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AGRO-INPUTS PROJECT

First Gender Assessment



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Agro-Inputs Project in Bangladesh

First Gender Assessment

USAID Cooperative Agreement

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Acronyms

5DE	Five Domains of Empowerment
AIP	USAID Agro-Inputs Project
AIRN	Agro Input Retailers Network
AVAS	Association of Voluntary Actions for Society
FGD	Focus Group Discussion
FTF	Feed-the-Future
GOB	Government of Bangladesh
GPI	Gender Parity Index
HH	Household
IFPRI	International Food Policy Research Institute
KII	Key Informant Interviews
WEAI	Women's Empowerment Agriculture Index

Introduction

The main objective of the USAID Agro-Inputs Project (AIP) is to improve the supply of quality agricultural inputs through retailers. AIP's four interventions are as follows:

- 1) Establishment of an Agro-Input Retailers Network;
- 2) Development of Market Information Systems;
- 3) Setting Quality Control Standards for inputs and lessening Regulatory Constraints; and
- 4) Strengthening Local Organizations towards direct implementation.

AIP is committed to integrating gender equality and empowerment throughout its program objectives, approach, and monitoring. The goal of the initial gender assessment is to identify specific actions AIP can take to effectively address gender equity constraints in the agricultural inputs sector within the scope of the project. These actions will be designed with the goal of empowering female program participants and measuring impact using aspects of the Women's Empowerment in Agricultural Index (WEAI) tool.

Chapter One identifies the objectives and methodology of the gender assessment, while Chapter Two presents the findings of the surveys, focus group discussions, key informant interviews, and the case study. Chapter Two is deliberately centered on reporting the key takeaways from the data collected via each method of field research. The analysis of what was learned will follow in Chapter Five (explained further below).

Chapter Three determines the WEAI score of the potential female retailers, the target group of AIP interventions. The WEAI is a diagnostic tool that will be used to monitor changes in empowerment (across various domains) of potential female agro-input retailers to be reached by the project. The women surveyed for this portion of the assessment were a sub-set of the overall female population, as they were considered to be potential future agricultural input retailers (our target group), as identified by themselves and/or their communities.

Chapter Four, using the same sub-set of female respondents as the WEAI portion of the assessment, analyzes how the planned AIP grants scheme for women entrepreneurs can be implemented most successfully in the target areas of Bangladesh.

Finally, Chapter Five presents the conclusions and recommendations of how AIP can integrate the data and findings from each of its research tools to mainstream gender concerns into all project activities. This includes actionable strategies for AIP to ensure the constraints are addressed where possible, and opportunities to empower women are actualized.

Chapter I: Introduction

Objectives

The USAID Agro-Inputs Project (AIP) aims to wholly integrate female empowerment and gender equality throughout its overall approach and all project activities. As AIP's overarching objective is to improve the supply of quality agro-inputs through retailers, one of the program's primary interventions is centered on establishing an Agro Inputs Retailers Network (AIRN). AIP will seek to increase women's access to agricultural inputs, in part through the provision of matching grants for women entrepreneurs seeking to start-up agro-input retail businesses. These retailers are intended to become members of the AIRN.

As AIP is dedicated to ensuring as many women as possible are effectively reached by the project's trainings, demonstrations, and other activities, this gender assessment explores the situation of women in the project's target areas as it relates to mobility, access to and use of inputs, asset use, and participation in the inputs retail sector. Guiding the entire process of the gender assessment was the Women's Empowerment in Agriculture Index (WEAI), which analyzes women's empowerment across various domains. AIP will not only utilize the data collected in this assessment to analyze how women can be drawn into project activities, it will use the analysis to better design overall program approaches so that women's access to and use of agricultural inputs is improved, and empowerment of women retailers is increased. Ultimately, this assessment will identify appropriate AIP interventions that integrate these issues into program objectives, activities, and indicators.

To accomplish this overarching objective, the specific objectives of the initial gender assessment included the following:

- Identify the current degree of participation of women and men in the agricultural inputs sector- as farmers and retailers- in the Feed-the-Future (FTF) regions of the southern delta of Bangladesh.
- Identify specific actions AIP can take to address the primary constraints facing women in the agricultural inputs sector in target areas of the project and how to address constraints to women's access to and use of safe, quality agricultural inputs.
- Adapt the WEAI to the particular context of women-owned agricultural input retail shops to assess changes in empowerment following program interventions.

These objectives drove the development of questionnaires and proceedings of focus group discussions and key informant interviews. They were the basis of AIP discussions of the findings in order to determine the conclusions drawn from the data, and the recommendations to be included in AIP activity approaches.

Methodology

CNFA contracted three women-owned Bangladeshi NGOs- the Ashroy Foundation, *Banchte Shekha*, and the Association of Voluntary Actions for Society (AVAS) - to conduct field work for AIP's first gender assessment. The study team designed four field instruments and employed them to collect data. These included the following:

- Household (HH) Surveys
- Key Informant Interviews (KIIs)
- Focus Group Discussions (FGDs)
- Case Study

The aim of each of these research tools was to collect information from both men and women on gender roles and relations along the agricultural inputs value chain. Specifically, the tools assessed the following:

- Women’s roles in various stages of crop production and use of agricultural inputs;
- How many women already have access to agricultural inputs, and from where they obtain these inputs;
- How many female agricultural input retailers currently exist, and the challenges they (as well as male input retailers) face in reaching women consumers; and
- The extent of participants’ experience in receiving agricultural extension training, particularly in input-related subjects (such as input application, safety, environmental implications, etc.).

The HH surveys were conducted by the three partner NGOs through the delivery of 312 questionnaires in 78 villages within six districts in AIP target areas. The AIP team monitored the partner NGOs throughout the surveying process. AIP staff conducted the KIIs, which were held with extension service providers, agricultural input suppliers, and other service providers who are linked with smallholder farmers. The discussion points of the KIIs focused on information related to select variables of the HH survey questionnaires, and on the experiences of the stakeholders regarding what is needed to create women-owned retail shops. The FGDs at the *upazilla* and union levels used a checklist and guideline as points of departure for discussion with male and female farmers, female entrepreneurs, female agriculture extension workers, and male agricultural inputs retailers. In addition, a case study was conducted to explore the concept of empowerment as it relates to the five domains of the WEAI.

To address the WEAI, AIP sought additional responses from a sub-set of survey participants (90 in total). This subset was a concentrated group of existing agro-input retailers and individuals expressing interest in becoming agro-input retailers. This was done so that the WEAI-related surveys (the responses of which were used to determine an AIP-adapted index figure) could be replicated in AIP’s second gender assessment to analyze changes in empowerment amongst the target population of women retailers. To better suit the needs of AIP, the study team modified the WEAI by changing the first domain from “production” to “business.” As the methodology for the calculation of the index is rather complex, it is further explained in the beginning of Chapter Three.

AIP also asked this same sub-set of the survey population questions regarding the potential modalities of the matching-grants activity of AIP. The primary purpose of this portion of the assessment was to identify the weaknesses and opportunities for grant making for potential women retailers in order to develop a strong, realistic grants structure based on these observations and conclusions. Further details on this methodology can be found in Chapter Four.

Chapter II: Findings- Output of Gender Assessment Questionnaires, KIIs & FGDs

Household Surveys

This section explores the responses from Household (HH) surveys. The HH surveys were delivered to 312 respondents in the rural areas in the districts of Khulna, Bagerhat, Jessore, Narail, Barisal and Patuakhali. These districts (indicated in red in the map below) were selected as they are Feed-the-Future districts in AIP's project area. A total of 156 male and 156 female respondents from randomly-selected households in these districts were interviewed.

Map of Survey Sites



Out of the total 312 respondents surveyed, 156 were male, and 156 were female. All HH survey respondents were rural farmers.

Field-level data collection processes were conducted under the direct supervision of the partner NGO lead facilitators. AIP routinely monitored the data collection process to ensure data collectors were asking survey and interview questions properly. AIP randomly selected 10% of the households interviewed to re-interview in order to check data quality. Errors, appropriate procedures and additional observations were discussed with groups at the end of day of data collection, retraining of data collectors to minimize the possible same type of mistakes by other data collectors.

The sections below report the key findings from the responses of HH survey participants. The conclusions of these findings will be included in Chapter Five, following the presentation of data from the other research tools.

Findings

Household Head

To better understand decision-making within households, AIP first sought to ascertain how many households in the target geographical areas are headed by women. Participants were asked to indicate the head of each of their households. Only 10.3% of respondents were themselves female household heads, and just over 87% of the participants' households were identified to be headed by men (including male respondents, respondents' sons, husbands, and fathers-in-law). Table 1 below presents the responses of both men and women regarding heads of their households. An additional column presents the percentage of women's responses out of the total so that AIP was able to identify how many female respondents were themselves heads of their households.

Table 1: Heads of Participants' Households

Household Head	Male Respondents		Female Respondents		Female Responses as % of Total
	Number	%	Number	%	
Self	145	92.9	32	20.5	10.3
Son	11	7.1	-	-	-
Spouse	-	-	114	73.1	36.5
Mother	-	-	5	3.2	1.6
Daughter-in-law	-	-	3	1.9	1.0
Father-in-law	-	-	2	1.3	0.6
Total Responses	156	100	156	100	312

Education Level of Respondents

AIP sought information on the education level of women (and the overall population) in the program area, particularly to inform the project team on how to best present training and promotional materials, and assess women’s existing knowledge related to maintaining accounts and conducting calculations. The HH surveys requested participants to identify the greatest level of education they had attained. A total of 18.6% of female respondents identified as illiterate, and 15.4% indicated they can only sign their names. Nearly 2% of males can neither read nor write- a difference from women that is statistically significant. Table 2 below presents the responses by men and women separately, and then as aggregated responses.

Table 2: Education Level of Respondents

Education Level	Male		Female		Total	
	Number	%	Number	%	Number	%
Illiterate	3	1.9	29	18.6	32	10.3
Can sign only	26	16.7	24	15.4	50	16.0
Primary School	68	43.7	62	39.7	130	41.7
Some Secondary School	31	19.9	33	21.2	64	20.5
Secondary School Certificate	19	12.2	7	4.5	26	8.3
High School Certificate	1	0.6	-	-	1	0.3
Bachelor’s Degree	7	4.5	1	0.6	8	2.6
Master’s Degree	1	0.6	-	-	1	.3
Total	156	100	156	100	312	100

Primary Occupation of Respondents

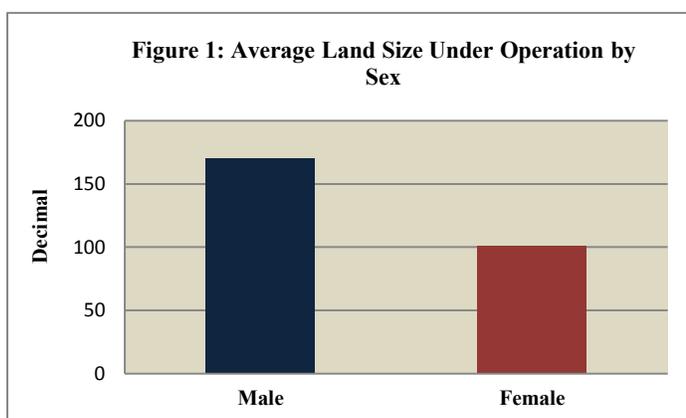
To help get a picture of how many women are involved in the agricultural sector (and thereby use/have the opportunity to use agricultural inputs), AIP asked participants to identify their primary occupation. This question was also asked to determine to what extent women are house-bound. A total of 68.6% of female respondents indicated that they are primarily engaged in agriculture, and 30.8% identified primarily as housewives. Table 3 below presents the responses, disaggregated by men and women, and then at the aggregate level.

Table 3: Primary Occupation of Respondent

Primary Occupation	Male		Female		Total	
	Number	%	Number	%	Number	%
Agriculture	150	96.2	107	68.6	257	82.4
Small Business (Off-farm)	1	0.6	-	-	1	0.3
Agro input Business	2	1.3	-	-	2	0.6
Service (Non-Government)	1	0.6	-	-	1	0.3
Housewife	-	-	48	30.8	48	15.4
Other	2	1.3	1	0.6	3	1.0
Total	156	100	156	100	312	100

Land Size Under Operation by Sex

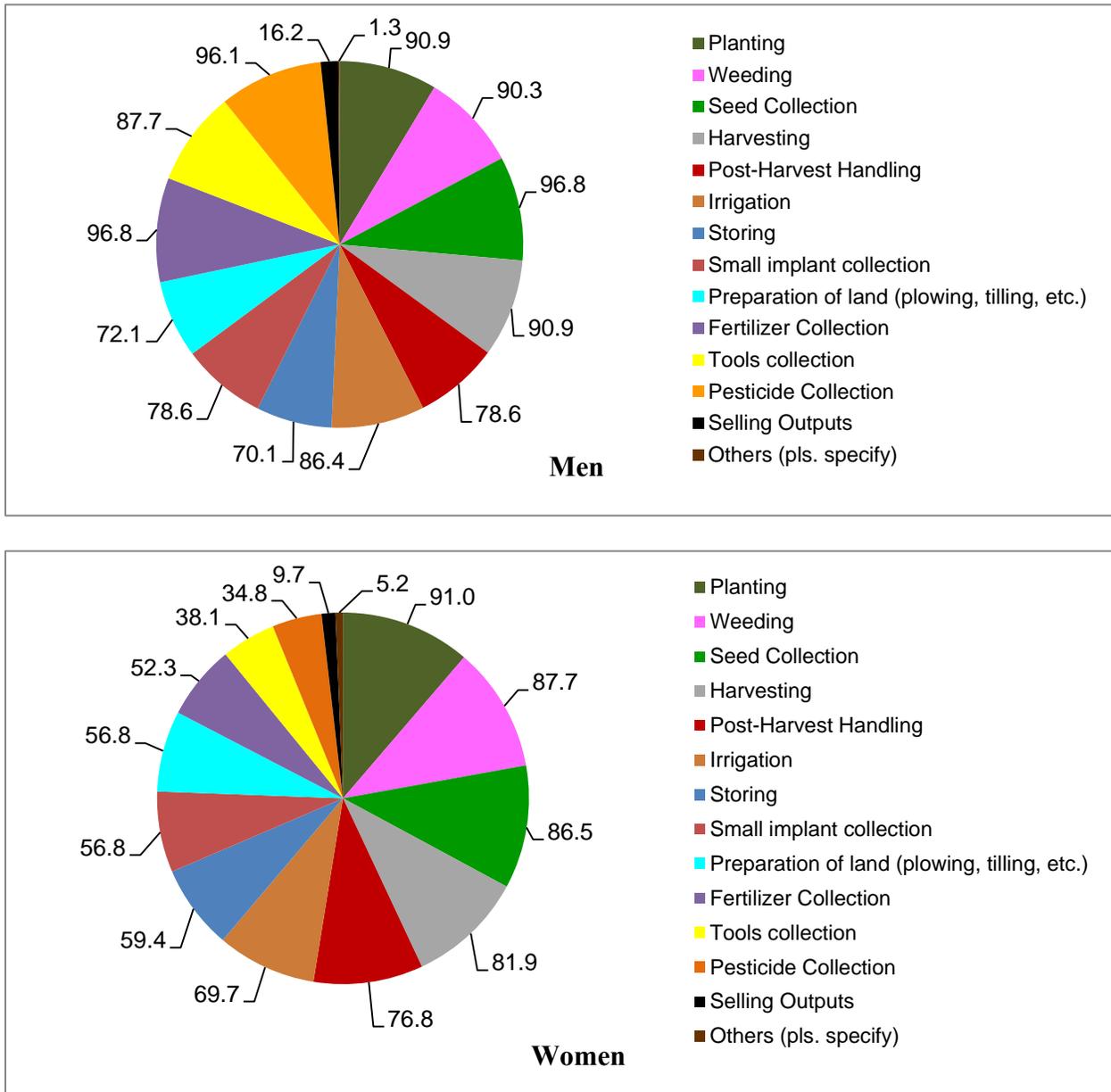
It was important for AIP to collect data on the size of land under operation by men and women so that AIP could assess what kinds of input packages would be most appropriate to target in the program areas, particularly to women. “Land under operation” includes own cultivatable and homestead land, as well as mortgaged and leased land. The mean size of agricultural land under operation by households owned by men is 170 decimals (100 decimals = 1 acre, 2.47 acres = 1 hectare), whereas for women, on average, it was only 101.5 decimals (only 59.7% the size of land under operation by male-headed households). Figure 1 illustrates the differences in mean land size under operation by male and female participants.



Agricultural Activities Undertaken by Female and Male Farmers

AIP asked participants to identify the agricultural activities in which they participate. By determining the stages at which women are most often involved, the project could better target its interventions regarding input products and appropriate use. The survey found that women are most involved in planting, weeding, and harvesting. Figure 2 illustrates the agricultural activities in which men and women respondents indicate they participate. Of note, While 96.1% of men indicate they are involved in purchasing pesticides, only 34.8% of women said they did the same; similarly, while 96.8% of men indicated they are involved in purchasing fertilizer, only 52.3% of women said the same.

Figure 2: Agricultural Activities Participated In by Men and Women (% of Each Group)



Decision Making

AIP asked participants a series of questions regarding who is responsible for making various agricultural and financial decisions within each participant’s household. This was done to determine the appropriate design and targeting of various project activities. Female participants indicated whether they were responsible for making those decisions, whether their husbands or other adult males made those decisions, or whether they made those decisions together with their husbands. Male respondents could identify whether they or another adult male made those decisions, whether their wife made those decisions, or whether they made those decisions together with their wife.

The survey results showed differences in perception of decision-making authority for many of the topics addressed. In many instances where women viewed both she and her husband had decision-making authority, male respondents indicated that they alone were responsible for making those decisions. These differences in perception aside, a majority of both males and females indicated that both shared authority on “how to spend money.” Individual participation in the workforce was another area in which men and women indicated both they and their spouses were involved- although this percentage was just over 42% and 43% of men’s and women’s responses, respectively. While the majority of men perceived they alone were responsible for making decisions regarding which agricultural inputs to purchase, approximately 40% of women indicated that she was involved with her spouse in making those decisions. Table 4 below presents the percentages of responses given by men and women to each of the questions.

Table 4: Decision-Making Authority within Households

Decision-making Areas	Male			Female		
	Myself or Other Adult Male	Wife	Both	Myself	Husband or other adult male	Both
How to spend money	43.0%	0.6%	56.4%	18.6%	23.1%	58.3%
Which commodities to produce for household consumption	66.7%	1.3%	32.1%	32.3%	21.3%	46.5%
Which commodities to produce for the market	69.0%	0.7%	30.4%	22.2%	25.9%	51.9%
Which inputs to purchase	73.8%	0.6%	25.6%	24.4%	35.3%	40.4%
Sale of outputs	63.1%	2.0%	34.9%	22.7%	34.0%	43.3%
Individual participation in the workforce	52.0%	5.8%	42.3%	23.7%	32.7%	43.6%

Access to Inputs and Agro-Input Retail Shops

AIP explored the roles of women and men in obtaining agricultural inputs, including from where inputs are purchased or otherwise obtained. The inputs in question for this survey included seeds, fertilizer, and pesticide. The questionnaires allowed for respondents to indicate who else in the household was involved in obtaining a given input, as this would allow AIP to get a better grasp on the involvement of women and men within households, regardless of the respondent’s role in the home. The input which women (female respondents; male respondents’ wives; and respondents’ daughters) were most likely to obtain was seed, followed by fertilizer, and then pesticide. For all three inputs, more men (male respondents; female respondents’ husbands; and

sons) than women were involved in purchasing or otherwise obtaining the input. Figure 3 below illustrates this distribution, while Table 5 presents the responses disaggregated by men and women, as well as women’s responses as a percentage of the total.

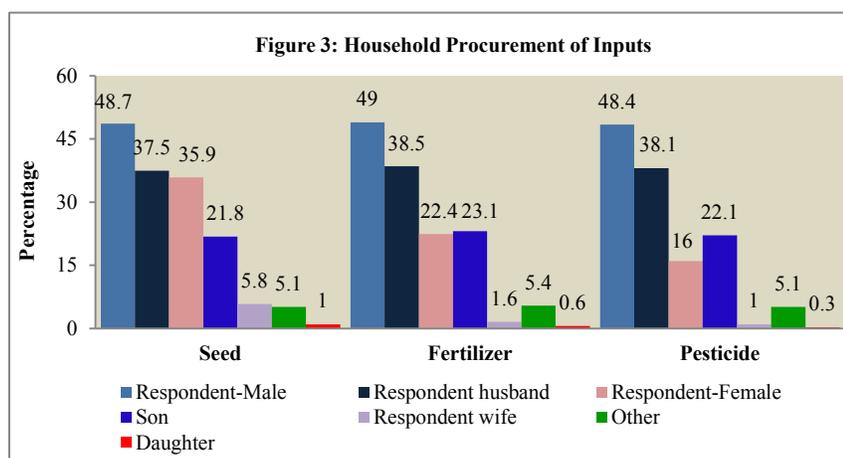
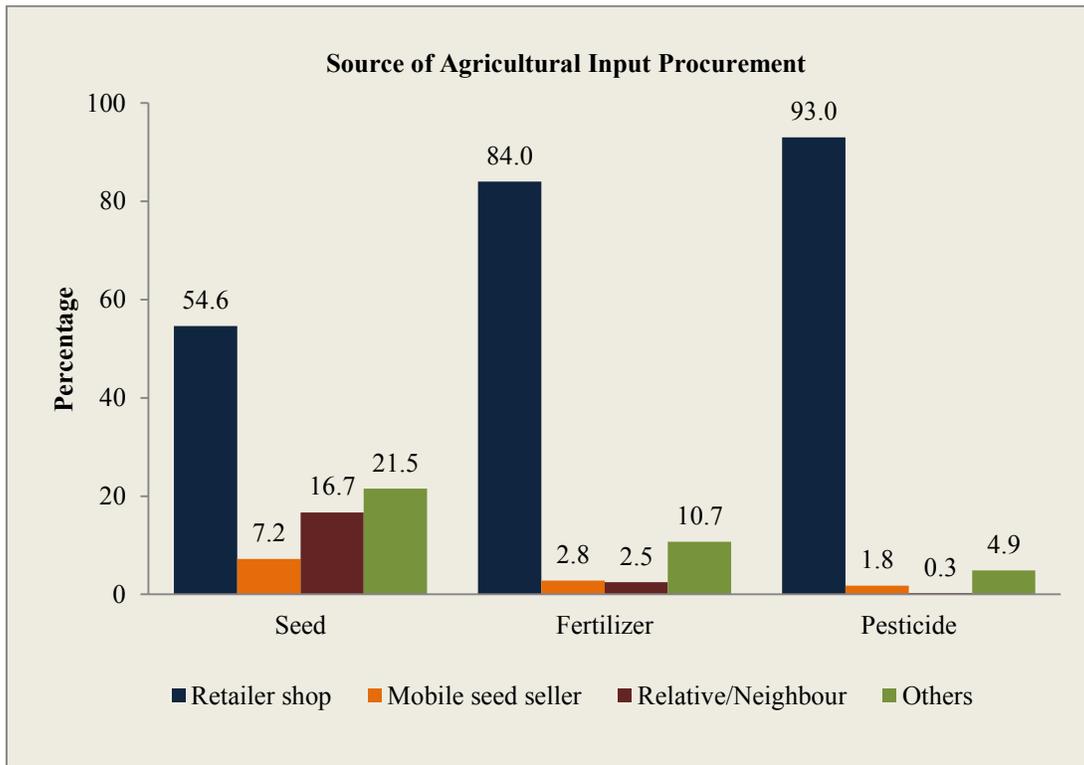


Table 5: Procurement of Inputs

Type of respondent involve to purchase inputs	Seed					Fertilizer					CPP				
	Male		Female			Male		Female			Male		Female		
	#	% of responses	#	% of responses	% of women of total responses	#	% of responses	#	% of responses	% of women of total responses	#	% of responses	#	% of responses	% of women of total responses
Respondent-Male	152	97.4	-	-	-	153	98.0	-	-	-	151	96.8	-	-	-
Respondent –Female	-	-	112	71.8	35.9	-	-	70	44.9	22.4	-	-	50	32.1	16.0
Respondent husband	-	-	117	75.0	37.5	-	-	120	76.9	38.5	-	-	119	76.3	38.1
Respondent wife	18	11.5	-	-	-	5	3.2	-	-	-	3	1.9	-	-	-
Son	32	20.5	36	23.1	11.5	35	22.4	37	23.7	11.9	33	21.2	36	23.1	11.5
Daughter	-	-	3	1.92	1.0	-	-	2	1.2	0.6	-	-	1	0.6	0.3
Other	9	5.8	7	4.5	2.2	5	3.2	12	7.7	3.8	6	3.8	10	6.4	3.2
# of total respondent	156		156		312	156		156		312	156		156		312

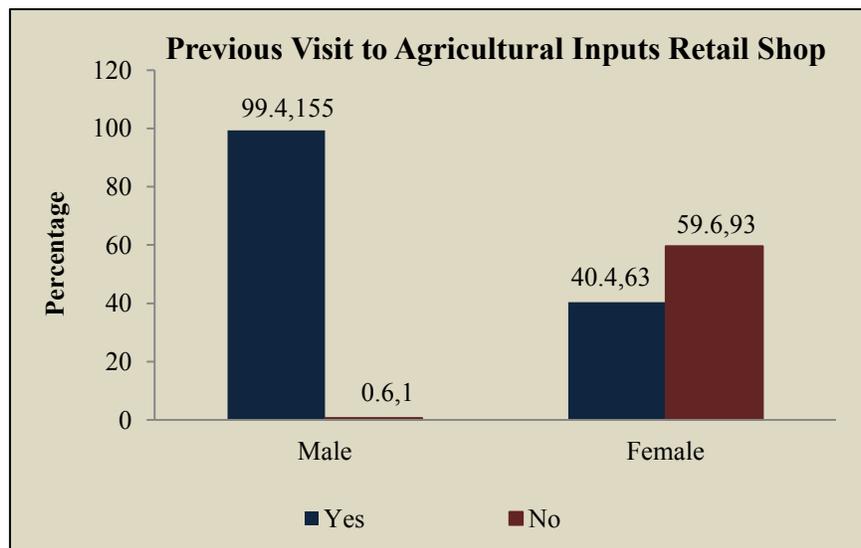
Participants were then asked from where they obtain the inputs. For all inputs, the majority of respondents went to retail shops (see Figure 4 below).

Figure 4: Source of Input Procurement



However, when men and women were asked separately if they had ever visited an agro-input retail shop, the differences were striking. As shown in Figure 5 below, while nearly 99.5% of men indicated they had visited an agro-inputs retail shop, fewer than 41% of women had done so themselves.

Figure 5: Previous Experience Visiting an Agricultural Inputs Retail Shop



AIP then asked participants if they were aware of the existence of any women-owned agricultural input shops. Out of the 312 respondents, only 27 (15 male and 12 female) were aware of any women-owned agricultural input stores. Table 6 below presents the responses from men and women who *had* known of women-owned agricultural input stores regarding whether or not they visited the shop and if they did, what type of inputs they purchased.

Table 6: Purchases from Women-Owned Agro-Input Retail Shops

Type of Respondent	Number of Respondents Aware of Women-Owned Input Shop	Number of Respondents who Visited Women-Owned Input Shop	Inputs Purchased (Number of Respondents)				
			Seed	Fertilizer	Pesticide	Agro-Tools	Others
Male	15	8	6	3	3	2	1
Female	12	6	4	1	-	-	2

A total of 56 of the 312 respondents indicated that they knew of women retailers when *mobile* sellers were considered. When the numbers of the retailers they knew (including mobile sellers) were tallied, a total of 257 women agro-input sellers were counted. Of the 312 respondents, 69 indicated they knew of women interested in becoming future agro-input sellers. When the numbers of the women they knew to be interested in such business were tallied, a total of 222 women were counted.

To further explore women’s access to agricultural inputs from retail shops, participants who indicated they owned a retail shop (2% of total respondents) were asked about the challenges they observed in providing agricultural inputs to female customers. The retailers indicated challenges for women customers to transport purchases to where they were needed; women did not know the appropriate quantity of input to purchase; women did not know which inputs best fit their needs; women did not know how to use the input available in the store; or that women rarely or never came to their stores. The retailers’ responses are presented in Table 7 below.

Table 7: Challenges in Providing Agricultural Inputs to Female Customers

Challenge in Reaching Women Customers in Agro-Input Retail Shops	Number of Respondents Reporting Challenge
The women were unable to transport purchases to where they were needed	5
The women do not know the appropriate amount of input to purchase	4
Women customers rarely visit the store	3
The women do not know which inputs are best to fit their needs	2
The women do not know how to use the input available in the store	2
Women customers do not ever visit the store	1

Autonomy

To assess men’s and women’s attitudes towards female mobility and autonomy (including participation in the workforce, roles in agriculture, and visiting markets alone), AIP provided a series of statements to survey participants to which they could agree, disagree, or indicate they do not know how they feel. Table 8 below presents the statements, and the percentages of men and women who agreed, disagreed, or did not know.

The vast majority of respondents agreed that women are able to work outside the home if she would like (80.8% of men and 96.2% of women). While a large majority of men and women agree that a husband and/or others are uncomfortable with a woman going to the market by herself (86.5% of men, and 77.6% of women), and half of women reporting they feel uncomfortable going to the market alone, responses regarding women being more likely to the market for agricultural inputs if there was a woman-owned store were very positive (92.3% of men and 96.8% of women agreed).

Table 8: Autonomy

Statement	Percentage					
	Agree		Disagree		Do Not Know	
	Male	Female	Male	Female	Male	Female
A woman should be able to work outside the home if she wants to	80.8	96.2	16.7	3.2	2.6	.6
A woman should be able to make decisions about which crops to grow	78.8	96.2	20.5	3.2	.6	.6
A woman should be able to make decisions about selecting agricultural inputs	76.3	89.7	23.1	8.3	.6	1.9
A woman feels uncomfortable going to the market by herself	60.9	50.0	35.3	48.7	3.8	1.3
Husband and/or others do not want a woman to go to the market by herself	86.5	77.6	13.5	21.8	-	.6
A woman can find the agricultural inputs most appropriate to her needs in the market	73.1	85.3	26.3	14.1	.6	.6
A woman would be more likely to go to the market for inputs if there was a woman-owned store	92.3	96.8	5.8	3.2	1.9	-
Women can sell agricultural products in the market	73.7	80.8	25.0	16.7	1.3	2.6

Membership in Groups

AIP asked survey participants about their participation in groups, as this could indicate areas of opportunity to leverage resources for matching grants and to reach program beneficiaries for AIP activities and messaging as a whole. Delving further into whether participants also hold leadership roles within these groups could also shed light on the current level of empowerment of individuals participating in the survey, as referenced in the WEAI. As can be seen in Figure 6 to the right, a majority of surveyed women (63%) belong to groups, while less than half of men (46%) belong to a group. Anecdotally, this could be due to many NGOs targeting women's membership. Few of the women who belong to groups (15%, or 9.6% of all women surveyed) also hold leadership roles.

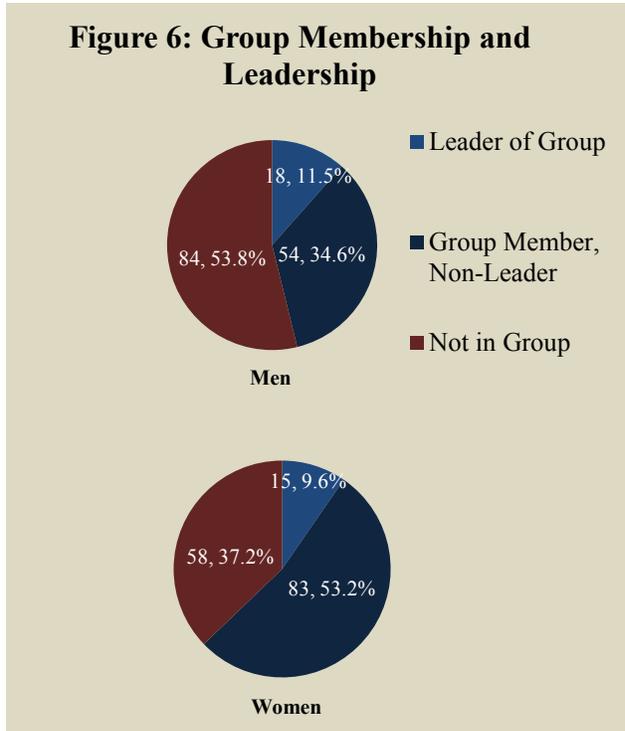
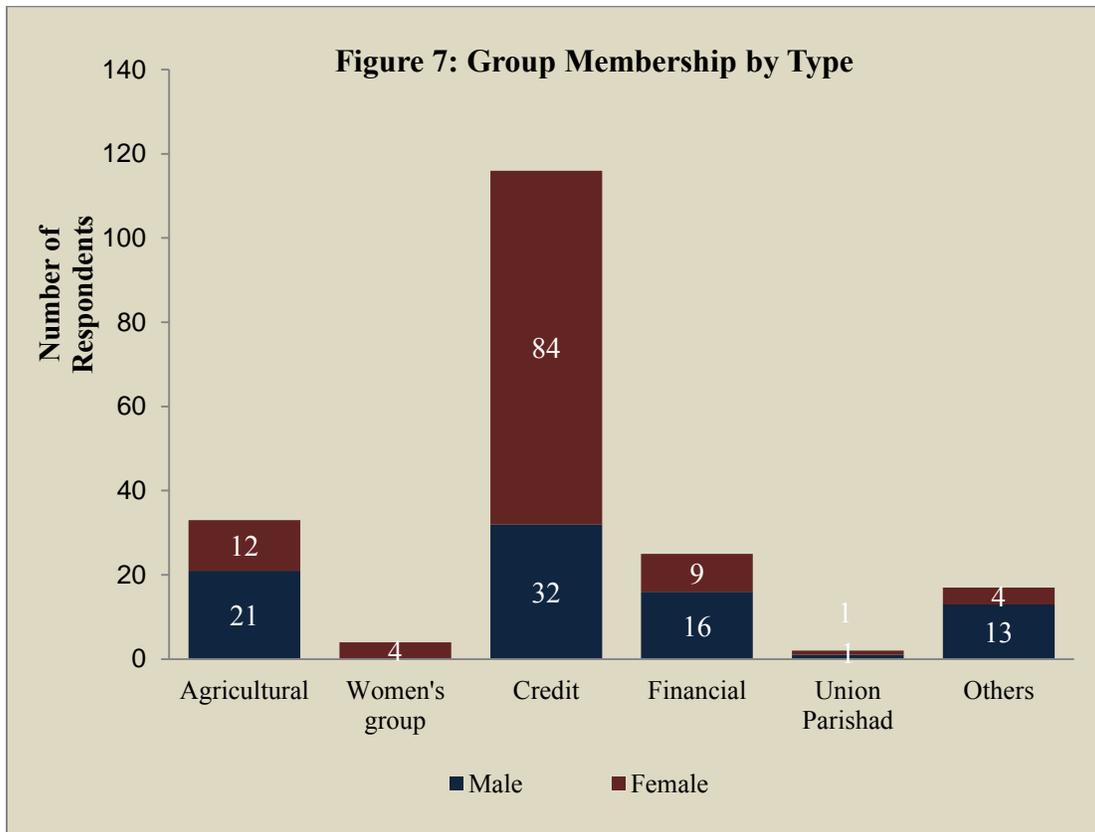


Figure 7 below illustrates the types of groups people belong to. The most common type of group amongst both men and women was a credit group.



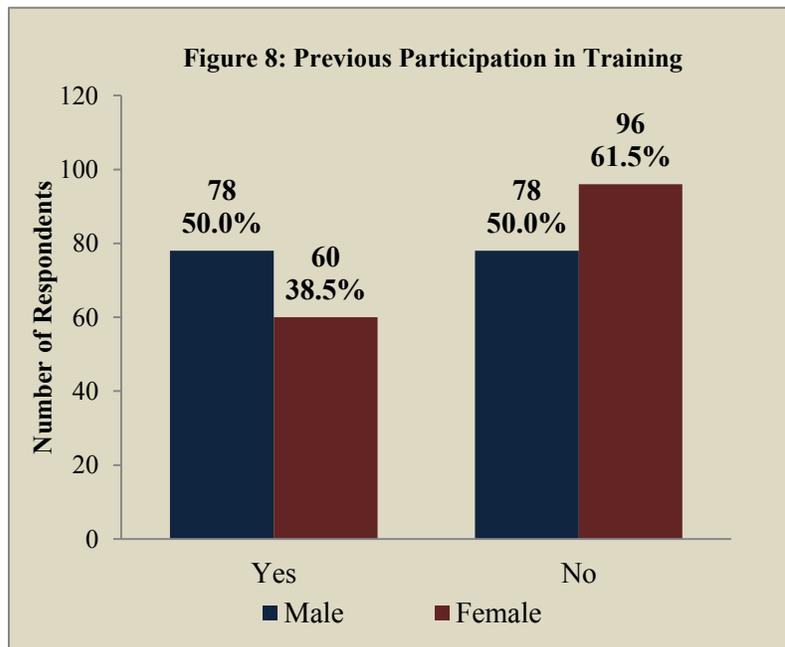
Reasons for not belonging in any groups are provided below in Table 8. While it was expected that family barriers or cultural restrictions might be the reason some women do not belong to groups, it was noteworthy that the survey results indicate that this is not a major issue. Only 4.5% of all women surveyed indicated that family barriers prevented them from joining a group, and only 3.8% listed cultural/religious restrictions as a barrier.

Table 8: Reasons for Not Belonging to a Group

Reasons for Not Belonging in Any Groups	Male		Female	
	Number	%	Number	%
Lack of Free Time	21	13.5	16	10.3
Distance	1	0.6	4	2.6
Difficulty Traveling Alone to Meetings	-	-	4	2.6
Cultural/Religious Restrictions	-	-	6	3.8
Family Barrier	-	-	7	4.5
No Interest	33	21.2	21	13.5
Other	30	19.2	15	9.6
# of Total respondents	156		156	
# of Total responses	85		73	

Access to Training and Extension Services

AIP sought to evaluate the difference between male and female participation in training and extension services to gauge how well women are being reached by these services, and to identify any subjects that may be deficient in trainings provided to/received by women. Only 38.5% of surveyed women had previously participated in trainings/extension services, compared to 50% of men. Figure 8 illustrates the proportions of men and women whom have participated in trainings, while Table 9 below shows the types of trainings attended by men and



women. It is important to note that only 38 women (24.4% of all women, but 63.3% of women having received some type of trainings) reported having received general instruction in agricultural input use. In addition, only 12.5% of the entire survey population (39 people total/ 28.3% of all people whom have received trainings) have received trainings on environmental issues related to agricultural inputs.

Table 9: Types of Training Previously Received by Respondents

Type of Training	Male		Female	
	Number	% (of respondents receiving training)	Number	% (of respondents receiving training)
Land Preparation	53	67.9	34	56.7
Agricultural Input Use: General Instruction	56	71.8	38	63.3
Agricultural Input Use: Environmental Issues (Handling, Usage, and/or Disposal)	5	6.4	34	56.7
Integrated Pest Management (IPM)	49	62.8	23	38.3
Harvesting	40	51.3	21	35.0
Post-Harvest	20	25.6	11	18.3
Marketing	2	2.6	2	3.3
Farming as a Business	4	5.1	3	5.0
Seed as a business	1	1.3	3	5.0
Other	22	28.2	12	20.0

As shown in Table 10 below, by far the most important reason for not participating in trainings is there was no opportunity for them to attend. This was a problem for 50% of all surveyed women.

Table 10: Reasons for Not Participating in Training

Reasons for Not Participating in Trainings	Male		Female	
	Number	% of All Men Surveyed	Number	% of All Women Surveyed
Lack of free time	14	9.0	11	7.1
Distance	2	1.3	2	1.3
Cultural/religious restriction	-	0.0	6	3.8
Family barrier	-	0.0	4	2.6
No opportunity for training	60	38.5	78	50.0
No interest	4	2.6	4	2.6
Other	2	1.3	2	1.3
# of Total respondents	156		156	
# of Respondents whom haven't participated in trainings	82		107	

AIP also asked respondents if any of the trainings they received had been delivered by women. Only 47 women (30%) surveyed had received any trainings given by women; notably, this figure represents 78.3% of the women who *did* receive trainings.

Access to Credit

AIP asked survey participants about whether they had previously accessed credit. A total of 36% of male and 34% of female participants indicated they had indeed previously received a loan. The utilization of these loans is provided in Table 11 below. The greatest use of loans amongst both sexes was for agricultural activities.

Table 11: Utilization of Loans

Loan Use	Male		Female	
	Number	%	Number	%
Agriculture	31	55.4	55	53.4
Fish Cultivation	15	26.8	11	10.7
Livestock Purchase/Poultry Rearing	7	12.5	18	17.5
Land Purchase/Lease	7	12.5	17	16.5
Agriculture Input Purchase	6	10.7	11	10.7
Small Business	5	8.9	12	11.7
Home Construction	1	1.8	8	7.8
Children Education	3	5.4	12	11.7
Family Purposes (Food, Medical Treatment, Wedding)	3	5.4	13	12.6
Machine/van/rickshaw purchase	1	1.8	5	4.9
Other	-	-	7	6.8

Key Takeaways from Household Surveys

- Men are most frequently the household heads and/or decision makers in the project area. 87% of the households in the surveyed area were headed by men, and men claimed sole decision-making authority in a number of areas- including nearly 74% of men claiming sole household authority for decisions regarding the purchase of agricultural inputs.
- Women in the target area are lacking in education and literacy. Nearly 19% of the surveyed women are illiterate, compared to 1.9% of men.
- Most women in the project area are involved in some aspect of agricultural production for the household. Nearly 69% of women described “agriculture” as their primary occupation- more so than those who felt being a housewife was their primary occupation.
- An average, female-headed households work on agricultural land only 59.7% the size of land under the operation of male-headed households.
- In agricultural production in the project area, women are primarily involved in planting, weeding, and harvesting.
- Not many female agricultural input retailers are known to exist in the project area; those who do are primarily mobile seed retailers.
- Some women (34%) have previously accessed credit, often made available through membership in groups.
- Not many women have received training in agricultural input use (only 24.4% of all women surveyed) or environmental issues (only 21.2% of all women surveyed).

Focus Group Discussions (FGDs)

The focus group discussions (FGDs) had three objectives:

- Describe the current degree of participation of women in the agricultural input sector, particularly as retailers and as consumers.
- Identify specific actions AIP can take to address the primary constraints facing women in the agricultural inputs sector in Bangladesh within the given scope of the Agro-Inputs Project (AIP).
- Inform how AIP can enable the establishment of sustainable, successful women-owned input retailers and address the challenges to increasing women's access to and use of safe, quality agricultural inputs.

The FGDs were conducted at the *upazilla* and union levels. Each FGD had 7-12 participants. At the *upazilla* level, participants were selected from three to five unions, and at the union level, participants were selected from three to five villages. The participants in the FGDs and their respective *upazillas* and districts are provided in Table 12 below.

Table 12: FGD Participants, *Upazilla* sand Unions Covered

FGD Participants	No. of Participants	<i>Upazillas/Unions and No. of Participants</i>	Districts
Female Agricultural Inputs Retailers (<i>Upazilla</i> -based session, where participants came from 3-5 Unions)	28	Rupsha <i>Upazilla</i> - 9 Manirampur <i>Upazilla</i> - 7 Miladi <i>Upazilla</i> – 12	Khulna Jessore Barisal
Smallholder Female Farmers (Union-based session, where participants came from 3-5 villages)	31	Mansha Bahirdia Union- 13 Fokirhat <i>Upazilla</i> Shalnagar Union - 9 Lohagara <i>Upazilla</i> . Udoy Kati Union - 9 Banaripara <i>Upazilla</i>	Bagerhat Narail Barisal
Female Agricultural Extension Agents (<i>Upazilla</i> -based session, where participants came from 3-5 Unions)	25	Fultala <i>Upazilla</i> - 9 Sadar <i>Upazilla</i> - 7 Dasmina <i>Upazilla</i> – 9	Khulna Narail Patuakhali
Smallholder Male Farmers (Union-based session, where participants came from 3-5 villages)	33	Gaola Union - 9 Mollarhat <i>Upazilla</i> Putkhali Union-10 Sarsha <i>Upazilla</i> Panpotti Union-15 Golachipa <i>Upazilla</i>	Bagerhat Jessore Patuakhali
Male Input Retailers (<i>Upazilla</i> -based session, where participants came from 3-5 Unions)	27	Khulna Sadar <i>Upazilla</i> - 9 Jessore Sadar <i>Upazilla</i> - 9 Mirjaganj <i>Upazilla</i> - 9	Khulna Jessore Patuakhali

The sections below describe the topics and outcomes of each group of FGDs that took place. The overall conclusions of the findings, as well as recommendations they helped inform, will be addressed in Chapter Five.

Female Agricultural Input Retailers

The FGDs with female small business entrepreneurs assessed the constraints the women felt they face as female retailers of agricultural inputs. Through these FGDs, AIP gained a better understanding of how their circumstances affect the shape and constitution of their businesses, and what needs could be addressed and opportunities could be realized to enhance women's involvement in the sector.

It became clear that women-run agricultural input businesses typically operate out of a woman's home, and that the women primarily sell only seeds and fertilizer. Pesticides are "taboo" for women retailers, as there are many societal pressures discouraging women from handling chemicals such as pesticides (as they are widely believed to universally be a threat to women's health). The control over income generated from women's agricultural input businesses varied from location to location depending on where participants resided- some women indicated they could independently decide what to do with their profits, while some discuss what to do with their money with their husbands or other male household members, and some indicated that their husband's opinion take greater weight in deciding what to do with their income. When women do get to decide what to do with their profits, or have a substantial say in deciding what to do with them, they typically re-invest in their business; spend on their children's education; or spend on other family expenses.

One of the constraints for women retailers that the participants identified is the large size of the bags, packages, and containers of agricultural input products- this is not only a problem for female customers, but for female shop owners and staff members as well. Another constraint is lack of capacity in bookkeeping/accounting. Women also identified lack of cash (for working capital) and poor access to market information as barriers to becoming involved in the agricultural inputs sector, as well as religious and social barriers. To overcome these hurdles, some female entrepreneurs have involved men and/or boys to assist in loading and unloading inputs; obtain credit; and validate market prices. Other female entrepreneurs have assisted them by orientating them in the beginning of their business operations; collectively purchasing inputs and materials to reduce costs; selling products; and taking out loans. When the women were asked if they had written a business plan for their operations, they replied that although they plan their businesses seasonally in their minds, they did not have experience writing formal business plans. The female entrepreneurs expressed a desire to learn from/replicate best practices in the agricultural inputs retail business. The female entrepreneurs also stated that if they could collectively prepare their business operation plans, that would help them to reduce inputs transport cost, replicate best practices in the business and solve different problems.

The female entrepreneurs indicated that the positive outcomes of running their own businesses include increased self-confidence; increased decision-making capacity at home, increased financial solvency; increased acceptance in the family and society; and increased ability to provide their children education and nutritious food.

Smallholder Female Farmers

AIP conducted FGDs with groups of smallholder female farmers to assess their current knowledge of and access to agricultural inputs. In addition, AIP sought to better understand women's participation in agriculture in the target regions of Bangladesh, including which crops they produce, and access to agricultural information.

Female farmers are primarily involved in cultivating vegetables (including okra, gourds, potato, brinjal cabbage, and taro), paddy, and fruits and spices. Most women in the discussions noted that male family members traditionally are the ones who determine which inputs and resources are need for agriculture/farming, although women may make suggestions. The main obstacles participants identified they face in their day-to-day work in agricultural production include access to finance; disease and insects in the fields; natural disasters such as heavy rainfall or drought or storms; and inability to get a fair price for their produce. Most of the women indicated they had little access to or knowledge of training and other opportunities of support for their activities.

Only in women-headed households did women report purchasing inputs from the market; otherwise, male members of the households purchase the inputs from the market. However, women do often preserve seeds and sell them to neighbors informally. The reasons women gave for why they do not go to the market to purchase inputs themselves include the following:

- Social restrictions/ fear of criticism for going to the market.
- Men have the knowledge to select the appropriate inputs, access to market information, and do not come under criticism for going to the market.
- Difficulty bearing the sizes of inputs packages, bags, and containers.

The female farmers indicated they had little knowledge about any female agricultural inputs retailers in their communities, except for hearsay about women selling agricultural inputs in the Swarupkathi *upazilla* in Barisal. However, women said that if they knew of female agricultural input retailers they would feel comfortable going to them to purchase inputs and seek advice. They would also be encouraged to become involved in the inputs retail sector themselves.

Female Agricultural Extension Agents

AIP conducted FGDs with female agricultural extension agents to determine the extent to which women are available as information resources to female members of the farming community. This was considered important as the project assumes female farmers may be better able to access information and extension services if they are provided by women. This may also affect the type of information being provided.

The female agricultural extension agents reported that there are few women at the decision-making central authority for agricultural extension. This affects the decisions regarding which facilitating materials are distributed to the extension agents, who make requests to the central authority. They claim that as a result, most of the materials are not women-friendly, since the central authority does not understand the field-level situation, and lacks gender sensitivity/planning.

The female agricultural extension agents also identified a number of the difficulties they face within the communities where they work. As women, their ability and capacity are devalued, particularly in some communities where religion and/or superstition play a role in the attitudes towards women in these roles. Poor communication and insecurity are also challenges that affect women in particular, as it affects when and where they may work.

Male Agricultural Inputs Retailers

FGDs were held with male agricultural input retailers to compare their experiences with female agricultural input retailers, and to obtain the male perspective on the constraints confronted by women in the sector, and what could be done to alleviate those constraints.

The challenges the male retailers indicated they face include lack of working capital, political instability, unstable market prices, and farmers who do not obtain the expected results from inputs (particularly seed) purchased from their businesses. Similar to the female retailers/entrepreneurs who participated in separate FGDs, the male retailers indicated women do not know how to properly maintain business accounts, and some do not write a formal business plan for their operations.

When asked about the opportunities for women to become agricultural inputs retailers, some of the men indicated they did not know, or that there are opportunities for support from the government and NGOs. However, while male retailers in Khulna indicated there are no social constraints for women to become involved in the agricultural inputs retail sector, those in Barisal indicated women do not get involved in this sector due to religious and social views within the communities. Regarding women entrepreneurs' right to spend the income they earned, some men said women can decide how to use it, while many said that women must defer to the men in the household to make key decisions about what to do with profits, due to a traditional patriarchal system in their communities.

To encourage women's involvement in the sector, the male retailers suggested more women-friendly packaging for agricultural inputs, particularly for fertilizer, and to provide financial and capacity building trainings. They acknowledged that male retailers' support and assistance to female entrepreneurs should be sought to encourage women to join the agricultural inputs retail sector. In addition, the male retailers noted that it would be easier for women to pursue business establishment at the village level, rather than urban/growth centers, due to mobility constraints.

Smallholder Male Farmers

AIP held FGDs with smallholder male farmers to compare their perspectives on farmers' challenges and access to inputs with that of female farmers.

The male farmers listed a number of opportunities to receive support in their communities for agricultural production, including NGO training, extension services, government-provided urea, TSP, and potassium subsidies, and farmer-to-farmer training and learning; however, not all farmers were able to take advantage of such opportunities. Participants noted that hardly any

women are able to take advantage of support available in the agricultural sector, such as technical support from extension services, or capacity building training from NGOs, because of the conservative society in which they live. They noted that women do not get recognition for their contribution to agriculture.

The participants said that men are the key decision-makers in determining the necessary inputs and resources required for a household's farming and agricultural activities, although they discuss these matters with other family members. The reasons they identified for this is that men are the only ones with access to information and agencies; greater experience; and religious and social traditions whereby men make decisions. Accordingly, the participants indicated that the male farmers or other male members of the household go to the market to purchase the inputs (except in the case of women-headed households).

The male farmers felt that female farmers would be interested in and be comfortable visiting a female agricultural inputs retailer for inputs and advice. Although none of the male farmers in the FGDs had been to a female agricultural inputs retailer, they knew of women in the nursery business. The male farmers indicated that more female retailers would increase women's mobility to the market. In order to increase the number of successful female agricultural input retailers, the male farmers acknowledged there would have to be training and financial assistance (they suggested low interest rate loans) for the women, as an awareness-raising program.

Main Takeaways from FGDs

- The few female agro-input retailers in rural Bangladesh typically operate out of their homes, and often only sell seed.
- Unless living in a female-headed household, women often do not purchase agricultural inputs. They may be more likely to make these purchases if there were female retailers with shops they could visit.
- Extension materials often do not meet the needs identified by female extension agents.
- The heavy packaging of inputs is one of the barriers to women selling these products, as well as purchasing them.
- Male retailers could serve as mentors for prospective female retailers.
- It is not considered to be appropriate for women to purchase or sell pesticides.

Key Informant Interviews

The Key Informant Interviews (KIIs) were conducted with representatives of extension and input supply service providers, as well as other relevant service providers who are directly or indirectly linked with smallholder farmers. The content of the KIIs was directly related to the content of the individual surveys. AIP also sought information regarding the experiences or suggestions of the key informants to assess what is needed to facilitate the establishment of more women-owned retailers. A representation of the participants in the KIIs is given in Table 13 below.

Table 13: Participants of Key Informant Interviews

Participants	Location
Representative from woman-owned seed retailer	Jhinadha
<i>Upazilla Nirbahi</i> Officer	Khulna-Rupsha- <i>Upazilla</i>
<i>Upazilla</i> Agriculture Officer	Patuakhali-Dasmina- <i>Upazilla</i>
Representative from Syngenta	Jessore
Representative from Lal Teer and ACI	Patuakhali-Mirjaganj- <i>Upazilla</i>
Representative from farmers' association	Khulna-Batiaghata- <i>Upazilla</i>

Female Seed Retailer (Jhinaidah Nursery and Seed Center)

AIP interviewed a seed retailer in the Jhinaidah district to examine the experiences of a woman who established her own input retail business. The woman who was interviewed at the Jhinaidah Nursery and Seed Center indicated that she is the only female see retailer in the district, although small female seed sellers are present at the village-level. However, she noted that most of the women of farmers' families are engaged in producing seeds, which they utilize themselves and then sell the leftover seeds to their neighbors or seasonal buyers who come to them.

The Key Informant indicated that most farmers' primary source of information is the inputs retailer, although the Department of Agricultural Extension occasionally arranges training/workshops at the field level. She noted that women face unequal opportunities compared to men because of social customs and norms. Typically, women only become agricultural inputs retailers when she becomes the head of her household. Even then, she may try to build social support so that the community becomes more supportive of her. To her, a woman first needs family and a community support for her business- otherwise it would be nearly impossible for a female to become an input retailer. Then women will also need to develop their skills, undergo training, and obtain capital to start up their business.

Upazilla Nirbahi Officer

AIP interviewed an *upazilla nirbahi* officer to get the perspective of a local government representative on the situation facing women in agriculture and business. The Key Informant indicated that government rules and regulations affecting business owners (i.e. licenses, permits) are "gender neutral," and any citizen can apply for and receive the necessary permissions as long as he or she meets the qualifications. He noted, however, that women seem to not have the opportunity to take advantage of their rights, and are being deprived while men get privileges. He also mentioned that women seldom visit the union-level government information center which offers pertinent agriculture-related information.

The Key Informant described that there are social and cultural norms and religious practices which tend to be anti-women, and as such there is hidden discrimination between men and women in all spheres of social life. Consequently, the belief is held that entrepreneurship is for men, not women. Furthermore, it is perceived that women are illiterate and lack the capability to manage customers and maintain income and expenditure records. The Key Informant noted that

while he was unknowledgeable about women participating in the agricultural inputs sector on a formal basis, there are female mobile seed vendors that can be seen at the weekly village markets.

When asked what should be done to encourage women's entrepreneurship in the agricultural inputs sector, the Key Informant identified more credit, start-up grants, and awareness programs for potential female agricultural input retailers. Capacity building in accounts management, customer management, and leadership were also identified as crucial to establishing women-owned agricultural input businesses, along with support from the family and community. The Key Informant also recommended that AIP help develop linkages between the targeted women and the Government, and use male retailers as role models for women's development in the sector.

Representatives from Private Agricultural Inputs Companies

AIP interviewed Key Informants from three private agricultural input companies- Syngenta, Lal Teer, and ACI. These interviews were conducted to assess how existing input companies view women's roles and challenges within the input sector in Bangladesh, and how these challenges could be addressed from a private sector point of view.

Syngenta prepares women to become input retailers by providing trainings, and assigning a group of women to work in existing retailers' shops for two years before giving them the opportunity to become Syngenta retailers themselves. In addition, Syngenta assists women in obtaining business registration and satisfying other legal requirements to open a business. Syngenta identified women's security as a main obstacle for women in the agricultural field. The Key Informant from this company indicated that social, cultural, and religious norms are that business should be done by men only, and women should only participate in housekeeping work. To attract more women to the agricultural inputs industry, the Key Informant suggested different roles to be played by various stakeholders, as the government, NGOs, and companies need to collaborate. The Key Informant suggested that the government should encourage women through women-friendly policies, rules, laws and regulations, and by creating a more positive atmosphere about women in society. He recommended that NGOs should facilitate credit for women starting their own businesses, and private companies should work to enhance the agronomic knowledge and business management skills of potential female retailers.

The Key Informant from ACI also recognized the social norms and values that prevent women's involvement as retailers. He noted that the time and distance of village markets are not suitable for women to participate as retailers, as they take place primarily in the late afternoon and evenings. Furthermore, he claims that families and society as a whole are not fully aware about the benefits that could come about by increased women's engagement in the agricultural sector, and that women are not comfortable to engage in non-traditional activities.

The Key Informant from Lal Teer was of the opinion that society is "not ready to see" women-owned agricultural inputs businesses. He noted illiteracy as a barrier to women gaining confidence, and that women are less able to identify the priorities to develop as entrepreneurs.

Farmers' Association

AIP interviewed a representative from a farmers' association in Tetalubunia. The Key Informant acknowledged that in his area, women often do not sell agricultural inputs for their livelihoods, as men often believe that this profession is only for men, and they thus do not "allow" women to be retailers. The belief is also present that women do not know how to do this type of business well, so while women are slowly starting to enter other types of businesses, men still do not like to see women's involvement in the agricultural sector. The Key Informant concluded that to attract more women to the inputs retail sector, women need to be trained on business management, and be given the opportunity to easily access loans/ start-up capital. He added that women may need support in acquiring licenses to start their businesses, as well as in acquiring inputs to sell.

Key Takeaways from Key Informant Interviews

- Family and community support for female entrepreneurs is crucial to their success.
- In addition to discrimination against women that leads to the belief that business ownership is for men (and not women), it is assumed that women lack the business management skills to become retailers.
- While some existing private input retail companies have made some efforts to incorporate women into their companies, others see this as a challenge which is difficult to address.

Case Study

One case study was conducted to explore the concepts of empowerment in agriculture.

“Things I Need: Rice and Seed”

A Case Study

Abandoned by her husband 16 years ago, Anwara Begum relied on her confidence and strength to sustain her family of five children. After being dependent on her husband for everything, Anwara knew that she needed to provide her children with a proper education and prevent “this sort of unfortunate thing” from befalling her children in the future.



Mrs. Anwara is a poor woman currently earning only about \$25/month in the Vagolpur village, of the Jessore sador *upazilla* in the Jessore district. She was previously married to a man with whom she had three daughters and two sons. For the last 16 years she has been raising them alone after her husband fled away to another village. Her family has 33 decimals of rice paddy, and harvests two crops per year. Her crops yield approximately 1.5 tons of rice per year, but after selling her crop to pay expenses, her family only has about 750 kg of rice (0.83 tons) remaining to sustain them for the year. This leaves her and her family short of food for two to three months each year.

Upon being asked about her current situation, Mrs Anwara said “The storms came too early this year, too quickly and fiercely. My house lost part of my roof. The food reserve at home was swept away. The family’s expectation for the coming *boro* rice harvest to sustain us for the whole year is gone. My family has been eating rice borrowed from neighbours for days; we need lentils, rice, eggs, small fish, and cooking oil to feed the family. But there is only just enough for one month.” When asked what she needed in the following months, she answered, “Things I need now are rice and seed. I need rice to support my family, and seed for the next crop.”



She continued, “I badly need seed to grow seedlings for the next *Aman* crop. Seed is everything for agriculture, good seed means good yield...I have seen that if seed is of good quality you will not only get good production at the end of the plant season, but also more money from the production. I saw that there if there were a seed shop in our locality, as there is a good demand of good quality seed, and if I could open a business with good quality seed in this area, I could also have earned good amount of money from that business and support my family well. My

son-in-law is in the fertilizer business, which gives him excellent financial returns. I wish I could have a seed business like his fertilizer business.”

Anwara has been able to improve her family’s standard of living slowly, due to hard work and the support of the Union council women and fellow community organization members. She says, “We have started to live better, thank God! But still my dream is alive- to give my daughters good education for a good profession. My sons have missed their chance, but my youngest ones still hope. I am eager to see my female children well educated to avoid sufferings which I had as an illiterate. The truth is that at the moment we don’t have enough money for that, and I do not yet have a ‘business profession,’ about which I have another dream!”

Access to quality seed is not only essential for Anwara to feed her family, it is a critical resource for everyone in her community. If more women like Anwara were empowered to open their own agricultural inputs businesses, they would not only have income with which to support their families, they could offer services to improve the agricultural productivity of their entire region.

Chapter III: WEAI

Overview and AIP Context

The Women's Empowerment in Agriculture Index (WEAI), developed as a result of the U.S. Government's Feed-the-Future (FTF) Initiative, is an index designed to measure the empowerment of women in the agricultural sector. In particular, the WEAI was developed to be used to assess changes in women's empowerment as a result of FTF programming.

The WEAI is made up of two sub-indices:

1. Five Domains of Empowerment
2. Gender Parity Index (GPI)

The five domains of empowerment, as determined by IFPRI and USAID, are as follows:

1. Women's role in decisions about agricultural production;
2. Women's access to and decision making power about productive resources;
3. Women's control over the use of income;
4. Women's access to leadership roles within their communities; and
5. Women's and men's labor time allocation

A woman is considered "empowered" if she has achieved adequacy in at least 80% of the weighted indicators above. The Gender Parity Index (GPI) reflects the percentage of women who are empowered or whose performance in the various domains of empowerment are at least as high as the men in their communities.

AIP targeted a population of women in Bangladesh's southern delta who either had an existing agricultural inputs retail business or who expressed interest in starting an agricultural inputs retail business. This was done because AIP is seeking to observe the change in empowerment of a targeted population of existing and would-be female agro-inputs retailers, not crop producers. Accordingly, AIP changed the first of the five WEAI domains of empowerment from "production" to "business," and devised its own indicators and field survey tools for the business domain.

Methodology

AIP's gender assessment questionnaire has customized/tailored IFPRI survey modules (used in pilot surveys in 2012), to shift the focus from agricultural *production* to *business*. Out of the five domains of empowerment from IFPRI's survey modules, only the first was changed, as follows:

Version	Domain	Indicator
Original Version (IFPRI pilot survey)	Production	Input in productive decisions
		Autonomy in production
AIP Version	Business	Input in business management decisions
		Autonomy in retail operation

A total of 90 respondents (40 men, 50 women) from six districts were interviewed for the WEAI portion of the assessment. Approximately 10% of the surveyed women were adult females from female-headed households. Field-level data collection processes were conducted under the direct supervision of the partner NGO lead facilitators. AIP staff monitored the entire process of data collection at the field level by individual PNGO data collectors. To ensure quality of data at each round, AIP staff randomly selected 10% of those interviewed to re-interview the same respondents and authenticated the data.

The men were selected based on their involvement with input retailing, and the women were selected from the same communities based on at least some level of involvement in homestead-based input retailing. The data was fed into the formula set to calculate GPI and 5DE, described below.

Calculation

As described above, the WEAI has two components: the five domains of empowerment (5DE) and the gender parity index (GPI). The weights for the 5DE and GPI sub-indices are 90% and 10%, respectively. The formula¹ is as follows:

$$\text{WEAI} = (0.9 * 5\text{DE}) + (0.1 * \text{GPI})$$

5DE

The 5DE indicator reflects both the percentage of women who are empowered (and those who are disempowered), and the percentage of dimensions in which women have adequate achievements. The formula to calculate 5DE is as follows:

$$5\text{DE} = H_e + H_n(A_a)$$

Where:

H_e = % of women who are empowered

H_n = % of women who are not empowered (1- H_e)

A_a = % of dimensions in which disempowered women have adequate achievements

Gender Parity Index (GPI)

The GPI reflects the percentage of women who have gender parity, as well as the empowerment gap. The formula to calculate GPI is as follows:

$$\text{GPI} = 1 - H_w(R_p)$$

Where:

H_w = % of women with no gender parity (1- H_p)

H_p = % of women with gender parity

¹ This calculation, and all others to reach it, were performed as described in “Calculating the Women’s Empowerment in Agriculture Index,” a webinar presentation by IFPRI, November 9, 2012.

<http://agrilinks.org/events/webinar-ftfs-womens-empowerment-agriculture-index-weai>

R_p = Women's relative parity score (average empowerment gap) compared to male retailers in their community

Similar to the 5DE, determining which women have gender parity was based on empowerment scores. If a woman's empowerment score was equal to or greater than that of the primary male in her community, she was considered to have gender parity. The average empowerment gap (R_p) is the average percentage shortfall that a woman without parity experiences relative to the male in her community.

Results

Table 14 presents the WEAI calculated for the AIP intervention areas. The WEAI in the AIP sample area is 0.676, which is a bit higher than the WEAI calculated for the FTF region based on Results from the 2011-2012 Bangladesh Integrated Household Survey (0.658).

The WEAI figure is a weighted average of the 5DE value of 0.663 and the GPI value of 0.793. The results also show that only 20% of all women are considered to be empowered. In the sample areas, the two-thirds of women who are not yet empowered still have, on average adequate achievements in 57.9% of the domains. Thus the overall 5DE for women is 0.663. Meanwhile 13.2% women have gender parity with the male retailers in their communities. Of the 86.8% of women with no gender parity, the empowerment gap between them and the male in their households/business is quite significant at 23.8%. Thus the overall GPI in the sample area is 0.793. Compared to women, a greater proportion of men (95%) are empowered in the AIP intervention areas. The overall five DE value for men is 0.987, and, as mentioned above, for women it is 0.663.

Table 14: WEAI

Indices	Men	Women
Disempowered Headcount (H_n)	4.7%	80.0%
Empowered Headcount (H_e)	95.3%	20.0%
Average Inadequacy Score (A_n)	26.7%	42.1%
Average Adequacy Score (A_a)	73.3	57.9
5DE= $H_e + H_n(A_a)$	0.987	0.663
% of women with no gender parity (H_w)		86.8%
% of women with gender parity (H_p)		13.2%
Average Empowerment Gap (R_p)		23.8%
GPI = $1 - H_w(R_p)$		0.793
WEAI = $0.9 * 5DE + 0.1 * GPI$		0.676

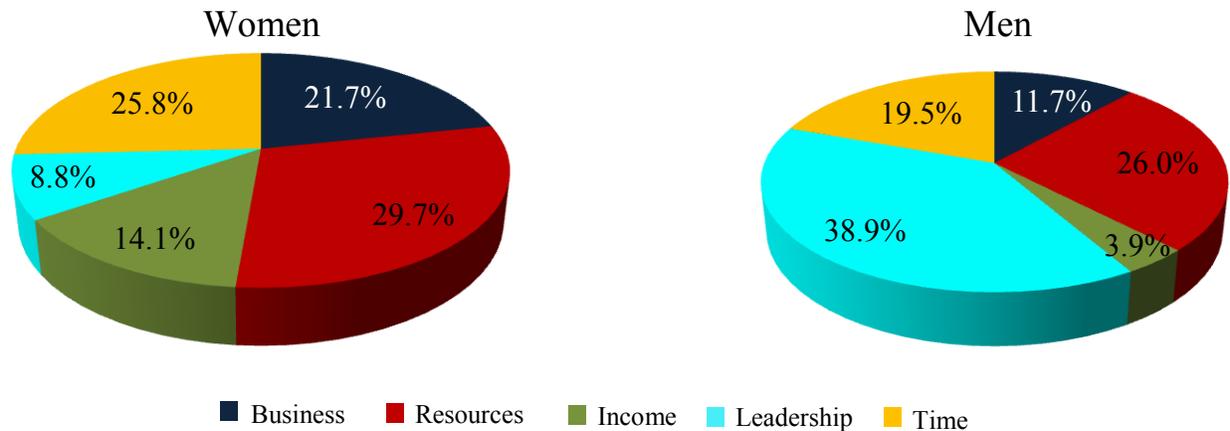
Disempowerment

Understanding the gaps in women’s empowerment can help AIP identify how to best design interventions to increase women’s empowerment in the targeted areas. The survey data were thus analyzed to determine the primary contributors to disempowerment (amongst both men and women), as well as to observe differences in empowerment across locations.

By Domain

Figure 9 below shows that the domains that contribute most to women’s disempowerment in the AIP intervention areas are Resources, Time, and Business (29.7%, 25.8%, and 21.7%, respectively). This was calculated using the percentage of respondents deemed “inadequate” across various indicators within each domain. For men, the largest contributor to disempowerment by far was leadership, followed by resources, and then time (but in smaller percentages than those for women).

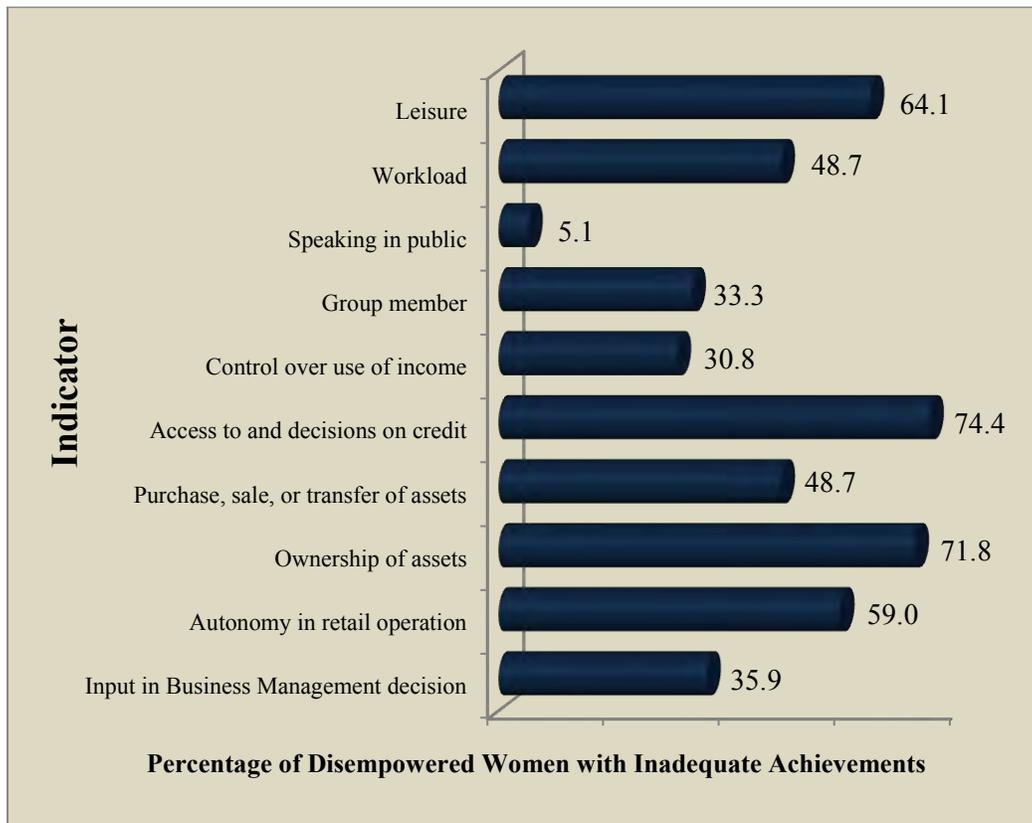
Figure 9: Contribution of the 5 Domains to Disempowerment of Women and Men



By Indicator

Looking more closely at the specific domain indicators in which disempowered women were deemed to be “inadequate,” the primary contributors to disempowerment become even more apparent. For example, access to and decisions on credit, as well as ownership of assets (both indicators from the Resources domain), are major obstacles for disempowered women. Figure 10 below illustrates that disempowered women also struggle with balanced leisure time (from the Time domain), autonomy in retail operations (from the Business domain), workload (Time), and the purchase, sale or transfer of assets (Resources).

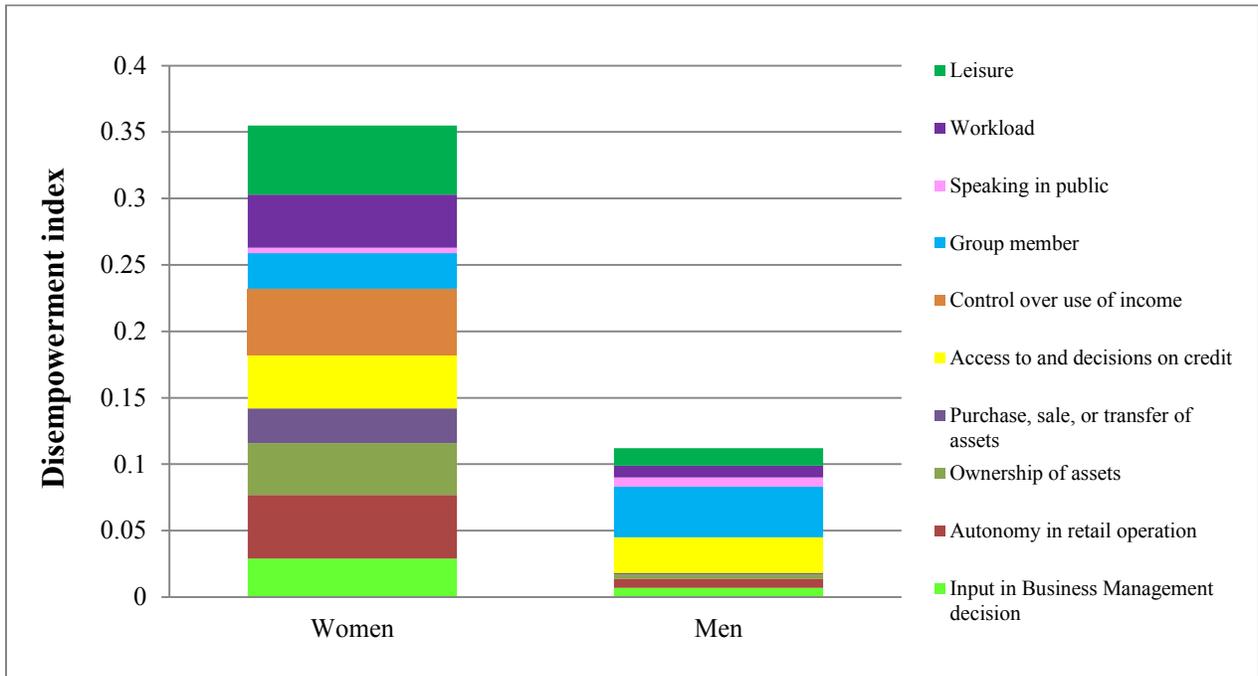
Figure 10: Percentage of Disempowered Women with Inadequate Achievements by Indicator



The configuration of men’s deprivations in empowerment is noticeably different from women’s, particularly in the Business and Resources domains. The greatest contributor to men’s disempowerment is lack of leadership. Figure 11 below shows that the men whom were surveyed were less likely to be deemed “inadequate” in areas of business-related decision making, access to resources, or control over the use of income. It is also observed that factors such as lack of ownership of assets and control over use of income do not contribute much to men’s disempowerment, as most of the household/business assets are owned and controlled by men in the survey areas.

The figure below displays the various indicators’ contribution to men’s and women’s disempowerment, but rather than by percentage, it compares the responses based on the sexes’ respective disempowerment index calculation. In this way, it is easiest to see the differences between the results for each sex, as well as the absolute responses within each gender group.

Figure 11: Contribution of Indicators to Disempowerment Index for Women and Men



By Location

If the percentages of women who are disempowered are compared by district, there is another dimension to women’s empowerment that comes to light. It was found that women of Narail and Khulna are considerably less empowered than the women of Patualhali, Barisal, Jessore and Bagerhat. (see Figure 12 below). These differences may exist for a variety of socio-cultural reasons, which must be considered when designing program activities for each area.

Figure 12: Percentage of Disempowered Women by District



Key Takeaways from WEAI Survey

- Inadequate achievements in the business, time, and resources domains contribute most to women's disempowerment in agriculture.
- Women are far more likely to be disempowered in agriculture than men in the project area. In addition, the factors which contribute to disempowerment in agriculture differ for women than for men.
- Strategies to empower women may have to vary based on location, as women in some areas are more disempowered than others.
- Only 13.2% women have gender parity with the male retailers in their communities

Chapter IV: Matching Grants

The WEAI portion of the gender assessment was designed to help AIP draw conclusions regarding the practicality of the planned AIP grants for women retailers. This portion of the gender assessment utilized the same sample of respondents whom participated in the WEAI component. The women of this sample were those which are potential targets of the AIP grants program- that is, existing women input retailers and women seeking to start input retail businesses.

Observations and lessons learned from the grants-specific survey questions will be taken into account as AIP develops its Grants Manual. This portion of the assessment focused on determining the following:

- The socio-economic conditions of women in the targeted areas;
- The potential popularity/acceptance of a grants program for women retailers in the target areas;
- The feasibility of matching requirements for grant making; and
- Cash and in-kind preferences for grants and cost sharing.

The sections below describe the outcomes of the grants-focused survey questions. As is the case with the previous sections, the analysis and conclusions are aggregated in Chapter 5.

Input Retail Businesses and Legal Status

Of the 22 agricultural input retail shops visited during this assessment, only two shops were owned by female retailers. Table 15 below shows the distribution of the types of retail businesses by sex. A total of 19 of the 22 retail shops were legal, registered entities (21.1%), and none of these were owned by women. A total of 90% of women participating in the survey were in the planning stages of business ownership, and have not yet begun working as agricultural input retailers (although they would like/intend to do so).

Table 15: Ownership of Ag-Inputs Retail Business- Number and Percentage by Sex

Type of Retail Business	Male		Female		Total	
	Number	%	Number	%	Number	%
Have planned	-		45	90	45	50
Mobile retailer	1	2.5	3	6	4	4.4
Retailer with Shop (no legal status)	20	50	2	4	22	24.4
Retailer with Shop (with legal status)	19	47.5	-	0	19	21.1
Total	40	100	50	100	90	100

Education Level of Retailers

The level of education of a retailer or potential retailer is important, as it may play an important

role in successful day-to-day cash flow management, accounts management, and other essential tasks and decision making capabilities associated with business ownership. Amongst female respondents, 28% were illiterate, and only 16% had achieved secondary education (see Table 16 below).

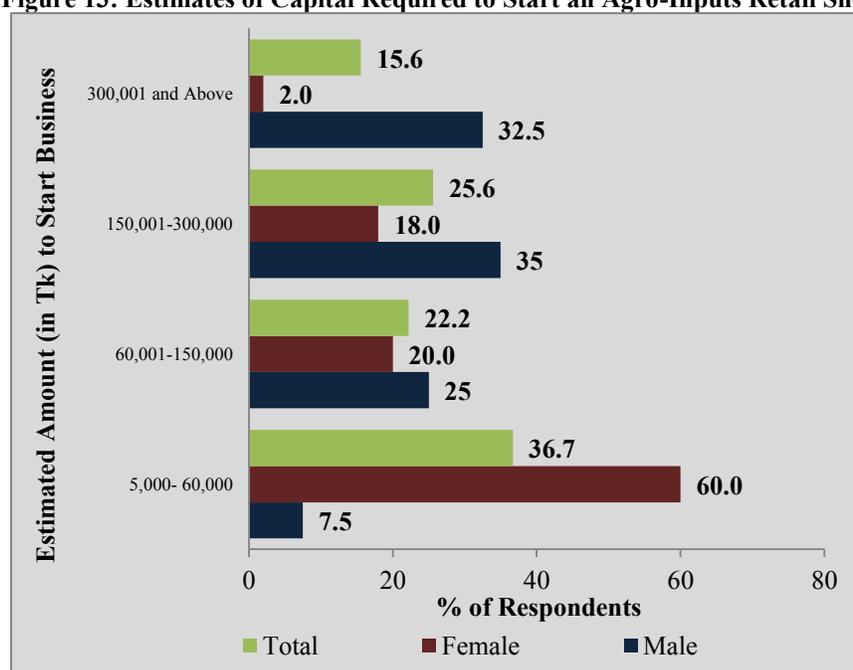
Table 16: Education Level of Respondents

Level of education	Male		Female		Total	
	Number	%	Number	%	Number	%
Illiterate	1	2.5	14	28	15	16.6
Can read and write	1	2.5	8	16	9	10
Primary education	10	25	20	40	30	33.3
Secondary education or more	28	70	8	16	36	40
Total	40	100	50	100	90	100

Requirements to Start an Agro-Inputs Business

AIP asked participants about the anticipated financial requirements to start an agro-inputs business, not only to inform the development of the grants component of the program, but also to get an understanding as to how prepared and knowledgeable participants are about the reality of setting up an inputs retail shop. The responses ranged from 5,000-10,000,000 taka (approximately \$63-\$126,000) (see Figure 13). This broad range implies that there is little practical understanding in place regarding the expenses required to establish an agro-inputs retailer shop. It was noted that male respondents were more confident than female respondents in sharing their estimates.

Figure 13: Estimates of Capital Required to Start an Agro-Inputs Retail Shop



When asked about the external support needed to successfully manage an agro-inputs retail shop, 51.1% of all respondents (and 50% of female respondents) indicated their desire for training in business management and planning (see Table 17). A total of 46% of female respondents indicated a need for in-kind assistance, such as furniture, measuring scales, and advisory services, while 24% of women identified cash as a desired form of support.

Table 17: Support Needed to Manage a Retail Shop

Type of support	Male		Female		Total	
	No.	%	No.	%	No.	%
Training in business management and planning	21	52.5	25	50	46	51.1
In-Kind	20	50.0	23	46	43	47.8
Cash	9	22.5	12	24	21	23.3
Agriculture input (Seed, Fertilizer, Pesticide)	9	22.5	7	14	16	17.8
Linkage with dealer, input retailer	6	15.0	6	12	12	13.3
Other	3	7.5	3	6	6	6.7

Grant Preferences

To help inform AIP on the reality of matching grant capabilities in the target area, participants were asked about the percentage of contribution they could/would provide in order to obtain an AIP grant to establish an agro-inputs retail shop. A total of 44% of female respondents gave the opinion that a 50:50 ratio of grant funds to recipient contribution is the ideal manageable ratio for receiving a grant for starting a new business in agricultural inputs. Approximately 46% of women indicated that a preferable ratio would be 75:25 (see Table 18 below).

Table 18: Manageable Grant Ratio Preferences

Ratio (Grant: Matching Contribution)	Male		Female		Total	
	Number	%	Number	%	Number	%
50:50	27	67.5	22	44	49	54.4
75:25	9	22.5	23	46	32	35.6
60:40	3	7.5	4	8	7	7.8
Other	1	2.5	1	2	2	2.2
Total	40	100	50	100	90	100

Key Takeaways of Grants Survey

- There is little involvement of women in the agricultural inputs retail sector.
- Those seeking to start an agro-inputs business have a high demand for training in business management.
- There is little practical understanding of the capital required to start an agro-inputs business.
- Either a 50:50 or 75:25 ratio of grants to matching contribution is preferred by survey participants seeking to start an agro-inputs business.

Chapter V: Conclusions and Recommendations

Conclusions

Taking into account the household surveys, focus group discussions, key informant interviews, case study, and the WEAI/grants informative survey, it is possible to draw a few key conclusions about the gender-related issues, as they pertain to AIP, affecting women in the target program areas. These conclusions, and the findings of the gender assessment as a whole, feed into the recommendations presented in the next section.

First, and most broadly, women in selected Feed-the-Future districts in Bangladesh's southern delta are less empowered in agriculture than men. While anecdotally this can be attributed to cultural and religious norms that have kept women on the periphery of Bangladeshi society and the formal economy, this gender assessment has sought to identify exactly in what ways women are disempowered. The largest contributors to women's disempowerment were determined to be their difficulty in accessing resources and relative inexperience in business. That is not to say the societal perception of women is not a critical issue to be taken into consideration throughout planning and implementation of AIP activities- it must; rather, identifying the implications of these constraints better helps AIP design its interventions so that the gender-related issues are addressed and are less likely to hinder program success.

Second, there is currently very little women's involvement in the agricultural inputs sector. Most female participation in retailing inputs is on an informal basis, and frequently limited to the sale of seeds, often out of the woman's home. Women's mobility constraints contribute to this phenomenon, as do women's inexperience in business and the existing public perceptions about women's handling of agricultural chemicals.

Similarly, women's *access* to agricultural inputs is also quite limited. In addition to mobility constraints, which often prevent or discourage women from visiting retailers themselves, the inputs currently available in the market are often too difficult for women to carry back to their homes. In addition, women's lack of autonomy in spending decisions may inhibit women from accessing inputs on their own. Although men may be responsible for decision making regarding the purchase of inputs for a household, their purchases are likely to be more focused on agricultural production for commercial purposes- not necessarily focused on the needs for crops being grown by women for household consumption (i.e. household vegetable gardens, etc.).

Finally, women are less likely to have adequate education and are not considerably exposed to agronomic or business-related training. This not only affects women's confidence in getting involved in business or making agricultural decisions, it affects the likelihood for their success. Lack of training for women therefore also has implications for household food security.

Recommendations

The findings of the gender assessment represent a vital opportunity to design and implement appropriate activities to ensure female empowerment remains at the forefront of AIP's objectives. The following points are important to consider:

General Program Recommendations

- Foster equitable participation. Project-sponsored activities should insist that men and women are both included. Gender issues must therefore be included in the overall programmatic approach, monitoring and evaluation, and as a cross-cutting initiative across all project interventions.
- AIP should take into consideration women's constraints at home and in the workplace, where they differ from those of men, and identify practices that may cause conflicts between work-life balance, such as times or locations of meetings or agro-inputs shops.
 - Find solutions to these constraints, such as holding trainings closer to women's homes, at times which take into account women's responsibilities.
- Establish gender-focused indicators for reporting and monitoring the impact of projects and interventions. This includes quantitative targets as well as their qualitative interpretation.
- Ensure training curricula for women are illustrated, and also provide trainings on pictorial literacy for input products.
- Ensure partner NGOs adequately explain price outlook bulletins to women who are illiterate.
- Ensure partner NGOs adequately lead less-literate women through demonstrations, and ensure women who attend agricultural fairs are adequately guided by knowledgeable leaders who can interpret what they see.
- An important area for success of women retailers business is participation of the local community at various stages of formulation, implementation, monitoring and evaluation of AIP activities. Men, as well as women, should be included in defining the "problems" and the solutions.
- Basic accounts management training is need for women retailers.

Community Interventions

- Work with communities to reduce negative perceptions about women, particularly as it relates to women's involvement in entrepreneurship and agriculture. AIP should raise awareness about the benefits of women participating in AIP activities.
- Ensure that males are brought into project decision-making processes that affect females, such as identifying potential women retailers. This will help ensure there is a male customer base for new female entrepreneurs.
- Integrate spousal counseling or other strategies for engaging men and opinion leaders into project activities to ensure space for women to pursue economic opportunities.
- Facilitate change by improving information, awareness and participation. Identify a gender champion/mentor/coach within AIRN and train more women leaders to institutionalize gender-responsive project planning, implementation and monitoring initiatives. Understand that women and men have different strategic needs, interests, goals, and resources and demonstrate gender sensitivity among stakeholders through creating gender-friendly/responsive environment.

Increasing Women's Involvement in the Agro-Inputs Retail Sector/ Grant Making

- To support women's development as agro-inputs retailers, provide training on business management, customer management, and leadership. Promote a peer-to-peer learning culture amongst women retailers.
- Select women to serve as lead entrepreneurs to motivate other women to establish agro-inputs businesses. Facilitate consultations between the lead entrepreneurs with women's groups or networks, especially in retailer-deficient areas. Similarly, select lead male entrepreneurs to mentor women entering the agro-inputs retail business.
- Initiate grant making initiatives to women in locations where they tend to already have more mobility.
- Include a leadership component in business management trainings tailored to women.
- Utilize partner NGOs' networks to identify potential female grantees and leverage loans/credit guarantees/etc. for matching shares of grants.
- Offer a 50:50 matching grant scheme to women entrepreneurs to establish agro-input retail businesses.
- Include "gender" as a cross cutting issues in existing training packages

Increasing Women's Access to and Improve Use of Inputs

- Promote smaller input packages to encourage women to come to retail shops.
- Provide messaging on crop protection products to show how to easily identify which chemicals are less dangerous, as well on safer use and storage.
- Use women retailers for demonstrations on IPM and other products.
- Encourage start-up women retailers to establish input shops targeted to female customers.
- Promote the establishment of retailers in underserved areas that are hard to reach for women less comfortable to travel to the market.
- Messaging on purchasing good quality inputs should be more heavily weighted towards women, as there may be a knowledge gap.
- Promote the production of nutrient-dense crops at the household level. This messaging should be targeted at both male and female household members.
- Target both men and women for safer use training, as only 12.5% of survey population indicated they had received this type of training.
- Collaborate with Feed-the-Future partners to increase women's knowledge of and use of inputs, as well as awareness of female input retailers.

In sum, AIP must take a number of steps to ensure women are fully integrated into program activities and that the grants to establish women-owned agricultural input businesses are effectively administered. Through a concentrated effort to address the challenges identified by this gender assessment, progress in women's empowerment may be made, and improvements in access to and use of agricultural inputs in the project area may be realized.