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Lesson Learning Report: Women Onset Technology for Sustainable Homestead Agriculture in Bangladesh (WOTSHAB)

EEP/shiree

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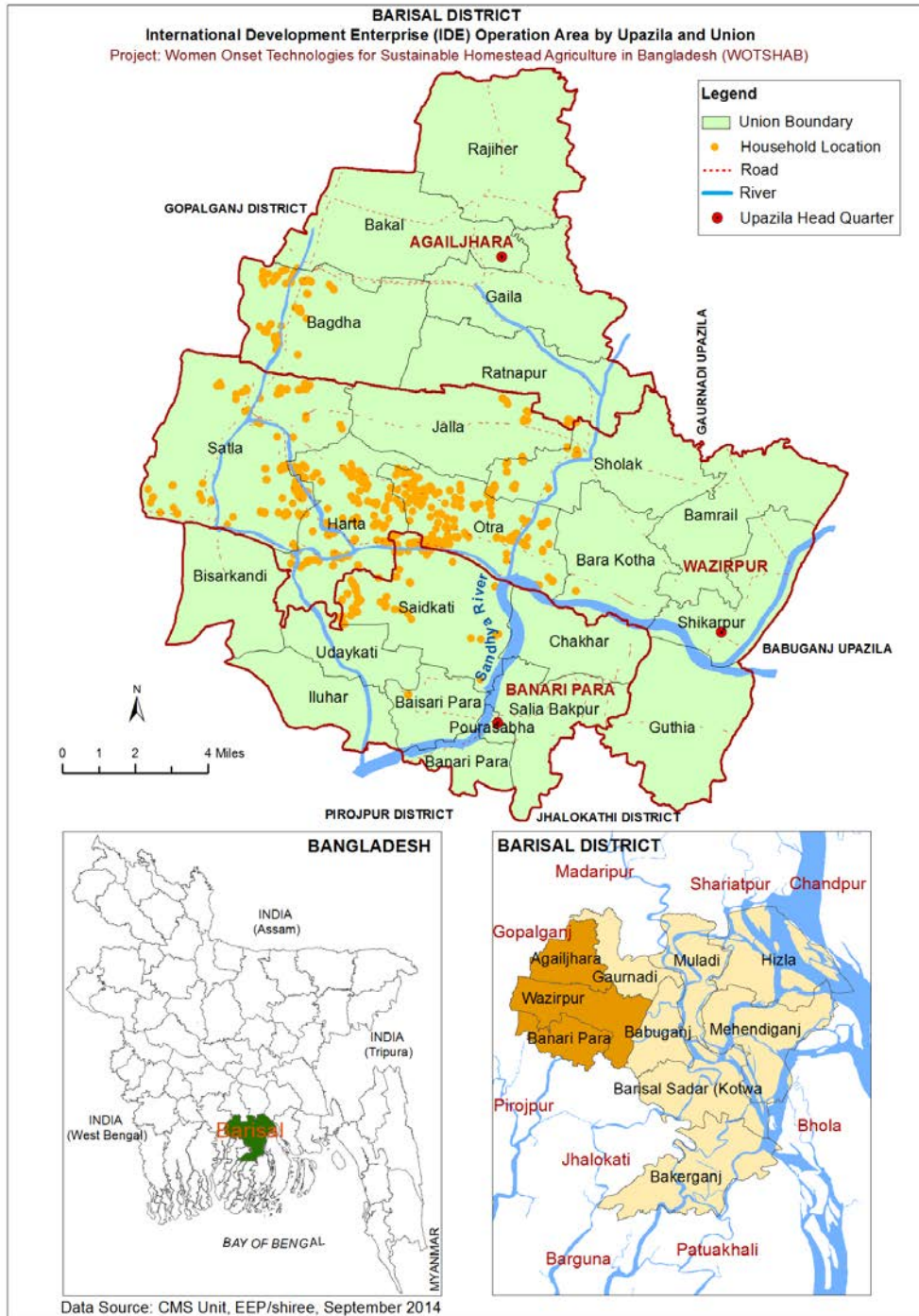
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Project Area Map:



List of Acronyms

BHH - Beneficiary Household

CCT - Conditional Cash Transfer

CF - Community Facilitator

CMS - Change Monitoring System

DAC - Development Co-operation Directorate

DAE - Department of Agricultural Extension

EEP - Economic Empowerment of the Poorest/Shiree

FGD - Focus Group Discussion

GoB - Government of Bangladesh

HIES - Household Income and Expenditure Survey

iDE - International Development Enterprise

IF - Innovation Funds

IGA - Income Generation Activities

KII - Key Informant Interviews

LLR - Lesson Learning Report

NGO - Non-Governmental Organisation

M&E - Monitoring and Evaluation

MDG - Millennium Development Goal

Shiree - Stimulating Household Improvements Resulting in Economic Empowerment

SWOT - Strength Weaknesses Opportunities Threats

OECD - Organisation for Economic Co-operation and Development

UNDP - United Nations Development Programme

WOTSHAB - Women Onset Technology for Sustainable Homestead Agriculture in Bangladesh

Executive Summary

Under the umbrella of Innovation Fund Round Four of EEP/Shiree, Women Onset Technology for Sustainable Homestead Agriculture in Bangladesh (WOTSHAB), was launched in June 2012 and managed by International Development Enterprises (iDE) to lift one thousand extreme poor households living in the Barisal district out of extreme poverty. WOTSHAB suggests the root cause of poverty in this area as the increasing infertility of the soil due to climate change in the region, namely the raise of the salinity level in the soil due to continuous flooding. The effect of climate change has impacted the dominant economic sector, agriculture. Even though the poor have little access to productive land, the negative effect of climate change on the agricultural sector has greatly reduced the agricultural wage/labor opportunities available to them. Consequentially, the moderate poor households fell into extreme poverty, being pushed to consume less than 2 meals a day. These drastic fall of income have particularly affected the condition of women and adolescent girls in poor households who suffer of severe malnutrition and precarious physical health. In order help them the project has developed above-ground homestead production technologies as an adaptation to rising salinity levels and heavy flooding during the monsoon season. The main innovation is the Sag Bag, a simple technology that uses good quality soil and fertilizer in polymer bags that can be easily moved in a safe location (such as rooftops) in case of floods. Beneficiaries, women in extreme poor households, are supposed to grow vegetables in order to improve their nutrient intake and raise their income by selling the surplus on the market. Training on agriculture best practice and market development initiatives supports these innovations. A lesson learning process was undertaken to capture the key learning from the project utilizing the Organization for Economic Cooperation and Development (OECD) benchmarks.

Findings

The project was able to graduate 95% of beneficiaries from extreme poverty based on the endline survey conducted in May 2014 (64 households sample). At the end of the project, households had a mean average of 6,900 BDT savings and 20,000 BDT of assets with more than 82% of household having at least two sources of income. Women's empowerment was a significant achievement of the project, with the majority surveyed having 'major' or 'main' influence on decision making in their households in all categories asked. 79% of women reported having a 'main' influence on how to use their time for work and feel confident about the future. The project targeted only women and 32% are female-headed households. Despite this evidence of social empowerment in women, there was a visible difference of 30% between the incomes of male-headed household and female-headed.

Lessons Learned

- (1) The use of above ground technology is effective
- (2) While implementing a project based on above ground technology, the size and position of beneficiaries' houses and household composition matter
- (3) When evaluating an innovation, consider the household consumption/expenditure and nutrition indicators together with income.
- (4) Helping beneficiaries without causing dependency to the NGO

(5) Having multiple livelihood opportunities is an important source of sustainability and resilience.

Recommendations for WOTSHAB program

- (1) Engage beneficiaries with civil society and the local government
- (2) Strengthen the monitoring of beneficiaries

Recommendations for local governments

- (1) Promote gender equality through legislation

Section 1 Background, Purpose and Methodology

1.1. Background

Economic Empowerment for the Poorest (EEP)/*Shiree* is a partnership between the Department for International Development's UKAID, the Swiss Development Cooperation and the Government of Bangladesh (GoB). This report details the lessons learned from the project Women Onset Technologies for Sustainable Homestead Agriculture in Bangladesh (WOTSHAB) implemented by International Development Enterprise (IDE) between October 2011 and September 2014. This project, in line with EEP/Shiree programme approach to lift 1 million people out of extreme poverty by 2015, aimed to lift 1000 women in Barisal district out of extreme poverty, with a special focus on widows, abandoned women and women with a large number of children. The project was selected by an Independent Assessment Panel (IAP) and forms part of the Innovation Fund (IF) round four projects of EEP/Shiree. The main theme for IF round four projects is to achieve **sustainable impacts** in the lives of the most vulnerable and socially excluded groups: women, working children, the elderly and the disabled. 8 NGO projects were selected of which the total value of contracts was £2,452,233 with 7,600 beneficiaries.

1.2. Purpose

The main purpose of this Lesson Learning Report (LLR) is to encapsulate lessons learnt throughout the project that captures the perspectives of its stakeholders. The report also benchmarks findings against project outcomes outlined in the Logical Framework and follows the DAC Principles for Evaluation of Development Assistance (1991).

The objective of the report is to:

- identify the key factors contributing to performance, including initial project design, project management, delivery, and re-direction of the project following EEP/Shiree's inception review and subsequent innovation review at implementation stage;
- highlight the lessons learnt in the implementation of innovative measures aimed at ultra poverty eradication in Bangladesh by reviewing the successes and failures the programme met with.
- define the extent of the impact (positive and negative) that is likely to be sustained by the project, and any approaches/tools that were useful in management and delivery of components of the programme;
- identify recommendations for: (not in any particular order)
 1. The project team so as to furnish baseline information for future initiatives
 2. Other NGOs and development practitioners so as to share, promote and influence good practices, aiding in the scaling up of successful practices and the correction of practices found to be ineffective
 3. Government of Bangladesh's so as to influence future policy choices aimed at the betterment of the extreme poor

1.3. Methodology

The overall methodology is based on a participatory approach using both quantitative and qualitative data and is detailed below. The report further utilises an approach that focuses on contributions to change, rather than directly attributing all results to the project's activities, as change is not linear and is a culmination of multiple factors (UNDP, 2014).

The data collection was conducted through a review of project documents, through selected key informant interviews (KIIs) with stakeholders, site visits and observations, an independent endline survey, semi-structured focus group discussions (FGDs), case studies collection and life history collections. The ensuing triangulation of data ensures that consistent findings are supported by credible evidence and includes: source triangulation, method triangulation, researcher triangulation and debriefing after field visits as well as the sharing of draft reports to implementing partner NGO's project team as part of the validation process.

Key Methods used in this report are as follows:

1. Review of Documentation

Internal and External documents were reviewed, including: project memorandum, contract agreement, inception report, project activities log, monthly, quarterly reports and self-review reports, other Monitoring and Evaluation (M&E) reports outside of EEP/Shiree Change Monitoring System (CMS), financial statements, internal and audit report, EEP/Shiree field reports, Change Monitoring System (CMS) 1 (baseline), CMS 2 (real-time monthly snapshot), and CMS 4 (participatory review), EEP/Shiree quarterly and annual reports, and Independent Assessment Panel (IAP) selection report. External documents reviewed are listed in the reference section. Key documents on soil salinity and sustainable livelihood issues in Barisal were reviewed to further understand the context where the project operates.

2. Initial Field Trip and Stakeholder Interviews

The first field trip was made from 11th to 13th August 2014. One FGD was conducted with 17 Beneficiaries Households (BHHs) that received the project in the first year (Rajapur para, Shatla Union, Uzirpur Upazilla), and one CMS 4 session was observed in Puchi Moshang Para with 9 BHHs. A meeting was conducted with the Project Team on the first day with 3 project team members (Abdul Mannan - PM, Enaid Hassen - Training Officer, and Khondokad Easin M&E), and another meeting was conducted with Community Facilitators (CFs) the following day (5 female and 1 male, 1 is on maternity leave) (note that each CF covers on average 120 - 197 BHHs). Findings from the FGD were debriefed with the project team above and field report was shared.

3. Second Field Trip, KIIs, FGDs and Reflection session with Project Team

The second field trip took place from 23th - 26th September 2014 and covered 3 FGDs purposively selected in the Agailjhera, Banaripara and Wazirpur Upazilas. The beneficiary households (BHHs) have been purposively selected based on several common indicators in CMS2 such as income declining, no savings, less than 5 steps out of extreme poverty reported, female headed households, only one source of income, and business doing well. FGDs were conducted with approximately 21 female beneficiaries (7 beneficiaries per FGD) out of which 11 were female household heads. Each FGD took around two hours and was conducted by Masud Rana (Senior Programme Manager, EEP/Shiree) and Marie Sophie Pettersson (Gender Adviser and Programme Analyst, EEP/Shiree). Selected interviews have been conducted with local elites and local buyers with whom market linkages were created (e.g. for seeds and livestock supplements at lower pro-poor prices). A reflection session with IDE project management & Project Staff was conducted in three hours with 7 members in attendance.

4. Formal Surveys – Endline to Baseline Survey

Both baseline and endline survey were conducted to collect standardised and comparable information from 64 randomly selected households. The endline survey seeks to establish the efficiency and effectiveness of these innovation modalities in uplifting people from extreme poverty by comparing and assessing the socio-economic changes of the project beneficiaries towards the end of the intervention with their condition before beginning project activities.

Data collection & Method: The baseline survey used a multi-module questionnaire on household socio-economic conditions, including assets, income and expenditure, loans/savings, food security and empowerment. The endline survey questionnaire contains additional modules specific to the innovation. Field work for the baseline survey was conducted April-May 2012 and May 2013, and the endline survey was conducted in September 2014. Field teams at baseline were comprised of eight community organizers and with oversight by four project staff, and at endline the field team consisted of six trained enumerators, two research associates from EEP/Shiree scale fund projects as auditors and the process was monitored by two M&E staff of EEP/Shiree CMS unit. Data for both surveys was collected using piloted, paper-based questionnaires. Data entry for the baseline was done by project staff using online database developed by EEP/Shiree, while endline data entry was done by CMS unit of EEP/Shiree and one research associate from scale fund NGO.

Sample: The baseline survey was conducted for all beneficiaries before beginning project activities, totalling 1000 beneficiary households. Using the baseline as a sampling frame, the endline survey was conducted on a random sample of 64 households using cluster stratified randomization by location (district, village and para level).

Graduation from extreme poverty is based on an index of multi-dimensional socio-economic indicators from which a household is deemed ‘graduated’ if it meets a set number of indicators, which differ according to rural and urban settings (see Annex 7). The index is primarily used to determine the intervention impact and examine shortcomings, monitor sustainability, and give a practical meaning to the concept of extreme poverty eradication as 100% graduation.

Limitations of this report:

There are a number of practical problems associated with collecting feedback from marginalised groups, which requires careful planning and closer facilitation. The FGD selection covered the 3 Upazilas where more than 90% of BHHs reside. Both year one and two beneficiaries have also been selected. The findings will be generalised based on the 3 FGDs selected.

The data for end-line survey was collected during the same time period, but the baseline data was collected as beneficiaries were phased in at different times of the year and during different seasons. 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 excludes the selection of those BHHs not included in CMS2 for FGDs and indicators for selection are based on CMS2 indicators only
- Reports and data available from the partner NGO were mostly input and activity oriented, which limited their usefulness in evaluating the outcome of the project.
- Endline survey did not include indicators specific to the innovation

1.4. Format of the Lesson Learning Report (LLR)

A similar process has been followed during the preparation of each IF round four LLR. The report is presented in five sections. **Section One** provides a background on the purpose and methodology of the report. **Section Two** gives a brief introduction to the project's context and content, its main innovations, theory of change and Strength Weaknesses Opportunities Threats (SWOT) analysis. **Section Three** details the findings against Development Co-operation Directorate (DAC) evaluation principles of relevance, appropriateness, effectiveness, efficiency and sustainability. **Section Four** concludes the findings on performance and lessons learned on the innovation. **Section Five** provide recommendations for different stakeholders. In all cases the report has been shared with the concerned NGO, feedback has been received and appropriate adjustments have been made.

1.5. Lesson Learning Team

The Lesson Learning Team consisted of Masud Rana (Senior Programmes Manager, EEP/Shiree) the programme manager in charge, Marie Sophie Pettersson (Gender Adviser and Programme Analyst), Evelyn Wonosaputra (Associate Programmes Manager, EEP/Shiree) , Abdul Jabber Jufry (CMS Team Leader, EEP/Shiree) and Lucky Mahbuba Islam (CMS Analyst) who were responsible for the endline survey data collection and management of enumerators, and Ambra Colacicco(Monitoring & Evaluation Analyst, EEP/Shiree), responsible for the data analysis and report writing. The EEP/Shiree team is thankful for the support provided by Mr. Shyam Sundar Shaha(Director,iDE/Focal Persons-WOTSHAB), Md. Abdul Mannan (Project Manager, iDE/WOTSHAB) and all other iDE/Shiree team members.

Section 2 Introduction to Project Context and Content

2.1. Context

The World Bank reports through the compilation of the Bangladesh poverty maps of 2010 that the Barisal division has the highest rates of poverty in the entire country. The climate change has primarily impacted the Barisal district in two ways: rising salinity and irregular monsoons. Considering that the flooding depth ranges from 0.30m-0.91m, 91.45% of the land in this district has become increasingly vulnerable and susceptible to frequent flooding. The effect of climate change has impacted the dominant economic sector, agriculture. Even though the poor have little access to productive land, the negative effect of climate change on the agricultural sector has greatly reduced the agricultural wage/labor opportunities available to them. Consequentially, the moderate poor households fell into extreme poverty, being pushed to consume less than 2 meals a day. These drastic fall of income have particularly affected the condition of women and adolescent girls in the household. In fact, as cultural expectations in this region often encourage women to stay at home, they are excluded from communities and can count on very little social capital. Consequentially, in case of major shocks, such as the steady decrease of household income, women are pushed to consume less than 2 meals per day and, due to the lack of social capital, they are left on their own. Their precarious physical health (due to severe nutritional deficiency) combined with the very limited availability of health care infrastructures and services are the root cause of the high child and maternal mortality rate in the Barisal District that makes them the most fragile sector of society in this area. For all this reasons, iDE created WOTSHAB, a program aiming to support extreme poor female and adolescent girls, in order to give them a leading role in the household economy, integrate them with the main stream community, improve their nutritional status and help lift themselves from extreme poverty.

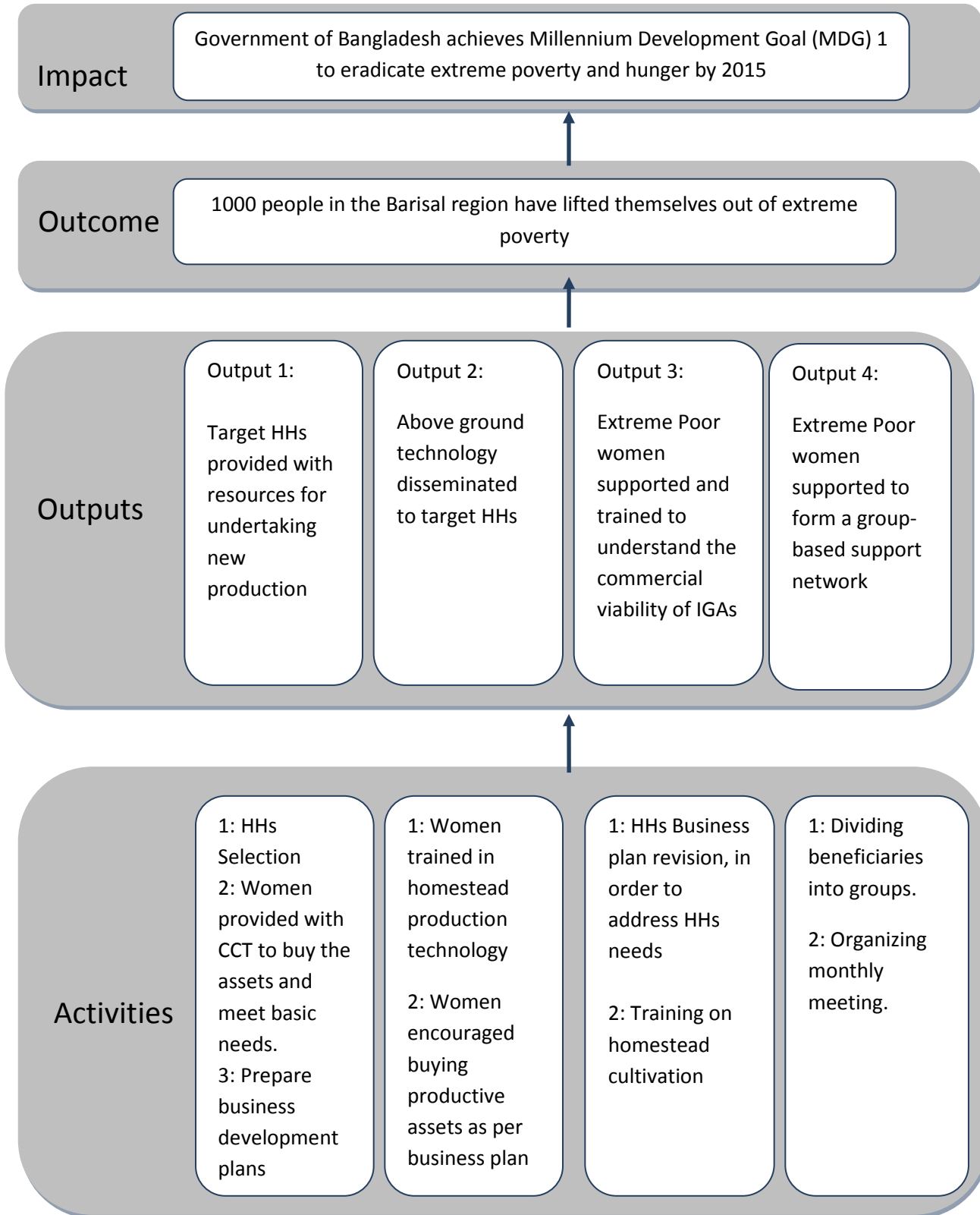
2.2. Main Innovations

WOTSHAB suggests the root cause of poverty in Barisal as the increasing infertility of the soil due to climate change in the region. In order to tackle this problem, the project has developed above-ground homestead production technologies as an adaptation to rising salinity levels, high tidal surges and heavy flooding during the monsoon season. The main innovation is the Sag Bag, a simple technology which uses good quality soil and fertilizer in polymer bags as a medium for growing vegetables, such as gourd, simultaneously, protecting them from salinity and flooding. Easily transportable, sag bags may even be placed alongside roads, embankments or around the homesteads.

In order to implement the innovations, beneficiaries will be supported through:

1. Conditional Cash Transfer (CCT): aims to provide cash in order to enable beneficiaries to meet basic needs, to invest in horticulture and to buy productive assets (such as the innovations above and regular IGA).
2. Group-based support network: which develops market linkages throughout the value chain by developing economic and social support networks which are needed to sustain and grow women's micro-business'.
3. Collection centers: a platform aiming to link smaller producers to market players, such as the input providers and sellers.

2.3 Theory of change



No major external factors (environmental and political disturbance) impacting project implementation

2.4 Strength Weakness Opportunities Threats (SWOT) Analysis

The SWOT analysis below lists the internal and external factors that influence the achievement of the desired outputs and outcomes of the project.

<p><u>Strengths</u></p> <ul style="list-style-type: none"> • Experience: iDE has been carrying out agro-based projects since 1984. They have already developed business models for small producers in the agriculture sector. 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> • Convincing women to participate in productive labour and markets • NGO dependency: ensuring the sustainability of the project, in particular regarding the collection points, and the maintenance of gains beyond the life of the intervention - extreme poor beneficiaries are vulnerable to falling back into extreme poverty on the withdrawal of project support.
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> • Diversification of sources of income • Expansion of homestead production • Women’s empowerment • Further research on climate change adaptation techniques • Link with larger markets and increased access to service providers. 	<p><u>Threats</u></p> <ul style="list-style-type: none"> • Political influence: Local elites try to have a say in the beneficiaries’ selections. • As the project works in remote areas with small producers, the availability of input markets and retailers is limited. • Negotiating and interacting with input companies and ensuring close working relationships will be a key challenge

2.5 Beneficiaries Selection, Activities and Budgeted Expenditures

Beneficiaries Selection

The project targets extreme poor women within the Barisal district that have met the following essential criteria:

- Access to less than 5 decimals of land (other than homestead).
- Household income less than BDT 2,500 per month
- No more than 2 meals a day for minimum four months in a year
- Productive assets valuing less than BDT 5,000
- No access to or member of financial network or MFI

Activities

As each homestead production requires a full season of cultivation (four months), WOTSHAB supported each household by providing conditional cash transfers (CCT) to meet the basic needs of beneficiaries, such as food and medical care, during the first round of homestead production. Simultaneously, beneficiaries were trained in agricultural best practices, in the use of the new technologies and market assessment (how to identify the demand of crops for in their area). In order to maximize learning, WOTSHAB instituted a network support group, where beneficiaries were divided in twenty location-based groups. Meetings were held every second month and each of them focused on a specific theme that was related to the IGA received (i.e. use of fertilizers) or to personal health practices (i.e. vaccine for children). In each meeting, WOTSHAB invited different representatives from local institutions that provide services related to the theme of the meeting. Each representative was invited to describe the service they provide and how beneficiaries could access the service.

Project activities are as follows:

- Beneficiaries selection through meetings with local leaders
- Introduction of new above-ground low cost agriculture technology
- Agreement of cash transfer signed between each beneficiary with project management
- Formation of groups
- Training of groups in agricultural best practice, market assessment, and the creation and management of linkages with relevant local institutions
- Disbursement of cash

Budgeted expenditure

The three years operation was budgeted to cost BDT 36,574,420 with 52% of its cost spent for direct and indirect (training) for BHHs. Detail of financial overview is included in Annex 2.

Section 3 Findings against Evaluation Criteria

3.1. Relevance

Relevance is concerned with assessing whether the project is in line with national and local priorities and refers to the overall outcomes and impacts.

The overall purpose of the project, for 1000 women from households in the Barisal district to lift themselves from extreme poverty, is in line with the Government of Bangladesh (GoB)'s commitment to Millennium Development Goal (MDG) target one and their commitment to eliminate extreme poverty by 2018 made in the 2014-15 Budget Speech (Muhith, AMA 2014:33). In line with this goal, WOTSHAB supports the Economic Empowerment of the Poorest (EEP)/Shiree mandate to lift 1 million people living in extreme poverty in Bangladesh who are facing unique geographical, economic, political and social challenges.

WOTSHAB is directly targeting one of the most fragile segments of society: women in the Barisal region. The Barisal district is affected by climate change that has greatly impacted agriculture, the main economic sector. The consequential decrease in the demand for labor in cultivation has reduced the agricultural wage/labor opportunity of the poor, who have fallen into extreme poverty. The main consequences of this fall are felt by women in the household. Women, often marginalized by the community, cannot count on social capital and, in case of shocks, they are left alone. The steady decrease of their household income regularly forces them to adopt food coping strategies in order to survive. They are as such routinely eating less than two meals per day, with a high intake of carbohydrates (rice) and very low level of vitamins and proteins. This poor diet makes them suffer severe malnutrition contributing to one of the highest maternal mortality rates in the country.

Aiming to improve their nutrition regimens and aid in their exit from extreme poverty, WOTSHAB created an above ground agricultural technology that would allow women to access agricultural activities without having to sustain the high cost of leasing land and would permit cultivation without forcing them to leave the proximity of their household, which is often discouraged by prevailing cultural norms. These technologies succeeded in broadening women's access to cultivation, and thus the possibility of increased incomes and diversified, more vitamin-rich diets.

Challenges: The nature of the district, characterized by remote and scattered communities, as well as the communities' diffident attitude towards strangers, made the beneficiaries selection process extremely challenging. Local communities were reluctant in providing the NGO staff with the necessary information, as they were uncertain about their true intentions and afraid that women might have been kidnapped. Moreover, many women in extreme poor households were reluctant in dealing with the NGOs male staff, as cultural expectations often confine female interactions with males to one's own relatives.

3.2 Appropriateness

Appropriateness considers cultural acceptance and feasibility of activities or method of delivery and evaluates whether the project design and implementation is acceptable and feasible within the local context.

Appropriateness of the innovation:

At the beginning, the above ground technology as an alternative source of access to agricultural activities was viewed suspiciously by the beneficiaries. However, after having received training and having seen the first agricultural output of their work, the consent toward the innovation increased and so did the level of confidence. More people started to inquire about the technology wishing to mimic the technologies provided. In particular, the introduction of sex pheromones to manage fruit flies in the context of gourds vegetable cultivation allowed a sharp increase in production was followed by a tremendous rise in demand for the said technologies, demonstrating the appropriateness of the innovation. Moreover, the establishment of the collection centers allowed beneficiaries not only to sell their product for higher prices, but also to access fertilizers and better seeds that helped them to grow better quality of crops and in more variety.

Challenges: Most women did not have any experience in cultivation and they had difficulties in getting used to the intensive labor required. In some cases they needed to involve some male member of the household to help them with the work. In a few cases they had to stop working on the innovation themselves due to physical problems (such as back pain). The constant monitoring by WOTSHAB field officers was needed to help beneficiaries find convenient solutions. Through the use of CMS2 they could individuate the households that were underperforming and schedule individual appointments to address their needs.

Appropriateness of the target group

WOTSHAB successfully identified the most fragile sector of society, women, and supported them with income generation activities to address their nutrition deficiency, making sure that IGAs would not drastically interfere with the beneficiaries' daily routine. Females, often reluctant to leave the proximity of their household, were given the possibility to grow crops next to their house in sag bags. In this way they could look after the crop and their children at the same time - at baseline 36% of beneficiaries had children less than 5 years of age to look after.

Challenges: During the implementation, some households realized that the size of their homestead was not large enough to allow any kind of cultivation, or that natural light was not sufficient. Therefore, they had no other choice than moving the sag bag elsewhere, which quickly created problems linked to commuting and the decreased capacity to guarantee the security of the crop. Married women solved the problem of distance by relying on the help of husbands. Female-headed households, instead, declared that the distance was a serious issue and stopped using the above ground technology they received. However, they expressed confidence that the innovation could be effective and they would like to find a more convenient location to position the bags and use them again in the future.

Appropriateness of mode of asset delivery

Assets were delivered to the participants in three rounds through conditional cash transfers for a total of BDT 12,000. The first cash transfer was meant to cover the beneficiaries and their families' living costs while attending training, so that they did not need to worry about meeting their needs and could focus their attention on learning. With the second transfer, beneficiaries could purchase two or three cultivation sag bags. The amount left, if any, could be used by beneficiaries to meet their basic needs, such as food or healthcare. The third cash transfer had to be spent on the purchase of a second productive asset, such as a fishing net, small boat or tailoring machine, according to the business plan that the field officer had agreed with each beneficiary at the beginning of the program. This mode of asset delivery proved to be appropriate in the sense that it allowed beneficiaries to acquire ownership of the assets immediately and without delays, increasing their motivation. Furthermore, the flexibility that allowed beneficiaries to spend part of the amount on basic needs helped beneficiaries tide over the stress of subsistence living and allowed them to devote their full attention to training.

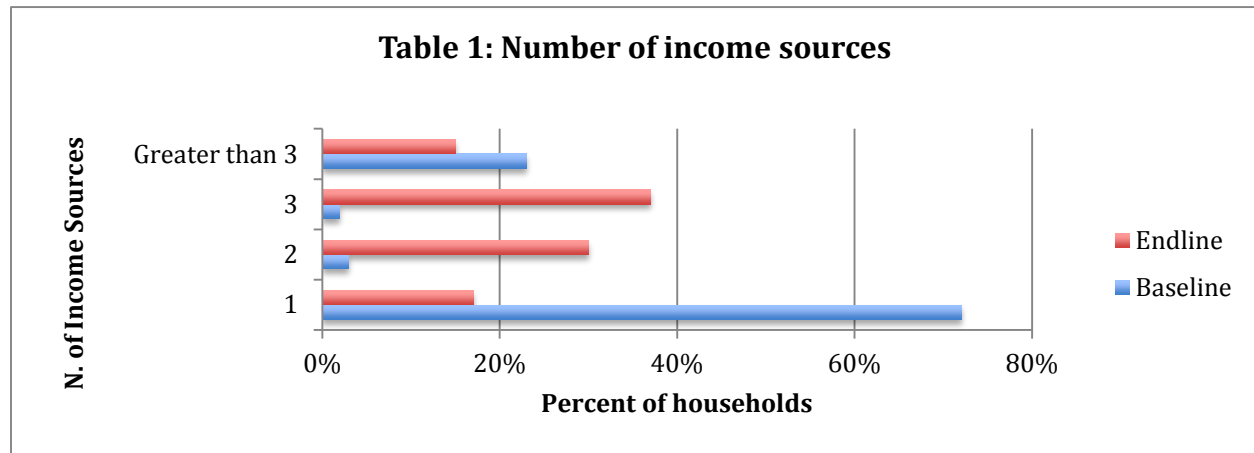
Challenges: Many beneficiaries had some difficulties in understanding the meaning of conditional cash transfers. Conditional means that the amount can only be spent according to the programs guidelines. Specifically, the money was handed over to the beneficiaries alone and should have been spent by them alone, and only in accordance with scopes decided by the program, which is to say IGA purchases as well as the fulfillment of the household's basic needs. Beneficiaries were instead familiar with the concept of unconditional cash transfers (provided after the Cyclone Aylia and Sidr as relief) and as such had difficulties in understanding the difference. For instance, in some cases, male members of the family managed the money instead of the female beneficiaries, and there were occasions when they were resistant to purchasing the cultivation sacks. The constant presence of field officers was necessary to guide the beneficiaries and make them understand the importance of investing in IGAs.

3.3. Effectiveness

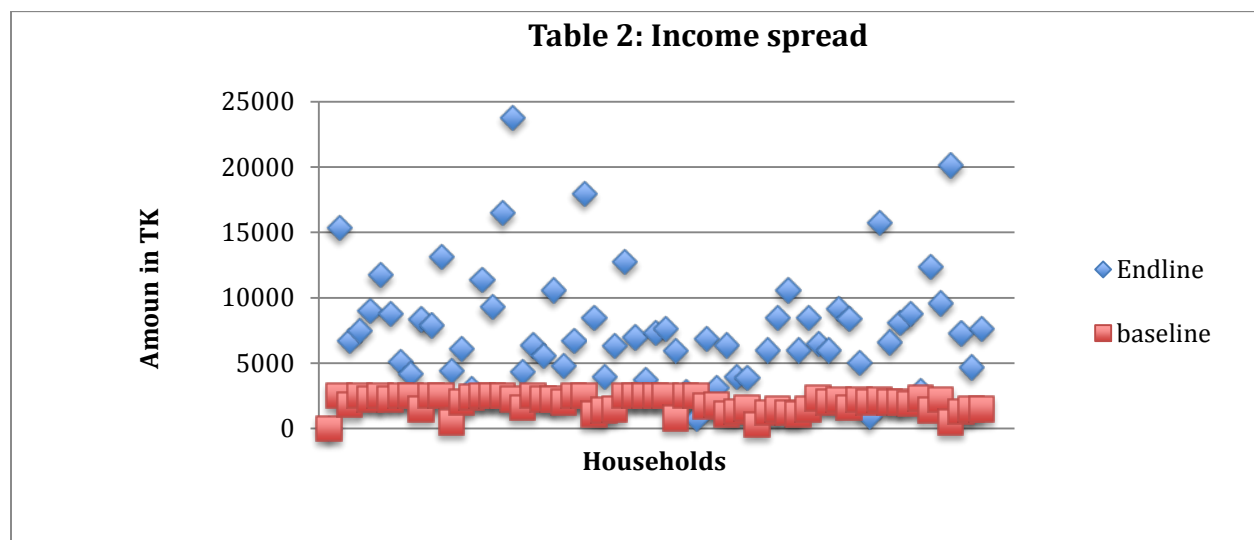
Effectiveness measures the extent to which the project or activities achieve their purpose, or whether this can be expected to happen on the basis of the outputs.

The WOTSHAB project made a considerable contribution in terms of introducing new income generation activities in the community, creating an alternative source of income. The main purpose of the program was to motivate women to become active economic players, while generating additional household income in a sustainable manner and improving their level and quality of food intake. WOTSHAB was effective in achieving these purposes in male headed households while, as discussed in the following analysis, the improvement in female-headed households appears to have been more modest.

While at baseline, only 30% of households could rely on two or more source of income¹, in the endline 89% can, as shown in table 1 below:



This increment in income sources is due to the fact that now women are actively contributing to the economy of the household. In fact, while at baseline, among male-headed households, only 13% of beneficiaries were involved in income generation activities, at endline, 62% of them were contributing to the family economy. Despite the initial resistance of husbands to let their wives be involved in the program, in the focus group discussion the large majority of women declared that their partners are now supportive and in favor of their contribution to the family economy as they have realized the improvements that the WOTSHAB program brought to their life. And improvements are evident; at baseline income was on average 1925 BDT per month (SD 589), and at endline income increased to an average of 7822² BDT per month. However, as the large standard deviation shows, the income varies greatly across households as shown in the Table1 below:

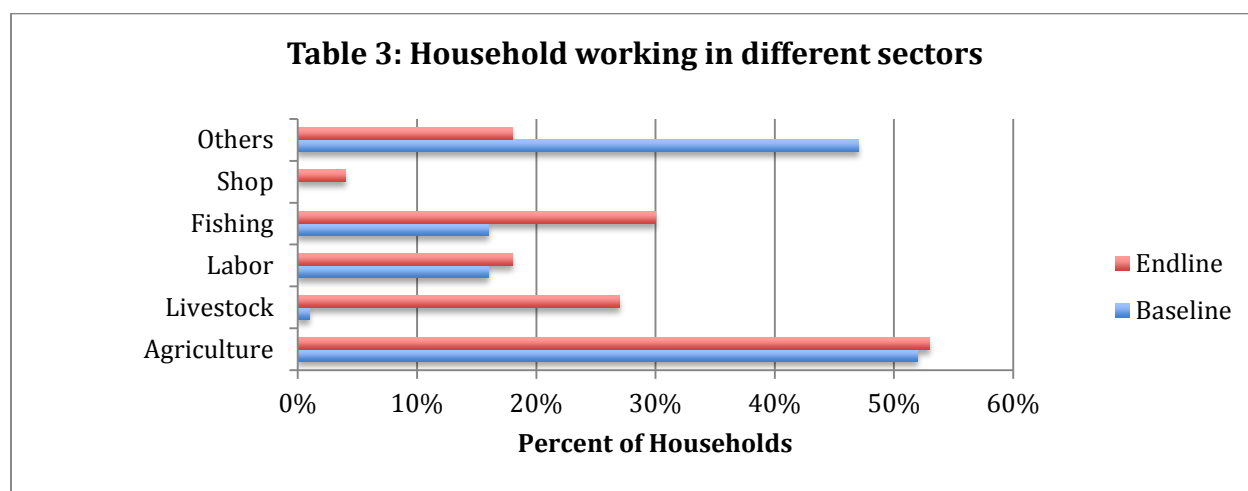


¹ Paired t-test (N = 64, Baseline sd = 2.6, Endline sd = 1.2, t = -0.3, p < 0.5)

² Paired t-test (N = 64, Baseline sd = 589, Endline sd = 4444, t = 10.71, p < 0.001)

The majority of households, with very few exceptions, are now earning an income above 5,000 Taka with a peak of almost 20,000 tk, while previously all claimed earnings below 3,000 Taka. In the focus group discussions, beneficiaries reported that, thanks to the income from cultivation activities, they have been able to collect savings to invest them upon the conditional cash transfer received by WOTSHAB and, with the field staff guidance, have successfully invested in additional lines of business such as poultry rearing, duck rearing, the rental of productive land, fish culture business, or the purchase a small boat for fishing.

As shown in table 3 below, after the intervention the percent of household working in each sector of the rural economy significantly increase, especially in field of livestock (+26%) and fishing (+11%), while the percent of families involved in occasional activities, such as scavenging, (identified in the category of “others”) strongly decreased.



This business diversification constitutes a safety net against downturns of a single sector and it is a strong indicator of resilience, as it increases the likelihood of BHHs protecting their gains. In fact, diversification reduces risk by allocating investments among various income generation activities that would each react differently to the same event. For instance, in case of flooding, the family income from agricultural labour opportunities would be compromised but they could still rely on other sources of income, such small business/ grocery shops or livestock that are not affected by the unfortunate event.

At baseline as much as 72% of households relied on one source of income only. By end-line only 17% relied on a single source, 67% relied on 2 or 3 sources, and a considerable 16% of households relied on more than 3 sources of income. This indicates that the resilience level of families involved in the project improved significantly. In fact, during the focus group discussions, beneficiaries declared they felt more confident towards the future and some of them would consider taking a loan to invest further in the agricultural activities. They stated that, in spite the initial skepticism, the training helped them master agricultural best practices, learn where to find and how to recognize quality inputs, such improved seeds, and how cultivate them efficiently.

Market Linkages: Collection points

The effectiveness (and sustainability) of the innovation depends to a large extent on market mechanisms and on channels established within the project period. Access to market for female producers in Barisal is made difficult by both gender norms regarding mobility and by the location of their household. Most of rural Bangladesh's extreme poor live in geographically remote areas where local market facilities are lacking or nonexistent. The few large markets are far, and due to the transportation cost the extreme poor cannot access them. This increases the dependency of the extreme poor on the *Farias*, rent seeking middlemen who buy agricultural products on behalf of large buyers, which in remote areas like Barisal may often well constitute the only option for farmers seeking to sell their products. *Farias* are often their only customers and as such retain very high bargaining power, enjoying over farmers the sway often associated with a monopoly system. Consequentially, the extreme poor living in the area and working in agriculture receive low prices for their products.

In order to overcome this obstacle, iDE has established market linkages through the development of collection points for producers and large buyers interested in buying products in bulk. WOTSHAB beneficiaries produce individually on a very small scale, but together they produce enough to trigger the interest of bulk buyers. At collection points small producers have the chance to meet and sell their products together for higher prices and they can access information about the market demand for the coming season in order to plan production accordingly. Moreover, collection points represent a way in which beneficiaries can access quality input, such as fertilizers and seeds, for better price. Instead of buying inputs individually they can buy them in a bulk for cheaper prices and share them among the group. The idea of instituting collection points to help beneficiaries create linkages to the market was not a part of the initial program design, and the implementation was not without obstacles. The hardest parts of such a plan revolved around the creation of support in the local community for the creation of a collection point next to the village as well as in convincing larger buyers to visit the village collection point.

Support group network

Beneficiaries were divided in groups of 20 according to their location. Local staff would organize meetings every second month in which women were encouraged to share their worries about their business and find common solutions in order to learn together. The meetings were also an occasion for WOTSHAB staff to promote health practices, and staff organized meetings with local health service providers that instructed the beneficiaries on matters of daily hygiene best practices, such as the benefits of washing hands and other advice on improving the sanitary condition of the household. Hygiene classes have proven to be highly effective, because, despite iDE's decision not to provide the beneficiaries with sanitary latrines, many of them looked for their support to install one. While at baseline only 12% of beneficiaries had a sanitary latrine, at end-line 92% of beneficiaries had installed one.

The main challenges were identifying a convenient location in order to allow all beneficiaries to attend the meetings as well as arranging a convenient schedule that would match all members' needs and interests. As matching the needs of 20 people was too difficult, the WOTSHAB teams solved the problem by breaking the groups into subgroups according to the second type of IGA they received. For instance, people within the group who got a fishing net or boat would

constitute a group apart, as would be the case for beneficiaries who received livestock and so on. In this way, it was easier to find a schedule that would satisfy the needs of fewer people and training could be delivered on each IGA.

3.4 Efficiency

Efficiency measures how economically inputs (e.g. funds, expertise, or time) have been converted into outputs.

Efficiency in the asset delivery system

One of the main means by which this project's innovation was delivered is through the cash transfer system (CCT). Before receiving the cash, each beneficiary discussed their interests and expertise with the iDE field officers who then helped them to develop a business plan. The business plan included which IGA the beneficiaries should invest in, and how much time and effort was expected to be required to make it profitable. With the first round of conditional cash transfer the beneficiaries could meet their needs while attending trainings on agricultural best practice and developing a first business plan. With the second round of CCT beneficiaries could purchase the innovation agreed upon in their business plan and start to work on it immediately. The focus group discussions with the beneficiaries made it clear that the CCT had been a very efficient method for asset allocation. The beneficiaries appreciated the fact that they could exercise their ownership rights from the start, and took control of their assets without any waiting period involved. According to the program management the feeling of working for themselves increased the beneficiaries' motivation and pushed them to maximize their effort to reach the goals of the development plan

Giving a considerable amount of cash to the extreme poor who do not have a bank account is risky. The money can easily get stolen and the project staff would not have any means by which they could check how the beneficiaries spent the money and whether project guidelines were respected. To allow for better security and control, WOTSHAB is considering switching to a voucher payment system in the future.

Efficiency of the main innovations

According to program staff, a jute sag bag cost beneficiaries approximately 600-800 BDT with returns estimated between 2,000-2,500 BDT per season and should last for a minimum of three seasons, depending on the nature of the crop and the period of the monsoon. Therefore, the overall profit of the technology is between 5,400-6,700 BDT per three seasons per sag bag. The project estimated that a large part of the second CCT transferred would have been spent on investing in these agricultural activities.

Unfortunately, this data cannot be confirmed quantitatively as, in the end-line, the income was not broken down according to the kind of innovations employed. However, on the basis of the focus group discussions and reflection sessions, the sag bag seems to have met the program's initial estimation. In the focus group discussion beneficiaries declared that at the beginning, the quantity of vegetables and fruit produced was only enough to satisfy the household's consumption. It was only after the introduction of the sex pheromone to manage fruit flies for

the gourd vegetables, that the production sharply increased and allowed them to gain a good surplus in order to sell at the collection centers or independently to buyers. However, the durability of the sack was lower than estimated (in some cases it lasted for only two seasons) and for this reason a few beneficiaries stopped investing in the technology while others declared that they were considering investing more in the sag bag innovation in the future.

Efficiency of regular IGAs distributed

For other non-agricultural IGAs, such as *hogla*³ production, and goat rearing, the expected return in the medium and long term, according to program estimation, ranged from 5,000tk - 15,000tk. The project management confirmed the expectations however, as the data on income was not broken down by IGA type and as sample selection was not stratified according the IGA received by the beneficiaries, it is impossible to investigate this data further. Furthermore it should be noted that the FGD did not focus on traditional IGAs.

Value for money

One way to consider efficiency is to look at it as part of Value for Money (VfM), which is about maximizing the impact each pound spent. It is important to note that the concept of value for money goes above and beyond efficiency; “it is about getting the right balance between three things – economy, efficiency and effectiveness – and it needs to be assessed as a whole” (Jackson 2012). See Figure 9 below for selected EEP/Shiree VfM indicators that have been utilised to evaluate the efficiency of the HI project.

Table 4: EEP/Shiree Value for money indicators - WOTSHAB

Fees to Total Expenditure	5.5%
Cost per beneficiary	BDT 36,574
Direct Delivery Percentage	46.5%
Number of BHHs per field worker	125
BHH Direct Delivery Spend	BDT 14,124
Cost per graduate	BDT 39,326

Overall, the WOTSHAB project is in line with the average of expenditure of other Innovation Fund Round 4 projects. Total cost per BHH is 36,574 BDT, which is 4.7% lower than the average of 38,390 BDT/BHH. Total direct delivery per BHH is also lower than the average, at 14,124 BDT, which is 22% lower than the average of 18,092 BDT/BHH. In line with the lower spending per BHH, the direct delivery as a percentage of total expenditures is also low compared to other projects. The benchmark for direct delivery costs as a percentage of total expenditures when scaling out other EEP/Shiree projects was 50%, and average for IFR4 projects is 47.1%. The

³ Hogla is the Bangla name for Elephant Grass. The plant is 6 to 16 feet tall and its leaves, tat grow from near the base of the plant and are 1 inch wide, are used for the production handicraft and mattress.

direct delivery percentage for WOTSHAB is only 46.5%, indicating a lower portion of expenditures spent directly on beneficiaries.

However, it should be noted that WOTSHAB has one of the highest ratio of BHHs per field worker compared to other projects, indicating that beneficiaries are not given intensive support. While in WOTSHAB each field worker oversees 125 beneficiaries, other Round 4 projects, such as Handikap and ECO-Dev, each field worker oversees only 75 and 94 beneficiaries respectively. The need of providing a more intense control on beneficiaries was raised by the management of WOTSHAB during the focus group discussion. For the future, they would consider raising the cost per beneficiaries and hire more field workers.

3.5. Impact

Impact refers to measured changes in human development and people's well-being influenced by the project, direct or indirect, intended or unintended.

Beneficiary households interviewed in FGDs mainly attributed changes in their life to their increases in income and the concomitant economic empowerment, which lead to their ability to reinvest in other productive assets such as livestock and invest in their children education. Furth more, the access to improved hygiene and water practices helped reduce the health problems faced by the households.

Changes in the Household Profile

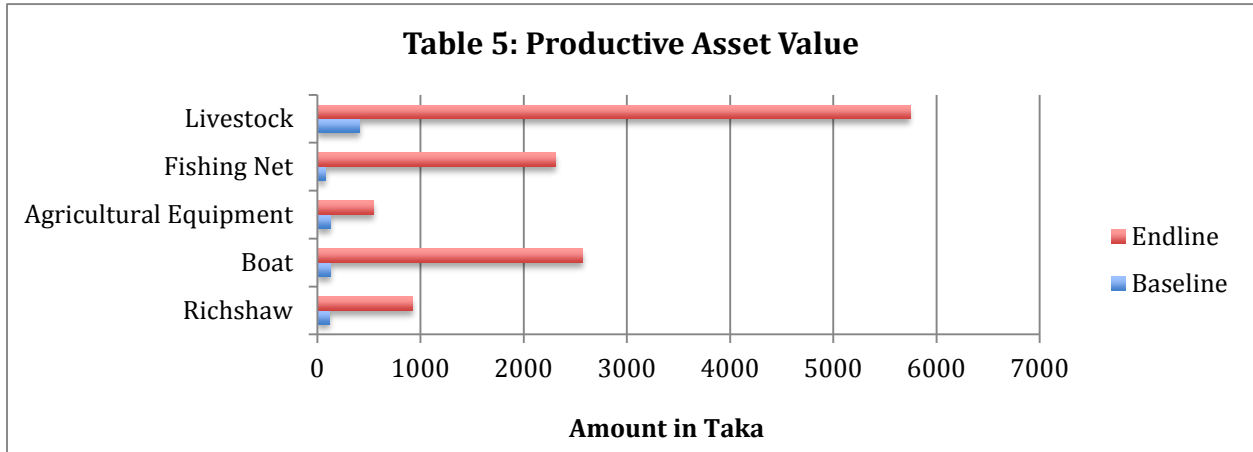
The living condition for the vast majority of the household changed considerably. While at baseline only 10% of the beneficiaries had access to clean and safe drinkable water, now all of them use tube well water daily. While the housing structure (as per size or construction material) did not improve significantly, the access to electricity rose by 20% and the hygienic condition of the homestead positively improved: the use of sanitary latrines increased by 28% and as many as 96% of the interviewees declared that they make use of soap and wear sandals.

Asset

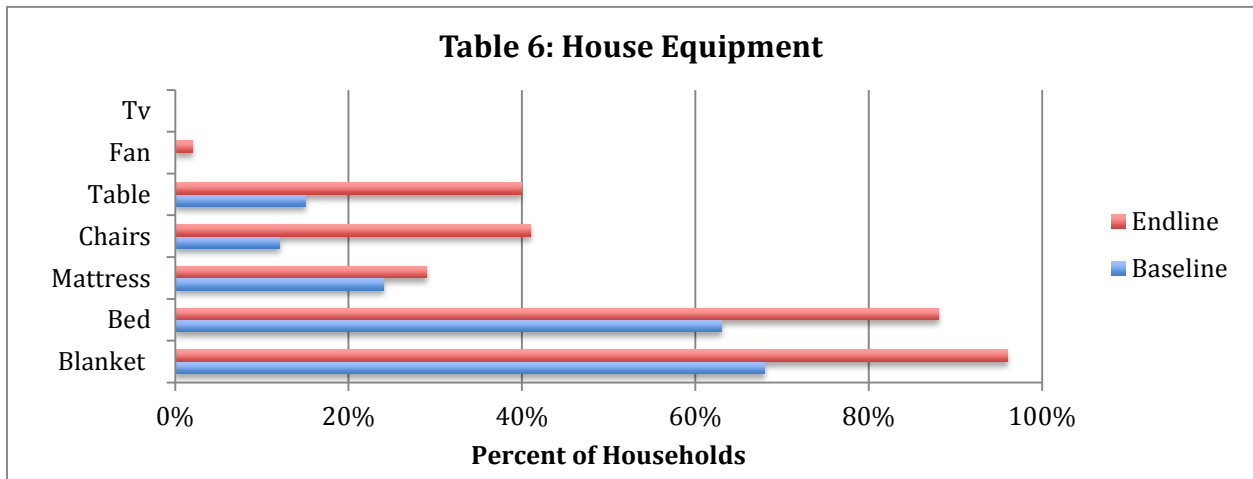
Naturally, as the program provided CCT to beneficiaries in order to buy working inputs/equipment, all households experienced a significant increase in their productive asset value. At baseline none of them were in possession productive assets for only 800 Taka while now the total value of their productive assets is, on average, 20,000BDT⁴.

⁴ Paired t-test (N = 64, Baseline sd = 981, Endline sd =24865, t = -1419, p < 0.001)

Table 4 below show the changes in their productive assets.



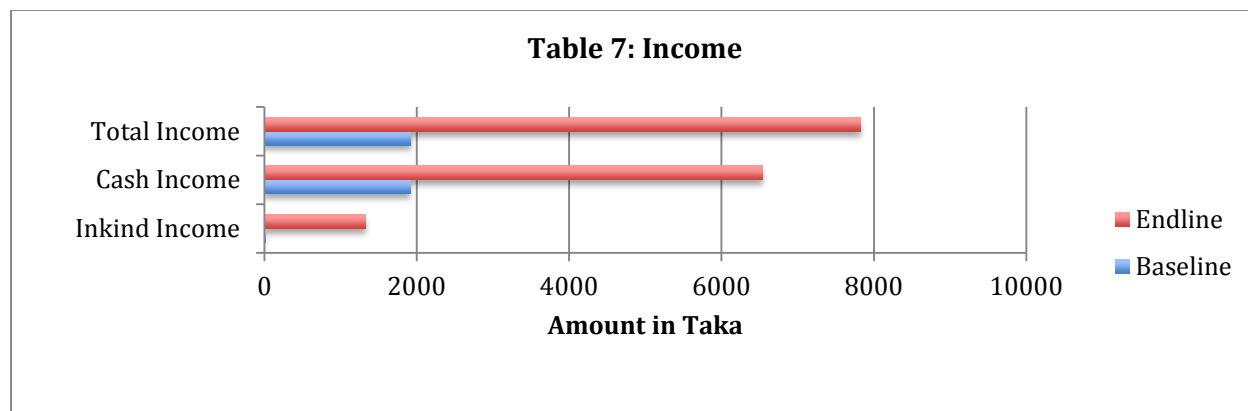
As we see, the main investment have been done in livestock and fishing equipment that have been purchased by beneficiaries during the second round of cash transfer, while agricultural equipment, whose value is evidently lower due to the low cost nature of the innovation has been purchased mainly with the first round of CCT. Furthermore, the diversification of their non-productive assets changed significantly as well. At baseline, beneficiaries possessed goods worth only 1130 Taka (1030 SD) on average, while now, feeling more confident regarding their future, they feel safe in investing in household equipment to allow themselves and their children to lead more comfortable lives. The table⁵ below shows the improvement in their daily comfort:



Income

⁵ Paired t-test (N = 64, Baseline mean: 1136 sd = 981, Endline mean: 7310 sd =24865, t = -7.7, p < 0.001)

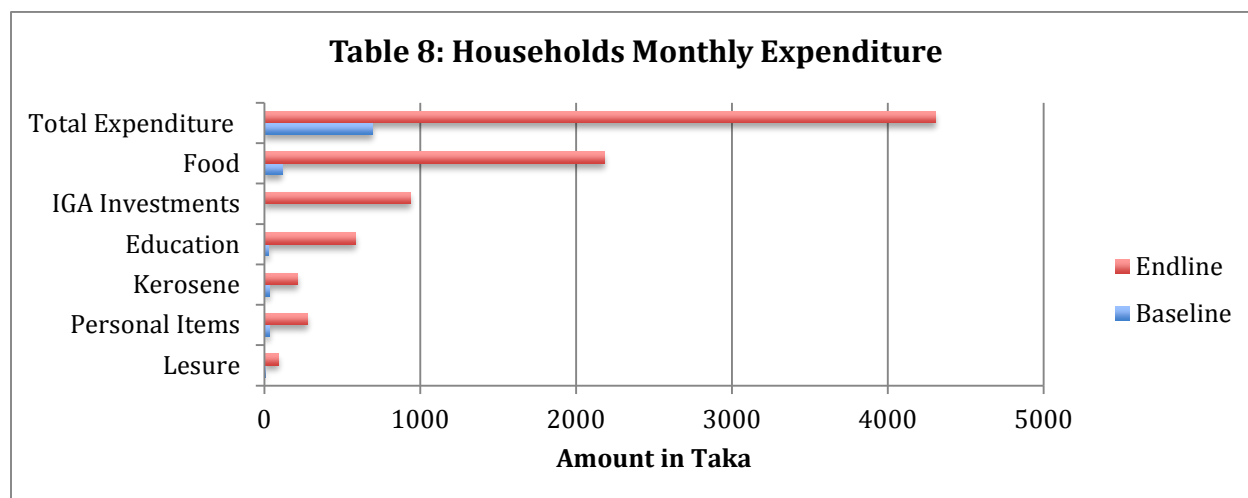
The monthly average income per household has increased to BDT 7,867 (SD 4444) at end-line from BDT 1925 at baseline (SD 589). Increases were observed both in-kind and cash as shown in the table below.



The extreme poverty threshold was defined based on income data from the Household Income and Expenditure Survey (HIES) 2010 report corresponding to the lowest 10%, calculated separately for urban and rural areas in taka per person per day. Taking into account annual inflation rates, the extreme poverty line was 30.5 BDT/capita/day at baseline in 2012 and 35.5 BDT/capita/day at endline in 2014. Based on this, 75% of households crossed over the extreme poverty line based solely from this measure, while 25% of households remain below.

Expenditure

Average monthly expenditure per household has increased to BDT 4304 Taka from BDT 696 Taka at baseline.⁶ The table below offers a detailed overview on the changes household expenditure.

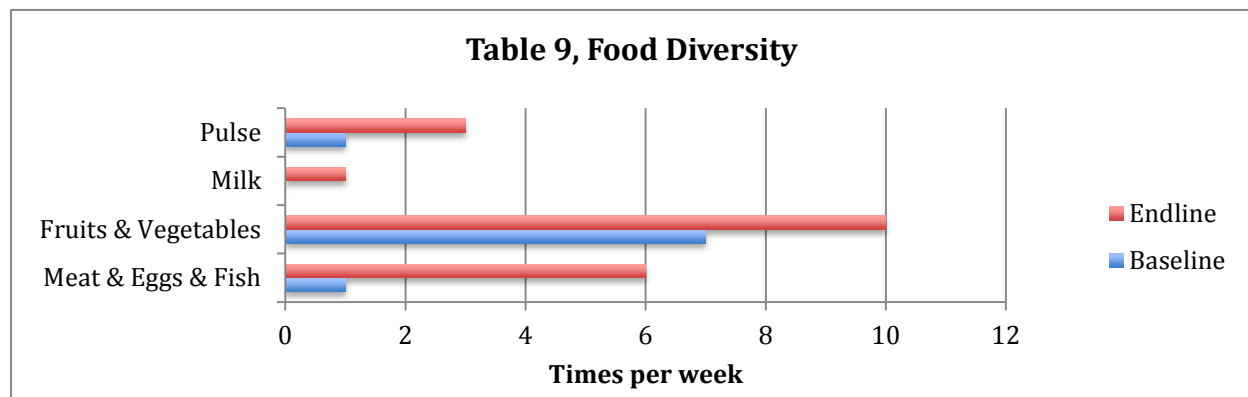


⁶ Paired t-test (N = 64, Baseline sd = 969, Endline sd = 4304, t = 8.97., p < 0.001)

As WOTSHAB deals with extreme poor households struggling to fulfill their basic needs, the majority of household income is spent on food (50%). It is important to highlight that a significant part of their income is now reinvested into IGAs (21%). This is an important sign of the effectiveness of the program and of its capacity to teach the beneficiaries how to be self-sustainable by pushing them towards investing a considerable amount of money in their economic activities to ensure the prosperity of their business and their families. Another piece of data that needs to be highlighted is the increase in the expenditure on education (+13%). In the focus group discussion many beneficiaries declared that they are now sending their children to school. They see in the IGA they received not only a way to meet their basic needs but also a means to change the future of their children so that they will be able to climb up the social ladder.

Food security

The diversification of their income generation activities between agriculture and livestock, gave the beneficiaries not only the opportunity to improve their economic condition but also a direct access to nutritious food. The table⁷ below shows changes in the household food diversity before and after the program:



Ensuring that female heads of households could work full time on the innovations and earn substantial profits from them were major challenges. While married beneficiaries could rely on the help of their husbands in harvesting, female-headed households (mainly widows or divorced women) are on their own and, in most cases, have children below the age of 5 that they need to supervise while working. The field staff, using CMS2, could identify underperforming households and check on them more often. In some cases, they modified the initial business plan customizing it to better suit the household's given daily routine. Despite noticeable income increases, it must be noted that male-headed households are outperforming female-headed ones by a margin of 30%. Moreover, while at baseline, at least one per week, all

⁷ Paired t-test (N = 64, Baseline sd = 0.62, Endline sd = 0.48, t = -2.41., p < 0.01)

of the beneficiaries had to put into practice 'food-coping' strategies due to income constraints. At the end-line, only 1% of beneficiaries still need to use 'food-coping' strategies while 99% had overcome these nutritional problems.

3.6. Sustainability

Sustainability assesses the likelihood of benefits continuing after funding has been withdrawn. This section will discuss the ability of BHHs to forward-plan, invest, save and access financial services in order to cope with shocks as well as their access to collective institutions. A full list of the key concepts and resilience indicators included in EEP/Shiree Innovation Fund Round four briefing are included in Annex 7.

Savings and access to loans

Savings and access to loans are important indicators of the ability of BHHs to protect their gains. Rutherford (2000) argued that the capacity to tackle life-cycle needs, emergencies, avail of opportunities and consumption smoothing constitute crucial reasons that make savings essential to economic success and survival of the poor. Despite the fact that the program did not put any savings scheme in place and all beneficiaries declared to be hiding their cash in their house, their savings increased sharply: at baseline none of the beneficiaries had savings, at end-line the average savings per household is 6900 Taka (SD 8499). Even though, in their current state, none of the beneficiaries contracted a loan, during the focus group discussion, beneficiaries seemed to have positive attitudes towards the idea of borrowing money to invest further in their productive assets. Given their level of savings and the value of the assets that they already possess, the program management considers that they would be eligible to apply for a formal loan.

Access to Government Support and Services

One of the sustainability strategies included in the iDE project memorandum is to ensure effective collaboration between BHHs and local government, government line departments, NGOs and service providers to ensure necessary services are provided even after project phases out. The experience of EEP/Shiree programme is that a mixed mode of intervention that includes social protection transfers provides the best option for a sustained route out of extreme poverty (Manifesto of the Extreme Poor). There has furthermore been visible progress making it apparent that BHHs now have more access to safety nets - Endline data shows that 40% of BHHs are now accessing some type of safety net, up from 5% at baseline.

iDE has also facilitated linkages with several service providers, like the Government of Bangladesh's Department of Agricultural Extension (DAE), whose mission is to provide extension services to all categories of farmers to promote sustainable agricultural and socio-economic development. In the focus group discussions, beneficiaries were confident that in the case of crop damage by a new species of insect or if they needed any information regarding the usage of fertilizer, they could reach out to the DAE for information. Moreover, during monthly meetings the WOTSHAB team introduced the beneficiaries to several government institutions delivering medical services, so that they would know how to seek for help in case of emergency.

Access to health facilities

Access to health facilities is a fundamental element of the resilience. This is of primary importance in fact, according to Friedli, L. (2009) - health assets, capabilities and positive adaptation is what enables people both to cope with adversity and to reach their full potential and humanity. To make sure that the WOTSHAB beneficiaries have a sustainable access to health they have been linked with 12 community health workers of BRAC and 5 community clinics of government to ensure services related to health.

Continuity of the group based network

WOTSHAB has individuated in the group base network the key aspects for beneficiaries to maintain the status of their families out of extreme poverty. During the monthly meeting, beneficiaries have the possibility to confront themselves with other people working with the same innovation, they can exchange advices and solve problems together and organize the selling at the collection points. Therefore, before phasing out, WOTSHAB has handed over the beneficiary groups to CARITAS and World Vision local office that are now in charge to follow up the group based network and make sure that the monthly meeting continues. Furthermore, beneficiaries will have the possibility to be included those NGOs future initiatives related to training and financial support, carrying on with their own development.

3.7 Graduation

The overall purpose of the WOTSHAB project was that 1000 extreme poor women in the Barishal district have lifted themselves from extreme poverty. Based on the Shiree Multidimensional Graduation Index provided in detail in Annex 7 and described in Section 1.3 above, 95% of BHHs have graduated from extreme poverty at the end of the project (see Table 10).

Table 10: Household Overall Graduation

Graduation Criteria	Baseline %	Endline %
Essential Criteria		
Food Coping (<2)=1, (>=2)=0	4	100
Supplementary Criteria		
PPPD Income (Cash+Kind) (Inflation adjusted- baseline 30.5& endline 35.5 taka)-HIES 2010	5	78
Number of jobs (>=2)	28	83
Cash savings (>=1000 taka)	0	100
Productive asset value (>=1000 taka)	0	76
Non-Productive asset number (>=4)	10	67
Food diversity (>=5)	0	56
Gender & Social Empowerment (>=75% female answering positively)	-	80
Sources of safe water	15	100

Graduation Criteria	Baseline %	Endline %
Sanitary latrine	64	92
Access to any land	40	96
Graduation (Essential1+ Supplementary6)	0	95

Less than 5% of beneficiary households at baseline met the criteria for income, savings, and dietary diversity, while at endline more than 80% of BHHs have crossed over these thresholds. As shown in the table, 5% of beneficiaries did not succeed in meeting the necessary criteria to reach graduation. However, as this group is a very heterogeneous, it was not possible to capture any common pattern explaining their failure in graduating. The overall graduation rate of 95% is above average to other EEP/Shiree Innovation Fund projects, and in line with than other livelihoods programs targeting the extreme poor. For example, the average graduation rate for EEP/Shiree Innovation Fund Round 3 projects was 87%, and a study on BRAC’s Challenging the Frontiers of Poverty Reduction (CFPR) program was found to have an overall graduation rate of 95% (Das and Misha 2010).

Section 4 Overall Conclusion on Performance and Lessons Learned

4.1. Overall Conclusion

This section provides an overall conclusion based on the interpretation of the above findings.

The main innovation, introducing above-ground technology to promote alternative ways to perform cultivation, may well be replicated and scaled up as it has proven to be successful in providing an *alternative* source of income to the extreme poor and addressing the problems of tidal surges, increasing soil salinity, and the high cost of leasing or purchasing cultivable land.

The sag bag has been found to be particularly suitable for females in male-headed households, especially if they do not have enough space in their homestead to position the sack next to their house. It has also been found that in male-headed households females may usually rely on the help of their husband to carry the sag bag elsewhere if need be as well as to ensure its security from theft. The utilization of sex hormones together with the sag bag can guarantee an increase in the production sufficient to meet market demand.

Overall the sag bag is an environmentally sustainable innovation and represents an efficient way to adapt to the increasing problem of salinity in the soil and land degradation that is considerably lowering the fertility of the land in Barisal. However, in female-headed households, the adoption of this new technology proved more difficult as the women do not have any support in relocating the sag bag and in taking care of their crops; an alternative way of sag bag transportation should be investigated further.

The endline survey provides quantitative evidence that the socio-economic status of the BHHs has improved and that the project met the logframe targets such as the betterment of the nutrition intake of women, the households’ income, assets and expenditures with 95% of BHHs deemed to have graduated based on the EEP/Shiree multidimensional index. There is strong evidence that indicates that BHHs are now diversifying their income and have become

habituated to save, which are important indicators of resilience in case of shocks. Interviews with BHHs, WOTSHAB project team, KIIs and observations also supported the evidence that BHHs are now more economically empowered and have the confidence to raise issues with government representatives. There is also good support from the local government for cultivation, and DAE, which has been provided with a list of the beneficiaries, has taken the responsibility to oversee them and to include them in future government initiatives.

The effectiveness of the innovation and its benefits during the post-project period is dependent on the marketing network established by the WOTSHAB project to manage collection, storage, demand, fair pricing and relationships with buyers. WOTSHAB project has been able to increase the capacity and leadership of the marketing network so that it is able to manage the marketing aspect of the crop cultivation.

4.2. Lessons Learned

The Organization for Economic Co-operation and Development (OECD) defines lessons learned as “generalizations based on evaluation experiences with projects, programs or policies that abstract from the specific circumstance to broader situation” (DAC 2010). The following examples are lessons learned from WOTSHAB project that can be used in a future context to improve projects and programs when replicated or scaled up.

(1) The use of above ground technology is effective

The analysis of the program has shown the effectiveness of sag back as a way to allow the Extreme Poor access to agricultural activities that otherwise, due to scarcity of labor opportunity in the agriculture sector, the high cost of land leasing or purchasing, would not be possible. However, for future scale ups, there are some aspects that the program management should take into consideration:

(2) While implementing a project based on above ground technology, the size and position of beneficiaries’ houses and household composition matter

The sag bag was designed to meet women’s needs in order to provide access to agriculture in the immediate proximity of their households. However, once the beneficiaries received the sag bag, they often realized that their homestead was not large enough to allow for sag-bag cultivation or that there was not sufficient enough solar light for the seeds to bloom. Therefore, beneficiaries had no other choice but to move the bag further away from the proximity of the household. This did not constitute a problem for married women, who could cope with the distance by relying on the help and support of their husbands, but female-headed households could not and many stopped using the technology for this reason. Therefore, for the future scale up of this project, the household composition, female or male-headed household, must be taken into consideration.

(3) When evaluating an innovation, consider the household consumption/expenditure and nutrition indicators together with income.

While most beneficiaries stated that growing vegetables in the sag bag was an effective method, they could only produce a surplus to sell when the sex pheromones were introduced together with soil fertilizers. Quality fertilizers are difficult to find and not all beneficiaries could access this input before the establishment of the collection center, which allowed them to buy inputs material such as seeds and fertilizers in bulk at affordable prices. However, even though the sag bag was not profitable, beneficiaries kept using it and invested in the IGA. That is because they are growing vegetables for their own household consumption, improving their nutritional status at a much lower cost than buying vegetables and fruit at market price. In the focus group discussion, beneficiaries declared that buying a sufficient amount of vegetables at the market would cost around 20 taka a day. Given that the cost of the sag bag is 600 taka, and that beneficiaries confirmed that it lasts for a minimum of 2 seasons and that, depending on the crop, they can harvest from one to two times a week, a family of four could access fresh vegetables with an expense lower than the market price.

(4) Helping beneficiaries without causing dependency to the NGO

WOTSHAB provided beneficiaries with enough cash to buy productive assets and to fulfill their basic needs only. The purchase of all the inputs to support the vegetable cultivation, such as fertilizers or quality seeds, was the responsibility of the beneficiary from the very beginning. The project staff supported them, in the sense that they gave them training on how to recognize quality products and they helped in setting up the collection points, but the economic responsibility of each purchase was entirely up to the beneficiary who, in the course of the program, learned how to plan the household monthly expenditure by taking into consideration the necessary amount that needed to be reinvested into the production. This approach allowed the beneficiaries to lift themselves out of poverty on their own, without becoming too dependent on the project.

(5) Having multiple livelihood opportunities is an important source of sustainability and resilience.

WOTSHAB provided beneficiaries with more than one income generation activities. Diversification of income not only reduces impacts of external shocks, since different sources of income are likely to be affected differently, but providing assets that have both short and long term production cycles can allow for households to supplement their main source of income during predictable (e.g. seasonal) fluctuations.

Section 5: Recommendations

5.1. Recommendations to the WOTSHAB program

(1) Engage beneficiaries with civil society and the local government

When scaling up, the project should better link beneficiaries with local government and civil society in order to ensure that they have access to support systems in the future. Improving the relationship between beneficiaries and local stakeholders could lead to an increase in access to health, livelihood and safety net services that will contribute to sustainability of the project impact.

(2) Strengthen the monitoring of beneficiaries

The analysis shows significant differences between female and male-headed households, with female-headed households earning 30% less. When scaling up it is strongly recommended to dedicate more attention to beneficiaries by decreasing the number of beneficiaries per field worker. A further suggestion would be to select some members of the local community as field workers, as community members they could help to improve the relationship between the beneficiaries and the civil society through pre-existing connections with local elites.

5.2 Policy recommendation for Local Governments

(1) Promote gender equality through legislation

Gender inequality and the discrimination of women especially in rural areas, are common societal norms in Bangladesh. This discrimination restrains female entrepreneurs' mobility and this kind of pattern of societal behaviour hinders women's open involvement in a variety of entrepreneurial fields. In order to decrease social stigma, the local government could, as already done by the National Government of Bangladesh, establish quotas for women in local government. It is essential to establish normative and legal frameworks for equal opportunities and access to resources between men and women and to show a concrete example of women equality and empowerment in rural areas.

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Annexes

Annex 1: Exit Strategy

The following strategies have been taken for the exit/sustainability of WOTSHAB project:

- **Exit meeting with each group:**
Before closure, exit meeting has been conducted with all of the beneficiary groups. In exit meetings, along with beneficiaries, members of support network group were invited. The discussion issues in the meeting includes, in addition to offering thanks and saying goodbye, the members of support network group were reminded about their role after project's phase out. All of the support groups have committed to continue the project activities in future. Respective Private Sector Actors (PSA) like seed and fertilizer seller etc. were present in the exit meetings.
- **Beneficiary Group Handover:**
Before phasing out, WOTSHAB has handed over the beneficiary groups to CARITAS and World Vision local office to follow them up and to include them in their future initiatives related to training and financial support.
- **Stakeholder Meeting:**
Stakeholder meeting was organized before phasing out of WOTSHAB. In the stakeholder meeting beneficiary group representatives from each group were invited. Sub-Assistant Agriculture Officer from Dept. of Agricultural Extension and Social Welfare officer were also been invited in the same meeting. In the meeting group representatives introduced themselves to those high level government officers. In addition, a list of beneficiaries was been provided to them to oversee them and to include them in future government initiatives.
- **Liking with Health, Sanitation and Legal Services:**
Beneficiaries were linked with 12 community health workers of BRAC and 5 community clinics of government to ensure services related to health. In addition, they were linked with Union level Legal Aid support groups to ensure their need if required

Annex 2: Financial Overview

Expenditure Item	Original Budget	Revised Budget	Actual Expenditure	Variance	Remarks
Human Resource Cost	11,195,340	11,041,932	10,921,280	120,652	
Travelling Cost	884,167	867,825	975,275	(107,450)	During the last period of the project several team of visitors has visited the project including shiree representatives. This was not in plan.
Vehicle & Equipment	766,400	1,145,448	1,145,448	-	
Office Rent and Utilities	851,175	880,102	909,666	(29,564)	Increased the amount as office rent as the land lord has increased & project also hired a team office at project location (Hatra) convenient to conduct staff meeting. So the office rent and utility bill expenses has exceeded. Mobile bill has paid to Community Facilitators as iDE policy that has not budgeted, thus increased this line head
Administrative Cost	512,597	552,463	580,699	(28,236)	Increased the unit price, required more stationaries for team office as well. Staff turnover was more and Increased expenditure due to overlap in the hand over taken over process. To recruit new staff some expenses incurred to staff recruitment process.
Operational Cost	941,000	981,833	1,161,193	(179,360)	Actual cost ending survey has been charged by Shiree and 7 smart phone has purchased by Shiree and charged accordingly, More photocopy required for documentation & reporting purposes

Direct Delivery to Beneficiaries	19,191,500	19,191,500	15,569,107	3,622,393	Shiree has stopped to disburse capital fund among PHHs groups. There was no scope to disburse the money elsewhere as shiree management did not allow.
Management Cost	1,888,820	1,905,552	1,718,639	186,914	
Contingency	343,421	7,765		7,765	
TOTAL	36,574,420	36,574,420	32,981,306	3,593,114	

Note: Amount in BDT

Annex 3: Progress against LogFrame

Level	Project Target	Achievement
Purpose 1000 Extreme poor women and teenage girls graduate out of extreme poverty.	80% of targeted individuals achieve a 50% increase in income	Above 80% of targeted individuals achieve a 177.23% increase in income.
	80% of targeted beneficiaries increase expenditure by 30%	Above 80% of targeted beneficiaries increase expenditure by 172.88%
Output 1 Target HHs/individuals provided with resources for undertaking new production techniques (IGAs)	1000 received cash or input support	994 received cash support (06 beneficiaries were dropped out and were not interested to receive CCT)
	900 women using above ground vegetable production plots with full investment	900 women using above ground vegetable production plots with full investment
Output 2 Home-based production technologies are disseminated to target HHs	1000 women trained (250 training sessions completed)	994 women trained (525 training sessions completed)
Output 3 Extreme poor women are supported and trained to understand the commercial viability of IGAs	1000 women trained in producing business plans	994 women trained in producing business plans
	800 women with followed and updated business plans	900 women with followed and updated business plans

Output 4 Extreme poor women supported to form group-based support networks	50 groups formed (x20 participants)	57 groups formed comprising all beneficiaries
	50 group meetings held once a month (x20 participants)	46 group meetings held once a month (x20 participants)
	1000 women receiving support from group support network	581 women received support from group network up to Aug'14

Annex 4: WOTSHAB CCT DISTRIBUTION

The following table give the detail information on disbursement of CCT on different months of the project.

Month	Phase 1				Phase 2		Total		Cumulative
	CCT		Basic Needs		CCT				
	PHHs	Amount	PHHs	Amount	PHHs	Amount	PHHs	Amount	
May-12	355	501000					355	501000	501000
Jun-12	96	260430	442	21300			538	281730	782730
Jul-12	0	0	0	0	0	0	0	0	782730
Aug-12	220	734500	110	79600	0	0	330	814100	1596830
Sep-12	62	311500	31	16500			93	328000	1924830
Oct-12	148	631100	0	0	0	0	148	631100	2555930
Nov-12	226	1092000	0	0	0	0	226	1092000	3647930
Dec-12	108	494100	0	0	0	0	108	494100	4142030
Jan-13	0	0	0	0	0	0	0	0	4142030
Feb-13	188	519910	0	0	362	1454600	550	1974510	6116540
Mar-13	42	153660	0	0	75	262500	117	416160	6532700
Apr-13	58	135470	0	0	37	116500	95	251970	6784670

May-13	46	107890	0	0	0	0	46	107890	6892560
Jun-13	0	0	0	0	0	0	0	0	6892560
Jul-13	17	46450	0	0	2	6400	19	52850	6945410
Aug-13	0	0	0	0	2	9000	2	9000	6954410
Sept-13	36	89210	0	0	46	157500	82	246710	7201120
Oct-13	17	50920	0	0	342	1433200	359	1484120	8685240
Nov-13	34	97330	0	0	86	343900	120	441230	9126470
Dec-13	39	135780	0	0	12	37500	51	173280	9299750
Jan-14	0	0	0	0	0	0	0	0	9299750
Feb-14	0	0	0	0	0	0	0	0	9299750
Mar-14	0	0	0	0	200	619800	200	619800	9919550
Apr-14	0	0	0	0	282	1083300	282	1083300	11002850
May-14	34	168850	0	0	116	476500	150	645350	11648200
Jun-14	0	0	0	0	0	0	0	313180	11961380
Aug-14	3	9600		0	9	29020	0	38620	12000000
Total	1729	5539700	583	117400	1571	6029720	3871	12000000	

Annex 5: EEP/Shiree Innovation Fund Round 4 Sustainable Graduation Round

The key overarching concept of resilience includes efforts aimed at:

- improving people's capacity to cope with hazards and shocks;
- spreading people's risk over wider number of options and choices to substitute and diversify income sources;
- encouraging more forward-planning, investment and savings from beneficiaries;
- improving their ability to manage uneven income flows (for example from seasonal labour peaks and troughs) and expenditure requirements through methods of balancing out spending and saving, reducing their short term dependency upon exploitative relations;
- having access to collective institutions rather than being exposed to crisis individually or in households;
- improving the security of their productive assets through progressive asset substitution and raising productivity levels over time as well as through forms of insurance;
- reducing morbidity and vulnerability to health crises;
- enabling beneficiaries to transfer a stronger socio-economic position to one's offspring;
- preparing youth to maintain the improved platform, and themselves to improve beyond it rather than slip back;
- in the absence of other well-functioning institutions, to have the support and care of one's empowered offspring in old age.

Annex 6: Shiree Multidimensional Graduation Index for IF4

Essential Criterion	Rural	Urban
Food coping strategies of household - including but not limited to: eating smaller portion of food, eating less than three times a day, eating food of lower than normal quality, giving more food to an earning household member, etc	≥ 2 strategies = 0 < 2 strategies = 1	≥ 2 strategies = 0 < 2 strategies = 1
Supplementary Criteria		
Poverty line - using the mean income and standard deviation in the HIES 2010. Income included both cash and in-kind sources	2010 $< 25.5 = 0$, $\geq 25.5 = 1$ 2014 $< 35.5 = 0$, $\geq 35.5 = 1$	2010 $< 41 = 0$, $\geq 41 = 1$ 2014 $< 57 = 0$, $\geq 57 = 1$
Number of sources of income - number of jobs of all household members	< 2 jobs in household = 0 ≥ 2 jobs in household = 1	< 2 jobs in household = 0 ≥ 2 jobs in household = 1
Cash savings - amount of reported cash savings in Taka/household	< 1000 Taka/household = 0 ≥ 1000 Taka/household = 1	< 1000 Taka/household = 0 ≥ 1000 Taka/household = 1
Value of productive assets	$< 10,000$ Taka/household = 0 $\geq 10,000$ Taka/household = 1	< 7000 Taka/household = 0 ≥ 7000 Taka/household = 1
Number of non-productive assets of household	< 4 assets = 0, ≥ 4	< 4 assets = 0, ≥ 4 assets =

	assets = 1	1
Food diversity of household - pulse, green leafy and other vegetables, fruit, milk, eggs, fresh/dried fish, poultry and meat	<5 foods = 0, ≥5 foods = 1	<5 foods = 0, ≥5 foods = 1
Women Empowerment - of female adult member of household based on decision making and views	<75% answering positively = 0 ≥75% answering positively = 1	<75% answering positively= 0 ≥75% answering positively= 1
Access to safe drinking water of household - defined as meeting the MDG guidelines	No = 0, Yes = 1	Not Applicable
Access to hygienic sanitation of household - defined as meeting the MDG guidelines	No = 0, Yes = 1	Not Applicable
Access to land of household - all land comprising homestead, cultivable, temporary lease, sharecrop and use free of charge	No = 0, Yes = 1	Not Applicable
Maximum score	11	8
Graduation threshold	Essential 1 + 6 Supplementary	Essential 1+ 4 Supplementary