

Food and Livelihood Security Lesson Learning Study including Community Extension

Bangladesh Country Study Report



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Highlights

Key project impacts

- The food security situation in the communities where the Food Production Project operated has improved significantly.
- Vulnerability to the impacts of flooding has been significantly reduced in project communities.
- Rural Community Extensionists have continued to provide advice and inputs on a sustainable basis to the majority of project communities

Keys factors contributing to project success

- Effective training to community based on PTD approach leading to high levels of uptake and spread to other members of the community
- Training of community extensionists to continue to provide support services to the community beyond the project.
- Building a close relationship between the project team and government extension services to ensure their support for all activities and particularly ongoing support to community extensionists
- Strengthening linkages between government extension service providers and RCEs and communities.

Challenges / gaps

- Community planning processes were ad hoc but important lessons have been learned and incorporated into subsequent food security projects.
- Broader support to and scaling up of community extension approach by government is still needed and is a continuing focus of Practical Action's efforts in Faridpur and nationally.

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Glossary

BLRI	Bangladesh Livestock Research Institute
BRDB	Bangladesh Rural Development Board
CBO	Community Based Organisation
EC	European Commission
FOSHOL	Food Security for Sustainable Household Livelihoods
FFS	Farmer Field School
FPP	Food Production Project
IPM	Integrated Pest Management
ITDG	Intermediate Technology Development Group (former name of Practical Action)
NGO	Non governmental Organisation
PTD	Participatory Technology Development
RCE	Rural Community Extensionist
RTE	Rural Technical Extensionist

Practical Action's approach to Food and Livelihood Security.

In 2008 the number of hungry in the world was estimated at 1 billion and the number who are undernourished reached 2 billion – equivalent to almost one in three of world population.¹ In half of the regions of the world the Millennium Development Goal to reduce hunger by half by 2015 is not expected to be achieved.² Yet, world food production has increased by 17 per cent over the past 40 years, growing faster than population.³ Increasing overall food supply is clearly not sufficient to eliminate hunger.

The majority of those who do not have enough food to eat are small-scale producers – farmers, livestock keepers, fishing communities, forest dwellers – often living in fragile or remote, rural areas. Their food production and incomes are insufficient to meet household needs; they may suffer hungry months when they are not getting enough to eat; and they are often unable to meet other basic needs such as health care and schooling. Their livelihoods tend to be undermined by events, such as extreme weather or commodity price fluctuations, and by longer-term trends, such as population growth, climate change and ongoing conflicts.

During 2007 a desk review was carried out of Practical Action's projects and programmes to address critical aspects of food and livelihood insecurity⁴. Whilst approaches had changed over the decades, it was possible to pull out interlinked areas of capacity strengthening which had helped build the self reliance and reduced the vulnerability of food insecure populations living in marginal areas. These are described below and examples of the activities they imply at different levels from micro to macro are laid out in Table 1.

1. **Empowerment of communities** to determine their own future as well as to access and influence institutions and decision making process. Building self reliance is achieved through valuing and respecting people's livelihood choices and building on local skills, capacity and knowledge to strengthen those livelihoods.
2. **Access to appropriate skills and technologies** for more sustainable and diversified production, whether agricultural or non-agricultural or a mixture of the two. This is achieved through Participatory Technology Development (PTD) and influencing the wider environment for increased accessibility of appropriate technologies which benefit the poor.
3. **Strengthening access to, and have control over, natural resources** by farmers, livestock keepers, fisherfolk and the landless poor, including land, water, forests and genetic resources.

¹ UN Department of Public Information (2008) Goal 1 Fact Sheet, September 2008.
<http://www.un.org/millenniumgoals/2008highlevel/pdf/newsroom/Goal%201%20FINAL.pdf>

² UN Statistical Division (2007) Millennium Development Goals: 2007 Progress Chart
http://millenniumindicators.un.org/unsd/mdg/MDG_Report_2007_Progress_Chart_en.pdf

³ Pretty, J et al (2006) Resource-Conserving Agriculture Increases Yields in Developing Countries
Environmental Science and Technology Vol. 40, No. 4.

⁴ Pasteur, K (2008) Food Security Draft. Available at <http://portal-projects.itdg.org.uk/INT/IA15000177INT/WorkingDocuments/Food%20Security%20Draft%20Version%203.doc>

4. **Equitable access to food and labour markets** through strengthening production, food processing and human skills for sale in order to obtain some cash income.
5. **Reducing vulnerability to disasters, both short and long term, including climate change** through strengthening livelihoods, improved hazard analysis, hazard mitigation, disaster preparedness and planning, and adaptation to climate change.

Table 1: Elements of Food Security Programming in Practical Action

	Empowerment, participation, respect & rights	Access to technologies for sustainable production	Control over & sustainable management of natural resources	Equitable access to food and labour markets	Reducing Disaster Risk – short and long term (incl CC)
Positioning national representatives and their priorities in INTERNATIONAL debates and processes	<ul style="list-style-type: none"> • Self reliance over food aid • Prioritisation of agriculture • Prioritising fragile, rural areas 	<ul style="list-style-type: none"> • Wider spectrum of approaches to agricultural extension • Self reliance over food aid • Prioritisation of agriculture • Prioritising fragile, rural areas 	<ul style="list-style-type: none"> • Rights to control resources • Environmental sustainability over short term production in agriculture • International Seed Treaty 	<ul style="list-style-type: none"> ▪ Reduction of food dumping 	<ul style="list-style-type: none"> ▪ Policies that reduce climate change ▪ Policies that help poor countries to adapt ▪ Promoting adoption of Hyogo framework
Using demonstration of effective approaches to influence NATIONAL strategies and obligations	<ul style="list-style-type: none"> ▪ Mobilisation of local CBOs and national NGOs to influence national policy 	<ul style="list-style-type: none"> ▪ CBAH national policy influencing 	<ul style="list-style-type: none"> ▪ National policies for sustainable management of land, water, ag, and env; pastoralist rights; conflict and peace building, etc 	<ul style="list-style-type: none"> ▪ Local sourcing of food aid 	<ul style="list-style-type: none"> ▪ Integrated development and disaster/CC policy ▪ CC awareness raising
Convening spaces for mediating policy implementation and maximising the use of available resources	<ul style="list-style-type: none"> • CBOs accessing resources and influencing local policy • Planning and accessing participatory budgets 	<ul style="list-style-type: none"> • Prioritising socially excluded, landless, marginalised in policy 	<ul style="list-style-type: none"> • Implementation of policies for sustainable management of land, water, ag, and env; pastoralist rights; 	<ul style="list-style-type: none"> ▪ Local sourcing of food aid 	<ul style="list-style-type: none"> ▪ Integrated development and disaster/CC policy ▪ CC awareness raising

– MESO level institutions			conflict and peace building, etc		
Mobilising human and social capacities for LOCAL consensus building and development planning	<ul style="list-style-type: none"> • Training for Transformation • Visioning • Village Development Committees/ • Women’s groups • Capacity building 	<ul style="list-style-type: none"> • PTD • Village/community extension agents • Bio-village / Rural Technology Centres • Plus all the technologies listed 	<ul style="list-style-type: none"> • CB approach in ag biodiversity conservation • Community based planning • PAPD/consensus building 	<ul style="list-style-type: none"> ▪ Producing excess for local sale ▪ Food processing for local sale ▪ Enhancing skills for labour market 	<ul style="list-style-type: none"> ▪ Disaster planning ▪ Disaster preparedness ▪ Community hazard (incl CC) analysis ▪ Early Warning Systems ▪ CC awareness raising

Many of the activities in Practical Action’s projects take place at the community level, however for sustainable and long term change at scale it is also necessary to work to bring about change at district, national and international levels. Work at district and national levels tends to involve influencing the practices and policies of other institutions, both non-governmental and governmental in support of those practices we have found successful. At an international level the aim is to influence donor approaches and international policies and processes in favour of practical approaches that we have found successful, as well as towards broader support for a policy framework known as Food Sovereignty – i.e. realising the ‘right of farmers to define their own food, agriculture, livestock and fisheries systems’ (see box below). This is achieved through strategic advocacy as an organisation or as a member of wider networks.

Box: Elements of the Food Sovereignty Policy Framework

1. **Focuses on Food for People:** Food sovereignty puts the right to sufficient, healthy and culturally appropriate food for all, at the centre of food, agriculture, livestock and fisheries policies; and rejects the proposition that food is just another commodity or component for international agri-business.
2. **Values Food Providers:** Food sovereignty values and supports the contributions, and respects the rights, of women and men, peasants and small scale family farmers, pastoralists, artisanal fisherfolk, forest dwellers, indigenous peoples and agricultural and fisheries workers, including migrants, who cultivate, grow, harvest and process food.
3. **Localises Food Systems:** Food sovereignty puts providers and consumers at the centre of decision-making on food issues; protects food providers from the dumping of food and food aid in local markets; protects consumers from poor quality and unhealthy food, inappropriate food aid and food tainted with genetically modified organisms.
4. **Puts Control Locally:** Food sovereignty places control over territory, land, grazing, water, seeds, livestock and fish populations on local food providers and respects their rights. They can use and share them in socially and environmentally sustainable ways which conserve diversity.

5. **Builds Knowledge and Skills:** Food sovereignty builds on the skills and local knowledge of food providers and their local organisations that conserve, develop and manage localised food production and harvesting systems, developing appropriate research systems to support this and passing on this wisdom to future generations.
6. **Works with Nature:** Food sovereignty uses the contributions of nature in diverse, low external input agro-ecological production and harvesting methods that maximise the contribution of ecosystems and improve resilience and adaptation, especially in the face of climate change.

Source: *Synthesis Report, Nyéléni 2007 – Forum for Food Sovereignty*, Sélingué, Mali, 23 - 27 February 2007, www.nyeleni2007.org

Objectives of the International Study

In order to assess experience and impact in these five areas and at different levels, the Reducing Vulnerability Team has undertaken to review past work to learn lessons and contribute to improving future programmes. A first phase of reviewing project and programme documentation was carried out which resulted in the above framework. This led to the funding of a second phase of revisiting a number of key projects which were completed some years ago to assess gather evidence of success and learn further lessons. A key component of our food security work has been the training of community based extensionists. This has therefore been given priority for more detailed investigation through the lesson learning studies specifically looking at questions of sustainability, cost-effectiveness and adaptability of our approaches.

Bangladesh National Background on Food and Livelihood Security

At a national level food availability has steadily improved in Bangladesh steadily since 1971, though food access and utilisation still present challenges, and nearly half the population still fall under the food consumption poverty line (Mishra and Hossain, 2005). Domestic production is not sufficient to meet the needs of the growing population – particularly for non-cereal foods - and has to be supplemented by food imports and food aid (WFP 2005, Mishra and Hossain, 2005). Mishra and Hossain (2005) also note that continued expansion of crops is compromised by the fact that agricultural land is decreasing at 1% per year, plus the effects of climate change. Thus growth must come from increased productivity rather than expansion.

Those households who are most vulnerable to food insecurity are those lacking productive assets and dependent on irregular daily wage labour. Geographically the most vulnerable are those living on marginal lands, particularly along the banks and in the char islands of major rivers (WFP 2005). Government programmes do exist to tackle food insecurity through price subsidies and targeted food distribution programmes, though these face challenges in terms of accurate targeting and distribution, and accountability and governance problems.

Seasonal patterns of food insecurity are also highly relevant in the Bangladesh context, near famine situations being experienced by a large proportion of the rural population

before the annual harvest. Employment and income opportunities of the rural poor strongly decrease between transplantation and harvest of paddy, reducing their ability to cover nutritional requirements. This seasonal hunger, known as *monga*, reaches a peak between mid September and mid November. It affects marginal farmers and landless labourers. Off farm income for rural poor is found in brickfields, rice and saw mills, earthworks and rickshaw pulling. Coping strategies like systems of money lending and advance sales of labour embroil the poor in very exploitative patron-client relations. (Zug 2006). This is further worsened in some years by natural disasters such as flooding, erosion and drought (WFP, 2005).

As well as seasonal factors, food access is compromised by economic poverty and poor market functioning. Food utilisation is another key challenge in Bangladesh. Diets are lacking in protein and micro-nutrients: 80% of dietary energy is from cereals and for rural populations consumption of pulses and animal based proteins is inadequate (Mishra and Hossain, 2005). Nutrition education could do much to improve this. Whilst productivity of fish, meat and vegetables has increased over the past decade, access is still insufficient.

Smallholder dairy and poultry development has a high potential for rural poverty reduction but is affected by a lack of veterinary services and feeds, as well as poor livestock quality control. Degradation of fingerling quality is also limiting the potential for increased production in pond aquaculture (Rahman and Khan 2005). Weak institutional capacity in the extension system, particularly in the livestock sub-sector, limits capacity to address these problems and improve production.

The study described in this document should be seen in the context of factors affecting food security during 2007/2008. Many people have been hit hard by spiralling food prices, which in some cases have doubled over the last year. Rice crops were damaged during the year by heavy monsoon rain and the aftermath of the cyclone has meant high prices for imports⁵.

Background to Extension in Bangladesh

In Bangladesh the government maintains public extension systems with staff in all the districts, but their outreach is paralysed by small operational budgets and the huge populations they are expected to serve. With their overwhelming emphasis on microcredit to cover their operating costs, NGOs have been slow to work on closing the technical service gap faced by poor farming households.

Coverage of lowest tier of public extension service in Faridpur/Jamalpur

Ministry/ Dept.	Upazila 75,000 HH	Union 8,500 HH	% of HH contacted
Agricultural extension		2-3 Sub-assistant officers (3,400 HH per officer)	14.8
Health		1 Assistant (8,500 HH per officer)	30.5

⁵ http://news.bbc.co.uk/1/hi/world/south_asia/7169823.stm

Livestock	3-4 Veterinary field assistants (21,000 HH per officer)		3.5
Fisheries	1 Officer & 1 Assist. Officer (37,500 HH per officer)		1.6

(Source: FOSHOL presentation Mick Howes, July 2009)

In Asia the predominant NGO methodology for decentralizing extension to the community level is the Farmer Field School (FFS). The FFS is a group-based learning process. During the FFS, farmers carry out experiential learning activities that help them understand the ecology of their rice fields. These activities involve simple experiments, regular field observations and group analysis. The knowledge gained from these activities enables participants to make their own locally-specific decisions about crop management practices. This approach represents a radical departure from earlier agricultural extension programmes, in which farmers were expected to adopt generalized recommendations that had been formulated by specialists from outside the community. (Wikipedia)

However for various socio-economic and cultural reasons, the FFS has not worked as effectively in Bangladesh as in South-East Asia. The NGO Care, which transferred the approach from Philippines and Indonesia to Bangladesh, found that its ability to build sustainable Farmer Field School groups beyond the project period has been limited. After graduation the resource poor farmers tend to continue practicing improved methods but cease to invest time and effort that is necessary to sustain groups. (Banu and Bode 2002) The combination of diversified livelihood strategies and need to maintain linkages with wealthier households by providing labour services leaves little time for poor households to participate in FFS sessions. Individuals carefully calculate the opportunity cost of participating in FFS sessions that have little immediate economic returns, as opposed to earning income or securing income opportunities through strong networks and alliances. The highly gendered division of labour further complicates FFS approach: women from poor households little time to participate due to the need to sell labour. Due to the intensity of the demands of childcare, the learning process in women's FFS groups can be interrupted.

Practical Action Food Security Programming in Bangladesh

Practical Action has been working in the area of Small Scale Food Production since 1998. Initial work prior to the Food Production Programme was limited in scale and involved testing the potential of integrated fish, vegetable and poultry production technologies and integrated agriculture-aquaculture through action research. The Food Production Programme was therefore the first major programme of work on food security undertaken by the office.

Food Production Project Background

Intermediate Technology Development Group-Bangladesh (now known as Practical Action Bangladesh and henceforth referred to by this new name) developed a project on 'Improving Food Production in Greater Faridpur' (see map Annex 1) in late 1998 (known

from hereon as the Food Production Project or FPP). The project was part of a wider Programme of work in 4 other countries informed by the evolving Sustainable Livelihoods Approach.

The project aimed to work with 1,000 resource poor farm households, particularly reaching asset-less women, in the district over a period of five year to improve their food and livelihood security. The project was jointly funded by DFID-JFS at 50% of the project cost for 5 years and National Lottery Charities Board at 46% for the first 3 years the rest of the funding was met from various ITDG's internal and external sources.

Problems the project aimed to address were identified as:

- Lack of access to resources
- Vulnerability to disaster
- Globalisation of food system
- Lack of adequate extension
- Gender inequalities

The purpose of the project was to demonstrate that a farmer-led Participatory Technology Development (PTD) approach would enhance the capacity of small farmers to manage economic, social, environmental, technical and policy changes. The enhanced farmer capacities would in turn enhance their food and livelihood security. The project used the following approaches to build and sustain farmer capacity:

1. Identification and prioritisation of problems and technological options of small scale food producers
2. Preparation and agreement of a Community Development Plan outlining feasible community level action with project stakeholders
3. Implementation of a Participatory Technology Development approach to
 - i. Facilitate food producers access to information
 - ii. Testing, assessment and adaptation of technical options
 - iii. Selecting and utilizing technical options
 - iv. Facilitate farmer to farmer exchange of information
 - v. Facilitate dialogue between farmers and service providers
4. Establish a Community Based (farmer-farmer) Extension system

Practical Action Bangladesh developed an approach to community extension which, according to PA Bangladesh staff is better suited to the needs of poor households. The Practical Action approach is based around the idea of giving a specialised and intensive technical training to 1 or 2 people in a community with the potential to develop into independent, self-deploying service providers on a long term basis. The idea is that these local specialists can stimulate improved production practices in a local area, but in a much less time intensive manner for the individual farmer than a Farmer Field School.

Impacts to be achieved by the project were that at least 1,000 households of small food producers in Faridpur should possess:

- Increased resource management skills and knowledge
- Increased access to and control over food production resources
- Strengthened capacity and confidence to organise social and productive aspects of the food system

- strengthened capacity to manage effects of economic, social, environmental and policy change
- increased level of social and technical motivation

These approaches were further scaled up through documentation and dissemination of project lessons. For further details see the Project Logframe in Annex 2

Research Questions

The research aimed to gather solid evidence to support assertions for the success of Practical Action Food Security and Community Extension approaches for presentation to policy and practice audiences in Bangladesh, and for similar least developed zones in the South Asia region, and where relevant, other parts of the world.

The study aimed to look in detail at the approaches used, as well as to assess the impact that they had had on household food and livelihood security.

Food and Livelihood Security Approaches

The research process aimed to explore a number of issues

Project design lessons – what successes and gaps can be identified regarding the design of the project.

Training to Farmers – are farmers still practicing what they learned in the training? Is Practical Action training more successful than that provided by other organisations? Is training being replicated?

Community Level Planning – have community development plans been produced? What is the degree of participation in and ownership of the planning?

Institutional access and influencing – how had the project engaged other stakeholders to improve linkages with communities for ongoing support, and to influence them with project findings?

Community Extension Approaches

Education: does the educational level of the community based extensionists correlate with later relative success in practice?

Training: the original motivation of the individual for putting themselves forward for the training, the length and format of the training, most useful and least useful topics, other training subsequently received, types of equipment and inputs donated to them immediately after training.

Coverage: how the coverage area of the service providers has spread out from the original zones and target beneficiaries of Practical Action Projects, and also to see the different models of service provision.

Technical Aspects: the level of demand for the different types of skills, expertise and services offered by RCEs, and new and innovative techniques and approaches pioneered by individual extensionists

Earning/Payment: what parts of the service are voluntary, which attract payments/stipends from NGOs or other institutions, and which aspects have been commercialised; type of payments received; and approach to those who cannot pay

Linkages: linkages to other extensionists, to government and to the private sector in terms of sourcing drugs and other supplies, and access to information and opportunities.

Sustainability/Motivation: the key challenges they face in their work, what they have done to overcome them, why they persist despite all of these challenges and their view on the qualities of a successful community extensionist

Impacts

What was the impact of the overall project approach?

Impact on assets – has asset ownership increased (dwellings, household assets, animals, fisheries resources and tools)?

Impact on resilience and coping – are households better able to cope and recover from shocks and stresses? Are they less reliant on negative coping strategies?

Impact on diet and food security – has the number of food insecure (hungry) months decreased? Has the quantity and diversity of food consumption increased?

Study Methodology

The methodology for the studies aimed to collect a mix of qualitative and quantitative data relating to food security projects more broadly and the training and sustainability of rural community extensionists (RCEs) more specifically. The study aimed to assess community participation in activities relevant to improving their food security, the direct results or experience of those activities (e.g. training), as well as trying to measure direct or indirect impacts on food security and livelihoods. With respect to rural community extensionists, a further aim was to understand more about their practice, the sustainability of their work, the experience of their clients, and the impact of these new skills on their own livelihoods.

The field methodology for the study therefore consisted of the following elements:

Household questionnaire	150 individuals: 50% primary beneficiaries 50% secondary beneficiaries	4 beneficiary villages (120) 1 control village (30)
Focus group discussions	Women only Mixed group Community leaders group	4 beneficiary villages 1 control village
Community questionnaire	Key informants	4 beneficiary villages 1 control village
Extensionist questionnaire	60 individuals	From many communities across the District
Extensionist group-based semi structured interviews (SSI)	6 groups of 3-4 individuals	From many communities across the District

The research tools were prepared in the UK with generic use across all 5 study countries in mind. The tools were adapted based on extensive discussion once in Bangladesh, to ensure that only questions that were relevant to the project areas covered were asked, and that response options were relevant to the local context (e.g. transportation options,

etc). Research tools are included in Annex 3. Primary beneficiaries were called as those who had received direct training. Secondary beneficiaries were those who were members of the community but had not been involved in trainings. They were expected to have benefitted from the availability of the extensionist, training passed on by friends and family, and the impacts of community planning.

The household questionnaire was field tested, but unfortunately only by two people. This revealed some problems which were dealt with. However, due to the low level of field testing by the majority of the field team several further problems were encountered during the work in the control community rendering some of this information unusable, namely information relating to farm income in the household survey.

Five communities were selected for applying the household questionnaire, community questionnaire and focus group discussions. The following sampling frame was used in the selection of communities with the intention of looking for differences between the different categories of flood-proneness and concentration of training. Within beneficiary communities a sample of 30 households was selected. This sample included 15 households who had directly participated in project training activities and 15 households who might have received indirect benefits of the project, e.g. through learning skills from friends and neighbours, or receiving services from RCEs.

The intention was to select households on a random basis but this was not possible as a list of community members was not available to make the selection from. Community leaders were therefore requested to select 30 households on our behalf, ensuring that they fulfilled the above criteria and also came from across all wealth groups. The questionnaire was intended to capture household data rather than individual data. The individual answering the questions could therefore be either the head of the household or spouse, but they were requested to answer all questions with the whole household in mind.

	Flood Prone	Not Flood Prone
High concentration of training	15 primary beneficiaries 15 secondary beneficiaries	15 primary beneficiaries 15 secondary beneficiaries
Low concentration of training	15 primary beneficiaries 15 secondary beneficiaries	15 primary beneficiaries 15 secondary beneficiaries
No training (non-beneficiary village)	30 non-beneficiaries	

The control community was selected from within the same region as the participating communities and it was one where no comparable NGO programme had operated during the last 10 years.

Village	Project or control	Number surveyed	Characteristics
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Bartha (2)	Project	29	Less flood prone. Lower number of PA trainings
Nizpara (9)	Project	26	Less flood prone. High number of PA trainings
Manikdoho (5)	Project	27	Somewhat flood prone. Lower number of PA trainings
Monsurabad (8)	Project	28	Very flood prone. High number of PA trainings
Krishnapur (3)	Control	30	Somewhat flood prone. No PA trainings.
Total		140	

Further detail of the current characteristics of the communities visited, based on focus group discussion feedback, can be found in Annex 2. Members of the research team are listed in Annex 3. These were all staff of the current EC Food Security Project in Faridpur (FOSHOL).

A total of 127 RCEs were trained under FPP and the aim was to sample 60 of them, ensuring that we sampled those with low levels of current activity and who were even no longer practicing. Of the 127 trained, it was only possible to contact around 90 of them. All of these were invited to participate in the study by coming to one of two meeting points on different days. Their travel costs were paid and a meal provided. Around 55 RCEs participated. All RCEs completed a questionnaire administered by our staff. A selection of RCEs were also requested to participate in a groups based semi-structured interview. Groups of 3 individuals practicing the same type of extension were interviewed together to gather more qualitative information about their practice.

Research timetable

Date	Activity
9 th -10 th	Discussions
11 th	Further work on methodology and travel to Faridpur
12 th – 13 th	Familiarisation and further editing of research tools with field team. Field testing of household questionnaire.
14 th Jan	Field work in control village Dhuldi Krishnopur: 30 household questionnaire; 3 focus group discussions; 1 community questionnaire.
15 th Jan	Field work in Nizpara: 30 household questionnaire; 3 focus group discussions; 1 community questionnaire; 12 extensionist questionnaire; 3 SSIs with extensionists.
16 th Jan	Field work in Monsurabad: 30 household questionnaire; 3 focus group discussions; 1 community questionnaire.
17 th – 18 th Jan	Collection of individual case study material.
19 th Jan	Field work in Bartha: 30 household questionnaire; 3 focus group discussions; 1 community questionnaire. Data collection in Faridpur: 43 extensionist questionnaires; 3 SSIs with extensionists.
20 th Jan	Field work in Manikdoho: 30 household questionnaire; 3 focus group discussions; 1 community questionnaire.
21 st Jan	Preparation for workshop.
22 nd Jan	Workshop for government extension staff from District and Upazilla level, plus representatives from relevant NGOs and research institutions. Travel to Dhaka.
23 rd Jan	Final debrief and forward planning in Dhaka office.

The core of the research team consisted of 8 FOSHOL project staff and one staff from Aim 2 in Dhaka. These were supported at various points by other Aim 2 and QA/policy staff from Dhaka, area staff from Gaibanda and Jamalpur, and staff from partner NGOs under the current food security project in Faridpur, FOSHOL (see Annex 3).

Other data sources were consulted including the FPP baseline study and follow up survey and annual and mid term evaluation reports and an earlier impact study report. Project staff from FPP were consulted in depth as the majority continue to work for Practical Action.

Research challenges

Sampling of villagers was not rigorous. In the case of the control village, the sample was selected from those available within the community. This probably resulted in a bias towards sampling the poorest or people with non-agricultural livelihoods as they were people who were not out working in the field. The control village was also the first day of full fieldwork and therefore there were some teething problems in some aspects of administering the questionnaire.

Of an estimated total population of approximately 120 trained extensionists, the Faridpur team gave an estimate, from their preparatory field work, that over 90 were still actively providing services in the villages. As it was, 51 were located and came forward to be interviewed. However, only an insignificant number of these reported that they were no longer active. Therefore the study has not been successful to date in verifying the estimate on the proportion of those trained that are still active, or having an in depth understanding of the causes of dropping out. It is recommended to organise a focus group of approximately 10 extensionists who are definitely inactive to explore the various causes.

Study findings

The study findings are presented according the research questions outlined earlier. The project approach is outlined in more detail followed by the findings of the study under the different research tools used, i.e. questionnaires and focus group discussion.

Project design lessons

Based on discussions with the Manager of the FPP (now Aim 1 Team Leader) and other project staff some lessons emerged relating to project design.

The original project document was written as a four country project with a broad log-frame that would encompass each of those country contexts. It then became the responsibility of the project manager to shape the specific activities to the Bangladeshi context, based around his past experience, skills and perspectives. This led to a diverse understanding of this project from the outset, but also had advantages in terms of flexibility for the Bangladesh Team. The project manager was able to draw on his prior experience, particularly in relation to training of extensionists, and as such took an important decision to ensure their sustainability in a way that was not explored in other country projects.

In terms of partners, the project was designed to be an element of a large government funded project: BRDB Productive Employment Project (PEP)⁶. As such the project worked through existing groups formed by PEP. Where PEP was not operating the project worked with other small NGOs, namely AKK (Amra Katch Kuri) and MUF (Womens Development Foundation).

The PEP groups were made up of more than 60% women, mainly marginal farmers but not the ultra poor. Whilst the target group specified in the FPP proposal was the poor and landless, in practice the average landholding of project beneficiaries was 0.9 acres and therefore these were probably not the poorest people in the communities.

There was some difficulty with PEP as a partner as they were a big organisation with their own agenda. Practical Action was only addressing small elements of the programme and so had little influence over it when there were differences of approach or when they wanted more freedom. Practical Action experienced the flip side in its relationship with the other partners (AKK and MUF) which were smaller and were in turn demanding budgetary freedom.

Ability to influence other government institutions was compromised as Practical Action is a small NGO and the project only worked with 1000 households. It was reported that some District Commissioners that they tried to share the findings with were not impressed with this scale of impact and were therefore not persuaded. The project also failed to identify specific policy issues to influence decision makers on.

FPP did not have a strong focus on markets. Whilst this could be identified as a gap, at the time the project was aimed principally at subsistence producers to diversify their production. Marketing of excess vegetable production was not problematic as there was a huge demand at that time in the District. However, a market focus was subsequently included in the FOSHOL project which followed on from FPP in Faridpur.

A really thorough baseline study was carried out to decide the focus for the project and to help build rapport with the communities. However, not all of the data was analysed and important reference data was not stored that would have made it possible to reuse the same study and sample in this impact assessment.

Direct Training to farmers

Project approach

Practical Action provided training directly to farmers on a wide range of food production related topics as detailed in the table below.

Range of trainings delivered directly to farmers under the Food Production Project

Crop agriculture	Livestock	Fisheries
Vegetable cultivation	Poultry rearing	Pond fish culture

⁶ This project, of the Bangladesh Rural Development Board, provided credit to groups of mainly poor women with accompanied support for productive enterprise. The Practical Action project comprised one element of this support, in the area of mobilising productive resources through skills training and through developing extension services.

Vegetable seed cultivation Rice cultivation Vermi composting Pit cultivation Food preparation and nutrition	Cow rearing Goat rearing Duck rearing Beef fattening Pigeon rearing Breeding buck Livestock feed management Livestock disaster management	Cage fish culture Channel fish management Trap pond Community fisheries management
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Number of farmers directly trained under the Food Production Project

Area	No. of PTD training participant including overlap	
	Female	Male
Livestock/poultry	381	125
Fisheries	34	71
Agriculture	451	109
Sub-total	866	305
Total	1171	

A number of factors seem to have contributed to the success of the training approach applied by Practical Action:

Selection of training topics

As noted in the introduction, the FPP complemented a credit based project, and its aim was to help credit recipients to make more productive use of the funds that they were borrowing. The training was not aimed at teaching them new activities, but improving or upgrading their existing livelihoods to be more productive. Therefore groups prioritised training topics that would benefit them based on existing livelihood activities. For example, people already keeping livestock might identify training in fodder production, improved breeds, housing for animals, and the like.

This approach meant that there was a much higher probability of uptake of the training and it having a significant impact on their productivity, than if trainees were experimenting with new activities. It also meant that there was relatively little risk or outlay involved for trainees, nor the need for the project to inject start up inputs.

The intention was that as the trainees reaped benefits from the new production techniques then other community members who were not part of PEP savings groups and had not participated in direct training might observe or learn from the trained farmers or the RCEs and take up those activities too. There would be both a direct impact and an indirect impact on the skills within the community.

Delivery of training

Trainings were usually one day field based trainings and were followed by visits from Practical Action staff and, over time, by RCEs in order to provide ongoing support and guidance. The case of RCE training is more intensive and is discussed in a later section. The style of training delivery and the provision of follow up support were critical to the training success.

Practical Action delivered skills to communities using a process known as Participatory Technology Development (PTD). This approach aims to enhance appropriate technology choice and the technical capacity of producers/farmers to help them to achieve

increased food and livelihood security. The Bangladesh team drew on earlier experience from Zimbabwe in developing their principals for PTD style training.

Principles of PTD in the project

1. Farmers' choice about technologies is based on their interest
2. Technologies are pro-poor, i.e. appropriate to those with few resources.
3. Farmers' innovation should be encouraged
4. Field learning situations rather than classroom based
5. Risk mitigation to avoid falling back into poverty if there is a problem.
6. Builds on indigenous technology knowledge where appropriate.
7. Service linkages strengthened and exposure/experience sharing visits
8. Support over longer term by Rural Community Extension agents (RCEs)

Farmers were given the skills to test, analyse, and decide whether to accept or reject technologies (including both physical technologies and new knowledge). They were encouraged to test ideas for a year at least, then they should consider the option to reject if they are not working for them. They were also encouraged to improve on ideas or designs proposed, e.g. the design of fish cages.

The aim is that trainees do not simply adopt what is taught, but that they already have an active interest in the topic and that they are developing the skills to experiment and continue to enhance their skills over the long term. The expectation is then that there will be a greater uptake of skills learned and continued practice over the longer term. The table below illustrates a very high success rate in terms of continued practice (91%) as compared to training delivered by other agencies.

It is important to understand how PTD differed from the Training and Visit (T&V) approach traditionally used by government extensionists. Training was delivered in a standard set of technologies and the follow up visits were rare. This T&V approach came to be known as "Talk and Vanish" for obvious reasons! Often farmers found that these standard technologies were not suited to local environments, or they didn't garner enough information during the training and as a result they failed to take up the training.

In its PTD approach Practical Action took a basket of technologies to communities from they could pick and chose, and which could be adapted to ensure suitability to the local context and environment. Technologies suited to the landless were also prioritised for their pro poor impact. These include beef fattening and sandbar cropping (using communal land that is available when floods recede for a short cropping season). The technologies came from a range of sources including other parts of the country, research institutes, and other projects. The follow up support to communities in testing, adopting or adapting the basket technologies is critical and the attention to this aspect in Practical Action's approach is fundamental to success.

"Now Beef fattening is a simple technology to me, with which I have been rearing two cattle in a small space (15feet/ 10 feet) beside my house and my wife can look after them without having any hard work. I suppose beef fattening could be a vital solution to increase income as I have gained with the help of RCE livestock"

Ainal Sheikh, Manikdoho village. See Annex 6 for full case study

Regular support was provided by Practical Action staff who are qualified in different aspects of agricultural production as well as social mobilisation, and the training of Community extensionists ensured that support would continue at the community level both during and beyond the project.

"I think these changes would not be happening in my life if RCE livestock Mr. Akter were not so helpful to me and if he did not follow up from time to time providing necessary services for beef fattening. That's why I am grateful to the project for such initiative"

Ainal Sheikh, Manikdoho village. See Annex 6 for full case study

Training findings

The table below shows the number of people who reported participating in any training over the past 10 years. The table illustrates the amount of training received in total and the proportion of that training which was delivered by Practical Action. Practical Action provided around 65% of all training in project villages. The higher proportion of non Practical Action training in the project villages as compared to the control village may be due to their participation in the PEP programme (which brought training in areas such as financial management, leadership etc). Furthermore, 16% of all training in the project villages were received after Practical Action had ceased to work in those communities. It is possible that as a result of the project community members were more successful in attracting further NGO projects and training.

The average number of training courses received across all respondents in project villages was 2.6, compared to an average of 0.6 trainings per respondent in the control village. Of all those surveyed in project villages 27 households (25% of the sample) reported that they had not participated in any training. The remaining households participated in an average of 3.4 trainings. In the control village 63% of households had not participated in any training at all. Of the remaining 8 households, one person had participated in 4 trainings, one in 3 trainings and the remainder just one each.

Participation of Project and Control Villages in all training and Practical Action training.

		Project Villages (110 surveyed)		Control village (30 surveyed)	
		All training	ITDG Training	All training	ITDG training
Name of training	Vegetable cultivation	52	41	1	1
	Poultry rearing	35	23	1	0
	Pond culture	30	18	7	0
	Cow rearing	29	19	1	1
	Goat rearing	25	17	0	0
	Duck rearing	22	15	0	0
	Vegetable seed cultivation	18	13	0	0
	Beef fattening	17	8	0	0
	RCE	7	6	0	0

Livestock feed mgt.	6	5	1	1
Cage culture	5	3	0	0
Rice cultivation	4	1	0	0
Pigeon rearing	3	3	0	0
Livestock disaster mgt.	2	1	0	0
Vermi compost	2	2	1	1
Cannel fish	1	1	0	0
Trap pond	1	1	0	0
Community fish	1	1	0	0
Breeding buck	0	0	1	0
Others1	25	6	0	0
Total	285	184	13	4

As noted above, the majority of training in project villages was provided by Practical Action. Other training providers are outlined in the table below. Of those who expressed whether they had received any inputs (e.g. seed, animals, tools, equipment, etc) with their training, a positive response was marginally higher for those receiving training from Practical Action than for trainings from other service providers (other NGOs and government).

Training provided by organization

		Training provided by organization					Total
		ITDG	Other NGO	Govt. ext. worker	RCE	Others	
Project villages	Num.	184	64	19	4	1	272
	%	67.6%	23.5%	7.0%	1.5%	.4%	100.0%
Control villages	Num.	4	6	3	0	0	13
	%	30.8%	46.2%	23.1%	.0%	.0%	100.0%

Did you receive any inputs with your training

		Training provided by organization						Total
		ITDG	Other NGO	Govt. ext. worker	RCE	Others		
NO	Num	85	31	11	3	0	130	
	%	48.3%	55.4%	61.1%	75.0%	.0%	51.0%	
YES	Num	91	25	7	1	1	125	
	%	51.7%	44.6%	38.9%	25.0%	100.0%	49.0%	

Do you still practice what you learned in the training?

		Training provided by organization						Total
		ITDG	Other NGO	Govt. ext. worker	RCE	Others		
NO	Num	16	12	7	0	0	35	
	%	9.2%	23.5%	43.8%	.0%	.0%	14.3%	
YES	Num	157	39	9	4	1	210	

%	90.8%	76.5%	56.3%	100.0%	100.0%	85.7%
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Reasons for giving up any training were very variable, and included lack of resources (land, pond, fodder, finance) (4); having other priorities (2); selling off livestock (2), feeling discouraged (1), and flood loss (1).

When asked about replication of training activities / technologies in focus group discussions, it was always reported that others within the community had also taken up the ideas tested in the project, and that even beyond the community examples were given of replication.

Gender impacts

Focus group discussions revealed that both men and women perceived that women were participating more in income generating activities and as a result they felt more empowered and were participating more in household and even community wide decisions. In one village it was mentioned that previously it was socially unacceptable for women to go to the fields and only the husbands would go. They therefore had to pay other labourers for that work. Now both women and men are involved in productive activities reducing the pressure on the household income. Social mobility of women increased as a result of training and increased confidence. For example Nasima told of how she now goes to the market by herself to buy and sell cows.

Despite these improvements, there are still considerable social limitations for women and though change is happening, it is slow. Dowry was mentioned in all villages as being a problem with no initiative to address it. In one community then mentioned that it was even getting worse due to rising incomes. Problems of early marriage and domestic violence were slowly starting to improve.

Community Level Planning

Project approach

Community development plans were amongst the proposed project outputs. Agricultural planning processes were stimulated in 10 communities with the purpose of considering needs beyond the interests of the credit group and draw together wider multi-group interests. They were also not comprehensive community planning processes, but rather planning around the agricultural season amongst groups of producers. Formal Community Based Organisations were formed in 10 out of the total of 69 communities the project worked in.

Findings

When asked whether they had been involved in any kind of community planning process, there was some variation between communities as illustrated in the table below. This reflects the limited knowledge and capacity in participatory planning amongst ITDG staff at the time. Those who mentioned the existence of a community based organisation also tended to say that they had benefited from collective planning.

Were you involved in any collective planning process?

Village					Total
		No	Yes	Don't Know	
Bartha	Number	8	12	9	29
	%	27.6%	41.4%	31.0%	100.0%
Nizpara	Number	6	15	4	25
	%	24.0%	60.0%	16.0%	100.0%
Manikdaha	Number	8	9	7	24
	%	33.3%	37.5%	29.2%	100.0%
Monsurabad	Number	3	23	2	28
	%	10.7%	82.1%	7.1%	100.0%
Krishnapur	Number	20	0	3	23
	%	87.0%	.0%	13.0%	100.0%

If was also proposed during the project that an organization be established for Rural Community Extensionists to help facilitate experience sharing and give them more strength and recognition for the purpose of accessing or lobbying government. This was not achieved during the project period, but it is also proposed under the current FOSHOL project: once RCE training is completed under that project there will be around 500 RCEs in Faridpur District.

Rural Community Extension

Project Approach

In Bangladesh Practical Action trained Rural Community Extensionists (RCEs) in parallel to the PTD training described above, so that they would be able to provide an ongoing support role in the community in relation to the new practices being promoted. Linkages between RCEs and government extension staff were strongly encouraged, as well as link to other service providers (dealers, shops, etc). Linkages to government extension workers were established through inviting their participation in training delivery, and through the organisation of formal meetings in communities. RCEs were given no salary: they were expected to use their new skills they had acquired in an entrepreneurial way for additional income alongside their other household farm and non-farm livelihoods.

A total of 127 extensionists were trained across all the participating communities, to match demand for support in particular areas (e.g. fisheries extensionists only trained where fish culture was commonly practiced). Those who would go for extensionist training tended to be identified on the basis of interest and entrepreneurial spirit demonstrated during community trainings. Their selection was ultimately the decision of the community but in discussion with project staff.

Extensionists received training on a residential basis in Faridpur, and the training was provided by Practical Action staff with the close involvement of government service providers. Their training more expensive when compared to other NGO approaches. For example, training by Practical Action and line department officers in 2002/3 including equipment donation, refresher training and field follow-up came to 12,730 Taka per head in the case of livestock and 8,050 Taka per head in the case of agriculture and fisheries.

As well as covering technical issues, the training also addresses how to access support from other institutions, as well as how to build relationships with government officers, and avoid conflict with their field staff (particularly block supervisors in the agriculture sector as they are also field level staff).

Each community was requested to put forward candidates and these were then discussed openly with Practical Action, before a consensus was reached on the best individual or individuals to go forward. Age, marital status and education level were kept flexible, but community specific judgements of “rootedness” and “good moral standing” influenced the selection. The criteria included that the individual should come from the socio-economic group being targeted by the project, they should not be from an elite family. It was also agreed that the person should already have a shown strong interest and some specialism on the subject area within their own farm. Practical Action Bangladesh did not proceed to select trainees immediately but were able to get to know the household profile and talents of different individuals by working with the project groups. The communities tended to put forward RCE trainees who were leading adopters and enthusiasts from within the different project activity groups. (*pers comm.* Faruk Ul Islam)

The training itself was organised with the participation of relevant district level government staff, whose fees were paid for from project budgets. The curriculum was designed to reflect the educational level of the candidates, many of whom only had a few years of primary education. A wide range of cultural and linguistic barriers also were taken into account in the delivery of the training. In crop based agriculture, the training reflected the alternative paradigm of Practical Action in working with locally available resources rather than high dependence on external inputs. In the case of veterinary training the ministries tended to demand tight control of the training schedule and apply strict limitations on the training, in the interests of maintaining very clear hierarchy between the trainees and government/private vets.

The training offered by Practical Action can be described as intensive and comprehensive nature: between 15 and 30 days of continuous residential training. In each case there was follow up support for the initial field practice and opportunities for a diverse range of exposure visits to see technologies and techniques in practice. The training opportunity was also kept quite exclusive, as care and attention has always been given to keeping the number of trained extensionists sufficiently low so as to not to create an oversupply of very similar service providers in a particular zone and thereby reduce the potential terrain and viability for each individual. The certificate issued to the newly trained extensionists was signed by a senior district official and a senior Practical Action staff member. It was issued by Practical Action and did not have any legal standing or formal recognition from relevant ministries. Practical Action has not to date conducted any lobbying at national level for this certification to be endorsed.

On completion of training the RCEs receive a certificate signed by a government officer. All respondents to the RCE Questionnaire had found the certificate presented to them on the completion of the training “quite useful” or “very useful”. The certificate has been used by 11 RCEs (20% of the sample) as a means to obtain credit for their operations. Practical Action has worked hard to achieve the kind of relationship with government officers which has made them open to giving this certificate. The good relationship is achieved through continual sharing of plans and progress, sharing training schedules, and inviting staff on field visits. Other NGOs have not been able to achieve this.

RCE Approach Findings

There were three classes of rural community extensionist trained by Practical Action Bangladesh between 1999 and 2003: livestock, fisheries and agriculture. There is a sub-set of women livestock extensionists concentrating their services on breeding bucks and poultry vaccination. In a survey carried out by Practical Action staff in December 2007 as part of the preparations for the study, 90 of the 127 RCEs originally trained were deemed to be semi-active or fully active up to the present day. Of the original 127 RCEs, a random sample of was selected for this survey, it was not possible to track down all of these persons. A strong bias towards the most active extensionists was therefore evident in the make-up of the sample of 51 RCEs. The sample breaks down as 21 male and 7 female livestock extensionists, 6 male and 1 female agriculture extensionists and 16 male fisheries extensionists. These three types of extensionists were trained in equal numbers by Practical Action, the availability of livestock and fisheries extensionists relative to agricultural extensionists in the fieldwork process already gives a rough indication of the relative sustainability of the three branches of training, i.e there have been proportionally more agriculture RCEs that have ceased to provide active service.

Education

The group with the highest educational level is the male livestock extensionists, with 47% having secondary school completion certificate or higher. Amongst the female livestock extensionists, fisheries and agriculture specialists around 50% had not succeeded in completing primary education.

Summary of characteristics of different types of community extensionists

	Livestock (M) (Large Animals)	Livestock (F) (Poultry)	Agriculture	Fisheries
Sample size	21	8	7	19
Average age (range)	40 (23-66)	40 (27-50)	46 (37-59)	37 (27-60)
Gender	M=21 F=0	M=0 F=8	M=6 F=1	M=16 F=3
Average days training received	14.5 (range = 1-38)	10 (3-30)	7.5 (4-10)	8.5 (1-25)
Participate in exposure visit	42.9%	37.5%	100.0%	74.0%
Received training after ITDG	11	3	0	6 (32%)
Received inputs with training	Equipment (47.6%) Follow up visit (38.1%) Medicine (25%)	Equipment (62.5%) Medicine (50%)	Follow up visit (100%)	Follow up visit (100%) Equipment (16%)
Started working as RCE	100.0%	1 never started	100.0%	1 never started
Still working as RCE	18	6	7	18
Average number of villages covered	16.5	8	5	11
Average distance to furthest client	17.67 Km	5.71 Km	4.93 Km	13.6Km

Principal ways of attending farmers	Regular route around the village (45.0%) Farmer calls me (25.0%)	Regular route around the village (71.4%) Farmer calls me (14.3%)	Regular route around the village (20.0%) Farmer calls me (80.0%)	Regular route around the village (50.0%) Farmer calls me (35.7%)
Principal modes of transport	Walking	Walking	Walking, Bicycle	Walking, Bicycle
Average yearly earning	73930 (139000-23500)	43712.5 (138000-2200)	74333 (116000-36500)	48593 (98000-200)
Contribution to income	Main but not only (55%) Only Source (35%)	Main but not only (42.9%) Minor Source (42.9%)	Only Source (66.7%)	Main but not only (42.9%) Only Source (35.7%)
How do farmers principally pay?	Cash	Cash	Cash	Cash
Have been hired by other people.	6 (28.6%) (Regular income- 23.1%)	1 (12.5%)	2 (29%)	21 (5%)
Do you face any challenges in your role as an RCE?	No=19 Yes=2	No=6 Yes=1	No=7 Yes=0	No=17 Yes=0

Training

In the Bangladesh survey all respondents mentioned “income” as a motivation for taking up the training. Answers to the question “What was your motivation for accepting to be trained as an RCE” (see CBE Questionnaire p.62) were supposed to be unprompted but there is a suspicion that the enumerators may have read out the possible answers, with “income” happening to be the first on the list. We can surmise from other evidence in the survey and Focus Group discussions with RCEs (Annex 10 p.96) that a strong commitment to community service was also a driver interest in becoming an RCE. On the style and content of the training, the following observations were made in the group discussions:

There was not sufficient emphasis on business development and credit linkages (RCE Mixed Group)

There were some difficulties in the classroom training; however they received further good follow up support from the trainer. (RCE Livestock)

The training was very useful. Practical exercise was the most important part of the training they received (RCE Livestock)

From the training, the biggest successes they have had are in seed management techniques of chilli, bottle gourd and potato. Intercropping of chilli and gourd nearly doubled the yield of sweet gourd. (RCE Agriculture Group)

The positive aspect of the training highlighted was that it included practical activities which improved understanding of the classroom activities, and also that cordial linkages with government service providers were established that are still being maintained. In terms of improvement of the training the key observation was that little

guidance was given in terms of business development and marketing, e.g the agriculture RCEs lack packaging knowledge for wider marketing of their quality seeds.

Other outcomes of the training were as follows

- ⇒ Approximately 60% of RCEs had the opportunity to participate in an exposure visit as part of their training, which proved very useful for subsequent practice.
- ⇒ All respondents had found the certificate presented to them on the completion of the training “quite useful” or “very useful”.
- ⇒ Around 25% of fisheries and male livestock RCEs had presented their training certificate as a means to obtain credit.
- ⇒ Subsequent training opportunities have been obtained by 40% of RCEs, the main training provider being BRAC Training Centre at Faridpur, with a wide variety of courses on offer.
- ⇒ The governments Youth Department occasionally offers training at the Upazila level, and 4 RCEs had taken a goat rearing course.
- ⇒ Six livestock RCEs had succeeded in getting training on artificial insemination.

Coverage

There is a very clear distinction amongst the different branches of service provision in the number of villages covered and distances travelled. Female livestock extensionists and the agricultural extensionists covered 10 villages or less. 60% of male livestock extensionists and 56% of fisheries extensionists cover more than ten villages. 38% of male livestock extensionists cover more than 25 villages. In terms of furthest distance travelled to give a service, only one person out of the female livestock and the agricultural specialists travelled more than 10km. 62% of the male livestock and 35% of fisheries extensionists fitted into the more mobile category, travelling at least 10km to provide services, with two individuals claiming to displace over 100km from their home village. They are amongst the 3 livestock specialists whose principal mode of transport is a motorcycle. All of the agriculture and female livestock extensionists walk to their clients, with occasional trips by rickshaw. For fisheries and livestock extensionists, the bicycle is the most common mode of transport. This points to a hierarchy in the capacity invest.

Payment/Income

. The table below shows a mean income in the peak season for extensions of 9280 Taka in July, the busiest month and 5302 Taka for March, the least busy month overall. The average annual income works out at 81500 Taka, around £700 at current exchange rates. That means that the 51 extensionists interviewed have collectively generated approximately £38000 of income a year for themselves.

Mean income per month of RCEs			
	Mean	Minimum	Maximum
January	5357.58	1000	18000
February	5679.41	1000	16000
March	5302.78	1000	15000
April	5491.67	1000	15000
May	7469.05	500	20000
June	9008.70	200	25000
July	9280.00	500	50000
August	7865.79	500	25000
September	6250.00	700	25000
October	6409.09	900	20000
November	6137.14	1000	12000
December	7214.71	1000	30000

Livestock RCEs have continued to give service as originally planned as mobile service providers making a profit on the administration of drugs and vaccines, whilst fisheries and agriculture have been more successful by giving advice with sale of inputs such as fingerlings and saplings. Hence the advice is invariably *embedded* with the sale of the inputs.

The service is directed to the poorer farmer, who treats the RCEs with greater respect than the wealthier farmer and is more reliable in terms of payment, even if that payment is sometimes deferred.

They all put almost equal importance for both richer and poorer. However, poorer households pay more honour and show gratefulness to them which motivates them to work more for the poor. If any customer is unable to pay for the service, they offer payment by instalments or they occasionally serve with a much reduced price, to hold customers
(RCE Group Discussion Mixed Group)

They are more interested to serve the poor and medium well-being category as they respect them. The richer categories sometimes undermine their expertise.
(RCE Mixed Group)

They served almost all categories of people who ask for their service. Sometimes they serve the poor free of charge. Good manners is far more important than wealth in deciding on clients.
“I can not tolerate bad behaviour”
“I reject customers that do not behave well”
(RCE Livestock Group)

The RCEs focussed their attention on the poor as their most suitable customers who were not served by others. As the poor man did not have money at the start of the season they gave seed on credit which was paid at the end of harvest.(RCE Agriculture Group)

The poor farmer does not wish to offend the RCE for fear of losing access to this valuable new service. The cordial relations of trust established by RCEs have given them access to the vast underserved market for high quality agricultural services.

Sustainability/Motivation

The RCEs surveyed have sustained a high level of time dedication to their role.; 36% of the whole sample of responded that being an RCE is now their full time occupation and sole source of income., whilst 50% responded that it was their main but not sole occupation. Of the remaining 14% that said it was a minor occupation, half are women poultry vaccinators who provide a service in their locality. This provides evidence that the training of RCEs opens up the possibilities of permanent, long term, yet informal employment in the rural economy, and should therefore be of interest to policy makers concerned to tackle rural unemployment

The RCEs do not have any kind of organisation and are bound together only in very informal networks. Therefore despite having become a permanent element of the local economy and society, from an institutional point of view they are practically invisible. The livestock RCEs tend to work within an 8km radius and have reached an understanding that they will not encroach on one another's service areas. They appear to have no need for more formal arrangements as they have maintained beneficial informal linkages with Upazilla government service providers.

On the positive side, this means that their operations are generally not hampered by political interference; only one RCE mentioned being harassed by political gangs, and as soon as any organisation with significant human resources and capacities emerged at a grassroots level in Bangladesh it is comes under massive pressure to align itself to one of the main political parties. However, the fact that the RCEs do not have a voice, and are not formally recognised or registered in any way, makes lobbying and influencing work on their behalf and for the RCE model to be taken up in other districts, much more difficult.

Treatment of a sick cow by a livestock RCE instead of the veterinarian based in the nearest town, represents a saving to a household of 300 Taka. This is a service that has been continuously available service over a six year period; welfare impacts are very favourable. Reduced cost of essential services such as farm animal treatment and vaccination has the important impact of releasing resources for expenditure on other goods and services

The results from the household survey confirm the comprehensive coverage of the original project villages by RCEs, with 94% of villagers aware of the presence of the RCE and 91% having received a service from them. Even in the control villages there is a 60% service coverage. In original project villages moreover the quality of the services is confirmed, with negligible numbers identifying any kind of problems with the information or inputs delivered by RCEs

Is a rural community extensionist available in your community?

	No	Yes	Do not know	Total
Project villages	3 2.7%	103 93.6%	4 3.6%	110 100.0%
Control villages	9 34.6%	15 57.7%	2 7.7%	26 100.0%

Have you received information or services from the RCE?

	no	yes	Total
Project villages	9 8.3%	99 91.7%	108 100.0%
Control villages	8 40.0%	12 60.0%	20 100.0%

Did you experience any problem receiving information or services from RCE?

	no	yes	Total
Project villages	94 88.7%	12 11.3%	106 100.0%
Control villages	15 88.2%	2 11.8%	17 100.0%

Institutional access and influencing

Ability to access a range of governmental and non-governmental institutions is key for sustainable development in rural communities in Bangladesh and it central to the long term sustainability of Practical Action's approach to food and livelihood security. Government extension services still exist down to the Union level and in the case of agriculture to the Block level. Furthermore there are many NGOs operating around the country. A lot are offering credit services, but others provide support in the areas of production, education, health, organisational capacity, DRR, etc. The project aimed explicitly to strengthen linkages with government service providers in all areas of agricultural production. Through strengthening community confidence and organisational capacity it could also have had wider benefits in terms of attracting other NGO interest and support.

Institutional access

Strengthening linkages between communities and government extension service has been achieved through involving government staff in delivering the RCE training courses

as well as facilitating visits to the communities and “dialogue fora” to help orient the government staff to the needs and priorities of the communities. RCEs were also encouraged to visit and make demands on government staff. Their training also included aspects of negotiation to overcome conflicts of interest. With increased demand from poor communities, government staff have begun to ensure greater vaccine availability

“Before the project no government staff came here and there were no other NGOs working. During and after the project more NGOs followed and now there are several here. Also the government staff linkage is increased. They didn’t come here before because it is remote but now they are coming” Farmer in Monsurabad.

The fact that Practical Action is still working in other communities in the area under the FOSHOL project also helps to maintain the government activity as they continue to be involved in training activities and linkage building visits to communities facilitated by that project.

In group discussions, it was found that in the project villages there was a greater incidence of both government and NGO services being available than in the control village (where NGOs were operating but only providing loans). Increased linkages with the Union Parishad, schools, land office, hospital and markets were also mentioned. It is difficult to claim these changes as direct results of the FPP project alone. More generally the conditions in Faridpur have improved in terms of infrastructure and services (including extension) since the project period. Government and donors have invested in Faridpur over the past 15 years – more than in some other parts of the country – because it is flood prone and food insecure, and it is the home district of many powerful politicians.

Policy influencing

Practical Action aims to scale up its project experiences through influencing other institutions both non-governmental and government. There is some evidence of success in this respect from the Food Production Project.

Practical Action lobbied government in favour of increased goat production with great success across the south region of Bangladesh. This was achieved through sharing experience of the goat production technology model that had been implemented under FPP in a research review meeting organized by BLRI (Bangladesh Livestock Research Institute). The project team supplied basic research genetic materials like pure local goat breed to BLRI and helped them to produce a large number of quality breeding bucks which Practical Action then distributed to communities. Staff reported that as a result a national project on goat production for poverty alleviation was launched by the government.

In terms of RCEs, Practical Action staff developed a good relationship with district level government service providers (livestock, agriculture and fisheries), successfully engaging them in the training of RCEs and in providing certificates to trainees. Other NGOs have been less successful in getting agreement for trainee certification as it is not a standard procedure. Investing effort in developing a good working relationship with these government service providers, as well as having staff who were also expert in these fields, were identified as two key factors contributing to success.

There were some attempts to influence at higher levels of government, e.g. to approach District Commissioners to share findings and try to lobby for more widespread acceptance of Rural Community Extensionists and for support to food security activities. However as already noted, ability to influence was compromised by the fact that Practical Action is a small NGO and the project was only working with 1000 households. Practical Action staff reported feedback from their contacts in national government to the effect that that scale of impact was not considered sufficient to be persuasive. Furthermore, beyond local level extension, the project did not clearly identify specific policy issues to influence decision makers on. It must be remembered that at this early stage of programme development, Practical Action was a technical service partner in the PEP credit project: it was a new player on the scene going through a process of team formation and trying out new approaches, so its influencing potential was low.

Impacts attributable to project activities

Impact on assets

A proxy for improved income is to assess increases in a range of assets that households might spend their new income on. Income is often spent on upgrading or increasing the size of the homestead. Further assets could be for the household, or relating to different aspects of production: livestock, fishing or farming.

The following tables illustrate changes in average asset holding in project villages for a wide range of different assets, comparing before the project (1998) with immediately after the project ended (2004) and the present. There are also comparisons between average asset holding at present in the project villages compared with in control villages. The number and quality of houses has improved in project communities since the start of the project, and project communities reported a higher quality of housing than the control village.

Number of dwellings per household in project villages, now, 2004 and 1998

		How many dwellings (rooms) do you have now, 2004 and 1998?					Total
		1	2	3	4	5	
NOW		2	17	19	6	2	46
	%	4.3%	37.0%	41.3%	13.0%	4.3%	100.0%
2004		6	29	4	3	0	42
	%	14.3%	69.0%	9.5%	7.1%	.0%	100.0%
1998		24	14	2	2	0	42
	%	57.1%	33.3%	4.8%	4.8%	.0%	100.0%

Type of main dwelling now, project and control

		Type of main dwelling , project and control					Total
		Building	Building but CI sheet roofs	Tin shed and floor pucca	Tin shed and floor kancha	Thatched house	
Project		3	4	19	75	8	109
	%	2.8%	3.7%	17.4%	68.8%	7.3%	100.0%
Control		0	1	3	18	7	29
	%	.0%	3.4%	10.3%	62.1%	24.1%	100.0%

Type of main dwelling in project villages now, 2004 and 2008

		Type of main dwelling, now, 2004 and 1998					
		Building	Building but CI sheet roofs	Tin shed and floor pucca	Tin shed and floor kancha	Thatched house	Total
NOW		3	4	19	75	8	109
		2.8%	3.7%	17.4%	68.8%	7.3%	100.0%
2004		3	2	13	58	30	106
		2.8%	1.9%	12.3%	54.7%	28.3%	100.0%
1998		2	1	3	34	66	106
		1.9%	.9%	2.8%	32.1%	62.3%	100.0%

Virtually all household assets have increased since 1998 to present in the project village with the exception of Ox / Buffalo Cart. The average household asset ownership is also greater in the project villages at present compared with the control village in the majority of cases (see table below).

For livestock, fishing and farming assets there is a near universal demonstration of increase in assets between 1998 and 2008 for the project villages. However, in some cases livestock asset ownership in 2004 was actually higher than in 2008, e.g. for bull, cow, lamb, hen, duck and pigeon. In focus group discussions people ranked 2004 as one of their best years and 2007 as one of their worst in the last decade. Although floods were mentioned in both years, it seems that livestock assets may have been affected more by recent events. With few exceptions, mean asset ownership is greater in the project villages than in the control village. Low fishing asset ownership in the control village may be due to the fact that it is not as suited to fishing as some of the project villages and therefore a direct comparison here is not appropriate.

Sahera Begum, Goat rearing specialist, Nizpara

Sahera Begum received training on goat rearing. Before the project she had four goats. Now she has 22 and had just sold 8. She earned a total of 25,000 taka for the 8 goats. She sells on average 15 per year. The price varies so it is hard to estimate how much she earns annually. However, she has used the income to pay loans and to invest in crops.

Other members of her family also assist in goat rearing and she has taught her daughter in law the skills she learned. Once important innovation they made was to make muzzles for the goats to stop them from eating plants from other household gardens when walking the goats through the village. This was a cause of conflict in the past. Few people use this practice in the community. She also practices cleaning the residues from the goat shed and composting them for use in the kitchen garden.

Mean Household Assets

	Project 1998	Project 2004	Project now	Control now
Radio	0.31	0.55	.76	.50
Clock	0.47	0.82	1.58	1.07

TV	0.09	0.59	0.97	1.00
Bike	0.42	0.67	1.05	1.07
Telephone (inc. mobile)	0.00	0.16	1.27	1.20
Motorcycle	0.00	0.40	1.00	0.00
Ox/Buffalo with Cart	4.00	6.00	3.00	3.00
Car/Van/Pick up	0.69	1.00	1.08	1.00
Tubewell/water	0.31	0.58	1.03	1.00
Latrine	0.29	0.58	1.04	1.04

	Project 1998	Project 2004	Project now	Control now
Bull	1.18	1.06	0.65	0.50
Ox	0.36	0.95	1.77	0.67
Cow	0.80	1.33	1.23	0.71
Male calf	0.39	0.66	1.18	0.75
Female calf	1.05	1.08	1.16	1.00
Goat	1.23	2.81	2.86	2.17
Lamb	0.25	2.50	1.25	1.00
Ram	0.11	1.33	2.00	0.00
Hen	6.25	14.40	10.95	5.17
Duck	5.05	6.38	4.47	5.00
Pigeon	1.38	9.54	9.08	4.00

	Project 1998	Project 2004	Project now	Control now
Cast net (khepla)	0.39	0.61	1.11	0.50
Set bag net (Berr)	0.50	1.75	2.88	1.00
Gill net (Faash)	0.80	1.30	2.70	1.00
Toxic Gas removal gear (Khora)	1.50	1.50	1.50	1.00
Trap (Pollow/Utcha)	4.46	6.07	10.50	1.33
Long lines (Borshi)	3.32	3.61	8.61	3.00

	Project 1998	Project 2004	Project now	Control now
Langol / Plough	0.79	0.84	0.82	0.24
Laddar / Leveller	0.73	0.80	0.96	0.83
Nirani / Rake	1.25	1.70	2.56	2.15
Power tiller	0.20	0.60	0.60	1.00
Tiller	0.00	1.00	0.00	0.00
Irrigation Pump	0.31	0.50	1.00	0.83

Abul Kashem from Bartha village received two days practical training on vegetable production, including production technologies of quality seed (pollination process, selection of fruit for seed production, improve management system), use of compost for better production of vegetable & quality seed, IPM (Integrated Pest Management) technologies and selection of early varieties of vegetable to get better market price.

After the training Abul started cultivating integrated vegetables with sweet gourd, bottle gourd, snake gourd, bitter gourd, pointed gourd, ash gourd, cucumber, pani kachu (taro/aroids in water) etc. in 22 decimal land. He also adopted technologies like rice-fish culture in his land learnt from neighbor farmer of the project to get more benefit from agricultural activities.

Production as well as family income has increased. In the last year his gross income was Tk20,000 from vegetables cultivation and Tk45,000 from rice and wheat. This helped him to cope with any sorts of natural disaster like flood, storm etc. With this income he bought two irrigation pumps and a paddle thresher and also he took lease of 66 decimal lands at Tk. 8000 last year. Besides that, he is spending extra income to buy daily commodities includes new clothes for his family members along with meeting food and nutritional demands. Now he is fully food secure. From this income he also bought a television. He is very aware about the education of his children and sending them to get higher studies from his increased income.

See Annex 6 for full case study

Impact on resilience and coping

The communities which Practical Action works with in Bangladesh tend to be highly disaster prone. Flood preparedness and mitigation was considered in the selection of technologies which were made accessible to communities e.g. fish cages, raised animal shelters, pigeon rearing, silage making (fodder for livestock in rainy season), amongst others.

Overwhelmingly, respondents from project villages expressed that they felt better able to both protect themselves and recover from hazards such as flooding. The responses for the control village were not significant – being spread fairly evenly across the three

potential responses (see tables). The reasons given for better ability to protect assets were varied but the principal responses in the project villages were improved housing (raised or strengthened) (14 responses); increased income or savings (9 responses); risk reduction in crop cultivation, e.g. diversification and early cultivation (6 responses) and other physical structures for protection of assets, e.g. dam, raised goat shelters (5 responses). Many people mentioned increased information and skills as a result of training but without specifying in what area. With respect to ability to recover, the principal responses in project villages related to increased income or savings (16 responses) and having more food stored (10 responses).

When a hazard such as flooding occurs do you feel better able to protect your assets before and during the event than in 1998?

					Total
		Yes	Same	No	
Project		91	11	8	110
	%	82.7%	10.0%	7.3%	100.0%
Control		7	13	9	29
	%	24.1%	44.8%	31.0%	100.0%

When a hazard such as flooding occurs do you feel better able to recover after the event than you did in 1998?

					Total
		Yes	Same	No	
Project		89	14	7	110
	%	80.9%	12.7%	6.4%	100.0%
Control		8	10	10	28
	%	28.6%	35.7%	35.7%	100.0%

In order to understand the contributions of the project with respect to reduced flood impacts, the question was asked whether any aspect of the project had helped in reducing the impact of flood on livelihoods and if so which aspects. The majority (64%) attributed their improved situation to some aspect of the project. Of the qualitative responses (which aspect of the project helped) the vast majority of responses were general relating to training, awareness raising, advice etc. Of the more specific responses 8 related to crop production technologies, 5 to livestock production technologies and 4 related to the donation of a boat.

Did any aspect of the project help in reducing the impact of floods on your livelihood?

		No	Yes	Total
Project villages		34	61	95
	%	36.0%	64.0%	100.0%

A further way of measuring whether people were coping better with disasters was to ask them about changes in their practice of certain coping strategies comparing their situation now with that of before the project. Three undesirable coping strategies were explored alongside receipt of food aid and of other forms of welfare. A significant proportion in each case never practiced these forms of coping strategy. However, from the table of results below, it can be seen that amongst those who had had to draw on such strategies, the majority were tending to do so less now than they were in 1998. It was not possible to compare these results with data from the control village as the number of people who responded to the question was not sufficient to be statistically relevant.

Coping strategies

		In 1998 did you practice more the same or less?				Total
		More	Same	Less	Never	
Local wage labour		34	16	17	26	93
	%	36.6%	17.2%	18.3%	28.0%	100.0%
Migration for wage labour		23	9	16	28	76
	%	30.3%	11.8%	21.1%	36.8%	100.0%
Borrowing from money lender		32	8	18	27	85
	%	37.6%	9.4%	21.2%	31.8%	100.0%
Receiving food aid		22	8	9	36	75
	%	29.3%	10.7%	12.0%	48.0%	100.0%
Receiving other welfare	Count	20	14	21	32	87
	%	23.0%	16.1%	24.1%	36.8%	100.0%

Impact on diet and food security

Various aspects of food security were assessed through the questionnaire survey, both to compare the currently situation with that prior to the project as well as comparing project villages with the control village. Number of hungry months is a key indicator of food security indicating the ability of households to produce enough to feed the family for the whole year. The table below illustrates a significant reduction in the number of hungry months in the project villages surveyed. In 1998, a large proportion of those surveyed (77.5%) were experiencing between 3 and 6 months of hunger. By 2007 the majority (55%) were experiencing just 1-2 months of food deficit. The situation in the control community actually deteriorated over the same period.

Number of hungry months in 2007 and 1998

		Hungry months					
		1-2	3-4	5-6	7-8	9-10	11-12
2007	Project	36	19	6	4	0	0
	%	55.4%	29.2%	9.3%	6.2%	.0%	.0%
1998	Control	2	8	9	1	3	3
	%	7.7%	30.8%	34.6%	3.8%	11.5%	11.5%
2007	Project	7	37	32	9	3	1
	%	7.9%	41.6%	35.9%	10.1%	3.4%	1.1%
1998	Control	1	15	7	2	1	1
	%	3.7%	55.5%	25.9%	7.4%	3.7%	3.7%

In terms of the number of meals consumed per day and the number of satisfying meals (with full belly), both these indicators show a significant improvement over the period 1998 to 2007 in project communities. As with the hungry months, the situation with respect to both these two indicators in the control village has deteriorated somewhat over the same period.

Number of meals per day intake in 2007 and 1998

		Number of meals intake in day				
		1	2	3	Total	
2007	Project	Count	0	21	59	80
	%		.0%	26.3%	73.8%	100.0%
1998	Control	Count	2	14	10	26
	%		7.7%	53.8%	38.5%	100.0%
2007	Project	Count	4	59	30	93
	%		4.3%	63.4%	32.3%	100.0%
1998	Control	Count	0	11	15	26
	%		.0%	42.3%	57.7%	100.0%

Number of meals per day with full belly in 2007 and 1998

		Number of meals with full belly				
		0	1	2	3	Total
2007	project	0	13	33	36	82
	%	.0%	15.9%	40.2%	43.9%	100.0%
1998	control	1	8	12	5	26
	%	3.8%	30.8%	46.2%	19.2%	100.0%
2007	project	2	43	39	9	93
	%	2.2%	46.2%	41.9%	9.7%	100.0%
1998	control	1	6	15	4	26
	%	3.8%	23.1%	57.7%	15.4%	100.0%

With respect to particular food items, respondents were asked to assess whether their intake was more, the same or less in 1998 compared with their situation now. For all

food items except for rice, in the project villages, the majority of respondents reported that their consumption then was less than it is now, in other words, consumption has increased. Even for rice the proportion stating that consumption was less than now was 43%, and only 22% claimed that they were consuming less now than before (the remainder said they were consuming the same). The case for the control village is less encouraging: a much lower proportion of respondents report that they were consuming less in 1998 (between 4 and 31%). There are also more instances of households that do not consume some items at all (e.g. milk and meat).

Food intake status in 1998 compared with now

		Food intake status					
		More	Same	Less	Not take at all	Total	
FISH	project	30	15	64	0	109	
	%	27.5%	13.8%	58.7%	.0%	100.0%	
	control	16	7	5	1	29	
	%	55.2%	24.1%	17.2%	3.4%	100.0%	
MEAT	project	14	19	70	0	103	
	%	13.6%	18.4%	68.0%	.0%	100.0%	
	control	11	5	4	4	24	
	%	45.8%	20.8%	16.7%	16.7%	100.0%	
MILK	project	19	22	59	4	104	
	%	18.3%	21.2%	56.7%	3.8%	100.0%	
	control	14	7	1	3	25	
	%	56.0%	28.0%	4.0%	12.0%	100.0%	
EGG	project	18	18	68	0	104	
	%	17.3%	17.3%	65.4%	.0%	100.0%	
	control	10	8	5	3	26	
	%	38.5%	30.8%	19.2%	11.5%	100.0%	
VEGETABLES	project	25	9	72	0	106	
	%	23.6%	8.5%	67.9%	.0%	100.0%	
	control	11	10	7	1	29	
	%	37.9%	34.5%	24.1%	3.4%	100.0%	
DAL	project	21	28	57	1	107	
	%	19.6%	26.2%	53.3%	.9%	100.0%	
	control	11	7	8	0	26	
	%	42.3%	26.9%	30.8%	.0%	100.0%	
RICE	project	24	36	46	0	106	
	%	22.6%	34.0%	43.4%	.0%	100.0%	
	control	12	11	5	0	28	
	%	42.9%	39.3%	17.9%	.0%	100.0%	
FRUITS	Project	15	11	70	6	102	
	%	14.7%	10.8%	68.6%	5.9%	100.0%	
	Control	10	4	5	4	23	
	%	43.5%	17.4%	21.7%	17.4%	100.0%	

It was noted in discussions that vegetable production was extremely low in this area prior to the project. Vegetables were also not always readily available in the market because most production from neighbouring districts went straight to Dhaka. Over the 10 years since the start of the project vegetable production has increased significantly and now a range of vegetables are available in local markets as well as being sold to Dhaka. Whilst the project has clearly encouraged and enhanced vegetable production at the household level, it is not clear whether other factors have also contributed to the increase in production that can be seen at a district level.

Women reported an improved impact on the health status of the community, especially women and children. They mentioned taking more vegetables and better prepared food as one reason, as well as practicing family planning, availability of better health facilities and improved sanitation. As vegetables were purchased before then they tended to purchase less due to lack of available cash. Now they are producing themselves, they consume more and that produce is fresh. It was also noted that hospitality towards guests increased when they have fresh produce in adequate quantity available in the house.

Broader trends not directly attributable to the project

Agricultural production

Vegetable production in Faridpur District is reported to have increased over the past 10 years, though it is probably still low as compared to its potential. Market opportunities have also increased as infrastructure has improved, however there is also increased market competition from the North West as the construction of the Jamuna Bridge has made this area more accessible to Dhaka.

Fish culture was reported to be growing not only due to the FPP which particularly promoted small scale pond fisheries and cage culture, but also as a result of government and NGO (BRAC) work with bigger producers.

Maize production is also increasing in the region and Practical Action was one of the early promoters of this crop under FPP. The trend towards increased production is however also heavily influenced by the growing demand for maize as animal feed and its promotion by other agencies.

Social and other impacts

Women benefited more from the project as reported in focus group discussions. They benefited from training, increased household food security and it was also reported that over time their mobility has also increased. Project community members reported benefiting from improved availability of other services, e.g. health, education, etc. It was also reported in some communities that both dowry and early marriage are which was attributed to wider education campaigns.

Conclusions

The most successful aspect of delivering food and livelihood security under the Food Production Project in Bangladesh is in giving communities access to improved technologies for sustainable and diversified production – both crops and livestock – with positive impacts on food productivity and security. This has been achieved both through direct training and through the building up of Rural Community Extensionists who have continued to provide advice, services and inputs to the target communities and further populations beyond those targeted.

There are several factors which should be highlighted which are likely to have contributed to the success of the approach. The project did not aim to introduce 'new' livelihoods per se but rather aimed to improve existing production systems through improved practices or technologies which would enhance their sustainability, diversity or yield. This is a low risk strategy. Secondly the approach to introducing technologies was to encourage experimentation rather than to 'force' adoption. Thus, farmers were encouraged to trial new ideas before switching wholesale to a new approach. This again is a low risk approach, and builds capacity and confidence to continue to experiment over time. Thirdly, building linkages with RCEs and other government extension service providers was critical to the long term sustainability of the technologies and ideas that were introduced. Farmers could continue to obtain relevant inputs, advice and services beyond the availability of Practical Action staff.

In terms of the food and livelihood security framework outlined in the introduction, the second area in which this project had success at the community level was in reducing disaster risk. Improving and diversifying production are important strategies for reducing risk as they provide households with more resources with which to cope in times of need. However, in addition, technologies were introduced which aimed to improve resilience during flood hazards – e.g. cash fish culture, livestock feed management, livestock disaster management strategies, etc. Finally, as noted above, the approach used to introduce new technologies aimed to avoid farmers taking big risks with new production technologies which might have made them more vulnerable.

The Rural Community Extensionists, trained between 1999 and 2003, continue to spread and extended and impact of the new technologies. They now fall in to one of three broad categories. Type one, the "Volunteer Service Provider", has benefited from the specialist training by upgraded their own farm and acting as a beacon of improved practice, sharing lessons with neighbours and extended family. The majority of this group are Agriculture RCEs. They have not commercialised any aspect of their service, but their status in the community as knowledge sharers is a valuable factor for localised resilience, and although it is impossible to quantify, their presence has made a contribution to the emergence of Faridpur as a centre for high quality commercial vegetable production over the last decade. Type two is a "Commercial Service Provider", these are the Livestock RCEs who have and they develop a client base in as many as 20 villages. Their mobility and flexibility make them very attractive auxiliaries for the government extension services. Type three is a "Commercial Input Producer", producing inputs on their own farms in fisheries, agriculture or livestock and constantly updating their knowledge and remaining active in extension as an advisor to a large local network of customers.

One of the services that can be commercialised by a community extensionist is a specialised expertise which is normally beyond the reach of the farmer. In the case of livestock this is the skills required to perform minor operations. This specialised skill, which other farmers were willing to pay for, was particularly lacking in the role of the Agriculture RCE

Practical Action Bangladesh observed the fact that the Agriculture RCEs were having greater difficulties than Fisheries or Livestock in sustaining their role as advisors, with a greater tendency to revert to concentrating on their own household production. In 2005 a decision was taken by Team Leader Mohammad Ali to change the denomination from Rural Community Extensionist to Rural Technology Extensionist. New off-farm disciplines have been introduced, such as Agro-Processing and Power Tiller/Irrigation Pump Mechanic. The Crop Agriculture role has been substituted by a range of specialised RCEs offering tangible product and expertise for which farmers are willing to pay, including Seed Producer, Plant Doctor and Plant Nurserer. Approximately 1,200 Rural Technology Extensionists who have been trained in the current generation of Practical Action Bangladesh projects. The initial assessment of the viability of the new range of RTEs will be available in the evaluation of the EC funded FOSHOL Project (2005-9)

Community empowerment was addressed to some extent through the wider project (facilitated by PEP) through which poorer sectors of the community organised themselves into savings and credit groups. In some communities Practical Action also facilitated some collective farm planning. Producers were also empowered through building linkages with government service providers which made them aware of the services available to them and how to access them. However, in terms of wider capacity building to address other aspects of their lives and access resources to do so, this was not a focus of the project and was therefore not directly addressed. Many other NGOs working in Bangladesh focus on the establishment of CBOs and other kinds of savings groups. Action to directly address access to natural resources and food and labour markets were also not prioritised in this project.

In terms of influencing and capacity building or facilitating influence and capacity at the meso level, this was achieved to some extent through the relationships built with meso level government extension services. Relationship building and working together to deliver RCE training helped to orient these service providers towards the poor and give them a favourable attitude towards the community services providers, valuing their role. In other areas, e.g. in building capacity of other NGOs to replicate, relatively little effort was made. This has changed however, in subsequent projects where more emphasis has been placed on building the capacity of local partner NGOs. It remains an area where more could still be done.

In terms of national level influencing, this project had limited aims and did not communicate strong messages to other national level NGOs or policy makers in a systematic way. This was the first Practical Action intervention of its kind in Bangladesh, where new approaches were being piloted.

Five years on, this study has contributed sufficient evidence of sustainability for Practical Action Bangladesh to talk confidently to national and international policy makers on how

to achieve sustainable livelihoods and reduce hunger amongst resource poor farming households.

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Annexes

Annex 1 – Map of Bangladesh



Annex 2 - Project Logical Framework

PROJECT GOAL	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
To increase food and livelihood security of poor food producers(women and men) in rural Bangladesh	Improved diet, income, access to, control over and sustainable management of food production resources, of food production men and women.	Public agency records. NGO & academy testimony records. Project evaluation	<ol style="list-style-type: none"> 1. Close relationship between rural poor's productive capacity and livelihood security. 2. Food security of poor rural producers related to their access and control over and sustainable management of natural resources.
<p>PURPOSE</p> <p>To demonstrate that a farmer-led participatory approach will increase the capacity of the rural poor in greater Faridpur District to produce more food in a sustainable manner</p>	<p>At least 1,000 households of small food producers in Faridpur to possess by Year 5:</p> <ul style="list-style-type: none"> - Increased resource management skills and knowledge - Increased access to and control over food production resources - Strengthened capacity and confidence to organise social and productive aspects of the food system - strengthened capacity to manage effects of economic, social, environmental and policy change - increased level of social and technical motivation 		
<p>OUTPUTS</p> <p>1. Problems and technological options of small scale food producers identified and</p>	Range of potential technological options for integrated sustainable farming systems, including livestock, poultry, fish culture, horticulture focus identified by end of year 1	Project Baseline Study report, Project Planning document	(Assumptions for all outputs) Community members and local institutions willing to collaborate

prioritised			
2, Community development plan	A feasible community level action plan prepared and agreed with project stakeholders by the end of year 1	Joint reviews with community stakeholder and ITB team.	Small-scale food producers have time and adequate resources to participate
3. PTD approach developed and implemented 3.1 Facilitate food producers access to information 3.2 Testing, assessment and adaptation of technical options 3.3 Selecting and utilizing technical options 3.4 Facilitate farmer to farmer exchange of information 3.5 Facilitate dialogue between farmers and service providers	Number of technologies tested, adapted, assessed, utilized and exchanged by food producers from year2-5 At least 1 dialogue forum per year held between food producers and service providers through Year 2-5	Project staff, Community Extensionists and farmer participatory monitoring records Project record of meetings and workshops Training records	Range of appropriate technological options and collaborative institutions exist
4. Community (farmer-farmer extension system in place)	100 Community Extension Workers identified by year 5 Training and capacity building of Extension Workers/Rural Community Extensionist from Year 2-5 Support mechanisms for Community Extensionists identified and established At least 1000 farmers working with the project	Monitoring data and training records	
5. Results of process disseminated	Number, type and quality documentation produced in years 2-5 (at least one article per year, working papers, video, video, leaflets, posters etc.) Project networks established by year 3	Documents/communication material produced	

	<p>Participation in and support of national food security related for years 1-5</p> <p>Project team confident and eager to meet varied challenges year 1-5</p> <p>Number and type of consultancies requested, year 1-5</p>		
6. Lessons and approaches shared	<ol style="list-style-type: none"> 1. Participation in and support of national food security related networks Year 1-5 2. Number and type of consultancies requested year 1-5 3. Number of Project enquiries Year 1-5 4. Quality documentation produced(as for output 5) 5. Critical mass of evidence supporting lessons and approaches established from year 3 onwards 6. Record of participation in and support to strategic networks, seminars and conferences 7. Articles published and feedback monitored 8. Number of target agencies expressing interest in the work, 9. Citations in publications, media. 	<ol style="list-style-type: none"> 1.Meeting/discussion records 2. Project Annual Review <ol style="list-style-type: none"> 1. Staff appraisal process 2. Project Annual review 1. Project Records <ol style="list-style-type: none"> 1. documentation produced 2. External project advisory panel review 1. Project records <ol style="list-style-type: none"> 2. Conference reports 1. Article produced <ol style="list-style-type: none"> 2. Project Annual reviews 1. Project records 	

Annex 4 – Research Tools

HOUSEHOLD QUESTIONNAIRE

Identification of Household	
Name of Respondent _____	
Name of Para _____	<input type="text"/>
Name of Village _____	<input type="text"/> <input type="text"/>
Name of Upazilla _____	<input type="text"/> <input type="text"/> <input type="text"/>
Household Code _____	<input type="text"/> <input type="text"/> <input type="text"/>

To be completed by Interviewer	<i>Date of Interview</i>
Name of Interviewer _____	Day <input type="text"/> <input type="text"/>
Signature _____	Month <input type="text"/> <input type="text"/>
Comments:	Year <input type="text" value="2"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text"/>

<p>Introduction to interviewee</p> <p>Hello, my name is ... and I work for Practical Action</p> <p>Your household has been selected because you</p>
--

A.1 HOUSEHOLD PROFILE

Firstly, confirm that the person that you are talking to is the person named on the front of the form.
If it is a secondary beneficiary or a non beneficiary please confirm you are talking to the household head.

[1] Are you the head of the household?

Yes 1	No 0
----------	---------

Now I would like to ask you some general questions about your household members.

Lets start with yourself (i.e. the person named)

Line No.	Age <i>(write age in completed years)</i>	Male/ Female <i>(circle one)</i>	Years of school completed <i>(write number or 00 if none)</i>	Attending school now? <i>(circle one)</i>
(2)	(3)	(4)	(5)	(6)
01 (interviewee)		Male 1 Female 2		Yes 1 No 0
02		Male 1 Female 2		Yes 1 No 0
03		Male 1 Female 2		Yes 1 No 0
04		Male 1 Female 2		Yes 1 No 0
05		Male 1 Female 2		Yes 1 No 0
06		Male 1 Female 2		Yes 1 No 0
07		Male 1 Female 2		Yes 1 No 0
08		Male 1 Female 2		Yes 1 No 0
09		Male 1 Female 2		Yes 1 No 0
10		Male 1 Female 2		Yes 1 No 0
11		Male 1 Female 2		Yes 1 No 0
12		Male 1 Female 2		Yes 1 No 0

(7) Are you still a member of the same household as you were when you participated in this project?

Yes 1	No 0 ⇒ 12
----------	--------------

(8) In the last 10 years (since the floods in 1998), have any members left your household or died? *(circle one)*

Yes 1	No 0
----------	---------

(9) If yes, how many *(enter number)*

(10) In the last 10 years (since the floods in 1998), have any adult members joined your household, e.g. through marriage? *(circle one)*

Yes 1	No 0
----------	---------

(11) If yes, how many *(enter number)*

--	--

PARTICIPATION IN TRAINING

Now I would like to ask you about any training or inputs you or any members of your household have received in the past 10 years. Please tell me if you have received any of the following training from this list. If I don't mention a training you have received then please tell me what it is.
If they have done more than one training in the past 10 years please enter the date and provider of the first training.

(12)	Type of training	How many members participated (enter number If no-one enter 00)	What year was the training (enter year)	Who provided the training? (see codes below)	Did you receive any inputs associated with this training? (circle)		Do you still practice? (see codes below)		Which activities resulted in most earnings? (Mark 1 for top, 2 for second and 3 for third)
					Yes	No	Yes	No	
		(13)	(14)	(15)	(16)		(17)		(18)
01	Vegetable production				Yes 1	No 0	Yes 1	No 0	
02	Vegetable seed production				Yes 1	No 0	Yes 1	No 0	
03	Breeding buck rearing				Yes 1	No 0	Yes 1	No 0	
04	Duck raising				Yes 1	No 0	Yes 1	No 0	
05	Goat production				Yes 1	No 0	Yes 1	No 0	
06	Livestock feed management				Yes 1	No 0	Yes 1	No 0	
07	Disaster mitigation for livestock				Yes 1	No 0	Yes 1	No 0	
08	Canal fish culture				Yes 1	No 0	Yes 1	No 0	
09	Trap pond management				Yes 1	No 0	Yes 1	No 0	
10	Small scale homestead pen culture				Yes 1	No 0	Yes 1	No 0	
11	Community fisheries management				Yes 1	No 0	Yes 1	No 0	
12	Pond fish culture				Yes 1	No 0	Yes 1	No 0	
13	Vermicomposting				Yes 1	No 0	Yes 1	No 0	
14	Water resitant tree planting				Yes 1	No 0	Yes 1	No 0	
15	Wetland management				Yes 1	No 0	Yes 1	No 0	
16	Extension				Yes 1	No 0	Yes 1	No 0	
17	Other (name)				Yes 1	No 0	Yes 1	No 0	
18	Other (name)				Yes 1	No 0	Yes 1	No 0	

19	Other (name)				Yes 1	No 0	Yes 1	No 0	
20	Other (name)				Yes 1	No 0	Yes 1	No 0	

Codes: Who provided training? 1 = ITDG 2 = Other NGO 3 = Government Extension agent (e.g. Block supervisor) 4 = RCE 5 = Other	
---	--

(19) If you no longer practice any training, why did you give it up? *(write answer)*

--

(20) Have you ever actively sought refresher training from another agency after the original training finished?

Yes 1	No 0 ⇒
----------	-----------

(21) If yes, did you pay for that refresher training?

Yes 1	No 0
----------	---------

(22) Once you were practicing any of those trainings did you make any further changes or improvements in your practice as a result of your **own ideas**? *(circle one)*

Yes 1	No 0 ⇒
----------	-----------

What changes or improvements did you make?
(write answer)

--

What has been the most significant change in your production resulting from your training?
(write up to 3 answers)

--

COMMUNITY EXTENSION

Now I am going to ask you some questions about access to information and inputs for agricultural livelihoods. .

Is there an RCE in your area who serves your community? *(circle one)*

Yes 1	No 0 ⇒ Q	Don't know 3 ⇒ Q
----------	----------------	------------------------

If yes, have you ever received any information from him or her? *(circle one)*

Yes 1	No 0 ⇒ Q
----------	----------------

If you have never received any information or inputs from the RCE, why not? *(write answer)*

--

Apart from the specific trainings we have just talked about, what is the most important source of farm inputs and advice for the areas of production that you practice? If you get from more than one source, please give the most important one.

Activity	NOW	2004	08
Inputs relating to crops or vegetables			
Information on crop / vegetable production			
Inputs relating to livestock including poultry			
Information on Livestock including poultry			

Have you received any service on **crop/horticulture** from an RCE? If yes, please rate.

Have you received any service on **crop/horticulture** from a BS? If yes, please rate.

Have you received any service on **crop/horticulture** from an NGO? If yes, please rate.

Have you received any service on **livestock** from an RCE? If yes, please rate.

Have you received any service on **livestock** from an BS? If yes, please rate.

Have you received any service on **livestock** from an NGO? If yes, please rate.

Have you received any service on **fish** from an RCE? If yes, please rate.

Have you received any service on **fish** from a BS? If yes, please rate.

Have you received any service on **fish** from an NGO? If yes, please rate.

Used		Relevance			Availability / responsiveness / timeliness		
Yes	No	Good	Average	Poor	Good	Average	Poor
1	0	1	2	3	1	2	3
1	0	1	2	3	1	2	3
1	0	1	2	3	1	2	3
1	0	1	2	3	1	2	3
1	0	1	2	3	1	2	3
1	0	1	2	3	1	2	3
1	0	1	2	3	1	2	3
1	0	1	2	3	1	2	3

Inputs relating to fish cultivation			
Information on fish cultivation			
Information about market prices generally			

Do you pay for **inputs** from the RCE? I am just talking about inputs like seeds, fingerlings or drugs, not advice. (circle one)

Crops, horticulture, etc

Livestock

Fisheries

Always	Sometimes	Never
1	2	3
Always	Sometimes	Never
1	2	3
Always	Sometimes	Never
1	2	3

Do you pay for **information** only from the CBE, when you are not paying for inputs, By information I mean skills, or advice on how to apply drugs or fertilizers or how to manage fish? (*circle one*)

Crops, horticulture, etc

Livestock

Fisheries

Always 1	Sometimes 2	Never 3
Always 1	Sometimes 2	Never 3
Always 1	Sometimes 2	Never 3

B.1 HOUSEHOLD INCOME

Next, I'd like to ask you how your household makes its living. In the last 12 months

Which types of work or activity did the household do during a 12 month period 10 years ago (*column X*).

What is your primary source of cash income from agricultural sales?

What is your second source of cash income?

What is your third source of cash income?

How many sources of cash income in the household in total (including the above)?

What is your total cash income from agriculture?

1. Milk sales
2. Egg sales
3. Cattle sales
4. Goat sales
5. Chicken sales
6. Duck sales
7. Vegetable sales
8. Veg seed sales
9. Rice sales
10. Fruit sales
11. Fish sales
12. Fish seed sales
13. Other (specify)

Now	1998		
	More 1	Same 2	Less 3

HOUSEHOLD & PRODUCTIVE ASSETS

Next, I'd like to ask you about what productive assets your household owns now, and what the household owned in the past.

What type of house do you live in? (*enter code*)

- 1 Building
- 2 Half building (tin made roof)
- 3 Tin made house and concrete floor
- 4 Tin made house with earthen floor
- 5 Hut

Now	2004	1998

What number of each of the following assets does your household currently own, and how many did the household own in 2004 and 1998. Enter the number of animals or items.

HOW MANY!!		Number							
		Now	2004	1998					
	(16)	(17)				(16)	(17)		
HOUSEHOLD					FISHING				
Radio	01				Cast net	27			
Clock	02				Set bag net	28			
Television	03				Gill net	29			
Bicycle	04				Behundi net	30			
Phone (including mobile phone)	05				Trap/pollow/uca/chai	31			
Motor cycle	06				Long lines	32			
Cart	07				Others				
Car / van / pickup	08				FARM EQUIPMENT		33		
Well / tap for domestic use	09				Plough	34			
Latrine	10				Leveller	35			
AGRICULTURE		11			Hoe	36			
Bull	12				Power tiller	37			
Oxen	13				Thrasher machine				
Cow	14				Tiller	38			
Male calf	15				Well for farm use	39			
Female calf						40			
Buffalo	16					41			
Goat	17					42			
Breeding buck	18								
Sheep	19					43			
Hens (local, cross, layers and broilers)	20								
Duck	21				OTHERS (name asset)				
Pigeon	22					44			
						45			
						46			
						47			

COPING WITH DISASTERS

When a hazard such as flooding occurs now do you feel better able to protect your livelihood assets than you were 10 years ago? (circle one)

Yes	Same	No
1	2	0

If yes, why?

When a hazard such as flooding occurs now do you feel better able to recover than you were 10 years ago? (circle one)

Yes 1	Same 2	No 0
----------	-----------	---------

If yes, why?

--

Did any aspect of the project help in reducing the impact from floods on your livelihood? (circle one)

Yes 1	No 0
----------	---------

If yes, what?

--

When you are really struggling, which of the following coping strategies have you used? Do you use them more, the same or less during the last 12 months than you did in 1998

Coping Strategies	(16)	(17)			
Local wage labour	01	More 1	Same 2	Less 3	Never Practiced 4
Migration for farming wage labour	02	More 1	Same 2	Less 3	Never Practiced 4
Borrowing from a money lender	03	More 1	Same 2	Less 3	Never Practiced 4
Receipt of food aid	04	More 1	Same 2	Less 3	Never Practiced 4
Receipt of other relief	05	More 1	Same 2	Less 3	Never Practiced 4

FOOD SECURITY

For each of the following food items, do you consume them now. Back in 1998, on average for those same food items did you consume more, the same, less, or not consume at all.

	NOW		1998			
	Yes 1	No 0	More 1	Same 2	Less 3	Didn't Consume 4
Fish	1	0	1	2	3	4
Meat	1	0	1	2	3	4
Milk	1	0	1	2	3	4
Egg	1	0	1	2	3	4
Vegetables	1	0	1	2	3	4
Pulse	1	0	1	2	3	4
Rice	1	0	1	2	3	4

Comparing your situation now to the situation in 1998 before the floods has there been a change in the number of different food items (including new varieties of vegetables, fruits, etc) your household consumes throughout the year? (circle one)

More 1	Same 2 ⇒ Q	Less 3 ⇒ Q
-----------	---------------	---------------

If more, what are the new food items in your diet? (write answer)

--

What is the length of the hungry period you experience in months?

	NOW	1998

During the hungriest period how many meals do / did you eat?

How many of these meals were satisfying?

COMMUNITY EMPOWERMENT

(5). Did your community ever do any collective development planning
(circle one)

Yes 1	No 0	Don't know 2
----------	---------	-----------------

If yes, when was community planning first carried out? (enter year)

How many members of the household made some inputs into the planning process? (enter number If no-one enter 00)

Male	Female

What was their role or what inputs did they make?
(describe)

Does that collective planning process still benefit you?

Yes 1	No 0	Don't know 2
----------	---------	-----------------

How does it benefit you?

Does your community still carry out collective planning?

Yes 1	No 0	Don't know 2
----------	---------	-----------------

[For this question we would like to know if women feel more empowered as well as men. If the interviewee is male, please try to ask the question directly to his wife to obtain her own answer. If this is not possible then do not complete for the woman on her behalf. Leave this part blank.]

Do you participate in any decision making in the community?
(circle)

Male		Female	
Yes 1	No 0	Yes 1	No 0
Yes 1	No 0	Yes 1	No 0
Yes 1	No 0	Yes 1	No 0

In 2004, did you participate in any decision making in the community? (circle)

In 1998, did you participate in any decision making in the community? (circle)

H.1 SELF-ASSESSMENT OF HOUSEHOLD SITUATION

Considering all the questions discussed in this interview, how would you describe the situation of your household now?

Interviewer: choose the category in column 97 that best fits the respondents' answers.

Then say, 'So would you agree that at this time your household is (read category description)?'

If they do not agree, discuss further and identify the category they agree with.

When they agree, circle the corresponding code for 'Now' (column 98).

Then ask, At the same time (same month) in 2004 (i.e. before the floods), was your household situation better, the same, or worse?

Read out the category that best fits the respondents' description of their situation in 2004, and when they agree circle the code in column 99.

Repeat for 10 years ago (column 101).

Categories	Now	2004	1998
	(circle one)	(circle one)	(circle one)
(97)	(98)	(100)	(101)

DOING WELL – able to meet household needs by your own efforts, and <u>making some extra</u> for stores, savings and investments (e.g. buying livestock or other assets, improving farmland, improving housing etc)	1	1	1
DOING JUST OKAY - able to meet household needs but with <u>nothing extra</u> to save or invest	2	2	2
STRUGGLING – managing to meet household needs, but by <u>depleting productive assets</u> and / or sometimes receiving support from community or government	3	3	3
UNABLE TO MEET HOUSEHOLD NEEDS - <u>dependent on support</u> from community or government	4	4	4

Assess from the response whether the interviewees situation has got better or worse over time.

Why has your situation got better / worse over time?
(write response)

--

Can you tell me which aspect of the Intermediate Technology Project had the most impact on the livelihood of your household?
(write response)

Why?
(write response)

Finally, can you tell me which aspect of the Intermediate Technology Project had the most impact on the wellbeing of your community?
(write response)

Why?
(write response)

FOOD SECURITY FOCUS GRPOUP DISCUSSIONS

ALL GROUPS Project Perceptions	
Relevance of project activities <ul style="list-style-type: none"> • Which aspects of the project were most relevant to the needs of the participating households? • Which aspects of the project were most relevant to the needs of the community as a whole? • What gaps did the project fail to address? • What challenges are remaining in the community? 	
Sustainability <ul style="list-style-type: none"> • Immediately after the project finished, was the community feeling some benefit from the project? 	

<ul style="list-style-type: none"> • Have those benefits been sustained or has • Which project activities are still being practiced the most? • Which project activities did people not continue to practice? 	
<p>Replication</p> <ul style="list-style-type: none"> • Have you seen any evidence that project activities have been replicated by non beneficiary households within this community? Give examples. • Have you seen any evidence that project activities have been replicated in other neighbouring communities? Give examples. 	
<p>Institutions / empowerment</p> <ul style="list-style-type: none"> • Do you have links with more external organisations (government or non government) now than you did before the project? • Which new organisations? What is the contact? • Have you made any requests/demands to any institutions? Were you successful? • How is the situation different to 10 years ago? Do they feel better able to influence external institutions? 	
<p>Impacts</p> <ul style="list-style-type: none"> • Which groups benefited most from the project? Poor/rich? Women/men? • What have been the most important impacts for those participating households? • What have been the most important impacts for the community as a whole? • What difference has the project made to food security in your households (beneficiaries and non beneficiaries)? • Has the project made a difference to food availability in the whole village or just participating households? • There been any impact on the health of community members? • Has the situation in this village improved more over the last 10 years than other villages? Is this due to the project? • Were there any unexpected impacts of the project? • Where there any negative impacts of the project? 	
<p>COMMUNITY LEADERS Village History / Time Line</p>	
<ol style="list-style-type: none"> 1. Draw a line to cover the last 10 years. Start by marking significant years, particularly the floods of 1998 and 2004. Were there any other significant events in the community? Add them. 2. Map a trend line of the wellbeing of the whole community. How was it in 1998? Has it improved or gone down at different points? 3. Map a trend line of the food security of the poorest section of the community. Include changes in receipt of welfare or food aid. 4. What are the key factors have contributed towards these trends? (list/add to time line and note details) 5. Prompt: social changes; roads; political changes; policy changes 6. Finally, if not mentioned, what role did FPP play? 7. Rank the top 5 factors including practical action in terms of their significance in improving 1) the wellbeing of the community and 2) the food security of the poorest. 	
<p>Using the same time line</p> <ul style="list-style-type: none"> • Map what the trend is in terms of the level of organisation within the community. Are there more meetings? Does the community discuss 	

<p>social or production issues more together?</p> <ul style="list-style-type: none"> • Map the trend in access to external institutions (government, non-government). More visits from agencies? More visits to agencies (government / NGO) <p>Ask for significant events (e.g. community planning, projects coming, specific demands made to government departments,</p>	

MIXED GROUP	
<p>Community Extension</p> <ul style="list-style-type: none"> • After the training provided by ITDG, how have you continued to access information about crops, fish and livestock? • If they have not already mentioned, ask what community extensionist exists within the community. • What are the benefits of this RCE? Any problems? • What is the attitude of the RCE towards the poor or those who cant always pay? Is there any difference in service to different social or ethnic groups. • What has been the overall impact of the RCE in the community? 	
<p>Technology access</p> <ul style="list-style-type: none"> • What was the ITDG training like? • What was the most important thing you learned in the training? • Did it help you to feel confident to experiment and innovate? Any examples? • How could the training be improved? • Were there any important production areas that were not covered in training? 	

WOMENS GROUP	
<p>Institutions and empowerment</p> <ul style="list-style-type: none"> • Which groups exist in the community at the moment? List on flipchart. Include those for men and for women. • Are there any informal groups that meet to discuss issues? List on flipchart. • Which ones were more or less active 10 years ago? Which ones didn't even exist? Mark on the list. • Are women participating in those groups more, less or the same as 10 years ago? Highlight which ones they are participating in more or less. What is the reason for any change? • Are women participating in household decisions more, the same or less than 10 years ago? Have there been any other social changes relevant to women (dowry, early marriage etc)? What are the trends? What is the reason for any change? • Are the Poor participating in those groups more, less or the same as 10 years ago? Highlight which ones they are participating in more or less. What is the reason for any change? 	
<p>Coping strategies</p> <ul style="list-style-type: none"> • The community is vulnerable to flooding. But do they feel better able to cope with flooding than they did before the project. • What is the reason that they feel better able to cope? • 	

COMMUNITY BASED EXTENSIONIST (CBE) QUESTIONNAIRE.

0. Have you been trained as a CBE?	No 00	Yes 01

This is a checking question. If no, say thank you and goodbye

Identification of Household	
Name of Person Interviewed _____	<input style="width: 30px; height: 20px;" type="text"/>
Name of Community _____	<input style="width: 30px; height: 20px;" type="text"/>
Name of Village _____	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
Name of Sub-District _____	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
Household Code	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>

To be completed by Interviewer	<i>Date of Interview</i>
Name of Interviewer _____	Day <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
Signature _____	Month <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
Comments:	Year <input style="width: 20px; height: 20px; text-align: center;" type="text" value="2"/> <input style="width: 20px; height: 20px; text-align: center;" type="text" value="0"/> <input style="width: 20px; height: 20px; text-align: center;" type="text" value="0"/> <input style="width: 20px; height: 20px;" type="text"/>

<p>Introduction to interviewee</p> <p>Hello, my name is ... and I work for Practical Action</p> <p>Your household has been selected because you</p>
--

1. EXTENSIONIST PROFILE

I would like to ask you a few questions about yourself...

1.1 Relationship to household head (write code)	1.2 Marital status				1.3 Age (write age in completed years)	1.3 Gender		1.4 Have you been to school		1.5 Years of school completed (write number or 00 if none)
See relationship	Married 01	Single 02	Widower 03	Divorced 04		Male 01	Female 02	No 00	Yes 01	
Codes: Relationship to household head 01 = household head 02 = wife 03 = son / daughter of head or wife 04 = son-in-law / daughter-in-law of head or wife 05 = grandson / granddaughter of head or wife 06 = father / mother of head or wife 07 = brother / sister of head / wife 08 = other relative of head/ wife 09 = adopted 10 = non-relative / servant										

2. TRAINING

2.1 Please list production trainings from other organizations before ITDG													
2.2 How many days of CBE training have you received from ITDG in total (including refresher training)													
2.3 Why did you decide to accept the training? Circle as many as mentioned. (No prompt)	Income 01	Skill 02	Network 03	Social Status 04	Knowledge 05	Obligation to society 06	Other 07 ⇒ please explain						
2.4 What were the broad topics areas of the training Circle all that are mentioned	Cattle and Goats 01	Chicken / Duck 02	Vegetables 03	Fisheries 04	Agro-Processing 05	Other 06							
2.5 Please give precise course name(s) and year if you remember from ITDG													
2.6 What type of support did you receive immediately after the training? (Give examples) Circle all that are mentioned	Equip. 01	Drugs 02	Seeds and Fertiliser Inputs 03	Visit from Project Staff 04	Other 05 ⇒ Qn 2.9								
2.7 If other, what other type of support did you receive?													
2.8 Did you use your CBE certificate to obtain credit or other advantages								No 00	Yes 01	If Yes ⇒ Describe			
2.9 Can you list production trainings from other organisations from end of project up to the present day?								Name of the training and organisation					
2.10 Please list any updating or training which you have invested in yourself for your own development													

2.11 Did you participate in any exposure visits (ITDG, other org, own initiative)	NO 00	Yes 01	2.11 If yes state value to your work	Very 01	Quite 02	Not 03
2.12 Have you been involved in training other CBEs?				NO 00	Yes informally 01	Yes formally 02

3. DROPPING OUT

3.1 After the training did you start working as a CBE?	00 No ⇒ Qn 3.2	01 Yes ⇒ Qn 3.3
3.2 If not, why not? (end of questionnaire)		
3.3 If yes for how long? (Years)		
3.4 Are you still working now?	00 No ⇒ Qn 3.5	01 Yes ⇒ Qn 4.1
3.5 Why did you stop working?		
3.6 Is there anything which caused you to start working again?		

If stop working after one year, then end here. Otherwise continue.

4. COVERAGE

4.1 How many villages do you cover?	4.2 What is the distance to your furthest away client, in kilometres	4.3 How often do you provide a service to this most distant client	4.4 How long does it take to reach furthest client or for your client to reach you in hours with which mode of transport									
4.5 In what ways have you attended the farmers (if other please specify) <i>Circle as many as appropriate</i>	Regular routes around the village or settlements 01	Whilst selling inputs 02	As part of business partnership with farmer 03	Farmer calls you out 04	Phone consultation 05	Emergency call out 06	Other 07					
	If other specify here.											
4.6 How much service do you give the poorest section of the community Ask respondent to choose one, without prompting. <i>If necessary discuss with CBE an example of a poorest family in the local context</i>	Poor are my priority for service 01	The poor and the non-poor get equal service 02	I prioritise those with more ability to pay 03									
4.8 What transport do/did you use to reach the farmers? <i>Circle as many as appropriate</i>												
Walk 01	Bicycle 02	Motorcycle 03	Bus 04	Rickshaw 05	Local motorised transport 06	Boat 07	Horse 08	Other 09				
4.9 Please indicate the average number of farmers attended in the busiest and less busy month												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Number of clients												

Ave income (Taka)												
Tick Busy months												
Tick Less months												
Since 2004, what is the trend in your number of clients										More 01	The Same 02	Less 03

5. TECHNICAL ASPECTS

5.1 What type of service do you provide?	No 00 Yes 01		5.2 Do you charge?		Frequency of operation per month			
Livestock Advice								
5.1.1 Diagnosis	No 00	Yes 01	No 00	Yes 01				
5.1.2 Pasture management	No 00	Yes 01	No 00	Yes 01				
5.1.3 Advice on fodder	No 00	Yes 01	No 00	Yes 01				
5.1.4 Advice on breeding	No 00	Yes 01	No 00	Yes 01				
5.1.5 Other (Specify)								
Livestock Service/Inputs								
5.1.6 Vaccinations	No 00	Yes 01	No 00	Yes 01				
5.1.7 Drugs apart from vaccinations	No 00	Yes 01	No 00	Yes 01				
5.1.8 Operations (eg Castration)	No 00	Yes 01	No 00	Yes 01				
5.1.9 Feed supplements	No 00	Yes 01	No 00	Yes 01				
5.1.10 Calving	No 00	Yes 01	No 00	Yes 01				
5.1.12 Insemination	No 00	Yes 01	No 00	Yes 01				
5.1.13 Supply of animals	No 00	Yes 01	No 00	Yes 01				
5.1.14 Supply/loan of breeding stock	No 00	Yes 01	No 00	Yes 01				
5.1.15 Other (Specify)								
Fisheries Advice								
5.1.16 Cage fisheries	No 00	Yes 01	No 00	Yes 01				
5.1.17 Fish diseases	No 00	Yes 01	No 00	Yes 01				
5.1.18 Fingerling Selection	No 00	Yes 01	No 00	Yes 01				
5.1.19 Pond Economics	No 00	Yes 01	No 00	Yes 01				
5.1.20 Fish seed Nursery	No 00	Yes 01	No 00	Yes 01				
5.1.21 Promotion of Self-recruiting species	No 00	Yes 01	No 00	Yes 01				
5.1.22 Other (Specify)								
Fisheries Input/Service								
5.1.23 Fingerlings	No 00	Yes 01	No 00	Yes 01				
5.1.24 Feedstuffs	No 00	Yes 01	No 00	Yes 01				
5.1.25 Medicines	No 00	Yes 01	No 00	Yes 01				
5.1.26 Equipment	No 00	Yes 01	No 00	Yes 01				
5.1.27 Other (Specify)								

5.1 What type of service do you provide (continued)	No 00 Yes 01		5.2 Do you charge?		5.3 Frequency of operation per month			
Crops Advice								
5.1.28 Diagnosis of crop pests and diseases	No 00	Yes 01	No 00	Yes 01				
5.1.29 Soil erosion	No 00	Yes 01	No 00	Yes 01				
5.1.30 Ploughing and Land Preparation	No 00	Yes 01	No 00	Yes 01				
5.1.31 IPM advice	No 00	Yes 01	No 00	Yes 01				
5.1.32 Soil fertility	No 00	Yes 01	No 00	Yes 01				
5.1.33 Soil testing	No 00	Yes 01	No 00	Yes 01				
5.1.34 Composting advice	No 00	Yes 01	No 00	Yes 01				
5.1.35 Fertiliser Advice	No 00	Yes 01	No 00	Yes 01				
5.1.36 Terracing, bunding and other water conservation.	No 00	Yes 01	No 00	Yes 01				
5.1.37 Weed Management	No 00	Yes 01	No 00	Yes 01				
5.1.38 Agro-forestry advices	No 00	Yes 01	No 00	Yes 01				
5.1.39 Recommendations on seed varieties	No 00	Yes 01	No 00	Yes 01				
5.1.40 Other (Specify)								
Crops Service/Inputs								
5.1.41 Pesticide supply	No 00	Yes 01	No 00	Yes 01				
5.1.42 Sapling supply	No 00	Yes 01	No 00	Yes 01				
5.1.43 Irrigation management	No 00	Yes 01	No 00	Yes 01				
5.1.44 Seed selection and multiplication	No 00	Yes 01	No 00	Yes 01				
5.1.45 Seed Priming	No 00	Yes 01	No 00	Yes 01				
5.1.46 Seed supply	No 00	Yes 01	No 00	Yes 01				
5.1.47 Fertiliser Supply	No 00	Yes 01	No 00	Yes 01				
5.1.48 Seed storage	No 00	Yes 01	No 00	Yes 01				
5.1.49 Crop storage	No 00	Yes 01	No 00	Yes 01				
5.1.50 Agro processing	No 00	Yes 01	No 00	Yes 01				
5.1.51 Other (Specify)								
Market Information								
5.1.52 Prices	No 00	Yes 01	No 00	Yes 01				
5.1.53 Demand for particular crops/products	No 00	Yes 01	No 00	Yes 01				
5.1.54 Packaging	No 00	Yes 01	No 00	Yes 01				
5.1.55 Other (Specify)								

5.5 Have you developed any technical innovations for use by yourself and others?	00 No ⇒ Qn 5.7	01 Yes ⇒ Qn 5.6
5.6 Describe		

5.7 If you come across a technical/disease problem you are not familiar with, where do you get information?	No 00 Yes 01 (Indicate as many as apply)	5.8 Do you pay for the information? No 00 Yes 01	5.9 How satisfied are you with the information?				
Other CBE	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
Friends / neighbor / relatives	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
Government staff	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
NGO	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
Shopkeeper	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
Traveling Dealer	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
Schoolteacher	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
Bookseller	No 00 Yes 01	No 00 Yes 01	01	02	03	04	05
Other (Specify)		No 00 Yes 01	01	02	03	04	05

CODES How satisfied are you with the information?
01 Very
02 Quite
03 Average
04 Quite dissatisfied
05 Very dissatisfied

6. INPUTS AND SUPPLIES

6.1 What is your source of inputs and supplies?	No 00 Yes 01	6.2 Do you experience difficulty obtaining supplies?	6.3 What form of payment do you use to obtain inputs and supplies?							
Other CBE	No 00 Yes 01	01	02	03	01	02	03	04	05	06
Government	No 00 Yes 01	01	02	03	01	02	03	04	05	06
NGO	No 00 Yes 01	01	02	03	01	02	03	04	05	06
Company distribution	No 00 Yes 01	01	02	03	01	02	03	04	05	06
Shop	No 00 Yes 01	01	02	03	01	02	03	04	05	06
Travelling dealer	No 00 Yes 01	01	02	03	01	02	03	04	05	06
Other (specify)		01	02	03	01	02	03	04	05	06

CODES Do you experience difficulty obtaining supplies?
01 Often
02 Sometimes
03 Never

CODES What form of payment do you use to obtain inputs and supplies?
01 Free
02 Shop credit
03 NGO credit
04 Revolving fund
05 Bank credit
06 Cash

7. REMUNERATION

7.1 What is the contribution of your CBE work to household income? <i>Circle one</i>	Only source 01	Main but not only source 02	Secondary source 03		
7.2 How do the farmers pay you for the input or information? <i>Circle as many as appropriate</i>	Cash 01	Kind 02	Reciprocal Work 03	Other 04	
7.3. If a farmer is too poor to pay (in cash or kind), what do you do? Describe					
7.4 Have you been hired by other people or organisations for your existing extension work?	No 00	Yes 02	If no go to 7.6		
Name of People/Organisation(s)					
7.5 What were the benefits?	Single payment 01	Regular payment 02	Kind 03	Honour 04	None 05
7.6 Have you done any new or additional work for other people or organizations outside your coverage area?	None 01	One off payment 02	Regular payment 03		
Name of People/Organisation(s)					

8. SUSTAINABILITY/MOTIVATION

8.1 Are there any disadvantages in being a CBE?	00 No ⇒ Qn 8.4	01 Yes ⇒ Qn 8.2
8.2. What are the disadvantages of being a CBE?		
8.3 What have you done to adapt to these challenges?		
8.4 What was/is your motivation to keep on working as a community extension worker?		
8.5 What is the single most attractive aspect of working as a CBE?		
8.6 Is there anything that would cause you to cease working as a CBE?	00 No ⇒ Qn 8.8	01 Yes ⇒ Qn 8.7
8.7 If yes, describe		
8.8 What in the your opinion are the characteristics of a good community based extensionist?		

9. RECORDS

<p>9.1 Do you keep records</p> <p>Check whether the person will allow the records to be photocopied for analysis.</p>	<p>No 00 - Yes 01</p>
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Community Extension Semi Structured Interivew

TRAINING

Why do you think you were selected for extensionist training?

1. Was there an adequate balance between learning practical skills in the field, and with classroom based learning?
2. What aspects of the learning have you communicated the most to famers?
3. What part of the training was not useful?
4. Did you face any difficulty of learning/understanding in the training because of the language/vocabulary/ways of teaching used. Please explain.
5. Once you stated working did you notice any gaps in the training that ought to be filled.
6. How have you updated your knowledge and practice to cope with emerging changes?
7. Did you receive a certificate, and if so what were the benefits
8. If no what benefits would it bring.

TECHNICAL

Describe the most complex technical procedure you perform

9. Describe any technical innovations that you have noticed farmers have developed as a result of your advice/services
10. How do you know that your advice/treatment had been effective?
11. Have you ever given advice/inputs that didn't work very well? What was it? How did you deal with that situation?

CLIENTS

12. Who are the priority clients for you service? (we can prompt by giving options such as Kin Friends Rich Farmer etc) Why?
13. If a farmer is not able to pay (in cash or kind), what do you do?
14. Are there times when you do not want to provide a service to client? Why?
15. Have you observed in some cases that farmers have learned from you and as a result no longer require your services? What is your approach in this case?

COMPETITION/COLLABORATION

16. Are there other types of service providers offering a similar service. Who are they, in what areas do they overlap with your service and if so how does this affect your operation as an extensionist?
17. Do you face any problems from government due to legislation or regulations which aim to limit your activities?
18. Do you collaborate with other community extensionist. How? When? How often?
19. Do you belong to a community extensionist organization/network?
20. If yes, what are the benefits
21. Do you collaborate or benefit from linkages with government or private agriculture service providers

MOTIVATION

22. What are the disadvantages of being a CBE?
23. What have you done to adapt to these challenges?
24. Is there anything that would cause you to cease working as a CBE?
25. What is your motivation to keep on working as a CBE?

Annex 5 -Research Team Members

Name	Position
Tafiqul Islam	FOSHSOL project staff
Kamrul Islam	FOSHSOL project staff
Azizul Haque Chowdhury	FOSHSOL project staff
Abdus Salam	FOSHSOL project staff
Mukta Roy	FOSHSOL project staff
Jitendra Nath Halder	FOSHSOL project staff
Nurush Shams	FOSHSOL project staff
Abdus Salam	M&E officer
Delwara Khanam	Aim 2 Programme Officer Dhaka
Shaila Shahid	Policy Officer, Dhaka
Sazzad Hossein	FOSHSOL Project Manager / Faridpur Office Manager
Ashraf Uddin	Jamalpur Office Manager
Uttpal Dutta	Fisheries Officer, Gaibanda
Faruk UI Islam	Manager, QA. Dhaka
Abdul Rob	Aim 2 Team Leader, Dhaka
Robbie	Partner NGO

Annex 6 - Village Profiles

<p>Village name: Nizpara</p> <ul style="list-style-type: none"> • Union : Banibaha • Upazilla: Rajbari Sadar • District: Rajbari • Total Household: 450 (approx.) • Total Population: 2500 • Land pattern: Low land. • Main income source: Agriculture and agricultural activities, • Distance from Rajbari District town: 12 km. • Primary school-1. • Mosque-1 • Majority population Livelihoods depends on agriculture (partial own land, share cropper) and off farm activities like rickshaw (tricycle)/van puller, agricultural day labor and some young migrated in Dhaka and they 	<ul style="list-style-type: none"> • Village name: Monsurabad • Upazilla: Faridpur • District: Faridpur • Total Household: 300 (approx) • Total Population: 2000 (approx) • Middle class: 75 HHs(approx): Land = 20-30 Bigha, Surplus production, Service • Lower middle Class: 75 HHs (approx) (8-10 bigha land, Share cropper, 7-8 months food security, vegetable cultivation,) • Poor: 75 HHs (approx) 1-2 bigha land, 1-3 month food security from own source, Daily labour, small scale livestock rearer) • Poorest: 75 (approx): No land, daily labor, daily fishing, living hands to mouth, short migration. • Distance from Faridpur to Munsurabad: 10 km. • Livelihoods option: Mostly Agriculture
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do work in garments as labourers	<ul style="list-style-type: none"> Two Govt school and two NGOs schools. 45% children are enrolling in the primary education
<p>Village name: Manikdoho</p> <ul style="list-style-type: none"> Upazilla: Bhanga District: Faridpur Total Household: 550 (approximate) Well off family: 20-30 (Land = 20-30 Bigha, Surplus production, Pond, Business, Service, income from aboard) Middle Class: 300 (3-5 bigha land, Share cropper, 7-8 months food security, small business and service) Poor: 220 (Daily labor, Rickshaw and Van puller, maximum people have no land) Total Population: 3500 (approximate) Distance from Faridpur to Manikdah: 30 km. Livelihoods option: Mostly Agriculture 	<p>CONTROL Village name: Dhauldi Krisnapur</p> <ul style="list-style-type: none"> Upazilla: Rajbari Sadar District: Rajbari Total Household: 160 (approx.) Total Population: 1000 Land pattern: Low land. Main income source: agriculture and agricultural activities, Distance from Rajbari District town: 10 km. Maximum population Livelihoods depends on agriculture (partial own land, share cropper) and off farm activities like rickshaw/van puller, agricultural day labor and some young migrated in Dhaka to work in garments as labourers. No primary school, Madrasha, mosque and community / government graveyard
<p>Village name: Barta</p> <ul style="list-style-type: none"> Upazilla: Banibaha District: Faridpur Total Household: unavailable Total Population: unavailable Distance from Faridpur: 30 km. Livelihoods option: Mostly Agriculture 	

Monsurabad

There has been some crop diversification since 1998, e.g. starting to grow maize: it gets a better price because of the market for poultry feed.

Now they are trying to grow watermelon in the area.

Before the project no government staff went there and no other NGOs were working on that char. During FPP and afterwards more NGOs followed and now there are several there. Also the government staff linkage increased and they received support from a significant government programme for raising flood prone land and home reconstruction. In the past the livestock department staff didn't come there but as a result of links established during the project they do some now, particularly if the RCE requests input.

Bartha

NGOs are still working there. PPK, BRAC and Agriculture Dept are developing modern agriculture activities. There is now more use of hybrid varieties. Now cultivating tomato, cauliflower, onion and cowpea.

They are coping better during floods, storing seed and growing seedlings during flood. Even during SIDAW there was a surplus of vegetables in the area. The access to information on flooding has increased so they are able to plan coping strategies, The information comes by mobile from government departments and NGOS.

The Block Supervisor is active – he has been promoted and there are special programs from the department. They are active especially around flood activities.

There is an NGO forum working for health and sanitation. Credit programmes have come. But nothing like ITDG is there.

Our farmers are producing better quality vegetables and bringing them to market, in the market others see this better quality and who is producing them and they go to them for seeds.

Three Unions are leading in Vegetable production now in Rajbari and Baniboho is one of them. Also the diversity of vegetables has increased.

The number of VGD cards for the upazilla has decreased. It used to be around 220 for the population for 20,000, now its 94. But this is due to availability. The need is still there for some vulnerable households, though overall vulnerability is decreasing. People are coming to the community from eroded areas.

Annex 7 - Reports of Food Security Focus Group Discussions

Report on FGD (Focus Group Discussion)

Mixed Group

Date: 14 January, 2008

Group size: 8(Male-4, Female-4)

Participants: (Halim, Kurban, Jabbar, Mofiz, Feroza, Anowara, Pakhizan, Panna khatun)

Location: Duldi krisnapur, Raibari, Village type: Control

Md Abdus Salam -2 and Team members

Findings:

- RCE livestock named Nikonju is providing his services among the community people regularly. He has good name and fame in the community and known as doctor. He provides his treatment with very minimum charge and has good flexibility for receive money.
- RCE poultry vaccinator is providing treatment on regular basis. She is rendering her services to the poultry for very minimum charge. She is not vaccinator of ITDG. They are not able to mention the organization name.
- BS is very irregular and did not provide services willingly.
- RCE livestock is the rank one and second poultry vaccinator for their services.
- The government institutions like Krishi bank, agriculture, livestock and clinics are available here.
- The non government organization like BARC, grameen bank, PEP and Islami bank are available in this village. The Islami bank is new among all the organizations. They are getting facilities from those organization only credits and sometimes they received relief goods from those organizations. No training provided from those organization.
- It is noted that the village people get services in near market private dealers about agricultural inputs.

Impact:

The control village people are happy for livestock and poultry vaccination services. As a result, the production of poultry and livestock increased as well as their family consumption and income.

Their opinion:

They did not get training from any organization. So they are interested to receive training about different types of activities like fish culture, livestock, poultry, goat rearing, vegetables etc.

Report on FGD (Focus Group Discussion)

Mixed Group

Date: 15 January, 2008

Group size: 6(Male-2, Female-4)

Participants: (Farida, Asma, Fatema, Monju rani, Sindhu padha, Mozahar)

Village type: Project

Location : Nizpara, Rajbari Sadar, District: Rajbari

Md Abdus Salam-2 and Team members

Findings:

- RCE livestock named Swapan bouragi, poultry vaccinator Aysha, breeding rearing, and fish culture all are providing their services among the community people regularly. They have a good relation with community peoples and provide treatment with very minimum charge and have a good flexibility for receive money.
- BS (Block supervisor) visits the villages regularly and has good relation with the community peoples, and provides services willingly with out any cash and sometimes, fisheries assigned staff also visits this community and provided his advices to improve the fish production.
- RCE livestock is the rank one and second poultry vaccinator, 3rd fish culture, fourth breeding buck and 5th BS for their services.
- ITDG provided training was qualitative. The training was such as vegetables cultivation, vermi- compost, fish culture, livestock, poultry, goat rearing etc. They explained that learnt how to prepare organic fertilizers and used it in vegetables cultivation and provided vaccines to poultry livestock regularly. They also learnt how to manage fish culture, livestock, and poultry rearing and so on.
- Vegetables cultivation and fish culture activities that are doing with confidently and getting a positive impact from these activities.
- The group members discussed in specific issues about their problems and solved it in group meeting and also individual contact.
- Every thing was included to increase their farm production.
- The government institutions like agriculture, livestock, union parishad and clinics are available here.
- The non government organization like BARC, ASA, grameen bank, VPKA and Islami bank and RCEs are available in this village. The Islami bank is new among all the organizations. They are getting facilities from those organization only credits and sometimes they received relief goods from those organizations. No training provided from those organization.
- It is noted that the village people get services in near market private dealers about agricultural inputs. The bargain capability of the community people increased and they made aware of their produced goods.
- The mobility of the community people especially women increased to get services from the clinics, NGOs, hat bazar, RCEs, institutions, union parishad, BS, and govt. offices. The women have highest visited the government clinics and second highest in the RCEs for taking services to improve their livelihoods

- The community people are getting more advantages through RCEs of livestock. Any complex situation of their livestock they contacted RCES and linked with Upazilla livestock officers for better treatment. The community people are more confident to get services from all line departments due to available the resources(RCEs)
- The project interventions are very much relevant for the beneficiaries. The intervention was demand driven and easily met their needs. The RCEs approaches were very needful for the community people. So, the whole communities are getting advantages from RCEs services. It is mentioned that farm production and consumption increased of the community people due to honest services of the RCEs.

Impact:

All group members said that the poor and medium farmers got benefits from this project intervention. 70% Women both poor and rich have grown aware and benefited by the project interventions. About 90% participating households is cultivating homestead vegetables and utilizing perfectly. 72% households are involved in fish culture and they are continuing it in proper way. Both cases the income and family consumption increased. The community people are more interest to rearing poultry, goat and livestock because the treatment services are available in the community. The project beneficiaries also identified that the productivity of agriculture, livestock, fisheries increased and this trend has replicated among the community people.

The participating also mentioned that 95% community people take medical services from hospital, private doctors and Upazila and they do not go to Kaburaj for health treatment. The food security of the family members increased and all the members took food in three times with full satisfaction.

They also ascertained that the livelihoods components such as housing, water and sanitation facilities, nutrition, recreation goods, participation in social activities, credit facilities, family income, child education, treatment services etc increased.

The community people established a good relationship with RCEs, and private services providers such seed dealers, BS, etc. for get better services.

Sustainability and Replication:

The project beneficiaries informed that 90 % households are practicing vegetables cultivation and not only consuming but also they selling produced goods in the near market.

FGD (Focus Group Discussion)

Group Type: Mixed

Date: 16 January, 2008

Group size: 10(Male-7, Female-3)

Village name: Monsurabad

Village type: Project Area

Findings:

Relevance of Project activities:

- The service of RCE along with training on various issues like vegetable production, poultry rearing, livestock rearing are the most important issues to meet their demand at both household and community level.

- There was no issues those did not or failed to meet their demand
- Presently they have a number of problems exist in their community like bad communication system, lack of electricity, scarcity of inputs (fertilizer, pesticide etc.) etc.
- As the disrupt communication the service providers are unwilling to go that villages

Sustainability:

- After end of project the community is getting services from RCEs (Livestock, Agriculture and Fisheries), using technologies like poultry rearing, vegetable cultivation, ground nut cultivation, pond culture for fish etc.
- Still the community people are using the technologies and they don't found any problem with these technologies.
- The technologies like Poultry rearing, Goat rearing, Cattle rearing, vegetable cultivation, ground nut cultivation, pond culture for fish etc. are using by the community people.
- The technology like ground nut cultivation using Inoculums Fertilizer is not using presently by the community people due to lack of Inoculums Fertilizer.

Replication:

A number of farmers in the community are using these technologies such as Sheikh Jalal, Hyat Ali etc. Further more, the people of Kabirpur the other village (adjacent the village) are using some of the technology like goat rearing, vegetable cultivation, Ground nut cultivation using modern technology introducing through Food Production Project.

Institutions/Empowerment:

- The community people have a close relationship with various institutions especially service providing institutions. Department of Agriculture Extension, Department of Livestock Services, Department of Fisheries, Union Parishad, Hospital non-governmental offices are BARC (Local NGO), FDA (Local NGO), AKK (Local NGO), SDC, ASA, Islami Bank, Pusti project etc. Before start the projects they have close only relation with hospital and Union Parishad.
- Islami bank, FDA (Local NGO), AKK (Local NGO), ASA, etc. are newly establish institution in the village. The relationship with them is increasing day by day as the community people are communicating with them to get their services. The local organization mainly is providing credit with interest among the community people.

FGD report prepared by: Md Abdus Salam -2 and Kamrul Islam

FGD (Focus Group Discussion)

Group Type: Mixed

Date: 19 January, 2008

Group size: 11(Male-6, Female-5)

Location : Manikdoha, Bhanga, Faridpur,

Village type: Project Area

Participants:

1. Soren Sarker
2. Khokon Biswas
3. Sattar Mirdha
4. Enamul
5. Zakir Talukder
6. Shahid Matabbar
7. Rashida
8. Jasmin
9. Morzina
10. Aklima
11. Khodeza

Findings:

Relevance of Project activities:

- The service of RCE along with training on various issues like vegetable production, poultry rearing, livestock rearing are the most important issues to meet their demand at both household and community level.
- There was no issues those did not or failed to meet their demand

Sustainability:

- After end of project the community is getting services from RCEs (Livestock, Agriculture and Fisheries), using technologies like poultry rearing, vegetable cultivation, pond culture for fish, cow rearing, goat rearing etc.
- Still the community people are using the technologies and they don't found any problem with these technologies.
- The technologies like Poultry rearing, Goat rearing, Cattle rearing, vegetable cultivation, tree plantation, pond culture for fish etc. are using by the community people.
- The technology like IPM is not using presently by the community people due to disinterest of the community people.
- The community people are very happy and getting services smoothly from the RCEs livestock, fisheries, breeding buck. As a result the community people became aware and productivity of farming system increased for the valued contribution of the RCEs

Impact:

100% percent group member said that all farmers got benefits from this project intervention not only poor and medium. 90% Women both poor and rich have grown aware and benefited by the project interventions. About 95% participating households is cultivating homestead vegetables and utilizing perfectly. 90 % households are involved in fish culture and they are continuing it in proper way. Both cases the income and family consumption increased. The community people are more interest to rearing poultry, goat and livestock because the treatment services are available in the community. The project beneficiaries also identified that the productivity of agriculture, livestock, fisheries increased and this trend has replicated among the community people.

The participating also mentioned that 95% community people take medical services from hospital, private doctors and Upazila and they do not go to Kaburaj for health treatment.

The food security of the family members increased and all the members took food in three times with full satisfaction.

They also ascertained that the livelihoods components such as housing, water and sanitation facilities, nutrition, recreation goods, participation in social activities, credit facilities, family income, child education, treatment services etc increased.

The community people established a good relationship with RCEs, and private services providers such seed dealers, BS, livestock field worker (RCE), fisheries department etc. for getting a better services.

Replication:

A number of farmers in the community are using these technologies such as Morzina, Jasmin, Khodeza, Rashida, Shahid Matabbar and so on .The near villagers are using some of the technology like goat rearing, vegetable cultivation, fish culture using modern technology introducing through Food Production Project. In case of fish culture it was expended more 40% as their statement by the effect of the food production project.

Institutions/Empowerment:

- The community people have a close relationship with various institutions especially service providing institutions. Department of Agriculture Extension, Department of Livestock Services, Department of Fisheries, Union Parishad, Hospital, school, artificial insemination centre, land office, post office and non government offices are AVA (Local NGO), FDA (Local NGO), PEP (Local NGO), BRAC, ASA, Grameen Bank, Pusti project etc. Before start the projects they have close only relation with hospital and Union Parishad and PEP.
- AVA (Local NGO), VDA, (Local NGO), BARC School, (educational institution), BRAC, ASA, etc. are newly establish institution in the village. The relationship with them is increasing day by day as the community people are communicating with them to get their services. The local organization mainly is providing credit with interest and by installment. They have easy access to get credit facilities from those organizations. In the PRA exercise by the community people it was observed that the community is getting highest facilities from livestock sectors because RCE is actively involved with government department. RCE live stock also responsible to look after the artificial insemination centre and he is providing his services in the community regularly. The people are happy for livestock as well poultry vaccination services. The productivity of this sector increased due regular visit of the RCE.
- BS was second ranking of their judgment because he is providing regular services and suggestion like pesticides use, quality seed collection, vegetables and in case of fertilizers etc. The RCE agriculture also provided the suggestion side by side to the community people. The productions of field crops have increased for their regular suggestion.
- Fisheries RCE are playing an important role to increase the fish production within the community and outside of the community. He has a strong relationship with government fisheries department and any big problems community in fisheries he takes initiatives promptly to solve the fisher problems. As a result the fisheries cultivation increased in the community for better services of RCE.
- Then they identified that they are getting credit services from NGOs and also primary Medicare services from the community hospital.

Community Extension service and Technology Access:

- RCE livestock named Akter, poultry vaccinator Aklima fishries Zakir and agriculture Sattar all are providing their services among the community people regularly. They have a good relation with community peoples and provide treatment with very minimum charge and have a good flexibility for receive money.
- BS (Block supervisor) visits the villages regularly and has good relation with the community peoples, and provides services willingly with out any cash and sometimes, fisheries assigned staff also visits this community and provided his advices to improve the fish production.
- RCE livestock is the rank one and second fisheries, 3rd agriculture services. In the government part BS is the best for providing his services among the community people.
- ITDG provided training was qualitative. The training was such as vegetables cultivation, IPM, fish culture, livestock, poultry, goat rearing, etc. They explained that learnt how to using IPM method and reduce chemical fertilizers. They also learnt how to manage fish culture, livestock, and poultry rearing and so on. They also learnt how to culture fishes and managed the pond in using the technologies.
- Vegetables cultivation and fish culture activities that are doing with confidently and getting a positive impact from these activities.
- The group members discussed in specific issues about their problems and solved it in group meeting and also individual contact.
- Every thing was included to increase their farm production.
- It is noted that the village people get services in near market private dealers about agricultural inputs. The bargain capability of the community people increased and they made aware of their produced goods.
- The project interventions are very much relevant for the beneficiaries. The intervention was demand driven and easily met their needs. The RCEs approaches were very needful for the community people. So, the whole communities are getting advantages from RCEs services. It is mentioned that farm production and consumption increased of the community people due to honest services of the RCEs.

Group member's opinion:

- ITDG management should be increased linkages with RCS and project beneficiaries on regular basis.
- Refresher training should be needed to update their project activates for quality achievements.

Conclusion:

The impact of the project is good and the project beneficiaries are continuing their activities.

FGD report prepared by: Md Abdus Salam -2 and Team members

FGD (Focus Group Discussion)

Group Type: Mixed

Date: 20 January, 2008

Group size: 6(Male-3, Female-3)

Village name: Bartha

Village type: Project Area

Findings:

Relevance of Project activities:

- The Seed School program that enhance seed production, seed processing and seed preservation activities along with the service of RCE to meet their demand at both household and community level.
- All the issues those introduce through the project are very important and there was no issue those did not or failed to meet their demand.
- Scarcity of inputs (fertilizer, pesticide etc.) etc, are the main problem of agricultural production process. Besides the marketing of agricultural goods is also an important problem.

Sustainability:

- The availability of services from RCEs (Livestock, Agriculture and Fisheries) along with Seed School is the main benefit enjoying by the community people after end of the project.
- Presently the community people are using the technologies (Vegetable production, poultry rearing, seed production, compost preparation, cattle rearing etc.) and they don't found any difficulties with these technologies.
- There are no technologies those introduce through the project is unused.

Replication:

- Presently a number of farmers those are out of project activities are using the technologies learnt from project beneficiaries. Azizul Haque is one of them.
- Besides, the people of Ahladipur village near to Bartha are using some of the technology like Compost preparation, goat rearing, vegetable cultivation using modern technology introducing through Food Production Project.

Institutions/Empowerment:

- The community people have a close relationship with a total 11 no. of institutions within the Upazila. Department of Agriculture Extension, Union Parishad, Department of Livestock Services, Hospital and some financial institution (both govt. and Non govt.) are important. But before 1998 they have strong relation with Union Parishad and Hospital.
- Some financial institution (Govt. Rupali Bank, BRAC, ASA etc.) establish newly after the project initiated.
- The community people are able to negotiate strongly with these organization to get facilities compare to before project started. Presently with their strong negotiation with the DAE and UP they manage to get agricultural inputs (Fertilizer, seeds etc.) from those institutions.

Impact:

- The most benefit gets from the project is women and poor people of the community.
- Important benefits
 1. Service from RCEs
 2. Seed village (from seed school learning)
 3. High amount of vegetable production

- Training on seeds through seed school and Community extension service are create broadly impact in the whole community.
- Food security ensure at household level through the high production by using modern technologies in agriculture sectors.
- All the people of the community have been benefited but those who were involved directly are benefited more.
- As the production is high, then the income is high, so the people used to take high value and nutrient food in their daily meal that improve their health status.

Community Extension:

- Most of the farmers of the community receive information from
RCE seed Production
RCE Livestock
Block Supervisor (DAE)
- The people know about the RCE and they mention the name like Md. Fazlu for Seed, Sawpon Boiragi for livestock and Rahima Khatun for poultry vaccinator providing service in their community.
- RCEs rank (on the basis of good service)
Sawpon Boiragi (1)
Md. Fazlu (2)
Rahima Khatun (3)
- In case of poor farmer who unable to pay the charge, the RCEs provide services without any hesitation and in this case the farmers repay his chare when able to pay.
- The RCEs are enhancing total production through their services that ensure the improvement of livelihood.

Technology Access:

- The quality of training people received from ITDG is very good. The people learnt how to cultivate vegetable using new technology as well as seed production from the training program. There are no issue those are not discussed or learnt in the training program.

Md Kamrul Islam and Team members

Report on FGD (Focus Group Discussion)

Community Leaders

Date: 14 January, 2008

Village Name: Dhuldi krishnapur, Union Parishad-Dadshi, Dist.- Rajbari.

Village type: Control

Group size: 12(Male-7, Female-5)

Findings from the trends analysis:

Wellbeing analysis:

In Dhuldi Krisnapur 160 families live in. Out of these HHs, villagers classified their wellbeing into 4(four) categories as higher middle class-3, middle class-12, poor- 130 and hardcore poor -15 hhs. After 1990 there was made a kancha road (earth road)

Year	Significant Events	
	Positive	Negative
1998-2000	<ul style="list-style-type: none"> • After 1998 flood Boro rice production has raised over farmers expectation. • People getting loans from NGOs BRAC, ASHA, Grameen Bank, PEP. • People starting to go abroad for job and 10 non-skill labour gone to Middle East and send money. 	<ul style="list-style-type: none"> • Maroon flood in 1998 and over 95% of HHs were under floods. • Floods damage crops, vegetable garden, fish pond and flood ways the all fishes. • Water logging is main problem. Any heavy rain fall is the main cause of water logging. Water logging occurs every 2 to 3 years.
2002	<ul style="list-style-type: none"> ➤ . No significant event 	<ul style="list-style-type: none"> ➤ Crops, houses damaged by hailstorm. ➤ Crops, houses damaged by hailstorm. ➤ People, cattle, goat, and poultry died.
2004	<ul style="list-style-type: none"> ➤ The poorer got relief, seed, and fertilizer from govt. ➤ Poor people migrate from the village in search of work and got work. 	<ul style="list-style-type: none"> ➤ Affected by flood and erode the embankment of channel. ➤ Migrated people were not come back and they didn't pay the loan. so other poorer were looser owning to get loan from NGOs.
2005	<ul style="list-style-type: none"> ➤ Bumper production of crops people were very happy. 	<ul style="list-style-type: none"> ➤ In 2005 it had rain Heavy rainfall during 17 days. Human and animals lives and livelihoods destroyed. ➤ Poorer were more vulnerable due to no saving foods and cash.
2006	<ul style="list-style-type: none"> ➤ Bumper production of crops. People comeback from Dhaka. 	<ul style="list-style-type: none"> ➤
2007	<ul style="list-style-type: none"> ➤ 	<ul style="list-style-type: none"> ➤ Heavy and continuous rainfall. Flood came two times. ➤ Crops damaged. ➤ Poorer facing food crisis due to low income opportunity and high price of foods like rice, pulse, oil, fish, milk etc. ➤ There is no Pakka (brick build) road in this village. ➤ Land fertility reduces day by day. Villagers observed that no natural silt bear this village.

Rank of Livelihood (Timeline):

Year	Wellbeing	Livelihood Rank									
		01	02	03	04	05	06	07	08	09	10
1998-2001	Poor										
	Rich										
2002	Poor										
	Rich										
2003-04	Poor										
	Rich										
2005-06	Poor										
	Rich										
2007	Poor										
	Rich										

Year Ranking

Best	Worst
<ol style="list-style-type: none"> 2005 2006 1999 – 2001 2004 (poor people received huge relief from Govt. and NGO) 	<ol style="list-style-type: none"> 2002 2004 2007

Access to Services:

Govt.		NGO	
Institutions	Services	Institutions	Services
Department of Agriculture	No service	BRAC	Loan
Fishery	No service	Grameen	Loan
Veterinary	No service	PEP	Loan
Youth Dev	No service	ASA	Loan
Social Welfare	No service	Proshika	Loan

Institutions most useful to community (chronologically):

- ASA
- Grameen

Observation:

- Logging water move toward Dhuldi Krishnapur from Rajbari town, Ramkantapur and Alipur. If government / Union parishad/ LGED take initiative to build bridge in south part (Alipur to Dhuldi Krishnapur) of this village. Then water logging may take away or reduce.
- Rickshaw/van cannot move in rainy season due to muddy road.
- No institute work with technology.
- Increasing yield of rice but it is less than other village. Because of there is no opportunity to follow silt from natural.

- A few net working with government line department. Only communicate with Sub Assistant Agriculture Officer (SAAO) previous name BS (Block Supervisor) only for chemical fertilizer outstanding fertilizer crisis.
- There is no primary school, Madrasha, mosque and community / government graveyard in this village. So poorer are more deprive from this facilities.
- In 1998 to 2001= Village people were affected by the flood. Jute, paddy and others crops were under water. People could not go out side. Poor were facing more problems in this time.
- NGOs are providing only loan service to the villagers

Report on FGD (Focus Group Discussion)

Community Leaders

Date: 15 January, 2008

**Village Name; Nijpara,
Union Parishad-Dadshi,
District-Rajbari.**

Village type: Project village

Group size: 08 (Male-5, Female-6)

Findings from the trends analysis:

Wellbeing analysis:

In Nijpara 450 families live in. Out of these HHs, villagers classified their wellbeing into 4(four) categories as higher middle class, middle class, poor and hardcore poor.

Year	Significant Events	
	Positive	Negative
1998-1999	<ul style="list-style-type: none"> • Local NGO VPKA Legal aid, • ITDG-Bangladesh worked with BRDB (Bangladesh Rural Development Board), PEP project on agricultural technologies support especially technological training and technical follow up support. Improved their income and employment through these support especially for the poor people. • People were getting loans from PEP, NGOs BRAC, Grameen Bank. 	<ul style="list-style-type: none"> • Severe flood in 1998 damaged crops, vegetable garden, fish pond and over 98% of HHs were under floods. • Nijpara village was food unsecured. More than 90% were food unsecured.
2000	<ul style="list-style-type: none"> • SEDP re-excavated farmers' seasonal pond for whole year fish culture. • Bumper crop and fish production this year. • 35 Young unemployed go to abroad like Middle East for jobs and earned money for their families. 	

2001-2003	<ul style="list-style-type: none"> • Electricity supplied by government • Large numbers of people move toward to fish culture. • BRAC provided informal education program, Cattle and goat as a relief program. 	<ul style="list-style-type: none"> • Strong storm damaged the house and crops poor are more affect by this hazard in 2001. • Poor are more affected by natural hazard though they get a few from government and but they complained who has relation with Union parishad members they get relief and other supports.
2004	<ul style="list-style-type: none"> • In winter season Boro rice production had yield were beyond of expectation and farmers happy with that production. • Other crops eg. pulse, vegetable yield were satisfactory. 	<ul style="list-style-type: none"> • Hail storm damage rice crops. • Heavy rainfall continued up to seventeen days (17) and water logging damage the Amon rice (T-Amon). • There are no opportunity damage facilities to move water. So water logging damage whole agricultural system.
2005	<ul style="list-style-type: none"> • Road of this village has been made in cement and brick and people were happy. • People got all types of loan facilities. 	<ul style="list-style-type: none"> • Draught damaged crops and fish culture.
2006	<ul style="list-style-type: none"> • Bumper production of crops. People comeback from Dhaka. • Government pronounced that up to Tk. 5000.00 loan, interest will be free and people take the opportunity. 	
2007	<ul style="list-style-type: none"> • Govt. distributed relief (food, fertilizer, seeds, and cloths, blanket) to poor. • Farmers brought agricultural labors from another sub district and district because of better production and income. 	<ul style="list-style-type: none"> • Heavy rainfall damaged most of the crops.

Rank of Livelihood (Timeline):

Year	Wellbeing	Livelihood Rank									
		01	02	03	04	05	06	07	08	09	10
1998-1999	Poor										
	Rich										
2000	Poor										
	Rich										
2001	Poor										
	Rich										
2002-03	Poor										
	Rich										
2004	Poor										
	Rich										

2005	Poor										
	Rich										
2006	Poor										
	Rich										
2007	Poor										
	Rich										

Year Ranking

Best	Worst
1. 2006 2. 2002-03 3. 2004 4. 1999-2000	1. 2007 3. 2005 4. 2001

Access to Services:

Govt.		NGO	
Institutions	Services	Institutions	Services
Agricultural Dept.	Advice and training with PEP and PAB	BRAC	Health Service, Vulnerable women, Loan, Housing, Cattle
Fishery Dept.	Technical service, training, information and follow up	Grameen Bank	Loan
Veterinary	Technical support, Training on poultry	PEP and PAB	Training, Exposure visit, Loan (up to 50,000/=), Technical support, group formation, regular follow up
Youth Dev	Training	ASA	Loan
Social Welfare	Training	Proshika	Loan
TNO	Relief	SEDP	Fish culture
		VPKA	Legal aid

Observation:

- Dowry reduces day by day and it brought out good result from the villagers.
- Early marriage reduced due to government law and motivation work of NGOs.
- A few number of polygamy occurred since 1998 and up to date.
- CBO committee resolve the village conflict, if they fail it go to the union Parishad and resolve there. A few numbers of cases go to police station.
- Crops, fish, livestock production increase up to (75-90) % in this village. They RCE in their door steps and got advice.
- Govt. official (agri. Fisheries and livestock) comes to the village sometimes.
- Linkage developed with govt. line department, private service providers, NGOs, social worker etc.
- Improvement of drainage system may increase production and yield.
- Increasing yield of rice, vegetable and horticulture product.

- In 1998 to 2001= Village people were affected by the flood. Jute, paddy and others crops were under water. People could not go outside. Poor were facing more problems in this time.
- The people of this village are very happy with PEP and PAB activities.

Report on FGD (Focus Group Discussion)

Village type: Project Village (Low concentration)

Community Leaders

Date: 16 January, 2008

Group size: 6(Male-5, Female-1)

Findings from the trends analysis:

Year	Significant Events	
	Positive	Negative

<p>1998-2003</p>	<ul style="list-style-type: none"> • • Lots of land became very fertile due to Siltration (35 acre land) • ITDG came and worked with the poor people • ITDG trained 100 HH on vegetable cultivation, livestock and poultry, case culture, cow fattening, compost fertilizer making, prison rearing, local poultry rearing, received shallow machine, seed preservation etc • Bumper production of crops after flood • People received huge relief from ITDG, local govt.(UP chairman and member) NGO(FDA, AKK) • Availability of loan from NGOs (PEP, FDA, AKK) • Developed linkage with Block Supervisor (BS), Agriculture Extension Officers, Livestock office, Social well fare etc • 	<ul style="list-style-type: none"> • Severe flood and damaged all crop fields and people had been suffering from food crises • Heavy storm and number of houses destroyed and people had to leave the house and took shelter on the embankment • 40 acre land of land termed into uncultivable land and people became more vulnerable.
<p>2004</p>	<ul style="list-style-type: none"> • People received huge relief from ITDG, local govt. • Came solar energy and cover 25 house from Grameen Shakti • Television came in the village. Before that there was o television in this village. People watched TV for their recreation • ITDG provided 20 boats to the community level. Another two boats were provided for water transportation on the Padma River. • FDA and Akk (NGO) set up informal school in this village. • Akk provided disaster management training. • Many constructed in the village by the local government 	<ul style="list-style-type: none"> • Due to heavy rail fall 100% crops • 50 acres land eroded by Padma river and number of people and 10 acres land became un • Number of cattle, goat, poultry and duck were dead • Sever damaged by flood their vegetable

	(through Chairman and Member) <ul style="list-style-type: none"> • Before 1998 there were no sanitary latrines in the village. But now 80% people are using sanitary latrine spent their own money. 	
2005	<ul style="list-style-type: none"> • Increased income (30%) from agricultural and livestock. • Got intensive support from AKK,PAB, Block Supervisor, • Number of Children enrolled in primary school. • Increased number solar system in this village 	<ul style="list-style-type: none"> • Heavy draught and heavy rain fall • Damaged groundnut, paddy and house •
2006	<ul style="list-style-type: none"> • AKK established hospital for villagers and one Doctor regularly comes and gives treatment 	<ul style="list-style-type: none"> • Hail storm and damaged houses
2007	<ul style="list-style-type: none"> • More TV is available in the villager • 	<ul style="list-style-type: none"> • Two times affected by flood in this year •

Rank of Livelihood (Timeline):

Year	Wellbeing	Livelihood Rank									
		01	02	03	04	05	06	07	08	09	10
1998-2003	Poor										
	Rich										
2004	Poor										
	Rich										
2005	Poor										
	Rich										
2006	Poor										
	Rich										
2007	Poor										
	Rich										

Year Ranking

Best	Worst
1. 2006 2. 2005 3. 2004 4. 1999-2003	1.1998 (before project) 2. 2005(partially) 3. 2007 (poor)

Access to Services:

Govt.		NGO	
Institutions	Services	Institutions	Services
Agricultural Dept.	Advice and training with PEP and PAB	BRAC	Health Service, Vulnerable women, Loan, Housing, Cattle
Fishery Dept.	Technical service, training, information and follow up	Grameen Bank	Loan
Veterinary	Technical support, Training on poultry	AKK and PAB	Training, Exposure visit, Loan (up to 50,000/=), Technical support, group formation, regular follow up Health service.
		ASA	Loan

Observation:

- Now they have new technology of Agricultural sector
- They earn more through.
- More children are going school for basic education
- Health service available in his village
- Local NGO, Akk is providing more effective service to the detached char area.
- Market information flow is running among the market actors
- Improvement of drainage system may increase production and yield.
- Increasing yield of rice, vegetable and horticulture product.

Report on FGD (Focus Group Discussion)

Village type: Project Village (Low concentrait)

Community Leaders

Date: 19 January, 2008

Group size: 5(Male-4, Female-1)

Findings from the trends analysis:

Year	Significant Events	
	Positive	Negative
1998-2000	<ul style="list-style-type: none"> • Bumper production of crops after flood • Huge flow of relief from govt. NGO, LG • Availability of loan from NGOs (PEP, BRAC, ASA, AVA, Grameen Bank, Proshika) 	<ul style="list-style-type: none"> • Severe flood, crop fields, ponds even high ways were submerged for 25 days. • Loss of Fishes • Could not preserve seeds • Severe diarrhea and other diseases.

	<ul style="list-style-type: none"> • Low price of daily consuming products • 30 families rehabilitated under 'Adarsha Gram' project by govt. 	<ul style="list-style-type: none"> • Unemployment • Houses destroyed
2001-2003	<ul style="list-style-type: none"> • No significant events in those years. They were living simple 	<ul style="list-style-type: none"> • Same
2004	<ul style="list-style-type: none"> • Price low 	<ul style="list-style-type: none"> • No monsoon, Draught • Fertilizer price hiked • Land fertility reduced • Less production • Jute was severely damaged
2005	<ul style="list-style-type: none"> • Price low 	<ul style="list-style-type: none"> • Hailstorm in Feb to Apr • Onion, Garlic, IRRI & <i>Robi Crop</i> damaged • Fertilizer price hiked
2006	<ul style="list-style-type: none"> • Price low 	<ul style="list-style-type: none"> • Hailstorm in Feb to Apr • Onion, Garlic, IRRI & <i>Robi Crop</i> damaged • Fertilizer price hiked
2007	<ul style="list-style-type: none"> • Loan availability • Loan especially for Disables (5 to 10 thousand for each) • 	<ul style="list-style-type: none"> • Flood- two times in a year • Electricity system felt down • Irrigation crisis • Fertilizer crisis • Seed crisis • Affected by cyclone SIDR • Disaster in crops • Roads, trees, bridges-culverts damaged • Price-hike

Rank of Livelihood (Timeline):

Year	Wellbeing	Livelihood Rank									
		01	02	03	04	05	06	07	08	09	10
1998-2000	Poor										
	Rich										
2001	Poor										
	Rich										
2002	Poor										
	Rich										
2003	Poor										
	Rich										
2004	Poor										
	Rich										
2005-06	Poor										
	Rich										
2007	Poor										

	Rich									
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Year Ranking

Best	Worst
5. 1999 – 2000	5. 2007
6. 2004	6. 1998
7. 2005 – 2006(Average)	7. 2005 – 2006 (Average)
	8. 2004

Access to Services:

Govt.		NGO	
Institutions	Services	Institutions	Services
Agri	Advice	BRAC	Health Service, Vulnerable women, Loan, Housing, Cattle
Fishery	Advice	Grameen	Loan
Veterinary	Advice, Training on poultry	PEP	Loan (up to 50,000/=)
Youth Dev	Training	ASA	Loan
Social Welfare	Training	Proshika	Loan
		AVA	Loan
		VDA	Loan

Institutions most useful to community (chronologically):

1. Grameen
2. BRAC

Observation

- This village was low concentrated area but people have clear idea about the technology which was providing by PAB.
- Agricultural technology has power to change their people livelihoods and self explanatory.

Conclusion:

This village is situated near to main road of high way. They have some opportunities to work on non firm activities but every year they are facing lots of natural disaster. But the technology was provided by the PAB and local partners are working by their own.

Annex 8 - Food Security Case Studies

Changing Livelihoods of Chhahera Begum with Rice-Fish Farming

Chhahera Begum (65) is a widow and her husband name Lt. Mukhlesur Rahman, inhabitant of village Nizpara of Baniboho union in Baliakandi upazila under Rajbari district. Her family consists of 09 members: three sons, 5 daughters and herself. The literacy level of Chhahera Begum is very poor. She completed the primary level and didn't



continue of education due to poverty. When asked her about her literacy level, she replied with jokes “I never went to school and neither did my husband”. Though educational level of her not good, she has tried to educate her children.

She has 1.0 acre cultivable land in which she used to produce vegetables and other field crops. She also has about 29 decimal land at her homestead including a pond (15 decimal) and also 12 decimal low lands adjacent to her house. Before the project Chhahera and her husband used to work hard to manage their resources as best they could. Besides working the agricultural fields and her homestead garden, she tried to make some income from other sources such as pond fish culture, rice-fish culture etc. But their family income was very poor and it was difficult to manage their family expenditure. Their children’s studies were hampered and her family was food insecure for about 4 to 5 months a year.



Though she had a resource for rice–fish culture, Chhahera didn’t have the skills to manage her resource properly. She stocked fish in her ditch during Amon season (July–August) and harvested in November–December. However, she was not able to practice fish culture during Boro season. She had received no training and therefore had no improved knowledge of integrated fish culture technology, the use of lime and fertilizer, or the practice of removing aquatic weeds in the water body.

Food Production project activities started in Nizpara village in June, 2000. Chhahera received a two day training on rice-fish culture.

- ✓ She learned about identification of good quality fingerlings and stocking techniques. As a result, the mortality rate of stocked fingerlings has decreased, and the growth of fish is at an optimum level.
- ✓ She was made aware about the culture and conservation of Self-recruiting Species (native fish species). She stocked total 100kgs Shing, Tilapia and Common carp over wintered fingerlings at the rate of Shing 10/decimal, Tilapia 15/decimal and Common carp 10/decimal. Also she stocked Punti, Mrigal,Rui and other native species such as Tengra, Mola, Taki, Shoal, Magur etc.
- ✓ She learned to apply lime in her ditch for preparation and apply organic fertilizer (cow dung) and inorganic fertilizer (Urea and TSP) before stocking of fingerlings to increase the natural food availability for stocked fingerlings. Last year the average weight of fingerlings was 15g.

Her total expenditure in fish culture was Tk8,600 and in rice culture Tk11,790. After harvesting of rice and fish she earned Tk65,000 from fish sales and from rice Tk36,000. Note that she cultured fish after harvesting of rice. She got 25% more rice production than before.

With this income she bought two oxen for beef fattening by Tk23,000 which she sold after four months for Tk32,000. She is spending extra income to maintain her family, e.g. on clothing, children’s education and to meet food and nutritional demands. Some portion of her income she spends to minimize crisis in flood and drought period etc. She has also spent some income to make 2 houses. Now Chhahera Begum hopes to introduce some latest technologies on integrated fish culture such as rice-fish, poultry-fish, duck-fish and dyke cropping to other people in her own village and neighboring village so that more people can benefit.

Success of Ainal on Beef Fattening

“Now Beef fattening is a simple technology to me, with which I have been rearing two cattle in a small space (15feet/ 10 feet) beside my house and my wife can look after them without having any hard work. I suppose beef fattening could be a vital solution to increase income as I have gained with the help of RCE livestock” said 45 years old **Ainal Sheikh**. He is inhabitant of Manikdoho village in Bhanga Upazila under Faridpur district. He has no institutional education and only knows how to write his name. With his wife, two daughters and two sons he had been struggling to survive and send children to school.

Ainal's father had no agricultural land of his own. At the time of his father's death, he owned a small house made of earth with no agricultural land. His only source of income for livelihood was to sell his labor in people's agriculture and post harvesting activities. At that time wage rate was Tk60 which was not sufficient to maintain his family. However, besides selling labor, he used to cultivate share crop in other's agricultural land.



He started to think doing something to have extra income which would help to ensure food security of his family. He started beef fattening with a Tk3,000 loan from PEP. He bought male calf but he didn't know about improved technology of fattening. After rearing 18 months he sold it for Tk16,000. During the rearing period he faced various problems regarding diseases and feeding. To overcoming those problems he had tried contact with Govt. veterinary expert at upazila level and seeking opportunity of training on beef fattening but could not get any positive result.



In the meantime he got involved with “Food Production Project” implementing by ITDG. That project had arranged needs based training on various interventions based on a training needs assessment. Mr Ainal expressed his interest in training on beef fattening. In this way he got the opportunity of two days practical training on fattening. His wife also received training on poultry rearing & homestead vegetables production.

During training, he learned mainly to maintain hygienic condition, de-worming, feed management with locally available low cost ingredient and regular vaccination. Now he can choose cattle age suitable for fattening, vaccination, low cost feed preparation and treatment performed with the help of RCE (Rural Community Extensionist) paying a minimum charge for services. The RCE was also trained by the project which was demanded by the community. After training Ainal bought 2 cattle which total value was Tk60,000 and after 4 month he sold them for a total of BDT 120,000.

With this income he bought a milking cow for Tk 35,000, took lease pond for fish culture for Tk19,000 per year and agricultural land for rice and vegetable cultivation at Tk105,000 per year. The area of the pond is 3 acres and agriculture land is 4.26 acres. He is spending extra income to buy daily commodities including new clothes for his family members and meeting food and nutritional demands. He has deposited portion of

his income at Sonali Bank (one of Govt. commercial bank) for every lean period and for risk management during flood and other crisis periods. In 2004 his crop was damaged by flood. At that time he maintained his family by selling milk of cow and his money in the bank. Now he is fully food secure.

He also spent some of his income to build three houses, on marriage expenditure of his daughter and on education of his son. Now he is a open eyed man getting income from three sources (fisheries, livestock and agriculture) while in the beginning his only income source was selling labor.

Ainal said with joy *“I think these changes would not be happening in my life if RCE livestock Mr. Akter were not so helpful to me and if he did not follow up from time to time providing necessary services for beef fattening. That’s why I am grateful to the project for such initiative”*

Given below data on average annual income:

Item name	Total production (metric ton)	Selling rate(BDT/ton)	Total sell(BDT)
Fish	3.0	70,000.00 (£714)	210,000.00 (£2,183)
Rice	3.0	15,000.00 (£153)	45,000.00 (£459)
Jute	4.0	30,000.00 (£306)	120,000.00 (£225)
Pulse	1.2	27,000.00 (£276)	33,000.00 (£974)
Dhania(spice)	0.56	15,500.00 (£158)	18,200.00 (£186)
Beef Fattening	2.0 (Nos)	60,000.00 (£704)	120,000.00 (£1,408)
Total			546,200.00 (£5,717)

Self dependent Abul Kashem

Abul Kashem (35), son of Mohammadullah is living at Bartha village in Baliakandi Upazila under Rajbari district. He only completed primary level education and could not manage to continue his education due to unawareness about the result of education as well as for poverty. He then engaged in agricultural activities in his own field and takes the profession as prime earning source of his family. As he received limited amount of land from his father he faced very difficulties to run his family contain four members including one daughter and one son. He always tried to find out a way to increase his firm production using limited land.

Before beginning of the project activities he had no sound knowledge of improved agricultural technologies, modern irrigation systems, quality seed, and modern pest management procedures. This might have been the main factor behind his low crop yields.



Abul Kashem was selected for Food Production Project activities because of his keen interest to learn something to increase his crop production. He received two days practical training on vegetable production, seed production, seed selection &

preservation. During training on vegetable production, he learned about quality seed including production technologies of quality seed (pollination process, selection of fruit for seed production, improve management system), use of compost for better production of vegetable & quality seed, IPM (Integrated Pest Management) technologies and selection of early varieties of vegetable to get better market price. A Rural Community Extensionist was also developed by the Food Production Project to provide support after the training.

After the training Abul started cultivating integrated vegetables with sweet gourd, bottle gourd, snake gourd, bitter gourd, pointed gourd, ash gourd, cucumber, pani kachu (taro/aroids in water) etc. in 22 decimal land. He also adopted technologies like rice-fish culture in his land learnt from neighbor farmer of the project to get more benefit from agricultural activities.



The production as well as family income has increased since he participated in the project activities. He is getting benefit through the production of quality seeds, quality vegetable as well as from grain production. In last year his received gross income Tk20,000 from vegetables cultivation and Tk45,000 from rice and wheat. This helped him to cope with any sorts of natural disaster like flood, storm etc. With this income he bought two irrigation pumps and a paddle thresher and also he took lease of 66 decimal lands at Tk. 8000 last year.

Besides that, he is spending extra income to buy daily commodities includes new clothes for his family members along with meeting food and nutritional demands. Now he is fully food secure. From this income he also bought a television. He is very aware about the education of his children and sending them to get higher studies from his increased income. Now hope of **Abul Kashem** is to expose him as a resource person for improved technologies provider and to replicate largely those technologies among the broader communities.

“Now quality seed production is very easy process to me and presently I have no crisis of seed. I have been producing quality seed all the time and selling surplus seed to other farmers. This quality seeds helped to increase the production of vegetable and ultimate helped to economic solvency”- Mr. Abul Kashem expressed his feelings in this way.

Self dependent Gonjor

Like many other people Gonjor Borkondaj once left his village *Degreeer Char* after eroded by the river Padma and migrated to Monsurabad village. Having no land in the village, he used to maintain his family by selling labor and pulling rickshaw in a nearby town but that was not enough to ensure the food security of his family. Often, they had to pass their day taking only one meal a day as the wage rate was Tk60 per day. Gonjor is 55 years old and has no institutional education. Presently his household contains six members including 03 brothers, 01 wife and 01 child.



To reduce the food crisis of his family he started vegetable production in *sand bar* areas. But he did not have adequate knowledge of modern vegetable cultivation technologies especially for tomato production, e.g. quality seed, maintaining fertility of soil, pest management etc.. During the producing period he faced various problems regarding production of quality vegetables.

The project arranged need based training on various interventions. Gonjer showed his interest to work with the Food Production project and receive training on vegetables production in *sandbar* using unfertile land. He participated in 2 days long training course on vegetable production using modern technologies along with seed production. He learned mainly to selection of quality seed, use of compost including bio-fertilizer, selection of early variety to get better price, preservation techniques and seed preservation especially for Sandbar area. Not only had he learned from the training, but he also got support from the RCE (Rural Community Extensionist) services developed



from the project according to the demand of the community. With the assistance from the service provider and use his own knowledge he started to change practices in his crop cultivation technology.

He is applying his skill in sandbar area which farmers normally kept as fallow. Now Gonjer is engaged in vegetables production (eg. Sweet gourd, pointed gourd, Water melon, etc.) in the sandbar following pit method and using compost/cow dung in the pit along with chemical fertilizer. His total land is 438 lands including 66 decimal of leased land. Last year he cultivated improved variety of Rice, Pulse, Wheat, Maize, Tomato, Bitter gourd, Brinjal, Ladies finger, Sweet gourd and earned T86,000 excluding expenditure. Financially he is more sound, his social status is greater than before, schooling attendance of his child is increasing and his family members are wearing better quality dress. His coping capacity increased against flood. He is passing very happy life with his family member through his learning and applying in agricultural field.

Once I used to sell my labour in the field of other people and failed to run my family successfully. Later I involved in agricultural activities and producing homestead Vegetable and rice cultivated with local varieties (Dhegha) that also failed to meet my family demand as the production was very low. Now I am producing early variety vegetable in sandbar especially tomato. It's technologically very simple, produced within short time and short space with locally available seed, bio-fertilizer, and women may look after with more production." said Gonjer

Annex 9 - Case Studies of Extensionists

Fozlur Rahman – Agriculture RCE

Mr Rahman produces brinjal (aubergine) seed for sale, but he can get a better price if he grows seedlings from them for sale. Before the project people were growing less vegetables, but now there is much more demand for seed as vegetable production has become more common. In one month at least 20 people come to him for advice, for seeds or for seedling. This number can be more in peak season. The kind of advice he gives is on transplanting seedlings, appropriate spacing, how to prevent pest infestations and what are the correct measures for fertilizer application.

The majority of people who ask for advice are from his village. Sometimes people see him in the market – they observe his vegetables, and as a result of what they see they are motivated to come to him for good quality seeds and seedlings. He sells 100 seedlings for 30 taka. 100 seedlings are available for 5 taka in the market but because of the good quality of his produce people will come to him. His seed give up to double the yield.

One challenge he faces is access to fertilizer. This was available in the market before, but now during this interim government, it is being controlled by the government agricultural extension officer, know as the Block Supervisor. The demand is exceeding supply and so the visits of the Block Supervisor are infrequent and not always timely. As a result he is using more organic fertilizer like cow dung.

The impact of being an RCE on his livelihood has been significant. In 1998 his house was just one simple building, but now it is two tin buildings. Practical Action staff noted that he is less thin now and has grown a beard which is a sign of doing well. His daughter is studying in higher education.

Halima Begum – Livestock (Poultry Specialist) RCE, Shobarambur village. Ombikapur Union

Halima trained with Practical Action as a Poultry Vaccinator under the Food Production Project in 2000. It is preferable to have a woman in this role as most poultry managers are women. She was proposed for the training by the partner organisation PEP with the support of the community because she had shown her own interest in poultry keeping and also had some previous experience of her poultry getting diseases. She received 5 days training on vaccination and poultry management. She contributed 50% towards a vaccinator's kit from ITDG. She buys vaccines from the Union Livestock Officer. She has good links with this livestock officer plus feed sellers and medicine shops. Broiler dealers come to buy nearby so she sells her hens there , and buys new chicks from dealer farms. Initially she was afraid to do the injections – she thought the hens might die. Fortunately none did, so her confidence grew.

Per vaccination she used to charge 1 taka per hen (on top of the cost of the vaccine itself) but now she charges 2 taka. So her monthly income has now doubled from 500 to 1000 taka per month on average. She also raises her own poultry and owns a shop where she sells chickens as well as groceries. She also sells the chicken excrement as fertilizer at 50 taka per bag.

Her furthest away customer is 7km – she goes there walking but returns by bus. Her family and existing customers have spread her name. Now her brother has a mobile people can contact her by phone. She works every day.

She has reinvested money into her poultry business, has also invested in having a better track constructed from the main road to her home. She eats more fish and vegetables now than she did before, but does not like to eat chicken!

Later on she also did training in livestock management, in agriculture and in fisheries. This has allowed her to make choices. It also helped her to motivate other savings group members, and she still does that even though the PEP group no longer exists. Now she is in an Asa group for credit and has links with a BRAC poultry project as well as with the Practical Action office.

At one point she became ill and had to go to Mymensingh for treatment. She lost her chickens due to a disease outbreak whilst she was away – worth 20,000taka. But she started again with the credit from Asa.

She also attends some meetings at the Union level on behalf of the community and those sometimes result in some resources coming to the community like VGD cards (Vulnerable Group Development). She feels it is her obligation to represent the community where possible. She has good contacts and because of that she is invited to meetings along with teachers and other respected people. She is the President of a women's committee (10 member committee and 250 members in the group).

Her transformation is remarkable because she was married at the age of 8 and was later divorced and had to return to her father's home. This usually results in a low status and a struggle to have a place in the extended family. However, Halima has certainly made a place for herself in the family and a name for herself in the area.

Anonta Roy - Sahia Village, Agriculture RCE

Anonta is principally giving advice on vegetable production. He is also collecting seeds and giving them to other farmers. But he is not selling his services in a commercial way. "If I want to live here I should do good for the community".

His advice includes things like timing of cultivation, fertilizer doses, and growing vegetable crops close to the homestead to avoid the danger of theft or animal damage.

He received 7 days training and 3 days refresher training in Faridpur. Since then he has advised around 50 people who are now growing vegetables. Some of these people are from his own village but the majority are from further away – mainly they are men, not many are young. He says that having more producers in the village has not resulted in a fall in prices in the market as they are all small producers so their impact is not that huge. Some of those farmers are now doing better than him because the conditions are better in their communities. His land is not so productive due to flooding and poor soil conditions.

He is innovating by growing smaller cauliflowers because there is demand for this in the markets. He also grows lemons, cabbage, and white amaranth.

He does not ask for payment for his advice, but he does get respect from those he helps and enjoys the honour of taking tea with them in town. Also some of them are family members.

He has had some contact with government extension staff but feels he knows as much as they do.

Before the training Anonta had tried to leave Bangladesh to go to India for work but had been caught and imprisoned. He had very few assets on his release, only a very small shared plot. He has no non-farm income and no fields for rice. Only the small garden.

However, their food intake has increased, but more they have invested in a mobile phone and paying for their child's schooling. He is a hindu.

Akas Ali, Muraridoho

Akas was just 20 years old when he trained as a fisheries extensionist (now he is 28). Now he keeps fish, has a nursery and sells fish seed. He has 50-60 customers: around 30 farmers and 20 mobile seed traders.

He also provides technical services like liming and advice on stocking density. He only charges people for inputs – the advice is an embedded service.

Each farmer customer comes around 4-5 times in a year for seed. He gives on credit to local farmers. Sometimes there is conflict over a treatment not working.

He buys brood from hatcheries.

He was selected because he and another friend were a bit more influential among the youth and had already taken the initiative to rent a pond. He was interested because he heard that fisheries had more potential for money making. AS part of his training he also went on an exposure visit

He is providing services to three other villages. He also arranges catch and marketing as well as sales and advice. He employs around 4 or 5 people to do the catch for him. He has innovated in demonstrating mixed fish cultivation which was not common before. He learned this from ITDG but it was his idea to develop this as a service. He promotes Tilapia to women because it is low risk.

He still works with his friend. He works 10 ponds – 6 of his own and 4 shared. He works hard but he likes earning money.

He has received credit from the government fisheries department and his relationship with them is not bad. He participated in one of their initiatives: fish fortnight.

He provides advice over the mobile, also getting calls for netting or seed.

In terms of competition – this comes from other mobile trades, there are also about 2 RCEs in a 3km radius. But there is enough demand for them all to coexist. They also help one another out, sharing nets and labour for catching.

Gita Rani Das, Sipoltali, Faridpur, Breeding Buck Rearer

Gita received 5 days formal training, then informal support and links to government.

She was given 2 small bucks and paid back 3,000 taka of the 5,000 taka value in 2 instalments. Now she has a 3rd buck which she bought from Chittagong. It is worth 12,000taka and she bought it herself from a private supplier with the assistance of the Upazilla livestock officer.

This new animal is more popular with some elite farmer clients because it gives larger offspring. So she charges a higher rate for its service. The other variety is a Black Bengal goat which is more preferable in her opinion as it is a local breed.

Her income is from raising goats, including breeding goats, as well as giving the breeding service. Her average monthly earning is 300 taka of which she spends 100 on feed. Her husband is mentally ill so she is the provider: now she feels confident she can provide for her family (7 members). She has also seen improvements in wider relationships and networks.

She has been practicing breeding buck rearing for 22 years, and now goat rearing for 4-5 years. It is a Hindu tradition that was dying out after partition and the quality of animals was gradually declining. ITDG is also trying to motivate Muslims into the profession.

Annex 10 - RCE Notes and interviews

RCE Agriculture Group Discussion Notes.

Piar Ali, Bazlur Rahaman, Atiar Rahaman

The important criteria for being selected as an Agriculture RCE were: villager's acceptance, skill in agricultural farming work, good behaviour, leadership skill and willingness to invest time in serving others

The biggest successes they have had are in seed management techniques of chilli, bottle gourd and potato. Intercropping of chilli and gourd nearly doubled the yield of sweet gourd.

The RCEs focussed their attention on the poor as their most suitable customers who were not served by others. As the poor man did not have money at the start of the season they gave seed on credit which was paid at the end of harvest.

They highlighted their competence to keep up their client base. However, in some cases other service providers might have better knowledge on some issues than them. There is a collaborative environment between government, NGOs and RCEs. "We do not know much about packaging seed, which is a limitation on our business".

Some times they faced risk of financial loss in helping the poor, but they manage profitability by serving both rich and the poor.

RCE Fisheries Interview

Gonesh Chandra

There were three main criteria for selection as a Fisheries RCE, being a good fish farmer, being a pond owner and demonstrating interest.

Generally he delivered his service successfully. However he could not provide an answer to one management problem which is control of aquatic weed.

He gave free advice to poor farmers but if they could not pay for inputs he supplied the on credit and had waited for repayment till farmers fish harvest time.

He faced competition in business. However, he felt every business has got competition. He received support from NGO and the Fisheries department. They are not their competitor.

RCE Livestock Group Discussion

Nikunja Kumer Shen, Abdul Ali, Halima Begum,

The criteria for selection were local acceptance, ability to serve the people for livestock development, ability to build the capacity of the livestock farmers, and ability to earn from the service for his family.

There were some difficulties in the classroom training; however they received further good follow up support from the trainer. They are very interested to know new techniques and technologies. They received inputs and co-operation from private drug companies, NGOs and line departments.

They are frequently involved in solving birth related problems. This gains the people's attention for other advice such as planting improved variety of fodder/grasses such as Napier grass.

They normally tried to give equal emphasis to poorer and richer customers. However, sometimes gave special support to the poor, helping customers even if they could not pay.

Income, self-satisfaction and social acceptance are the key factors of inspiration for this calling.

RCE Livestock Group Discussion **Babu Ram , Dulal, Shapon Bairagi**

The training was very useful. Practical exercise was the most important part of the training they received. Babu Ram learnt about artificial insemination but wanted to learn more on animal surgery.

They served almost all categories of people who ask for their service. Sometimes they serve the poor free of charge. *Good manners is far more important than wealth in deciding on clients.*

“I can not tolerate bad behaviour”

“I reject customers that do not behave well”

We agree with other RCEs to work in a specific area to avoid competition. We prefer areas of 8 km radius for AI service. We collect vaccine from govt. offices 2-3 times per year and participate in delivery of campaigns

This profession is important both in terms of income and social responsibility.

RCE Group Discussion: Mixed Group

Md. Anwar Mondol (Fisheries RCE) **Md. Zakir Khan** (Agric. RCE.) **Gita Rani Das** (Livestock RCE)

Interest, capability and on-going experiences were the key aspects of the selection process of an RCE. Composting, carp fish culture and goat farming were the very useful skills they have gained. They are interested to learn more on grafting, budding, and fish seed hatching. Livestock RCE Gita introduced a new breed of goat (*Jamina Pari*) which was talked about in the village. The breeding buck service from this goat was successful. Gita managed some failed cases of insemination by providing an immediate free follow-up service. She has got many new customers as she was able to diversify the service. Customers' expression of satisfaction inspired Gita to carry on her work in the village. She now breeds breeding bucks for sale.

They all put almost equal importance for both richer and poorer. *However, poorer households pay more honour and show gratefulness to them which motivates them to work more for the poor.*

If any customer is unable to pay for the service, they offer payment by instalments or they occasionally serve with a much reduced price, to hold customers. However when they are continuously paid less for their service or inputs that becomes frustrating.

Sometimes the RCEs have worked together. This may happen in busy times of the year when there is a need to share equipment. The Hindus amongst the RCEs sometimes face difficulties with local politics due their identity, and sometimes got excluded from engagement with local NGOs. Some RCEs were engaged with professional groups, organisations and institutions. This benefited them through access to inputs (e.g. maize seed, fertiliser, vaccine) and advice from government departments. Their service appeared to complement government services and there has not been any conflict. They feel obliged to serve others, hampering their own farm, business and family. However it is also a kind of satisfaction when they get people's thanks. The main inspiration to carry on working is their economic solvency, the opportunity to increase their efforts for quick cash income when they need it, and people's positive attitude (honour) towards them.

RCE Mixed Group discussion:

Md. Nurul Islam Shekh (Livestock RCE), **Md. Usuf Ali Mia** (Agric. RCE), **Habibur Rahaman** (Fisheries RCE)

Habibur was selected for the training on the following considerations: he had good linkages with people, he had access to ponds, both leased and owned, he had a reasonable level of training, experience and knowledge already possessed good communication skills

The training was similar to that given by other organisations. There was not sufficient emphasis on business development and credit linkages. He did get advantages from the Upazilla Office from being a RCE. His most successful service was stocking large size fish seed in ponds was good practice, increasing production and income of households. Nurul's best service is information on improved variety of livestock. Usuf promoted of rice variety such as BR-11/33 and gave information on appropriate timing of fertiliser application.

They are more interested to serve the poor and medium well-being category as they respect them. The richer categories sometimes undermine their expertise

Annex 11 – Extension workshop

Workshop – 22nd Jan 2008

Participants were District representatives of fisheries, agriculture and livestock extension department, local research organisations and NGOs involved in food production.

Main debate was about recognition for RCEs and certification especially with respect to livestock RCEs.

Agriculture issues:

- Longer term technology transfer
- Availability of inputs: agriculture dept is not responsible for fertilizer distribution, it is the administrative channel, so it is often not getting out in a timely fashion and it is out of their control.
- Diversification from rice
- Integrated fish-rice could be brought back but needs reduction of fertilizer use

Livestock issues:

- Subsidy on livestock feed
- Control of marketing systems
- Proper supply of vaccines
- Extension of training programmes
- Keen to recognise RCEs.

Fisheries issues:

- Conservation of native species as new species are introduced
- Introducing fish passes in flood control dams
- Quality seed
- Finance
- Technology support
- Marketing problems – oversupply and undersupply
- New variety of rice BIRRI 41 which is good for rice fish culture because it tolerates deep water.
- Plenty of natural resources to continue to increase fish production

Annex 12 -Further Tables from Survey of RCEs

Age of the respondent

Name of training	Mean	Maximum	Minimum
Livestock Male	39.90	66	23
Livestock Women	40.63	50	27
Vegetables	46.00	59	37
Fishery	37.31	60	25

Highest distance cover by RCE(KM)

Name of training	Mean	Maximum	Minimum
Livestock Male	17.67	135	1
Livestock Female	5.71	10	1
vegetables	5.42	20	2
fishery	16.29	100	2

Time required to reach furthest client (Hr)

Name of training	Mean	Maximum	Minimum
Livestock Male	1.9550	10.00	.30
Livestock Female	1.3214	3.00	.25
vegetables	.8833	2.00	.50
fishery	1.7538	5.00	.30

Number of villages covered

Name of training	Mean	Maximum	Minimum
Livestock Male	16.52	35	2
Livestock Female	8.00	15	1
vegetables	4.75	8	2
fishery	12.07	40	2

Number of villages covered

Name of training	Mean	Maximum	Minimum
Livestock Male	16.52	35	2
Livestock Female	8.00	15	1
vegetables	4.75	8	2
fishery	12.07	40	2

Name of training

	Frequency	Percent	Valid Percent	Cumulative Percent
Livestock Male	21	47.7	47.7	47.7
Livestock Female	8	66.7	66.7	66.7
vegetables	6	13.6	13.6	61.4
fishery	16	36.4	36.4	97.7

For how long did you work after training (years)?

Name of training	Mean	Maximum	Minimum
Livestock Male	7.17	11	5
Livestock Female	5.67	7	1
vegetables	4.83	8	1
fishery	8.64	28	0
Total	7.28	28	0

Did s/he use RCE certificate to obtain credit for other advantages?

	Livestock Male	Livestock Female	vegetables	fishery
No	17 81.0%	7 87.5%	6 100.0%	11 73.3%
Yes	4 19.0%	1 12.5%	0 .0%	4 26.7%
Total	21 100.0%	8 100.0%	6 100.0%	15 100.0%

Status of usefulness of Exchange visit

	Livestock Male	Livestock Female	vegetables	fishery
Very good	4 44.4%	1 50.0%	2 33.3%	7 63.6%
Quite	4 44.4%	1 50.0%	4 66.7%	4 36.4%
Not useful	1 11.1%		0 .0%	0 .0%
Total	9 100.0%	2 100.0%	6 100.0%	11 100.0%

RCE Dedication Levels

		Livestock Male	Livestock Female	vegetables	fishery
Only source of livelihood		7	1	4	5
		35.0%	14.3%	66.7%	35.7%
	Main but not only source	11	3	2	6
		55.0%	42.9%	33.3%	42.9%
Minor source		2	3	0	3
		10.0%	42.9%	.0%	21.4%
Total		20	7	6	14
		100.0%	100.0%	100.0%	100.0%

How does farmer pay you?

		Livestock Male	Livestock Female	vegetables	fishery
How farmer pay you?	Money	17	7	5	12
		85.0%	100.0%	83.3%	100.0%
	Commodity	1		1	0
		5.0%		16.7%	.0%
	Joint business	1		0	0
		5.0%		.0%	.0%
Others		1		0	0
		5.0%		.0%	.0%
Total		20	7	6	12
		100.0%	100.0%	100.0%	100.0%

Where do you receive information from when faced with problem?

	Frequency	Percent	Valid Percent	Cumulative Percent
Other local RCE	34	23.3	23.9	23.9
Friend/neighbour/relative	11	7.5	7.7	31.7
Govt. officer	44	30.1	31.0	62.7
Non-govt. officer	18	12.3	12.7	75.4
Shop keeper	9	6.2	6.3	81.7
Dealer	14	9.6	9.9	91.5
School teacher	1	.7	.7	92.3
Library	1	.7	.7	93.0
Media	9	6.2	6.3	99.3
Others	1	.7	.7	100.0
Total	142	97.3	100.0	
	4	2.7		
Total	146	100.0		

Do you pay for the information?

		Other local RCE	Friend/neighbour/relative	Govt. officer	Non-govt. officer	Shop keeper	Dealer	Library	Media
?	No	28	9	41	16	7	8	0	6
		90.3%	100.0%	93.2%	100.0%	87.5%	100.0%	.0%	100.0%
	yes	3	0	3	0	1	0	1	0
		9.7%	.0%	6.8%	.0%	12.5%	.0%	100.0%	.0%
	Total	31	9	44	16	8	8	1	6
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

How satisfied are you with the information?

		Other local RCE	Friend/neigh bour/relative	Govt. officer	Non-govt. officer	Shop keeper	Dealer	School teacher	Media
Very satisfied		14	4	23	11	5	3	0	2
		45.2%	40.0%	54.8%	64.7%	55.6%	27.3%	.0%	28.6%
Quite satisfied		11	1	6	1	3	2	0	3
		35.5%	10.0%	14.3%	5.9%	33.3%	18.2%	.0%	42.9%
So so		6	5	12	5	1	4	1	2
		19.4%	50.0%	28.6%	29.4%	11.1%	36.4%	100.0%	28.6%
Less satisfied		0	0	1	0	0	1	0	0
		.0%	.0%	2.4%	.0%	.0%	9.1%	.0%	.0%
Not satisfied		0	0	0	0	0	1	0	0
		.0%	.0%	.0%	.0%	.0%	9.1%	.0%	.0%
Total		31	10	42	17	9	11	1	7
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%