

## Measurement of Women's Empowerment in Rural Bangladesh

Simeen Mahmud, Nirali M. Shah and Stan Becker

Simeen Mahmud  
Bangladesh Institute of Development Studies. [simeen@sdnbd.org](mailto:simeen@sdnbd.org)

Nirali M. Shah  
Johns Hopkins Bloomberg School of Public Health, Department of International Health. 615 N.  
Wolfe Street, Baltimore, MD 21205. [nmshah@jhsph.edu](mailto:nmshah@jhsph.edu)

Stan Becker, PhD.  
Johns Hopkins Bloomberg School of Public Health, Department of Population, Family and  
Reproductive Health. 615 N. Wolfe Street, Baltimore, MD 21205. [sbecker@jhsph.edu](mailto:sbecker@jhsph.edu)

Corresponding Author: Stan Becker, PhD. [sbecker@jhsph.edu](mailto:sbecker@jhsph.edu)

## Measurement of Women's Empowerment in Rural Bangladesh

### **ABSTRACT**

Women's empowerment is often described as a key factor in the well-being of women and their households, and as such, has been quantified, measured and described in a variety of ways. It is a dynamic process that cannot be observed directly, but through the use of proxies and indicators can be approximated. Empowerment is very context specific, and in a predominantly Islamic society with high levels of illiteracy and poverty, the indicators used to measure global dimensions of empowerment are very different than those applicable in a Western context. This paper measures empowerment of rural women in Bangladesh with a number of selected indicators and examines their distribution with data from 128 villages where an NGO health and microcredit study is ongoing. A framework is presented, and descriptive data on each of the dimensions and covariates of empowerment are illustrated.

Keywords: Empowerment, measurement, autonomy, self-esteem, Bangladesh, decision-making

## INTRODUCTION

With declining population growth rates in many developing countries, the attention of the population and development community has shifted away from fertility reduction and towards maternal and child health goals. However, what has not shifted is the belief that women's empowerment is key for attaining both health and population goals. Thus understanding the relationship between women's empowerment and maternal and child health (MCH) outcomes is an increasing focus of demographic and public health research (Basu and Koolwal, 2005; Bloom, Wypij and Das Gupta, 2001; Gupta and Yesudian 2006; Mullany et al., 2005; Portela and Santarelli, 2003).

The fact that many women in the developing world are now better able to control fertility, although sometimes at high cost to themselves, does not necessarily mean that they have become more empowered. And even with nearly two decades of empirical research on assessing women's empowerment and measuring empowerment indicators, the process of women's empowerment is still poorly understood. Not only that, the causal relationship, if any, between women's empowerment and MCH outcomes could be quite different from the relationship between women's empowerment and fertility outcomes. Hence, there is renewed interest in measuring empowerment indicators in a more systematic manner (Narayan-Parker 2005a).

In this paper, we attempt to measure empowerment of rural women in Bangladesh with a number of selected indicators and examine their distribution with data from 128 villages where an NGO health and microcredit study is ongoing.

## **BACKGROUND**

Although empowerment has now become a familiar and much used term, an adequate and comprehensive definition remains elusive. One problem is that empowerment is a 'latent phenomenon' that is not directly observable: its aggregate results or effects may be visible but the internal dynamism is difficult to examine. Empowerment is also often seen only partially, through the outcomes of increased autonomy and freedom. Nevertheless, empowerment also implies additional responsibility; responsibility which may not necessarily be welfare-enhancing. For example, women's greater mobility and visibility often leads to increased exposure to violence; women's increased role in decision-making may cause men to take less responsibility and even withdraw support for critical decisions like health care seeking. Thus, empowerment brings with it both rights and responsibilities, and may lead to some freedoms being curtailed (see Basu and Koolwal, 2005). It is because the process of empowerment is not without a price that assessing empowerment and its relationship to development outcomes is difficult.

Bearing these complexities in mind, empowerment broadly means gaining greater control over one's life, having increased life options and choices (even when those are not chosen), and generally attaining the capability to live the life one wishes to live. Kabeer defines women's empowerment as "an expansion in the range of potential choices available to women so that actual outcomes reflect the particular set of choices which the women value." (Kabeer, 2001:81). While empowerment is relevant to both sexes, women's empowerment necessarily is more complicated by the fact that they face additional disadvantages because of their sex, and the fact that household and intra-familial relationships are a major source of women's disempowerment (Malhotra and Schuler, 2005).

The above definitions imply that empowerment is a dynamic *process* of change: going from a 'disempowered' state to a more 'empowered' one. In other words, one cannot experience empowerment if one has not been disempowered. The other defining feature of empowerment is that of *agency*: women themselves are significant actors in the process of change or are agents of change. In addition, we know that individuals do not function in a vacuum. Their capacities and abilities for action as well as the potential to bring about change or to choose the alternative with

the most favourable outcomes is shaped by the broader social, political and economic context<sup>1</sup>. The context provides the initial conditions that, either by supporting or hindering the agency of disempowered people, in this case women, determine the trajectory of the empowerment process. Finally, empowerment can be seen both as having intrinsic value by itself or as a means to reducing gender inequality. If the hypothesis is that increased agency influences outcomes like income, health status, educational status, personal security, and so on, then the causal pathways of influence from agency to outcomes also need to be identified. All these features will be important in any framework for measuring empowerment.

Since the empowerment process is not directly observable, it cannot be measured but can only be approximated. Furthermore, it cannot be quantified absolutely but only in relative terms, and has to be assessed through proxies or indicators. There are a number of measurement issues that have to be resolved. First, as empowerment is a multi-dimensional process, empowerment needs to be specified and measured along various dimensions (material, social or institutional, cognitive, psychological, relational). Second, assessment of empowerment can be at the individual level or at a collective level. Finally, empowerment dimensions and indicators can be either context specific or universal. In this paper, we examine empowerment indices in rural Bangladesh.

## **METHODS**

The conceptual framework used for measuring women's empowerment along different dimensions and the background factors associated with empowerment is given in Figure 1. A woman's empowerment is affected by her demographic status, the household's economic situation as well as her relative economic status within the household, her social status including literacy and formal education, and her exposure to the media. The indicators of empowerment are the following: self-esteem, role in decision-making, freedom of mobility and control of resources. In this analysis we attempt to assess a process through cross sectional information, which is a challenge. Although the indicators appear to be outcomes of the background variables, they are all indicators that measure women's ability to make things happen or bring about

---

1 Also termed the 'opportunity structure', which is defined as the outcome of three forces: the flexibility of institutions, the behaviour of powerful groups and the state's implementation capacity (Narayan-Parker 2005b; Petesch et al., 2005).

change. The indicators are thus essentially process variables since they are expected to lead to other outcomes that reduce gender inequality, like increased use of health care services.

#### FIGURE 1 ABOUT HERE

We restrict our investigation to currently married women in Bangladeshi villages using a number of conventional indicators (described in detail below) with some modifications. In particular, the two self-esteem indicators can be considered universal while role in decision-making, freedom of mobility and control of resources are specific to the socio-economic context of rural Bangladesh. The decision-making role and freedom of mobility are indicators at the household level, while the other indicators are at the individual level. The indicators represent several dimensions of empowerment: material (control of resources), relational (role in decision-making, freedom of mobility) and psychological (self-esteem).

#### **Data Collection**

The survey upon which these analyses are based was part of a larger experimental study of the effects of microcredit and health services interventions in rural Bangladesh. Specifically, in a collaborative study with Grameen Bank, we selected 16 rural areas from among 23 such areas where Grameen Bank had health centres in 2006. The sixteen selected areas were those with the lowest levels of microcredit participation in the Thana, the administrative area within which they are located (Palli Karma-Sahayak Foundation, 2004). Eight villages beyond the catchment area of each health centre (defined by a circle of approximately 4 kilometres in radius) were sampled purposively from 24 villages enumerated; the eight with the lowest microcredit participation rates were selected.

A team of interviewers then conducted a census of households in each selected village. The census questionnaire asked the number of household members, the occupation of the household head and monthly salary if he/she had salaried work, as well as the amount of land owned and value of household assets.

A baseline survey was then conducted in the 128 villages (8 villages for each of 16 health centres) between July and September 2006. Using the census data, a stratified random sample of households was chosen; four households that did not meet the Grameen Bank eligibility criteria for microcredit, as they owned more than 0.5 acres of land, twelve households with members currently enrolled in microcredit, and fifteen households with women eligible for microcredit but not currently enrolled. A household questionnaire was administered and ever-married women fifteen years of age and above were identified. In households with two or more such eligible women, one was selected at random. The woman's questionnaire had the following sections: Respondent's background; Reproduction; Contraception; Pregnancy, Postnatal care and breastfeeding; Immunization and health; Fertility preferences; Husband's background and women's work; Decision-making and mobility; Women's participation in microcredit programs; and Treatment of women in the household. For these analyses we selected only currently married women. Appropriate sample weights were derived using the census data and these are employed in the analyses below.

### **Indicators of Empowerment**

The questionnaire items used to derive measurements or scores on the indicators within each dimension are shown in Table 1 and are now described according to the dimensions shown in Figure 1.

TABLE 1 ABOUT HERE

#### *Self-esteem*

The questionnaire asked each woman if she believed beating of a wife was justified for each of six scenarios shown in Table 1. In addition, in ten household decisions (listed in Table 1 under decision making) we assessed self-esteem based on whether the woman thought (reported) that she should be involved in the decision. Thus two scores of self-esteem were derived by the number of scenarios in which the woman believes that beating is not justified and the number of household decisions in which the woman reports she should be involved. The internal

consistency of the two self-esteem scores, and the overall construct of self-esteem were assessed using Cronbach's alpha coefficient (Bland and Altman, 1997). For women's belief that she should be involved in household decisions, internal consistency ( $\alpha$ ) was 0.74. Internal consistency was lower for a woman's belief that beating was justified over the six indicators, with  $\alpha = 0.63$ .

### *Role in Decision-making*

For each of the ten decision-making items, we code 0 if the woman reports that she does not participate in the decision, one if the woman reports she contributes to the decision and two if she reports herself as the first or second most important person in actually deciding. Internal consistency of the decision-making score was  $\alpha = 0.76$ .

### *Freedom of Mobility*

Women were asked if they had gone to five places in the last year: 1) a meeting/congregation or gathering within the village; 2) her father's home; 3) relatives or friends homes outside the village; 4) shops for marketing or shopping for clothes or necessary things; 5) hospital/health care centre or clinic;

A follow-up question in each case for those who said yes, was whether she asked permission to go or not. Since only 4 per cent of women said they had gone to a meeting and only 20 per cent had gone to the market, we did not use those items. Also we judge that visits to the father's home are not necessarily an indication of empowerment because such visits could be more common for women who do not have a good relationship with their husband/in-laws. Thus, the mobility score was based on visits to two places and the score would be four if she went without permission to both friends/relatives outside the village and to a health facility and two if she went both places but with permission. If she went without permission to one and needed permission for the other, the score would be three.

### *Control of Resources*

The questionnaire asked women about work for pay and the use of the income. However, 84 per cent of women did not report any work for pay. Therefore, instead we utilized responses to the



question: Do you have money that you can spend as you wish? and coded one if yes and 0 otherwise.

### **Covariates**

In line with our conceptual framework the determinants of empowerment were: woman's age as a key demographic variable, level of schooling (none, some primary, primary completed) as a social indicator, household wealth as an economic variable and whether the woman listens to the radio and/or watches television as an indicator of media exposure. Relative economic status of the households was determined through the creation of a wealth index. Wealth is assumed to be an underlying, theoretically measurable construct. It has been shown to be reliably assessed via a collection of indicators representing durable goods owned by the household, materials used in construction of the home, water and sanitation facilities and size of the home (Rutstein and Johnson, 2004). Instead of assigning equal weights to each of the indicators in the wealth index, principal components analysis was employed (Filmer and Pritchett, 2001). The analysis yields a factor score for each household. The assets were presence or absence of: electricity, a wardrobe, table, chair, clock, bed, radio, television, bicycle, at least one of motorcycle, sewing machine or telephone, brick, cement or tin walls, modern toilet or pit latrine. Also available was the number of people in household divided by number of rooms in the house. All but the last are binary indicators. The resulting asset scores for households were ordered and used to divide households into quintiles, representing their relative wealth with respect to other households in the study.

### **Statistical Methods**

This is a descriptive analysis so we utilize percentages, per cent distributions, cross-tabulations and box and whisker plots for the scores on the indicators of empowerment and to show their relationships with the background variables. In box and whisker plots, the 25<sup>th</sup> and 75<sup>th</sup> per centiles are the bottom and top of the box respectively and are called inner fences. The median is shown as a line (or an X if it coincides with either the 25<sup>th</sup> or 75<sup>th</sup> per centile). The lines above and below the box are referred to as outer fences and are at a distance from the inner fence that is

1.5 times the interquartile range. Values beyond the outer fences are indicated by circles and are considered outliers.

## RESULTS

The distributions (histograms) of scores of four of the indicators are shown in Figure 2. On the first self-esteem indicator (beating is not justified) the modal value was the highest score of six (beating not justified in any of six situations) which was reported by 29 per cent of respondents, and only 4 per cent scored one or zero (justified always or in five situations), while 67 per cent scored between 2 and 5. The median score was 5 (mean 4.4, 95per cent CI: 4.3-4.6). If we take non-justification of beating in any situation to indicate high self-esteem and justification in five or all situations as very low self-esteem, then a little less than one third of married women have high self-esteem, while 4 per cent have very low self-esteem. The majority (55 per cent) of married women, who condone beating in at least two situations, have average self-esteem.

### FIGURE 2 ABOUT HERE

On the second self-esteem indicator (the woman thinks she should be involved in various household decisions) the modal value was also the highest score of ten (should be involved in all ten household decisions) and was reported by 43 per cent of respondents. Nearly one fourth (23 per cent) scored nine, and one third scored eight or less. The median score was nine (mean 8.2), indicating a generally high level of self-esteem on this indicator. The two self-esteem scores provide different and complementary assessments of the level of rural women's empowerment.

On the indicator for role in household decision-making, three fourths (75 per cent) of respondents had a score of thirteen or higher, with a median score of 17 (mean 15.5) out of a maximum score of 20. The distribution of the overall score on decision-making ranges from 0 to 20, the latter score indicates that the woman reports her opinion as first or second most important in all ten scenarios. As this is a summative measure, other possible scores can be attained in a number of ways. For example, a score of ten could indicate that the woman took part in all decisions, but

she reported that her opinion was not highly valued in any of them. It could also indicate that she was the primary decision-maker for five scenarios, and did not participate at all in the other five.

The overall score has been grouped into three levels, with low indicating a decision-making score ranging from 0 to 12, medium referring to a score ranging from 13 to 18, and high indicating that the woman is of first or second most importance in at least 9 decisions, i.e. with a score of 19 or 20. Thirty-nine per cent report that their opinion is highly important in at least nine decisions.

Since the same decision-making score can emerge from a variety of decision-making contexts it is useful to disaggregate this score. Figure 3 shows that the reported level of women's involvement in specific decisions varies considerably. The most common role for married women was as second decision-maker regardless of type of decision. Note that this could also be interpreted as joint decision-making with her husband. Generally, married women were less likely to be the final decision-maker except in a few cases, but neither were they likely to be totally excluded from decision-making. They were most likely to have reported having the final say in deciding about family planning use (61 per cent). Women also reported having the final say more often in decisions on health-seeking, both for her children (37 per cent) and herself (26 per cent), as well as in the decision whether to have more children or not (42 per cent). Women were least likely to have the final say in all financial decisions: buying furniture (21 per cent), taking a loan (17 per cent) and selling cows or goats (18 per cent). Women's decision-making role as having the final say was also low with regard to visiting their father's home (23 per cent) and working for money (20 per cent). Thus, on average, married women's role in household decision making was relatively greater in health and family planning decisions, and lower in decisions related to household expenditures and personal autonomy.

### FIGURE 3 ABOUT HERE

On the freedom of mobility score nearly half of the respondents (45 per cent) scored 2 out of a maximum of 4, while the other half scored less than two, with only 5 per cent who scored more than two (Figure 2). In this case, as well, the same score can result from different circumstances,

with 42 per cent of women reporting that they attended a clinic and visited friends, but sought permission for both. Only 13 per cent of women went to either or both places without seeking permission and 3 per cent of women did not go to either during the past year (not shown). Thus, the modal value of two indicates that visiting outside the home with permission was the most frequent situation. For the final indicator, control of resources, 23 per cent of the respondents reported that they had access to cash that they could spend on their own.

### **Correlates of Empowerment**

We now examine the distribution of the indicators by a number of background variables that have been shown to determine/influence women's empowerment, namely age, education, household wealth, and media exposure (Figures 4 and 5). A general observation is that there is little variation in median scores across groups of these covariates for any of the indicators, but the distributions are more variable. (The height of the boxes represents the distance between the 25<sup>th</sup> and 75<sup>th</sup> percentiles of the distribution.) Median scores on the self-esteem indicators and the mobility indicator are the least variable, while median scores on the indicator of role in decision-making and proportion of women who have control of resources are relatively more variable. The values of median and mean scores according to correlates are shown in Table 2.

[TABLE 2 AND FIGURE 4 AND 5 ABOUT HERE]

In examining the indicators, we can consider both the overall picture of empowerment by each of the background variables, or look at how one given indicator is influenced by the four background variables. The former gives the impression that within each variable of age, education, wealth and media exposure, there is one category that has higher values than the others do. For example, women in the 30-39 age group have high self-esteem with regard to the decisions they think they should be involved in and also have high involvement in decision-making itself. Nevertheless, they have similar levels of mobility and self-esteem with regard to beating as other age groups. Women who live in households in the middle wealth quintile could be viewed as having the best overall situation of empowerment, as they have high mobility and

their actual and desired involvement in decision making is similar to that of other quintiles. Next, we present the patterns exhibited by the indicators, across the correlates.

#### *Self-esteem: Beating Not justified*

The median score for this self-esteem indicator has a 'u- shaped' relationship with age: women aged 30-39 had a lower score than either younger or older women. Married women's self-esteem increases slightly with household wealth, but is markedly higher only for women in the wealthiest households. Self-esteem also increases with years spent in school and with exposure to TV and radio.

#### *Self-esteem: Opinion Should Be Important*

The medians of the other self-esteem indicator (opinion should be important in decision making) show no relationship with any of the covariates. However, the mean scores (see Table 2) show a slight inverted 'u' relationship with age, a marked lower value in the richest 20 per cent of households, and a positive relationship with media exposure. The two self-esteem indicators display contrasting patterns with increases in household wealth, confirming the complexity of identifying the causal pathways of the empowerment process.

#### *Involvement in Household Decision-making*

The median score on women's reported role in decision-making has a pronounced inverted 'u' relationship with age and a slight negative relationship with household wealth, with the richest women displaying a visibly lower score than women in all other wealth categories. The relationships with years of schooling and media exposure are less pronounced: inverted u shaped with schooling level and a positive association with media exposure. Thus, women's role in decision-making is greater for women with some primary schooling compared to both illiterate women and to those with more than primary schooling.

#### *Freedom of Mobility*

The freedom of mobility score exhibits a small positive relationship with all the covariates, i.e. freedom of mobility increases slightly with age, household wealth, level of schooling and exposure to media. The limited range of the score precludes seeing any more nuanced relationship.

### *Control of Resources*

The percentage of women with control of resources (cash to spend as she wishes) shows a marked positive relationship with all the correlates (right panel of Table 2). Married women's control of resources is positively related to age, household wealth, years of schooling and media exposure.

Does this mean that access to cash itself is empowering, and its source is not relevant? Overall, half (49 per cent) of women who reported working for pay in the past year had cash they could spend compared to one quarter (25 per cent) of women who had not worked, and higher access to cash among working women was evident among all subgroups of respondents. In other words, access to cash increased if women worked for pay, regardless of age, household wealth, education level and media exposure: a finding that is hardly a surprise. However, the finding that access to cash increases with household wealth irrespective of work status shows that women gain access to cash from both own and household income.

### **Relationship Between Empowerment Indicators**

Empowerment indicators are also expected to be interrelated. The relationship between role in household decision-making and justification of beating is shown in Figure 6. A negative relationship is apparent. Women who have a small role in decision-making were found to report more situations (around 5 out of 6) where they did not justify beating compared to women who were somewhat or very involved in decision-making.

## FIGURE 6 ABOUT HERE

Interestingly, for employed women, the median score on women's decision-making does not vary by whether she gives all, some or none of her earnings to her husband. However, the spread is much less for women who keep all of their earnings, i.e. women with decision-making scores of less than 15 in this group are low outliers while outliers for the first and second groups begin at scores of 7 and 10 respectively.

## FIGURE 7 ABOUT HERE

### **DISCUSSION**

The empowerment process of married women in rural Bangladesh is a complex one and the various indicators of empowerment do not move in tandem or at the same pace. Women are relatively more empowered in the dimensions of self-esteem and role in decision-making, compared to the dimensions of freedom of mobility and access to resources. In order to understand this situation better it is useful to examine the meanings of the empowerment dimensions in the social/cultural context. The self-esteem dimension is an assessment of psychological empowerment: how a woman in a Bangladeshi village values herself. On the other hand, her decision-making role is an assessment of relational empowerment; how she is valued within her household. The freedom of mobility dimension measures not simply the extent of a woman's physical mobility outside the home but also her personal autonomy in terms of ability to go out without seeking permission. Similarly, the access to resources dimension measures a woman's material empowerment but also incorporates assessment of personal autonomy in terms of ability to spend money as she wishes. Thus in the context of Bangladesh the latter two dimensions are also assessments of women's autonomy and emancipation more broadly, aspects of empowerment that are not captured in the first two dimensions.

With regard to decision-making, women were most likely to have the final say in deciding about family planning use, possibly reflecting the fact that use of family planning methods has become

very commonplace and almost the norm for married women in Bangladesh, and less a matter for household decision making than thirty years ago. For example the Bangladesh Demographic and Health Survey has tracked the increase in contraceptive prevalence among married women from 19 per cent in 1983 to 58 per cent in 2004. (National Institute of Population Research and Training, Mitra and Associates, and ORC Macro 2005).

Regarding relationships with covariates, several results are noteworthy. Self-esteem increases with the years spent in school and with exposure to TV and radio, which is quite expected, since these experiences give women both information to form opinions and self-confidence to act on that information.

Among all the indicators, married women's role in household decision making displays the most complex patterns with the covariates, suggesting possible interactions between the different empowerment dimensions. For example, older women (40+) and the wealthiest women (richest quintile) have relatively lower scores on decision-making even though the latter women are more likely to have access to cash. Decision-making role is less for the youngest and the oldest women compared to women aged 20-39 years. A plausible explanation of this is that married women under age twenty are newly married and probably living in an extended household so they have not yet become central to the household management; for women forty years or older as they become dependent on adult sons and live in the married son's household they also become less involved in household decision making.

The finding that women in the wealthiest households report a markedly smaller role in decision-making is not unexpected (Goetz and Sen Gupta, 1996; Rosario, 1992; Safilios-Rothschild and Mahmud, 1989). This result is consistent with the finding of a lower score on self-esteem (vis-à-vis justified beating, (Figure 6)) among women who report that they are more involved in decision making. One explanation is that in the wealthiest households the male breadwinner is dominant (compared to men who contribute relatively less to household income), which limits women's decision-making role. However, the median decision-making score was not very different for women who worked for pay in the past year (14 of 20) and women who did not (16



of 20). Among working women the median decision-making score also did not vary by whether she gave all her earnings to her husband, kept some or kept all (not shown).

The aggregate freedom of mobility score was surprisingly low given that Bangladeshi women have over the past several decades become visible in the public domain (i.e. outside the home and compound). The youngest women (under age 20) have less freedom of mobility than women over 20 years, possibly because as newly married or young wives there are greater restrictions on their movement outside the home (even to visit relatives or friends) and because they have less occasion to go to the health centre (fewer children, better health, and family planning methods are available from health workers at home). It is surprising that the poorest women (lowest two wealth quintiles) reported less freedom of mobility, since other research indicates that the poorest women have relatively greater mobility outside the home (Balk, 1997). This could be a reflection of our score construction, which is based on visit to a relative/friend outside the village and visit to a health centre. Visits to both these places are less likely for poorer women, the first because it involves time and money, and the second because poor women are less likely to seek allopathic care when sick. Freedom of mobility is positively related to woman's schooling and media exposure, both of which are expected patterns.

It is quite possible for there to be an increase in a woman's value or worth without a commensurate increase in her personal autonomy and independence vis-à-vis men. Such a situation may be little comprehended in Western developed societies, but can be easily imagined in a society undergoing economic change but governed by patriarchal structures. In that respect, it is quite understandable that Bangladeshi women are becoming empowered on certain dimensions but not on others; in the latter category are those dimensions that challenge patriarchal norms like men's economic domination over women.

It is also important to recognize that women in rural areas are not a homogeneous population in the sense that the effect of the background variables (correlates) on empowerment dimensions operate differently for different subgroups. Hence, measuring the empowerment process separately for subgroups is crucial. In particular, household wealth emerges as a powerful

mediator of the effects of other background factors on empowerment. Women's work status is another mediator.

One limitation of this study is that women's responses may be affected by social desirability bias (Jejeebhoy, 2002). Since Bangladeshi society has been strongly patriarchal, women may give responses that represent lower empowerment than is actually the case. However, the fact that women's responses cover the whole range of possible responses implies that at least some women are not reporting the socially normative response. Another perspective on this can be had by comparing responses on these questions from both wives and their husbands (Becker, Fonseca-Becker and Schenk-Yglesias, 2006; Ghuman, Lee and Smith, 2006;). In a subsample of households in the current study, husbands were interviewed. From matched data for 512 couples we found that in 63 per cent to 87 per cent of couples, spouses had concordant responses on women's role in decision-making across the ten decisions (not shown). In the case of discordant responses, we cannot know whose response is correct. However, these cases do suggest that perceptions of decision-making differ within some couples and possibly that norms are changing.

Women's empowerment is a worthwhile goal in its own right. In addition, many investigators have found that women's empowerment indicators are good predictors of positive health outcomes. One specific recommendation is that other researchers add the component of self-esteem as another dimension of empowerment, as first proposed by Basu and Koolwal (2005). Empowerment is a process in each woman's life but, in parallel, women's empowerment is a process occurring over time in a society, for example, as restrictions on women's movement and participation in the labour force have been lifted in Bangladesh. That is, twenty years ago and twenty years hence, results on indicators reported here would very likely differ. This analysis has presented a snapshot of the rural Bangladeshi society in 2006.

## REFERENCES

- Amin, S. (2005) 'Selective inclusion or active discrimination? Women and the labour market in Bangladesh', Unpublished manuscript.
- Balk, D. (1997) 'Change comes slowly for women in rural Bangladesh', *Asia-Pacific Population & Policy* 41(41): 1-4.
- Basu, A. M., and G.B. Koolwal (2005) 'Two concepts of female empowerment: Some leads from DHS data on women's status and reproductive health', in S. Kishor (ed.) *A focus on gender: Collected papers on gender using DHS data*, pp. 15-53. Calverton, MD: ORC Macro.
- Bates, L. M., S.R. Schuler, F. Islam, and M.K. Islam (2004) 'Socioeconomic factors and processes associated with domestic violence in rural Bangladesh', *International Family Planning Perspectives* 30(4): 190-9.
- Bland, J. M., and D.G. Altman (1997) 'Statistics notes: Cronbach's alpha' *BMJ* 314: 572.
- Filmer, D., and L.H. Pritchett (2001) 'Estimating wealth effects without expenditure data--or tears: An application to educational enrollments in states of India', *Demography* 38(1): 115-32.
- Goetz, A. M., and R.S. Gupta (1996) 'Who takes the credit? Gender, power, and control over loan use in rural credit programs in Bangladesh', *World Development* 24(1): 45-63.
- Gupta, K., and P.P. Yesudian (2006) 'Evidence of women's empowerment in India: A study of socio-spatial disparities', *GeoJournal* 65(4): 365-80.
- Kabeer, N. (2001) 'Conflicts over credit: Re-evaluating the empowerment potential of loans to women in rural Bangladesh', *World Development* 29(1): 63-84.
- Malhotra, A., and S. Schuler (2005) 'Women's empowerment as a variable in international development', in D. Narayan-Parker (ed.) *Measuring empowerment :Cross-disciplinary perspectives*, Chapter 3. Washington, DC: World Bank.

- Mullany, B. C., M.J. Hindin, and S. Becker (2005) 'Can women's autonomy impede male involvement in pregnancy health in Katmandu, Nepal?' *Social Science and Medicine* 61(9): 1993-2006.
- Narayan-Parker, D. (2005a) 'Conceptual framework and methodological challenges' , in D. Narayan-Parker (ed.) *Measuring empowerment :Cross-disciplinary perspectives*, Chapter 1. Washington, DC: World Bank.
- Narayan-Parker, D. (2005b) *Measuring empowerment :Cross-disciplinary perspectives*. Washington, DC: World Bank.
- National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ORC Macro (2005) *Bangladesh Demographic and Health Survey 2004*. Dhaka, Bangladesh and Calverton, Md. (USA).
- Palli Karma-Sahayak Foundation (2004) *Maps on microcredit coverage in Thanas of Bangladesh*. Dhaka, Bangladesh: Palli Karma-Sahayak Foundation.
- Petesich, P., C. Smulovitz, and M. Walton (2005) 'Evaluating empowerment: A framework with cases from Latin America', in D. Narayan-Parker (ed.) *Measuring empowerment :Cross-disciplinary perspectives*, Chapter 2. Washington, DC: World Bank.
- Rosario, S. (1992) *Women and social change in a Bangladeshi village*. London: Zed Books.
- Rutstein, S. O., and K. Johnson (2004) 'The DHS wealth index'. DHS Comparative Reports no 6. Calverton, MD: ORC Macro.
- Safilios-Rothschild, C., and S. Mahmud (1989) *Women's roles in agriculture: Present trends and potential for growth*. Dhaka: UNDP-UNIFEM.

Table 1. Distribution of married women's responses on 4 dimensions of empowerment

Dimension	Response		
	Yes (%)	No (%)	Doesn't Know (%)
Self Esteem			
She wants to have decision input in:			
buying furniture	91	9	-
buying livestock	82	18	-
spending family savings	85	15	-
taking a loan	82	18	-
treatment for sick children	90	10	-
visiting doctor for self	85	15	-
her working outside home	74	26	-
her visiting father's home	66	34	-
having more children	70	30	-
using family planning	71	29	-
She thinks a wife's beating is justified when:			
she burns the food	2	97	1
she neglects the children	11	89	0
she argues with husband	27	73	0
she talks to other men	38	61	1
she wastes husband's money	41	58	0
she goes out without telling husband	39	61	0
Decision Making	Opinion is important (%)	Opinion not important (%)	Does not have input (%)
She has decision making power in:			
buying furniture	75	14	11
buying livestock	71	10	19
spending family savings	76	7	17
taking a loan	74	7	19
treatment for sick children	84	5	11
visiting doctor for self	78	7	16
her working outside home	68	5	27
her visiting father's home	58	7	35
having more children	70	0	30
using family planning	70	0	30
Mobility	Went without permission (%)	Took permission (%)	Did not go (%)
In the last year, she:			
visited friends outside the village	8	68	23
visited hospital or clinic	8	52	39
Control over resources	Yes (%)	No (%)	-
She has money she can spend as she wishes	27	73	-

Table 2. Median (mean) values of 4 empowerment indicators and percentage of women with control of resources, by covariates

Covariates and Categories	Empowerment Indicator				Employed in past year			
	# of women (weighted)	# of situations where beating not justified Max=6	# of decisions she reports she should be involved in Max=10	Reported level of her involvement in decisions Max=20	Her freedom of movement Max=4	All women	Yes	No
All Women	3548	5 (4.4)	9 (8.2)	17 (15.5)	2 (1.5)	27	49	25
Woman's Age								
<20	288	5 (4.5)	9 (7.8)	14 (13.7)	1 (1.3)	20	24	20
20-29	1245	5 (4.4)	9 (8.5)	18 (15.9)	2 (1.6)	30	47	28
30-39	928	4 (4.3)	9 (8.9)	18 (17.5)	2 (1.5)	31	65	26
40+	1087	5 (4.5)	8 (7.3)	14 (13.8)	2 (1.5)	32	33	21
Wealth Quintile								
Poorest 20%	565	4 (4.2)	9 (8.3)	18 (16.2)	1 (1.3)	10	27	6
20-40	666	4 (4.2)	9 (8.6)	18 (16.6)	1 (1.4)	14	51	10
40-60	663	4 (4.3)	9 (8.3)	18 (15.9)	2 (1.5)	25	72	20
60-80	711	4 (4.4)	9 (8.3)	18 (15.6)	2 (1.5)	36	56	34
Richest 20%	942	5 (4.8)	8 (7.6)	15 (14.0)	2 (1.8)	40	75	39
Woman's Schooling								
Never in school	1482	4 (4.3)	9 (8)	17 (15.4)	1 (1.4)	16	42	12
Some primary	1039	4 (4.3)	9 (8.4)	18 (16.1)	2 (1.4)	34	66	31
Primary or more	1026	5 (4.7)	9 (8.2)	16 (14.9)	2 (1.8)	36	47	35
Media Watching/Listening								
No TV or Radio	1101	4 (4.1)	9 (7.9)	16 (14.9)	1 (1.3)	14	39	11
TV or Radio	1467	5 (4.5)	9 (8.1)	18 (15.5)	2 (1.6)	28	47	26
Both TV and Radio	980	5 (4.6)	9 (8.5)	18 (16.0)	2 (1.7)	40	65	37