Results Assessment Report

Agriculture and Food Security Project

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Study team
October 2011

ACRONYMS

ADP	Agriculture Development Project
AFSP	Agriculture and Food Security Project
BDT	Bangladeshi Taka
BHDC	Bandarban Hill District Council
CHT	Chittagong Hill Tracts
CHTDF	Chittagong Hill Tracts Development Facility
CLW	Community Livestock Worker
CPW	Community Poultry Worker
DAE	Department of Agriculture Extension
EC	European Commission
ECFS	European Commission Food Security
FFS	Field Farmer School
FSF	Field School Facilitator
FGD	Focus Group Discussion
GD	Group Discussion
GoB	Government of Bangladesh
HDC	Hill District Council
HH	Household
KHDC	Khagrachari Hill District Council
MoCHTA	Ministry of Chittagong Hill Tracts Affairs
NGO	Non Government Organization
PDC	Para Development Committee
PNGO	Partner Non Government Organization
PMR	Planning, Monitoring and Reporting
RHDC	Rangamati Hill District Council
RRMC	Results and Resource Management Centre
UNDP	United Nations Development Programme
UnFC	Union Facilitation Committee

Executive Summary

The Agriculture and Food Security Project (AFSP) was a project implemented by UNDP through Chittagong Hill Tracts Development Facility (CHTDF) with funding support from the European Union. The overall objective of AFSP was to improve food security and poverty reduction in 1,000 remote communities in the Chittagong Hill Tracts (CHT), affected by high food prices and food insecurity. It aimed to achieve this with an integrated package of technical assistance, training and financial support. The project was implemented in 20 Upazilas across the three hill districts in the CHT.

This report constitutes an assessment of the results of the AFSP. Both qualitative and quantitative methods were used for the assessment. Simple random techniques were used to select households for the household survey with rice bank and field farmer school communities. Focus group discussions, group discussions and in-depth interviews were also conducted with different project participants and stakeholders.

The key achievements of the project are: 1) improvements in food security and production yields, 2) farmers' access to decentralized extension services, and 3) research and knowledge transfer of new technologies and practices. These achievements occurred through the major deliverables of the project, namely the establishment of Para Development Committees (PDCs), rice banks, saving schemes of PDCs, Field Farmer Schools (FFS) and agriculture learning plots.

As regards increased food security and production yields, an increase in household income and a decrease in the number of months of food shortages was observed. More varied economic livelihood activities and the increase in the price of agricultural products contributed to the increase in household income. Farmer Field School communities, in particular, saw a significant increase in income. Income levels were also found to be correlated with rice banks. The longer had the community benefited from the existence of a rice bank, the greater was their increase in income. The rice banks have also contributed to the observed increase in household rice stock (after consumption). Although the rice banks are benefiting the community and are perceived to be functional, only 5.4% households paid the rice bank with interest on time.

It was also observed that the AFSP has contributed significantly to reduce the number of months of food deficit. There has been an approximate 31% reduction in the food deficit period and this, like income levels, was correlated with the length of time of the existence of a rice bank in the community.

Alongside the increase in income and reduction in food deficit, the amount of money borrowed by households to purchase food has decreased and the practice of savings has increased. The 538 savings groups established by the PDCs have been one of the most popular and most utilized components of the AFSP. Out of total 508 surveyed households, only 2.2% households reported not saving money in the saving schemes.

As regards production yields, there has been an increase in production yields and all types of agriculture crops, in all three districts, have shown an increase in their annual value. The most significant change in value occurred in livestock (with a 68% increase)

and poultry (with a 41% increase). Since the AFSP intervention, farmers have a greater understanding of High Yielding Variety crops, which they began using. It was found that about 90% of FFS farmers use chemical fertilizers and 85% use compost fertilizers in the field. Many farmers followed the seasonal calendar for cultivation of vegetables and crops and they practiced seed bed preparation, seed treatment and hand pollination techniques in the field since project intervention.

In terms of access to decentralized extension facilities, the data analysis revealed that 74.8% of the total surveyed households have access to extension services offered by the Government of Bangladesh (GoB) line departments. The linkages established among the communities, field school facilitators and the GoB line departments were one of the most significant results of this project.

As a result of project intervention, market oriented production and participation in the market forces increased that contributed to increase income of the weaver groups and food security at household level.

Finally, as a result of the AFSP, research was generated and knowledge transferred on new technologies and practices. Agricultural learning plots were introduced and utilized. The trainings received from the AFSP project have increased farmers' knowledge and capacity on modern agriculture cultivation. Research on jhum cultivation was undertaken. However, perhaps the single most successful technology transferred through the AFSP was the technique of floating vegetable cultivation, introduced to the communities living around the Kaptai Lake and later replicated in other villages due to its perceived success.

Gender has been mainstreamed in the implementation of the project through the participation of women in meetings, prioritizing women in trainings and in ensuring their participation in decision making processes.

1. Introduction

1.1 Background

The Chittagong Hill Tracts (CHT), located in South Eastern Bangladesh, is divided into three hill districts: Khagrachari, Rangamati and Bandarban. The total area of the CHT is 13,295 square kilometers and the estimated population is 1.3 million (BBS, 2006). The region is geographically distinct from the plains, made up of very steep, rugged hilly terrain and in many places, dense bamboo jungle. The rough terrain, remoteness of villages and various political issues associated with a protracted conflict have seriously impeded the economic development of the region.

The economy of the CHT is heavily dependent on agriculture, but because of the steep and rugged slopes, agriculture production is extremely difficult. Traditionally, the indigenous community practices jhum cultivation, which is a local form of "shifting" or "rational" slash and burn type of cultivation. Jhum is a form of subsistence farming although some other cash crops are produced and sold in small quantities. Out of an estimated 364,000 acres of available cultivable land, 27% is used for jhum, 20% is for plough cultivation, 18% is used for homesteads and 35% is used for plantation or left to follow. A dependency on shifting cultivation for income, combined with shrinking land availability, puts traditional livelihoods of the indigenous people under serious threat. As a result, the majority of the households in the CHT live in chronic poverty while extremely high rates of unemployment, illiteracy and an overall lack of economic opportunities are prevalent. This is highlighted in the Socio-Economic Baseline Survey commissioned by UNDP in 2008.

Nearly two thirds of rural households are farming households (HHs), of which 55% are involved in field cropping, 30% are in jhum cultivation and 15% are involved in both field and jhum agriculture. There has been inadequate use of proper farming practices (e.g. use of fertilizer) due to reasons such as lack of knowledge and skills, supply constraints, financial limitations or poor access to markets.

In 2010, UNDP through its Chittagong Hill Tracts Development Facility (CHTDF) conceptualized the 'Agriculture and Food Security Project (AFSP)' for the development of agriculture and food security in the CHT. AFSP is a 18 months long project funded by the European Union (EU) for the period of 1 April 2010 to 30 September 2011. The major deliverables of this project were the establishment of Para Development Committee (PDCs), Rice Banks, Saving Schemes of PDCs, Field Farmer Schools (FFS), agriculture learning plots as well as the implementation of village based peri-urban development projects, training and technical support to the communities through Government of Bangladesh (GoB) line departments. This project was implemented in 20 upazilas across the three hill districts.

The overall purpose of the project was to improve food security and poverty reduction in 1000 remote communities in the CHT, affected by high food prices and food insecurity. The following results were expected: 1) Increased food security, social safety nets, and

improved nutritional status; 2) Increased production yields and returns; 3) Demand-driven, decentralized extension system, and 4) Improved research and knowledge dissemination on upland cultivation techniques.

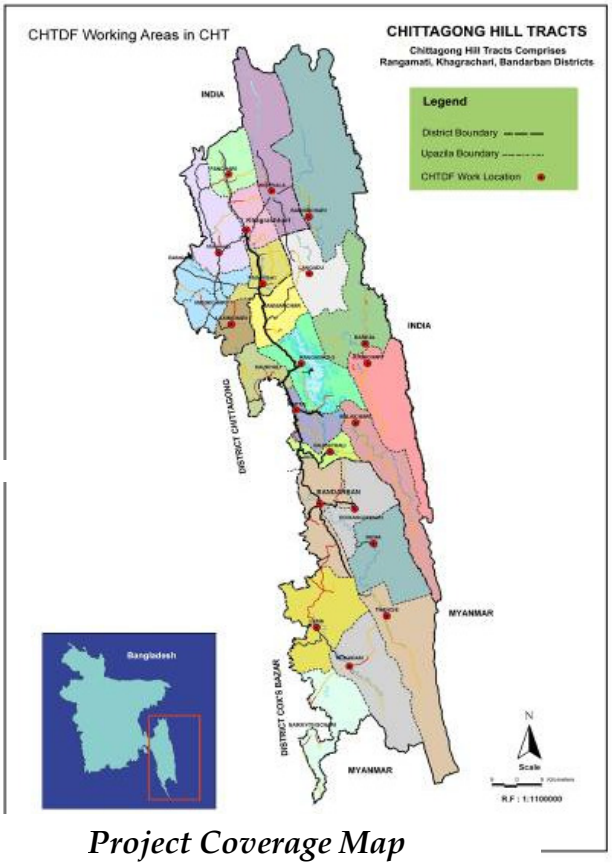
The main strategy of the AFSP was the provision of support to the poor, small scale and remote farmers by diversifying and increasing farm production, thus gradually moving farmers out of poverty and food deficits and improving their nutritional status. It was envisaged that through the Farmers Field School (FFS) approach, farmers would be able to express their problems and needs and receive technical advice from locally recruited Farmer School Facilitators (FSF), NGOs and the government agricultural extension services.

Project implementation was carried out in partnership with the Ministry of Chittagong Hill Tracts Affairs (MoCHTA), the three Hill District Councils (HDCs), the Ministry of Agriculture especially the Department of Agriculture Extension, the Ministry of Fishery and Livestock, the traditional institutions of the three Circle Chiefs, NGOs, local leaders and representation from local community based organizations.

1.2 Geographical coverage

The geographical coverage of the Agriculture and Food Security Project (AFSP) includes 20 out of 25 Upazilas in the three Hill Districts; Khagrachari, Rangamati and Bandarban. One Upazila comprised of a number of unions and the project activities were carried out in 94 out of 110 unions in the three hill districts. AFSP targeted CHT remote farming communities, which are mostly vulnerable and have limited access to the GoB line department services.

In Bandarban, the project covered 6 Upazilas, including Bandarban Sadar, Thanchi, Ruma, Rowangachari, Alikadam and Lama. In Rangamati, the project covered 8 Upazilas, including Rangamati Sadar, Bilaichari, Barkal, Jurachari, Baghaichari, Kaptai, Longadu and Rajasthali. In Khagrachari, the project covered 6 upazilas (Khagrachari Sadar, Panchari, Matiranga, Lakshmichari, Dighinala and Mahalachari).



Project Coverage Map

The geographical area coverage refers to locations where the activities of the project were implemented in at least one community of the union of a particular upazila. So, the project covered 80% of the geographical area of the three hill districts.

1.3 Objective of the study

The overall objective of this study is to assess the results of the Agriculture and Food Security Project (AFSP) support and services from its inception to completion.

The specific objectives of the study are:

1. Establishing the change in household income
2. Assessing: a) the level of food deficit reduced and food stock increased of the household beneficiaries, b) the percentage of functional rice banks and c) the lean period reduced
3. Establishing the extent to which farmers are involved in Field Farmer Schools (FFS) production and community people have access to improved market facilities, irrigation schemes and livestock vaccination facilities
4. Determining the extent to which farmers have access to extension services offered by the GoB line departments
5. Determining how the key stakeholders have been involved in programming and implementation, any problems and challenges which adversely affected the project outcomes, lessons learned and areas of improvement

1.4 Methodology

1.4.1 Study area and population

Although the project has been implemented in 20 Upazilas (6 in Khagrachari, 8 in Rangamati and 6 in Bandarban), the study was conducted in 6 upazilas (2 from each district). The Upazilas for this survey were selected purposively to reflect the general conditions of the CHT and a cross-section of different projects. The unions were then selected from each Upazila on the basis of whether Field Farmer Schools (FFS) and Rice Banks were established there in 2010 and before. Different groups of respondents such as community members, local government agriculture officers, PNGO staff, representatives of Hill District Councils and AFSP staff of CHTDF, were involved in this study.

1.4.2 Sample size determination

Component 1: Rice Bank

For selection of sample size for the rice bank community survey the following formula was used:

$$n = \frac{Nz^2pq}{(N-1)\,e^2+z^2pq}$$

Where, n = Sample size

N = Population (rice bank = 368 established in 2010. We have considered only those locations where rice banks were established in 2010 under AFSP. Each rice bank has an average of 30 households. Hence, the total population is 11,040)

z= Standard normal variate usually set at 90 percent confidence interval =1.645

p =Probability of success = 0.5

q = Probability of failure = 0.5

e = Level of precision set at 0.05

Therefore, $$n = \frac{11040\times (1.645)^2 (0.5)\,(0.5)}{(11040-1)\,(0.05)^2 + (1.645)^2 (0.5)\,(0.5)} = 265$$

These 265 households were selected from 24 rice banks randomly from each district. So, 88 households were selected randomly from the selected 4 unions under 2 upazilas of each district. We have selected 66 samples (6×11) from 6 rice banks (2 from each district) those were established before 2010 with similar support prior to ECFS. That is why; 200 samples were selected from ECFS project.This sampling framework is given below;

Component 2: FFS

There are 90 Field Farmer Schools (FFS) established in 2010 under this project and a total of 2260 members have these Field Farmer Schools. So the sample size is,

$$n = \frac{Nz^2pq}{(N-1)\,e^2+z^2pq}$$

= **242**, at 90 percent confidence interval

These 242 farmers were selected randomly from 24 Field Farmer Schools (two FFS from each union). So, 80 farmers were selected randomly from the selected 8 FFS of 4 unions in each district. The sampling framework is given below;

1.4.3 Data collection method

The study combined both a quantitative and qualitative approach to get the information from different types of respondents. UNDP's CHTDF PMR unit have collaborated with the project field team and developed the tools, checklist and guidelines for this study.

1.4.3.1 Survey questionnaires

Two separate questionnaires were used for this survey. One questionnaire was administered for the households of rice banks that were established in 2010 to get information on households income status, the level of food deficit reduced and food stock increased of benefited households and percentage of rice banks that are functional and lean period reduced. Another questionnaire was administered with Field Farmer Schools' farmers to establish household income, the extent to which farmers are now involved in Field Farmer Schools' production and whether they have access to extension services offered by the GoB line departments and access to livestock vaccination facilities.

1.4.3.2 Focus Group Discussion

Three FGDs were carried out with Rice Banks, the FFS community and Field School Facilitators. One FGD was conducted with the community members on market facilities and another FGD with farmer groups on irrigation facilities. In addition, three GDs were carried out with Union Facilitation committee and three FGDs with weaver groups.

1.4.3.3 In-depth interview

Three in-depth interviews were carried out with local GoB Agriculture Officers, three with Jhum Researchers, and another three with AFSP focal point partners.

1.5 Data collection

A total of 30 data collectors (10 per district) including one Supervisor in each district were involved in the collection of both qualitative and quantitative data for this study. Twenty-four data collectors were selected for collection of quantitative data and 6 for collection of qualitative data. Staffs from the partner NGO, HDC and CHTDF were selected as data collectors. The staff working in the selected upazilas engaged in other upazilas for data collection. The CHTDF PMR unit along with the project field team provided the data collector with two days of training on data collection instruments. In addition, the PMR unit and senior members of staff of AFSP project were responsible for the follow up day-to-day data collection process in the field to ensure data validity and reliability. Field works were done during 11 -19 September 2011.

1.6 Data entry processing

Two standardized data entry screens were developed in MS Access for households survey data entry on rice banks and FFS. Every district formed a team comprising two members assigned for data entry who were then given one day training on data entry screens. After completion of data entry, the data was transferred to SPSS for analysis.

1.7 Quality checking of data and information

To ensure quality data, the following measures were taken:

- Training for data collectors and supervisors on ethics and method of data collection including best possible quality data collection and measures to minimize non-sampling errors;
- In-built mechanisms in the checklist/schedules to cross-check consistency of the responses;
- Probing techniques to ascertain the appropriateness/relevance and consistency of answers, and wherever necessary elaboration of answers;
- Close supervision of the work of the data collectors;
- Random check on the work of the data collectors;
- Edition of filled questionnaires to find out the omissions, non-response, and irrelevant answers;
- Feedback by supervisors and solution to bottlenecks, as and when arisen.

2. Households demographic information

2.1 Communities selection

A total of eight communities were selected for the study from the three CHT hill districts. The communities and number of households selected for the study are given in the table below.

Table 1: Distribution of respondents by district and ethnicity

Name of Community	Bandarban		Khagrachari		Rangamati		All	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Chakma	0	0.0	42	25.0	20	11.6	62	12.2
Marma	77	45.8	19	11.3	32	18.6	128	25.2
Tripura	11	6.5	11	6.5	0	0.0	22	4.3
Bangali	25	14.9	11	6.5	0	0.0	36	7.1
Bawm	30	17.9	0	0.0	0	0.0	30	5.9
Mro	19	11.3	0	0.0	0	0.0	19	3.7
Pankhoa	0	0.0	0	0.0	12	7.0	12	2.4
Tanchangya	0	0.0	0	0.0	9	5.2	9	1.8
Mixed community[1]	6	3.6	85	50.6	99	57.6	190	37.4
All	**168**	**100**	**168**	**100**	**172**	**100**	**508**	**100**

[1]*includes people of different ethnicity in a village*

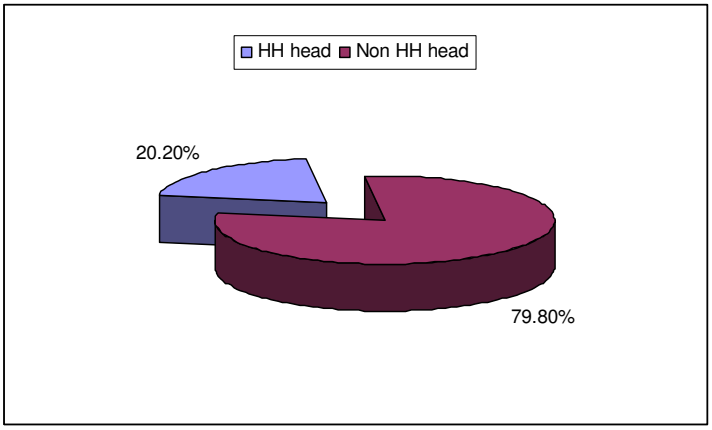
2.2 Sex wise distribution of respondents

More than one third (36.0%) of respondents were female out of the 508 respondents selected for the study. The number of female respondents was the highest in Rangamati with 42.4%. Out of 36.0% female respondents, 20.2% were the heads of households.

Table 2: Percentage distribution of respondent by sex

District	Female		Male		All	
	No.	*%*	*No.*	*%*	*No.*	*%*
Bandarban	54	32.1	114	67.9	168	100
Khagrachari	56	33.3	112	66.7	168	100
Rangamati	73	42.4	99	57.6	172	100
All	**183**	**36.0**	**325**	**64.0**	**508**	**100**

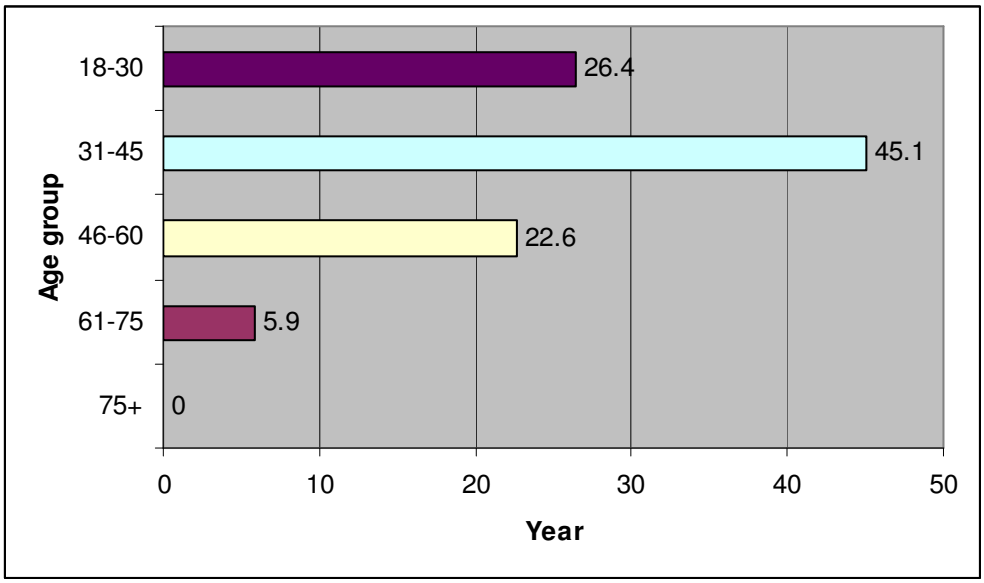
Figure 1: Percentage distribution of female respondent of HH head and non-heads



2.3 Age of the respondents

The average age of respondents was 40 years. Overall, 71.5% respondents were in the 18-45 age group and 22.6% respondents were between 46-60 years old. In addition 26.4% respondents were in the middle age group of 18-30 years.

Figure 2: Percentage distribution of respondents by age group



2.4 Age structure of Households members

Analysis of age structure of the surveyed households' shows that majority of the population belong to 16-45 age group.

Table 3: Distribution of households members by sex

Age (Years)	Male		Female		All	
	No.	*%*	*No.*	*%*	*No.*	*%*
Below 5	126	9.4	150	11.3	276	10.4
Between 5-10	221	16.5	199	15.0	420	15.8
Between 11-15	164	12.2	156	11.8	320	12.0
Between 16-45	619	46.2	639	48.3	1,258	47.2
Between 46-59	132	9.8	122	9.2	254	9.5
60 and above	79	5.9	58	4.4	137	5.1
All	**1341**	**50.3**	**1324**	**49.7**	**2665**	**100**

2.5 Occupation of the respondents

Occupation of the households, being the key means of income earning for the family, plays a vital role in ensuring households' food security. The following table (Table 4) shows that most of the respondents' (49.4%) occupation is agriculture and Jhum cultivation is the second most likely occupation of the surveyed respondents. The occupation 'agriculture' was found to be most common in Khagrachari (71.4%) and lowest in Rangamati (36.0%). Jhum cultivation was found to be most prevalent in Rangamati (45.9%) and then Bandarban (38.7%) and Khagrachari (12.5%).

Table 4: Distribution of respondents by occupation and district

Occupation	Bandarban		Khagrachari		Rangamati		All	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Agriculture	69	41.0	120	71.4	62	36.0	251	49.4
Day labor	4	2.4	4	2.4	12	7.0	20	3.9
Fish cultivation/keeping	0	0.0	0	0.0	1	0.6	1	0.2
Housewife	16	9.5	17	10.1	4	2.3	37	7.3
Jhum cultivation	65	38.7	21	12.5	79	45.9	165	32.5
Petty trader	5	3.0	2	1.2	8	4.7	15	3.0
Rickshaw/van puller	0	0.0	0	0.0	1	0.6	1	0.2
Service	8	4.8	2	1.2	2	1.2	12	2.4
Shop keeper	0	0.0	0	0.0	2	1.2	2	0.4
Others	1	0.6	2	1.2	1	0.6	4	0.8
Total	**168**	**100**	**168**	**100**	**172**	**100**	**508**	**100**

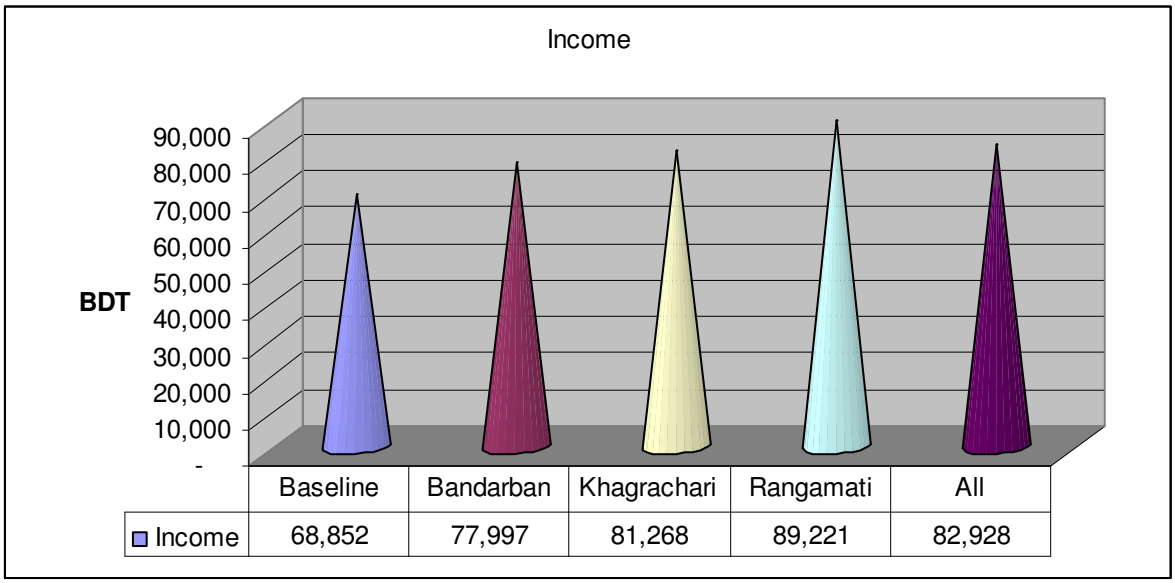
3. Findings of the Study

3.1 Expected Results: Increased social safety nets for food security

3.1.1 Households income

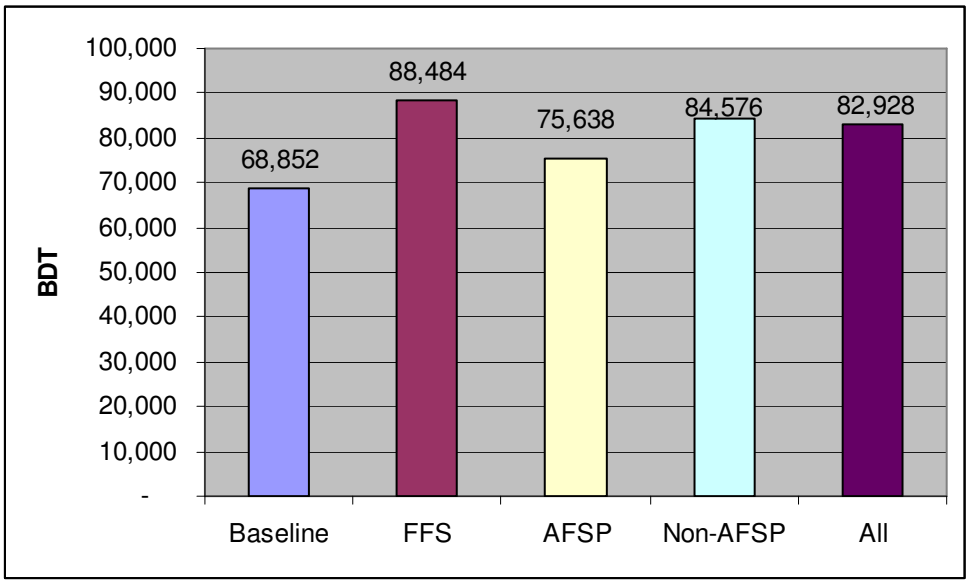
Analysis of households' survey data (both rice bank and FFS communities) found significant improvements in income of the surveyed households and an increase of around 26% from the baseline. The study team considered both cash and kinds to collect information on households' income. The overall income of the surveyed households was found BDT 82,928.The largest increases in income were reported among households in Rangamati which is BDT 89,221, whereas BDT 77,997 found in Bandarban and BDT 81,268 in Khagrachari. Discussions with male and female focus groups participants at both rice bank and FFS communities confirmed that these increases were most likely due to a combination of increased levels of economic activity as well as the price of agriculture products and other goods in the last two years. The income of the day labor households has also increased because of getting more money than earlier. In addition FFS communities saw a significant increase in income than Rice bank communities. The communities for whom a rice bank had been established before 2010 (through the support of another EC fund) saw a greater increase in income than communities for whom a rice bank was established in 2010 (through the support of AFSP).

Figure 3: Households income by district



Baseline source: Socio-economic Baseline Survey of CHT, CHTDF, April 200

Figure 4: Households' income by intervention

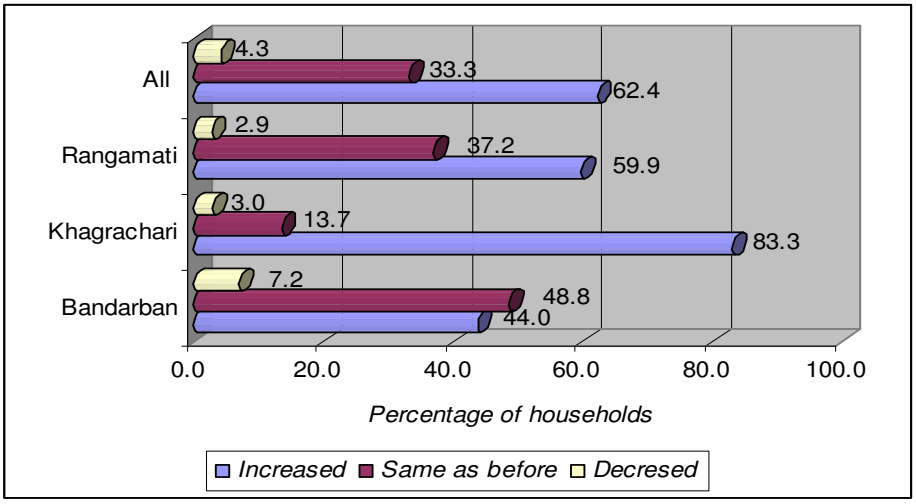


Baseline source: Socio-economic Baseline Survey of CHT, CHTDF, April 2009
Note- ASFP: Rice banks were established through the support of AFSP; Non-AFSP: Rice bank were established through the support of another EC fund

3.1.2 Sources of income

The majority of the surveyed households reported that their income increased as a result of engagement in a number of economic activities which is likely the result of the project's strategy to focus on reducing vulnerability through increased production/productivity of existing activities, including introducing new income related activities for a household. The households' survey data findings show that income sources increased by 62.4% households, whereas only 4.3% of households reported to have had income levels which decreased and one third of the households reported having the same income levels as before the project intervention.

Figure 5: Households sources of income by district



3.1.3 Households food security status

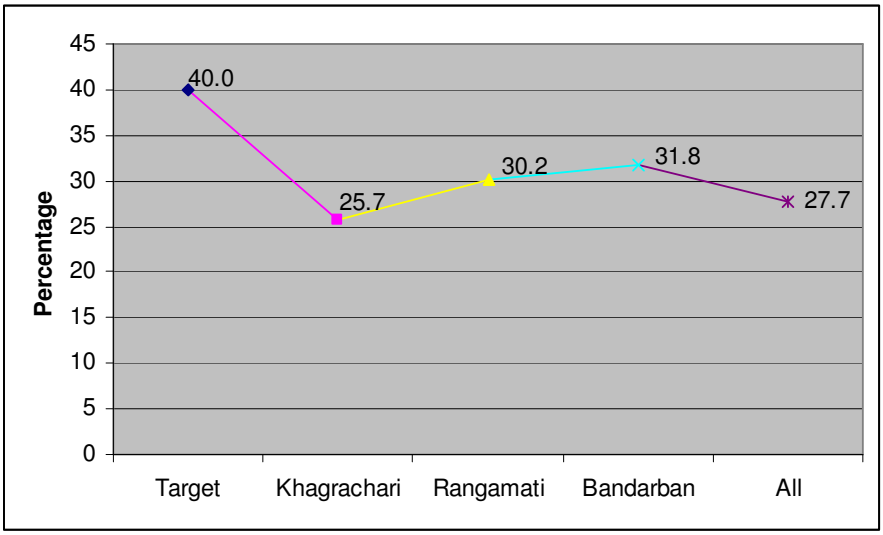
Interviews with both female and male focus group participants in more than six villages overwhelmingly confirmed that rice bank and other village based agriculture development project's activities promoted over the life of the project have contributed significantly to reduce the number of months of food deficit. As shown in Table 5 and Figure 6, the number of months of food deficit has decreased from 2.6 months to 1.8 months from the baseline data. This result indicates about 31% reduction in the food deficit period against 40% targets of this project. There is variety amongst the districts, with the Bandarban district showing the best improvement in reducing the food deficit period (by 30.3%). Nonetheless, Bandarban still has a high food deficit period according to the data analysis. The food deficit period was reduced in Khagrachari and Rangamati by 26.9% and 28.6% respectively. While considering the rice banks established in 2010 with the support of AFSP and the rice banks established before 2010 with the support of another EC project, it has been found that the period of food deficit of these earlier established rice banks has reduced more significantly than the AFSP's later established rice bank. The community people participating in FGDs in the three hill districts confirmed that if the existing rice banks continue to be functional, they will get better results in the future than they are getting at the moment.

Table 5: Households Food deficit (in months)

District	**Food deficit in month (s)**				**% of reduced of food deficit period**		
	Baseline[1]	**Results study (Rice bank)**					
		AFSP	***Non-AFSP***	***Both***	***AFSP***	***Non-AFSP***	***Both***
Khagrachari	2.6	2.0	1.8	1.9	23.1	30.8	26.9
Rangamati	2.1	1.8	0.4	1.5	14.3	81.0	28.6
Bandarban	3.3	2.3	2.0	2.3	30.3	39.4	30.3
All	**2.6**	**2.0**	**1.4**	**1.8**	**23.1**	**46.2**	**30.8**

[1]*Agriculture and Food Security Project Baseline, 2010*

Figure 6: Reduced food deficit period in percentage



Rice Bank reducing lean period

Nayan Bikash Para Development Committee (PDC), a small community consisting of 16 Chakma households at Panchari Upazila of Khagrachari district. Most of the people in this community work as day laborers or small farmers with piece of cultivable land. Overall they are poor and could not manage food according to their households needs. Family members often went on starvation, or took loan or rice from land lords and merchants. In this case, they had to pay double amount of rice or taka after 6-7 months with interest. It was really very much pain full for the community people. They could not send their school going children to schools due to poverty and had to engage them as day laborer for earning. Poor community people tried to overcome their condition, especially food crisis but could not.

In 2010, this community was selected for rice bank grant in Union Facilitation Committee (UnFC) meeting. After being selected, the community prepared project proposal with the assistance from assigned Community Facilitator (CF), and submitted for the grant accordingly. After selecting their proposal the community received training on pest free rice bank management from the Technical Officer (Agriculture) of the Partner NGO. After receiving the training, they made a guideline and formed rice bank management committee for smooth functioning of it. Finally, this community received a grant of BDT: 140,000/- from CHTDF. They made a tin shed house for storing rice and purchased 670 *Ari* (approx. 6700 kilogram) of rice. One most important part of the rule is that if one takes 20 *Ari* of rice will have to pay 21 *Ari* of rice after 6-7 months, whereas they had to pay double if they had taken rice loan from the landlord or merchant within the same duration.

In 2011, they have distributed 280 *Ari* (2800 kilogram) of rice among 14 households according to their needs and rest of the rice is stored in the rice bank, waiting for distribution among those whoever would face a crisis. The community people are very happy and doing their work with great motivation for their own development. They are well-known that rice bank is the supporting sources according to their needs. Now, they need not to depend on landlord or merchant. Even, they motivated to the flexible repaying mechanisms after harvesting or rice is available in their hands.

They are now able to send their children for schooling easily, since they do not need to worry about food crisis during the lean period. The support has ensured food security of the villagers during the lean period of this year even their expectation they are enough capable to manage their food crisis in coming years.

3.1.4 Reduction in money borrowing for purchasing food

The figure and table below (Figure 7 and Table 6) have shown a reduction in the amount of money borrowed for purchasing food in the surveyed households (46.5%). They indicate an improvement as about 22% households never borrowed money for food purchasing and 11% households reported to stop borrowing money. Whereas 16% reported borrowing the same amount as before, 4.3% households reported to have increased the amount of money borrowed. Variation occurs by project intervention, with the non-AFSP supported rice bank communities showing better results than others. Discussion with the rice 3 rice bank communities in the three hill districts revealed that this year (2011) most of the poor farmers did not borrow money for food purchasing with high interest from the money lenders as they have got it from the rice bank with very minimum interest.

Table 6: Percentage of hhs that borrowed money for food, by project interventions

	Rice bank		**FFS**	**All**
	AFSP (% of hhs)	***Non-AFSP (% of hhs)***		
Increased	3.5	0.0	6.2	4.3
Decreased	55.6	50.0	38.0	46.5
Same as before	22.2	8.8	12.8	15.9
Stopped to borrow money	7.1	25.0	10.3	11.0
Never borrowed	11.6	16.2	32.6	22.2

3.1.5 Households savings

During the project period, the AFSP has helped PDCs to establish a total of 538[1] new savings groups in the intervention areas of three hill districts. During FGDs with the rice bank beneficiaries and FFS communities, the community people responded that the savings group was one of the popular initiatives to them and they got benefits from these savings. They have reported that these groups continue to collect savings, and, in many cases, act as lending funds to the members of the groups to meet their emergency needs and new income generating activities. So long as group solidarity is strong, and each member is clear about the amount of money saved and participates in group decisions about the funds, the savings group works effectively. The surveys reveal that around 98% of households deposit funds to the PDC saving schemes on a monthly basis, whereas 28.5% households reported that they did not deposit money before joining this project.

[1] The rest of the communities covered AFSP established savings scheme before starting the AFSP project.

Table 7: Distribution of households by level of savings

Level of savings (BDT)	Rice Bank (AFSP)		Rice Bank (Non-AFSP)		FFS Community		All categories	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Don't deposit	5	2.5	1.0	1.5	5	2.1	11	2.2
1-500	131	66.2	27	39.7	105	43.4	263	51.8
501-1000	61	30.8	28	41.2	89	36.8	178	35.0
1001-3000	1	0.5	12	17.6	24	9.9	37	7.3
3001-5000	0	0.0	0	0.0	1	0.4	1	0.2
5001-7000	0	0.0	0	0.0	0	0.0	0	0.0
7001-9000	0	0.0	0	0.0	18	7.4	18	3.5
9000+	0	0.0	0	0.0	0	0.0	0	0.0
All	**198**	**100**	**68**	**100**	**242**	**100**	**508**	**100**

Figure 7: Percentage of households that deposit before and after project intervention by district

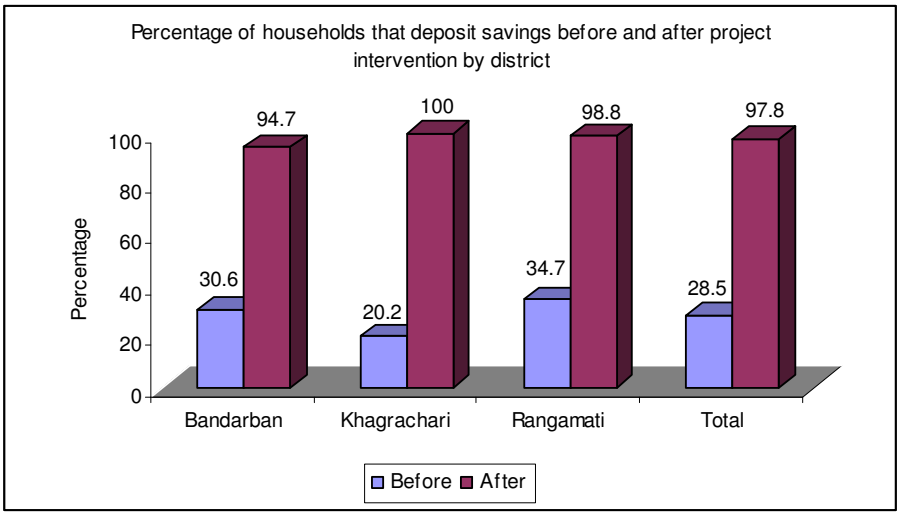
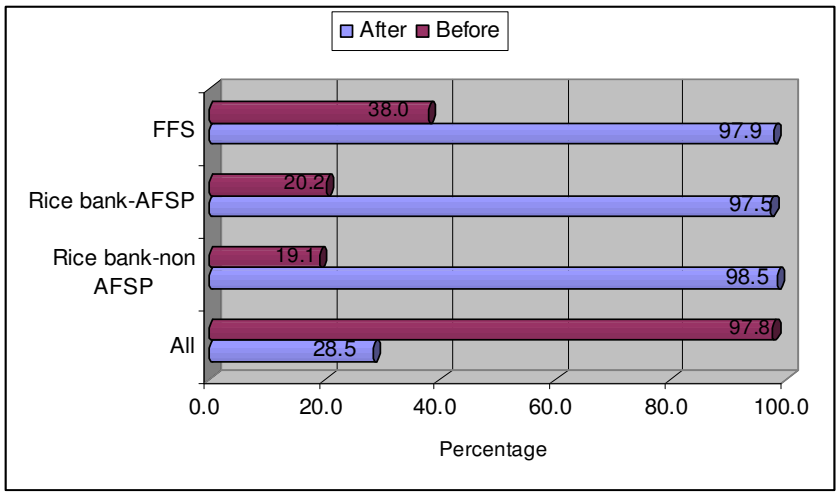


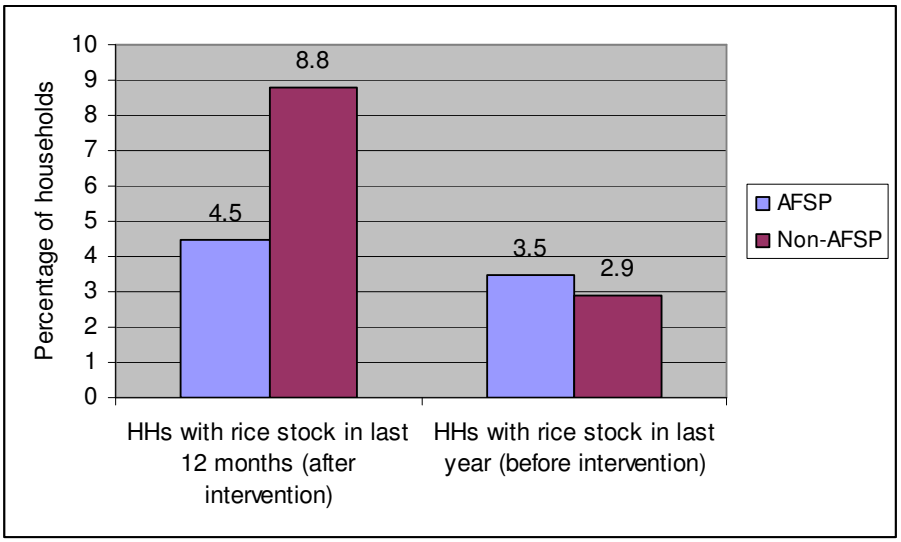
Figure 8: Percentage of households that deposit before and after of project intervention by interventions



3.1.6 Households rice stock

Analysis of survey data shows that 8.8% of the non AFSP supported rice bank surveyed households had rice stock in last 12 months after consumptions whereas it was 4.5% of the surveyed rice bank households that were established in 2010 by the support of AFSP. However the overall results indicate positive improvement considering the last year before project intervention.

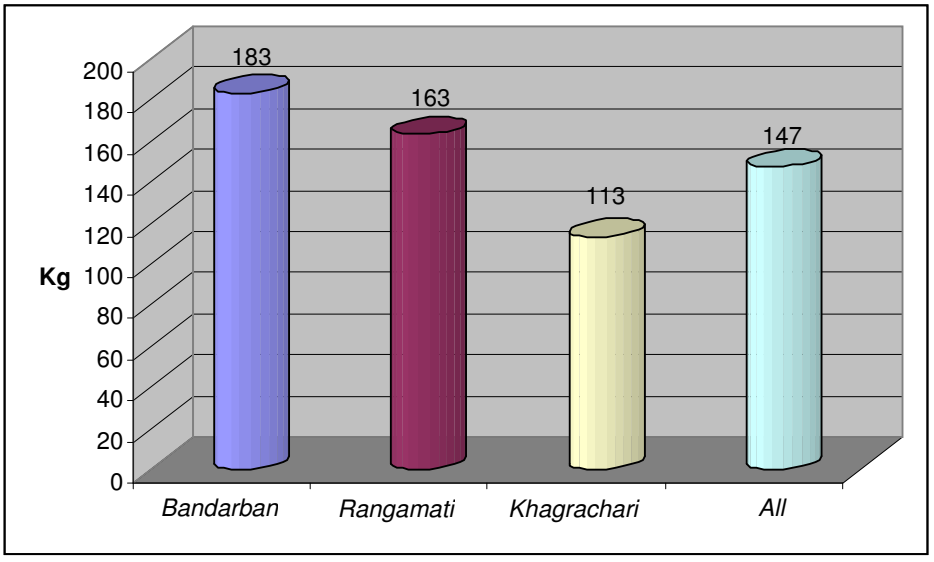
Figure 9: Percentage of households with rice stock by rice bank of AFSP and non ASFP



3.1.7 Rice borrowing from the rice bank

According to the households' survey responses, around 77% households have borrowed rice from the rice bank in the last 12 months. It was found that every household within this 77%, borrowed on average 147 kg rice from the rice bank. By districts, this figure was broken down to 183 kg in Bandarban and 163 kg in Rangamati and 113 kg in Khagrachari.

Figure 10: Rice borrowed in last 12 month by district



3.1.8 Rice paid back with interest

About 77% households reported that they have borrowed rice from the rice bank (68.2% in Khagrachari, 63.3% in Rangamati and 98.9% in Bandarban). However, overall 5.4% households paid back rice with interest on time. Analysis of surveyed data also shows that no households in Rangamati and Bandarban paid back rice. The study team tried to find out the reasons for not paying back rice. In this regards, 100% families in Bandarban, 80.0% in Khagrachari and 98.2% families in Rangamati who have borrowed rice from rice bank reported that time yet to come for paying back the rice and they are determined to pay the rice timely after this current harvest. In addition remaining 1.7% families in Khagrachari and 1.8% in Rangamati who also did not pay back rice reported having another reasons that they did not pay back rice due to having increased expenditure for their children's education.

Table 8: Percentage of households that borrowed and paid back rice, by district

District	% of HHs borrowed rice from rice bank	% of borrowed HHs paid back rice with interest
Khagrachari	68.2	18.3
Rangamati	63.3	0.0
Bandarban	98.9	0.0
All	**76.7**	**5.4**

3.1.9 Functional status of rice bank

Group discussion with both female and male members of rice bank communities revealed that their rice banks are functional. Only a very few participants reported that they wanted their rice bank to be more functional. This information was cross checked with individual interviews through households' survey. Analysis of data shows that 96.2% of respondents reported that rice banks are functional. However "rice bank can be managed easily and properly if we work collectively", community people said during the group discussion. They also added that every household can get benefits from the rice bank and this will ensure not only food security during lean period but it will also give support in crisis time.

3.1.10 Pest free rice storage management

According to regular monitoring and project reports, a total of 927 rice banks were established under the project support followed by 300 in Khagarachri, 382 in Rangamati and 245 in Bandarban. Two members from each rice bank received training on pest free rice storage management. The AFSP provided training to 1629 members of rice bank committees in the three hill districts where more than 39% were female. But out of total, only 20 households who got training selected for the study as the study team followed simple random sampling techniques to select the households from the rice bank communities. Analysis of surveyed data shows that 16 respondents (80% out of total

trained) applied the training knowledge properly and remaining 4 respondents (20.0% out of total trained) applied training knowledge partially to keep rice from pest free.

3.2 Expected result: Production yields and return increased

3.2.1 Households agriculture production

There has been a substantial increase in the value of agricultural production (calculated by considering quantity and price of products, and including production costs) since the AFSP intervention. All types of agriculture crops, in all three districts, have shown an increase in their annual value. The most significant change in value occurred in livestock (with a 68% increase) and poultry (with a 41.4% increase). Across the three districts, Khagrachari has shown the greatest change with a total increase of BDT 30, 633 of value of agricultural production during the years of the AFSP intervention. The least significant change occurred in the value of fish as although the total value of fish increased by Tk. 1,501 in Khagrachari, it decreased by Tk. 6,22 in Bandarban.

Table 9: Average yearly value of HHs agriculture production by district (in BDT)

Types of agriculture production	Khagrachari		Rangamati		Bandarban		Overall		
	After[1] (in Taka)	Before[2] (in Taka)	After[1] (in Taka)	Before[2] (in Taka)	After[1] (in Taka)	Before[2] (in Taka)	After[1] (in Taka)	Before[2] (in Taka)	% of change
Agriculture crop	43,495	29,845	29,505	30,957	54,737	36,352	42,471	32,373	31.2
Livestock	28,298	13,776	35,047	18,204	37,122	27,888	33,502	19,939	68.0
Poultry	2,636	1,453	2,299	1,517	3,656	3,105	2,859	2,021	41.4
Fish	1,810	3,09	3,447	3,790	4,15	1,037	1,903	1,729	10.0
Others	7,31	9,54	1,290	1,245	9,48	4,68	1,004	8,92	11.2
All	76,970	46,337	71,588	55,715	96,914	68,850	81,739	56,954	47.8

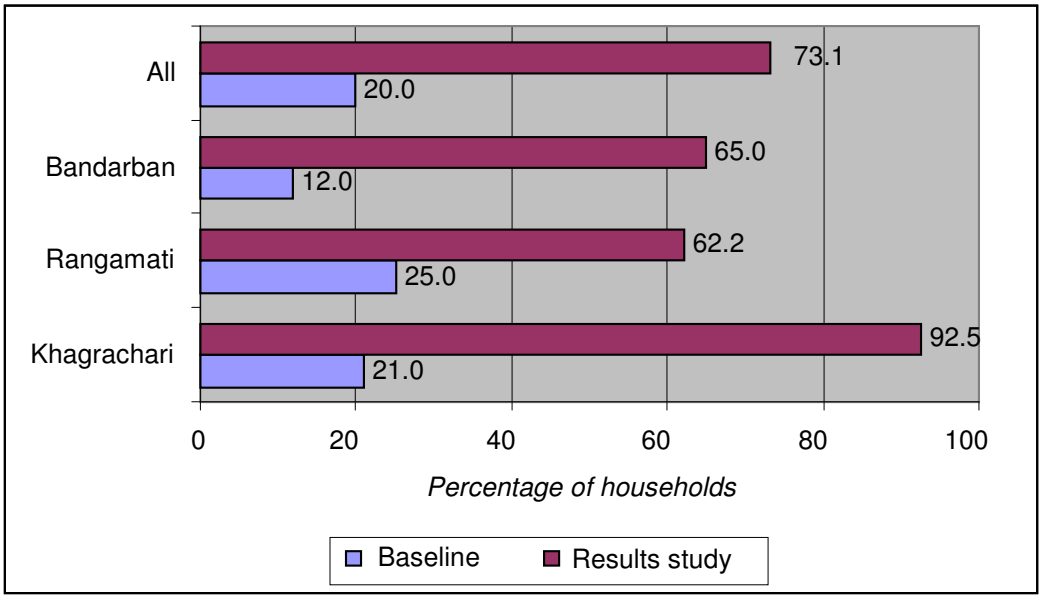
[1]*After involvement with AFSP*, [2]*Before the project intervention*

3.2.2 Cultivation of high yielding variety crops

The overall findings revealed that farmers are now better able to understand and use High Yielding Variety crops across the intervention areas in the three hill districts. The households' survey data findings revealed that at present about 73% farmers of Farmer Field Schools (FFS) know and use high yielding variety crops and vegetables whereas it was only 20% farmers that used them at the time of conducting the baseline. The percentage was found higher in Khagrachari (92.5%). During group discussion, all farmers said that the AFSP provided benefits for them both at household and community levels. They got orientation on modern agriculture technologies and its' proper practices. They said that they introduced modern technologies in the fields and increased cultivation of high yielding variety crops. They also added that now they observe their crops field and vegetable gardens from a different perspective of farm management i.e.

fertilizer or compost and water, mulching, identification of harmful and beneficial insects, weeding, etc. and take necessary measures needed.

Figure 11: Percentage distribution of farmers who know of and use HYVs, by district



It is found that 85.6% farmers of the total surveyed households reported that they are involved in at least one form of horticulture or vegetable or livestock or fisheries (88.0% farmers in Bandarban, 89.0% farmers in Khagrachari and 80.0% farmers in Rangamati).

3.2.3 Use of Chemical fertilizers increased

Data analysis of household surveys shows that the number of FFS farmers who use fertilizers has increased from the baseline. It was found that about 90% of FFS farmers who use fertilizer in the field is 90.2% in Rangamati, 92.5% in Khagrachari and 88.8% in Bandarban. But it was only 37% at baseline in the three hill districts (22%, 48% and 39% in Rangamati, Khagrachari and Bandarban respectively).

Among of fertilizers users, 36.3% farmers reported to increase the usage of fertilizer and 32.2% reported to decreased and 21.9% reported same as before to use fertilizer in the field.

In group discussion at Khagrachari, farmers said earlier they used only UREA fertilizer but now they have been using right combination of different types of fertilizers besides compost. They also added that use of cow dong has increased among the farmers and even some farmers started to preserve and sell cow dong during cultivation period.

3.2.4 Use of compost fertilizer increased

As there is no available baseline value regarding use of compost fertilizer in the field, this study tried to find out the value of use of compost by asking a question whether the farmer uses compost in the field or not and determining the level of compost used. It is

found in data analysis that about 85% farmers use compost in their field where 91% in Khagrachari, 90% in Rangamati and 73% in Bandarban. The data in the following table shows that the majority of farmers have increased use of compost and that compost use is of more than 50% in every district.

Table 10: Level of use of compost by district

District	Increased (%)	Decreased (%)	Same as before (%)	Don't use (%)
Khagrachari	52.5	2.5	36.3	8.8
Rangamati	51.2	2.4	36.6	9.8
Bandarban	56.3	2.5	13.8	27.5
All	**53.3**	**2.5**	**28.7**	**15.3**

3.2.5 Livestock rearing and vaccination increased

In group discussion, community people said that they have received training on livestock rearing from this project. Most participants during group discussions said that after training received, livestock rearing has increased and some benefits of this have already been visible. The participants also said that this project supported them to get livestock vaccination facilities from the GoB livestock department. This information was cross-checked with households' survey. Analysis of household survey data shows that around 80% (193 hhs) households have reared livestock. Out of this 80% (?), around 60% households reported that they have increased livestock rearing before this project and 2.1% households reported they have started to livestock rearing only after involvement in this project. On the other hand, around 10% households reported that they have decreased livestock rearing and 8% reported same as before of livestock rearing.

The findings also show that 39% (75) households out of the 193 households who have reared livestock reported that livestock rearing supports the meeting of their families consumptions fully with few accesses. A further 27.5% (53 hhs) respondents reported that livestock rearing meets the family demand fully without having no access, 30.6% (59 hhs) respondents reported partially fulfill their demand and 3.1% (6 hhs) respondents reported very less fulfill their families demands as well.

3.2.6 Access to market facilities increased

A total of 8 market infrastructures (2 in Khagrachari, 4 in Rangamati and 2 in Bandarban) have been constructed in the three hill districts with CHTDF support through the three hill district councils to enable community people to have easy access to market facilities. A group discussion with Bazar committee members and stakeholders was conducted at Kattali Bazar of Longadu upazila in Rangamati district where infrastructure (one latrine and two tin set market infrastructures in the existing market) was constructed with CHTDF support. The participants said that these initiatives have created an opportunity to stock up more materials and goods in the market. The participants said that earlier there was not enough space in this market, it always remained unclean and during rainy

season people were not interested to come at this market because of poor infrastructure facilities. Now many people from remote areas come to sell their vegetables and other products in this market and buy necessary goods for their families as well. The participants also said that earlier people came to sell their product during week days but that now they come in other days of the week. They believe that if the bazar committee maintains the market infrastructure properly, people can get easy access to market facilities. However they recommended constructing a drainage system and installing a tube well in this market. They said that they will communicate with local union parishad, hill district council and development to resolve their existing problems in this market.

3.2.7 Irrigation facilities increased

CHTDF supported to five irrigation schemes through Hill District Councils under support from AFSP in the three hill districts. The types of scheme varies district to district, construction of dam, irrigation channel new construction and or expansion, providing low lift power pumps, etc. The study team sat one group of community people who benefited from irrigation facilities at Boradam of Dighinala upazila in Khagrachari. A total of eight farmers from different villages participated in the group discussion. The farmers said that both households and geographical coverage have increased because of the irrigation facilities. They mentioned the frequency of cultivation has increased in their area. The farmers also said that earlier they cultivated 300 acres land only once in a year, but this year they have cultivated 100 acres land out of 300 acres in another season which was not possible earlier. "Earlier due to lack of irrigation facilities only 300 hhs were involved in cultivation but now number of farmers have increased and a total of 500 hhs have been benefiting directly and indirectly from this irrigation facilities", the farmers said in group discussion. They also added that they got sufficient water on time for their lands this year. Due to the cultivation of 100 acres land in another season, production has increased and this lessened the food insecurity for many households. The farmers also mentioned that employment opportunities as well as income have increased due to this irrigation facilities. They said that if irrigation can be provided timely during cultivation this can have a good impact at household and community level due to increasing production and employment generation for the marginalized. Finally the farmers shared their future plan with the study team and said that they will form an irrigation management committee for proper management of the drainage system. In addition they will search for another fund from Khagrachari Hill District council, local Upazila Parishad and Union Parishad to extent the facilities so that 300 acres land could be included under the irrigation facilities for two times cultivation in a year.

3.2.8 Entrepreneurship developed

14.5% respondents of the total surveyed FFS households reported that they received training on entrepreneurship development, marketing and processing of product. This percentage was split between 28% respondents in Rangamati, 10% and 5% respondents in Khagrachari and Bandarban respectively.

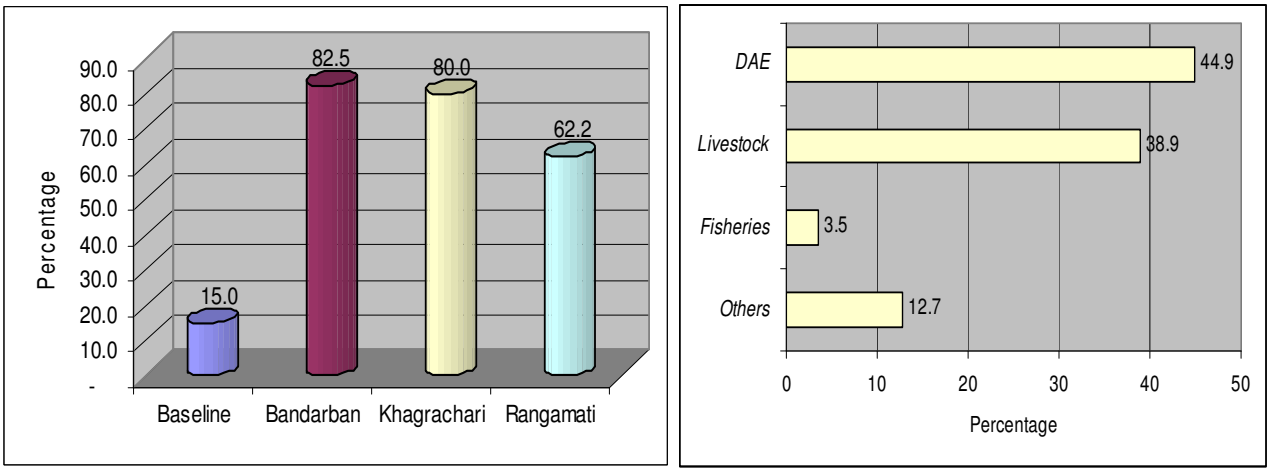
Out of the 14.5% respondents who received training, it is found that around 94% of them received training on entrepreneurship development, 96% on marketing and 93% on processing of agro product.
Analysis of data shows that 88.6% of respondents reported that training contributed to an increase in product marketing and household income. During the group discussion with weaver groups, members in three hill districts said that after receiving training, they have been benefiting in different ways. For instance, households survey data analysis findings show that 28.6% respondents reported increased of product's quality, 74.3% reported their cost-benefit analyzing skill developed, 51.4% reported profit increased than before, 25.7% reported their customer dealings system improved, 31.4% reported their business management skill improved, 45.7% reported their record keeping of regular transactions improved, 28.6% reported increased market linkage, and 23% reported they are now marketing their product in a group through Para Development Committee.

3.3 Expected Results: Demand driven, integrated and decentralized extension system developed

3.3.1 Access to services and facilities of GoB line departments

The data analysis revealed that 74.8% of the total surveyed households have access to extension services offered by the GoB line department such as the Department of Agriculture Extension, Department of Livestock and Department of Fisheries. A positive sign is that a significant number of households have increased access to these facilities from the baseline. Bandarban had the highest access to services (82.5%) whereas Rangamati had the lowest (62.2%).
Survey data shows that people have more access to the Department of Agriculture extension which is around 45%, whereas Department of Fisheries is lowest than the others people have access to services. In addition around 39% people have access to livestock services offered by the GoB livestock department and 12.7% people have access to extension services offered by other GoB line department.

Figure 12: Percentage distributions of farmers with access to extension facilities



3.3.2 Services received from GoB line departments

According to the survey responses, 53.7% of the total surveyed households received services offered by GoB line departments and other stakeholders. This is most common in Bandarban where 77.5% of households received services and was the least in Rangamati (29.3%). As baseline information was not available, the study team included a question in the survey questionnaire to get information on it's previous status. Subsequently it was found that 34.3% of same surveyed households reported to receive training before project intervention. Out of the households who received services, 10.0% were very satisfied with services from GoB line department, around 74% are satisfied and around 16% households are not satisfied with their services.

Table 11: Percentage of households that received services from GoB line department and other stakeholders by district

District	After project intervention	Before project intervention
Khagrachari	55.0	33.8
Rangamati	29.3	24.4
Bandarban	77.5	45.0
All	**53.7**	**34.3**

Table 12: Level of satisfactory services offered by GoB line departments and others services providers

District	Very satisfied	Satisfied	Not satisfied
Khagrachari	13.2	83.0	3.8
Rangamati	6.8	59.5	33.8
Bandarban	11.8	82.4	5.9
All	**10.0**	**73.8**	**15.9**

3.3.3 Training/orientation on modern agriculture technologies

About 99% of the total surveyed FFS households reported that they have received training/orientation either from FFS or Community livestock workers or Community poultry workers or GoB line departments from this project. Around 98% of the total surveyed farmers reported that they received training from the Field School Facilitators (FSF), around 41% from GoB line departments, whereas 1.2% from community livestock workers, 0.4% from community poultry workers. In addition 4% farmers reported receiving training from others services providers. According to survey responses, most of the households were satisfied with services from FSF, CLW and CPW. Only 1.3% households reported that they were not satisfied with their services.

Table 13: Satisfaction level of training received from FSF, CLW and CPW (in %)

District	Very satisfied	Satisfied	Not satisfied
Khagrachari	50.0	50.0	0.0
Rangamati	46.3	50.0	3.7
Bandarban	18.2	81.8	0.0
All	**38.5**	**60.3**	**1.3**

Uthoaiching Marma – Raised Awareness and Prevented Cattle Diseases

Uthoaiching Marma, 20 years old, lives in the Kyamlong Para village, Kuhalong Union of Bandarban Sadar Upazila. He is studying in class ten and preparing for his Secondary School Certificate. His education has been interrupted by the difficult financial situation of his family (his father, a day laborer, is the only breadwinner of the family). Utoaiching was always eager to help support his family but he lacked technical knowledge and employment opportunities.

At the beginning of 2011, Uthoaiching's was selected as Community Livestock Worker (CLW) by the Para Development Committee (PDC) in his community as a result of his eagerness and education. He participated in a 7 days residential skill development training on livestock in Bandarban based on the concept that "prevention is better than cure". He wanted to implement what he learned at the training in his community and contacted the Department of Livestock Services in Bandarban. With support from the GoB line department in the Bandarban district, he received vaccines for cattle and began administering them. As a result, the community members are now benefiting from having the vaccination services directly available to them to them in their village.

Utoaiching attends the PDC meetings at community level and Union Facilitation Committee (UnFC) meetings at union level regularly. He shares his knowledge and raises awareness in the community about preventing cattle diseases. Uthoaiching Marma also provides technical backstopping services.

Uthoaiching has gained technical knowledge on how to preserve vaccines, deworm cattle, vaccninate, and help prevent cattle from aquiring diseases. He communicates regularly with the GoB Livestock Officer and coordinates with the GoB line department to receive vaccines. Through these activities he has earned an income, which he divides between his family household expenditure and his continuing education costs.

3.3.4 Utilization of training knowledge

Group discussion with FFS communities confirmed that trainings received from the AFSP project have increased their knowledge and capacity in terms of modern agriculture cultivation. Analysis of survey data shows that 97.5% of the total surveyed FFS households received training on agriculture, followed by 100% in Rangamati, 96.3 in Khagrachari and 96.3% in Bandarban. Livestock was the second highest with around 66% surveyed households received training, followed by 82.5% in Khagrachari, 65.9% in Rangamati and 50.0% in Bandarban. In addition 18.6% of households reported to receive training on fisheries, 1.2% households on Mushroom and another 1.2% on honey bee.
Overall, the knowledge acquired by farmers during the training sessions was utilized in different areas of agriculture business. According to the survey responses, the training on vegetable cultivation was mostly applied, with 82.2% of respondents indicating that they utilize this knowledge, followed by the use of knowledge on poultry rearing (66.5%) and fruit gardening (60.7%). Business training was the least likely to be utilized by farmers.

Table 14: Utilization of training knowledge in different areas (in %)

Sl.	Area of knowledge utilization	Khagrachari	Rangamati	Bandarban	All
1.	Fruit gardening	31.3	76.8	73.8	60.7
2.	Vegetable cultivation	87.5	78.0	81.3	82.2
3.	Spices cultivation	27.5	81.7	8.8	39.7

Sl.	Area of knowledge utilization	Khagrachari	Rangamati	Bandarban	All
4.	Jhum/Shifting cultivation	13.8	40.2	27.5	27.3
5.	Fish culture	11.3	7.3	7.5	8.7
6.	Poultry rearing	75.0	65.9	58.8	66.5
7.	Beet fattening	37.5	41.5	17.5	32.2
8.	Cow rearing	67.5	62.2	40.0	56.6
9.	Goat rearing	28.7	26.8	10.0	21.9
10.	Pig rearing	15.0	36.6	7.5	19.8
11.	Processing of agro product like (Turmeric, Ginger, Banana, Pineapple etc.)	20.0	17.1	16.3	17.8
12.	Business (Grocery shop, tea stall, trading/stock business etc.)	0.0	11.0	2.5	4.5
13.	Others (include horticulture, mushroom cultivation, honey bee keeping etc.)	15.2	13.4%	18.9	15.8

Gains from training applied at the FFS at PDC

The Birandra Kishore Para Development Committee (PDC) of the Matiranga Upazila is comprised of 53 households and an ethnically mixed community (Tripura & Bengalee). Most of the inhabitants of this PDC are marginal and landless farmers and day laborers. In 2010, partner NGOs started to work in this community under the CHTDF and in the same year the Khagrachari Hill District Council also started implementing the Agriculture & Food Security Project supported by CHTDF.

With the intervention of the Khagrachari Hill District Council, Farmer School Facilitators (FSF) for each PDC was recruited and received training on integrated farm management through a leaning-by-doing process. After completion of the training, the FSFs selected interested farmers to attend the Farmer Field Schools (FSF). The FSF conducted sessions on seed bed preparation, pit preparation, hand pollination, fish culture, compost preparation, UMS, seed treatment of turmeric and ginger, broody hen management and other agricultural practices. As a result, the farmers began planting different types of leafy vegetables systematically in their gardens.

With the CHTDF Agricultural Development Project (ADP) grant, the PDC undertook fisheries & turmeric projects and used the training received in the FFS sessions. Certain agricultural practices changed. For example, for the first time, community members used seeded treatment before cultivating turmeric. They are expecting to reap a good harvest from the turmeric project. The farmers also released 6,000 fingerlings into a pond. They hope to get high profits from this fishery project as before releasing the fingerlings they prepared the pond and are now feeding the fish according to the instructions received at the FFS. The community people are only applying the FFS techniques in the implementation of project activities but they are also practicing them at household level. The willingness to apply the new agricultural techniques stems from increased production already observed after applying the techniques. Community members are now

confident that if they can apply the FFS techniques properly in their farming they will get better outputs and economic benefits. It is also observed that social cohesion in the community has increased through involvement in the project activities. Community members have planned to expand and diversify project activities to gain more economic benefits, if the ongoing project produces the desired results.

3.3.5 Establishment of Farmer Field Schools (FFS) and Field School Facilitators (FSF) developed

A total of 150 Farmers Field Schools were established under 150 PDCs in three hill districts where FFS members were involved in an experiential learning process, learning by doing approach through which farmers have learned different topics related to agriculture, livestock and fisheries for better management of their farm.

One of the important initiatives of this project was selecting and training Field School Facilitators (FSFs) at the community. Under this project, a total of 150 FSFs (Male-130, Female-20) have developed where 30 in Khagrachari, 30 and 90 in Rangamati and Bandarban respectively. The role of Field School Facilitators in establishing FFS and conducting FFS sessions by engaging farmers in an Experiential Learning Process or applying the Learning by Doing Approach are vital in order to maintain the quality. Hence the project has given emphasis on the capacity development of the FSFs in the Season Long Learning (SLL) training. After receiving training, they conducted resource mapping and need assessment within the community. During group discussions, the FSFs in the three districts confirmed that farmers got benefits from their sessions like seed selection, seed bed and treatment, seeds' germination test, pit method, broody hen management, hand pollination, beef fattening, identification of poultry and livestock daises, vaccination, urea-molasses-straw, compost preparation, banana and vegetable cultivation method, identification of beneficial and harmful insects, FMA, learning plot establishment, crop calendar. The FSFs said that they have learned many new things since their involvement in this project. Their facilitation skills with different stakeholders have been enhanced. In addition learning on the FFS concept helped them to increase their household production by applying the learning at their family homes besides others.

*"**I had nothing to do before this project. After appointed as a FSF my interaction and communication with the community people have significantly increased, as a result relationship strengthened as well. People got benefits from my services and they were very satisfied with my services which made me easier to be elected as a counselor of Union Parishad in the very last UP election in my area at 7 no. ward of Kamalchari union, Khagrachari**", Mongching Tu Marma, a FSF of this project.*

The FSFs said that they have found changes at the community level due to the implementation of this project. The most important is that observation capacity of the farmers enhanced. Now farmers are finding out the actual problems in their field. If they can't understand the problems in the field they consult with FSF and take necessary measures. The farmers are now aware about the pesticide and fungicide which was not

earlier and they are more aware about the cultivation of vegetables and crops in different seasons.

In group discussions, one farmers group said, ***"FSFs are our resource and we always visited to them to seek suggestion about employment of modern agriculture technologies when we needed".***

Most of FSFs in the group discussions said that after end of the project they will keep the Farmer Field Schools functional with the support of PDC and continue to support their communities through sharing their learning and giving proper suggestions to the farmers. Some of the FSFs stated that they have to search another relevant job for their livelihood. If PDC can continue them with some honorarium they all will engage to serve the community.

Paya Mro- A successful Field School Facilitator in Integrated Farm Management (IFM)

Paya Mro, 28, is involved in jhum cultivation in the CHT. He was appointed as a Field School Facilitator – AFSP in August 2010 in Bandarban. He attended the Training of Trainers on Farmers Field School - Integrated Farm Management (FFS-IFM) for 36 days. After the successful completion of the training, he received a certificate on graduation.

Prior to his involvement in the Farmers Field Schools (FFS) he was committed to providing a service for the greater well-being of his community but he lacked the technical knowledge to achieve this.

As Field School Facilitator, Paya Mro created an environment conducive to learning. He provides timely backstopping support to the community and organizes learning sessions in the FFS at 7-day intervals. He gives support to either individuals or small groups, depending on the nature of the activity. He facilitates the work of the FFS on social mapping, conducting baselines and needs assessment. He has assisted in establishing learning sessions on broody hen management, homestead vegetable, farm yard manure, fruit tree management (fertilizing & mulching) and other agricultural practices, as required by the community members.

His advice has been gradually accepted and valued in the community. He has also implemented his technical knowledge in his own household which has allowed his family to increase their household income.

3.3.6 Farmers' field day increased awareness

Organizing farmers' field days with FFS communities was one of the attractive events to the farmers of this project. During FGDs, all FSFs confirmed that they have organized farmer field days in their working areas. PDC members, local UP Chairmen, UP members including females, traditional leaders, local elites, GoB Agriculture officers, other GoB representatives and NGO representatives participated in this event. The farmers received new technical knowledge on agriculture cultivation through practical demonstration of the learning plots which supported them to aware them on new modern agriculture technologies and get better production as well. Successful farmers who got good output due to application of new techniques shared their experience and reasons behind the success helped to encourage the farmers and disseminate the information to the participants. Local government representatives and GoB line department representatives described about the benefits of the FFS techniques and urged the community peoples to adopt and practice these methods for better yield.

3.4 Expected result: Improved research and knowledge dissemination on upland techniques

3.4.1 Benefits from participation in Jhum research initiatives

Jhum cultivation is one of the occupations of many poor and extreme poor households in the CHT. They have lack of knowledge on modern agriculture technologies and suitable crops for the Jhums. Although they worked hard they didn't get better production from jhum cultivation. CHTDF under the Agriculture and Food Security Project has undertaken jhum research initiatives in the three hill districts. Senior Scientific officers of GoB Agriculture Extension department of the three hill districts were involved in this research on jhum cultivation. During interview, the scientific officers said that the major objectives of this research were to find out suitable crops for jhum cultivation in the CHT as well as introduce modern agriculture technologies to the jhum's farmers. They also said that farmers in the selected areas for jhum research were closely involved in every stage of the research like jungle cutting, burning, land preparation and cleaning, seed sowing and fertilizer management and weeding etc. with the agriculture scientific officers. The others farmers beyond the research plots observed very closely the new ideas. This year farmers cultivated 18 varieties of crops in the jhum research plots and it was more before the research initiatives.

In Rangamati, Dr. A S M Harun-Ur-Rashid, senior scientific officer said that NERICA, CHANDINA, BR-1, NANYAPETI are the mostly suitable crops for jhum cultivation in the CHT. Farmers got better production and profits from these crops than that of others cultivated in the jhum research plots which helped to reduce their lean period of food insecurity this year. The scientific officer said that as farmers got more production by using modern agriculture techniques in the research plots than by applying tradition techniques, it has created an opportunity to continue the jhum research in widespread areas of the CHT.

In Bandarban district, the researcher Md. Abdus Quddus, high official of Department of Agriculture and Extension (DAE) said that their research is on going and the result was yet to be measured. He said that considering the field condition of the cultivated crops, new variety NERICA may be the best and suitable crops to increase food production in the jhum field of the CHT.

The researchers said that initially the farmers thought the modern agriculture techniques were not appropriate for jhum cultivation but now they are very much interested to get better crops production through research plots.

3.4.2 Floating vegetable cultivation technique introduced

Floating vegetable cultivation is a new technique in the CHT that CHTDF introduced through this project. This technique was introduced to the communities living on and around the Kaptai Lake. Discussion with the communities confirmed that initially two households from Dulachari para at Mogban union of Kaptai upazila constructed floating gardens and became success. Following the success of the floating gardens, other families in that village replicated the technique. During discussion with them the communities said that they have established a total of 150 floating gardens plots in their village and cultivated red amaranth, white radish, French bean, pea, mustard green, okra, coriander, potato, Indian spinach and tomato which provided food and income for 25 families. They said that as they have no cultivated land and have less income opportunities, the floating gardens created an opportunities for them to earn money and food as well.

3.4.3 Agriculture learning plots established

Group discussion with both male and female of FFS communities in the three hill districts confirmed that agriculture learning plot was one of the successful initiatives implemented under this project. They said that learning plots made changes among farmers at the community level. According to survey responses, about 97% of the surveyed FFS households ensured their involvement with agriculture learning plots, followed by 100% in Rnagamati, 97.5% in Bandarban and 92.5% in Khagrachari. This result indicates that this project made an interest to the farmers on modern agriculture technologies. It has also found that more than 95% of the surveyed households who were involved in learning plots reported to get benefits. Replication of good practices among the farmers has been increasing day by day. During group discussion in Bandarban, both male and female confirmed that 18 households have replicated broody hen management and became successful. They also reported that 29 households have replicated FYM and mulching and 25 households have replicated hand pollination in sweet gourd and got better profits.

4. Linkage with GoB line departments established

Linkage established among community people, field school facilitators and the GoB line departments especially, with the department of Agriculture and Extension, Department of Livestock Services and Department of Fisheries was one of the significant results of this project. Discussions and interviews with local communities, in the three hill districts said that they received technical information from the GoB line department on modern agriculture practices, livestock rearing and fish cultivation as well. The GoB line department officials visited to the community's agriculture project and gave suggestions to the farmers and informed them about benefits of FFS techniques. They also conducted training during SLL sessions and monitored trainings at community level conducted by FSFs.

Ms. Mousumi Das, FSF of Marakhola Hindu Para at Lama upazila of Bandarban said, "She can communicate with GoB line departments and master trainers over mobile to seek services when she needs which made possible only for contribution of this project and it was not possible earlier before this project".

Mostafizur Rahman- An excellent supportive government agriculture extension officer

Md. Mostafizur Rahman, Upazila Agriculture Officer of Ruma, Bandarban, has become a popular and respected member of his community as he is perceived to be a pioneer of mixed fruit gardening in Ruma and as someone who disseminates modern technologies to the farmers.

Although the majority of the inhabitants of the CHT depend on agriculture, the support provided by the government institutions in term of technology and inputs has not been sufficient to increase agricultural production. Those farmers who have been trained by the Farmers Field School as well as the Field School Facilitators are now able to communicate with the master trainers and the GOB line department on a variety of technical issues. They do not hesitate to ask for advice on quality inputs, insect pest infestations, fertilizer choices, livestock vaccination and disease management of cattle and poultry. Farmers can easily access Md. Mostafizur Rahman for advice which in turn increases their agriculture production. They frequently come to the Upazila Agriculture Office and at times call Md. Rahman using a mobile phone for instant access to important advice and messages. People can easily communicate with the Government Horticulture Centre, BADC & the fish nursery of Bandarban.

Mr. Rahman expects to see at least ten model farms (with mixed fruits) established in the Ruma Upazila. Observing people benefiting from these farms and technological advances motivates him to establish more farms. He hopes that in the future he will work in the selection of local crop varieties which will benefit his community and improve marketing facilities.

5. Stakeholders involvement in project planning and implementation

UnFC played an important role both in project planning and implementation. They were involved in para/community selection process for providing FFS and rice bank support which they conducted based on the assessment and needs of the community. During implementation of project activities, they have monitored the project activities along with the PDC members and took immediate initiatives to solve problem if raised at any PDC. GoB line departments were directly involved in the community initiated projects. The representatives of the GoB line department assessed the feasibility of ADP projects under farmer field schools support and provided technical assistant to the PDC and farmers. In addition they conducted training session at the community level which helped to strengthen the relationship and made easier to get the services.

Since most of the project activities implemented through HDCs, they were also involved closely with the community in project implementation which made a way for the community people to have access to HDCs.

6. Women and vulnerable households benefited

During group discussion with UP chairmen, women UP members, Headmen, School teachers, Karbari and PDC presidents who are the member of UnFC in the three hill districts, the study team tried to know how this project has addressed the women and vulnerable households. The participants said that this project has contributed to facilitate women empowerment by ensuring their participation in different committees and meetings, prioritizing them in training for skill development, planning and implementation process of the project activities, ensuring their participation in decision making process and decision over distributing responsibilities to women. Due to having participated in the meeting, training and social activities women awareness and confidence increased, voice raised that resulted leadership development of the women. The participants also said that earlier vulnerable households were left out from most of the local development initiatives but the project has been addressed the community as a whole, so people from every sphere of the society have opportunity to participate and receive equal benefits from this project.

"I have got opportunity to work at PDC as cashier which has increased my level of confidence. I worked for my community and that is why; they have elected as a counselor of Union Parishad. I believe that this is contribution of my good work at PDC" *Paheli Chakma, UP councilor, Golabari union, Khagrachari.*

7. Sustainability

The project achievements are likely to be sustainable through the work of Field School Facilitators (FSFs) who expressed that after the end of the project they will keep the Farmer Field Schools functional with the support of PDC and continue to support their communities through sharing their learning and giving proper suggestions to the farmers.

The savings scheme and rice banks are other key deliverables of the project that are likely to continue to be implemented in the future, benefiting community members in the CHT.

Finally, the linkages established with the line departments of the Government of Bangladesh are sustainable aspects of the AFSP.

8. Conclusions and recommendations:

Although the food security project (AFSP) is a short duration one, the study revealed that the project has many good results for the end beneficiaries. It has contributed significantly to reduce the number of months of food deficit. The rice banks have contributed to the observed increased in household rice stock after consumption. As a result of project intervention, community people have a greater understanding about production of High Yielding Variety crops. In addition, the community people have enjoyed access to extension services from the GoB line departments and others services providers. All the key results and learnings of the project reflect important directions for the future intervention. The major recommendations of the study are given below;

- UnFC members and community people suggested extending the FFS initiatives in new areas and its learning need to disseminate in more coordinated way through involving with GoB line departments and other concerned stakeholders to promote the modern agriculture techniques.
- Regarding the sustainability and effectiveness of savings groups established by CHTDF under AFSP, much greater emphasis must be placed on skills training among the participants to ensure that accounting practices are transparent and that all participants can play an equal and active role in decisions regarding the use of funds.
- Due to delayed fund disbursement to the FFS communities in some cases, they could not start agricultural projects on time, which sometimes hampered productivity. So fund should be disbursed timely for agricultural projects considering the season.
- CHTDF should consider organizing workshop and exchange visits of farmers in the crops growth and harvesting stage during research, and research findings and new modern techniques should be shared with the farmers at PDC level. This should be considered in the FFS activities.
- Use of chemical fertilizers in the farmer's fields has been increased than baseline. Although farmers reported using right combination of different types of fertilizers, CHTDF should give more emphasis on using more compost fertilizers in the fields rather than chemical fertilizers across the CHT.
- Future replication of AFSP activities, such as integrated pest management and floating gardens, should include a thorough assessment of what, if any negative environmental consequences may result from these activities, and how they might

best be managed. This will likely entail increased awareness raising among, as well as improved technical support for participating households

- Linkages made with GoB line departments have also continued. Farmers may have contact numbers, and whenever concerns over pests, or other agricultural problems arise, they contact these officers by mobile for advice or follow-up technical support.
- CHTDF should organize more skill development training on sewing and handicrafts by the GoB line departments at the community level.
- CHTDF should support weaver groups to establish a linkage with Hill District Council (HDCs). HDCs provided grants for this type of groups earlier. If they have access to them it will be better for weaver groups to explore new opportunities.
- As Jhum research is a new initiative in the CHT and farmers got benefits, CHTDF should take initiatives to replicate the modern agriculture technologies and experimented crops among the Jhum farmers in the new areas of the CHT. Additionally, for a successful Jhum research, all researchers are recommended to extend the time duration at least up to three years and ensured more logistics support for the researchers.
- As floating garden is a new cultivation technique in the CHT and the families who have no cultivable land got benefits and as many other families replicated the technique, CHTDF should consider giving technical support to the interested families on floating cultivation and this techniques may be considered for replication in other areas of the CHT.
- If the community based organization like PDC can make plan and implement the projects sharing and involving with local government and GoB line departments, it helps to increase people access to those institutions and problems related to project implementation can be solved in easier way.
- Information dissemination workshop is the best way to increase people awareness on having access to services from GoB line departments and other service providers.

Annex 1: List of surveyed upazilas and unions

List of union selected for Rice Bank

Sl.	District	Upazila	Union
1	Bandarban	Ruma	Ruma
			Galengya
			Paindu
			Remakree Pranksha
		Lama	Gozalia
			Lama Sadar
2	Khagrachari	Khagrachari Sadar	Bhaibonchora
			Golabari union
		Mahalchari	Sindukchari
			Keyang Ghat
			Mohalchari Sadar
3	Rangamati	Rajasthali	Gaindhya
			Ghilachari
			Bangalhalia
			Bangalhalia
		Bilaichari	Farua
			Bilaichari Union

List of unions selected for FFS:

Sl.	District	Upazila	Union
1	Bandarban	Lama	Gozalia
			Lama Sadar
			Soroi
		Ruma	Ruma Sadar
			Paindu
2	Khagrachari	Khagrachari Sadar	Khagrachari Sadar Union
			Perachara union
		Mohalchari	Mohalchari Sadar
			Maischari
3	Rangamati	Rajasthali	Bangalhalia Union
			Gaindhya
			Ghilachari
			Bangalhalia Union
		Rangamati Sadar	Mogban
			Sapcharichari Union

Sl.	District	Upazila	Union
		Bilaichari	Farua Union
			Bilaichari Union
			Kengrachari Union

Annex 2: List of FGD and In-depth interview

Respondent	Village	Union	Upazila	District	Remarks
Rice bank community	Kongchai Karbari Para	2 No. Kamalchari	Khagrachari Sadar	Khagrachari	FGD
	Pablakhali Mukh Para	Khedarmara	Bagaichari	Rangamati	FGD
	Meolarchar Para	Lama Sadar	Lama	Bandarban	FGD
FFS Community	Singinala	Perachara	Khagrachari Sadar	Khagrachari	FGD
	Dewanchar Para	Barkal union	Barkal	Rangamati	FGD
	Mullaipara	Ruma Sadar	Ruma	Bandarban	FGD
Field School Facilitators			Lama & Bandarban Sadar (together)	Khagrachari	FGD
			Rangamati Sadar	Rangamati	FGD
			Bandarban Sadar & Lama (together)	Bandarban	FGD
Weavers Groups	Khagrapur	Perachara	Khagrachari	Khagrachari	FGD
	Rangapani Para	Rangamati Pourashova	Rangamati Sadar	Rangamati	FGD
	Faruk Para	Sualock	Bandarban Sadar	Bandarban	FGD
Representative of Bazar committee, UP, Farmers and local traders	Kattali Bazar	Bhasanyadam	Longadu	Rangamati	GD
Farmers (irrigation		Boradam	Dighinala	Khagrachari	FGD

Respondent	Village	Union	Upazila	District	Remarks
facilities)					
UnFC		2 No. Kengrachari		Khagrachari	GD
		Bandukbhanga	Rangamati Sadar	Rangamati	GD
		Lama Sadar & Gajalia (together)	Lama	Bandarban	GD
GoB Agriculture Officer			Khagrachari Sadar	Khagrachari	In-depth Interview
			Rangamati Sadar	Rangamati	"
			Ruma	Bandarban	"
Partners' Focal Point of ASFP			KHDC	Khagrachari	"
			RHDC	Rangamati	"
			BHDC	Bandarban	"
Jhum Researchers				Khagrachari	"
				Rangamati	"
				Bandarban	"

Annex 3: List of Survey Team

Sl.	Name	Designation	Organization	District	Remarks
1.	Ching Shing Prue	UC	CHTDF	Bandarban	**Quantitative**
2.	Md. Nazim Uddin	CEFS	CHTDF		
3.	Atu Marma	Training Officer	GRAUS		
4.	Md. Hasan	Training Officer	EKATA		
5.	Rebati Ranjan Chakma	EDFO	Tahzingdong		
6.	Md. Salim Uddin	UC	CHTDF		
7.	Timothy Khyang	CEFS	CHTDF		
8.	Md. Yusuf	Livestock Officer	GRAUS		
9.	Dolly Prue	Agri- Officer	GRAUS		
10.	Nue Mong Prue Marma	CEFS	CHTDF		
11.	Ranajan Kumar Das	Agri-expert	CHTDF	Bandarban	**Qualitative**
12.	Mr. Provat Tripura	UC	CHTDF		
13.	Kyasweprue Marma	Dist Agri Expert	CHTDF	Khagrachari	**Quantitative**
14.	Dr. Subarun Chakma	TO (Livestock)	TUS		
15.	Aungkyawshan Marma	CEFS	CHTDF		
16.	Atis Chakma	TO (Agriculture)	TUS		
17.	Suman Chakma	CEFS	CHTDF		
18.	Zhantu B. Chakma	Dist. Live. Expert	CHTDF		
19.	Rabiul Islam	FSF Organizer	KHDC		
20.	Md. Quyum Mondal	EDFS	CHTDF		

Sl.	Name	Designation	Organization	District	Remarks
21.	Emon Tripura	FSF Organizer	KHDC		
22.	Kislu Chakma	FSF Organizer	KHDC		
23.	Snigdha E. Tigga	DCEO	CHTDF		
24.	Bikram K. Khisa	Dist. CEP Expert	CHTDF	Khagrachari	**Qualitative**
25.	Pulak Chakma	Dist. ED Expert	CHTDF		
26.	Dipannita Chakma	UC	CHTDF	Rangamati	**Quantitative**
27.	Shyamal Chakma	CEFS	CHTDF		
28.	Ripan Chakma	EDFO	SAS-Barkal		
29.	Bidhan Chakma	FMRO	Shining Hill		
31.	Amirul Islam	CEFS	CHTDF		
32.	Ranjit Tanchangya	CEFS	CHTDF		
33.	Sonia Sultana	TO-Fishery	CIPD-Sadar		
34.	Sajib Chakma	FSFO	RHDC		
35.	Pranabendu Chakma	NUNV	CHTDF		
36.	Wenue Prue	CE-Expert	CHTDF		
37.	Bana Ratna Chakma	CEFS	CHTDF	Rangamati	**Qualitative**
38.	Dipa Chakma	CEFS	CHTDF		
39.	Apul Tripura	ED-Expert	CHTDF	Bandarban	**Data Entry Operator**
40.	Happy Chakma	NUNV	CHTDF		
41.	Nikon Chakma	Dist QIF Assist.	CHTDF	Khagrachari	
42.	Jaly Chakma	NUNV	CHTDF		
43.	Suparna Dewan	Dist QIF Assist.	CHTDF	Rangamati	
44.	Ashok Chakma	AFMRO	CIPD-Sadar		

Annex 4: AFSP Assessment of Results Questionnaires and Checklist

Household Survey Questionnaire

Assessment of Results of AFSP, CHTDF

Respondent: Project Benefited Households (FFS)

Questionnaire code			
Data Collection Date: (Year/Month/Date)			

1. Basic Information:

Name of the respondent	
Sex of respondent *(Male=1, Female=2)*	
Name of father/husband	
Is the respondent household head? *(Yes=1, No=2)*	
Main occupation: *(Code: Agriculture=1,Jhum cultivation=2, Fish cultivation=3, Day labor=4, Rickshaw/van puller =5, Shop keeper=6, Petty trader =7, Boat driver=8, Service=9, Housewife=10, Other (specify).....=11)*	
Education of household head: *(Code: Below five=1, Class 6-8=2, Class 9-10=3, SSC or Equivalent=4, HSC or Equivalent=5, Degree and above=6, Illiterate=7, Other (specify) …….....8)*	
Age of the respondent	
Total months with the project	
District name	
Upazila name	
Union name	
Mouza name	
PDC name	
PDC code	
Para Ethnicity *(Chakma=1, Marma=2, Tripura=3, Bangali=4, Bawm=5, Chak=6, Khumi=7, Khyang=8, Lushai=9, Mro=10, Pankhoa=11, Tanchangya =12), Others (specify)……..*	
Name of data collector:	
Data quality checked by (name):	

2. Household members: Total male: ☐ Total female: ☐ Total: ☐

Age group	*# of HH members*	*Age group*	*# of HH members*
Below 5		16-45	
5-10		46-59	
11-15		60+	

3. Household Income:

3.1 Number of earning members in your family?

After project		**Before project**	
Male	Female	Male	Female

3.2 What are the reasons for decreasing of earning members in your family after Involvement with AFSP? ☐
(Separated=1, Retired=2, Accident=3, Death=4, Others ……. =5)

3.3 Sources of household income: ☐
(Increased=1, Decreased=2, Same as before project=3)

3.3 Average income (both cash and kinds) of your household in last 12 months Bhadra *(Aug-Sep'10)*- Sravan *(Jul-Aug'11)*?

Sl.	**Economic Activities**	**(BDT)**
1.	Crop Agriculture	
2.	Wage labor: Agriculture	
3.	Wage labor: Non-agriculture	
4.	Jhum cultivation	
5.	Livestock	
6.	Poultry	
7.	Trees/nurseries	
8.	Home gardening/Fruit/vegetables	
9.	Pisciculture /Fisheries	
10.	Small Business	
11.	Salaried employment	

Sl.	Economic Activities	(BDT)
12.	Transport: van, rickshaw, boat, motorcycle, cycle	
13.	Cottage industry	
14.	Selling of property	
15.	Other industries/factories	
16.	Remittances	
17.	Insurance	
18.	Working as a servant/maid	
19.	Student stipend	
20.	Food for Work (FFW)	
21.	VGF/VGD/Govt. support	
22.	Others (specify)……..	
Total		

4. Training:

Sl.	*Questions*	*Code/Number*
4.1	Did you receive training/orientation on modern agriculture technologies? *(Yes=1, No=2)*	
4.2	If yes, from where did you receive this training/orientation? *(Multiple answer)* *(Field School Facilitator=1, GoB Agriculture/Livestock/Fisheries=2, Community Livestock Worker=3, Community Poultry Worker=4, Other (specify) .....5)*	
4.3	Types of training/orientation received *(Multiple answer): (Agriculture cultivation=1, Fish cultivation=2, Mushroom cultivation=3, Honey bee keeping =4, Others (specify) ……=5)*	
4.4	Level of satisfaction of training/technical support from GoB line department *(Very satisfied,=1, Satisfied=2, Not satisfied=, Not Applicable=4)*	
4.5	Level of satisfaction of training/technical support from Field School Facilitators, Community Livestock and Poultry workers: *(Very satisfied,=1, Satisfied=2, Not satisfied=, Not Applicable=4)*	
4.6	Did you receive any training on entrepreneurship development, marketing, processing (harvesting maturity, post harvest practices like-grading, boiling, drying, packaging, storage etc.) *Yes=1, No=2*	

Sl.	*Questions*	*Code/Number*
4.7	If yes, which training did you receive? *(Entrepreneurship development=1, Marketing and extension=2, Processing of agriculture products=3)*	
4.8	Do you think this training contributed to increase in product marketing & household income? *(Yes=1, No=2)*	
4.9	If yes, please specify how the training contributed to increase in product marketing & household income? (Multiple answer) *(Quality product=1, Cost-benefit analyzing skill developed=2, Profit increased=3, Customer dealings improved=4, Business management skill improved=5, Record keeping of regular transactions=6, Increased market linkage =7, group marketing of product through PDC=8)*	

4.6 Utilization of training knowledge:

Sl.	**Area of knowledge utilization**	**After joining the project *(Yes=1, no=2, Did not get training=3)***
1.	Fruit gardening	
2.	Vegetable cultivation	
3.	Spices cultivation	
4.	Jhum cultivation	
5.	Fish cultivation	
6.	Poultry rearing	
7.	Beet fattening	
8.	Cow rearing	
9.	Goat rearing	
10.	Pig rearing	
11.	Horticultural	
12.	Mush room cultivation	
13.	Honey bee keeping	
14.	Activities after collection of Turmeric/ Ginger/Banana/Pine apple	
15.	Marketing of product	
16.	Business (glossary shop, tea stall, storage business etc.)	
12.	Others (specify)	

5. Accessibility:

Sl.	*Questions*	*Code/Number*	
		Before	*After*
5.1	Do you have access to extension services offered by GoB line department? (Multiple answer) *(GoB Agriculture=1, GoB Livestock=2, GoB Fisheries=3, Other (specify) .....4, Have no Access=5)*		
5.2	Did you receive any support from them? *(Yes=1, No=2)*		
5.3	Level of satisfaction of services received from GoB line department and others (Very satisfied,=1, Satisfied=2, Not satisfied=3)		

6. Household Production:

6.1 Have you increased your cultivation area after joining the project? *(Yes/No)*

6.2 Agriculture Production information (for last 12 months):

Sl.	**Crops name**	**After Project intervention** *September'10)- August'11*		**Before Project intervention** *September'09)- August'10*	
		Qnt.(kg)	*Unit price (Tk.)*	*Qnt.(kg)*	*Unit price (Tk.)*
1.	Paddy (Kg)				
2.	Ginger (Kg)				
3.	Turmeric (Kg)				
4.	Sugar Cane (#)				
5.	Vegetable (Kg)				
6.	Banana (# of chari)				
7.	Pine apple (No.)				
8.	Honey (Kg)				
9.	Mush room (Kg)				
10.	Papaya (Kg)				
11.	Cow rearing (No.)				
12.	Mango-Jackfruits (No.)				
13.	Poultry rearing (No.)				
14.	Goat rearing (No.)				
15.	Pig rearing (No.)				
16.	Fish cultivation (Kg)				
17.	Others (specify)				

16.

Sl.	*Questions*	*Code/Number*
6.3	Are you involved in learning plots? *(Yes=1, No=2)*	
6.3.1	If yes, did you get benefit from that plots? *(Yes=1, No=2)*	
6.4	Do you use fertilizer for producing crops? *(Yes=1, No=2)*	
6.4.1	Level of chemical fertilizer used after involvement with AFSP: *(Increase=1, Decreased=2, Same as before project=3)*	
6.4.2	Level of compost fertilizer used after involvement with AFSP: *(Increase=1, Decreased=2, Same as before project=3)*	
6.5	Use of pest and insecticides: *(Increase=1, Decreased=2, Same as before project=3, Newly using after Rearing project=4, Don't use=5)*	
6.6	Do you know and use High Yielding Variety crops and vegetables? *(Yes=1, No=2)*	
6.7	Live stock rearing: *(Rearing increase=1, Rearing decreased=2, Same as before project=3, Newly Rearing after the project=4, Don't rear=5)*	
6.8	Did the household demands fulfill by these productions? *(Fully fulfill with addition=1, Fully fulfill but not additional=2, Partially fulfill=3, Very less fulfill=4)*	

7. **Saving Schemes**

Sl.	*Questions*	*Code/Number*
7.1	Do you deposit to saving schemes? *(Regularly=1, Irregularly=2, No=3)*	
7.2	How much Taka have you saved under this scheme so far ……..…Taka	
7.3	Did you deposit Taka before joining this project? *(Yes=1, No=2)*	
7.4	Borrowing money for food: *(Increased=1, Decreased=2, Same as before=3, Stop borrowing after joining the project=4, Never borrowed=5)*	

8. Household Food availability

8.1 Household food security status in last 12 months:

Slno.	Month	Food was available (meet the demand)=1, More or less shortage (not always able to meet the demand)=2, Never meet the demand=3
1	Sravan *(Jul-Aug'11)*	1 2 3
2	Ashar *(Jun-Jul'11)*	1 2 3

Slno.	Month	Food was available (meet the demand)=1, More or less shortage (not always able to meet the demand)=2, Never meet the demand=3
3	Jiashtha *(May-Jun'11)*	1 2 3
4	Baishak *(Apr-May'11)*	1 2 3
5	Chaitra *(Mar-Apr'11)*	1 2 3
6	Falgun *(Feb-Mar'11)*	1 2 3
7	Magh *(Jan-Feb'11)*	1 2 3
8	Poush *(Dec 10-Jan'11)*	1 2 3
9	Augrahayan *(Nov-Dec'10)*	1 2 3
10	Kartik *(Oct-Nov'10)*	1 2 3
11	Ashyin *(Sep-Oct'10)*	1 2 3
12	Bhadra *(Aug-Sep'10)*	1 2 3

8.2 Food consumption of the household:

Sl.	Food items	Frequency	After project		Before project	
			Consumed	*Requirement*	*Consumed*	*Requirement*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Rice (Kg)	*Daily*				
2.	Wheat (Kg)	*Monthly*				
3.	Fresh fish (Kg)	*Monthly*				
4.	Dries fish (Kg)					
5.	Meat (Kg)	*Monthly*				
6.	Milk or milk products (Kg)	*Monthly*				
7.	Egg (No.)	*Weekly*				
8.	Vegetables (Kg)	*Daily*				
9.	Pulse (Kg)	*Weekly*				
10.	Fruits (Kg)	*Weekly*				
11.	Edible oil (Kg)	*Daily*				
12.	Salt (Kg)	*Daily*				

Sl.	Food items	Frequency	After project		Before project	
			Consumed	*Requirement*	*Consumed*	*Requirement*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
13.	Sugar (Kg)	*Monthly*				
14.	Gur (Kg)	*Monthly*				
15.	Others (specify)					

Household Survey Questionnaire

Assessment of Results of AFSP, CHTDF

Respondent: Project Benefited Households (Rice Bank)

Questionnaire code | | | |

Data Collection Date: (Year/Month/Date) | | | |

1. Basic Information:

Name of the respondent	
Types of respondent *Member of rice bank committee=1, Outside of rice bank=2)*	
Sex of respondent *(Male=1, Female=2)*	
Name of father/husband	
Is the respondent household head? *(Yes=1, No=2)*	
Main occupation: *(Code: Agriculture=1,Jhum cultivation=2, Fish cultivation=3, Day labor=4, Rickshaw/van puller =5, Shop keeper=6, Petty trader =7, Boat driver=8, Service=9, Housewife=10, Other (specify).....=11)*	
Education of household head: *(Code: Below five=1, Class 6-8=2, Class 9-10=3, SSC or Equivalent=4, HSC or Equivalent=5, Degree and above=6, Illiterate=7, Other (specify) …….....8)*	
Age of the respondent	
Total months with the project	
District name	
Upazila name	
Union name	
Mouza name	
PDC name	
PDC code	
Para Ethnicity *(Chakma=1, Marma=2, Tripura=3, Bangali=4, Bawm=5, Chak=6, Khumi=7, Khyang=8, Lushai=9, Mro=10, Pankhoa=11, Tanchangya =12), Others (specify)……..*	
Name of data collector:	
Data quality checked by (name):	

2. Household members: Total male: ☐ Total female: ☐ Total: ☐

Age group	*# of HH members*	*Age group*	*# of HH members*
Below 5		16-45	
5-10		46-59	
11-15		60+	

3. Household Income:

3.1 Number of earning members in your family?

After project		**Before project**	
Male	Female	Male	Female

3.2 What are the reasons for decreasing of earning members in your family after Involvement with AFSP? ☐
(Separated=1, Retired=2, Accident=3, Death=4, Others ……. =5)

3.3 Sources of household income: ☐
(Increased=1, Decreased=2, Same as before project=3)

3.3 Average income (both cash and kinds) of your household in last 12 months Bhadra *(Aug-Sep'10)*- Sravan *(Jul-Aug'11)*?

Sl.	**Economic Activities**	**(BDT)**
1.	Crop Agriculture	
2.	Wage labor: Agriculture	
3.	Wage labor: Non-agriculture	
4.	Jhum cultivation	
5.	Livestock	
6.	Poultry	
7.	Trees/nurseries	
8.	Home gardening/Fruit/vegetables	
9.	Pisciculture /Fisheries	
10.	Small Business	
11.	Salaried employment	
12.	Transport: van, rickshaw, boat, motorcycle, cycle	
13.	Cottage industry	

Sl.	Economic Activities	(BDT)
14.	Selling of property	
15.	Other industries/factories	
16.	Remittances	
17.	Insurance	
18.	Working as a servant/maid	
19.	Student stipend	
20.	Food for Work (FFW)	
21.	VGF/VGD/Govt. support	
22.	Others (specify)……..	
Total		

4. Household Food availability:

4.1 How many month do you have enough food availability during last 12 month?

Sl.	*Month*	*Food was available (meet the demand)=1, More or less shortage (not always able to meet the demand)=2, Never meet the demand=3*
1	Sravan (Jul-Aug'11)	1 2 3
2	Ashar (Jun-Jul'11)	1 2 3
3	Jiashtha (May-Jun'11)	1 2 3
4	Baishak (Apr-May'11)	1 2 3
5	Chaitra (Mar-Apr'11)	1 2 3
6	Falgun (Feb-Mar'11)	1 2 3
7	Magh (Jan-Feb'11)	1 2 3
8	Poush (Dec 10-Jan'11)	1 2 3
9	Augrahayan (Nov-Dec'10)	1 2 3
10	Kartik (Oct-Nov'10)	1 2 3
11	Ashyin (Sep-Oct'10)	1 2 3
12	Bhadra (Aug-Sep'10)	1 2 3

4.2 Food consumption of the household:

Sl.	Food items	Frequency	After project		Before project	
			Consumed	*Requirement*	*Consumed*	*Requirement*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Rice (Kg)	*Daily*				
2.	Wheat (Kg)	*Monthly*				
3.	Fresh fish (Kg)	*Monthly*				
4.	Dries fish (Kg)					
5.	Meat (Kg)	*Monthly*				
6.	Milk or milk products (Kg)	*Monthly*				
7.	Egg (No.)	*Weekly*				
8.	Vegetables (Kg)	*Daily*				
9.	Pulse (Kg)	*Weekly*				
10.	Fruits (Kg)	*Weekly*				
11.	Edible oil (Kg)	*Daily*				
12.	Salt (Kg)	*Daily*				
13.	Sugar (Kg)	*Monthly*				
14.	Gur (Kg)	*Monthly*				
15.	Others (specify)					

Sl.	***Questions***	***Code/Number***
4.3	Did you have food shortage before rice bank? *(Yes=1, No=2)*	
4.4	If yes, how many months you had food shortage before rice bank?	
4.5	Did you have any rice in your stock after consumption in last 12 months? *(Yes=1, No=2)*	
4.6	If yes, how many Ari of rice you have stocked?	
4.7	Did you have any rice in your stock after consumption in last year (before project intervention)? *(Yes=1, No=2)*	
4.8	If yes, how many Ari of rice you had stocked?	

5. Rice Bank:

Sl.	*Questions*	*Code/Number*
5.1	Do you think that rice could reduce lean period (food unsecured period) *(Yes=1, No=2)*	
5.2	If yes, by how many days?	
5.3	Did you borrow rice from rice bank during last one year? *(Yes=1, No=2)*	
5.4	If yes, how many Ari did you have borrowed (in total)?	
5.5	Did you paid back of rice with interest? *(Timely paid=1, Not timely paid=2, Not paid=3)*	
5.6	Why it was not possible to pay back of rice?	
5.7	Do you think that this rice bank is functional? *(Yes=1, No=2)*	
5.8	Do you have received training on pest free rice store management? *(Yes=1, No=2)*	
5.9	If yes, did you apply training's knowledge for pest free rice store management?*(Properly=1, Partially=2, Not at all=3)*	

6. Saving Schemes:

Sl.	*Questions*	*Code/Number*
6.1	Do you and any of your family members deposit to saving schemes? *(Regularly=1, Irregularly=2, No=3)*	
6.2	How much taka have you saved under this scheme so far ……...…Taka	
6.3	Have you been saved before joining this project? *(Yes=1, No=2)*	
6.4	Borrowing money for food: *(Increased=1, Decreased=2, Same as before=3, Stop borrowing after joining the project=4, Never borrowed=5)*	

FGD Checklist (FFS Community)

Instructions:

- Participants will be from same community where FFS was formed in 2010
- Each Focus Group Discussion (GD) will be conducted with 8-10 people
- Ensure female participation during group discussion
- Ensure equal participation both for female and male

1. Address of the para, Participants in the Group Discussion: (Male and Female) and year of FFS establishment.
2. What types of support you have received from this project? How these supports have contributed to change your food security status?
3. How did you apply the learning's received from FFS session?
4. How did you get benefit from the ADP grants project? What types of agriculture development projects initiated by the community people? How many PDC members benefited/included in the ADP?
5. How did you apply FFS learning in the project design and implementation?
6. Do you know about the usage of pest control measures, use of fertilizers and vaccines to the fields? How?
7. What types of technical support you have received from the GoB line department (DAE/DoF/DLS) and Field School Facilitator through this project? Did the FSF establish learning plots to show you/involve you practically?
8. What types of cultural practices/ management techniques you have applied in commercial fruits and vegetables production in the last season?
9. What are your key lessons learned from this project? Please tell about your future planning for saving schemes and Field Farmer School.
10. Your recommendation based on limitations and problems they usually faced.

FGD Checklist (FFS Community)

Instructions:

- Each Focus Group Discussion (FGD) will be conducted with rice bank community.
- Each Focus Group Discussion (FGD) will be conducted with 8-10 participants.
- Ensure female participation in the group discussion.

1. Address of the Rice Bank: (Village, Union, Upazila and District) and month and year of establishment *(month of PP submission and fund withdrawal)*
2. Did you receive any training on Pest Free Rice Store Management? What did you learn?
3. How do you protect the rice bank from pest (training's learning, sharing of leanings received from the training)? How do you manage the rice bank (including interest system and guideline)?
4. What types of benefits you have received from rice bank? How have you benefited from the rice bank? How many families got benefits so far?
5. Did you face any problems to manage this rice bank? If yes, please discuss about the problems and how did you overcome those?
6. Do the vulnerable households (female headed hhs, widow, extreme poor) have access to rice bank facilities?
7. Do you think that the rice bank helped you to overcome your crisis? What is your future planning? How?
8. What lessons you have learned from this rice bank?
9. Your recommendation based on limitations and problems you usually faced.

FGD Checklist (Field School Facilitator)

Instructions:

- ✓ Each group discussion will be conducted with 6/7 Field School Facilitators from different unions under selected upazilas.
- ✓ Ensure participation of female Field School facilitators in the group discussion
- ✓ Ensure participation of Field School Facilitators from different communities

1. Name and union of the FSFs.
2. As a FSF what are the activities did you *(need assessment, resource mapping and baseline survey, FFS session)* perform in the FFS/PDC?
3. Do you have linkage with local GoB line department and master trainers? If yes, how?
4. Did you receive all spells training in the SLL venue? How did you apply learning received from the training?
5. What changes (*learning plots replication within the community, production, yield, income, food security*) you have found at the farmers/community due to the implementation of this project?
6. Which sessions/activities seem to be the most effective/interesting to the FFS members? Why?
7. Did you organize farmer field days? Who participated (PDC, GoB line department, LGI, local elite, NGOs etc.) in this event? What are the results of this activity?
8. After end of this project, what is your future planning for Field Farmer Schools?
9. What are the key lessons you have learned from this project?
10. Your recommendation based on limitations and problems you usually faced.

FGD Checklist (Farmers with Irrigation Facility)

Instructions:

- FGD will be conducted with the farmers who are benefiting from irrigation facilities established through CHTDF support
- Each Focus Group Discussion (FGD) will be conducted with 10-12 farmers from different villages under irrigation coverage areas.
- Ensure female participation in the group discussion

11. Address of the para/village and Participants in the Group Discussion: (Male and Female)
12. After this irrigation service, how many acres of lands have been cultivating under this irrigation coverage? How many acres it was before the irrigation facility?
13. How have you been getting benefit from this irrigation facility? Did this facility support to reduce your food deficit? How? (need to collect information on how many households have been cultivating and whether household coverage has increased or not, geographical coverage and frequency of cultivation whether it has increased or not after irrigation facility)
14. What are the key lessons learned from this activity? Please tell about your future planning for this irrigation facility?
15. Your recommendation based on limitations and problems you usually faced.

Group Discussion Checklist *(UnFC)*

Instructions:

- Group discussion will be conducted with 8-10 UnFC members (from different Unions where AFSP activities implemented)
- Ensure female participation in the group discussion

1. Name, designation and address of the participants
2. How did you and other key stakeholders like GoB line department (DAE, DLS and DoF) involve in project planning and implementation?
3. What are the major results of this project? Did you see any change at community level due to implementation of this project? If yes, please explain it.
4. To what extent the project has strengthened the linkage of community people with local government and GoB line department (DAE, DLS and DoF)?
5. How this project has addressed the women and most vulnerable households?
6. What are the key lessons you have learned from this project?
7. Your overall recommendations (that must includes gaps and areas of improvement)

Group Discussion Checklist (Representative of Bazar committee, UP, Farmers and local traders with market facilities)

Instructions:

- Each Group Discussion (FGD) will be conducted with 8-10 representative of Bazar committee, UP, Farmers and local traders.
- Ensure female participation in the group discussion

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1. Name and address of the participants
2. How these facilities benefited the community people?
3. What changes you have found among community people after improving market facilities?
4. To what extent community people have access to market facilities?
5. What are the gaps still you have found of market facilities? What are the areas of improvement?
6. Your recommendation based on limitations and problems they usually faced.
7. Please tell about your future planning after end of the project?

FGD Checklist (Weaver Group)

Instructions:

- Each Focus Group Discussion FGD) will be conducted with 8-10 participants of weaver groups
- Ensure male (if available) participation during group discussion

1. Address of the para, Participants in the Group Discussion: (Male and Female)
2. How many members received training (out of the participants in the FGD)? What types of training you received from the AFSP project so far?
3. How did you share learning's received from the training with other group members? Where did you apply these learning?
4. What are the benefits you have received after training?
5. What are the changes/results you have observed in your group practice after receiving the training?
6. Did you participate in any linkage workshop with the financial service providers (Banks, Micro Finance Organization) or input (yarn, dye) traders? Please specify how you benefited from each of those linkage workshops?
7. Would you like to mention any other support (like participation in different fairs and cultural festival etc.) that you received from the project? If yes, please mention how you benefited?
8. Did you have any saving scheme before the project? Do you have any saving scheme at present? How have you utilized your savings?
9. What are the challenges did you face in terms of production and marketing? How did you overcome those challenges?
10. What are the key lessons learned through involving this activities? Please tell about your future planning for weaving after end of this project.
11. Your recommendation based on limitations and problems they usually faced.

In-depth Interview Checklist
Respondent: Jhum Researcher

1. Name, designation and address of the respondent
2. What are the major activities of jhum research you have implemented under this project? What are the results/outcomes of these activities?
3. How did the farmers participate in jhum research plots? Do you think that they got benefits from plots? If yes, please explain how it was?
4. What types of crops the farmers have cultivated this year and what it was before the intervention? What are changes you have found to them?
5. So far we know you have distributed a no. of crops to the farmers under this project? Which crops is suitable for jhum cultivation in the CHT?
6. How have Jhum research/ Jhum research plots supported to achieve the objectives of this project?
7. Do you have any Jhum research strategy/policy and implementation plan related to CHT community? If yes, who were involved to develop this strategy and how?
8. What lessons ***you*** *and* ***farmers*** have learned from Jhum research activities?
9. Did you face any difficulties to implement these activities? How did you overcome those?
10. What are your overall suggestions/recommendations?

In-depth Interview Checklist
Respondent: Partner's Project Coordinator)

8. Name, designation, organization and address of the respondent
9. What are the major activities you have implemented under AFSP?
10. What activities seem to be the most effective or less effective? What changes should be made to make the program more effective?
11. What are the major results this project has achieved? What are the benefits of these results for the target community/beneficiaries?
12. How have key stakeholders been involved in project planning and implementation?
13. To what extent the project has strengthened the linkage of community people with local government and GoB line department (DAE, DLS and DoF)?
14. To what extent the project has strengthened the capacity of Partner organization? How was the partnership management of this project?
15. What are the key lessons you have learned, gaps/and areas of improvement of this project?
16. Your overall recommendation based on limitations and problems you usually faced.

In-depth Interview Checklist
Respondent: Upazila GoB Agriculture Officer

1. Name and office address of the respondent
2. How did you involve in project planning and implementation?
3. How this project contributed to the community people? What changes you have found among community people due to implementation of this project? Did the PDC members/community people come to you to take advice on modern agriculture technologies? How often did they usually come?
4. What activities seem to be the most effective? What changes should be made to make the program more effective?
5. Do you have linkage with Field School Facilitators? How have you contributed for the learning plots and Farmer Field Schools?
6. What are the gaps/opportunities still you have found in this project? What are the areas of improvement?
7. What are your recommendations (this must include areas of improvement)?

Annex 5: Log Frame of AFSP

Intervention Logic	Objectively Verifiable Indicators	Source of Verification	Assumptions
Overall Objective: The overall objective of AFSP is to improve food security and poverty reduction in the CHT.	Income of 18,000 families increased in CHT; No. of months of food deficit reduced in CHT; 15% increase in crop yields in targeted communities; Families report improvements in their living conditions and Quality of Life;	Baseline Surveys Community PRA Household Surveys GoB Statistics (DAE, DL, DF) Civil Surgeon Office/WFP Reports/CHTDF Health Reports Household/farmer surveys HDC/AEO Field Visit Reports CHTDF/NGO Field Visit Reports GoB Statistics Interviews with AEO Interviews with farmers Interviews with women Case Studies	Natural disasters and severe flooding in CHT will not exceed normal levels. Political situation, especially in CHT, remains favorable. Issues related to land tenure in CHT will remain at least at the present status.
Specific Objective: The specific objective of the EC support is to improve food security and poverty reduction in at least 1,000 remote communities in the CHT, affected by high food prices and food insecurity.			
Outcome 1: Increased social safety nets for food security**.**	Food stock increased and food deficit reduced in 50% of 40,000 targeted households; 100% rice banks are functional in 927 communities; 40 % households under rice bank coverage benefited from rice bank directly; 40% lean period reduced in rice bank supported communities; 50% of trained PDC members with improved knowledge and skills on pest free rice store management; 1,700 communities benefited to improve		Food will not be rodent damaged. CHTDF is offering training on pest free rice bank management to PDCs.

Intervention Logic	Objectively Verifiable Indicators	Source of Verification	Assumptions
	their food security, economic and social development; 18,000 Households benefited from project completed by the PDCs at the end of project; Women take an interest in homestead gardening for family consumption;		
Outcome 2: Production yields and returns increased.	At least 80% participating farmers are involved in at least one form of horticultural/vegetable/livestock/fishery production; 10000 people have access to improved market facilities; Approximately 700 hectares of land under irrigation coverage; Livestock vaccination storage facilities improved in 25 Upazilas;		FFS curriculum will be of high quality and relevant to the CHT context. In 2009, EoD will fund curriculum development workshops involving all key stakeholders. Farmers are willing to adopt improved cropping system.
Outcome 3: Demand driven, integrated and decentralized extension system developed.	18,000 families with increased access to extension services; Farmers satisfied with training, technical supports and other services provided by GoB and NGO providers; Farmers satisfied with training, technical supports and other services provided by Field School Facilitators, Community		GoB extension officers will visit the field regularly. CHTDF will provide logistics to GoB to support field visits. Field visits will be monitored by UnFC and UzAC.

Intervention Logic	Objectively Verifiable Indicators	Source of Verification	Assumptions
	Livestock and Poultry Workers;		
Outcome 4: New upland cultivation practices experimented and demonstrated.	Knowledge on new upland cultivation practices generated;		
Activities: ***Outcome 1*:** 1.1 Establish rice banks (927). 1.2 Train communities on rice bank management (927). 1.3 Implement Village Based Peri-Urban Development Projects (404, of which 50% women only). 1.4 Establish savings scheme in communities (538). ***Outcome 2:*** 2.1 Implement Village Based Agriculture Development Projects (734, of which 50% women only). 2.3 Train producers on group management, IGAs, marketing & processing (12,000). 2.4 Implement Sectoral Projects (16). 2.5 Implement Area Based	***Outcome 1:*** Human Resources, Travel & DSA, Equipment, Local Office (45%) 355,720 Baseline and Evaluation (45%) 27,000 Rice Bank Grants 1,500,000 Peri-Urban Development Grants 1,890,000 EC Visibility (45%) 5,625 **3,778,345** ***Outcome 2:*** Human Resources, Travel & DSA, Equipment , Local Office (45%) 355,720 Baseline & Evaluation (45%) 27,000 Agriculture Development Grants 2,160,000 Sectoral Development Grants 210,000 Area Based Development Grants 461,510 EC Visibility (45%) 5,625		The project will be working with existing CEP communities and established Para Development Committees (PDCs). Communities will be selected for AFSP early 2010. CHTDF through CEP will continue to fund Partner NGOs. PNGO field staff (community facilitators) will support ongoing community development activities and new AFSP activities. Suitably qualified staff will be recruited for expert positions. Recruitment for new positions is already underway.

Intervention Logic	Objectively Verifiable Indicators	Source of Verification	Assumptions
Projects (39). ***Outcome 3:*** 3.1 Recruit & Train Field School Facilitators (150). 3.2 Establish Farmer Field Schools (150). 3.3 Train Community Livestock and Poultry Worker (188). 3.4 Train government and NGO staffs (100). 3.5 Organize linkage workshop between producers, financial service providers and input traders (26). 3.6 Organize agro-product fair (20). 3.7 Organize livestock vaccination and de-worming campaigns (94). 3.8 Organize Exchange visits (6). 3.9 Organize farmer field days with FFS (150). ***Outcome 4:*** 4.1 Establish GoB research plots (3). 4.2 Establish GoB learning plots (12).	**3,219,855** ***Outcome 3:*** Human Resource, Travel & DSA, Equipment, Local Office (7%) 55,335 Consultants 176,400 Baseline and Evaluation (7%) 4,200 GoB & NGO Training & Logistics 187,500 FSF and Producer Group Training 215,000 FSF Supervisors & FSF Allowance 57,600 FSF Grants 90,000 EC Visibility (7%) 875 **786,910** ***Outcome 4:*** Human Resource, Travel & DSA, Equipment, Local Office (3%) 237,15 Research in Upland Cultivation 54,000 Baseline & Evaluation (3%) 1,800 EC Visibility (3%) 375 **79,350** **Administrative costs (7% of total)** **525,000**		

Intervention Logic	Objectively Verifiable Indicators	Source of Verification	Assumptions
4.3 Establish floating vegetable cultivation plot (35). 4.4 Organize learning visit to similar area on upland cultivation (1).	**Total EU Food Facility Grant (EUR) 7,500,000**		