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# The Women's Empowerment in Agriculture Index: Results from the 2011-2012 Bangladesh Integrated Household Survey

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> In collaboration with Data Analysis and Technical Assistance Limited

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## 1. Introduction

Women play an important role in agricultural growth in developing countries, but face persistent obstacles and societal and economic constraints that limit their further inclusion in agriculture. The Women's Empowerment in Agriculture Index (WEAI) is a new survey-based index designed to measure the empowerment, agency, and inclusion of women in the agricultural sector in an effort to identify ways to overcome those obstacles and constraints (Alkire et al. 2012).

Women tend to be "invisible" in the agricultural sector in Bangladesh, owing to the assumption that women are not involved in agricultural production, and because of cultural norms that value female seclusion and undervalue female labor. In reality, however, it is more likely that women in poor households, who are at greater risk of being food-insecure, are the ones more involved in the agricultural sector, particularly as wage laborers, because they have to contribute their earnings to sustain their families. Women's ability to generate incomes in the agricultural sector is also severely constrained by their lack of access to productive assets.

Bangladesh, one of the countries in which the WEAI was piloted, is also the first to have WEAI data representative of the Feed the Future (FTF) Zone of Influence of the U.S. Agency for International Development (USAID) as well as the entire rural areas of the country. This technical report, prepared by researchers from the International Food Policy Research Institute (IFPRI), presents the WEAI, computed for the Feed the Future zone as well as rural Bangladesh as a whole. IFPRI researchers also prepared a report that presented the WEAI results only for survey households living in the FTF Zone of Influence (Sraboni, Quisumbing, and Ahmed 2012).

### 2. Purpose of the WEAI

The WEAI was developed by researchers at USAID, IFPRI, and the Oxford Poverty and Human Development Initiative (OPHI) to track the change in women's empowerment levels that occurs as a direct or indirect result of interventions under Feed the Future, the U.S. government's global hunger and food security initiative. The Index will be used for performance monitoring and impact evaluations of Feed the Future programs. The WEAI is also a useful tool for policymakers, development organizations, and academics seeking to inform efforts to increase women's empowerment (Alkire et al. 2012).

### 3. Structure of the WEAI

The WEAI is composed of two sub-indexes: one measures the five domains of empowerment in agriculture (5DE), and the other measures gender parity in empowerment within the household (GPI). It is an aggregate index reported at the country or regional level that is based on individual-level data on men and women within the same households.

### 3.1 The Five Domains of Empowerment

The five domains are agricultural production, resources, income, leadership, and time (Table 1), and they comprise ten indicators. Each domain is weighted equally, as are each of the indicators within a domain. The 5DE sub-index is constructed using a robust multidimensional methodology known as the Alkire-Foster Method (for details, see Alkire et al. 2012). It is a measure of empowerment that shows the number of domains in which women are empowered. The 5DE sub-index contributes 90 percent of the weight to the WEAI.

For the WEAI, USAID defined the five dimensions of empowerment, based on their priorities for Feed the Future programming in 19 focus countries, as follows:

**Production:** This dimension concerns decisions over agricultural production, and refers to sole or joint decisionmaking over food and cash-crop farming, livestock, and fisheries as well as autonomy in agricultural production.

**Resources:** This dimension concerns ownership, access to, and decisionmaking power over productive resources such as land, livestock, agricultural equipment, consumer durables, and credit.

**Income:** This dimension concerns sole or joint control over the use of income and expenditures.

**Leadership:** This dimension concerns leadership in the community, here measured by membership in economic or social groups and comfort in speaking in public.

**Time:** This dimension concerns the allocation of time to productive and domestic tasks and satisfaction with the available time for leisure activities.

A woman is defined as empowered in 5DE if she has adequate achievements in four of the five domains or is empowered in some combination of the weighted indicators that reflect 80 percent total adequacy. A key innovation of the Index is that it is able to show in how many domains women are empowered and at the same time reveal the connections among areas of disempowerment. This enables decisionmakers to focus on improving the situation of the most disempowered women. In addition to tracking the nature of empowerment in five domains, because the WEAI also computes 5DE for men and compares this to women's achievements in the five domains, the WEAI measures how empowered women are relative to men in the same household, which is critical to understand the gender empowerment gap (Alkire et al. 2012).

Domain	Indicator	Definition of Indicator	Weight
Production	Input in productive decisions	Sole or joint decisionmaking over food and cash-	1/10
		crop farming, livestock, and fisheries	
	Autonomy in production	Autonomy in agricultural production (e.g., what	1/10
		inputs to buy, crops to grow, what livestock to	
		raise, etc.). Reflects the extent to which the	
		respondent's motivation for decisionmaking	
		reflects his/her values rather than a desire to	
		please others or avoid harm.	
Resources	Ownership of assets	Sole or joint ownership of major household	1/15
		assets	
	Purchase, sale, or transfer of assets	Whether respondent participates in decision to	1/15
		buy, sell, or transfer his/her owned assets	
	Access to and decisions on credit	Access to and participation in decisionmaking	1/15
		concerning credit	
Income	Control over use of income	Sole or joint control over income and	1/5
		expenditures	
Leadership	Group member	Whether respondent is an active member in at	1/10
		least one economic or social group (e.g.,	
		agricultural marketing, credit, water users'	
		groups)	
	Speaking in public	Whether the respondent is comfortable speaking	1/10
		in public concerning various issues, such as	
		intervening in a family dispute, ensure proper	
		payment of wages for public work programs, etc.	
Time	Workload	Allocation of time to productive and domestic	1/10
		tasks	
	Leisure	Satisfaction with the available time for leisure	1/10
		activities	

Table 1—The five domains of empowerment in the WEAI

Source: Alkire et al. 2012.

## 3.2 The Gender Parity Index

The GPI is a relative inequality measure that reflects the inequality in 5DE profiles between the primary adult male and female in each household. In most but not all cases, these are husband and wife, but they can be the primary male and female decisionmaker regardless of their relationship to each other. By definition, households without a primary adult male are excluded from this measure, and thus the aggregate WEAI uses the mean GPI value of dual-adult households. The GPI shows the percentage of women who have achieved parity with respect to their male counterparts. In cases of gender disparity, the GPI reflects the relative empowerment gap between the woman's 5DE score with respect to the man's. The GPI score can thus be improved by increasing the percentage of women who have gender parity or, for those women who are less empowered than men, by reducing the empowerment gap between the male and female of the same household (Alkire et al. 2012).

### 4. Piloting and Development of the Women's Empowerment in Agriculture Index<sup>1</sup>

The index evolved in late 2010 and early 2011 out of discussions among U.S. government agencies involved in the Feed the Future Initiative regarding the need for an indicator to monitor women's empowerment. The discussions initially revolved around using a "gender perceptions index," but eventually focused on an index similar to the multidimensional poverty indices being developed by OPHI.

Following the definition of the five domains of empowerment in agriculture by USAID, work began at IFPRI in June-July 2011 to develop survey questionnaire modules that could be used to elicit responses on each of these domains. The surveys contained experiments in questionnaire design and solicited information around the five domains of empowerment in different ways to test how specific and relevant questions were for men and women, whether respondents were able to answer the questions as they were phrased, and how well they correlated with household measures of well-being.

The full survey—with household and individual questionnaires, administered to a primary male and a primary female respondent in each household<sup>2</sup>—was piloted from September to November 2011 in Bangladesh, Guatemala, and Uganda.

In Bangladesh, the pilot survey was conducted from September 8 to 29, 2011. The survey was administered to 450 households (800 individuals) in rural areas in the districts of Khulna, Madaripur, Barguna, Patuakhali, and Jessore. These districts belong to the Feed the Future "zones of influence" in the south/southwestern part of Bangladesh.

Index development took place from November 2011 to January 2012. Qualitative interviews and case studies with individuals, as well as a technical consultation with outside experts in January 2012, provided further input into the choice of indicators that comprise the index. The Appendix presents four case studies from the Bangladesh pilot of the WEAI.

The WEAI itself was launched on February 28, 2012, at the 56<sup>th</sup> Session of the Committee on the Status of Women at the United Nations, New York, and subsequently in three separate presentations in March in London, New Delhi, and Washington, DC (Alkire et al. 2012). At the 2012 UN Session of the Committee on the Status of Women, Bangladesh State Minister of Women and Children Affairs Honorable Shirin Sharmin Chaudhury described how the WEAI would be useful in defining the obstacles rural women face in their important work as farmers and caretakers.

<sup>&</sup>lt;sup>1</sup>This section is excerpted from Alkire et al. (2012).

<sup>&</sup>lt;sup>2</sup> This index purposely does not use the concept of "male-headed" or "female-headed" households, which are fraught with difficulties and assumptions about "headship" (see Buvinić and Gupta 1997). Rather, we classify households in terms of whether there are both male and female adults (dual adult households); only female adults, or only male adults. Because the latter are very rarely found in our study areas, our sample and analysis compare dual-adult and female-only households.

## 5. Development of the Data for Calculating the WEAI in Bangladesh

As mentioned above, Bangladesh is the first country to implement a survey that provided the data with which to calculate the WEAI for the Feed the Future (FTF) Zone of Influence as well as for the entire rural areas of the country. The survey was conducted under the Policy Research and Strategy Support Program (PRSSP), funded by USAID and implemented by IFPRI, which started in October 2010. The PRSSP has been designed to conduct applied research to fill knowledge gaps on critical food security and agricultural developmental issues in Bangladesh, and thereby facilitate evidence-based policy formulation and policy reforms to achieve the goal of sustainably reducing poverty and hunger.

IFPRI-PRSSP empirical research to address specific food security and agricultural developmental issues requires collection of data through especially designed surveys, including household, community, market, and institutional surveys. The Bangladesh Integrated Household Survey, developed by PRSSP research staff in 2011, is the most comprehensive, nationally representative household survey conducted to date. Varied studies can make use of the survey's integrated data platform to carry out research with policy implications for the country's food security and agricultural development. Moreover, the survey has been designed to provide the baseline data for the USAID's FTF Zone of Influence in southern Bangladesh.

In April 2011, the IFPRI-PRSSP team prepared a draft questionnaire for the BIHS, which was peer-reviewed within IFPRI. The questionnaire was designed to collect gender-disaggregated information as much as possible. Between late June and early July, a revised questionnaire was distributed to USAID and its partners, researchers, officials of the Government of Bangladesh, and other stakeholders for comments. IFPRI had received comments from a number of organizations and incorporated them in the questionnaire.

The BIHS sample is statistically representative at the following levels: (1) nationally representative of rural Bangladesh; (2) representative of rural areas of each of the seven administrative divisions of the country: Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur, and Sylhet; and (3) representative of the FTF Zone of Influence. USAID provided IFPRI with the list of FTF locations (districts and *upazilas*). Using this list, sampling of the FTF zone has been done separately for its statistical representativeness.

A sound and appropriate statistical method was used to calculate the total BIHS sample size of 6,500 households in 325 primary sampling units (PSUs).<sup>3</sup> The sample design of the BIHS followed a stratified sampling in two stages—selection of PSUs and selection of households within each PSU—using the sampling frame developed from the community series of the 2001 population census of Bangladesh. Later, sampling weights were adjusted on the basis of the latest

<sup>&</sup>lt;sup>3</sup> The BIHS sampling was done by a consultant statistician, former chief statistician at the Bangladesh Bureau of Statistics, Ministry of Planning, Government of Bangladesh.

population census of 2011. The domain of the national survey was the rural areas of the entire country and the domain of the FTF Zone of Influence was all the *upazilas* belonging to the zone.

In the first stage of sampling, the total BIHS sample of 325 PSUs were allocated among the 8 strata (7 divisions and the FTF zone) with probability proportional to size (size being the number of households in each stratum), which resulted in the following distribution: 21 PSUs in Barisal, 48 in Chittagong, 87 in Dhaka, 27 in Khulna, 29 in Rajshahi, 27 in Rangpur, 36 in Sylhet, and 50 in the FTF zone. In the second stage, 20 households were randomly selected from each PSU. The sampling process and survey administration included the following steps:

- Listed all villages in each of the stratum (7 divisions and the FTF Zone of Influence)
- In each stratum, randomly selected villages (PSUs) with probability proportional to size (PPS) sampling using the number of households in the 2001 population census data
- Conducted complete census in each of the 325 selected villages
- Randomly selected 20 households from each village from census list
- Male and female enumerators interviewed, respectively, male and female respondents of each selected household.

The total BIHS sample has 6,500 households in 325 PSUs. Initially, the FTF stratum had a sample of 1,000 in 50 PSUs. However, IFPRI-PRSSP researchers noticed that the sample size becomes inadequate for certain disaggregated analyses of the data from the FTF sample of 1,000 households. In order to obtain more robust estimates of disaggregated analysis, the researchers expanded the FTF sample of households by adding 52 PSUs (with 1,040 sample households) that belong to FTF *upazilas* in Barisal, Dhaka, and Khulna strata (divisions) of the overall BIHS sampling frame. Since the sampling frame of the BIHS has the FTF stratum and the 7 strata representing the 7 divisions, the use of the additional BIHS sample from the 3 divisional strata required estimation of appropriate sampling weights to obtain results that are statistically representative of the FTF Zone of Influence. The consultant statistician calculated the sampling weights and trained IFPRI-PRSSP research analysts on the use of the weights in analyzing the expanded sample of the FTF dataset. The final sample frame of the FTF zone includes 2,040 households (1,000 households in the original FTF sample and 1,040 additional sample households) in 102 PSUs (villages) belonging to 73 *upazilas*. Figures 1 and 2 show the survey PSUs in the map of Bangladesh, for the national and the FTF sampling frames, respectively.

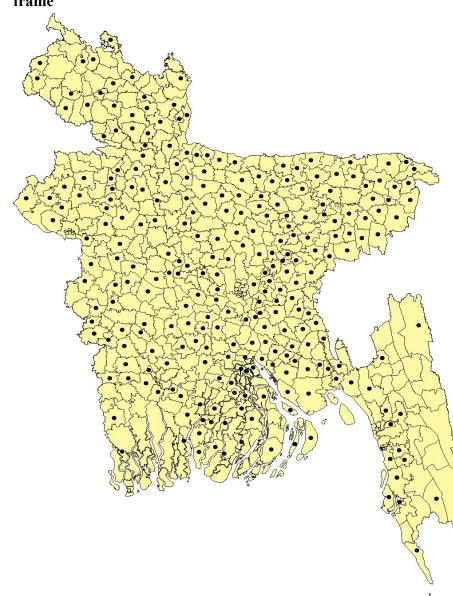


Figure 1—Map of Bangladesh showing the survey *upazilas* in the national sampling frame

For implementing the BIHS, IFPRI engaged the Data Analysis and Technical Assistance Limited (DATA), a Bangladeshi consulting firm with expertise in conducting complex surveys and data analysis. DATA worked under the supervision and guidance of senior IFPRI researchers. DATA's capacity to conduct surveys to collect high-quality data was largely built by IFPRI over the past 18 years. DATA provided 120 experienced enumerators (60 female and 60 male) and 20 supervisors (3 female and 17 male) to administer the BIHS. DATA was also IFPRI's partner in collecting surveys with detailed intrahousehold information, and has been using the protocol of having female enumerators interview women, and male interviewers interview men, for more than 15 years.

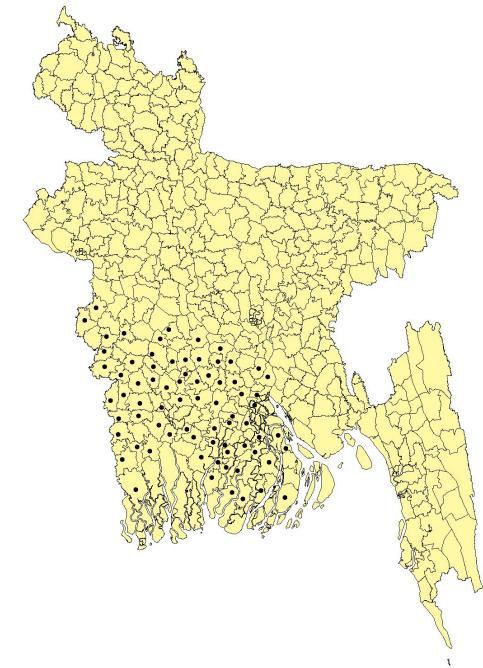


Figure 2—Map of Bangladesh showing the survey *upazilas* in the Feed the Future sampling frame

From August 7 to September 10, 2011, IFPRI researchers and senior DATA staff conducted training of survey enumerators on how to administer the comprehensive BIHS questionnaire. Field supervisors also participated in the enumerator training, but they received additional training related to their supervisory role. The training consisted of a 16-day formal classroom component as well as closely monitored practice fieldwork. The questionnaire was field tested in five rural locations. The BIHS was scheduled to start on September 20, 2011.

In early September, at the request of the Bureau of Food Security at USAID-Washington, USAID-Bangladesh asked IFPRI to add the WEAI modules to the BIHS. IFPRI-PRSSP researchers incorporated the WEAI modules in the BIHS questionnaire. Because the pilot had just been completed, the longer pilot version of the WEAI modules was fielded in the BIHS, which meant that the BIHS contained many alternative measures of empowerment that can be used for validation purposes. The inclusion of the WEAI modules required re-training of survey enumerators and supervisors for 22 days from September 13 to October 17, 2011, which delayed the implementation of the BIHS.

By October 25, 2011, the IFPRI-PRSSP team and DATA completed the preparation of the BIHS. The survey started on October 26, 2011. The survey of the FTF zone was completed on November 30, 2011, and the entire BIHS was completed by March 15, 2012. After data entry and cleaning, DATA delivered the complete dataset to IFPRI-PRSSP by end June 2012.

### 6. Findings

Using household survey data collected through the BIHS, this section compares the WEAI results for survey households living in the FTF Zone of Influence with those of survey households in the entire rural areas of the country. For detailed characteristics of the BIHS sample households, see Ahmed et al. (2013).

## 6.1 WEAI Results

Table 2 presents the WEAI, and its subindexes, the 5DE and the GPI for the FTF Zone as well as the entire country.

Indices	Feed the F	uture zone	<b>Rural Bangladesh</b>		
marces	Women	Men	Women	Men	
Disempowered Headcount (H <sub>n</sub> )	76.80%	50.30%	77.40%	56.20%	
Empowered Headcount (He)	23.20%	49.30%	22.60%	43.80%	
Average Inadequacy Score (A <sub>n</sub> )	46.40%	34.60%	45.60%	35.30%	
Average Adequacy Score (A <sub>a</sub> )	53.60%	65.40%	54.40%	64.70%	
<b>5DE Index</b> $[H_e+(H_n*A_a)]$	0.643	0.822	0.647	0.802	
Percent of women with no gender parity $(H_{GPI})$	63.70%		61.20%		
Percent of women with gender $parity(H_{WGP})$	36.30%		38.80%		
Average Empowerment Gap (I <sub>GPI</sub> )	31.90%		29.70%		
<b>GPI</b> [1-( H <sub>GPI</sub> * I <sub>GPI</sub> )]	0.797		0.818		
<b>WEAI=</b> 0.9x5DE +0.1xGPI	0.658		0.664		

### Table 2—WEAI results

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012.

Note: The survey represents only rural areas.

The WEAI for the sample areas in the Feed the Future zone is 0.658. It is a weighted average of the 5DE sub-index value of 0.643 and the GPI sub-index value of 0.797. The results also show that less than a quarter of all women are empowered in the five domains. In the sample areas, the women who are not yet empowered still have, on average, adequate achievements in 53.60 percent of the domains. Thus the overall 5DE for women is 23.20 percent + (76.80 percent x 53.60 percent) =0.643. Meanwhile, 36.30 percent of women have gender parity with the primary male in their household. Of the 63.70 percent of women who do not have gender parity, the empowerment gap between them and the male in their household is quite significant at 31.90 percent. Thus the overall GPI in the sample area is  $\{1-(63.70 \text{ percent x } 31.90 \text{ percent})\}$  or 0.658.

Results for the entire country are similar to those obtained from the FTF zone. The WEAI value is 0.664, the GPI is 0.818, and the 5DE sub-index value for women is 0.647. Less than a quarter of the women are empowered in the five domains, while more than half do not have gender parity with the primary male in their household. Achieving gender equality therefore remains an important goal in Bangladesh.

Compared to women, a greater proportion of men are empowered in the FTF zone and at the national level. However, at 50.30 percent and 56.20 percent, respectively, the proportions are still rather low. The overall 5DE values for men in the FTF zone and the national sample are 0.822 and 0.802, respectively.

### 6.2 What Are the Gaps in Women's Empowerment?

Figure 3 shows that the domains that contribute most to women's disempowerment in the FTF zone as well as the whole of Bangladesh are weak leadership and influence in the community (32.5 percent and 33.8 percent, respectively), lack of control over resources (22.4 percent and 23.6 percent, respectively), and lack of control over income (16.1 percent and 15.0 percent, respectively).

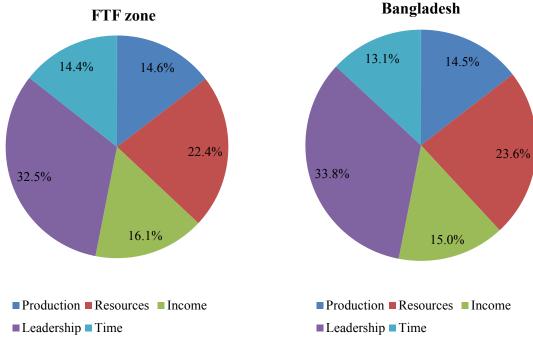
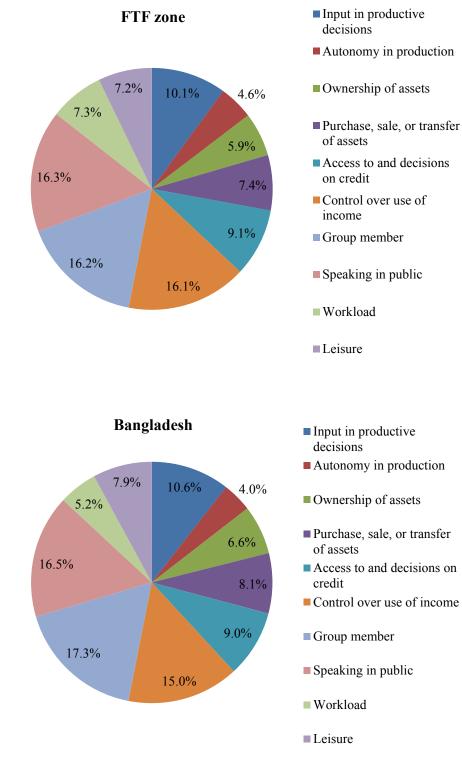


Figure 3—Contribution of each of the 5 domains to disempowerment of women

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

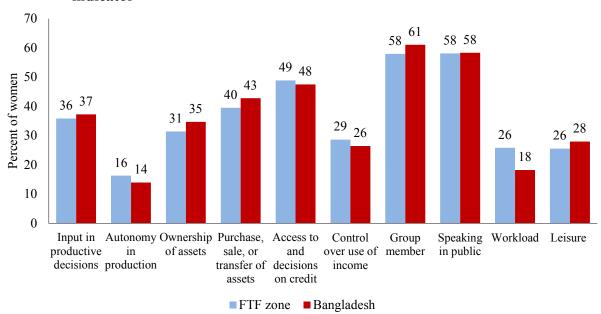
To obtain a more nuanced understanding of the areas of women's disempowerment, it is helpful to look at the contribution of each domain indicator (Figure 4). For example, comparing Figures 3 and 4 for the FTF zone, it is observed that, although control over resources contributes to 22.4 percent of disempowerment (Figure 3), its three indicators—ownership of assets, purchase, sale and transfer of assets and access to and decisions on credit—each contribute relatively less to overall disempowerment (Figure 4). The domain indicators that contribute the most to women's disempowerment are a lack of participation in groups (16.2 percent in the FTF zone and 17.3 percent in Bangladesh), lack of control over income (16.1 percent in the FTF zone and 15.0 percent in Bangladesh), and discomfort in speaking in public (16.3 percent in the FTF zone and 16.5 in Bangladesh).

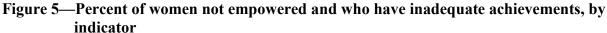


# Figure 4—Contribution of each of the 10 domain indicators to disempowerment of women

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

Figure 5 illustrates the proportion of women who are disempowered and do not have adequate achievements in each of the ten indicators. More than half of the women in the survey do not belong to any group and are uncomfortable speaking in public. Nearly half of the women lack access to credit and the ability to make decisions about it. Thus, despite Bangladesh's noted achievements in delivering social and financial services through women's groups, such as in the microfinance movements, a gap still exists in terms of group membership and ability to express oneself in public.





Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

### 6.3 What Are the Gaps in Men's Empowerment?

The configuration of men's deprivations in empowerment is noticeably different from women's. Figure 6 shows that time poverty contributes relatively more to men's disempowerment, both in the FTF zone and the rest of Bangladesh. While this may reflect the timing of the survey (it was conducted during a peak agricultural season), it also reveals the higher involvement of men in agriculture in Bangladesh. On the other hand, men report very little disempowerment in areas such as decisionmaking around agricultural production, access to resources, and control over the use of income, both in the FTF zone and in the entire country.

Looking at the contribution of domain indicators to disempowerment in Figure 7, it is observed that factors such as lack of ownership of assets and control over use of income together contribute less than 5 percent to overall disempowerment of men. This is not surprising, given that most household assets (especially land) are owned and controlled by men in Bangladesh

(Quisumbing and Maluccio 2003) and that bargaining power within the household is associated by individual asset ownership.

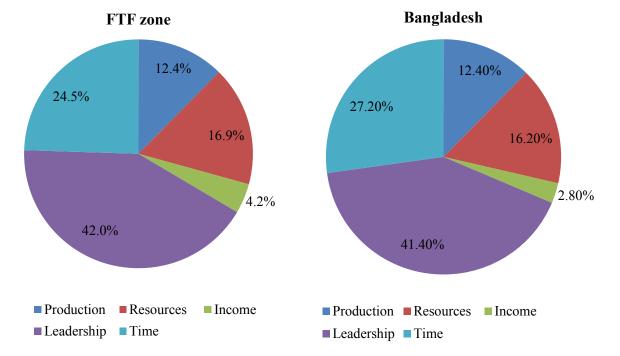
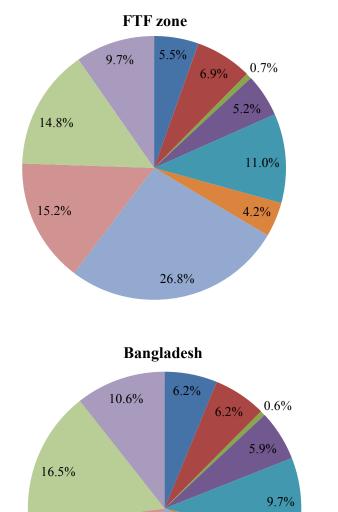


Figure 6—Contribution of each of the five domains to disempowerment of men

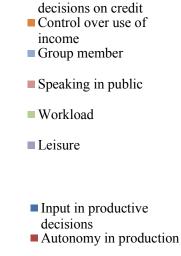
However, similar to women, a lack of leadership and influence in the community contributes the most to men's disempowerment. In fact, comparing Figures 4 and 7, it is seen that although group membership contributes 16.2 percent and 17.3 percent to disempowerment for women in the FTF and national samples, respectively, the corresponding numbers are higher for men (26.8 percent and 26.7 percent), partly because civil society organizations and nongovernmental organizations have been quite active in organizing women into groups. Women are more likely than men to be group members in Bangladesh (Quisumbing 2009), although the results indicate that there are still many women who do not belong to any group.

Figure 8 reports the proportion of men who are disempowered and do not have adequate achievements in each of the ten indicators. It can be seen that roughly half of the men in the survey do not belong to any group. Confirming the results obtained in Figure 7, a very small proportion of men in both samples report having inadequate ownership of assets and insufficient control over income.

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.



### Figure 7—Contribution of each of the 10 domain indicators to disempowerment of men



Input in productive decisions

Autonomy in

production Ownership of assets

Purchase, sale, or

transfer of assets Access to and

- Ownership of assets
- Purchase, sale, or transfer of assets
- Access to and decisions on credit
- Control over use of income
- Group member
- Speaking in public
- Workload
- Leisure

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

26.7%

14.7%

2.8%

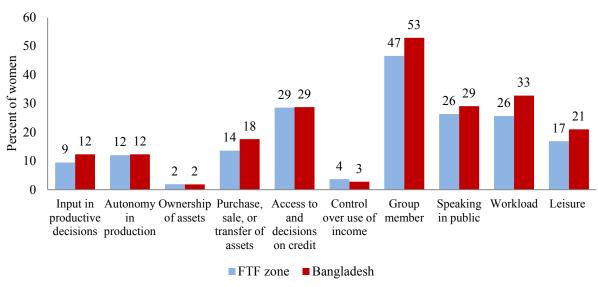


Figure 8—Percent of men not empowered and who have inadequate achievements, by indicator

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

### 6.4 Who Is Empowered?

The 5DE deliberately focuses only on issues of empowerment in agriculture. In order to show clearly how empowerment in women's specific agricultural roles relates to their age, level of education, level of household hunger, and household per capita expenditure, the survey also included questions related to these other household and individual characteristics.

Moreover, the literature on empowerment suggests that empowerment in one domain may not necessarily create empowerment in other domains. Hence, the survey included questions concerning decisionmaking and autonomy with respect to other areas, such as (1) minor household expenditures; (2) actions in the case of serious health problems; (3) protection from violence; (4) expression of religious faith, daily tasks; and (5) use of family planning. The decisionmaking questions reflect whether the respondent makes the decision or feels like she could participate in making the decision if she wanted to. On the other hand, autonomy questions reflect the extent to which the respondent's motivation for decisionmaking reflects her values rather than by a desire to please others or avoid harm (coerced action). The Relative Autonomy Indicator (RAI) is used to measure the autonomy in a particular domain. It measures the ability of a person to act on what they themselves value, to have their own intrinsic motivations prevail over motivations to please others or avoid punishment, for example (Alkire et al. 2012). Anyone with a RAI score above 1 in a particular area is seen to have sufficient autonomy in that area.

The rest of this section examines the relationship between empowerment and the following characteristics:

- Individual age groups
- Individual education level, defined as the highest grade of education completed
- Income, proxied by per capita expenditure quintile to which the household belongs
- Household hunger score
- Decisionmaking and autonomy in other domains, such as minor household expenditures, serious health problems, protection from violence, expression of religious faith, definition of daily tasks, and the use of family planning.

To assess the statistical significance of the association between empowerment and these characteristics, Pearson's chi-squared was computed for the hypothesis that the rows and columns in a two-way table are independent (Alkire et al. 2012). The results are displayed in Tables 3-7.

	Feed the F	uture zone	Bangladesh		
Age group	Women	Men	Women	Men	
	()	percent of responder	nts who are empowere	d)	
18-25	14.15	30.86	15.31	30.15	
26-45	24.84	45.67	23.23	40.35	
46-55	26.67	56.74	25.69	47.97	
56-65	21.48	56.68	17.22	52.81	
>65	3.33	45.59	8.20	40.92	
Total	22.72	48.86	21.45	42.99	
Pearson chi2 statistic	25.26	28.30	45.98	56.57	
(p-value)	(0.000)	(0.000)	(0.000)	(0.000)	

## Table 3—Relationship between empowerment and age

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012.

Note: The survey represents only rural areas.

Age is seen to be significantly associated with women's empowerment, in the FTF zone as well as the rest of the country. Table 3 shows that a greater percentage of women aged 26-55 were empowered, compared with those in younger or older age groups. Similar to the results from the pilot, this may reflect the relative lack of power of younger females, who are typically daughters-in-law, and elderly women, who may now be dependent on sons for support (Alkire et al. 2012). A significant relationship is obtained among all men as well, with a greater percentage of men aged 46-65 being empowered compared to men from other age groups.

	Feed the F	'uture zone	Bangladesh		
Education	Women	Men	Women	Men	
		(percent of responde	nts who are empowered	d)	
Less than primary	23.42	40.32	20.44	37.20	
Primary	22.43	49.75	22.56	45.86	
Secondary	21.64	59.56	22.09	51.43	
Higher secondary	30.00	62.07	23.91	58.16	
University or above	23.08	66.67	28.57	50.70	
Total	22.72	48.86	21.45	42.99	
Pearson chi2 statistic	1.16	47.16	3.35	70.37	
(p-value)	(0.884)	(0.000)	(0.501)	(0.000)	

 Table 4—Relationship between empowerment and education

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012.

Note: The survey represents only rural areas.

No definite conclusion can be drawn about the relationship between education and empowerment of women in the FTF zone, and the association is insignificant as well. However, the proportion of empowered women in the national sample increases with education. The association is insignificant nonetheless.

However, the relationship is strongly significant for men in both samples, and in general, the percentage of empowered men is seen to increase with increasing levels of education. While one might expect that education would increase empowerment of men and women alike, these results are consistent with the patterns of male and female involvement in agriculture in Bangladesh. Although women are also involved in agriculture, and the number of women in the agricultural labor force is increasing (Asaduzzaman 2010), it remains a male domain, and women continue to have limited decisionmaking power in agriculture. hus, a woman with higher schooling attainment may still not be able to make agricultural decisions, as this is considered a male domain. This is reflected in the comparatively lower proportion of empowered women with a university degree in the FTF zone. Men with higher schooling attainment, on the other hand, may feel more empowered because they are better able to make informed decisions about agricultural production.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> In the pilot, the relationship between empowerment and education was insignificant for men and women alike (Alkire et al. 2012), but could also be due to small sample sizes. The fact that this relationship emerges as significant for men but remains insignificant for women in this nationally representative sample with a much larger sample size suggests that the pathways for education to empower men and women are different in rural Bangladesh.

	Feed the I	Future zone	Bangladesh					
Per capita expenditure quintile	Women Men		Women	Men				
	(percent of respondents who are empowered)							
1st quintile (poorest)	17.68	40.45	14.20	30.94				
2nd quintile	23.50	39.94	21.32	40.11				
3rd quintile	24.01	53.25	23.05	42.58				
4th quintile	25.27	49.84	24.51	48.14				
5th quintile (richest)	23.22	61.64	24.59	54.88				
Total	22.72	48.86	21.45	42.99				
Pearson chi2 statistic	7.40	41.02	45.48	108.00				
(p-value)	(0.116)	(0.000)	(0.000) (0.000)					

Table 5—Relationship between empowerment and income

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012.

Note: The survey represents only rural areas.

Per capita expenditure quintile at the household level is constructed by dividing the households in the survey into five quintiles, according to their per capita expenditure. It measures the expenditures of rural households as a proxy for income, based on the assumption that increased expenditures is strongly correlated to increased income. Expenditures are used instead of income because of the difficulty in accurately measuring income and because expenditure data are less prone to error, easier to recall, and more stable over time than income data.

Results presented in Table 5 suggest that per capita expenditure has a somewhat significant association with empowerment for women in the FTF zone. However, the relationship is strongly significant at the national level. On the other hand, the relationship is strongly significant for all men in the FTF zone and in entire Bangladesh. The pattern for women reflects an inverse U-shaped relationship between income and women's empowerment. Women in the lowest quintiles may feel disempowered, not only because agriculture is a considered a male domain, but also because the household itself is too poor to have access to resources important for agriculture. The proportion of empowered women rises with higher expenditure quintiles, but drops at the top quintile, which may reflect the value placed on female seclusion and consequently less involvement of women in agricultural activities in richer households. The results for men would be what one would expect—a positive, monotonic relationship between income and empowerment.

	Feed the Future zone		Bangladesh			
	Women	Men	Women	Men		
Household Hunger Score	(percent of respondents who are empowered)					
Little to no hunger	22.48	49.46	21.58	43.59		
Moderate hunger	27.41	42.86	20.87	30.67		
Severe hunger	10.53	25.00	3.57	17.65		
Total	22.72	48.86	21.45	42.99		
Pearson chi2 statistic	3.35	4.36	5.41	15.13		
(p-value)	(0.187)	(0.113)	(0.067)	(0.001)		

#### Table 6—Relationship between empowerment and household hunger

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012.

Note: The survey represents only rural areas.

A household hunger score (HHS), which measures the extent of household food deprivation, was computed following the methodology of the USAID FANTA-2 project.<sup>5</sup> Households are categorized into the following groups: little or no hunger, moderate hunger, and severe hunger. In the FTF zone, the percentage of women and men not yet empowered in agriculture is higher in households reporting higher hunger scores, but this association is statistically significant for men only. The pattern is more pronounced at the national level<sup>6</sup> (Table 6). The strength of this association suggests that addressing disempowerment in agriculture for both men and women is a potential avenue for addressing the issue of hunger and food security.

The results in Table 7 show that women who were empowered by the 5DE reported higher decisionmaking and autonomy with regard to all of the five areas considered above, when compared to women who were not empowered. An overwhelming majority of these relationships were strongly significant. Thus, there is evidence that women who were empowered in agriculture reported (1) greater decisionmaking and autonomy with minor household expenditures; (2) higher decisionmaking and autonomy regarding family planning; (3) higher decisionmaking autonomy in expressing religious faith; (4) greater decisionmaking and autonomy in taking actions in the case of serious health problems; and (6) greater decisionmaking in protection from violence.<sup>7</sup> For example, around 72 percent of women empowered in agriculture in the FTF zone felt they could make family planning decisions, compared to 61 percent of women who were not empowered. Similar significant relationships were obtained in the case of men in the FTF zone, as well as at the national level. Curiously enough, though, empowered men in the national sample reported a

<sup>&</sup>lt;sup>5</sup> See http://www.fantaproject.org/publications/tn12.shtml.

<sup>&</sup>lt;sup>6</sup> This result did not emerge in the pilot (Alkire et al. 2012), most probably owing to small sample sizes.

<sup>&</sup>lt;sup>7</sup> In the pilot, fewer relationships were statistically significant. In the pilot, women who were empowered in agriculture reported (1) greater decisionmaking and autonomy about religious faith, (2) higher decisionmaking regarding family planning, and (3) higher autonomy in protection from violence. In the pilot, Bangladeshi men who were empowered in agriculture reported lower decisionmaking about minor household expenditures, health problems, protection from violence, and expression of religious faith. However, none of these relationships was statistically significant, probably owing to smaller sample sizes and lack of statistical power (Alkire et al. 2012).

lower extent of participation in decisionmaking about minor household expenditures, serious health problems, and family planning—whether this implies greater sharing of decisionmaking within the household is an issue that deserves investigation in future work.

able 7—Relationship between empowerment in agriculture and empowerment in other	r
domains	

		Feed the	e Future zone		Bangladesh			
			Pearson	р-			Pearson	p-
	Empo	wered	chi2 statistic	value	Етро	wered	chi2 statistic	value
Decisionmaking and autonomy								
questions	Yes	No			Yes	No		
Decisionmaking	(perc				(per	cent)		
% of women who feel they can make	decisions re	garding:						
Minor household expenditures	65.64	51.46	26.45	0.000	76.22	59.50	102.31	0.000
Serious health problems	64.30	45.34	47.01	0.000	65.99	48.40	105.67	0.000
Protection from violence	29.31	19.11	20.22	0.000	23.59	17.59	20.04	0.000
Religious faith	63.83	48.05	32.58	0.000	68.02	64.23	5.37	0.020
Daily tasks	87.47	73.08	37.46	0.000	90.51	84.45	25.62	0.000
Family planning	71.80	60.53	17.81	0.000	73.62	62.28	47.95	0.000
Autonomy								
% of women with sufficient autonomy	y (RAI above	e 1) regard	ing:					
Minor household expenditures	85.68	69.35	41.12	0.000	90.08	72.02	146.14	0.000
Serious health problems	84.92	66.67	46.18	0.000	89.20	71.62	129.77	0.000
Protection from violence	83.33	74.03	4.98	0.026	92.94	76.33	43.44	0.000
Religious faith	88.22	74.91	22.72	0.000	89.58	73.89	83.37	0.000
Daily tasks	86.36	71.53	35.29	0.000	89.65	75.76	92.32	0.000
Family planning	83.53	65.22	41.88	0.000	87.79	71.74	91.86	0.000
Decisionmaking								
% of men who feel they can make dee	cisions rega	rding:						
Minor household expenditures	88.57	84.28	6.16	0.013	82.65	85.06	4.51	0.034
Serious health problems	75.58	72.90	1.49	0.222	69.62	72.97	5.72	0.017
Protection from violence	58.81	50.99	9.74	0.002	48.77	42.01	19.21	0.000
Religious faith	92.60	81.91	40.14	0.000	90.70	84.73	33.42	0.000
Daily tasks	92.47	86.25	15.94	0.000	93.32	90.76	9.18	0.002
Family planning	61.40	55.45	5.76	0.016	51.34	53.28	1.57	0.210
Autonomy								
% of men with sufficient autonomy (I	RAI above 1	) regarding	:					
Minor household expenditures	85.39	64.42	89.45	0.000	80.43	68.56	74.70	0.000
Serious health problems	83.38	64.11	64.07	0.000	79.37	66.31	76.39	0.000
Protection from violence	74.85	55.52	26.52	0.000	72.80	55.28	50.78	0.000
Religious faith	79.00	62.96	42.28	0.000	71.47	63.26	27.04	0.000
Daily tasks	82.66	64.57	61.91	0.000	81.61	68.21	91.38	0.000
Family planning	78.30	60.14	45.80	0.000	76.40	61.34	82.37	0.000

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012.

Note: The survey represents only rural areas.

### 6.5 Regional Comparisons of WEAI Results for Women

As discussed previously, the WEAI results from the BIHS data show that gender parity in the FTF zone is very low. Around a third of the women are as equally empowered as the primary male in their households. Figure 9 shows that, at the national level, around 39 percent of women have gender parity with the primary male in their household. Among the divisions, Barisal has the highest degree of gender equality, with 46 percent of the women being as equally empowered as the primary male in their households. Gender inequality is greatest in Chittagong and Sylhet—only around 30 percent of the sampled households have gender equality.

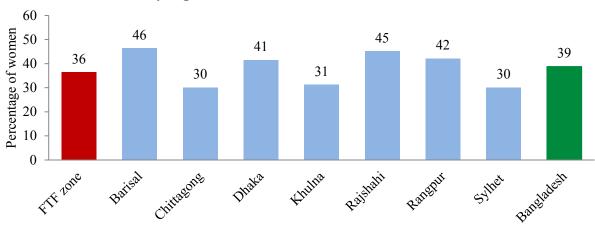


Figure 9—Percent of women who have gender parity with the primary male in their household, by region

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

Figure 10 shows that around a quarter of the women in the FTF zone are empowered in agriculture, which is quite similar to the national figure of 22.6 percent. Women are once again, better off in Barisal division than the rest of the divisions, but still they are around only a third of the sample (29.9 percent). Sylhet and Chittagong divisions have the lowest proportions of empowered women, at 11 percent and 12 percent, respectively.

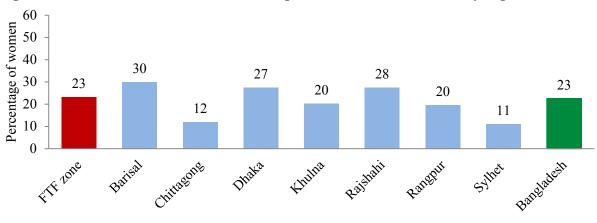


Figure 10—Percent of women who are empowered in the 5 domains by region

Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

Figure 11 presents the WEAI values across regions. Among the divisions, women in Barisal have the highest score. This is expected, since a greater percentage of women in Barisal division are empowered in the five dimensions, and has gender parity with the primary male in their households. Chittagong division has the lowest value for the WEAI, since it has one of the lowest proportions of empowered women, and the largest proportion of households with no gender parity.

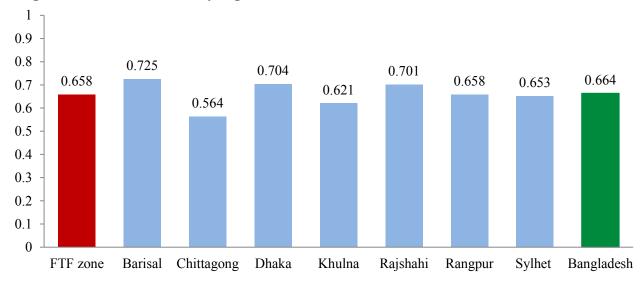
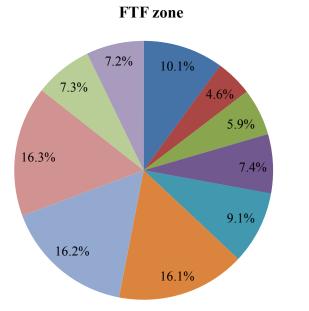


Figure 11—WEAI values, by region

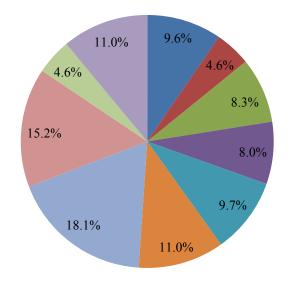
Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

Figure 12 illustrates how factors contributing to the disempowerment of women vary by region. As discussed previously, major areas of disempowerment for women in Bangladesh are a lack of control over income, lack of group membership, and discomfort in speaking in public. While these are key disempowering features in the country as a whole, looking at the results for each division may reveal various regional differences. For example, inadequate leisure, at 11 percent, is a major disempowering factor for women in Rangpur division, but contributes less to disempowerment for women in the FTF zone. Insufficient control over income contributes somewhat less to women's disempowerment in Rangpur division, compared to the FTF zone. This suggests the need of taking into account regional differences when targeting interventions promoting empowerment of women.

# Figure 12—Regional differences in the contribution of each of the 10 domain indicators to disempowerment of women: An example



**Rangpur Division** 



Source: IFPRI Bangladesh Integrated Household Survey, 2011-2012. Note: The survey represents only rural areas.

- Input in productive decisions
- Autonomy in production
- Ownership of assets
- Purchase, sale, or transfer of assets
- Access to and decisions on credit
- Control over use of income
- Group member

Speaking in public

- Workload
- Leisure
- Input in productive decisions
- Autonomy in production
- Ownership of assets
- Purchase, sale, or transfer of assets
- Access to and decisions on credit
- Control over use of income
- Group member
- Speaking in public
- Workload
- Leisure

### 7. Conclusions

While the WEAI was developed to be a monitoring indicator for the Feed the Future Initiative, one of its other uses is as a diagnostic tool: to identify areas in which women and men are disempowered, so that programs and policies can be targeted to those areas. This analysis has shown that the areas in which men and women (in the Feed the Future Zone of Influence in southern Bangladesh as well the entire rural areas of the country) are disempowered are quite different. This implies that, depending on local context, different programs and policies will need to be put in place to empower women and men alike. This, in turn, means that policymakers will need to pay attention to regional differences in factors contributing to the lack of empowerment of women as well as men.

In general, however, for women, policies and programs must address the three domains that contribute most to disempowerment: weak leadership in the community, lack of control over resources, and lack of control over income. Among women who are disempowered, a high proportion report lack of control over income, lack of participation in groups, and discomfort speaking in public. Group-based approaches that build women's assets-which they can control-may be able to improve women's control over resources and the income that these resources generate. Such approaches may also help to close the gender asset gap by building women's assets faster than men's (while not reducing men's assets) (Quisumbing and Kumar 2011). They may also enable women to become more comfortable in exercising a leadership role, as many such groups include efforts to increase women's political participation and involvement in the community. Bangladesh has many examples of civil society organizations that have taken on this mission (see Ahmed, Khondkar, and Quisumbing 2011). The impact of policy reform and government action to build women's human and physical capital should not be underestimated. While the GPI indicates that there is still an empowerment gap between men and women in Bangladesh, the country has improved relative to other South Asian countries in terms of social indicators such as girls' schooling and nutrition. In the area of human capital investment, for example, the gender gap in primary and secondary education has closed (Ahmed 2004; Ahmed et al. 2013; Hausmann, Tyson, and Zahidi 2010), in no small part owing to government programs designed to increase school attendance and grade progression among girls.

For men, time poverty and lack of leadership within the community contribute most to disempowerment. Reducing drudgery in agricultural work, or policies enabling men to adopt appropriate machineries for agricultural operations, might help reduce time poverty. Because most group-based efforts of civil society organizations have been directed to women in Bangladesh, men may not have benefited as much from efforts to be involved in groups that build leadership skills. While it is true that group-based efforts address an important need for women, policymakers also need to realize that efforts to make gender norms more equitable must also involve men. The next generation of civil society programs may need to work more closely with men to create a supportive environment for women's empowerment and gender equality.

Finally, although sizeable proportions of men and women are shown to be disempowered along a number of indicators, the fact remains that a larger proportion of women are disempowered relative to men within their households. Achieving gender equality remains an important goal for policy in Bangladesh, one that is not only important in itself, but also contributes to the attainment of other development objectives, such as reducing hunger and improving food security (von Grebmer et al. 2009).

### Appendix: Case Studies from the Bangladesh pilot Study of the WEAI

The following case studies were undertaken as part of the Bangladesh pilot of the WEAI, in the Feed the Future Zone of Influence. The case studies were done after the quantitative survey for the pilot was completed, in January 2012.

Following preliminary results from the pilot surveys, a second round of quantitative and qualitative data collection was undertaken to validate, contextualize, and explore concepts of empowerment, particularly to deepen our understanding of the five hypothesized domains of empowerment. The narrative guides for this exercise were developed by the IFPRI and OPHI teams and included the application of the individual pilot questionnaire, followed by and interspersed with semi-structured narratives. One objective was to explore respondent understanding of certain aspects of empowerment, for example, by asking, "What does it mean to be empowered? If there was someone in your community who you think is empowered, how would you describe them? Can you think of a time when you felt empowered? Or, what qualities do you think makes a 'leader'? Do you feel like you are a leader (why and why not?)?" Respondents were also asked to show how they understood the ways questions were phrased or to give views surrounding assumptions made in coding the quantitative results, for example, "Sometimes assets are owned by one person in the household; other times they are owned by the whole household. Ideally, how would assets be owned in your household?" or "Which activities that we asked about do you most enjoy, and which do you most dislike? Which would you consider 'work' and which would you consider 'leisure'?" The qualitative interview guides were meant to be a framework from which to explore women's and men's stories rather than be a strict set of questions to be administered with set answers (Alkire et al. 2012).

Sampling for the case study narratives was done with the objective of selecting men and women with variation in household type (single female or dual adult) as well as in WEAI scores. In each country, enumerators worked with local leaders in two villages to purposefully select a total of 14 women and 6 men (20 per country) to be case study participants. Selection was split between women and men who were perceived to have high, medium, and low empowerment levels in agriculture. In Bangladesh, 20 case study narratives were collected and transcribed into English with accompanying photographs and, in some cases, video footage. The pilot (or quantitative) portions of their data were entered and scored in the same way as the pilot data. These individuals' scores were checked to see whether they agreed with the general narrative and local perceptions (self-perceptions and perceptions of local leaders) of a person's empowerment. However, these data were not used in the computation of the WEAI results.

The case study training consisted of a two-day training using a selection of the same enumerators who completed the pilot surveys (in this case, Data Analysis and Technical Assistance Ltd.), including a pilot test on the second day. Emphasis in training was given to translations and particularly how to interpret questions in the local language to convey complex concepts such as empowerment across different dialects.

These case studies are also downloadable from the following links:

http://www.ifpri.org/publication/weai-case-study-profile-seema-bangladesh http://www.ifpri.org/publication/weai-case-study-profile-aysha-bangladesh http://www.ifpri.org/publication/weai-case-study-profile-naju-bangladesh http://www.ifpri.org/publication/weai-case-study-profile-nadia-bangladesh

# "Sometimes I tell [my husband] where to spend, but he spends money where he thinks is necessary, so what should I say?" Seema

Seema is a 35-year-old mother of three. She has lived in the same village in southwest Bangladesh for 25 years and currently lives with her husband, two sons, and a daughter in a twostory, tin-roofed house with mud floors. The house has three bedrooms and a dining room, is equipped with solar energy, and has a garden outside in which she grows crops to sell. She met her husband, Sharif, on the day of their marriage, and they bought land and built a house together.

Things have improved greatly for Seema and her family over the past year, as they have expanded their income sources from paddy farming to include poultry rearing and fishpond cultivation. Seema has both domestic and agricultural responsibilities in the family, the latter including raising hens and ducks. She has been involved in the family's agricultural work since her marriage and is glad that she can participate in this activity since she was not able to complete her education. She was in school until the fifth grade but had to leave at the age of 12 in order to take care of her family after her mother died. Seema says, "I would not have stopped studying if my mother were alive."

She feels that paddy rice and grass peas are the most valuable household assets because they provide her family's means of subsistence. Her most valuable personal asset is the poultry farm she maintains. She hopes to expand this business, since it has the potential to bring in significant income, although it poses higher risks than her family's other agricultural pursuits. Seema feels that everyone in the family—husband, wife, and children—should own household assets jointly, but she defers to her husband on spending and saving decisions. "It is necessary to 'cut your coat according to your cloth," she says. "Sometimes I tell him where to spend, but he spends money where he thinks is necessary, so what should I say?" She says that she and her husband do not disagree over time management and responsibilities, as she does not want to create trouble.

Both Sharif and Seema work hard, although she is affected by chronic illness. Regardless, she stays busy with farm and other work, since her family is dependent on her labor. She is concerned that her family will lack sufficient resources if she becomes debilitated by her illness,

as they cannot count on outside support. Fortunately, Seema and her husband are self-sufficient, as shown by the land they have purchased through profits from agricultural work as well as the education they provide for their children.

The family is not involved in community leadership roles, nor does Seema aspire to become a leader or have influence on community matters. She feels that such involvement exposes the family to conflict and wishes to avoid trouble. She also feels that she could not be involved in community leadership roles if she so desired because she is a woman—she believes that women should work hard, fast, say their prayers, and wear veils. Men, she says, should run businesses and participate in agricultural work in order to earn sufficient income for their families.

She sees empowerment as the ability to work, own assets, and send one's children to school, and she is happy when she and Sharif have enough money to feed their family and provide adequate shelter. While some in the community prefer to educate their children at home, Seema believes that her children should receive formal schooling.

Her hopes center on her children's futures: for one of her sons to pass the high school exit examination and pursue higher levels of education, and for all to marry and start their own families within the next five years. She believes that her children should focus on their education. Beyond this, she hopes that her eldest son will eventually expand the poultry farm, and she hopes to build a house for her two sons and their future families.

Seema is disempowered according to the Women's Empowerment in Agriculture Index and has not achieved gender parity with her husband.

# "We are poor. We do not have monetary assets. This is why if we suggest anything, nobody follows it." Aysha

Aysha is 25 years old and has lived in the same village for the past 12 years with her husband, Monir. She and Monir wed in an arranged marriage, in which she feels content, saying, "We are happy." They have two sons—one is nine years old, the other eight months. The older boy currently attends school but stays with relatives because the couple has trouble managing his education costs. The majority of children in the family's tight-knit and protective community go to school, but Aysha stopped her own education after the eighth grade when she was 14 years old and had no intention of continuing her studies.

The family grows crops on leased land and sells the surplus after meeting household needs. Aysha started working on the land seven years ago, after Monir lost his job in the garment industry in Dhaka. "My wife [made] the decision to do agricultural work," Monir says. The family also raises cows and goats, and Aysha is in charge of caring for the livestock, many of which were given as gifts for the birth of their eldest son. To add to their income, Monir

produces and sells molasses with his father. Previously, the family raised hens and ducks for their eggs but stopped because of a poultry disease.

According to Aysha, the family's tiller—a farming tool—is the household's most valuable asset. Large livestock are also important, as they can be sold to fulfill immediate or pressing needs. She says her husband owns all household assets, but he says the entire family owns them. Aysha sees her health and the health of her family members as her most important personal assets: "Everything in the world seems bad if your health is not good."

Aysha and Monir respect each other and resolve arguments through discussion. Still, Aysha emphasizes that her husband makes final decisions about activities both inside and outside the home. She feels that women have little power inside and no power outside of the household, but she takes her household responsibilities seriously, especially cooking, raising animals, planting the family's home garden, and weaving mats.

While Aysha does not feel empowered in her marriage, she does feel empowered working hard for her family. In time, she and Monir both hope to buy land, additional livestock, and their home. Aysha also hopes to be able to provide her sons with sound educations: "They will become great men by studying. Without receiving education, they will be illiterate."

In Aysha's community, important decisions are made by the chairman—the community leader with the input of local elites. Aysha believes that both monetary and educational wealth are required to attain leadership and that her family has little of either. "We are poor," she says. "We do not have monetary assets. This is why if we suggest anything, nobody follows it."

The family tries to save money for larger purchases, such as livestock, land, and other livelihood expansions. In the past year, however, family income was lower than the year before because of low rice prices. Aysha would like to participate in other work but feels that her lack of education prevents it and that her days are already full. She would like to purchase a sewing machine in order to produce more income but is concerned that even if she could afford the machine, she would not have sufficient time to sew. She feels that women should focus on domestic activities and livestock care, men should work in agriculture, and children should pursue their education. "Someone who does not work is powerless…but I never think of myself as powerful," she says. "I never dare show power to my husband."

Aysha is disempowered according to the Women's Empowerment in Agriculture Index and has not achieved gender parity with her husband.

# "The men make the important decisions in our society." Naju

Naju, a 35-year-old divorcée, lives with her 10-year-old daughter in the village of Amtoli, where she has lived all of her life. Naju finished secondary school, passed her completion examination, and began girls' college. She dropped out quickly after marriage, however, both for financial reasons and because her father-in-law prohibited her from continuing her studies. Although Naju primarily grows crops and cultivates fish to support her family, her varied work experience also includes working with insurance companies, doing development work with nongovernmental organizations, and teaching.

Naju divorced her husband because he left her to take another wife and mistreated her once he returned. "My daughter is my everything," Naju explains. For the past 12 years, she has grown rice and groundnuts on her own land. Three years ago, she began fish cultivation, and she uses the fish for both home consumption and sale. She is able to produce sufficient rice to meet her household's needs and sells both goundnuts and fish at the market. Naju would like to purchase additional land to grow wheat and chilies, for consumption and sale. She feels that paddy cultivation is her most important agricultural activity and land her most important asset. Naju makes all of the agricultural decisions independently because she is a single mother. However, she feels that in dual households, ideally, both husband and wife should be involved in decisionmaking.

While Naju has sufficient income to pay for her basic necessities, she does not have much left over for additional expenses, such as new clothing. She is content that over the past year, her income has increased both from agricultural production and work outside of the home.

Naju has very little free time because she is responsible for all the food-producing and incomegenerating tasks in her household. If she had more time, she would spend it visiting relatives or reading. In her village, Naju feels that women should focus on household work and animal rearing, whereas men should focus on agricultural work and fish cultivation. Naju sees great value in education. Children, Naju explains, "should help their parents side by side with their education because income will be increased and money will be obtained from this." Despite the fact that she knows her daughter will go to live with her son-in-law when she is married, and while a son would take care of her in old age, she is thankful and prefers to have a daughter because of the relationship they have.

According to Naju, "the men make the important decisions in our society." Community members listen to the village's chairman because of his education and wealth. Naju feels that her own ongoing work in nutrition for nongovernmental organizations has earned her respect from community members, explaining "because I have done many things for them, so they will obey

my words." Still, she hopes to become more involved in her community, in particular in a water supply group that might help her deal with the village and household water scarcity issues she faces.

Naju feels that women who work in agriculture and make decisions are powerful "because they themselves grow crops." In this regard she thinks that people in her community see her as powerful. She sees disempowerment arising from relationships between men and women within the household, specifically husbands not listening to or cooperating with their wives.

Naju aspires to build a solar energy system for her house that provides lighting at night, to further educate her daughter, to buy additional land, and set up a poultry farm. In the next five years, she also hopes to improve her house. She feels that continuously saving and working hard will allow her to make improvements in her life.

Naju is empowered according to the Women's Empowerment in Agriculture Index.

# "The women cannot do what the men do. The men can do fieldwork, can sow seedlings, can harvest paddy. The women cannot, so they are powerless." Nadia

Nadia, a 60-year-old woman, has lived with her husband, Sharif, in a village in southern Bangladesh for the last 40 years. Nadia and Sharif have two daughters and one son and met through a marriage arranged by a matchmaker. Sharif also has three children with a second wife. Nadia and Sharif's children have only completed basic schooling, according to Nadia, "due to financial conditions." Both parents hope that their children will be able to continue their educations one day, but, for now, they help out with agricultural work. Despite Nadia's own intention to continue studying, an early arranged marriage at age 12 prevented her from going beyond Class 5.

Nadia does not make independent decisions regarding income-generating activities, but rather discusses all such decisions with her husband, son, and daughter-in-law. "It is good to do work taking into account everybody's opinion," she says. Although farming and agricultural work are incredibly valuable to Nadia—because they provide for her family's basic needs—her husband initially did not want her to participate in these activities. Ultimately, the couple resolved this disagreement because of the need to provide food for the family and compromised regarding which crops to grow, namely rice for income and vegetables for consumption.

Overall, Nadia and Sharif's household is moderately well off. "We have income from agriculture. Yet, we do not have any shortage or surplus—we break even. We have no loans. We have no savings," says Sharif. This year has given the family higher rice yields than previous years, which puts them in a better position for spending and investing in household needs.

Nadia prizes landownership as it provides security, although the cost of purchasing land prohibits her family from increasing its landholdings. Sharif says that he will be the sole landowner until his death, after which time the land will pass to his children. Nadia, however, would prefer to share ownership with her sons and daughters. Disagreements over assets have occurred previously in their marriage, particularly due to Sharif's second wife. "Now there is no problem because all assets have been divided [between us]," Nadia says. The couple agrees over spending decisions, as all of their money is spent to benefit their family. Nadia feels that her children respect her wishes and decisions.

In the community, "everybody helps," explains Nadia. While many children attend school, they also pull rickshaws and participate in agricultural work. Nadia feels weak in old age, and this has inhibited her ability to participate in agricultural activities. She also suffers from stress caused by constantly worrying about the future. She feels that improvements will be made for families if children focus on their studies instead of helping with work.

The local community leader (or chairman) and village elite make important, community-related decisions. Sharif seeks their advice when he encounters problems. Without the "power of money" and a background in leadership, Nadia feels that no one will listen to her. She equates empowerment with being listened to by others and having money, specifically having the ability to undertake profit-earning agricultural work: "The women cannot do what the men do. The men can do fieldwork, can sow seedlings, can harvest paddy. The women cannot, so they are powerless." Nadia hopes her family can soon increase their landholdings, but, more than that, Sharif and Nadia both hope to witness the success of their children.

Nadia is empowered according to the Women's Empowerment in Agriculture Index and has achieved gender parity with her husband.

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