A Critical Look at Gender Empowerment in Agriculture in Nepal

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Abstract

We take a critical look at current efforts to measure women's empowerment at the individual/household level through standardized tools and in particular the Women's Empowerment in Agriculture Index (WEAI), which was developed as a monitoring and evaluation tool for the Feed the Future initiative (Alkire et al., 2013). We explore the results of a household survey conducted in Nepal in 2014 using the WEAI survey tool. Our interpretation of the results is informed by qualitative fieldwork conducted in the same region in 2015. Based on the results, we posit that there are serious flaws in defining power exclusively as agency or decision-making, and we defend the relevance of including values and attitudes when assessing empowerment.

Background

Women's empowerment has been a theme in and goal of development since the 1990s. There is a particularly strong narrative linking it with agricultural productivity and food security (FAO, 2011; World Bank, 2011; Bowman, 2012), and this has become more prevalent in the context of the "feminization of agriculture" seen in many areas of the world (Radel et al., 2012, Deere, 2005, Garikipati, 2008).

Three key assumptions underpin the framing of women's empowerment in agriculture and food security discourse and have important consequences for development practice:

Women are seen as "the principal agents of food security and household welfare in rural areas" (Ashby et al., 2009).

Consequence: Empowerment is seen as an instrument to support agricultural and economic growth, enhance food security, and reduce poverty (Duflo, 2012; Ashby et al., 2009; ADB and FAO, 2013).

Empowerment is defined as agency or decision-making power.

Consequence: Power is implicitly equated to control over income, bargaining power within the household (FAO, 2011), and decision making (Kabeer, 1999; Alkire et al., 2013; Trommlerová et al., 2015).

Power is a resource held by individuals and and should be equally shared between genders.

Consequence: Interventions around property rights, asset provision, or enhancing access to markets, services and technologies exclusively target women (FAO, 2011).

In this study we focus on the Women's Empowerment in Agriculture Index (WEAI), which was developed for USAID in 2011 by the International Food Policy Research Institute (IFPRI) and the Oxford Poverty and Human Development Initiative (OPHI) to be a multidimensional measure of individual empowerment in the agricultural sector (Alkire et al., 2013). Initially designed to monitor and evaluate the impact of the U.S. Feed the Future Initiative on women's empowerment, the WEAI has since been adopted by several research institutes and INGOs who have applied it in a variety of countries (Malapit et al., 2014).

Methods

We use secondary data collected as a baseline for the USAID-funded Market Access and Water Technology for Women (MAWTW) project in Far-Western Nepal, along with primary qualitative data collected toward the middle of project implementation. Households were selected at random in 20 geographic clusters of 10 households each in Kailali and Dadeldhura districts. In each household, a woman of childbearing age and her husband were surveyed according to the validated WEAI methodology.

The WEAI is the only standardized tool to measure women's empowerment in the agricultural sector. It measures ten indicators of agency to calculate individual empowerment and gender inequality at the household level (Alkire et al., 2013): input in production, autonomy in production, ownership of assets, ability to make decisions about assets, access to and decisions about credit, control over the use of income, group membership, speaking in public, workload, and leisure time. In our analysis, we examine the individual-level disempowerment score constructed from these weighted indicators. (For the WEAI, empowerment is defined by a disempowerment score below .2.)

Based on a review of empowerment literature on gender in Nepal (including UNDP, 2014; GoN, 2012; Priya et al., 2012; Lundgren et al., 2013), we also constructed a novel index of attitudes toward women by asking respondents to rank six statements on a five-point Likert scale from "strongly agree" (1) to "strongly disagree" (5). These were aggregated into a simple index suggesting positive and negative attitudes toward women. This was assessed for construct validity using Cronbach's alpha (α = .51).

- *A woman should tolerate violence in order to keep her family together.*
- *There are times when women deserve to be beaten.*
- *A woman should obey her husband in all things.*
- *Women should leave politics to men.*
- *Women should be limited to do household chores such as cleaning and cooking.*
- *Education is not valuable for daughters/daughters in-law.*

We developed several OLS models regressing these two dependent variables—the raw WEAI disempowerment score and our attitudes index—against recognized correlates of gender disempowerment as identified in the literature (see Table 1).

Table 1: Observed correlates of empowerment

Correlate	Data source for study
Access to credit[5]	A component of WEAI score
Age[1,2,3,4,6,8,10]	Age of female respondent and age of spouse
Education[1,2,3,5,6,8,9]	Education level (8 categories), used as a categorical comparison of respondent's education level to her spouse
Health[10]	Not assessed
Household wealth[1,4,5,6,8,9]	Index of asset inventory for household (log of Morris score)
Income[4,8,10]	Log of total household income, adjusted for household size
Literacy[6]	Not assessed
Mass media exposure[6,9]	Weekly exposure to radio, newspaper, or TV (binary)
Ownership of land or livestock[2]	Included in household wealth proxy (asset inventory index)
Position in household[2,3,4,10]	Presence in household of own parents, in-laws, both or none (four categories)
Religion[2]	Disadvantaged caste or ethnic group (categorical; proxy)
Wage labor[2,3,4,8]	Income-generating primary or secondary occupation (binary)
Male children[7]	Proportion of male children in household

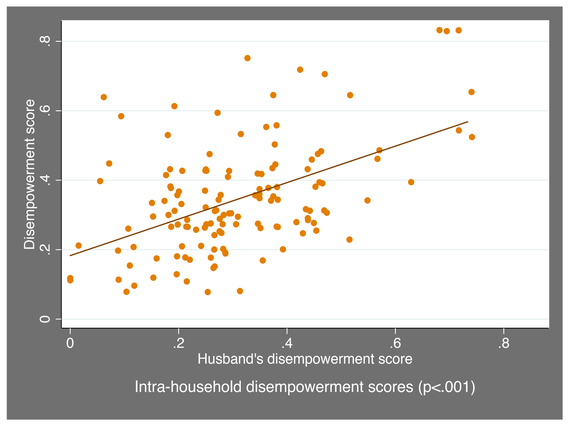
1 Alkire et al. (2013), 2 Allendorf (2007a), 3 Allendorf (2012), 4 Anderson and Eswaran (2009), 5 Garikipati (2008), 6 Gupta and Yesudian (2006), 7 Jejheeboy (1997), 8 Lokshin and Ravallion (2005), 9 Mahmud et al. (2011), 10 Trommlerová et al. (2014)

Analysis

The first of the models we used to explain the WEAI disempowerment score and our attitudes index included the correlates previously seen to be associated with women's empowerment (model 1). To this we added variables with relevance in the Nepal context (proportion of male children in the household and whether men in the household have migrated). Model 3 reflects the addition of the attitudes index as an explanatory variable.

Model 4 included the spouse's disempowerment score, which increased the model's predictive power (r^2 = .269). The standardized coefficient (.469; p<.05) suggests that a husband's WEAI score is a very important predictor of a woman's empowerment. We eliminated household-level variables, because we felt that as a determinant of the woman's score, the spouse's score might be reflecting household-level factors. For subsequent models, we calculated the difference between spouses for this and the attitudes index, to avoid multicollinearity when reintroducing household-level variables.

Each model in turn explains more of the variation in the disempowerment score. Until we introduced the husband's score, the assets and attitudes indices were consistently predictive, but these fall out in the later models. The score difference between spouses remains very strongly predictive: gender disparity predicts greater disempowerment of the woman.



Discussion

Our analysis generally failed to show correlation between accepted determinants of empowerment and the WEAI score. In our strongest model, only education level is significant at 90%. Each of the other factors is trumped by the intra-household disparity, which is by far the greatest and most consistent predictor in significance and magnitude. For each ten percentage point difference between spouses in a household, the woman's score declines by nearly six percentage points. In other words, when a woman is relatively disempowered compared to her husband, she is also absolutely disempowered.

We would expect the husband's and wife's responses to be uncorrelated in several WEAI components—time use, leadership, and decision-making about production and resources (Alkire et al, 2013)—yet further analysis showed significant correlation in these, equal to more obviously associated areas (e.g., access to credit). We posit that unobserved household-level characteristics may affect both men and women in the same household, causing both to report similarly higher or lower levels of personal agency.

The WEAI focuses only on visible agency in empowerment, painting a picture that according to the literature is incomplete. For example, even when women are able to own productive assets, manage income, etc., they may choose not to take advantage of such opportunities because of social constraints, feelings of inadequacy, or prioritization of family needs.

To study this, we regressed our attitudes index against our strongest model. The result was robust, explaining 61% of variation in the data and showing many significant correlates: age, media exposure, household composition, and disadvantaged caste. This seems to suggest a strong conclusion: that measuring values in addition to agency may illuminate something about the environment in which women evolve and the range of possibilities that are open to them.

Table 2: Regression models

Disempowerment (n=132)	1	2	3	4	5	6	Attitudes (n=104)
Adjusted R^2	.085	.103	.138	.269	.332	.379	.610
Age	-.003 (.003)	-.002 (.003)	-.003 (.002)	-.002 (.001)*	-.002 (.001)	-.002 (.002)	-.011 (.005)*
Spouse Age	.000 (.001)	.000 (.001)	.001 (.001)	.002 (.001)***	.001 (.001)	-.001 (.001)	.002 (.003)
Education level							
Parity	.001 (.044)	.002 (.045)	.024 (.045)			.062 (.042)	.029 (.122)
Spouse Higher	.037 (.038)	.044 (.037)	.045 (.046)			.084 (.043)*	-.030 (.126)
Assets	-.053 (.025)**	-.054 (.024)**	-.050 (.026)*			-.020 (.027)	.036 (.058)
Income	-.005 (.027)	.003 (.028)	.008 (.028)			-.010 (.024)	-.055 (.050)
Media	.028 (.037)	.037 (.037)	.022 (.033)	-.013 (.024)	-.031 (.030)	.014 (.029)	.174 (.097)*
HH Composition							
Own Parents	-.006 (.051)	.001 (.053)	-.029 (.046)			-.070 (.046)	-1.004 (.231)***
Spouse's Parents	.044 (.052)	.062 (.057)	.044 (.062)			.002 (.060)	-.573 (.149)***
Both Parents	.030 (.059)	.034 (.058)	.014 (.056)			.018 (.054)	-.523 (.122)***
Disempowered							
Janajati	.048 (.044)	.058 (.047)	.064 (.039)			.030 (.046)	-.221 (.137)
Madhesi	.061 (.037)	.079 (.043)*	.064 (.045)			.076 (.052)	-.427 (.142)***
Others	-.002 (.042)	-.005 (.043)	.027 (.032)			-.006 (.033)	.128 (.171)
Wage Labor	.030 (.031)	.027 (.031)	.038 (.039)	-.018 (.031)	-.062 (.025)**	.054 (.032)	.059 (.096)
Male Children		-.013 (.045)	-.015 (.047)			-.005 (.039)	-.148 (.113)
Male Migration		-.105 (.060)*	-.079 (.057)			-.054 (.047)	.168 (.107)
Attitudes Index			-.060 (.020)***	-.047 (.019)**			
Attitudes Disparity					-.012 (.013)	-.037 (.022)	-.502 (.078)***
Spouse Disemp.				.469 (.172)**			
Disemp. Disparity					-.459 (.086)***	-.530 (.093)***	-.118 (.221)
District (Kailali)	-.051 (.027)*	-.049 (.027)*	-.045 (.027)	.001 (.033)	.005 (.034)*	-.101 (.043)**	.102 (.138)
Constant	.541 (.212)**	.493 (.219)**	.622 (.179)***	.334 (.074)***	.398 (.070)***	.617 (.176)***	3.733 (.411)***