


APONE Project Mid-Term Review

March 2014

Traidcraft Exchange

Table of Contents

Acronyms Used in the Report



ALO	Alternative Livelihoods Options. A 'sister' project of APONE working in some of the same and neighboring districts/sub-districts. It uses a similar methodology to APONE and is funded by Big Lottery and implemented by DEW and Traidcraft Exchange.
APONE	Alleviating Poverty in North-East Bangladesh.
AWD	Alternate Wetting and Drying Irrigation. A simple and low-cost technology for saving water in rice cultivation.
BSP	Business Service Provider. In the case of the APONE project these are generally input suppliers selling for example, seeds, fertilisers, pesticides, compost, agricultural equipment, medicines and feeds for livestock and fisheries. Also known as "private service provider". They should not be confused with 'Barefoot Service Providers' which form part of a cascade methodology used on other TX projects.
CSO	Civil Society Organisation. The grassroots NGOs that partner with DEW on the implementation of APONE at the field level.
DEW	Development Wheel. A national level Bangladeshi NGO, co-implementing APONE.
IGA	Income Generating Activity.
IPM	Integrated Pest Management. An agricultural technique which reduces the need for chemical pesticides.
PSP	Public Service Provider. In the case of the APONE project these are government officers who provide services to farmers. The project engages with PSPs from the offices of: Agriculture, Fisheries, Livestock, Co-operatives, Social Affairs, Health, Women, Youth Development, the Soil Resource Development Institute, Bangladesh Agriculture Development Corporation, Bangladesh Institute of Nuclear Agriculture.
RDS	Rural Development Shangstha. One of two grassroots CSOs co-implementing the APONE project.
SAAO	Sub-Assistant Agriculture Officer. A cluster/block-based PSP from the department of agriculture.
SP	Service Provider. A person, organisation or business that provides a service to others.
TX	Traidcraft Exchange
TX-BD	Traidcraft Exchange Bangladesh
UAO	Upazila Agriculture Officer. A PSP who from the department of agriculture extension who oversees the government's service within an Upazilla (sub-district).
UFO	Upazila Fisheries Officer. A PSP who from the department of fisheries who oversees the government's service within an Upazilla (sub-district).
ULO	Upazila Livestock Officer. A PSP who from the department of livestock who oversees the government's

	service within an Upazilla (sub-district).
USG	Urea Super Granules. The fertiliser 'urea' in granule form.

Executive Summary

From my six days spent in the field discussing activities and outcomes with farmers and service providers, I feel confident to assert that Alleviating Poverty in North East Bangladesh (APONE) is having significant impact on the agricultural practices and livelihoods of its target farmers. All farmers' groups interviewed as part of this mid-term evaluation were overwhelmingly positive about the difference the project is making.

Constructive relationships have been built between the farmers, the government extension services and businesses providing agricultural inputs. The project and specifically its group-based methodology, has helped meet the needs of these different groups: the farmers with agricultural advice, training and inputs; the government officers with a means to meet their outreach targets; the business people with a means to expand their businesses. This basis provides a solid foundation from which the project's farmers can continue to benefit from relevant and appropriate service provision following the project's completion.

The project is managed and implemented by a team of experienced and dedicated managers and field staff – most of whom are themselves agricultural experts. They appear to be working in a focused and concerted way to achieve the project's outcomes. The project design and implementation builds upon learning gathered from similar work run by the project partners.

To date the project partners have focused their activities primarily at the farmers and at the public and private service providers that support them. In the final year of the project more support will need to be directed towards the farmers' district and regional associations. These need to become independent, representative, active and sustainable, in order for their members to benefit, and to enable the Associations to reach out and broaden their membership through further group mobilisation.

APONE has a strong focus on women's empowerment and some exciting results are being seen at the level of group leadership amongst the mixed-groups formed through the project. Useful learning regarding women's empowerment is also being gathered. The project team need to continue to monitor women's representation amongst group leaders and better understand the quality of the resulting empowerment – both for the leaders in questions and for women members more broadly. How to ensure women's empowerment through the Associations' activities, and in particular the make-up of their own committees, is another area to grapple with in this final year.

The groups' savings and loans scheme is another area where attention should be focused in the final year. Groups are progressing at different rates and the project team needs to ensure that those that are progressing more slowly are given sufficient support to continue benefitting from the scheme post project.

The data monitoring system used by the project appears robust and efficient. Various questions and challenges are put forward in this report regarding how the data can be further interrogated to help the project team learn how the project's impact is being felt by different groups. Not all the suggestions made here will be appropriate or feasible: it is for the project's senior managers to decide which will be most useful for their work.

Innovision Consulting Ltd have been contracted to do the analysis of the quantitative data collected through the project's monitoring system. Their report is included here as Annex 3. Their findings have been reported to the project key donor in the year 2 annual report. Some subsequent analysis of the data, disaggregating

by land-holding size is also included here as Annex 4. The additional benefit that such analysis brings is questionable.

Finally, I would like to thank the project team for their support, flexibility and patience through-out the whole mid-term review process. I am grateful to Feroz Ahmed and Shawkat Hasan particularly.

Recommendations

- 1) **Congratulate yourselves and particularly the field staff** for managing this large project so successfully, especially given the extreme political violence that was prevalent across Bangladesh last year.
- 2) **Monitor and support the farmers groups with their savings and loans schemes.** Ensure that all groups get sufficiently experienced at managing the scheme to ensure it can continue smoothly beyond the life of the project. This will require some targeting of focused support to those groups that to date have not reached the threshold to start dispersing loans.
 - a) As well as continuing to monitoring savings level, consider also monitoring variables such as repayment rates and ROI for different loan types in order to better understand the model and its effectiveness.

See section 3.5 and 3.11.3 above for further detail.

- 3) **Support the Associations – both district and regional.** Training and mentoring will be vital.
 - a) Ensure they have clarity on their purpose.
 - b) Ensure they have the skills to execute it – including balancing sustainability (particularly financial) with representation of farmers' interests.
 - c) Ensure that they reach-out to their farmer members to begin to build the relationship and understand their needs.
 - d) Become institutions not collections of individuals.

As described above, adapting then utilising the Traidcraft Business Sustainability Tool may be a useful for supporting this process.

See section 3.7 above for further detail.

- 4) **Support, integrate and build the capacity of the CSOs to enhance the sustainability of the groups and associations post project.** As the permanent presence of the ground, they have the potential to fulfil this role but need to be supported to take this up.
- 5) **Replace the farmers' project ID cards with Association ID cards.** Consider assessing in the project's final evaluation the extent of any negative impact from the project ID cards for non-project farmers. See section 3.6.2 above.
- 6) **Amend the presentation of the Negotiated Actions report to reveal** how many groups in each Upazila and which ones are achieving these Negotiated Actions. Support can then be focused accordingly. See section 3.11.2 above.
- 7) **Utilise the monitoring data collected by the project to help the team understand the impact of the project across different groups,** including:
 - a) Men and women.

- b) Mixed-groups, men's groups, women's groups.
- c) Ethnic (Garo) and Bengali.
- d) Farmers of different sizes.

See sections 3.11.4 and 3.4 above for further detail.

8) Consider the regular collection of data on the gender make-up of group committees and association committees. Consider ways to support women's empowerment through their take-up of such positions.

- a) Use the quantitative monitoring data to guide further monitoring of impact with qualitative case-studies that provide rich and nuanced information. Some potential areas of may include:
 - a.i) The extent to which women in these positions feel empowered and what wider impact that has on their lives.
 - a.ii) The extent to which these women provide a role-model to other women group members and what impact this has.

See section 3.8.2 above.

- b) It may also be feasible to monitor the extent to which small-farmers attain these positions and what effect this has on their empowerment. See section 3.4 above.
- c) Explore ways to further support women who are elected into leadership positions to ensure that: a) they really are empowered, b) they are really are representing the interests of women farmers, c) they may potentially fulfil a 'field mobiliser' role in future work (see section 3.8.4). This may involve for example commissioning 'training' by external gender experts and/or bringing the women together in a 'women's leaders forum' to discuss their work and to hear from external women in leadership positions.

9) Collect case-studies on the same participants several times during the life of the project in order to track changes occurring in their lives.

10) Engage with the potential tension between rising incomes and women's empowerment. See section 3.8.3 above. Find out what other organisations are doing about this. Consider ways to mitigate against this potential eventuality for this project and future ones.

11) Consider simple ways to quantify the leeching/spill-over/multiplier effect by tracking the presence of non-project farmers in key activities (e.g. Agro-Fairs, trainings, livestock vaccination programmes). See section 3.6.1 above.

1. Review Methodology

1.1. Purpose & Objectives

As specified in the Terms of Reference provided, the purpose of this mid-term review is to enable the project partners to assess the progress in delivery of the project in terms of its own stated objectives and expected results and, based on this assessment, to take decisions on any changes that need to be made to the project during its remaining time.

The following specific objectives were provided.

- To assess the rate of progress against the specific objective and expected results to be achieved under the project (as per the log-frame)
- To identify the factors (positive and negative) that are likely to impact the achievement of the objectives and expected results in the time frame available
- To assess the nature and scale of the impact the project is likely to achieve given the progress so far
- To assess the adequacy and quality of the project data collected in evaluating progress against expected results, recommending improvements that can be implemented for the duration of the project.
- To analyse what has worked well for the project, the main bottlenecks and what needs to be done to accelerate progress.
- The learning points, especially in order to re-examination of the relevance of the expected results and of project design.

1.2. Methodology Used

My approach to the assignment has been to facilitate a collaborative and consultative process with the project staff in order to generate ownership and learnings, and to identify ways to improve where possible. In the Starting Workshops (Dhaka and Mymensingh) I emphasized that my role was not that of an external evaluator or examiner. I encouraged the staff to share as openly with me as is possible.

Date	Location	Activity	Purpose
January	UK	Document Review – Desk Based.	Obtain general understanding of the project and its purpose. Key documents reviewed: <ul style="list-style-type: none"> • Grant application, • Baseline • Year 1 report • Case-studies • M&E Framework
13-Feb	Dhaka	Starting Workshop with senior project managers (Dhaka-based). Participants: <ul style="list-style-type: none"> • Nazrul Islam (DEW Prog. Officer) 	<ul style="list-style-type: none"> • Share expectations regarding the MTR. • Develop a Theory of Change for the project. • Map the key stakeholders involved and affected by the project. • Review the project activities conducted to date.

		<ul style="list-style-type: none"> • Shah Abdus Salam (DEW Exec Director) • Ashraf Uddin (ALO Proj Coord.) • Shawkat Hasan (APONE Proj Coord.) • Feroz Ahmed (TX Senior Prog. Manager) • Shahed Ferdous (TX-BD Director) 	<ul style="list-style-type: none"> • Review the project's log-frame and map anticipated progress against indicators. • Review learnings generated to date by the project.
15-Feb	Field - Mymensingh	<p>Starting Workshop with Field Staff (21 staff in total: Regional Coordinator, Field Coordinators, Field Facilitators)</p> <p>Key Informant Interview – Woman Field Facilitator (Moli Chiran)</p>	<ul style="list-style-type: none"> • Share expectations regarding the MTR. • Develop a Theory of Change for the project. • Review beneficiary case-studies and discuss most significant changes occurring for beneficiaries as a result of the project. • Review learnings generated to date from field work re working with 5 key project stakeholder groups: male farmers, female farmers, Garo people, public service providers, private service providers. • To understand the views of the project's only woman staff field member on the work and its impact.
16-Feb	Field	<p>2 Focus Group Discussions with project participants:</p>	<p>To understand their involvement in the project and its impact.</p> <ul style="list-style-type: none"> • Mixed farmers group (gender & ethnicity) – Halaughat. • Woman's farmers group – Phulpur
17-Feb	Field	<p>2 Focus Group Discussions with project participants:</p> <p>Key Informant Interview – Partner CSO (RDS) Exec Director (Nour Uddin).</p>	<p>To understand their involvement in the project and its impact.</p> <ul style="list-style-type: none"> • Public Service Providers – Sherpur (7 participants) • Woman's Garo farmers group – Jhenaigati. <p>To understand the CSO's involvement in the project and their perspective on its progress.</p>
18-Feb	Field	<p>Focus Group Discussions with project participants:</p>	<p>To understand their involvement in the project and its impact.</p> <ul style="list-style-type: none"> • Mixed farmers group (gender) – Sherpur Sadar. • Men's farmers group – Nokla.

19-Feb	Field	<p>Focus Group Discussions with project participants:</p> <p>Key Informant Interview – Partner CSO (Gramaus) Exec Director (Fazlur Rhaman).</p>	<p>To understand their involvement in the project and its impact.</p> <ul style="list-style-type: none"> • Private Service Providers – Phulpur (11 participants) • Men’s farmers group – Phulpur. <p>To understand the CSO’s involvement in the project and their perspective on its progress.</p>
20-Feb	Field	<p>Key Informant Interview – Regional Farmers Association President (Golam Hussein).</p> <p>Key Informant Interview – Interim Regional Field Coordinator (Uzzal Kumar)</p>	<p>To understand the role of the Regional Association, how it functions and its involvement in the project.</p> <p>To understand better how the project’s monitoring data is gathered and shared.</p>
23-Feb	Dhaka	<p>Key Informant Interviews – Senior Project Managers:</p> <p>Nazrul Islam (DEW Prog. Officer)</p> <p>Shah Abdus Salam (DEW Exec Director)</p> <p>Ashraf Uddin (ALO Proj Coord.)</p> <p>Shawkat Hasan (APONE Proj Coord.)</p> <p>Feroz Ahmed (TX Senior Prog Manager)</p> <p>Shahed Ferdous (TX-BD Director)</p>	<p>To understand their role within the project and their perspective on its progress to date.</p> <p>[All interviews conducted 1-to-1.]</p>
24-Feb	Dhaka	<p>Dissemination Workshop with 6 senior project managers (Dhaka-based) and recently recruited Regional Field Co-ordinator (Touhidur Sumon).</p>	<p>To review and refine findings from the Mid-Term Review.</p>
March	UK	<p>Consolidation, data review and report writing.</p>	

NB. Twenty farmers participated in each Farmers Group FGD. Six farmers groups were covered: 3 from Mymensingh district and 3 from Sherpur district.

Throughout the Field Work, Shawkat Hassan (Project Coordinator) translated for me. Whilst this would not be appropriate for an end of project evaluation, I feel very confident that it was effective for this mid-term review. Shawkat’s background in agriculture and his extensive experience in development added to the quality of our discussions. He embraced the time in the field as an opportunity to understand what is happening on the ground, and he clearly enjoys interacting and learning from farmers. The only instance where I feel his role as the Project Coordinator may have limited the quality of the information we gathered was when we interviewed a Field Facilitator (Moli Chiran). I suspect that it would be difficult for her to say anything too critical of the project work in the presence of her boss.

2. Introduction to the Project

2.1 Key Project Details

Duration	<ul style="list-style-type: none"> • 3 years (April 2012 – ‘15)
Budget	<ul style="list-style-type: none"> • £965,348
Partners	<ul style="list-style-type: none"> • Traidcraft Exchange • Development Wheel (DEW) • Grameen Manabic Unnayan Sangstha (GRAMUS) • Rural Development Sangstha (RDS)
Location	<ul style="list-style-type: none"> • Mymensingh and Sherpur districts, north-east Bangladesh
Target Beneficiaries	<ul style="list-style-type: none"> • Target: 6,000 Farmers (small & marginal) <ul style="list-style-type: none"> ○ By the end of Year 1 7,171 Farmers had been reached. ○ Inc. 3,810 women, 1,884 from Garo community • Farmers are organised into 240 groups (average size: 30 farmers) <ul style="list-style-type: none"> ○ Inc. 126 mixed groups (gender and/or ethnicity)
Field Staff	<ul style="list-style-type: none"> • 18 staff: 6 Field Co-ordinators each working with 2 Field Facilitators (1 DEW staff member, 1 CSO staff member). • Each team of 3 works with 40 farmers’ groups.
Management Support	<ul style="list-style-type: none"> • Field teams are overseen by Regional Field Coordinator (Touhidur Sumon) based in Mymensingh (recently re-recruited). • Overseen by Project Coordinator (Shawkat Hassan) based in Dhaka. • Support also provided by Dhaka-based management: <ul style="list-style-type: none"> ○ TX Project Coordinator (Ashraf Uddin). ○ TX Senior Programme Manager (Feroz Ahmed) & DEW Programme Officer (Nazrul Islam).
Project Outcome	Reduced poverty and more sustainable livelihoods for poor and marginal communities in Mymensingh and Sherpur through sustainable agricultural practices.
Project Outputs	<ol style="list-style-type: none"> 1. Target farmers are working collectively and collaboratively. 2. Government and private sector stakeholders recognise the needs of target farmers and reflect these in the implementation of policies and practices and the allocation of resources 3. Target farmers have improved their production practices (increased quality and yields, reduced costs etc.) and increased market access. 4. Target farmers are less vulnerable to shocks and stresses, especially natural disasters and climate fluctuations.

3. Findings

3.1. Success Factors

The following factors were identified as contributing significantly to the success the project has experienced to date.

1. Programmatic Approach – utilising learning gained from other projects

From discussions with the senior managers it is clear that the project forms part of a broader programme of work focusing on small and marginal farmers. Often projects appear to be one-off pieces of work that do not connect well with previous and future projects. This is not the case with APONE. APONE is complemented by ALO, and together they build-upon the foundation laid by the SLIPP and Golden Fibre. Future projects that will continue this stream of work are already being planned. The TX-BD programme team has significant experience and expertise of working with small farmers on sustainable agriculture practice, utilizing the group formation methodology and building linkages with service providers.

Specific learnings that have been utilized in APONE include:

- SLIPP's success was limited by its focus on just 3 sectors (duck, fish and vegetables). In APONE this has been broadened to cover the complete annual cropping cycle and encompass livestock and fisheries as well. In this way it is taking a more holistic approach with farmers.
- SLIPP demonstrated that whilst agriculture-based income generating activities do reduce poverty, they can only do so much when farmers are working such small plots of land. In APONE, non-agricultural income-generating activities are being encouraged in order to further diversify income-streams and mitigate against the limitations imposed by land-size. These include activities such as leasing "vans" (pedal drawn transportation for goods), rickshaws, village shops, rice stocking.
- SLIPP demonstrated the value of building relationships with business service providers (BSPs). APONE utilizes this approach but complements it by building relationships with government service providers (livestock, agriculture and fisheries extensions services for example – PSPs).
- Leaders from the farmers groups formed through SLIPP have been utilized to introduce the APONE farmers to the benefits of group formation.
- In Golden Fibre the savings and loans model has worked well, but some groups have suffered when funds have been misappropriated by the group-leaders. In APONE this risk has been reduced by adapting the model so that an individual's funds remain his/hers rather than becoming group funds.

2. Consistent Understanding

In the starting workshops participants undertook an activity which invited them to create a pictorial Theory of Change for the APONE project. In Dhaka all the senior managers worked together to do this. In Mymensingh the field team did this in four separate groups. The similarities between all these Theories of Change are striking. This suggests to me that the staff have a consistent understanding of *what* they are trying to achieve and *how* they are trying to achieve it. Subsequent discussions with field staff confirm this. This consistent understanding enables the team to all pull in

the same direction – so to speak. For such a large project spread across a large area, this is no small achievement.

3. Committed and Highly Skilled Team

The field staff are all agriculturalists as are the project coordinator and supporting managers in DEW and TX. Their specialist technical knowledge is no doubt an asset. In addition it enables them to speak the same language as the government extension officers and gain their trust in this way. This process is also facilitated by many of the staff being graduates from Mymensingh Agricultural University where many of the government extension staff also studied. The alumni of this institution are very close-knit and refer to one another as brother and sister.

4. Optimising Resources already in place

A common critique of development interventions is that they create new structures/organizations/resources without giving sufficient consideration to the ones that are already in place. APONE does the opposite. It works with established business service providers (input sellers, livestock medicine dealers, for example). It has provided them with training and linked them with the farmers groups (potential customers for them), resulting in increased business growth. In addition APONE facilitates a linkage between the farmers groups and the government's extension services. The government officers are experts in agriculture, fisheries and livestock, who have a mandate to serve the farmers, but normally struggle to reach scattered and unorganized farmers.

In addition and more specifically, the government's extension offices (as well as the youth and social welfare departments) have various schemes designed to benefit farmers but which generally don't reach the small and marginal farmers. These include the provision of agricultural equipment at highly subsidised rates (e.g. 'Urea Super Granules' making machines, power tillers), free leaf colour charts (for assessing the urea fertilizer status of crops by the colour of their leaves) and training on Integrated Pest Management. The farmers involved in APONE are now able to take advantage of these schemes.

5. Keeping the Primary Target in mind throughout

The senior managers emphasized how mobilizing farmers into groups and supporting these groups to function well is a time consuming task and the biggest challenge of this kind of work. They described how it cannot be treated as a technical process. A lot of time is spent with the farmers, listening to them, building trust with them and coaching them so that ultimately their motivation to undertake group mobilization comes from them. The project team has learnt that success requires keeping the farmers at the front of their minds as the primary target of their work.

3.2. Relationships

Whilst it is somewhat prosaic to state it, relationships are crucial to the success of the project. The diagram below represents my understanding of the key ones for APONE.

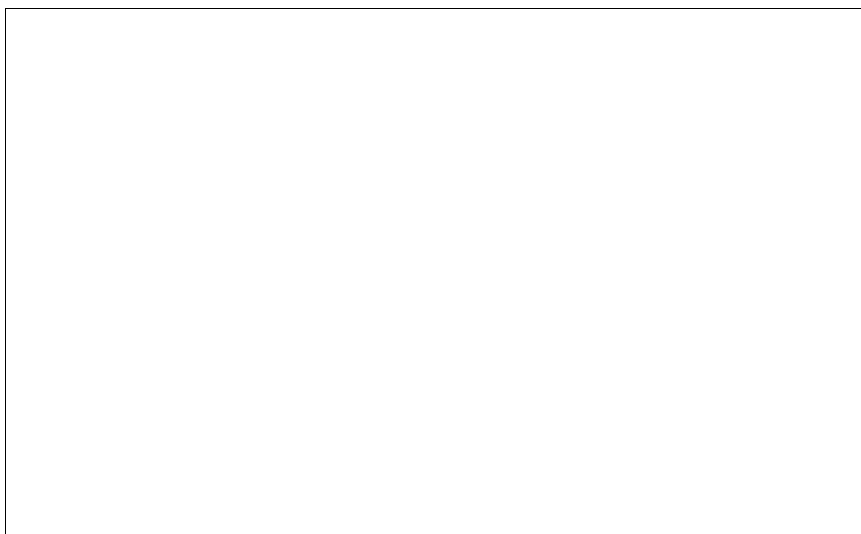
In addition to those represented in the above, other key stakeholders within the project work include supply chain players at the market end as well. These have not been included in the above, because whilst crucial, they were not engaged with for the purposes of this mid-term review.

Relationship between Government Service Providers and Farmers

This relationship is absolutely crucial to the project and particularly to the sustainability of the work post-project.

- The Government (Public) Service Providers (PSPs) are providing training and other extension services to the farmers on numerous technical topics that encompass agriculture, fisheries and livestock.
- The farmers report having very little or no contact with these PSPs prior to their involvement in the project. They describe how they are now treated cordially when they visit the government offices when they need advice. All groups have their local officers' telephone numbers – for some groups the

group president and secretary hold these, others all members them in their mobiles, and many used them and received advice over phone. Several farmers expressed incredulity at the officers actually calling them and following-up on situations they had advised them on previously.



group president and secretary hold these, others all members them in their mobiles, and many used them and received advice over phone. Several farmers expressed incredulity at the officers actually calling them and following-up on situations they had advised them on previously.

- The farmers are very very happy with this outcome and many described it as the most important outcome of their involvement in the project.
- My impression is that this relationship will continue beyond the life of the project. One farmers group even noted this themselves during our conversation, completely unprompted by me. In cases where the farmers groups disintegrate after the project (which is possible), there is scope for the individual farmer to continue accessing advice from the PSPs as required.
- As already mentioned, the government offices have various schemes that are designed to benefit farmers, e.g. the provision of agricultural machinery at a subsidized price. Many farmers groups are benefitting from these schemes and this in turn has strengthened their relationship with the PSPs.

3.2.1. Relationship between Business Service Providers and Farmers

- The farmers report receiving better service from the BSPs since joining the project. They receive better quality inputs, better advice and in many cases some reduction in price.
- The BSPs report that their sales are increasing since they have become involved the project. The increases reported vary: 5%, 20%, 50%, even 100%. However, these should not be taken as accurate, they were given off-the-top-of-the-head and often the BSP in question was thinking about daily sales during a specific time of year (e.g. cropping season) rather than total annual sales. Despite this, we can be confident that sales are increasing for them.
- When asked whether they are concerned that as the farmers learn about sustainable agriculture practice they will reduce the amount of fertilizer and pesticide they purchase from input sellers, the BSPs said they were not at all concerned about this. They have found that their involvement in the project has expanded their customer base – for some it has more than doubled. APONE farmers make up around one third of their customer base, but APONE farmers recommend them to their neighbours and friends who are not involved in the project. They also recognize that the farmers are now learning to make use of land that previously was left fallow, thereby increasing their need for inputs.
- The BSPs report providing training to the APONE farmer groups, in partnership with the PSPs. The number of groups trained per BSP vary from 6 to 56: the number of farmers reached per BSP therefore varies from 180 to 1,680. The BSPs interviewed recognise that these trainings are an effective way to enhance their relationships with their customers and build-up their customer-base.

3.2.2. Relationship between Business Service Providers and Government Service Providers

- This is something that the BSPs talked about but which was not mentioned by the government officers interviewed. This suggests it is more important to the BSPs than the PSPs.
- The BSPs described learning from the technical expertise of the PSPs by accompanying them on the trainings provided to farmers.
- The BSPs described how they are able to advise farmers with many of the challenges they face, but when the problem is beyond their knowledge they seek the advice of the government officers or encourage the farmers to do so. This suggests that the APONE project is facilitating a certain complementariness between the private sector and the public.

- Project staff explained that in addition the agriculture officers visit input suppliers to monitor their prices, the quality of their products, their stock and their distribution process. In this way the relationship is two way. However, this was not mentioned to me in the field by the PSPs or BSPs.

3.2.3. Relationship between the Project and the Service Providers (BSPs & PSPs)

- The BSPs interviewed are very positive to be involved in the APONE project. They report that their businesses are growing more than they were before the project. They appreciate the training that the project has provided them and they recognise the value of providing “embedded services” alongside their products in order to retain customers and improve their reputations. They have been convinced of the business case for this.
- The government officers are also very positive about their involvement with APONE. They are very vocal about how the project’s group mobilisation has enabled them to deliver their services more efficiently. In addition they are pleased to be involved in the field days organised by the project. They say that the Service Provision training provided by Traidcraft has been useful for them and that they are using some of the techniques and skills. This has been corroborated by the observations of the field staff and senior managers who report seeing the government officers take a less didactic approach to training and use real examples, case-studies and practical demonstrations.

3.3. Farmers & Farmers Groups

The six groups that I spoke to were all without exception very positive about their involvement in the APONE project. All groups talked about learning new agricultural techniques and improving their farming practice as a result. All groups described increases in productivity and decreases in costs (through more effective fertiliser and pesticide use in particular). These advances have not been achieved at a cost of increased workload for the farmers, in fact groups described how they are now able to work more efficiently as a result of techniques such as line sowing and integrated pest management.

As described above the groups have strong relationships with both PSPs and BSPs. They are getting advice and support from the government officers and better quality inputs from the businesses – for some this is accompanied by a discounted price. Some group members expressed incredulity at the positive interactions they now have with the government officers. The group savings schemes are progressing at varying speeds amongst the groups, see below for further detail on this.

Full details of the conversations with each of the groups can be found in Annex 1. What follows are some key extracts from the different groups to give a flavour of the kind of issues discussed. Also included are some short case-studies of individual farmers.

Anchengri Krishipanno Utpadok Samity is a mixed group both in terms of gender and ethnicity. It is located in Halaughat, Mymensingh district.

The group described how previously they were farming using “traditional” methods. Now they know new better ways of farming.

- For example, previously they scattered their seedlings, now they plant in lines when the seedlings are a specific number of days old as advised. They now know about the right application of fertiliser.
- 2 members have tried soil testing, the rest intend to do so soon.
- They have now vaccinated their cattle, previously they experienced high mortality rates.
- They are now cultivating short-duration rice and mustard between seasons when previously land was left fallow.
- Previously they used a lot of pesticide, now they use IPM which reduces their pesticide use, and their costs have reduced as a result. One member described how they now know which are the “friendly insects” and which are the “enemy insects” – previously even the friendly ones were killed.

Sahapur Krishipanno Utpadok Samity is a Bengali women’s group, located in Phulpur, Sherpur district.

The main benefits of being part of their group reported by members include:

- Receiving so many trainings from agriculture and livestock officers – they explained that if they were not in the group they wouldn’t get these. For some members it has been the single most important benefit of their involvement in the project.
 - They explained that others want to know the new things that they have learnt. Neighbouring farmers come to attend their training and also come to them to ask for advice – they always share the information with them.
- Previously their experienced high mortality amongst their poultry, now they have been trained by ULO on how to vaccinate, as a result they now have a zero mortality rate.
 - The group president (Makeke) sees this as giving them an extra 200 BDT per hen that now doesn’t die and an extra 15,000 BDT per cattle that now doesn’t die.
- They have purchased a power-tiller from the agriculture office at a discount of 30%. Previously they had to hire this machinery. Now they just have to pay for fuel and a man to operate it – saving them 25% of their tilling costs. They also lease it to other farmers – charging them 2,000 BDT for 100 decimals of land.

Gozni Kuchpara Krishipanno Utpadok Samity is a Garo women’s group based in the village of Gozni in the Upazilla of Jhenaigeti, in Sherpur district.

- Previously the group members didn’t know the government officers at all, but now they know them well. The group president has all the mobile numbers and goes to the office: she finds she is welcomed at the office. Their project ID cards have helped them cooperate with the government officers.
- Nowadays the BSPs always give them good quality inputs when they see their project ID cards, previously they sometimes gave them different types of seed to what they asked for and sometimes they gave them bad quality pesticides. Now they even give them advice re pesticides and fertilisers.
- One member described how after following the advice given during training her potato cultivation has improved. She now knows how much fertiliser to use and how to look after the crop. As a result her productivity has increased. This year she has earned 5,600 BDT from her potatoes, last year she earned 4,000 – last year the price was actually higher per kg. The quality of her potatoes is now much better – this year none were eaten by worms and there were no rotten ones, hence her better earnings.

Uttar Losmonpur Krishipanno Utpadok Samity is a mixed-gender group (Bengali ethnicity) located in the village of Sherpur Sadar, Sherpur district.

- The group reported receiving agriculture training which included training on short duration crops (rice varieties, mustard, potato) which enable them to grow a fourth harvest. All farmers now grow 4 a year: roughly 8 members grow mustard and roughly 7 do potatoes.
- When asked about the main benefits of group membership, some answers included:

- Reducing their costs. They are now able to buy at wholesale prices rather than retail. In addition they now send one person to buy inputs for whole group, rather than going one by one. In addition, soil testing has enabled them to reduce their fertiliser use. Production has increased and costs have reduced.
- Group members described how previously they didn't know the agriculture officer at all. Now they know all the officers for their area, and they have good communication with them. They are receiving lots of advice from them. One member exclaimed: "we are astonished that we are talking with the agriculture officer".
- Previously their poultry was very susceptible to disease, infections spread very quickly and often whole flocks would die. Now they are vaccinated their mortality rates are very low.
- When discussing their savings and loans schemes, members explained that now they have their own loan facility, they don't take loans from outside. They explained that in this way the interest charged is lower and it is kept within the group – so it has a double benefit.

Moddho Ariakanda Krishipanno Utpadok Samity is a men's group (Bengali ethnicity) located in Nokla, Sherpur district.

Some members described the following main benefits of their group membership:

- Now they are "united". When asked what this means they explained that for example they now plant their seeds together. This reduces their labour costs and saves them each around 1,500 BDT per season. Also, they have started a separate social fund for covering the cost of sickness and unforeseen circumstances – recently they contributed towards a villager's funeral. Each member contributes 10 BDT/month.
- They have received different trainings – they feel they have "developed themselves". They have learnt about fish culture. Previously they had over-crowded ponds. This led to unhealthy and small fish. Now they have reduced the density and are growing bigger fish.
- Previously they had no communication with the government officers. Now they communicate a lot. They phone the officers and sometimes the officers phone them. The majority of group members have sought advice from the officers.
- They have increased their productivity: all farmers report experiencing this.
 - One farmer described how last year he produced 400 kg of rice from his 25 decimal plot. This year he produced 600 kg from the same plot. He explained that the increase is due to the following factors: line sowing, soil testing and optimum fertiliser use, using trichoderma compost use (he buys it from Mymensingh), using a stick in his field for pest control (part of IPM).

Bogir Para 2 Krishipanno Utpadok Samity is a men's group (Bengali ethnicity) located in Phulpur, Mymensingh District.

When asked about the main benefits of group membership, some members described:

- Improved agricultural productivity.
 - E.g. one farmer described how last year for one of his rice harvests his yield was 120 kg, this year it was 200 kg on the same land. This year he is also farming mustard as an intermediate crop on 20 decimals, and has harvested 100 kg. Last year nothing was harvested on this plot of land that this time – it was left fallow.
 - They now feel they know a lot about agriculture: e.g. they are using IPM – this has reduced pesticide costs: one farmer reported spending 300 BDT on pesticides last year, now it is 200 BDT.
- Earlier they simply didn't know the government officers. Now they know them. Now they have good practice for solving problems. They have good communication. The group president explained that this will continue for them beyond the life of the project.
- They have received free worms for vermi-compost from UAO – previously they had to buy the compost. Recently the ULO vaccinated all their cattle (around 100). In addition their neighbours came too and had their 400 cattle vaccinated as well.
- Through an agriculture office scheme they have purchased a 'urea super granules' making-machine for about 25% of the market price (not 25% less, but 25%!). It saves them money on their own fertilizer and generates income when they sell the fertilizer granules to other farmers.

<p>Uttar Losmonpur KUP Group Member – Rasheda Begum</p> <p>Rasheda Begum is around 40 years of age. She is married to Mohammed Channia who is also a farmer. They have two daughters: one is 22 years old and married, the other is 11 years old and currently in class 5. They also have one son who is 20 years old and studying electrical engineering at Sherpur polytechnic.</p> <p>6 months ago Rasheda used the extra earnings she has gained from her involvement in the project to purchase an extra 3 decimals of land. She now has 70 decimals. Her extra earnings came about through increased productivity of her farming and reduced input costs.</p> <p>She told us about her cucumber cultivation in particular.</p> <ul style="list-style-type: none"> ● She earned 50,000 BDT from cucumber cultivated on 10 decimals of land. She harvested 1430 kg of cucumber and sold it for 1,400 BDT per 40 kg. The cost of the crop was 2,000 BDT (mainly seeds, 200-300 on fertiliser), so her profit was around 48,000 BDT. She put this extra earnings towards the cost of the new land (it cost 100,000 BDT in total). The land is in the market area of the village so she plans to start a small shop there. ● Last year her whole cucumber crop was damaged so didn't earn any money from it. Her land became water logged because it is low-lying and the plants became infected with an unknown disease. She lost the 20,000 BDT that she had spent on hybrid seeds for the plant (these have a low resistance to disease). ● So this year, following the advice of the UAO, she heaped up her land so the plot is slightly elevated. She used compost. Supported by the group president she discussed seed varieties with the UAO and was recommended to return to indigenous seed varieties, which she did – thereby reducing costs. ○ This year the crop's productivity was much increased and also its longevity was increased – previously the plants had lasted for 1 month, this season they lasted for 2 months. 	<p>ndra Kuch who is 11. They farm 5 ginger. However, since then she l quality seed, utilising the soil lanced fertiliser use. So far this crop left in the ground which BDT per kg. Yet despite this, her n her ginger, and still she has</p>
---	---

Uttar Losmonpur KUP Group Member – Mohammed Mister Ali

Mohammed is 27 years old. He is educated to class 3. He is married to Mosammat Farin Begum. They have one son, Mohammed Siam who is 4 ½ years old. Mohammed just started at nursery school. They also have a daughter, Mosumed Mitalli, who is 2 ½ years old. Mohammed brought his tomatoes to the group meeting and shared them with his group-mates. He grows his tomatoes on 10 decimals of land.

He provided some details about how his tomato farming has improved since his involvement in the project has enabled him to access advice from the PSPs. He has had his soil tested and now uses balanced fertilizer. He also applies compost.

- He sold this year's harvest for 9,600 BDT, the cost of the crop was 4,000 BDT, producing a profit of 5,600 BDT for him and his family.
- His previous harvest sold for 4,000 but the cost was 7,000, resulting in a loss of 3,000 BDT for him. During this season he didn't get any advice on how best to cultivate the crop.

He also grows rice. Following training and advice his harvest has increased by 25%, from 80kg of paddy to 100kg.

He explained that he has used his extra income to pay for his rice cultivation, to plant more tomatoes, and his family is now solvent and eating good food. He plans to buy a cow in the future. His ambition is for his son and daughter to study up to Masters level.

3.4. APONE's Farmers – How much do we know?

Mohammed Abdar Razak – Moddho Ariakanda KUP Group President

Mohammed has been the group president since the beginning. He has 4 sons. (24, 22, 13, 11 – the eldest two sons are married). Of his younger sons, 1 is studying in Dhaka, one is here in the village. He has ambitions for them to study to Masters level. His elder sons haven't studied much: when they were younger he was "physically and ecumenically weak", but since having the nursery and being involved in the project he is feeling much stronger. Has farms 60 decimals of land and he also has a seedling nursery. He is also a member of a seedling nursery association.

- When asked 'what are you most proud of?' he explains that "All the group members have faith in me." He feels he can do anything now.
- Nowadays he prefers to work for the group than do his own work, so he doesn't feel burdened by the extra responsibilities he has.
- When asked 'what are your ambitions for 5 years time?' He replies "For every farmer in the group to have 1 lak BDT savings". (1 lak = 100,000)

The project is disaggregating monitoring data on its 7,171 participant farmers by gender and by ethnicity (Garo or Bengali). However, in order to know how successful we are at supporting the poorest farmers, it may be useful to consider

additional disaggregation, for example by land-size ownership. Whilst I was in the field the following questions sprang to mind:

1. Should there be some tailoring of project support to farmers of different sizes?
 - a. Are there some agricultural activities that work better for smaller (or larger) farmers?
 - b. Are there some non-agri IGAs that work better for smaller (or larger) farmers?
2. What proportion of our group leaders (presidents & secretaries for example) are from each bracket?
 - a. What about Association committee members?
3. Will impact be more sustained for some than for others (based on land ownership size)?

The senior managers in Dhaka agreed that it would be useful to engage with these questions to understand how impact is experienced by different sized farmers. From their beneficiary database they know that the proportion of farmers falling into the following land-ownership brackets:

Decimals of land owned	% of Beneficiaries
5 – 15	10
16 – 50	60
51 - 76	19
Above 76	11

1 decimal = 1/100 acre, approx 40.46m²

900 farmers have been selected for monitoring. The size of their land ownership was not taken into consideration when they were selected. So the land-ownership information for the 900 monitored farmers needs to be gathered from the larger database and then the monitoring data disaggregated by this variable – assuming that we have sufficient representation in each of the different land ownership brackets.

Regarding question 2 and 2a above, the senior project managers have found that in other projects the larger farmers tend to be elected as President and Sectaries for their groups' first term (most groups have 1 or 2 larger farmers in their membership who are able to take risks and act as lead farmers). However, once the smaller farmers start to feel more comfortable about their group, they then gain in confidence and put themselves forward for subsequent elections. They have seen this process repeated at the District Association level as well.

It would be interesting to see whether this process can be tracked with the project's monitoring data. It could be considered as a proxy indicator of empowerment for the smallest farmers.

3.5. Saving and Investment Loan Schemes

3.5.1. Introduction

A Savings and Loan Scheme is undertaken by each farmers group in the project. The scheme contributes towards Output 4 – reducing vulnerability to shocks and stresses. My understanding is that it works in the following way.

- The group decides how much its members should save each month; this amount is standard across all the members. (For example, it may be 25 or 50 BDT per month).
- Each group has a group bank account.
- Once a group has reached a total group savings of 50,000 BDT, the project provides them with a matching grant of 50,000 BDT. It is at this point that they can start disbursing investment loans to members.
 - For groups that have not yet saved 50,000, the matching grant has been deposited in the group's fixed deposit account which can only be accessed with the Project Coordinator's signature. The project team feel this encourages the group to increase their savings rate.
- Investment loans are available to all group members on a lottery basis. Loans have to be repaid within 4 months: this duration was chosen to fit with farmers' cropping cycles. At each monthly meeting group members enter into a lottery to determine who will receive a loan. The purpose for which they want the loan has to be presented to the rest of the group members. Once a member has received a loan s/he cannot access another one until all other group members have received one.
- 25% of the total savings has to be kept in the bank account at all times as an emergency fund which the group members can access at times of personal crisis.
- Whilst it is a group fund, each member holds his/her own stake within it. Groups can choose to make group investments if they wish, but generally the investment loans are issued to individuals and they decide how they wish to invest the money.
- The interest rate charged on the loan works out to be 15% per annum – although loans are only issued for a four month duration.

Levels of Savings for each of the Groups Interviewed			
Group (location)	Current level of Group Savings (BDT)	Monthly Savings (BDT per member)	Received Matching Grant
Anchengri KUS (Halughat)	30,500	100	Yes (but waiting to reach 50,000 before accessing)
Charsahapur KUS (Sherpur)	52,500	*	Yes
Gozni Kuchpara KUS (Jhenaigati)	14,100	30	No
Uttar Losmonpur KUS (Sherpur Sadar)	66,000	100	Yes
Moddho Ariakanda KUS (Nokla)	70,260	100	Yes
Bogir Para 2 KUS (Phulpur)	**	100	Yes (3 months ago)

* I neglected to ask Charsahapur group precisely what their monthly savings amount is.

** Bogir Para 2 were not able to say exactly what their current level of savings is, however, discussions with the group members (and with the field team working in the area) suggest that it is high – probably as high as that of Moddho Ariakanda.

3.5.2. Some Concerns

If we look at Gozni Kuchpara's savings, we can see that by the time the project ends they will not have acquired sufficient savings to access the matching grant and start disbursing investment loans to members.

- Current savings = 14,100 BDT.
- Saving 30 BDT/month per member.
- They have 30 members and 13 months remaining in the project, so by the project end they may have saved: $14,100 + (30 \text{ BDT} \times 30 \text{ members} \times 13 \text{ months}) = 25,800 \text{ BDT}$.

My understanding is that there is some flexibility with the point at which the matching-grant is disbursed, but 2 concerns remain regarding the investment loans:

- The later they leave it, the less support the group will receive from project staff.
- The earlier they do it, the smaller the loans and/or the greater risk they leave themselves open to (undercapitalisation).

Gozni Kuchpara is the most extreme case presented in the table above, and as the field staff explained to me, this is a very marginalised Garo community and the women members are simply very poor.

The project is collecting data on the groups' savings schemes on a monthly data so an analysis of this data will enable the project team to identify which groups need the most support in the final year of the project.

More generally however, I feel that it should be highlighted that the transactions involved in the scheme can potentially be quite complex, and the volumes of money being handled in some cases are quite large. So generally, for groups who are disbursing the investment loans the following transactions will be occurring.

- Money coming-in:
 - Monthly savings contributions from 30 members.
 - Loans getting repaid (every 4 months, and/or in instalments – around 4 or 5 loans are issued at a time).
- Money going-out:
 - New investment loans being issued (4 or 5 at a time).
 - Emergency funds issued – as required.

In addition, if we take the example of Moddho Ariakanda from the table above, at the moment they have 70,260 BDT that their members have saved, and they have received the matching grant of 50,000 BDT. At current exchange rates this is around £940 (£550 + £390) that the group is handling. This is not an insignificant amount of money.

My concern is that given that the project only has one year left to run, it is imperative that the field teams closely monitor and support the groups as they manage their transactions. For the schemes to continue successfully after the life of the project, the groups need to feel comfortable and confident with financial

management required, especially when it comes to managing mistakes and defaults which may occur. See section 3.9.1 below for the CSOs' perspectives on this.

Finally on the subject of savings and loans, it would be interesting to explore what additional information would be useful to monitor for the purposes of project learning. Repayment rates and which investments generate the most return could be two options. The project managers are keen to engage with these issues.

3.6. Impact On Other Farmers

3.6.1. Leeching! How other farmers benefit

Whilst in the field Shawkat Hasan explained to me that the "leeching effect" is observed when land on either side of an irrigation channel benefits from water leeching out of the channel, despite the primary purpose of the channel being to deliver the water elsewhere. The term is used in the context of development to describe how people benefit from an intervention even if they are not the intended beneficiaries. Sometimes this is referred to as the "multiplier effect", the "demonstration effect" or as "spill-over".

It is clear that there is a lot of leeching/spill-over/multiplication going on in the APONE project and I feel this is to be welcomed. Can we measure it with any accuracy?

Some examples of APONE leeching that were mentioned to me, mainly by farmers, but also by field staff include:

- Neighbouring farmers attending training provided to groups.
- Neighbouring farmers coming to the groups for advice. Many of the groups mentioned this.

In Addition – A Challenge to Microcredit?

Prior to starting the field-work, one of the senior managers mentioned to me that they were hearing of group members using the APONE project's group savings and loan schemes to pay-off their debts to microcredit organisations. This presented two main benefits: the indebted group member reduces the interest they pay on their debt (microcredit rates are much higher than those of the group scheme) and the interest that is paid on the debt remains within their own organisation (their farmers group), rather than going to an external business/organisation. Given the prevalence of microcredit in Bangladesh and the extensive criticism that has been levelled at microcredit in recent years, this was an angle I was keen to explore whilst in the field. In the six farmers groups I met with, in fact no-one mentioned this. Of course that is not to say it is not happening, and I would encourage the project team to look-out for any such case-studies that illustrate this process.

- Other farmers attending at Agro-fairs and demonstrations – hearing the talks, getting to know the BSPs present and seeing the demonstration plots.
- Neighbouring farmers bringing their livestock to vaccination programmes organised for the groups.
 - For example, one group described to me how at a vaccination programme, the ULO vaccinated 100 of their members' cattle. But in addition he vaccinated 400 cattle brought by neighbouring farmers – assuming an average of 3.33 cattle per farmer (100 cattle / 30 group members), then an additional 120 farmers benefitted from this service.

In the dissemination workshop we discussed with the senior managers how easy it would be to track and quantify these kinds of additional benefit that the project is bringing to these extra farmers who could be termed “indirect beneficiaries”. They explained that the government ministries use a multiplier of x5 to report on their own activities (e.g. every farmer that they provide advice to, passes this advice on to 4 others). However, the team feel that the government ministries have a vested interest in reporting a high number. TX's experience from SLIPP is that is around x3 is more accurate: for example, the project formed 7 groups, but an additional 14 were formed by other farmers themselves. On this basis, our 7,171 beneficiaries may be accompanied by an additional 14,342 farmers benefiting from the leeching effect. This is much lower than in the cattle vaccination example above (x5 – as in the government's estimations), but it seems likely that the multiplier will vary depending on the service under consideration.

The project does have some quantitative data on this from some activities, for example attendance lists at vaccination programmes, field days and agro-fairs. This data can be used to more realistically track this effect. Bearing in mind that different activities may attract different numbers of additional farmers, average multipliers could be deduced for each set of activities, e.g. for Agro-Fairs/Field Days, for technical trainings, for livestock vaccination programmes, etc.

3.6.2. Are there any negative Impacts for other farmers?

The farmers groups that I met with all described how their APONE project ID cards help them receive better treatment from the PSPs and the BSPs. They describe being treated cordially by the PSPs when they go to their offices for example. They also describe how they used to receive poor quality inputs from the BSPs, but that now they always receive good quality inputs (like seeds, fertilisers and pesticides) as well as discounted prices in some cases. The PSPs that I met with described “giving priority” to our farmers and how the ID cards enable them to identify them easily. Several of the BSPs I met corroborated that they give discounts to APONE farmers: these discounts range from 5% to 25%.

However, for me this raises a question:

- Does prioritisation for some, necessitate de-prioritisation for others? I.e. are other farmers receiving worse treatment as a result of APONE farmers getting better treatment.

When I put this to the seven PSPs that I met with they were adamant that this was not the case. They said that they treat all farmers equally, but that it is simply easier to work with the APONE farmers because they know them and have an established relationship with them. Whilst I do not doubt that having an established relationship does make supporting the APONE farmers easier, I was not completely convinced by their rebuttal of the risk of de-prioritising other farmers.

The issue was not addressed so directly with the eleven BSPs I met with. During our conversation they explained that they provide inputs and advice to all farmers (but only give discounts to the APONE farmers) and as business people they seek the custom of all farmers who require their service.

The issue was also discussed in the final workshop in Dhaka with the senior managers. After much discussion it was agreed that there is likely to have been some negative impact on other farmers as described above, but that this was in effect necessary to initiate the better provision of services. It was suggested that six months prior to APONE finishing, the project ID cards are replaced with ID cards that indicate membership of the regional association. Membership of the association will of course be open to all farmers and part of the role of the association is to form and support new farmers groups. In this way, the benefits that having ID cards facilitate will be available to all farmers.

It may be worthwhile exploring this issue in more depth at the project end. Potentially an evaluator could discuss the impact of the APONE project on other farmers in these districts who have not been directly involved in the project. These discussions could explore both the positive and negative impact of the project for them.

The Associations

In the project's first year the activities were very much focused on mobilising farmers into groups and supporting them with the process of group formation. The second year has been more focused on service delivery and building the relationships with the BSPs and PSPs. In the final year the emphasis shifts to supporting the Associations. As such, it is unsurprising that from my meetings with project stakeholders, I found that at the current time, ensuring that the Associations are strong and representative organisations is one of the largest areas of need.

The farmers are generally aware of the district associations; but this awareness doesn't extend much beyond knowing that these bodies exist. The presidents and secretaries of the groups I met with all participated in the district association elections, but beyond that and some visits from district association committee members, there appears to be little understanding of what the associations should do and how they will represent the interests of the farmers. In the immediate future there is a need for the committee members of the associations to start reaching-out to the farmers groups and building their relationship with them.

It is a weakness of my approach that I only engaged with the regional association president who is also the president of the Mymensingh district association. In retrospect it would have been good to meet with other committee members at both the regional and district

levels. It should be emphasised that the following questions and comments stem only from my conversations with the regional association president.

3.6.3. Representativeness?

The project works on the basis of a three tier model. Farmers are formed into groups which elect committee members on an annual basis. The presidents and secretaries of all groups within a district then elect (from amongst themselves) the committee members of a district association. Three district associations (Mymensingh, Sherpur and Netrokona) then elect a committee for a regional association – these committee members serve for a two year term.

The Mymensingh and Netrokona district associations were formed through the previous SLIPP project. None of the APONE groups fall under the jurisdiction of the Netrokona Association: farmers working with APONE's sister project 'ALO' do.

The Sherpur district has an additional 4th tier of sub-district (Upazila) associations between the farmers groups and its district association.

Questions for consideration

- As we move up through the tiers there is a risk that committees become increasingly disconnected from their farmer-members at the grass-roots. How do we ensure they remain responsive and accountable to them and their needs?
- How many of the district and regional committee members are women farmers?
 - How important is it to have women on these committees?
 - How many of the district and regional committee members are medium farmers (>250 decimals), how many are small (>76, <250 dec.), and how many are marginal (>5, <76 dec.)?
 - How much is this balance changing over time?
 - The president of the regional association is a medium sized farmer, he owns 420 decimals of land. One would imagine that his needs and priorities may be quite different that a farmer who owns 10 decimals of land. What processes are in place to ensure that his influence is used to represent the interest interests other than his own and especially those of the poorest?

3.6.4. Institutions not Individuals

Related to the question of representativeness is the issue of how best to support the associations to be institutions in their own right rather than synonymous with particular individuals.

The president of the regional association, Golam Hussain, who is also the president of the Mymensingh association, described to me how he had been president of the Mymensingh district association for seven years. This took me by surprise and raised some alarm bells about whether term limits are being observed. Discussions with some senior managers in Dhaka clarified that he had initially been elected as a president of the Mymensingh association during the SLIPP project, then after one term the committee had been disbanded and an interim committee set up to ratify the new constitution and oversee the new elections. This process took longer than expected. Then he had been elected again. So, whilst this whole process may have taken seven years, technically he was not president for all of it.

Whilst this may well be the case, I feel the important thing to note is that he *perceives himself* to have been president for seven years. My impression, and I hasten to add that it is only an impression, is that the longer a person feels s/he has held a position, the more difficult it becomes for him/her to give it up and pass it to another.

In addition, when asked what he has been doing in his role as the president of the regional association, Mr Hussain described being called upon to mediate in village disputes – including in two murder cases. Again, alarm bells began ringing in my head, this time re mission-creep, related reputational risks and appropriate skills and whether he (and/or the association) has the right to do this. Discussions with the senior team in Dhaka again clarified that there is a formal legal process whereby disputes can be resolved locally without recourse to the (expensive and protracted) courts system, and in addition that Mr Hussain had probably been requested to mediate as a respected and influential member of the community, rather than in his role as president of the district and regional associations. Again, whilst this may well be the case, I feel the key issue is that *he perceives* this to be part of his role as an association president – there is therefore a risk that he has a different perspective on what the associations should do compared to that of the project team.

3.6.5. The Purpose of the Regional Association

I discussed this topic with Mr Hussain and I fear that his ideas may not be completely aligned with that of the APONE project. Whilst Mr Hussain did discuss representing farmers' interests to the relevant authorities (district commissioners for example), he mainly talked at length about investment opportunities and income generating activities. I have two main concerns regarding this: firstly, that the committees could become 'investment clubs' for the committee members. Secondly, that they become overly focused on making money which diverts attention from advocacy work.

Mr Hussain described how the committee members of the regional association would each save 500 BDT per month and use this to invest in income-generating activities for the association. 500 BDT is a not an insignificant amount of money and may not be at the monthly disposal of all committee members (presumably especially not those that are small or marginal farmers). In addition, when I asked him what would happen to these investments if after serving their two year terms standing committee members are not re-elected, he replied that they would be able to withdraw their investment, plus any profit accrued. This indicates to me that these investments are individual (committee member) investments, rather than belonging to the association as an organisation.

More generally, when discussing the regional association with Mr Hussain he was not able to explain what the organisation's mission is. He explained that it has a written constitution. Presumably this includes a mission statement (even if it is not referred to in these terms), but his inability to explain it is somewhat concerning.

When discussing my concerns regarding the above with the senior managers in Dhaka, they explained that these investment ideas are Mr Hussain's ideas and may not be shared by other committee members, but more importantly that they are not what the project itself proposes or endorses.

Here I think it is important to recognise how the three areas of concern described above overlap: representativeness, institutions not individuals, and purpose. If the project's intention is to support the formation of strong, sustainable and democratic associations that will continue to represent the interests of small and marginal farmers long after the project has ended, these issues need to be ironed-out with the final year of the project. It is worth recognising that the associations' independence as organisations should not be compromised, so the mismatch between the project's priorities and those of the current committees will need to be negotiated.

3.6.6. Suggestions Regarding the Associations

The project team need to be completely clear on their vision for the district and regional associations. Dialogue with the current committees needs to be started to assess where the similarities and differences are between the project's perspective and that of the committees.

- Key issues may include:
 - Requirements re when and how leadership should change.
 - What processes are required (if any) to ensure the active involvement of women?
 - What processes are required (if any) to ensure the active involvement of small and marginal farmers?
 - How to ensure the organisations become institutions in their own right and not synonymous with individuals.
 - How the associations reach-out and engage with their membership?

Project support to the associations should include some training and mentoring. The content of this will have to be determined based on needs assessment, but likely candidates include: influencing/advocacy skills, service provision (including how best to understand farmers' needs), democratic governance, business skills (including financial management). Mentoring should support a process of organisational development and to give the process some clout it should be provided by senior project staff.

Monitoring the impact of these processes on the associations will be important – both for the project and for the association committee members themselves. Traidcraft's business partners who supply the organisation's trading company have found our 'Business Sustainability Tool' to be useful. The tool has been designed with product suppliers in mind, but potentially could be adapted for use with membership organisations. It may provide a useful standardised tool with which to monitor impact – and which associations can continue using post-project.

3.6.7. Afterword and Clarification!

Some of the above may appear critical of the current Mymensingh and regional association president. I feel it worth noting that none of the above is intended as personal criticism of him. From my short conversation with him I have the impression that he is a very committed and competent individual. Project staff confirmed his commitment to his fellow farmers from their own experience of working with him. The main point of the above sections is to help the process of strengthening of the association and I feel confident that Mr Hussain will play a central role in this process.

3.7. Gender and Women's Empowerment

3.7.1. Learnings

Some useful key learnings have been generated through the project regarding gender and women's empowerment.

- Women's Empowerment involves men! Senior project managers report that cultural changes within Bangladesh are reversing some of the progressive changes that have occurred in recent years regarding the status of women. As part of the process of group-formation for the mixed groups,

senior project managers have had to work very closely and sensitively with male members of these groups to challenge their perception that women should not be involved, or if they are involved that they should not play an active role. This process has involved convincing male group members of the project staff's own sincere Islamic faith and then challenging these members to see beyond the particular interpretations of the Koran that their religious leaders have been propagating. This is a time-consuming process, but one that they report has paid dividends.

- Project activities have been organised in a way that facilitates better active involvement of women. For instance, in the previous SLIPP project, Agro-Fairs were held in the towns where key stakeholders are based, for example, PSPs and BSPs. In APONE these Agro-Fairs have been organised around clusters of 10 villages at a time and take place at this village level. The project staff have observed much more active involvement of women farmers in their fairs as a result. The staff feel that in the less-familiar surroundings of town, those women that do attend feel less comfortable and therefore are more reticent. In addition, social constraints regarding women's travel prevent some women from participating in these events when held in town. The staff do not feel that holding them in the villages has had a correspondingly negative effect on the participation of the BSPs and PSPs.
- Project staff feel that mixed groups are better in terms of women's empowerment than women's only groups. They feel that direct engagement is needed with men in order to challenge their gender perceptions which often entail restricting what women can do. Whilst women's only groups are performing well, it is the mixed groups that perform best.
 - It would be worth analysing the monitoring data to see whether it corroborates this opinion. Perhaps in terms of savings, negotiated actions, etc.

3.7.2. Women Farmers in Positions of Influence

This issue was discussed with the project team. One of the potential avenues of exploration is the prevalence of women farmers in mixed-gender groups being elected to key positions in the group committees, e.g. presidents and secretaries. During my field-work the teams did not have this information to hand, but it has since been provided and the following encouraging summary can be provided.

Ethnicity of Groups	Total # Groups	# Groups with Woman President	# Groups with Woman Secretary	# Groups with Women President & Secretary	# Groups with Women President &/or Secretary
Bengali Groups	67	9	14	3	20
"Ethnic" (Garo) Groups	19	13	17	13	17
Mixed ethnicity Groups	40	18	29	15	32
Total Groups	126	40	60	31	69

The information is encouraging from the perspective of women's empowerment because:

- Of the 126 mixed-gender groups:
 - Almost a third have a woman president.
 - Almost half have a woman secretary.
 - Almost a quarter have both a woman president and a woman secretary.

- Over half have either a woman president or secretary, or both.

The picture is more mixed when the data is disaggregated by ethnicity.

- Garo-only groups appear to do best. Mixed-ethnicity groups do less well. Bengali-only groups do least well of all. Although they make up over half of all the mixed-gender groups, they make up less than a third of those that with either a woman president or secretary, or both; in addition they constitute just 10% of the mixed-gender groups with both a woman president and a woman secretary.

This data disaggregation by ethnicity chimes with what the project team describe in terms of Garo women being much more empowered than women in mainstream Bengali culture.

Of course, we should be careful not to confuse having a woman elected as a group president or secretary with having an *empowered* woman elected into these positions. There have been many accounts of women being elected to committee level, but power remaining in the hands of men. However, this data-set provides an encouraging platform from which further analysis can be conducted.

Some possible avenues of further analysis:

- Changes in these statistics can be tracked over time. For example,
 - As mixed-gender groups progress and mature, do more or less of these positions get filled by women?
 - Do the same women continue to hold these positions or do they rotate?
- Is there any connection between groups being led by women and other metrics of success? E.g. savings rates, numbers of negotiated actions, etc.
- Nuanced qualitative information could be gathered through case-studies to illuminate the extent to which these statistics correlate with other indicators of empowerment. Some questions to consider:
 - What impact does being a president or secretary have on a woman’s self-confidence?
 - What impact does having a woman in these positions have on the self-confidence of other women in the group?
 - How men feel about having women in these positions? – Is there a risk it may provoke a backlash in other areas of life?
- Building on some of the issues addressed in the questions above, can this data be cross-tabulated with data from the project’s Wellbeing assessments?

These same questions can be asked of women’s representation at the association levels. The following statistics show the level of women’s representation on these committees.

		# Committee Members	# Women Committee Members	Positions Held by Women
District Associa	Regional Assoc.	15	2	Vice President Joint Secretary
	Mymensingh Assoc.	18	3	Vice President Joint Secretary Member

tions	Sherpur Assoc.	14	3	Vice President Joint Secretary Member
	Netrokona Assoc.	15	1	Vice President
Sherpur - Upazila Associa tions	Jhinaigati, Sherpur Assoc.	11	3	Joint Secretary Member x2
	Sribordj, Sherpur Assoc.	11	1	Member
	Sadar, Sherpur Assoc.	11	3	Member x3
	Nokla, Sherpur Assoc.	11	4	Member x4
TOTAL		106	20	

What appears striking is both the small number of women on these committees and that none of them are in the most influential positions (Presidents and Secretaries) – 12 of the 20 positions held by women on these committees are “member” positions, which I think are the least influential positions. It may be that social norms that restrict women’s ability to travel as discussed on page 31, are part of the reason for the limited involvement of women in key positions on the Associations.

3.7.3. Reflection – Women’s Empowerment and Improved Income – a conflict?

I had some interesting discussions with the project team about the potential for conflict between the project’s priorities of improving household incomes and women’s empowerment. The senior managers described how there is a widespread cultural view amongst Bengali communities that it is demeaning for the status of a family to have women members working outside of the home. Therefore there is a concern that as households incomes increase, in order to enhance their status within their communities, families will feel a pressure to lessen the work women members do outside of the home – thereby potentially reducing the potential for women’s empowerment as these women become more isolated and disengaged from more ‘progressive’ alternative views that exist within wider society but outside of their household.

This is a complex area to untangle, but I feel it is something that the organisations implementing APONE should consider and engage with. Some questions for consideration:

- If through this project women are becoming more empowered, but at the same time rising household incomes lead to an increased pressure to re-orientate women back into household-roles and away from outside-roles, are we sitting on a tinder-box, so to speak, that will ignite after our project finishes (when we won’t get to know about it) or towards the end of our project (when we don’t have time to deal with it)?
- How can we mitigate against the above risk?
- Can we use any of the tools we have currently at our disposal to monitor this process? – E.g. case-studies, and/or the wellbeing survey (with an enhanced qualitative dimension). Currently what we have is a general impression, but it would be good to be able to investigate it more thoroughly and provide substantive evidence to support it if possible.
- If this is a widespread cultural phenomenon as reported, surely it is something all development actors working on women’s empowerment and livelihoods are grappling with. In which case, what can we learn from what others are doing?

3.7.4. Women Project Staff

Some key questions regarding gender that were discussed in our final workshop in Dhaka with senior project managers included:

- Is it a weakness that we only have one field staff member who is a woman?
 - The senior managers concur that yes it is a weakness. The reality is that women who drive motorcycles are in short-supply and therefore are often attracted by larger more wealthy agencies.
 - When the project started four women field staff were recruited (1 field coordinator and 3 field facilitator). However, 3 of these were attracted away by better employment offers.
 - In subsequent discussions the Head of South Asia Programmes has suggested that we explore the possibility of utilizing women group leaders more. Her idea is that women in such positions can be supported through capacity building to take-up paid 'field mobiliser' roles. This may help mitigate against the challenge of recruiting and retaining women field staff.
- Is it a weakness that there are no women on the project management team?
 - The senior managers disagreed with me that this is the case. They cited that Maveen Pereira and Jui Moni Das are both part of the PMT and are women. I have to admit I overlooked that! However, Maveen is based in the UK and Jui Moni Das is an Administrative Officer, so therefore I doubt that her influence extends into project implementation.

3.8. Working with Garo Communities

Of the 7,171 participants of the APONE project, 1,884 are from the Garo community. The senior managers report that working with the Garo community is challenging for two main reasons. Firstly they are very disconnected and marginalised from mainstream Bangladeshi society. Secondly, many Garo villages have been targeted by NGOs who have transferred assets to them and thereby created an expectation that this is normal practise. Having said this, the field team is confident that it is working well with them and in our workshop with the field staff we reviewed their learnings regarding working effectively with the Garo community. They are clearly conscious of the need to work in a very respectful manner with the community. The presence of a field staff member who is herself from the Garo community is presumably an asset. The project's log-frame states that the project outcome indicators will be disaggregated by ethnicity, so this indicates the recognition of the need to assess how project impact varies between ethnic groups. Based on my short visit to the field it is difficult for me to make any concrete recommendations regarding working with the Garo community. However, what I did notice from our visit to Gozni Kuchpara KUS, a Garo women's group based in the village of Gozni in the Upazilla of Jhenaigeti (Sherpur district) is that only the group president appeared to understand my translator's Bangla – she then had to translate for the other group members present for the FGD. Whether this is representative of the other Garo groups, I can't say, however I think it worth mentioning here because presumably it may have implications for how to most effectively train and support the Garo groups.

3.9. Sustainability

To what extent will the gains achieved by the farmers be sustained beyond the project duration? This is a notoriously difficult question to answer and it would not be right to suggest that any answer is more than an educated guess.

My impression is that a large proportion of the key benefits that the farmers have seen so far from the project is through their relationship with the PSPs. Many farmers themselves mentioned this as the key benefit of their group membership to date. The relationship between the farmers groups and the PSPs is strong enough for them to continue accessing support from these service providers after the project ends. Currently the project has provided some stipend to the PSPs to cover their travel costs when they go to the farmers groups to provide training. The project is now encouraging the farmers to go to the PSPs' offices themselves, so that they in effect cover this cost. The senior project managers report that in Golden Fibre they have seen the farmers groups transition to providing this stipend to the service providers themselves. So it would seem that this initial stipend payment should not compromise future sustainability.

In addition the BSPs that I met are convinced that there is a business case for them to acquire loyal customers through the provision of better products and services. Of course it is likely that the BSPs that attended the meeting with me are those that are most engaged by the project and therefore represent the most dynamic input suppliers in the market-place, rather than being representative of all BSPs. This in itself is not a shortcoming as the market remains competitive and those that are more dynamic will generally survive and thrive better than those that don't.

As described above, I have some concerns regarding some groups' savings and loans scheme. Not only that these groups need intensive support in the project's final year, but if the associations are to take on this support post-project, it will be important that they are sufficiently up-skilled to assist these group manage their savings and loans. As discussed in some depth above, the role of the associations generally is crucial to the sustainability of impact and as described above and already recognised by the project team, strengthening these organisations is the crucial task of the project's final year.

3.9.1. Civil Society Organisations

Grammaus and RDS are both partner organisations co-implementing the project work in the field. As the organisations with an ongoing presence in the field, they are also key actors when it comes to sustaining the project's impact. I met with the Executive Director of RDS and the Director of Grammaus separately. Both are very positive about the project, the way it is being run and the impact it's having on the ground. Both have concerns about the savings and loans schemes. One feels that the match-fund is very large and requires close and careful management, which some groups are not capable of achieving. The other feels that the groups need more time to get comfortable with the loan facility and using it for successful income generating activities. As both organisations are largely micro-credit organisations, I feel it is important to carefully consider their advice re the savings and loans schemes specifically. In addition, both expressed a concern that three years is a short duration of time to ensure groups are strong enough to sustain themselves post-project.

More generally, whilst it is clear that the CSOs provide the access into the communities where the project is working, it is not clear whether they play any significant role when it comes to the management of the project. For me it was notable that they didn't play a role in the mid-term review aside from being interviewed as stakeholders. They were not invited to the final mid-term review workshop (February 24th) for example. The senior project team feel confident that the CSOs are benefiting from their involvement in the project, for example they are being exposed to effective livelihoods-work that is not like the micro-credit work that is the mainstay of their organisations and has been forcefully critiqued within development circles. For me a question remains about whether the CSOs should have a more active role in project management and decision-making in order to further strengthen their capacities and engagement in the project – with a view that this can improve the likelihood of impact being sustained. This is an open question and one that I feel it is worth raising, even though I cannot answer it with any certainty myself.

3.10. Monitoring Data

3.10.1. Introduction

The following tables and diagrams give an indication of how the project's monitoring data is organised.

Information Collected	Frequency of Collection
Group Savings Report (money in bank, money in-hand)	Monthly
Group Trainings Report	Monthly
Group Negotiated & Collection Actions (Negotiated Actions: where the group have acquired something from external stakeholders) (Collective Actions where the group have done something themselves internally within their group)	Every 2-3 months

How the Information Flows:

In addition "Producer Records" are collected to understand how the impact is being experienced by individual farmers.

- 150 farmers have been selected at random from each Upazila (900 farmers in total). These farmers are tracked through the life of the project.
- At the end of each agricultural season field staff complete the Producer Records for the selected farmers in their Upazila. This happens in May/June, October/November and December/January – this final one is for the short-duration intermediate crops.
- The Producer Records record the crops grown, their yields, selling price and costs.
- The Producer Records are paper documents.

This data has been passed to Innovision to input into electronic form.

3.10.2. Data on Negotiated Actions

The latest spreadsheet report on Negotiated Actions covers the period April 2012 to October 2013. This covers the project first year and half of its second. Presumably data on the second half of the second year is due shortly.

The spreadsheet documents *what* negotiated actions have been achieved in each of the project's Upazilas, *who* provided the resource that was negotiated and an estimate of its *value*. See table below.

Upazila	Value of Negotiated Actions (£s)
Haluaghat	18,877
Dhobaura	1,673
Jhenaigati	9,588
Sherpur Sadar	2,979
Nokla	2,028
Fulpur	1,510
TOTAL	£36,654

Three things jump out from the information presented:

- Firstly, the large (equivalent) monetary value of all the Negotiated Actions undertaken by the groups.
- Secondly, the variability across Upazilas. 50% of the total value has been achieved by just 1 Upazila (Halaughat), 25% (approx) by another (Jhenaigati). The four Upazilas share the remaining 25% - averaging out at just 6% of the total value each.
- Thirdly, as it's currently presented the information facilitates comparisons between Upazilas (as above), but it is not clear how much of the benefits are accruing to which groups. As it's currently presented it remains possible that a small number of groups within each Upazilla are benefitting from these Negotiated Actions, whilst the rest do not.

The log-frame indicator 1.2 is specifically focused on Negotiated Actions: "*Farmer groups that negotiate with local stakeholders for improved resources and services*" here the monitoring is in terms of numbers of groups rather than value of the actions. I would therefore suggest that report presentation is amended to enable the project team to see how many groups in each Upazila and which ones are achieving these Negotiated Actions. This may also aid focusing support to those groups that need it most.

Finally, it should be noted that some negotiated actions may not translate well into monetary values – they may be for services or support that is not available on market terms. The monetary value of those actions that can be monetarised should not over-shadow those that cannot be.

3.10.3. Data on Savings

The current version of the savings report takes us up to December 2013. Unlike the Negotiated Actions spreadsheet the savings totals are broken down by farmers groups. As discussed this aids analysis of which groups are doing well and which are not. The table below is an extract from the summary sheet:

Upazila	# group member	Total Own Savings (BDT)	Avg Savings Per Farmer
---------	----------------	-------------------------	------------------------

Phulpur	1,184	1,984,045	1,676
Haluaghat	1,187	811,740	684
Dhobaura	1,200	513,330	428
Sherpur Sadar	1,200	1,780,485	1,484
Nokla	1,200	1,106,936	922
Jhenaigati	1,200	1,183,000	986
Total	7,171	7,379,536	1,029

The total value of the groups' own savings is approximately £57,000. In terms of the spread of this wealth across the project's Upazilas it is a more evenly spread than that of the Negotiated Actions. However, I have included a fourth column on the table which shows the average (mean) savings per farmer for each Upazilas, this highlights the differences between Upazillas. Of course averages can hide a lot of variation, so this information should be taken in collaboration with the spreadsheet's subsequent pages which detail the savings per group. Together these can provide sign-posts as to which groups require most support with their savings and loans schemes in the remaining year of the project (see comments in section 3.5.2 above).

3.10.4. Additional Reflections

As a system the monitoring data management appears watertight. A few considerations spring to mind:

- The Producer Record data needs to be analysed. Although the project team report that the 150 farmers from each Upazila were selected at random, presumably gender balance was considered.
 - In addition, it would be interesting to investigate the balance across the different types of group (single-sex, mixed-sex, single-ethnicity, mixed-ethnicity – and the various permutations of these). If there is sufficient representation, it may be possible to draw-out learnings and for example 'test' the project team's supposition that mixed-gender groups are best for women.

- In addition, it will be interesting to disaggregate the data by land-holding, as mentioned above. This may provide some insight as to whether benefits are accruing to certain sized farmers or not.
- As mentioned in section 3.5.2 above, whilst the level of savings of each group is useful data, I feel it would be worthwhile exploring what other kinds of data would help us understand the impact of this Savings and Loans model better. Some possibilities include:
 - Default rates – some groups will inevitably manage their money better than others, should we understand who these groups are, and whether there are any patterns emerging? For example, a long-standing belief of the micro-credit movement is that women manage money better than men – is this the case with our groups?
 - Return on investment – what investments are being made by the group members and what activities bring the most return for the investees? Some groups are using the investment loans collectively (e.g. leasing land together), others are using the facility individually. What are the pros and cons of each.
- Finally, the field team are collecting qualitative case-studies as well as the quantitative data. It is not clear to me exactly how the subjects of these are chosen; however, I think it would be worth the project team considering returning to the same subjects several times during the life of the project to capture the changing and cumulative impact of the project on their livelihoods.

3.10.5. Assessing Indicators

In the starting workshop with the senior managers in Dhaka we reviewed the project's log-frame indicators and the participants provided their instinctive impressions of how well the project is progressing against each. The overwhelming feeling is very positive, with just two indicators behind their targets:

- Output Indicator 2.1: *Improvements in policies, practices or resources negotiated by the regional or district associations.*
 - End of year 2 target: 2.
 - Expected Achievement (as reported by senior staff in starting workshop): 0.
- Output Indicator 2.3: *Farmers that perceive benefits from district/regional association membership (disaggregated by gender and ethnicity).*
 - End of year 2 target: 40%
 - Expected Achievement (as reported by senior staff in starting workshop): 10-15%

Both of the indicators in question require strong and effective associations, which as described above are not yet present on the ground. In addition, where Output Indicator 2.1 refers to "policies" the senior managers feel that in retrospect it is not realistic to anticipate achieving policy changes in just 2 years – the policy environment just doesn't move that quickly. At the same time there was a recognition amongst the senior team that the project partners don't have a lot of experience of working on policy issues and that other organisations may be better placed for this kind of task.

3.10.6. Analysis Conducted by Innovision for Year 2 Report

Innovision Consulting were contracted to enter the monitoring data collected by the project team and then analyse it in preparation for the year two report for DfID. Their report is included here as Annex 3. Whilst I

haven't been involved in the collection or analysis of the data, I see no reason why this data is not an accurate depiction of the progress the project has made. The progress against the log-frame in the year 2 report for DfID reflects the excellent progress reported here made at the farmer level and the more mixed progress made at the association level.

3.10.7. Wellbeing

The project has two outcome indicators, one focused on increasing disposable income and one focused on wellbeing. The wellbeing indicator reads:

- *Farmers who perceive an improvement in their well-being (disaggregated by gender and ethnicity)*

Data for this indicator is not collected on an ongoing basis and has not been collected for this mid-term review. This is because collecting the data requires a very specific group-survey process that is quite time-consuming. In fact this survey process is relatively new and the APONE project's baseline was the first full-scale pilot.

Traidcraft is still in the process of reviewing how useful the methodology and its results are to our work. Given the newness of the approach I discussed the experience of conducting the baseline wellbeing surveys with field staff and senior project managers. The following is summary of their comments.

- 4 of the current field staff participated in the wellbeing surveys. They report unanimously that it was a useful experience. When asked why, their answers included: that it helps to build rapport with the beneficiaries, that it helps us understand the beneficiaries' view of themselves, that the survey is well designed and gets to the heart of things without asking lots of questions.
- The field staff report that the beneficiaries enjoyed the experience of doing the survey, that it was their first experience of doing something like this. They explained that the farmers enjoyed both being asked the questions and making their own marks on their surveys.
- The field staff discussed how some of the wellbeing domains (from the model that the assessment process is structured around) relate to aspects of the APONE project. A summary of their comments:
 - Competence & Self-Worth – the project improve peoples' competence through the training provided (case-studies document the impact of this).
 - Health – people's health improves as their disposable income increases (they have money for better food and medicines). The project has included a health campaign activity which linked farmers groups to local doctors who gave check-ups and prescriptions.
 - Economic Resources – of course!
 - Agency & Participation – examples include how the farmers now call the PSPs themselves and they have opened bank accounts. [It was quite hard for some of the field staff to understand the term 'agency' in this context.]
 - Close Relations, Social Connections – there was some discussion within the group about whether the relationships between farmers that develop through their group membership should be considered as close relations or social connections. In either case, the field team feel there is a clear link with the wellbeing model here. In addition, they felt the relationship that the farmers build with the SPs is another example of social connections forming through the project.
 - There was not a clear connection between the Values & Meaning domain and the project activities.

- The consensus amongst the field staff is that the wellbeing assessment is a useful process and the quantitative results generated provide a reliable and accurate picture of the beneficiaries' wellbeing.
- The feelings amongst the senior management are more mixed.
 - One manager feels that yes it is a useful process but that 'wellbeing' will always be secondary to increasing income. He feels that the beneficiaries found it useful to undertake this kind of self-assessment, but that their first priority remains their earnings.
 - Another manager feels that it is really too early to assess how useful it is. When we have the end of project data it will be then easier to judge what it is telling us. In addition, this manager feels that their livelihoods approach (based on the livelihoods framework (Human, Natural, Social, Physical and Financial Capitals) is a wellbeing approach in itself and already informs how projects are designed and implemented.
 - Another manager feels that attempting to measure wellbeing could be useful. He explains that our hypothesis is that increasing incomes leads to increased wellbeing, and so in theory measuring levels of wellbeing (and income levels) should enable us to test this hypothesis. However, he is sceptical that the model/approach we are using is the right one. He feels that some of the current Bangla translation is weak, that some of the concepts referred to in the questions are not accessible to our beneficiaries, and that the notion of wellbeing is too subjective, whereas flourishing (as referred to in the Traidcraft vision statement) is more objective. Finally, he feels there is a risk that investing resources in this approach could dilute our primary focus on the economic and may not be helpful in actually changing the objective circumstances of the poor.

As mentioned above, until the final wellbeing data is collected at the project end, the jury remains out on what value assessing wellbeing brings to the project. The contrast between the field staff's views and those of the senior management is quite striking and may be an area that Traidcraft can explore in more depth in future.

4. Learnings

Key learnings generated by the project so far.

- It is possible to improve the service provision of both BSPs and PSPs through appropriate training. This enhances their service offer to small and marginal farmers, and helps them achieve their missions.
- A complementariness can be developed between the private sector (BSPs) and public sector (PSPs). The two needn't be in opposition and the project has worked successfully with both – they now work well together.
- We anticipate that building the relationship between farmers groups and PSPs is key to sustaining impact – this has yet to be substantiated. The group-based methodology enables this process to occur.
- Three years is a short period of time in which to bring about sustained change in agricultural practice. However, APONE seems to be achieving this. The way the project has utilised learnings and resources developed through previous projects, and the strong linkages it has built with existing service providers (public and private) are crucial to this success.
- It is possible to get good levels of representation of women in key group positions, e.g. presidents, secretaries. This should not be taken as an indicator of empowerment without further qualitative analysis, but it is a significant first step.
- However, this process is more challenging with Bengali groups than with Garo ones.
- Men need to be involved in the process of women's empowerment otherwise they are likely to remain obstacles to meaningful change.
- The location of key project activities such as Agro-Fairs affects the participation of women. Locating these at the village level, rather than in town, enables better participation.
- Larger farmers tend to lead initially when farmers groups are first established. We believe that smaller farmers then become more confident and take-up key positions – but the larger farmers are necessary to get the process started. Data can be used to test this belief.

Annex 1 – Notes from Focus Group Discussions with 6 Farmers Groups

Anchengri Krishipanno Utpadok Samity

- Location: Halaughat, Mymensingh district.
- Mixed group (gender & ethnic).
- Membership: 8 men, 22 women (20 members are from the Garo community).
- They meet once a month (sometimes more often when need arises).
- **Activities the group has been involved in since the project's inception:**
 - Group formation meeting, Need assessment meeting, Technical training, Savings training, Health training, Livestock and poultry training, Leadership training, Committee training, Climate change training provided by Caritas), Care and World Vision have also provided some trainings.
- The group described how previously they were farming using “traditional” methods. Now they know new better ways of farming.
 - For example, previously they scattered their seedlings, now they plant in lines when the seedlings are a specific number of days old as advised. They now know about the right application of fertiliser.
 - 2 members have tried soil testing, the rest intend to do so soon.
 - They have now vaccinated their cattle, previously they experienced high mortality rates.
 - They are now cultivating short-duration rice and mustard between seasons when previously land was left fallow.
- **The described how their relationships with the government service providers have improved.**
 - They have been visited by fisheries officer, health officer, health inspector, UAO.
 - They have received training on compost production and use from agricultural officers.
 - They now talk on phone with UAO – they have all the mobile numbers of the relevant officers.
 - They find that showing their project ID cards gives them priority at the agriculture office. The health officer informed that that if they show it at the hospital they will get ‘free’ treatment.
- In addition their ID cards ensure they get good quality goods from BSPs.
- **When asked about the main benefits of being part of the farmers’ group, answers included:**
 - “more unity”
 - Receiving different trainings.
 - Less fallow land – they now know how to cultivate it during dry season.
 - Growing additional rice and mustard crop.
 - Previously poultry and cattle died from disease, but now mortality rate is low.
 - Costs have gone down thanks to the soil testing service and knowing the right amount of fertiliser to apply.
 - Previously they used a lot of pesticide, now they use IPM which reduces their pesticide use, and their costs have reduced as a result. One member described how they now know which are the “friendly insects” and which are the “enemy insects” – previously even the friendly ones were killed.
- The women members explained that their husbands are very happy with their wives’ involvement in the group.
- They explained that they share their training with their neighbouring farmers who are not group members. The neighbours are copying their actions, they ask for advice from them because they know they are educated farmers. The neighbours want to join the group.

- **The group is running its Savings and Loans scheme.**
 - Each member saves 100 BDT/month
 - Currently have 30,500 of their own savings.
 - Have received 50,000 grant from project, but they cannot access it until their own balance reaches 50,000 BDT, then they will start issuing investment loans.
- They described how World Vision and Caritas have micro-credit programmes in this area, but they are not interested to take these. They now have their group savings – when they start taking loans the interest will be very low.
- 2 members (president and another committee member) went to Mymensingh for the District Association election. The District Association’s publicity secretary and secretary live in nearby villages so members see them in town sometimes.
- Big irrigation problem here – ground water level is very low. They discussed it with the agriculture officer, he understands but can’t do anything.
- Some group members are highly educated about climate change (the group leader can describe the process in some detail).
 - In neighbouring areas barriers have been made to reduce flooding in case of excessive rain.
 - Previously they were subject to floods, but not now. Big floods were experienced in 1983, ’88, ’98 and ’11.
 - In the event of a flash flood there is no time to prepare. They just go up to the road and take their livestock if they can.
 - They experience a dry period every year. Severe drought in ’82 – crops were damaged and there was a lack of drinking water.
 - Because of irrigation problem they have to keep some land fallow. Now, following the advice of the UAO, they grow wheat in dry areas where previously the land was fallow.

Sahapur Krishipanno Utpadok Samity

- Location: Phulpur - Sherpur district.
- Women’s group (Bengali) – 30 members.
- **Since their group has formed they have received training on:**
 - Vegetable cultivation, Poultry and livestock, Health awareness (provided by a doctor), Fishery, Compost, AWD irrigation (alternate wet and dry – a simple pipe system that significantly reduces water use), Pest Control through Pheromone traps (everyone now uses these – the UAO has provided them free of cost).
- The training has been very important to the group, not only for all the new skills and knowledge that it has provided, but group members also talked about how they feel they are “developing themselves”.
- **They report that the main benefits of group membership are:**
 - Receiving so many trainings from agriculture and livestock officers – they explained that if they were not in the group they wouldn’t get these. For some it has been the single most important benefit of their involvement in the project.
 - They explained that others want to know the new things that they have learnt. Neighbouring farmers come to attend their training and also come to them to ask for advice – they always share the information with them.
 - They have collected seeds from the agri office – these are better seeds than those they had before.
 - They now know about soil testing. All members have had their soil tested (most are waiting for the results). For those that have had the results back, already their costs have been reduced through better fertiliser use.

- Previously they experienced high mortality amongst their poultry, now they have been trained by ULO on how to vaccinate, as a result they now have a zero mortality rate.
 - The group president (Makeke) sees this as giving them an extra 200 BDT per hen that now doesn't die and an extra 15,000 BDT per cattle that now doesn't die.
 - 15 BDT vaccination vaccinates 100 chicks. Cattle vaccinations were free because livestock officer came and did these.
 - In addition, some members described how eliminating mortality amongst their poultry and ducks has improved their "family status".
- Some farmers have used fungus compost (trichoderma) which prevents root rot.
- They now work together – for example one member will go and collect fertiliser for 5-6 members at a time, rather than them each going individually and each incurring the transport cost.
- They have purchased a power-tiller from the agri office:
 - Previously they had to hire this machinery. Now just have to pay for fuel and a man to operate it – saving them 25% of their tilling costs.
 - They lease it to other farmers – charging them 2,000 BDT for 100 decimals of land.
 - It was purchased through an agri office scheme. They paid 70,000 BDT for it, rather than full price of 100,000 – because of relationship with agri office.
 - Each member contributed about 3,000 BDT to pay for it.
 - (The field team informed me that 9 of the 40 groups working in this area have done the same.)
- They have a very close relationship with the government officers now; previously they didn't know them at all. The president has all their mobile numbers. For some members this relationship with the government officers is the single best thing that has resulted from their group membership. They explain that from communication with the government officers, they have learnt a lot. In addition the officers have provided the pheromone traps for free, which have reduced costs and increased yields, thereby in turn increasing their incomes. Furthermore, through their relationship with the officers they were able to purchase the power tiller at a reduced price.
- All group members report that their production costs have reduced as a result of their involvement in this project.
- They say that their husbands are very happy with their involvement in the groups (they explain that if they weren't happy, they simply wouldn't allow them to come to meetings). Their children also like that they are part of the group.
- Some group members feel that their savings are the single best thing about being involved in the project.
 - Currently have 52,500 BDT in savings, received 50,000 grant. They have their own group bank account.
 - They are planning to start investment loans next month – members are thinking of small trading and leasing more land for farming.
 - In addition to these investment activities which they'll use to generate more money, they feel that their savings will provide them with some security for old age, for "stress" periods, and for the marriages of their daughters.
- In the past some members have had (microcredit) loans from Gramaus, but they no-longer have these.

Gozni Kuchpara Krishipanno Utpadok Samity

- Location: Village of Gozni in the Upazilla of Jhenaigeti, in Sherpur district.
- Garo womens group – 30 members
- Ronita Rani Kuch – President (see photo below)
- Minoti Kuch – Secretary
- Sonji Bala Kuch – Vice President

- Sujitra Kuch – Cashier

- **Since joining the project the group members have been involved in the following activities:**
 - Group formation, Committee formation, Needs assessment, Poultry & livestock training, Agriculture training, Health awareness campaign, training on vegetable cultivation, Soil testing, Crop cultivation training, Vaccinations of poultry & cattle, lobbying & advocacy training, training on savings and loans, fish culture training (they have 2 ponds), rice cultivation training.
 - (Some of these inputs have been provided by government officers, some by the project staff).
- **The group members report the following benefits of group membership:**
 - Now they are united (said the president)
 - Receiving training – especially on how to vaccinate poultry. Now they have zero mortality rate. Previously livestock susceptible to disease, now they are disease free.
 - Their savings
 - Now they have a bank account, previously they only had cash, and money was always spent.
 - They plan to start issuing loans soon – when they reach 50,000. Currently have 14,100 saved (they are each saving 30 per month).
 - They intend to use the loans for cultivating more crops, for poultry farming, buying cattle, and goat rearing.
 - Last season they experienced a lot of drought, now they know how much fertiliser the land needs and have thereby reduced their costs.
 - One member described how after following the advice given during training her potato cultivation has improved. She now knows how much fertiliser to use and how to look after the crop. As a result her productivity has increased. This year she has earned 5,600 BDT from her potatoes, last year she earned 4,000 – last year the price was actually higher per kg. The quality of her potatoes is now much better – none were eaten by worms and there were no rotten ones, hence her better earnings.
 - Previously the group members didn't know the government officers at all, but now they know them well. The group president has all the mobile numbers and goes to the office: she finds she is welcomed at the office. Their project ID cards have helped them cooperate with the government officers.
 - Nowadays the business service providers always give them good quality inputs when they see their project ID cards, previously they sometimes gave them different types of seed to what they asked for and sometimes they gave them bad quality pesticides. Now they even give them advice re pesticides and fertilisers.
 - The majority of members have had their soil tested.
 - Other farmers want to join, but the group is limited in size. They are very interested when training is provided.
 - The group members spend their extra earnings on better food for their children, family expenses, cultivation costs and their children's education. Their husbands are very happy with their participation in the group.
 - The group president and secretary are aware of the district association and voted in the committee elections, others say they know of it but haven't met any committee members.
 - In 2001 an elephant damaged some homes in the village. 21 households were affected. Some support has been provided by Caritas but they are still rebuilding some now. Their involvement with Caritas has not involved any microfinance.

Uttar Losmonpur Krishipanno Utapadok Samity

- Location: Sherpur Sadar, Sherpur district.
- Mixed group (men & women – all Bengali)
- 30 members, men and women (roughly 50/50).

- President: Mhd Monir Hussain
- Secretary: Mhd Kosher Alun
- Convener: Mosamed Majida Begum (not now on the committee)
- Meet on 15th of every month.

- **The group has participated in the following activities:**
 - Training on: Cattle, poultry, agriculture, Group leadership, Savings, Soil testing, Lobbying, advocacy and negotiation.
 - Vaccinations programmes for poultry and livestock
- The agriculture training included training on short duration crops (rice varieties, mustard, potato) which enable a fourth harvest. All farmers now grow 4 a year: roughly 8 members grow mustard and roughly 7 do potatoes.

- **The group described the following main benefits of group membership:**
 - Receiving training has led to increased production and increased income. They described their families as “solvent” now.
 - Receiving better seeds and better pesticides from the BSPs.
 - Reducing their costs. They are now able to buy at wholesale prices rather than retail. In addition they now send one person to buy inputs for whole group, rather than going one by one.
 - Group members described how previously they didn’t know the agriculture officer at all. Now they know all the officers for their area, and they have good communication with them. They are receiving lots of advice from them. One member exclaimed: “we are astonished that we are talking with the agriculture officer”.
 - Soil testing has enabled them to reduce their fertiliser use. Production has increased and costs have reduced.
 - Before forming the farmers were scattered, now they are in a group they can share their problems and try to solve them.
 - Previously their poultry was very susceptible to disease, infections spread very quickly and often whole flocks would die. Now they are vaccinated their mortality rates are very low.
 - One member described how previously her goat became very cold in winter and died, now they have vaccines for their livestock and mortality rate is zero.

- **The group have started their Savings scheme.**
 - Each member is saving 100 BDT/month. The group have bank account and have received the project’s 50,000 BDT matching grant. They currently have 116,000 BDT (including the 50,000 grant).
 - In their February meeting (most recent) decided to use the savings to buy a buy power-tiller in April or May as a group investment.
 - The market price is 130,000 BDT, but through the agriculture office they can get one for 75,000.
 - Ploughing costs are very high: 50 BDT/5 decimals. They will save money by having their own.
 - In addition they will lease theirs out to others at the market price. They expect to earn 40-50,000 BDT per rice crop from this (profit after all expenses have been paid). This money will go back into their loan fund.
 - They can also use the machine to thresh rice.

- After this they plan to buy another piece of machinery (possibly a trolley, which the power tiller can pull) or lease some land. They will take this decision later in the year. In addition they intend to provide loans during the distress period.
- They described feeling that they now have faith, self-confidence and bravery. They say they will cooperate so everybody gets loans: they are 30 people united.
- Members are achieving higher disposable income. Members explained that have spent the additional money on:
 - Purchasing a cow.
 - Purchasing an extra 3 decimels of land.
 - Leasing land.
 - Repaying a loan and now sending children to school.
 - The loan was for 20,000 BDT. It was a 1 year agricultural loan from BRAC for brinjal and papaya cultivation. She repaid 22,000.
 - Another man borrowed 15,000 for cucumber cultivation from Sherpur Islamic Bank. Over the course of the year he had to pay 1,800 in interest. The loan is now completely repaid.
 - Members explained that now they have their own loan facility, they don't take loans from outside. They explained that this way the interest charged is lower and it is kept within the group – so it has a double benefit.
- They explained that other farmers want to join the group. They always ask about what they've learnt – and they always share their knowledge.
- There appears to be very little awareness about District Association amongst the group members. The president and secretary voted in the election and know the association. The other members have heard about them but not met them.
- When asked about the changing climate, they described how in winter they experience more fluctuations (hot and cold) and the season is shorter. This is particularly bad for their potato cultivation. In addition, they explained that now rains are coming outside of the rainy season – unlike before. Recent untimely rains have damaged the mango flowers.

Moddho Ariakanda Krishipanno Utpadok Samity

- Men's group
- Location: Nokla, Sherpur district
- 30 members
- President – Mohammed Udul Ajak
- Secretary – Mohammed Nazrul Islam
- Cashier – Mohammed Mahor Uddin
- **The group explained that since their formation they have received training on the following topics:**
 - Agriculture cultivation techniques (including line sowing), Soil testing, Livestock and poultry, Fisheries, Group Operations, Health Campaign, Lobbying and advocacy, Compost (tricoderma)*, Vegetable cultivation, Intermediate crops: mustard, potato, vegetables, boro rice, jute (all farmers grow this), USG use (urea super granules).
 - They have also had a Field days with demonstrations of potato (10 days ago) and brinjal (2 months ago).

- * One member now produces the trichoderma compost and uses it himself as well as selling to 3 other people. Others use it too, but they purchase it from elsewhere.

- **They described the following main benefits of their group membership:**

- Now they are “united”. When asked what this means they explained that for example they now plant their seeds together. This reduces their labour costs and saves them each around 1,500 BDT per season. Also, they have started a separate social fund for covering the cost of sickness and unforeseen circumstances – recently contributed towards a villager’s funeral. Each member contributes 10 BDT/month.
- They are depositing savings.
- They have received different trainings – they feel they have “developed themselves”.
 - They have learnt about fish culture. They described how earlier they did fish culture but in a traditional way which included over-crowded ponds. This led to unhealthy and small fish. Now they have reduced the density and are growing bigger fish.
- Previously they had no communication with the government officers. Now they communicate a lot. Officers have visited them several times, and they’ve been to their offices. They have a very cordial relationship and are received very warmly – if they show their project cards, the officers are very helpful. They phone the officers and sometimes the officers phone them. The majority of group members have sought advice from the officers.
- They have increased their productivity: all farmers report experiencing this.
 - One farmer described how last year he produced 400 kg of rice from his 25 decimal plot. This year he produced 600 kg from the same plot. He explained that the increase is due to the following factors: line sowing, soil testing and optimum fertiliser use, using trichoderma compost use (he buys it from Mymensingh), using a stick in his field for pest control.
- Their cattle mortality rate is now zero due to vaccinations. Last week they had 50 cattle vaccinated. After this boro season, the livestock officer offered to vaccinate all their poultry, they just need to call him to arrange this.
- All members have decreased their costs. They report that:
 - Soil testing has helped them do this. They are now using the optimum dosage of fertiliser which for many means using ¼ of the fertiliser they used before.
 - AWD pipe has meant their irrigation cost is now minimal.
 - IPM has reduced their pesticide costs and increased productivity too.
 - They are now buying fertiliser and seed in bulk – 1 member goes to purchase it, thus reducing transport costs.

- **They have started their savings and loans scheme.**

- Currently they have saved 120,260 BDT (inc 50,000 grant). Each member is saving 100/month.
- The week after our FGD they they plan to start a stock business with their savings:
 - They plan to buy 1000 kg of mustard, stock it and then sell it in June.
 - They’ll buy it in the wholesale market for 1,200 BDT for 40 kg (30,000 BDT in total).
 - They’ll pay 500 BDT / month for a “go-down” in the market.
 - In June they’ll sell it for between 1,600 – 1,800 per 40 kg.
 - Expected profit = 11,000 BDT (1,700 = avg selling price, 25 sacks of 40 kg, 1,500 = costs of 3 months storage) ((1,700 * 25) – 30,000 – 1,500)
- Following this they plan to lease 50 decimals of land as a group. A 5 year lease has a total cost of 100,000 BDT.
 - They plan to cultivate summer vegetables, short duration rice, mustard, boro rice, vegetables.
 - Labour cost will be zero as they’ll do it all themselves.
 - They expect a minimum profit of 30,000 a year, but it could be double this.

- No members have loans from microfinance institutions or from banks – bank loans are difficult to acquire because bribes are always required.
- Their neighbours are all keen to join their group. They're copying what they're doing, coming to training and being advised by the group members.
- They explained that their extra income is being used for: eating good food, sending kids to school, buying good clothes, building extra rooms on houses, leasing more land, buying cattle (one farmer explained that he has bought a cow, another bought an ox (he bought it for 8,500, sold it for 25,000, and now plans to buy another one)).
- They report experiencing a changing climate. They describe temperatures increases, more fluctuations (which affect potatoes for example, which do not grow well in these conditions), the winter is now shorter, there are less rains – nowadays they have to irrigate when previously they didn't.

Bogir Para 2 Krishipanno Utpadok Samity

- Location: Phulpur, Mymensingh District
 - 30 members – all men.
 - President – Nuzzaman (in photo below, in front of group's USG machine)
 - Secretary – Nuzrul Huda
 - Cashier – Mohammed Fuzul Haq
-
- **The group explained that since their formation they have received training on the following topics:**
 - Group formation, Committee formation, Savings, Fisheries, Poultry & livestock (including vaccinations), Urea Super Granules use, Health (provide by Upazilla Health Officer), Agriculture including IPM, Lobbying, Soil testing, vermin compost preparation training
 - One member was trained by a consultant on Tricoderma compost. He then demonstrated its benefits at field day on his radish crop. All the other members intend to use the compost because they saw the good result, some want to make it themselves.
 - They have also participated in 3 field days which included crop demonstrations.
 - **The group members described the following main benefits of their group membership and involvement in the project.**
 - As a result of all the trainings they have reduced their costs and now know many things that they didn't know before.
 - Vaccines for livestock – they explained that without the group this simply wouldn't have been possible.
 - Previously when their cattle were seriously sick, the ULO asked for a lot of money (for the cost of vaccines/treatments). This cost is reduced now when they say that they are part of the APONE project.

- They now purchase inputs for a fair price from BSPs – they show their APONE ID cards.
 - Gov officers have given them all their mobile numbers.
 - When they face problems they call them. 12 said they had done this themselves. Others have asked other group members to call on their behalf because they found it hard to explain things.
 - Now they are getting good urea for a good price.
 - Improved agricultural productivity.
 - E.g. last year for one farmer one of his rice harvests was 120 kg, this year it was 200 kg on the same land. This year he is also farming mustard as an intermediate crop on 20 decimals, and has harvested 100 kg. Last year nothing was harvested on this plot of land that this time – it was left fallow.
 - They now feel they know a lot about agriculture: e.g. they are using IPM – this has reduced pesticide costs: one farmer reported spending 300 BDT on pesticides last year, now it is 200 BDT.
- All farmers report that their productivity has increased and their costs have gone down. Soil testing has enabled them to reduce their costs by reducing their fertiliser dosage, in addition IPM and line sowing have reduced their costs. They are now growing intermediate crops such as potato, cabbage, mustard – as advised by UAO.
 - When asked whether increased productivity and reduced costs have come at the cost of extra hours worked, the group said resolutely “no!” In the new techniques and technology have reduced their work-time in the fields, and reduced their labour costs (e.g. through line sowing and using rice weeder, using IPM).
 - They explained that they are spending their increased earnings on: good clothes, good food, sending children to school, depositing money into a special fund (in case of sickness), building house / extension, making a porch, getting solar energy system through monthly instalments.
 - **Earlier they simply didn't know the government officers.** Now they know them. Now they have good practice for solving problems. They have good communication. The group president explained that this will continue for them beyond the life of the project.
 - In addition to advice, they described receiving vaccinations from the ULO and free worms for vermi compost from UAO – previously they had to buy the compost.
 - Recently the ULO vaccinated all their cattle (around 100). In addition their neighbours came too and had their 400 cattle vaccinated as well.
 - **They have started the Savings and Investment scheme.**
 - Each member is saving 100 BDT / month.
 - They received the matching grant 3 months ago.
 - They have used the investment loans to buy 8 cattle which they are share rearing.
 - 50% profit from sale of the cattle goes to the rearer, 50% goes into group account.
 - They started individual loans 1 month ago. 5 people each got a 5,000 loan. They used it for boro rice cultivation.
 - Last boro season they purchased a USG (Urea Super Granules) making machine.
 - They were advised by their local SAAO on this scheme. They purchased the machine from the agriculture office for 42,000 BDT instead of 165,200 (market price).
 - 3 members have been trained to use it.
 - They purchased the input from the agriculture office at 800/BDT for a 50 kg bag (870 BDT is the market price). Last season they purchased 8 tonnes of this.
 - They sold their USG for 1000 BDT for a 50 kg sack to other farmers (and for a reduced price of 900 BDT to group members).
 - My calculations re profit gained from this:
 - 8,000 kg / 50 = 160 sacks.

- **Savings compared to purchasing the input for the machine in the market-place: 11,200 BDT**
($160 * (870 - 800)$)
 - **Profit from sales (assuming 50% sold to group members) = 23,000 BDT**
 - $160/2 = 80$
 - $80 * 1000 = 80,000$ BDT
 - $80 * 900 = 72,000$ BDT
 - $80,000 + 72,000 - (800 * 160) = 24,000$ BDT profit
 - Assume 1,000 BDT for electricity costs (advised by Shawkat) (there is no loss of vol between input & output, i.e. 8,000 kg of input produces 8,000 kg of USG).
 - Final profit = $24,000 - 1,000$.
-
- The group members explained that their neighbours are now coming to them for advice. They also join some trainings.
 - They report that there are no other NGOs are working in this area.
 - The group members have no debts. They explained that taking loans from outsiders is difficult because involves bribes and lengthy procedures.
 - Group members are aware of the District Association but only vaguely. However, they were able to explain its purpose – to strengthen position of farmers.
 - The president and secretary voted in the District Association elections. They say that the District Association secretary has visited the group.
 - When asked what they feel the association should do, they explained that farmers are not getting value for their produce and input prices are too high. They feel the Association should negotiate on their behalf on these matters.

Annex 2 – How the MTR Budget has been used

Total Budget Allocation	£6,190.00
Actual Costs	
Flights	£662.41
Visa	£165.77
Overseas Trip Allowance	£375.00
Accommodation Costs - Bangladesh	£363.54
Meal Costs - Bangladesh	£97.39
Meal Costs - UK (Newcastle airport)	£8.65
Taxi Costs (to/from Newcastle airport)	£56.00
Taxi costs (to Dhaka airport)	£11.09
Miscellaneous Costs – Bangladesh (e.g. mobile credit, internet access)	£20.44
Venue for Field Staff Workshop	£66.60
Refreshments for Field Staff	£43.70
Fees/Days	£4,277.50
TOTAL Costs	£6,148.09

In country travel was provided by the project vehicle. Fuel and driver-time was covered by other project budget lines.**Annex 3 – Innovision’s Monitoring Data Report**

Analysis Report on the Midterm review

Prepared by
INNOVISION CONSULTING PRIVATE LIMITED

Prepared for:

Background

APONE is a project which seeks to ensure sustainable livelihoods for poor and marginal communities, particularly women, in North-East Bangladesh through improvements to small-scale agriculture. The project is managed by Traidcraft Exchange (TX) and co-implemented by Development Wheel (DEW) with 2 local Civil Society Organizations (CSOs): GrameenManobicUnnayanSangstha (GRAMAUS) and Rural DevelopmentSangstha (RDS).

The project is based on the recognition that small and marginal farmers in the project area face a number of problems and challenges in their production system which means that productivity, quality and prices are low, while costs are high. Farmers lack the volumes and capacity to bargain for better prices, they face discrimination in accessing government services (especially women and ethnic minorities) and there is a frequent threat of crop-failure and loss of livestock, accentuated by climate change, leading to distress sales. Addressing these issues can only be done effectively by increasing access to vital knowledge, information, services, skills, equipment and inputs from private and public service providers. It is also crucial to engage with private companies and the government creating a win-win situation for all concerned. Ensuring better agricultural governance and improved access to rights and markets will increase farmers' incomes, produce more sustainable livelihoods and contribute towards poverty reduction targets. In order to achieve this aim several approaches has been taken simultaneously:

- **Creating and building the collective power of small and marginal farmers:**

Organizing small and marginal farmers into groups enable them to utilize their collective power to voice, negotiate and attain their rights and services from other stakeholders (public and private service providers, local authorities and other value-chain actors).

- **Recognition of farmers' needs amongst public and private sector stakeholders:**

The project raises awareness amongst public and private sector bodies and local authorities of the problems facing small and marginal farmers.

- **Improving farmers' production practices and market access:**

The project establishes Linkage between service providers and farmer groups to ensure farmers access appropriate and affordable agricultural services to help them improve cultivation practices, increase productivity, reduce costs and improve quality.

- **Reducing farmers' vulnerability to environmental and financial shocks and stresses:**

This is crucial to ensure the sustainability of people's livelihoods. The project assists farmers to adapt their cultivation practices so they are more resilient to shocks and stresses, especially natural disasters and climate fluctuations.

Objective of the Assignment

The main objectives are to:

- Assess the producers' cost of production with regard to baseline findings

- Assess the producers' productivity with regard to baseline findings
- Assess the sales and profit/income with regard to baseline findings
- Assess change in cultivation practices with regard to baseline findings
- To assess change in income and expenditure with regard to baseline findings

Major Tasks of the assignment

- Data Entry in a prescribed template-900 producer' record according to the attached producers' record and database template.)
- Data Analysis- analyse the data as per objectives
- Analytical Report- prepare a report based on analytical findings

Methodology

The assignment was conducted in the following steps:

Review the project documents:All project documents of APONE like baseline report, annual reports, and project log frame were reviewed to have better understanding about the project interventions, expected outcomes of the interventions and impact indicators to measure the project impacts. The review of the project documents were also help us to understand the overall monitoring and evaluation approach that the project is adopting.

Data scrutiny: All filled in questionnaires were scrutinized properly to avoid the incompleteness of data. The incomplete or wrong filled in questionnaires were identified and were discarded from the analysis.

Data Entry and data processing: All complete and properly filled in questionnaires were entered in the prescribed database that shared by the project. Error checking was performed to get error free data. For error checking of the entered data, we performed logical test, data discrepancy check and outlier check. Data that pass the error check were retained for further analysis and the remaining data will be discarded from the database.

Data Analysis: The error free data were analyzed as per analysis plan of the project and will be shared with the project team before the report preparation.

Report writing

An analytical report was prepared based on the analyzed data that will meet the objective of this assignment.

Findings

Increase in Household Income of the Beneficiaries

One of the major targets of the APONE project is to reduced poverty and more sustainable livelihoods for poor and marginal communities in Mymensingh and Sherpur through sustainable agricultural practices. To measure the impact ‘the number of farmers that see a 50% increase in disposable income’ was set as an indicator. The average annual household income of the project beneficiaries was BDT 56,441 in the baseline survey. Currently the average annual household income of the beneficiaries has been found to be BDT 86,125 which is 53% higher than the baseline annual household income of the beneficiaries. (We consider the mean value as average. The median value and standard deviation are given in the annex)

OUTCOME	Outcome Indicator 1		Baseline	Milestone 1 (March 31st 2013)	Milestone 2 (March 31st 2014)
Reduced poverty and more sustainable livelihoods for poor and marginal communities in Mymensingh and Sherpur through sustainable agricultural practices	Farmers that see a 50% increase in disposable income (disaggregated by gender and ethnicity)	Planned	Average current household income is BDT 56,441 (2012)	10% (600 of 6000) (240 Women/ 180 Garo)	30% (1800 of 6000) (720 Women/ 540 Garo)
		Achieved 2013	Average current household income is BDT 84661 (2013)	40.7% (2919 of 7171) (1547 women/767 garo)	
		Achieved 2014	Average current household income is BDT 86,125 (2014)		60% (4303 of 7171) 1721 women/1291 garo

Improve Production Practice of the Beneficiaries

Another important target of APONE project is to improve farmers' production practices (increased quality and yields, reduced costs etc.) and increased market access. The output indicators of the expected outcome are:

- Number of farmers who see a 15% decrease in production costs
- Number of farmers who see a 30% increase in productivity
- Number of farmers who see a 30% increase in sales

Decrease in Production Cost

The average cost of production of Rice farmers was BDT 22896 in 2014 whereas it was BDT 26667 in 2012 in baseline survey which indicates that farmers have enjoyed 14% reduction in production cost.

The cost of production of the vegetable farmer in 100 decimals land has found to be BDT 44,394 in 2014 whereas in baseline survey it was BDT 53311 which indicates that cost of production was reduced by 17%. (We consider the mean value as average. The median value and standard deviation are given in the annex)

OUTPUT 3	Output Indicator 3.1		Baseline	Milestone 1 (March 31st 2013)	Milestone 2 (March 31st 2014)
Target farmers have improved their production practices (increased quality and yields, reduced costs etc.) and increased market access	Farmers who see a 15% decrease in production costs (disaggregated by gender and ethnicity)	Planned	0% (2012) Av. Production costs in key sectors: Paddy BDT 26667/100 decimal Vegetable: BDT 53311 / 100 decimal Dairy: BDT 24865 / cow Goat: BDT 3911 / goat Poultry: BDT 2864 per 10 birds	10% (600 of 6000) (240 Women/ 180 Garo)	50% (3000 of 6000) (1200 Women/ 900 Garo)
		Achieved 2013	Average production cost in key sector: Paddy BDT 22667/100 decimal (2013) Vegetable: BDT 45314 / 100 decimal (2013) Dairy: Will be assessed in august since production cycle is going on. Goat: Will be assessed in august since production cycle is going on Poultry: Will be assessed in august since production cycle is going on	40.7% (2919 Of 7171) (1547 women/767 garo)	
		Achieved 2014	Average production cost in key sector: Paddy BDT 22896/100 decimal (2013) Vegetable: BDT 44394 / 100 decimal Dairy, goat and fish were not assessed		52% (3729 of 7171) (1492 Women/1119 garo)

Increase in Productivity

The rice farmers enjoyed 32% increase in productivity due to the adoption of improved production practice. In 2014, the average productivity of rice farmers has found to be 2555 kg per 100 decimals land whereas in baseline, it was 1943 kg per 100 decimals.

The vegetable farmers enjoyed 35% increase in productivity due to the adoption of improved production practice. In 2014, the average productivity of vegetable farmers has found to be 5553 kg per 100 decimals land whereas in baseline, it was 4104 kg per 100 decimals. (We consider the mean value as average. The median value and standard deviation are given in the annex)

OUTPUT 3	Output Indicator 3.2		Baseline	Milestone 1 (March 31st 2013)	Milestone 2 (March 31st 2014)
Target farmers have improved their production practices (increased quality and yields, reduced costs etc.) and increased market access	Farmers who see a 30% increase in productivity (disaggregated by gender and ethnicity)	Planned	0% (2012) Av. productivity of key sectors: Paddy: 1943 kg/100 decimal Vegetable: 4104 kg/ 100 decimal LS (cow): 438 Litter milk and 124 kg meat LS (goat) is 13.50 kg meat LS (poultry) is 506 eggs and 10.5 kg meat per 10 poultry bird (local variety)	10% (600 of 6000) (240 Women/ 180 Garo)	50% (3000 of 6000) (1200 Women/ 900 Garo)
		Achieved 2013	Av. productivity of key sectors: Paddy: 2525 kg/100 decimal (2013) Vegetable: 5335 kg/ 100 decimal (2013) LS (cow): Will be assessed in august since production cycle is going on LS (goat):will be assessed in august since production cycle is going on. LS (poultry): will be assessed in august since production cycle is going on.	50% (3586 of 7171) (1901 women/942 garo)	
		Achieved 2014	Av. productivity of key sectors: Paddy: 2555 kg/100 decimal (2013) Vegetable: 5553 kg/ 100 decimal Dairy, goat and fish were not assessed		55% (3944 of 7171) (1578 women/1183 garo)

Increase in Sales

The average sales of rice farmers was BDT 44694 in 2014 whereas in base year it was BDT29690. The average sales of vegetable farmers from 100 decimals land was BDT 68079 whereas it was BDT 65656 in 2012. (We consider the mean value as average. The median value and standard deviation are given in the annex)

OUTCOME	Output Indicator 3.3		Baseline	Milestone 1 (March 31st 2013)	Milestone 2 (March 31st 2014)
Target farmers have improved their production practices (increased quality and yields, reduced costs etc.) and increased market access	Farmers who see a 30% increase in sales (disaggregated by gender and ethnicity)	Planned	0% (2012) <i>Av. sales price of key products:</i> <i>Paddy: BDT 29690/100 decimals</i> <i>Vegetable: BDT 65656/100 decimal</i> <i>LS (cow):BDT 50357/cow</i> <i>LS (goat):BDT 4690/goat</i> <i>LS (poultry)BDT 6794/10 poultry bird (local)</i>	10% (600 of 6000) (240 Women/180 Garo)	40% (2400 of 6000) (1200 Women/900 Garo)
		Achieved 2013	Av. sales price of key products: Paddy: BDT 38597/100 decimals (2013) Vegetable: BDT 67254/100 decimal LS (cow): Will be assessed in august since production cycle is going on LS (goat): will be assessed in august since production cycle is going on LS (poultry): Will be assessed in august since production cycle is going on	56.4% (4044 of 7171 farmers) (2143 women/1062 garo)	
		Achieved 2014	Av. sales price of key products: Paddy: BDT 44694/100 decimals Vegetable: BDT 68079/100 decimal Dairy, goat and fish were not assessed		60% (4303 of 7171 farmers) (1721 Women/1291garo)

Adoption of Environment Friendly Cultivation Practices

APONE promoted environment friendly cultivation practice to the project beneficiaries so that the farmers are less vulnerable to shocks and stresses, especially natural disasters and climate fluctuations by adopting the practices. It was found in the midterm survey that 58% target farmers already adopted the environment friendly cultivation practice.

Approximately 28% of the farmers have tested their soil health to get fertilizer recommendation for their field and use fertilizer accordingly.

Following environment friendly and diversify cultivation practices were adopted by the target farmers as a results of the intervention:

Practice	% of farmers adopted
Soil testing	45%
Compost fertilizer	49%

IPM & ICM	32%
Eco-friendly cropping pattern	12%
Improved irrigation method/device	25%

Annex1: Overall Mean, Median and Standard Deviation for Different Indicators

The mean, median and standard deviation of the household income, production cost, productivity and sales revenue are shown by the following table:

Estimates	Mean	Median	Standard Deviation
Household Income (BDT) per year	86125	85630	16052
Crop			
Rice			
Production Cost (BDT) per 100 decimals	22896	20818	8454
Productivity (KG) per 100 decimals	2555	2583	638
Sales Revenue (BDT) per 100 decimals	44694	40000	15743
Vegetable			
Production Cost (BDT) per 100 decimals	44394	43667	13864
Productivity (KG) per 100 decimals	5553	4800	4553
Sales Revenue (BDT) per 100 decimals	68079	56000	44387

Annex2: Findings for Farmers of Different categories

Average household income of different category of beneficiaries

Land Holding (decimals)	Household Income		
	Mean	Median	Standard Deviation
5-15	85231	85350	14428
16-50	84610	85510	14191
50-76	86197	85350	17384
Above 76	94093	86450	21335
Total	86125	85630	16052

Average production cost, production and sales of Rice of different type of farmers per acre

Land Holding (decimals)	Production Cost			Production			Sales		
	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD

5-15	26052	24000	7576	2661	2667	697	51502	40650	17229
16-50	21837	20083	8264	2486	2556	594	42600	39167	14818
50-76	22760	20500	8292	2595	2600	675	44127	40000	14510
Above 76	24723	23200	9846	2677	2720	684	48186	40000	18473
Total	22896	20818	8454	2555	2583	638	44694	40000	15743

Standard Deviation-SD

Average production cost, production and sales of Vegetable of different type of farmers per acre

Land Holding (decimals)	Production Cost			Production			Sales		
	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD
5-15	42861	40500	13684	4286	3767	1691	55603	49475	20651
16-50	44158	43333	14070	6073	5000	5685	65881	54000	39317
50-76	46526	45429	15014	5191	5000	2024	82060	67350	64340
Above 76	43964	45333	9966	5793	4500	4692	75475	66850	48596
Total	44394	43667	13864	5553	4800	4553	68079	56000	44387

Increased in household income of the beneficiaries of different categories

Land Holding (decimals)	5-15	16-50	50-76	Above 76	Total
	%	%	%	%	%
At least 50% increase income	53	59	57	78	60
Less than 50% income increase	47	41	43	22	40
Total	100	100	100	100	100

Improve Production Practice of the Beneficiaries

Decrease in Production Cost

Land Holding (decimals)	5-15	16-50	50-76	Above 76	Total
	%	%	%	%	%
At least 15% decrease in production costs	36	57	54	44	52
Less than 15% decrease in production costs	64	43	46	56	48
Total	100	100	100	100	100

Increase in Productivity

Land Holding (decimals)	5-15	16-50	50-76	Above 76	Total
	%	%	%	%	%
At least 30% increase in productivity	55	51	58	67	55
Less than 30% increase in productivity	45	49	42	33	45
Total	100	100	100	100	100

Increase in Sales

Land Holding (decimals)	5-15	16-50	50-76	Above 76	Total
	%	%	%	%	%
At least 30% increase in sales	83	54	61	60	60
Less than 30% increase in sales	17	46	39	40	40
Total	100	100	100	100	100

Annex 4 - APONE – MTR : Some Data Disaggregation

Introduction

As part of the APONE project's mid-term review process I challenged the project team to see if the monitoring data collected could be disaggregated by land-holding size. My contention was that doing so may help us better understand how the project impact is experienced by different-sized farmers.

Obviously this exercise requires time, so there is an opportunity-cost there. If the analysis reveals no significant difference in impact between farmers of different sizes, then it probably need not be repeated. However, if there are considerable differences in impact, the findings may inform the implementation of future project activities and future projects. However, the tiers land-holding tiers we have are not evenly distributed, and this itself may place a limitation on what we can learn from the exercise.

Data

Land Holding (dec.)	Count	%
5-15	90	10.61
16-50	444	52.35
50-76	196	23.11
Above 76	118	13.91
Total	848	100

The project team collect monitoring data from 848 farmers. From the project's beneficiary database we have the following breakdown by land-holding size.

1 dec. = 1 decimal = 1/100 acre, approx 40.46m²

Statistical Analysis Provided by Innovision

Consultants Innovision were contracted by TX-BD to input and analyse the APONE project's monitoring data for the year 2 report. As part of this analysis they disaggregated the key findings by land-holding size. See Excel Spreadsheet for data and bar-charts.

Key Findings!?

- There doesn't appear to be a single trend emerging from the data. It appears to be quite a mixed bag.
- The smallest farmers (5-15 dec) appear to do worst at increasing their incomes by 50% + and quite significantly so compared to the largest farmers.
- Similarly, the smallest farmers appear to be struggling to decrease costs by 30% or more compared to the other farmers.
- However, the smallest farmers do best at increasing sales by 30% +. This may be because they're starting from the lowest point.
- Agriculture specialists may be able to shed light on some of the complexities of productivity, costs and sales.
- Discussing these charts with field staff may shed some light on them and how they tally with variations between groups.

Detailed Findings

Average Incomes:

- Average median income per household per acre of land does not vary considerably: 85,350 to 86,450 BDT per household per acre per year.
- The difference is more considerable when using the mean as the average (from 84,610 to 94,093 BDT), suggesting some distortion by high outlier incomes.
- Further analysis could be used to identify who these high outliers are. It may be worth exploring *how* these farmers manage to achieve these higher incomes as possible instances of 'positive deviance'. ('Positive deviance' is an approach that seeks to learn from the small number of instances where people manage to do more with the same set of resources – it was cultivated in product innovation labs at HP – I believe!).

Changes in Income

- Overall for our sample, 60% of our farmers are experiencing income increases of 50% or more. However, this hides significant variation between the smallest farmers and the largest.
- For farmers who own 5-15 decimals of land, only 53% of them are experiencing income increase of 50% +.
- For farmers who own 76+ decimals of land, 78% of them are experiencing income increases of 50% +.
- This is not surprising, as you would expect larger farmers to take advantage of economies of scale in their production methods. However, it may be something worth exploring in more depth and reviewing at the project end.

Production– Decreasing Costs

- Decreases in production costs of more than 15% are not experienced uniformly across the 4 land-holding groups in the sample.
- Only 36% of the smallest farmers (5-15 dec) experienced decreases of 15% +.
- Interestingly, only 44% of the largest farmers (76+ dec) experienced decreases of 15% + (compared to a mean of 55%).
- In contrast 57% and 54% of the 2 middle-tiers (15-50 dec, 50-76 dec) experienced decreases of 15% +.
 - Is this because many of the larger farmers are already 'lead farmers' and managing costs efficiently, so changes in their practices are quite small?
 - It suggests the benefits of our project activities are accruing most to the two middle tiers, and least to the smallest. This may be of a concern: probably the key question is, *is there more we can do to help the smallest farmers decrease their costs?*

Production Practices – Increasing Productivity

- Percentages of farmers experiencing productivity increases of 30% + cluster quite closely around the average percentage of 55% of farmers.
- It is highest for the largest farmers, 67% of them experience productivity increase of 30% or more. For the other 3 tiers the percentages are 55%, 51% and 58% respectively.

Increasing Sales

- There is a stark difference between the smallest farmers and the other three categories of farmers when it comes to the % of farmers experiencing increases in sales value of 30% or more. 83% of the smallest farmers experience increases in sales of 30% +, compared with an average across all categories of 60%.
- This is an encouraging result. It may in part be explained by the possibility that the smallest farmers previously sold the least of their output, therefore they're starting from the lowest starting point.
- It may be worth exploring this in more detail through qualitative case-studies.
- It would be good to clarify whether 'sales' in these cases are measured in terms of volume or value. Of course there is a connection between the two, but if it is in terms of value it may be that the increases can be partly explained through improvements in quality of produce and ability to negotiate better prices.

Average Costs – Production - Sales

RICE - Average Production Cost, Production and Sales - per acre

Land Holding (decimals)	Production Cost (BDT)			Production (KG)			Sales (BDT)		
	Mean	Median	Std Dev	Mean	Median	Std Dev	Mean	Median	Std Dev
5-15	26,052	24,000	7,576	2,661	2,667	697	51,502	40,650	17,229
16-50	21,837	20,083	8,264	2,486	2,556	594	42,600	39,167	14,818
50-76	22,760	20,500	8,292	2,595	2,600	675	44,127	40,000	14,510
Above 76	24,723	23,200	9,846	2,677	2,720	684	48,186	40,000	18,473
Total	22,896	20,818	8,454	2,555	2,583	638	44,694	40,000	15,743

- An agronomist would be better placed to comment on these stats. To my uninformed eye there appears to be quite a lot of similarity for these 3 variables across the difference sized farmers.
- However, what does appear striking is the large standard deviations in the data (average (mean) difference from average (mean) value) – suggesting a large spread of data. For example,
 - Across the four land holding categories, the mean production cost is 22,896 BDT. But the standard deviation of this value is 8,454 BDT. This suggests some farmers have much lower costs and some have much higher. This may reflect different farming conditions (e.g. soil fertility).
 - If the project team think it is worthwhile, further analysis could be conducted on the sample data to see whether particular farmers' groups have particularly low or high costs compared to the averages here. Those with low costs may provide examples that others can learn from, those with high costs may require further support.

VEGETABLES – Average Production Cost, Production and Sales – per acre

Land Holding (decimals)	Production Cost (BDT)			Production (KG)			Sales (BDT)		
	Mean	Median	Std Dev	Mean	Median	Std Dev	Mean	Median	Std Dev
5-15	42,861	40,500	13,684	4,286	3,767	1,691	55,603	49,475	20,651
16-50	44,158	43,333	14,070	6,073	5,000	5,685	65,881	54,000	39,317
50-76	46,526	45,429	15,014	5,191	5,000	2,024	82,060	67,350	64,340
Above 76	43,964	45,333	9,966	5,793	4,500	4,692	75,475	66,850	48,596
Total	44,394	43,667	13,864	5,553	4,800	4,553	68,079	56,000	44,387

- Again, an agronomist can probably interrogate these more effectively.
- Average production levels and sales appear significantly lower for the smallest farmers, compared to the average across the four categories of farmer:
 - Median production is around 20% less than median-average across the four categories.
 - Median sales are around 10% lower than the median average.
- Having said this, the standard deviations suggest large spread for some the data. For example,
 - Mean production for farmers of 16-50 dec = 6,073 kg. Standard Deviation of this mean = 5,685 kg.
 - Mean sales for farmers of 50-76 dec = 82,060 BDT. Standard Deviation of this mean = 64,340 BDT.
 - I'm not sure how to interpret this. I think it suggests very large spread, but coupled with the similarity between medians and means suggests large outliers at both the low and high end of the data-set.

- Partly this diversity may reflect the diversity of the category (lots of different crops are classified as vegetables). But it may also suggest that there is large variation in how successfully different farmers are growing the crops. Again, further examination by farmers' group may help identify which farmers groups need most support.