6% of the entire population.

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 MJSKS, two Focus Group Discussions were conducted in which approximately 20 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; two shiree Young Professionals. 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 process and questions were common the findings have been summarised as one.

BEFORE THE INTERVENTION

The beneficiaries were living in a state of destitution and extreme poverty before they joined the MJSKS project. Many worked as day labourers on a random basis as there is always a scarcity of work in the *monga* region. They often had to go hungry because they could not afford enough food and their children would cry for food. A common finding was that many of the women would work as maids in other people's houses and receive 1kg of rice per day for their labour. They could not afford to send their children to school. With poor sanitary facilities, they were prone to illness and disease. Most were born into families that had never owned cattle before so there was no prior knowledge of how to raise cattle livestock. They had intentions to improve their livelihoods, but with no capital to invest or start earning they had no way of improving their situation.

DAY ONE FGD 1 AND 2:

FGD -1: Conducted at Doldolia, Rajarhat, Ulipur; 8 female beneficiaries

FGD-2: Conducted at Kumorganj, Rajarhat, Ulipur; 9 female beneficiaries

After the Intervention.
The beneficiaries in both groups said that they received cattle, food for feeding the cattle, cattle shelter, support for cross-breeding, support for fodder cultivation, sweet potato cultivation. Some also received rickshaw and rickshaw van, support for repairing houses, goats, duck and chicken. The beneficiaries said that the IGAs were decided by the project staff before the intervention, and that after some initial training they came to know that they would receive a cow. They also said that they were able to select the cattle themselves with their family present. They said that their assets have increased in value and quantity, with some saying that they now have 3 or more cross-bred calves.

One of the beneficiaries from the first group said that they did not have any knowledge about cattle rearing before or A.I. But now they said they have learnt through rearing that one cross-bred calf requires 3 litres of milk every day for its proper nutrition. They also said that many

other well-off people in their community do not raise cattle in the same way that they do. Some of the beneficiaries from the second group said that their husbands have rickshaw vans and do business with this by selling small items. Some of the beneficiaries did note that whilst they are happy and have a 'small dairy farm' now they still do not own any land.

Economic Security.
All of the beneficiaries gave individual accounts of the economic improvements in their lives and the security derived from this. One beneficiary said that she was able to sell milk worth Tk. 18,000 in the last milking period. Another beneficiary said that she has 1 cow, 1 cross-bred calf, 4 goats, 10 ducks and 12 chickens now. She was able to purchase many of the other assets through the income generated from milk selling. Many of the beneficiaries also said that they do not fear in the *monga* season now as they can sell milk, eggs and cow dung to generate an income. One beneficiary said that she would be able to sell a chicken for around Tk. 200 in the *monga* period. Most of the beneficiaries in both groups said that they were able to save regularly now and keep their savings in individual earthen-pot banks. They are able to save around Tk. 5 - 10 every day. In addition to generating income in the *monga* period the beneficiaries said that they are able to secure their basic food needs too.

Empowerment and Confidence.
The beneficiaries said that before people in their community did not use to like them but now give a lot of respect to them. People in the villages regard them more highly now as well as credit-worthy. One beneficiary in the first group said that if she asked for Tk.10 from someone she would receive Tk.500 because she is now seen as having the ability to repay. Another beneficiary said that because they now do not have to think constantly about food they can now think more about other aspects of their lives.

If there are any problems related to cattle or any other issue all of the beneficiaries said they would sit in group meetings to discuss and resolve such issues. Some of the beneficiaries expressed their confidence by saying that they now dream about making a mini-dairy farm by themselves. They also said that there are lots of poor people like them who could also benefit from this project and reach the same status at them. However they also said that they do not individually have the capacity to help others through giving but can dispense useful advice.

IGA suitability.
All of the beneficiaries from both groups described that cattle rearing had been very profitable for them. They saw cattle rearing as a big opportunity. One beneficiary said that she just sold a fully grown cross-bred cow for Tk. 56,000 and was able to invest in land from the money earned. She said that she would not even think about doing something else and recognises that she gets a much higher rate of return from foreign (cross-breed) cows. Most of the beneficiaries said that for 6 months in a year they receive income from their cow through selling milk and cow dung. The beneficiaries said that they spent on average between 2.5 – 3 hours a day looking after their cattle. A typical day for one beneficiary is to clean her house in the morning, feed the cow, go to work, and then feed the cow again in the evening. However, some beneficiaries said their cows had difficulty conceiving. 4 beneficiaries in the second group had their cattle replaced in the first year due to infertility.

The beneficiaries from the second group said that cassava and sweet potato grows well in the area but due to scarcity of land they cannot cultivate these crops much. They explained that water-logging damages these crops. They said that fodder cultivation is much easier in the rainy seasons. However, beneficiaries from the second group said that they do not have land for fodder cultivation and their cows usually eat grass off other people's land. Producing napier grass was highlighted as being problematic. The beneficiaries said that other extreme poor could also benefit from the project. They said the cattle rearing is the most profitable business for them.

Gender Awareness and Household Dynamics.
Four out of eight of the households in the first group are female-headed. The rest of the women described their relationship with their husbands. One beneficiary in the first group said that her husband does what a husband's job involves which in her case was to run a rickshaw van. She said that her job was to do her part which is to look after the cattle. She described this as the normal functioning of the family. In both groups the women said that their husbands were happy because they also received an asset (rickshaw, rickshaw van, small business, etc). One woman said that if a cow was given to the husband then problems would be created because of pride of having an asset but would not look after one properly. Another woman said that not all husbands are good and that they would not look after cattle properly. For example, they might sell the cattle without consulting with their wife.

However, beneficiaries in both groups said that their husbands are happy because they have an asset but also because their wife is also generating an income too. One beneficiary said that her husband loves her more because she was the reason he received a rickshaw. Now that two members have productive assets some of the women said that their husbands stop playing cards and have stopped wasting time idly. One woman said that as they have assets now their husbands listen to them. The women also described that barriers in their society had been reduced and that they now do not feel afraid to work outside.

Improved Health and Nutrition.
The nutritional status described by beneficiaries in both groups has improved. Women in both groups said that their children used to ask for milk before but they could not afford to buy milk for them. Now, in both groups, the women said that their kids consume milk from the milk they get from the cows. They also said that they consume vegetables and eggs regularly too. One woman said that her diet has more vitamins now. Some of the women also said that they can give milk to other people who are their neighbours who do not have access to milk. They also said that they use sanitary latrine everyday and collect drinking water from the nearest government tube well.

Community Engagement and Mobility.
Women in both groups said that how members of the community perceived them had changed since participating on the project. The women said they have progressed "step-by-step". All of the women said they have gained the courage to speak up. Shop keepers used to refuse credit to many of the women but now if they send their children to ask for something they will give it to them and pay later. One woman said that money lenders will give them Tk. 1000 if they ask it of them where before they would refuse. Another woman said that she would get very nervous

whenever she saw local government people but now the UP chairman responds to them if they give salam, where before he would not notice.

Women in the second group said that if there is a marriage in the village people will invite them when before they would not. Some of the women said that people come from nearby villages to see their 'bideshi' (foreign) cow. They receive a lot of demand for the milk that their cows produce. All of the women said that other people in their community could benefit from the project and said they would recommend it to other extreme poor families.

Access to Services and Market Engagement.
Women in both groups said that they get fair prices from milk selling. They said that they compare with other sellers in the market before selling their milk. Women in the first group said that have contact with local milk sellers and ensure they get fair prices. Others said that rich people come to their homes to buy milk and cow dung for fertiliser. They feel they are treated like proper sellers. LSPs are also in regular contact with the beneficiaries and they feel that they do not lack support for their livestock.

Some of the women receive widow and elderly allowance. Some of the women also get work from the Union Parishod in government rural road construction. Many said they are also able to go to medical hospitals and purchase medicine from income gained through selling eggs. They are now able to approach the police without fear if they need to.

Sustainability.
The women said that they have the resources to move forward now and do not suffer during the *monga* period. Others also said that the *monga* days are now over. One woman also said that they are now more careful during the *monga* period. Some of the women said that they are prepared against disasters – they buy food in advance and fodder for their cattle. They said they do this with the rainy season in mind. The women also said that as they have seen many calves born from one cow they know they can get more calves when the original calves have developed. One woman said that she now thinks about the potential price of her cattle before selling on the market. Some women have leased land and sharecrop for cultivating paddy from their own income.

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 were asked to identify challenges they felt the innovation project faced in the last three years. The challenges identified were as follows:

Intervention Challenges:

- Keeping cross-bred calves healthy was a challenge that the project had to overcome from the very beginning of the project since cross-bred calves require higher quantity and quality fodder feed.
- There was a time constraint due to the need of addressing *Monga*. MJSKS proposed to start their project in June, but started in September. The project was initially only for 2 years thus there was extra impetus to get the beneficiaries selected and then get the cattle selected.
- Procurement of cattle in the first month – the project faced technical challenges of selecting heifers that showed good genetic potential
- The project did not have many highly skilled veterinarians at the beginning of the project which caused problems in identification of productive foundation stock.
- 620 cattle were purchased in the first month. Over a hundred had to be replaced (see Chapter 1).
- Changing infertile cows and buying a pregnant cow within limited time was difficult.
- There were challenges growing potato and cassava due to lack of open land; homesteads are small so it was a difficult to grow vegetables on small patches.
- There was a lack of suitable land for fodder cultivation, and as a result beneficiaries received poor amounts of fodder in sufficient to maintain their cattle dietary requirements.

- They found suitable land was lacking for cultivating cassava and introducing roadside fodder cultivation was also difficult.
- Some heifer calves exhibited poor health compared to bull calves as the beneficiaries have a belief that female calves require less milk than male calves.
- After becoming pregnant the health status of cattle deteriorated significantly, and this was the case across the project. After giving birth to a calf, some cattle became sick and could not become pregnant again for a significantly higher amount of time than usual (2-3 months). This was due to insufficient feeding during the last stage of pregnancy, resulting in poor health and delayed conception in some cases.
- There were a limited number of organisers and veterinary officers.

Targeting and working with the extreme poor:

- People in the area are much more accustomed to rearing cattle than in other areas of Bangladesh, but they are not familiar with new technologies like AI.
- A small number of HHs contained old aged and/or disabled members, so careful planning was needed on how they would rear cattle.
- There was a lack of appropriate housing facility/space for livestock in beneficiary houses. As a result, conditions became unhealthy within beneficiary households.

Access to services:

- There were consistent problems of procuring good quality FMD (Foot and Mouth Disease) vaccine from local government, resulting in risk of different diseases leading to mortality and morbidity.

SUCCESSES

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

Intervention successes:

- HHs had a big build-up of assets with strong ownership. Each BHH (up to March 2012) has up to 55,000 BDT worth of assets which is a big achievement.
- Mitigation of *monga* from milk selling and income from supplementary IGAs
- Productivity of "Deshi" cow has improved and cattle fertility also increased in the project
- Very high conception rate for producing artificially inseminated cow – around 68%

Beneficiary empowerment:

- Every beneficiary became an owner of a small-holder cattle dairy farm
- Confidence and awareness of BHHs have been improved significantly
- Increased empowerment and self-confidence - BHHs perception about gender issues increased and are more conscious about their rights
- Beneficiaries are now regularly consuming milk as well as selling milk for income

Access to services:

- High profile visits from UP chairmen and local government.

Spillover effects:

- Two students participated in exposure visits to the project from Chittagong University to learn from the projects successes.
- Better acceptance of the technology and the take-up of the technology by non-beneficiaries in the working area. The local community also became interested in artificial insemination technology for their livestock.

KEY LESSONS LEARNT

Project staff were asked to then reflect on the key lessons learnt over the last three years:

Key lessons learnt on the innovation/intervention:

- The project veterinarian staffs' skills were not sufficient at that stage to select appropriate cattle. In the future it is important to have fully trained veterinarian staff available to assist choosing productive cattle instead of expecting their skills to improve over the course of the project.
- Not all heifers have the same productive capacity for income generation, and the process of checking for reproductive capacity was basic. Only rectal palpation method was used by veterinarian officers with basic experience which was not sufficient in checking for the most reproductively sound cattle.
- It is important to allow beneficiaries to choose cattle alongside veterinarian staff. However, the veterinarian staff must be fully trained and qualified so that they are better able to inform beneficiaries of the choices they make on cattle selection based on expert knowledge.
- Selecting all the cattle at the beginning of the project during the inception phase caused problems later due to the above-mentioned cattle infertility problems. The project would ensure that cattle were chosen over the longer period of time, possibly in batches, to ensure quality of cattle selection.
- Oestrous synchronization using hormones is not needed for all cattle, as some show ability to become pregnant naturally at a particular time of the year.
- Health of cattle is the most important aspect of a livestock project and it is necessary to develop well trained LSPs in the region to carry out basic veterinary health checks when technical staff are not around or unavailable.
- Emphasis on fodder cultivation to ensure that cattle have enough green grass to stay healthy and produce good quantity of milk.

Key lessons learnt on working with the extreme poor:

- Greater awareness is needed to inform beneficiaries of the positive effects of A.I. as they were initially reluctant and unaware of the extra gains from the process, especially as it is very technical.
- Supplementary IGA support in the third year gave quick returns to BHHs to increase their incomes which had been slower than anticipated in the first two years.

REVIEW OF THE INNOVATION

MJSKS submitted its original concept note at the beginning of 2009 and the final project proposal was won as a contract a few months later. As part of Innovation Fund Round 2, the project was initially designed with only 2 years of project activities in mind, but was later extended for a third year. 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 innovation revolved around breeding high value cattle through artificial insemination and oestrous synchronisation technique. Cattle livestock in general requires high quantity and quality of fodder and feed to ensure health and productiveness of cattle. In the original concept note cattle feed was only part of project support for 5 months. With shiree approval this was extended to 8 months. The reason was due to cattle production – cattle were not being fed properly during late pregnancy period, which also reflects beneficiaries lacking experience of the practice of maintaining cattle livestock.

The project did not have any provision for supplementary IGAs. The returns from cattle livestock is over a much longer period, therefore BHHs were not seeing any immediate returns. The project had a package for supplementary IGA in Year-3 for quick-earning. MJSKS staff explained that the idea of small-holder dairy farm requires three or four productive assets. In addition they noted that rearing cross-bred calf requires a lengthier amount of time and time spent caring for cattle. Staff noted that although the extreme poor have the time to tend to the cattle for a long time, supplementary IGAs are needed for maximum returns on the original asset. Supplementary IGAs are needed to supplement incomes as well as to provide enough incomes and resources to feed their cattle.

MJSKS staff explained that although supplementary IGAs were added to the third year, they believe that 2 years is enough for their project if BHHs are properly trained and explained on the benefits of the value of cross-bred calves alongside receiving supplementary support. MJSKS staff further noted that for the extreme poor this requires an additional helping hand as they lack help. Staff also said that the project would have fared far better with the secondary IGA from the very beginning of the project and this would mitigate risks found in the project.

The smaller pilot within the innovation – the 15 BHHs who shared cattle – was a limited success. MJSKS staff said that share-cattle rearing with heifers and cows were very limited in the region and this selecting these 15 beneficiaries was initially difficult. Heifers are already in lower supply than bulls, therefore it was originally difficult to get beneficiaries with a shared-heifer onto the project. The cattle were not chosen by MJSKS and staff noted that it was not a surprise that around 50% of cattle had some problems with A.I. technology. By Year-2 only 4 cross-bred calves had been born from these share-cattle. The calves also did not belong to the beneficiaries but belonged to the share farmer, putting doubts on sustainability of ownership. MJSKS staff were critical of this part of the innovation and explained that this type of technology (A.I.) should not be introduced to beneficiaries on a share basis as most of the benefits do not accrue to the beneficiaries.

CHALLENGES: TAKING THE INNOVATION TO SCALE

MJSKS was asked to identify challenges they may face if they were to take their innovation to scale. One of the first aspects that staff recognized was the need to identify better livestock and to ensure the procurement of good quality heifers. Staff noted that the start of such a project, especially at scale-up, is one of the most important phases as the initial stock of cattle has a significant bearing throughout the rest of the lifetime of the project. Thus, staff reflected that in a scaled-up version of their project they would take sufficient time to choose the correct heifers.

At a larger scale-up the project manager said that a higher number and more experienced field staff would be needed, especially veterinarian staff. This would require in-house training.[9] Staff described that a larger number of well-trained LSPs would also be needed to ensure check-up of cattle on a regular basis. A.I. technicians would also need advanced training to make them more technically competent. These components would be part of working more closely with BHHs as well as monitoring cattle more effectively. To that end, the project manager cited the significance of the pilot mobile-based livestock application monitoring. The project manager noted that the pilot has been successful, and at scale-up this would be the one of the most significant additions to help in the scale-up process – the ability to monitor the health of cattle over a wide area using mobile phones and identifying unhealthy or ill livestock.

At scale-up the staff explained limitations of choosing heifers in the working area would need to be addressed. The project manager said that purchasing of heifers would be procured in different areas if the working area was expanded but there could be differences in price of cattle in different working area. Staff said that a challenge in scaling up would be the time needed to choose a very large number of quality heifers that show potential for A.I. Increased support for fodder and feed would also be essential. However fodder cultivation was a problem on this project and would be a problematic at scale-up as beneficiaries had no land. Staff noted this would need new modalities such as share-cropping for fodder, something that MJSKS has been working on recently. Staff said this type of initiative would need to be taken at the very beginning of the project. In addition, milk marketing at scale would pose some challenges. The staff described that whilst there are enough milk companies for collecting milk, the potential of milk souring during transportation would be a larger problem at scale.

At a scale-up MJSKS would need to show economies of scale and reduce costs per beneficiary, especially as the project has one of the highest direct transfers to beneficiaries. MJSKS said that reduced direct costs would not sustainably lift beneficiaries out of extreme poverty and that to get a big impact such a project needs to allocate a proportionate budget to reflect this. The project manager said that this type of project needs a higher budget since cattle is more expensive. The project manager also explained that selecting beneficiaries would not be a problem in an expanded working area, but that the proliferation of micro-credit in the region would pose some challenges in choosing the right beneficiaries.

[9] Note from MJSKS: MJSKS has already developed very good relationships with renowned veterinary teaching and training institutes in Bangladesh; they have developed requirements for the veterinary technical training and it would become a guideline for staff development if the project went to scale.

Conclusion: Progress Against Logical Framework

Hierarchy of Objectives	Verifiable Indicators	Means of Verification	Achievement	Assumptions
Goal: Government of Bangladesh MDG targets 1 and 2 on poverty reduction and hunger achieved by 2015.	Reduction in the proportion of people living in extreme poverty from 28% in 1991/92 to 9.5% by 2015, in line with PRSP targets.	Government of Bangladesh, National MDG-Report, UNDP and World Bank statistics.		
Purpose: Extreme poor households have sustainably eliminated hunger during Monga period in Ulipur and Rajarhat Upazilas. **Immediate objective:** Extreme poor households have developed smallholder dairy farms while oestrous synchronization adopted by wider community.	1. 80 % of 635 women do not work as maidservants from the second year of the project. 2. 90 % do not apply for non-institutional loan at the end of the project. 3. Per annum income increased on average by 50% at the end of the project for 80% of participating families. 4. Seasonal migration reduced by 50%in participating household during the second Monga period of the project. 5. 90 % of the target	1. Base line survey. 2. External evaluation. 3. Project end survey.		1. Any outbreak of cattle diseases can be contained by project activities and Government support.

Hierarchy of Objectives	Verifiable Indicators	Means of Verification	Achievement	Assumptions
	households grow cassava and sweet potato in home gardens in the second year of the project. 6. 80% target households profitably operate livestock enterprises. 7. 20% of existing cattle rearing, non poor households has adopted oestrous synchronization technology			
Output: **Output 1:** 620 reproductively sound cows/heifers and immediate *Monga* need support distributed to 635 participating households.	1. 65% target households own two prosperous livestock at the end of the project. 2. 100% has received cash transfer of Tk.750 per month for three months at the start of the project (*Monga* period). 3. 100% households received Tk.500 for cattle sheds, and cattle feed for three months worth Tk.400	1. Monthly monitoring format. 2. Union parishad (data). 3. Participatory monitoring and evaluation. 4. Physical verification. 5. Project Veterinarian's monitoring report. 6. Pass book retained by	**Output 1** **100%** (635 BHH) received *monga* support just after final beneficiary selection in Nov '09 **100%** (635 Cow/heifer) were selected by physical inspection for health and reproductive soundness by veterinarians. **34.33%** (218 cattle) were replaced by pregnant cattle; 100% of these were selected by Rectal Palpation.[10] **100%** (635) BHHs have developed knowledge through skill	1. Semen procured from the Government's DLS and BRAC are of required quality. 2. People can be motivated to accept new food items.

[10] After initial purchase of cattle some of the cattle showed reproductive problems. To mitigate this, the project replaced the problematic cows/heifers with pregnant cattle.

Hierarchy of Objectives	Verifiable Indicators	Means of Verification	Achievement	Assumptions
Output 2: Estrous synchronization and Artificial Insemination technology disseminated to direct and indirect beneficiaries.	per month. 4. Additional cattle feed support for two months received by 100% household during cattle pregnancy 5. 85% of the heifers/cows Artificially Inseminated of which 60% with induced estrous synchronization. 6. 80% cows came in production during *Monga* period. 7. 60% of cattle gave birth to cross-bred calves after 280 days of insemination. 8. Milk production increased on average by 25% in the second year compared with the first year of the project. 9. 35% of the adult non-poor in the community is aware of the technology and willing to pay for the services.	beneficiaries. 7. Purchase receipt from DLS or BRAC. 8. Selling register or voucher of DLS. 9. Copy of Hasil	development training and inputs from project for Napier grass cultivation. **99.21% (630)** BHHs supplementary IGA procurement was completed assessing beneficiary households' skill and choice. **Output 2:** All 4 inception workshops conducted with all the relevant stakeholders. **27** groups were formed including all **635** beneficiaries. **100%** (635) beneficiaries oriented on project interventions. All types of necessary vaccinations and deworming of cattle and calf were completed according to plan. Routine vaccinations and deworming of cattle conducted by LLW's (Local Livestock Workers) except FMD vaccine of Cattle though FMD vaccine of calf was done.[11] **794** Cattle were treated for ailments. Treatment for diseased cattle done by Local Livestock Workers (LLW) under guidance of Project Veterinary	

[11] Supply of FMD vaccine is limited from DLS.

Hierarchy of Objectives	Verifiable Indicators	Means of Verification	Achievement	Assumptions
	10. Napier grass available at 80% households		Officers. **76**% (339) with induced estrous synchronization.[12] **71.5**% of the heifers / cows (**454**) were Artificially Inseminated by BRAC trained AI Technicians working in the project union. [13] **100% (635)** beneficiaries received Skill Development Training on cattle rearing from the Project. **66.14% (420)** cattle had repeated AI by Technicians. According to a survey data of April'12 **(38%) 498** BHHs have adopted Artificial Insemination (AI) technology and **86%(1136)** are willing to adopt technology on payment, **2% (26)** of non poor owners adopt Estrus Synchronization Technology while **53% (707)** of the non poor cattle owners are willing to adopt technology on payment.[14] 11 learning days were arranged with all working areas where non poor cattle rearing farmers of the	

[12] 25% (157) were pregnant during purchase.
[13] 25% (157) were pregnant during purchase.
[14]A cross learning visit was arranged by the project for adaptation of these technology among non poor households.

Hierarchy of Objectives	Verifiable Indicators	Means of Verification	Achievement	Assumptions
Output 3: Knowledge and inputs disseminated on home gardening of tuber crops to 635 households.			community received technical support.[15] **Output 3:** Leaflet developed and disseminated among community people and beneficiaries. Also campaign conducted for production and consumption of Cassava. Displayed food items produced from cassava organised through Learning Days & Krishi Mela. **100% (635)** beneficiaries received training on cultivation and production techniques of tuber crops, sweet potato and cassava. **77.79%** (494) Women of the BHH cultivated sweet potato and 30.55% (194) BHHs have cultivated cassava.[16]	

[15] Second round of learning days was organized with the same 11 villages.
[16] BHHs have no adequate space to cultivate these items.

Annex: CMS 2 and CMS 4 Findings

CMS 1 BASELINE SUMMARY

Household Target:	**635**			**(No.)**	**(%)**
CMS1 records available:	635		**Total Household Members**	1,745	
Average HH Income:	1010.7	*Tk. per month*	**Average HH Size:**	2.7	
Average HH Expenditure:	1072.9	*Tk. per month*	**Male Headed HH**	367	57.8
Average HH Land:	3.2	*decimal*	**Female Headed HH**	268	42.2
Khasland	0.2		*No of under 5 children*	245	
Owned land	1.7		*No. of under 18 girls*	303	
Not Owned land	1.3		*HH having disabled member*	86	8.5

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 MJSKS beneficiaries was a part of the pilot study of CMS2. Therefore, the data tracks 600 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 fall of 2010 and MJSKS has only carried out CMS 4 three 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 will provide 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 MJSKS 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:

Economic = Income + Expenditure + Savings + Asset Bought

A monthly Economic index value for MJSKS 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:

Socio-Economic= Income+ Expenditure+ Savings+ Asset Bought+ Health+ Confidence

A monthly Socio-Economic index value for MJSKS 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:

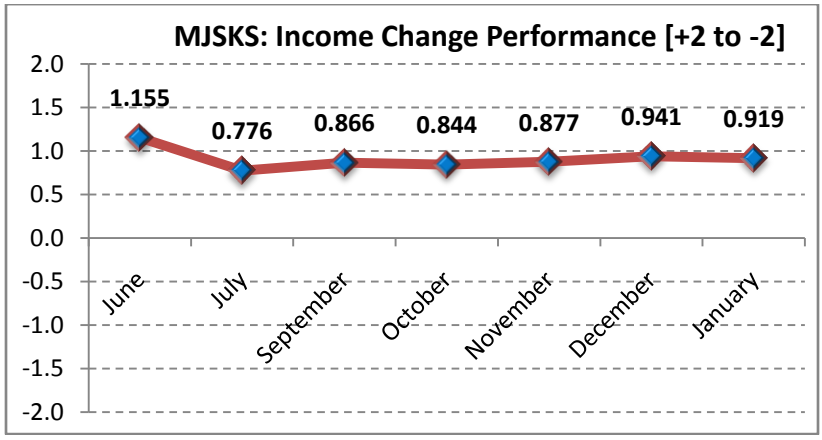
Decreasing Fast				Decreasing Slowly				Same	Improving Slowly					Improving Fast				
-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

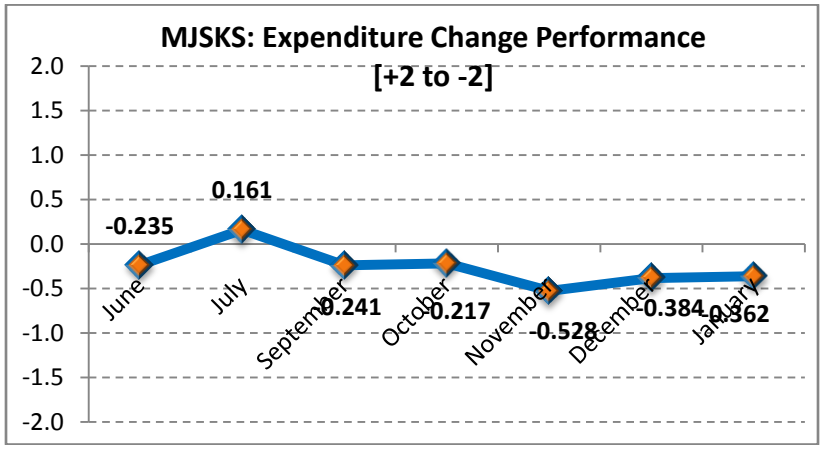
SUMMARY FINDINGS FROM CMS 2: JUNE 2011 TO JANUARY 2012

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
MJSKS	**0.916**	**-0.271**	**1.602**	**1.858**	**1.494**	**4.953**	
June	1.155	-0.235	0.926	1.789	1.663	4.378	**608**
July	0.776	0.161	1.290	1.835	1.672	4.796	**442**
September	0.866	-0.241	1.633	1.879	1.699	5.211	**627**
October	0.844	-0.217	1.743	1.864	1.520	5.127	**623**
November	0.877	-0.528	1.806	1.844	1.272	4.922	**551**
December	0.941	-0.384	1.854	1.876	1.323	5.054	**591**
January	0.919	-0.362	1.894	1.907	1.325	5.127	**616**

INCOME AND EXPENDITURE: CMS 2 AND CMS 4

CMS 2

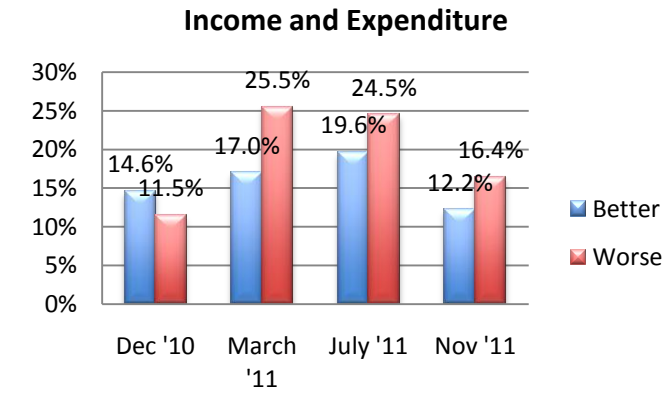




CMS 2 indicates that the majority of BHHs have seen positive changes in income since June 2011. However, changes in expenditure are shown to be negative, with slight decreases in expenditure from September through January.

These findings agree with CMS 4 which shows negative responses concerning changes in income and expenditure.

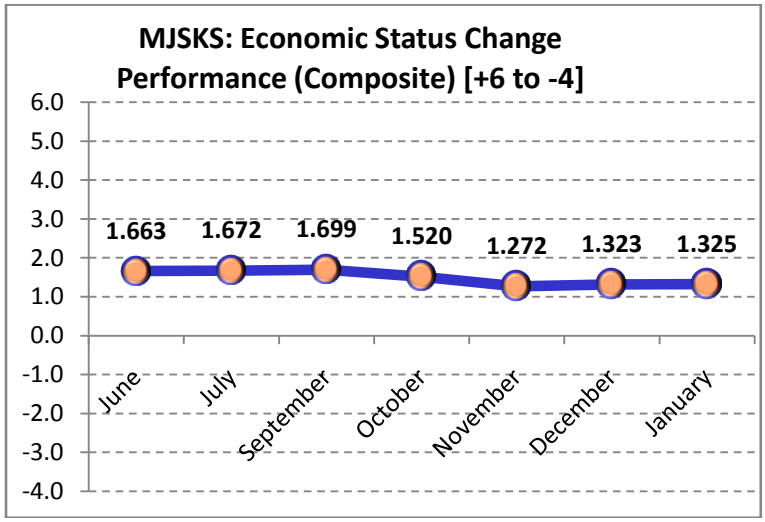
CMS 4



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 mostly negative responses from BHHs with an average of 20 percent claiming both income and expenditure are worse than before.

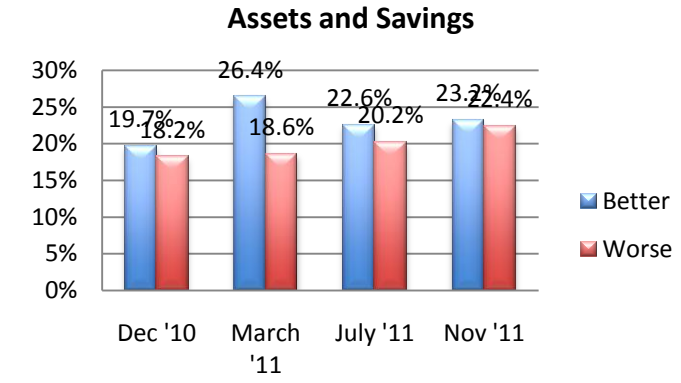
SAVINGS AND ASSETS: CMS 2 AND CMS 4

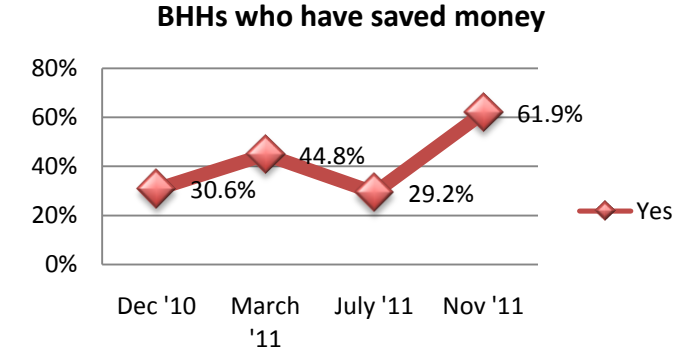
CMS 2



CMS 2 for composite changes in economic status, including: income, expenditure, cash savings and assets bought show positive, yet slight changes from June 2011. There is a drop in November 2011 through January 2012, correlating with a decrease seen in expenditure during that time period.

CMS 4



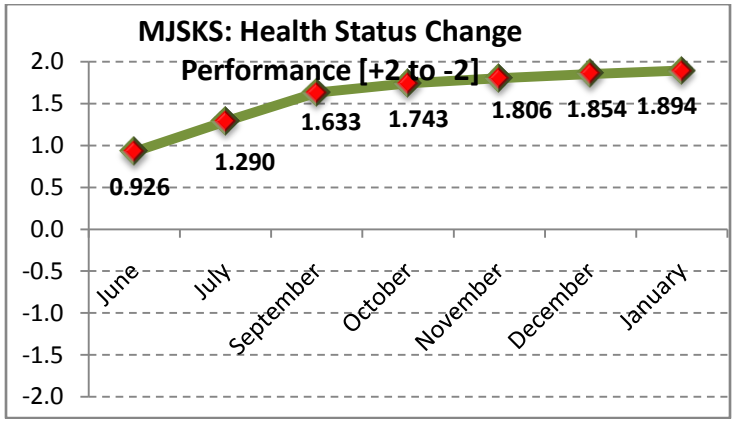


CMS 4 asked BHHs on a quarterly basis whether or not their assets and savings were getting better or worse. The first chart indicates a similar percentage of BHHs feel that assets and savings are both better for approximately 25 percent of BHHs as well as worse for about 20 percent of BHHs, with little change over the year.

The second graph shows the percentage of BHHs who have saved money. There has been an increase in savings from Dec. 2010 and Nov. 2011, with nearly 62 percent of BHHs saving money in the last Quarterly Change Report.

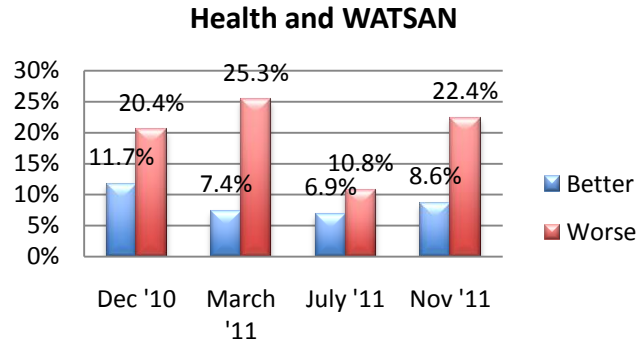
HEALTH STATUS: CMS 2 AND CMS 4

CMS 2



CMS 2 indicates that the majority of BHHs have seen improvements in health status, with respondents indicating slight positive change in June 2011 and by January 2012 indicating great positive change in health.

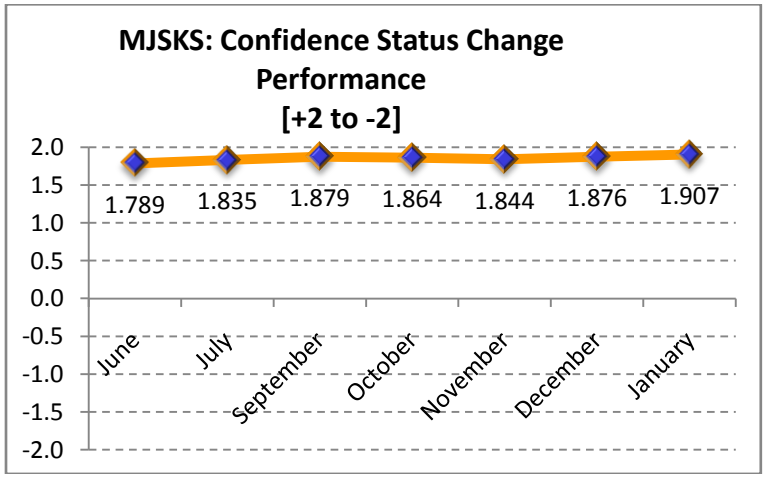
CMS 4



CMS 4 asked BHHs on a quarterly basis if their health and WATSAN was improving. The graph indicates that BHHs have found both health and WATSAN to be a problem throughout the project with little improvement since monitoring began.

CONFIDENCE STATUS: CMS 2 AND CMS 4

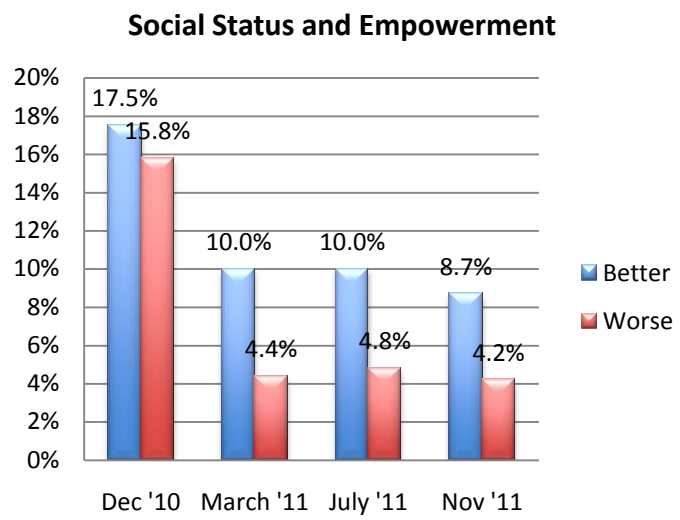
CMS 2



CMS 2 indicates that the majority of BHHs have seen significant improvements in their confidence levels since June 2011.

This is similar to CMS 4 findings which show the majority of BHHs indicating their social status and empowerment levels are improving from Dec. '10 to Nov. '11.

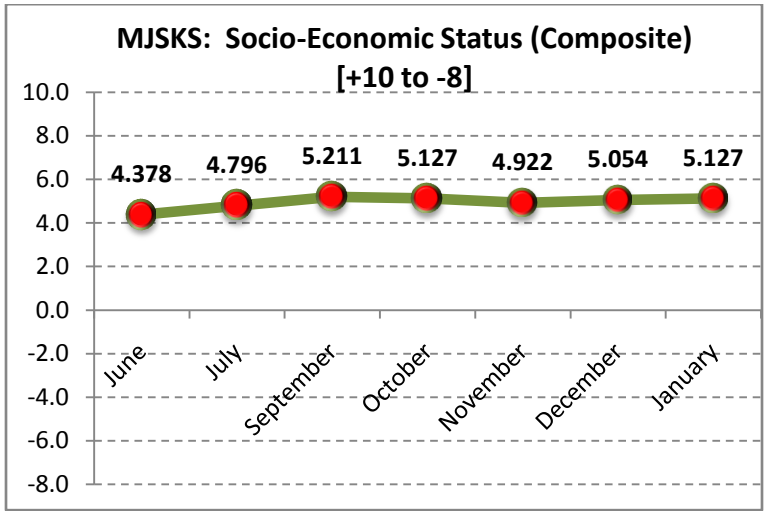
CMS 4



CMS 4 asked BHHs on a quarterly basis whether their social status and empowerment was getting better or worse. There has been a low level of positive responses over the last four quarters. However, there has also been a very low level of negative responses, indicating that most BHHs feel their situation has stayed the

SOCIO-ECONOMIC STATUS: CMS 2 AND CMS 4

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 with a steady increase in the rate of change through January 2012- 4.4 to 5.1.

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 MJSKS 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 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
Holding of Project Closing Workshops	MJSKS wants to hold Project closing workshops with Upazila, Union, ULO, LLW, AI Technicians relevant government departments Outcomes: ▪ UP and other stakeholders well aware of the progress status of the Project BHH ▪ Stakeholders are certain about the further support required for the BHH ▪ All relevant stakeholders take the responsibility of further development and sustainability of the Project BHH Discussion/Aim: ▪ Project provided IGAs with technology and sustainability ▪ Asset generated by BHH and protection (there will cattle show of beneficiaries cattle during workshop) ▪ Role of UP and other stakeholders at project closing ▪ Consensus on the conditions cited in the MOU
Treaty signing with UP's on responsibility taking of the BHH	MOU will be signed during project holding workshop. ▪ All the 4 UP's will be informed earlier about the project holding ▪ Continuous support required by these beneficiaries for the sustainability of their graduation will be strongly cited in the MOU ▪ Special emphasis will be provided on the safety net supports required by the eligible BHHs ▪ Draft MOU will be shared with each UP before signing ▪ MJSKS will handover beneficiary list including all relevant documents to respective UP's along the MOU
Accessibility of the service Local Livestock Workers (LLW)	MJSKS has developed 7 LLW from the local community. They will help beneficiaries with deworming, vaccinations, and treatment of their cattle with payment. Project has intensively trained these LLWs and made the scope to deliver livestock services to the BHH and other farmers on payment. In fact, the project has developed cash payment systems including the amount for some specific services like deworming and vaccinations for LLWs.
Linkages with BRAC and ULO office	MJSKS has already established informal linkages with ULO and BRAC. BHHs will receive AI and Estrus Synchronization services on payment

Market linkages-establishing milk collectors	MJSKS developed eight milk collectors for the marketing of milk. All the milk will be sold from them. Profit of the collectors are settled with the discussion between farmers and the collector.
Beneficiary group meetings and attaining individual and group problems	MJSKS core strength; STEP-UP Project; CSMRDV project; TSTPD project. ▪ Firstly there will be one focal person from MJSKS responsible for these beneficiaries ▪ These projects will periodically monitor beneficiary group meetings which will be carried out by the participants for 6 months or more ▪ MJSKS focal person's phone number will be disseminated to all of these beneficiary groups so that they can call for difficulties which they are unable to handle by themselves ▪ MJSKS has already established mechanism to resolve bigger problems in beneficiary groups; where local elites, UP member and Chairman are usually involved to resolve. In such bigger problem UP will be informed by the beneficiary group for resolution
Asset protection and growth	MJSKS expects that Union Parishod & Respective Beneficiary group will be responsible for their asset protection and growth. ▪ Project will officially handover the list of beneficiary including productive asset owned by these beneficiaries ▪ Beneficiary group will see each other for their asset protection; where necessary they will seek the assistance of UP
WATSAN	Union Parishad & MJSKS (TSTPD Project-till project period) MJSKS has already developed linkage between MJSKS's TSTPD Project (Working exclusively on WATSAN) and these project beneficiaries. Union Parishod will also assist BHH in WATSAN.
Health Services	Union Parishad & Government health department will support BHHs regarding health services Officials of the Government Health departments will be strongly informed about the health service required by these BHHs
Categorization of the beneficiaries	MJSKS will sort all its project beneficiaries; 1. Graduated 2. Needs support for sustaining graduation Separate list of beneficiaries those needs more support for sustaining their graduation including additional action taken by MJSKS will be provided to respective Union Parishods for support and monitoring. MJSKS focal person for these beneficiaries will pay special attention for the second group of beneficiaries.

Annex: Financial Overview

Budget Line	Total Contract budget	Total Expenditure as on Jun'12
Human Resource Cost	7,199,257	6,659,321
Travelling Cost	149,247	121,775
Vehicles & Equipment	1,069,165	1,069,165
Office Rent & Utilities	501,648	460,519
Administration cost	620,929	514,497
Operational Cost	627,517	524,326
Direct Delivery to Beneficiaries	21,400,349	21,126,281
Total Direct Cost	**31,568,112**	**30,475,884**
Contingencies	631,362	-
Management Cost(Over head)	143,745	609,515
Total Cost	**32,343,219**	**31,085,399**
No of Beneficiaries		*635*
Total cost per BHH		*50,934*
Direct cost per BHH		*32,911*

Note: Amount in BDT

Annex: Case Study

Ankita (46) is from Dhekiaram, one of the poorest and monga prone villages of Pandul Union, Ulipur Upazila of Kurigram District. The poverty level of the village is over 60% and most of the villagers are caught in the vicious cycle of poverty including various social problems. Ankita lives beside Kurigram-Chilmari railroad track with her two sons, one daughter and her husband, Afzalur. Ankita used to work as a maid servant in a rich villager's house. Her husband is an agricultural day labourer planting and harvesting crops. During the off-season he struggles to find work and is often forced to migrate elsewhere, leaving his family alone and vulnerable. When there is work, they can afford two to three meals a day, but during the lean period they can barely afford one meal a day and often have to go to bed hungry. Their crisis was so severe that Ankita and her family didn't have sufficient clothing for themselves. She failed to continue her children's education and had to marry her daughter at an early age. She said, "We used to share two servings among a family of five during crisis periods".

Two years ago, an MJSKS field officer found Ankita and discussed her problems and possible solutions with her. She was brought on as a beneficiary and received training on cattle rearing, one heifer worth BDT 16,950 and input support. She also received BDT 2,250 for cash support during the first year monga to help her family survive the food crisis when there was no production from the cow.

With the financial and technical assistance from MJSKS her cattle received AI and gave birth to a calf nine months later. Her husband was able to milk the cow regularly and received an average of 4 litres of milk a day that they could sell at the market for 30 taka/litre. They began setting aside savings for their future. Her cow gave birth to a second calf that further ensured their livehood. "I will have a number of good milk producing cows in upcoming years", she said with confidence.

Her daughter was married off at an early age. She now admits to making a mistake and realizes the importance of education for her other children. She is also conscious of her family's health and sanitation. Her family uses a sanitary latrine and has access to safe drinking water. Her community has also developed a good relationship with the UP and can discuss any problems and ask for support when needed.

Talking about her future Ankita narrates, "I want to have a place of my own. I would like to buy a small piece of land and construct a good house by selling the bull calf after a year. When my husband used to migrate to town for work leaving me and my children, I felt helpless. I did not know what I would have happened if my family was not picked by MJSKS. Anxiety and fear always haunted me." After her experience with the group she is able to say with determination "Now I know I can also rely on my group for help and support. If we can work together, we can solve all of our problems one by one."

Ankita is now the proud owner of three prosperous cattle worth BDT 130,000 and leads a comfortable life from selling 4 litres of milk every day.

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