

How Empowered are Bangladeshi Women in the Agricultural Setting? Empirical Evidence using a New Index

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Using a nationally representative survey from Bangladesh, the paper presents how a recently developed index, Women's Empowerment in Agriculture Index (WEAI), can be used to assess the extent of women's empowerment in agriculture and diagnose areas where gaps in empowerment exist so that programmes and policies can be targeted to those areas. While the paper focuses mainly on women's empowerment, it also examines the gaps in and factors associated with men's empowerment. The results show that about 77 per cent of rural women in Bangladesh is disempowered compared to around 56 per cent of men. It is also seen that empowerment gaps for women are greatest in terms of leadership in the community and control and access to resources. For men, time poverty and lack of leadership within the community contribute most to disempowerment. The analysis shows that the areas in which men and women are disempowered are quite different, with the implication that, depending on local context, different programmes and policies are needed to empower women and men alike. This, in turn, means that the policymakers will have to pay attention to regional differences in factors contributing to the lack of empowerment of women and men. 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 thus remains an important policy goal in Bangladesh.

Keywords: Women's Empowerment, Gender Parity, Leadership, Agriculture, Bangladesh Integrated Household Survey

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I. 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. A renewed interest in agriculture as a vehicle for inclusive growth and for potentially empowering women has highlighted the need to develop indicators to measure women's empowerment and to monitor the impact of interventions to empower women.

Using nationally representative data from the 2012 Bangladesh Integrated Household Survey conducted by the International Food Policy Research Institute (IFPRI), this paper presents how the Women's Empowerment in Agriculture Index (WEAI) (Alkire *et al.* 2013) can be used to assess the extent of women's empowerment in agriculture in rural Bangladesh and diagnose areas where gaps in empowerment exist. While the focus is on women's empowerment, the paper additionally explores gaps in and factors associated with men's empowerment.

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. The WEAI was developed by researchers at IFPRI, the Oxford Poverty and Human Development Initiative (OPHI), and the U.S. Agency for International Development (USAID) 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. While the WEAI has been designed for performance monitoring and impact evaluations of Feed the Future programs, it is also a useful tool for policymakers, development organizations, and academics seeking to inform efforts to increase women's empowerment. The WEAI was developed and tested between 2011 and 2012 using three country pilots in Bangladesh, Guatemala and Uganda (Alkire *et al.* 2013). Bangladesh is the first country 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 rural areas of the country.

II. WOMEN IN AGRICULTURE: EMPOWERMENT AND MEASUREMENT ISSUES

Women tend to be "invisible" in the agricultural sector in Bangladesh, owing to the assumption that women are not involved in agricultural production because of cultural norms that value female seclusion and undervalue female labour (Kabeer 1994, Rahman 2000). Nevertheless, participation of women in the

agricultural sector has increased over time—between 1999/2000 and 2005/06, the proportion of women in the agricultural labour force increased from less than 20 per cent to 33.6 per cent of the total (Asaduzzaman 2010, citing Bangladesh Bureau of Statistics, various years).

Although female agricultural labour has a significant contribution to productivity and technical efficiency (Rahman 2010), gender biases exist in the labour market—remunerative employment of labour remains skewed in favour of men (Zaman 1995). Women's ability to generate income in the agricultural sector is severely constrained by their limited control and ownership of productive physical and human capital. Bangladeshi women are disadvantaged relative to men with respect to assets brought to marriage (Quisumbing and Maluccio 2003), productive assets such as land, livestock and agricultural machinery (Quisumbing *et al.* 2013), and human capital. Ahmed *et al.* (2007) show that lack of education in adult women in Bangladesh is strongly correlated with extreme poverty: 80 per cent of adult women with no education live below half a dollar a day.

The argument for focusing on gender inequality in agriculture is strengthened by empirical evidence that demonstrates the role of women in improving household agricultural productivity, food and nutrition security. Several studies find that redistributing inputs between men and women in the household has the potential for increasing productivity (Udry *et al.* 1995, Peterman, Behrman and Quisumbing 2010, Kilic, Palacios-Lopez and Goldstein 2013). A growing body of empirical evidence suggests that increasing women's control over resources has beneficial effects on a number of important development outcomes. Women's share of cash income and assets, particularly farmland, is seen to increase budget shares on food expenditure (Hoddinott and Haddad 1995, Duflo and Udry 2004, Doss 2006). Considerable evidence also suggests that mothers' greater control over resources improves child outcomes—in particular, nutrition and education (Hallman 2003, Quisumbing 2003, Quisumbing and Maluccio 2003, Skoufias 2005).

Current efforts to define and measure empowerment have drawn extensively from Kabeer's (1999) definition of empowerment as expanding people's ability to make strategic life choices in three dimensions—resources, agency and achievements (well-being outcomes). The WEAI focuses on the “agency” aspect, which is most commonly measured through proxies such as education, ownership and control of assets such as land or housing, employment, control over income, and so on. Moreover, while nationally representative surveys, such as some demographic and health surveys (DHS), include a range of questions about

decisionmaking within the household, these are typically confined to the domestic sphere and do not encompass decisions in the productive and economic spheres, nor do the surveys have identical questions for men and women (Alkire *et al.* 2013). The WEAI, on the other hand, captures control over resources or agency within the agricultural sector, unlike other existing indices (FAO 2011).

III. MEASURING WOMEN'S EMPOWERMENT IN AGRICULTURE USING THE WEAI

The WEAI is an aggregate index, reported at the country or regional level, and based on individual-level data on adult men and women within the same households. The WEAI is a weighted average of two sub-indexes: (1) the five domains of women's empowerment (5DE) and (2) the Gender Parity Index (GPI).¹ The 5DE sub-index shows how empowered women are, capturing the roles and extent of women's engagement in the agricultural sector in five domains, as defined by USAID based on their priorities for Feed the Future programming in 19 focus countries: (1) decisions over agricultural production, (2) access to and decisionmaking power over productive resources, (3) control over use of income, (4) leadership in the community, and (5) time use. These domains consist of ten indicators as described in Table I. 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.* 2013). For those who are not empowered, the 5DE also calculates the percentage of domains in which they are empowered. "Empowerment" within a domain means that the person has adequate achievements or has "achieved adequacy" for that domain. 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 per cent total adequacy. A key innovation of the 5DE 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. Because the survey method goes beyond the traditional practice of interviewing only a household "head" (often a male) to interview both a principal male and principal female, 5DE measures can be computed for both the principal male and the principal female in a dual adult household, although the 5DE component of the WEAI only includes women's 5DE.

¹This description draws from Alkire *et al.* (2013).

The gender parity index (GPI) reflects the inequality in agricultural empowerment between primary adult males and females in each household, by comparing their 5DE scores. The aggregate WEAI uses the mean GPI value of dual-adult households. The GPI combines two key pieces of information: (1) the percentage of women who lack gender parity relative to their male-household counterparts and (2) the extent of the inequality in empowerment between those women who lack parity and the men with whom they live (see Alkire *et al.* [2013] for details). 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.

Both measures, taken together, make up the WEAI.² The aggregate index therefore shows the degree to which women are empowered in their households and communities (5DE) and the degree of inequality between women and men in their households (GPI). Details regarding the construction and validation of the index can be found in Alkire *et al.* (2013).

TABLE I
THE FIVE DOMAINS OF EMPOWERMENT IN THE WEAI

| Domain | Indicator | Definition of indicator | Weight |
|------------|---------------------------------------|---|--------|
| Production | Input in productive decisions | Sole or joint decisionmaking over food and cash-crop farming, livestock and fisheries | 1/10 |
| | Autonomy in production | Autonomy in agricultural production (e.g., what 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 | 1/10 |
| Resources | Ownership of assets | Sole or joint ownership of major household assets | 1/15 |
| | Purchase, sale, or transfer of assets | Whether respondent participates in decision to buy, sell, or transfer his/her owned assets | 1/15 |
| | Access to and decisions on credit | Access to and participation in decisionmaking concerning credit | 1/15 |

(Cont. Table I)

²The WEAI is a weighted sum of the 5DE and GPI with weights 0.9 and 0.1 respectively.

| Domain | Indicator | Definition of indicator | Weight |
|------------|----------------------------|---|--------|
| Income | Control over use of income | Sole or joint control over income and expenditures | 1/5 |
| Leadership | Group member | Whether respondent is an active member in at least one economic or social group (e.g., agricultural marketing, credit, water users' groups) | 1/10 |
| | Speaking in public | Whether the respondent is comfortable speaking in public concerning various issues such as intervening in a family dispute, ensure proper payment of wages for public work programmes, etc. | 1/10 |
| Time | Workload | Allocation of time to productive and domestic tasks | 1/10 |
| | Leisure | Satisfaction with the available time for leisure activities | 1/10 |

Source: Alkire *et al.* (2013).

IV. DATA

As mentioned earlier, Bangladesh is the first country to conduct a nationally representative rural survey, the Bangladesh Integrated Household Survey (BIHS), with data suitable for calculating the WEAI. The BIHS was conducted under the Policy Research and Strategy Support Program (PRSSP), funded by USAID and implemented by IFPRI. The survey was designed and supervised by IFPRI-PRSSP researchers and conducted from December 2011 to March 2012. The BIHS sample is nationally representative of rural Bangladesh and representative of rural areas of each of the seven administrative divisions of the country. To estimate the total sample size of 5,500 households in 275 primary sampling units (PSUs), BIHS followed a stratified sampling design 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. In the first stage, a total sample of 275 PSUs were allocated among the seven strata (seven divisions) with probability proportional to the number of households in each stratum. Sampling weights were adjusted using the sampling frame of the 2011 Population Census.

The BIHS questionnaires include several modules that provide an integrated data platform to answer a variety of research questions. Our study relied primarily on information concerning household demographics, educational

attainment, occupation and employment, food and nonfood consumption and expenditures, household-level agricultural production and livestock holding, household assets, housing and amenities, community infrastructure and facilities, individual anthropometric measurements, and a detailed module on the WEAI.

The WEAI relies on information collected from both primary male and female adults in the household. For the analysis using men and women's 5DE, data from the self-identified primary male and female adults were used. The final estimation sample consists of 4,571 men and 5,498 women, after dropping observations where the primary male/female respondent was unavailable on the day of the interview, did not respond to all of the WEAI survey questions, or where a female other than the primary female was interviewed. For the analysis that examines gender parity within the household, the estimation sample consists of those households where both the primary male and female decisionmakers have been interviewed, reducing the sample size to 4,566 households.

V. FINDINGS

Using nationally representative data collected through the BIHS, this section presents the WEAI results for survey households in rural areas of the country. For detailed characteristics of the BIHS sample households, see Ahmed *et al.* (2013).

5.1 WEAI Results

Table II presents the WEAI, and its sub-indexes, the 5DE and the GPI for the entire country.

TABLE II
WEAI RESULTS

| Indices | Rural Bangladesh | |
|---|------------------|--------|
| | Women | Men |
| Disempowered Headcount (H_n) | 77.40% | 56.20% |
| Empowered Headcount (H_e) | 22.60% | 43.80% |
| Average Inadequacy Score (A_n) | 45.60% | 35.30% |
| Average Adequacy Score (A_a) | 54.40% | 64.70% |
| 5DE Index [$H_e + (H_n * A_a)$] | 0.647 | 0.802 |
| Number of observations | 5,498 | 4,571 |
| Per cent of women with no gender parity (H_{GPI}) | 61.20% | |
| Per cent of women with gender parity (H_{WGP}) | 38.80% | |
| Average Empowerment Gap (I_{GPI}) | 29.70% | |
| GPI [$1 - (H_{GPI} * I_{GPI})$] | 0.818 | |
| Number of women in dual-adult households | 4566 | |
| WEAI = $0.9 \times 5DE + 0.1 \times GPI$ | 0.664 | |

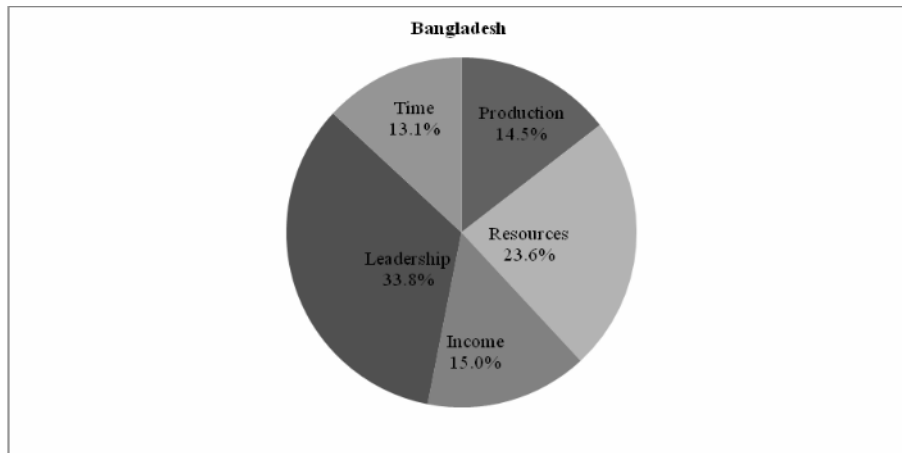
Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011–12.

The WEAI for the nationally representative sample is 0.664. It is a weighted average of the 5DE sub-index value of 0.647 and the GPI sub-index value of 0.818. 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 54.40 per cent of the domains. Thus the overall 5DE for women is $22.60 \text{ per cent} + (77.40 \text{ per cent} \times 54.40 \text{ per cent}) = 0.647$. Meanwhile, 38.80 per cent of women have gender parity with the primary male in their household. Of the 61.20 per cent of women who do not have gender parity, the empowerment gap between them and the male in their household is quite significant at 29.70 per cent. Thus the overall GPI in the sample area is $\{1 - (61.20 \text{ per cent} \times 29.70 \text{ per cent})\}$ or 0.818. Given that less than a quarter of the women are empowered in the five domains, while more than half of them do not have gender parity with the primary male in their household, achieving gender equality remains an important goal in Bangladesh. Compared to women, a greater proportion of men are empowered; however, at 43.80 per cent the figure is still rather low.

5.2 What are the Gaps in Women's Empowerment?

Figure 1 shows that the domains that contribute most to women's disempowerment in rural Bangladesh are weak leadership and influence in the community (33.8 per cent), lack of control over resources (23.6 per cent), and lack of control over income (15.0 per cent).

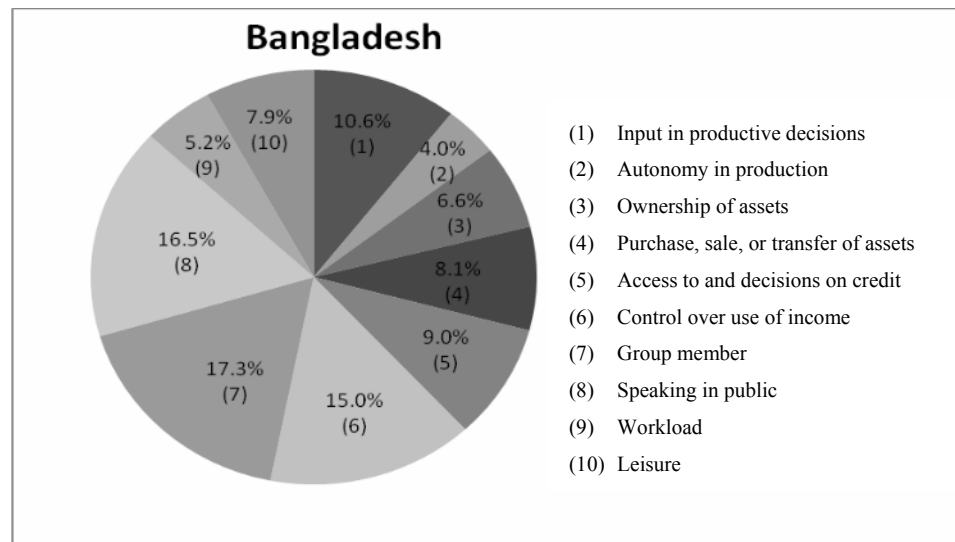
Figure 1: Contribution of Each of the 5 Domains to Disempowerment of Women



Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

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 2). For example, comparing Figures 1 and 2, it is observed that, although control over resources contributes to 23.6 per cent of disempowerment (Figure 1), its three indicators—ownership of assets, purchase, sale and transfer of assets and access to and decisions on credit—each contributes relatively less to overall disempowerment (Figure 2). The domain indicators that contribute the most to women’s disempowerment are a lack of participation in groups (17.3 per cent), lack of control over income (15.0 per cent), and discomfort in speaking in public (16.5 per cent).

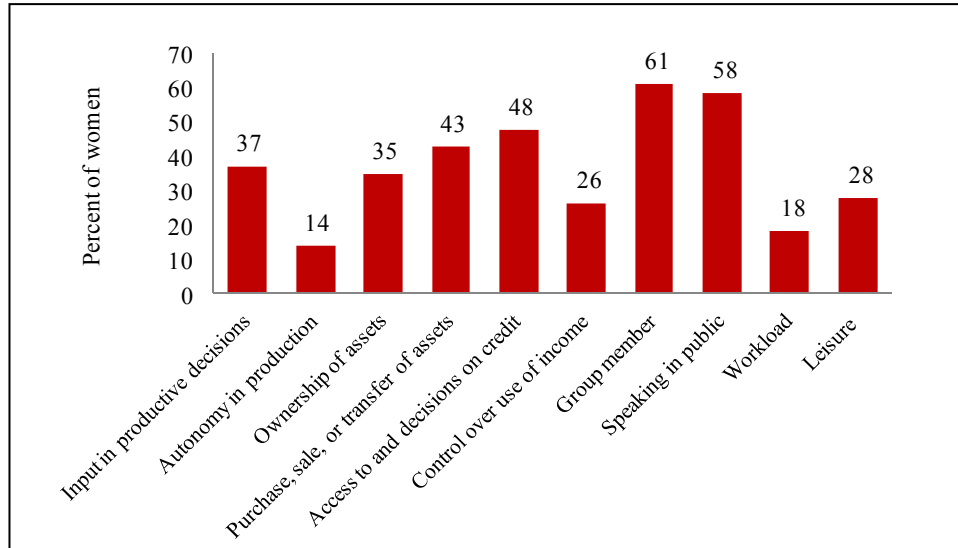
Figure 2: **Contribution of Each of the 10 Domain Indicators to Disempowerment of Women**



Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

Figure 3 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 significant achievements in delivering social and financial services through women’s groups, such as in the microfinance movement, a gap still exists in terms of group membership and ability to express oneself in public.

Figure 3: Per cent of Women not Empowered and Who have Inadequate Achievements, by Indicator

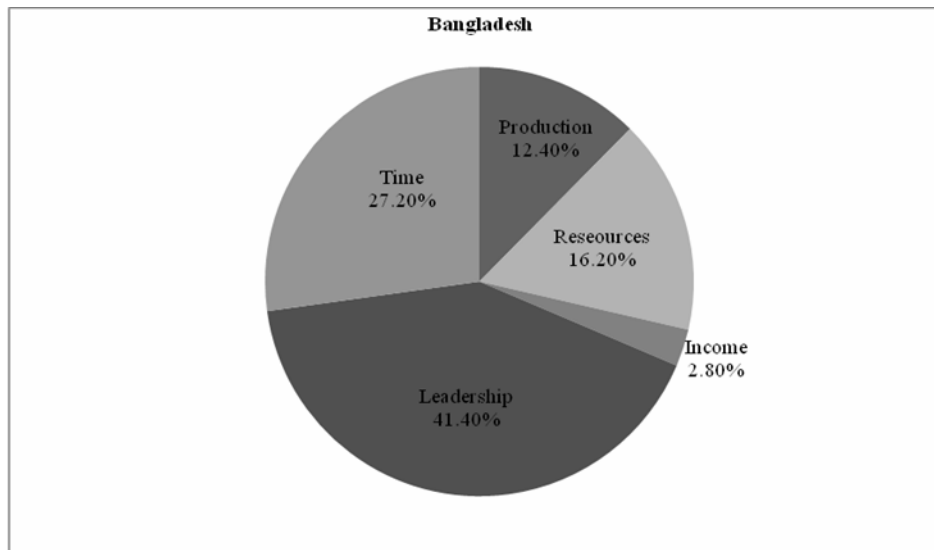


Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

5.3 What are the Gaps in Men's Empowerment?

The configuration of men's deprivations in empowerment is noticeably different from that of women's. Figure 4 shows that time poverty contributes relatively more to men's disempowerment in 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.

Looking at the contribution of domain indicators to disempowerment in Figure 5, it is observed that factors such as lack of ownership of assets and control over use of income together contribute less than 5 per cent 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.

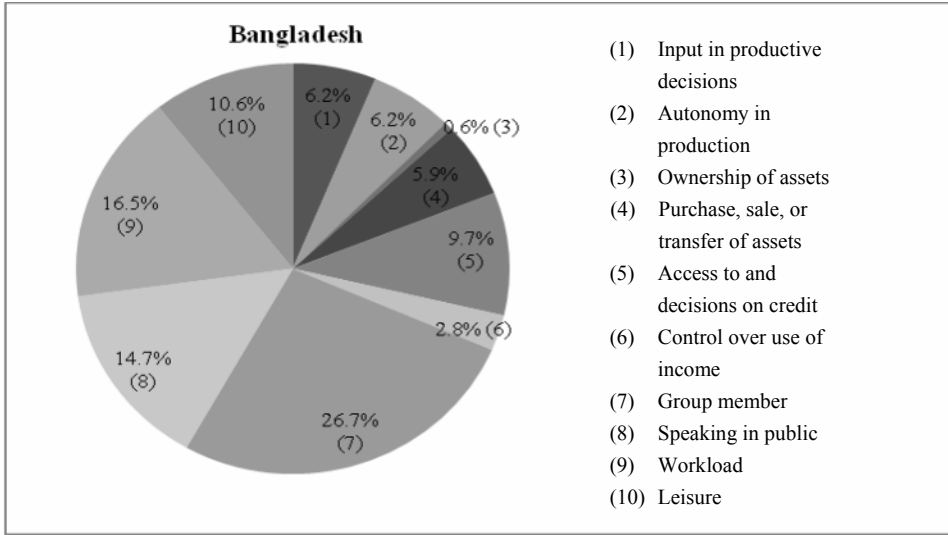
Figure 4: **Contribution of Each of the Five Domains to Disempowerment of Men**

Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

However, similar to women, a lack of leadership and influence in the community contributes the most to men's disempowerment. In fact, comparing Figures 2 and 5, it is seen that although group membership contributes 17.3 per cent to disempowerment for women in the national sample, the corresponding number is higher for men (26.7 per cent), partly because civil society organisations and nongovernmental organisations have been quite active in organising 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.

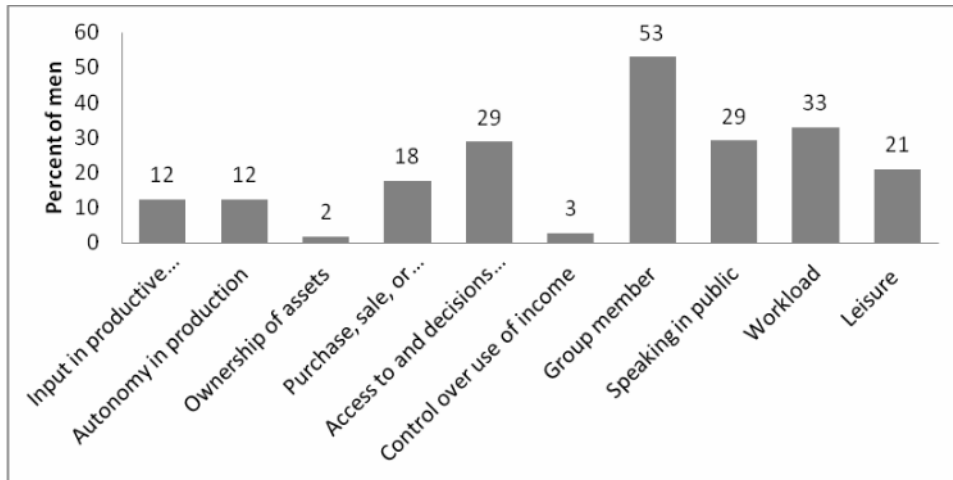
Figure 6 reports the proportion of men who are disempowered and do not have adequate achievements in each of the ten indicators. It can be seen that roughly half of the men in the survey do not belong to any group. Confirming the results obtained in Figure 5, a very small proportion of men in both samples report having inadequate ownership of assets and insufficient control over income.

Figure 5: Contribution of Each of the 10 Domain Indicators to Disempowerment of Men



Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

Figure 6: Per cent of Men not Empowered and Who have Inadequate Achievements, by Indicator



Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

5.4 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. 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

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 presented in Tables III-VII.

TABLE III
RELATIONSHIP BETWEEN EMPOWERMENT AND AGE

| Age group | Bangladesh | |
|----------------------------|---|---------|
| | Women | Men |
| | (per cent of respondents who are empowered) | |
| 18-25 | 15.31 | 30.15 |
| 26-45 | 23.23 | 40.35 |
| 46-55 | 25.69 | 47.97 |
| 56-65 | 17.22 | 52.81 |
| >65 | 8.20 | 40.92 |
| Total | 21.45 | 42.99 |
| Pearson χ^2 statistic | 45.98 | 56.57 |
| (p-value) | (0.000) | (0.000) |

Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

Age is seen to be significantly associated with women's empowerment: Table III shows that a greater percentage of women aged 26-55 were empowered, compared with those in younger or older age groups. 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.* 2013). 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.

TABLE IV
RELATIONSHIP BETWEEN EMPOWERMENT AND EDUCATION

| Education | Bangladesh | |
|----------------------------|-------------------------------------|---------|
| | Women | Men |
| | (per cent of respondents in sample) | |
| Less than primary | 20.44 | 37.20 |
| Primary | 22.56 | 45.86 |
| Secondary | 22.09 | 51.43 |
| Higher secondary | 23.91 | 58.16 |
| University or above | 28.57 | 50.70 |
| Total | 21.45 | 42.99 |
| Pearson χ^2 statistic | 3.35 | 70.37 |
| (p-value) | (0.501) | (0.000) |

Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

While the proportion of empowered women in the national sample increases with education, the association is insignificant. However, the relationship is strongly significant for men, and 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 labour force is increasing (Asaduzzaman 2010), it remains a male domain, and women continue to have limited decisionmaking power in agriculture. Thus, a woman with higher schooling attainment may still

not be able to make agricultural decisions, as this is considered a male domain. 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.³

TABLE V
RELATIONSHIP BETWEEN EMPOWERMENT AND INCOME

| Per capita expenditure quintile | Bangladesh | |
|------------------------------------|---|---------|
| | Women | Men |
| | (per cent of respondents who are empowered) | |
| 1st quintile (poorest) | 14.20 | 30.94 |
| 2nd quintile | 21.32 | 40.11 |
| 3rd quintile | 23.05 | 42.58 |
| 4th quintile | 24.51 | 48.14 |
| 5th quintile (richest) | 24.59 | 54.88 |
| Total | 21.45 | 42.99 |
| Pearson chi ² statistic | 45.48 | 108.00 |
| (p-value) | (0.000) | (0.000) |

Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

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.

³In the pilot, the relationship between empowerment and education was insignificant for men and women alike (Alkire *et al.* 2013), 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.

Results presented in Table V suggest that per capita expenditure has a strongly significant association with empowerment for women and men. The pattern for women reflects sort of an inverse U-shaped relationship between income and women's empowerment. Women in the lowest quintiles may feel disempowered, not only because agriculture is 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 (though marginally), 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.

TABLE VI
RELATIONSHIP BETWEEN EMPOWERMENT AND HOUSEHOLD HUNGER

| Household Hunger Score | Bangladesh | |
|----------------------------|---|---------|
| | Women | Men |
| | (per cent of respondents who are empowered) | |
| Little to no hunger | 21.58 | 43.59 |
| Moderate hunger | 20.87 | 30.67 |
| Severe hunger | 3.57 | 17.65 |
| Total | 21.45 | 42.99 |
| Pearson χ^2 statistic | 5.41 | 15.13 |
| (p-value) | (0.067) | (0.001) |

Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

A household hunger score (HHS), which measures the extent of household food deprivation, was computed following the methodology of the USAID FANTA-2 project.⁴ Households are categorised into the following groups: little or no hunger, moderate hunger, and severe hunger. The per centage of women and men not yet empowered in agriculture is higher in households reporting higher hunger scores, and this association is statistically significant⁵ (Table VI). The strength of this association suggests that addressing disempowerment in

⁴See <http://www.fantaproject.org/publications/tn12.shtml>.

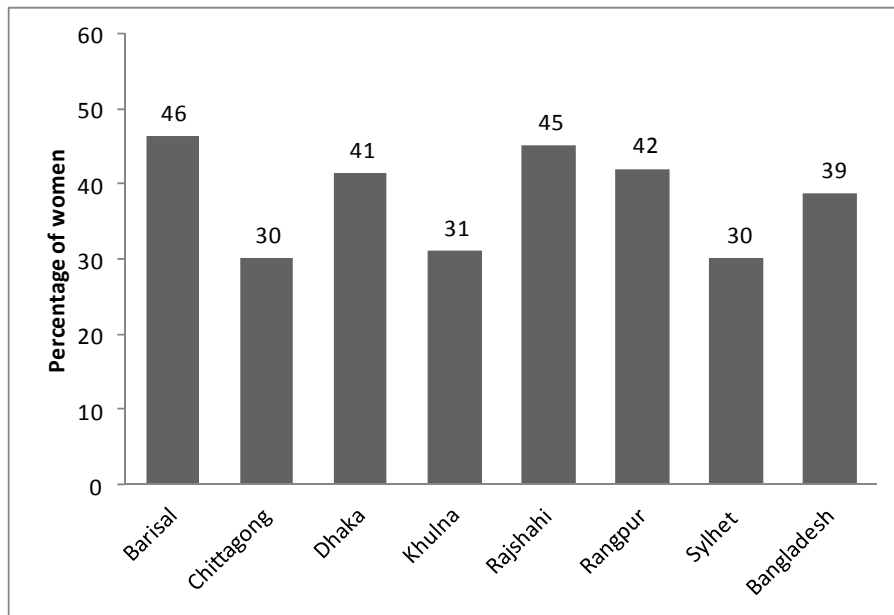
⁵This result did not emerge in the pilot (Alkire *et al.* 2013), most probably owing to small sample sizes.

agriculture for both men and women is a potential avenue for addressing the problem of hunger and food insecurity.

5.5 Regional Comparisons of WEAI Results for Women

As mentioned earlier, the WEAI and its sub-indexes can be disaggregated to diagnose regional variations to further tailor strategies to address gaps in empowerment. Figure 7 shows that, at the national level, around 39 per cent of women have gender parity with the primary male in their households. Among the divisions, Barisal has the highest degree of gender equality, with 46 per cent of the women being as equally empowered as the primary male in their households. Gender inequality is greatest in Chittagong and Sylhet—only 30 per cent of the sampled households have gender equality.

Figure 7: **Per Cent of Women Who have Gender Parity with the Primary Male in their Household, By Region**

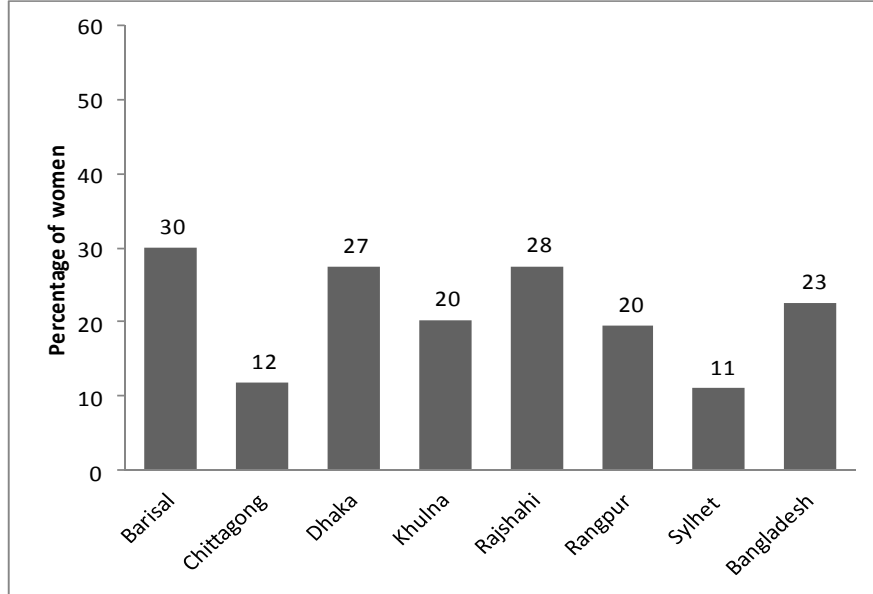


Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

Figure 8 shows that around a quarter of the women in Bangladesh are empowered in agriculture. Women are, once again, better off in Barisal division

but still they are around only a third of the sample. Sylhet and Chittagong divisions have the lowest proportions of empowered women, at 11 per cent and 12 per cent respectively.

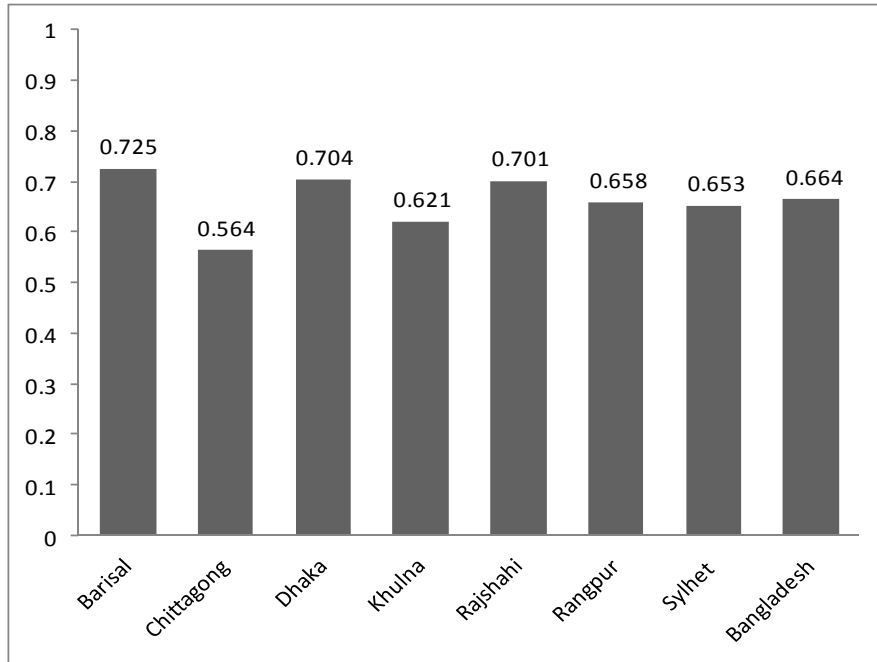
Figure 8: **Per Cent of Women Who are Empowered in the 5 Domains by Region**



Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

Figure 9 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 have 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.

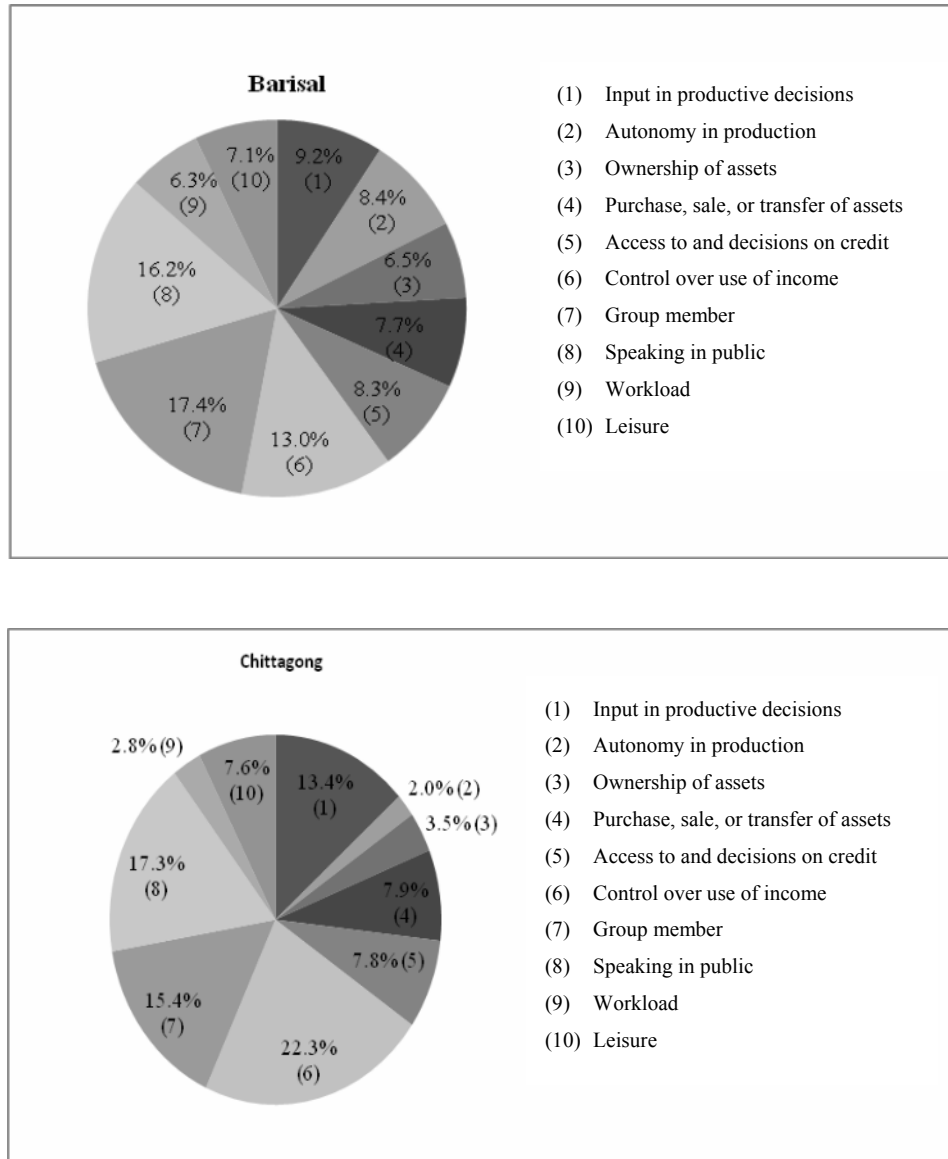
Figure 9: WEAI Values, by Region



Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

Figure 10 further illustrates how factors contributing to the disempowerment of women vary by region. The 5DE results have shown that 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, insufficient control over use of income, at 22.3 per cent, is a major disempowering factor for women in Chittagong, but contributes less to disempowerment for women in Barisal (13 per cent). Lack of ownership of assets contributes less to women’s disempowerment in Chittagong (3.5 per cent), compared to Barisal (6.5 per cent). This suggests the need of taking into account regional differences when targeting interventions promoting empowerment of women.

Figure 10: **Regional Differences in the Contribution of Each of the 10 Domain Indicators to Disempowerment of Women: An Example**



Source: Estimated by authors using data from the IFPRI Bangladesh Integrated Household Survey, 2011-12.

VI. CONCLUSIONS AND POLICY IMPLICATIONS

Women are key actors within the agriculture and food system in Bangladesh. As the 2013 National Agricultural Policy of Bangladesh recognises, empowering women, encouraging their participation in production and marketing for income generation, and ensuring their nutritional status are vital for improving food security in the country (MoA 2013). Women's economic and social advancement are also stated goals of the Ministry Women and Children Affairs (MoWCA). However, about 77 per cent of rural women in Bangladesh are disempowered, as this study shows using the Women's Empowerment in Agriculture Index (WEAI) and the data from the 2012 Bangladesh Integrated Household Survey.

While the WEAI was developed to be a monitoring indicator for the Feed the Future Initiative of the U.S. government, one of its other uses is as a diagnostic tool: to identify areas in which women and men are disempowered, so that programmes and policies can be targeted to those areas. This analysis has shown that the areas in which men and women are disempowered are quite different, with the implication that, depending on local context, different programmes 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 programmes 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 organisations that have taken on this mission (see Ahmed, Khondkar, and Quisumbing 2011). However, Bangladeshi women are lagging much behind with respect to participation in national politics than women in comparator countries (Nazneen, Hossain and Sultan 2011).

The impact of policy reform and government action to build women's human and physical capital should not be underestimated. While the Gender Parity Index 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 programmes 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 organisations 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 realise that efforts to make gender norms more equitable must also involve men. The next generation of civil society programmes 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).

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