Pro-WEAI: The project-level Women’s Empowerment in Agriculture Index

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Development of the project-level Women’s Empowerment in Agriculture Index (pro-WEAI)

Hazel Malapit, Agnes Quisumbing, Ruth Meinzen-Dick, Greg Seymour, Elena M. Martinez, Jessica Heckert, Deborah Rubin, Ana Vaz, Kathryn M. Yount, Gender Agriculture Assets Project Phase 2 (GAAP2) Study Team

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Measuring empowerment?

Photo credits: Clockwise from top-left - Shammi Ferdousi (ANGeL); Jessica Heckert (MoreMilk); Kalyani Raghunathan (WINGS); Shammi Ferdousi (ANGeL)
What’s the goal?

- Three types of gender-sensitive agricultural development programs:
  - Reach: Include women in program activities
  - Benefit: Increase women’s well-being (e.g. food security, income, health)
  - Empower: Strengthen ability of women to make strategic life choices and to put those choices into action

- The strategies and activities to achieve these aims will be different

- Need indicators to monitor these programs
Example: Nutritious crop disseminated through agricultural extension

**Objective**
- Deliver agricultural extension services to women

**Strategies**
- Provide transportation
- Conduct training during convenient times of the day

**Indicators**
- Proportion of women attending training, receiving extension advise
- Sex-disaggregated data for yields, income, land use, nutrition, time use, etc.

**Reach**
- Increase women’s well-being

**Benefit**
- Increase women’s agency in production and nutrition decisions
- Consider women’s preferences and constraints in design and content of training

**Empower**
- Enhance women’s decision making power in households and communities, especially on crops to grow
- Decision making power on production, income, food consumption
- Reduction of GBV, time burden
Implications

Projects
- Align objectives, strategies, activities, indicators
- If seeking to empower, think about what activities will affect what domains of empowerment

Both projects and funders
- Need a suite of indicators that can measure empowerment at the project and at the portfolio level

Funders
- Check that objectives, strategies, activities, indicators align

No “empowerment bandwagon” with no motor
Starting point: the Women’s Empowerment in Agriculture Index (WEAI)

- Developed by USAID, IFPRI & OPHI
- Launched in 2012
- Measures inclusion of women in the agricultural sector
- Survey-based index - interviews men and women in the same household
- Details on index construction in Alkire et al. (2013), *World Development*
WEAI
5 domains
10 indicators

Empowered if adequate in **80%** of weighted indicators
Abbreviated WEAI (A-WEAI)
5 domains
6 indicators

Empowered if adequate in 80% of weighted indicators
WEAI used in 54 countries by 98 organizations

Total WEAI (54 countries)
Afghanistan, Armenia, Bangladesh, Benin, Bolivia, Brazil, Burkina Faso, Cambodia, China, Colombia, Egypt, El Salvador, Eritrea, Ethiopia, Fiji, Ghana, Guatemala, Guinea, Haiti, Honduras, India, Indonesia, Kenya, Liberia, Lebanon, Malawi, Mali, Mexico, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Philippines, Peru, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Tunisia, Vietnam, Uganda, Yemen, Zambia, Zimbabwe
Why GAAP2? What’s measured matters

A learning and capacity-development initiative working with a portfolio of 13 development projects in the Gender, Agriculture, and Assets Project Phase 2 (GAAP2)

- Learning what works
- Learning what doesn’t work
  - Particular gender strategies
  - Gender-blind approaches?
- Comparability across a portfolio

Supported by the Bill & Melinda Gates Foundation, USAID, and A4NH
Developing a “Project-level” WEAI (pro-WEAI)

Comparable metrics for empowerment:

Core set of pro-WEAI empowerment modules
- Quantitative survey
- Qualitative protocols

Standardized add-ons depending on project needs:
- Nutrition and health
- Livestock-enhanced
- Market inclusion (WEAI4VC)
## GAAP2 project portfolio by cluster

<table>
<thead>
<tr>
<th>Intervention Area / Project Objective</th>
<th>Nutrition</th>
<th>Income Related Project</th>
<th>7 Panel, RCT</th>
<th>4 Panel, PSM</th>
<th>1 Panel, DID</th>
<th>1 Random encouragement design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crops</td>
<td>ANGeL (Bangladesh)</td>
<td>WorldVeg (Mali)</td>
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<tr>
<td></td>
<td>TRAIN (Bangladesh)</td>
<td>AVC (Bangladesh)</td>
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<td>iDE (Ghana)</td>
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<tr>
<td>Livestock</td>
<td></td>
<td>Heifer (Nepal)</td>
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<td>Trias (Tanzania)</td>
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<td></td>
<td></td>
<td>MoreMilk (Kenya)</td>
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<tr>
<td></td>
<td></td>
<td>SE LEVER (Burkina Faso)</td>
<td></td>
<td></td>
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<tr>
<td>Crops and Livestock</td>
<td>FAARM (Bangladesh)</td>
<td>JP-RWEE (Ethiopia)</td>
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<td></td>
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<tr>
<td></td>
<td>WINGS (India)</td>
<td>Grameen Foundation (Burkina Faso)</td>
<td></td>
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</tr>
</tbody>
</table>

All projects are undertaking complementary qualitative work.
Purpose of qualitative methods

- Contextualizing quantitative WEAI and other findings
  - Presentation of the overall context, not just the person
  - e.g., seasonality diagrams to identify how the timing of survey fits with agricultural cycle, time use
  - e.g., broader description of the project itself and how it relates to other development efforts

- Explaining project impacts from participants’ perspectives

- Validation of WEAI metrics
  - Emic meanings of “empowerment”
  - Individual domains and indicators
  - e.g. joint ownership and decisionmaking counted as empowerment
Pro-WEAI qualitative methods

- Review of project documents
- Community profile
- Seasonality patterns
- Sex-disaggregated focus groups on local understanding of empowerment
- Semi-structured interviews: Life histories
- Key informant interviews:
  - Market traders
  - Project staff
How WE(AI) define empowerment

The various material, human, and social resources that serve to enhance one’s ability to exercise choice

Agency

The capacity to define one’s own goals and make strategic choices in pursuit of these goals, particularly in a context where this ability was previously denied

The achievement of one’s goals

Achievements

Resources

Source: Kabeer (1999)
How communities understand empowerment

Agency

- Taking care of oneself
- Taking care of family needs
- Taking care of others

Resources

- Economic means
- Connections
- Confidence
- Help with labor

Achievements

- Active
- Following social norms
- “Lift the burden”

- Well dressed
- Good appearance
- Admired

Source: Kabeer (1999); Meinzen-Dick et al. (2019)
How WE(AI) define empowerment

The various material, human, and social resources that serve to enhance one’s ability to exercise choice

The capacity to define one’s own goals and make strategic choices in pursuit of these goals, particularly in a context where this ability was previously denied

The achievement of one’s goals

Agency

Resources

Achievements

Source: Kabeer (1999)
Three types of agency measured in all versions of the WEAI

- Power within (intrinsic agency)
- Power to (instrumental agency)
- Power with (collective agency)
Types of agency echoed by local communities

- **Power within** (intrinsic agency)
  - *Strong, courageous, moral being*

- **Power to** (instrumental agency)
  - *Hard work, good decisions*

- **Power with** (collective agency)
  - *Lifting burden, helping others*

**Source:** Meinzen-Dick et al. (2019)
power to (instrumental agency)

Power within (intrinsic agency)

Power with (collective agency)
Pro-WEAI
3 domains
12 indicators

7 indicators build on original indicators

5 new indicators
A-WEAI is nested within Pro-WEAI

6 A-WEAI indicators map to Instrumental Agency and Collective Agency pro-WEAI domains
pro-WEAI: Equal weights (1/12), 75% empowerment cutoff

- Autonomy in income
- Self-efficacy
- Attitudes about domestic violence
- Respect among household members
- Input in productive decisions
- Ownership of land and other assets
- Control over use of income
- Access to and decisions on financial services
- Work balance
- Visiting important locations
- Group membership
- Membership in influential groups
Pro-WEAI is made up of two sub-indices

90%  
Three domains of empowerment (3DE)  
A direct measure of women’s empowerment in 3 dimensions

10%  
Project-level Women’s Empowerment in Agriculture Index (pro-WEAI)

Gender Parity Index (GPI)  
Women’s achievement’s relative to the primary male in household

All range from zero to one; higher values = greater empowerment
Table 3  
Demographic characteristics of respondents.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percent of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td><strong>Age group</strong></td>
<td></td>
</tr>
<tr>
<td>16–25</td>
<td>32.1</td>
</tr>
<tr>
<td>26–45</td>
<td>57.5</td>
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<tr>
<td>46–65</td>
<td>9.9</td>
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<tr>
<td>&gt;65</td>
<td>0.2</td>
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<tr>
<td>Missing</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>Never attended school</td>
<td>44.9</td>
</tr>
<tr>
<td>Less than primary</td>
<td>13.9</td>
</tr>
<tr>
<td>Primary</td>
<td>33.4</td>
</tr>
<tr>
<td>Secondary</td>
<td>7.0</td>
</tr>
<tr>
<td>Undergraduate or higher</td>
<td>0.0</td>
</tr>
<tr>
<td>Missing</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
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</tr>
<tr>
<td>Married</td>
<td>98.8</td>
</tr>
<tr>
<td>Unmarried (never married)</td>
<td>0.2</td>
</tr>
<tr>
<td>Unmarried (previously married)</td>
<td>0.8</td>
</tr>
<tr>
<td>Missing</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Source:** Baseline data from ANGeL (N = 7523), AVC (N = 1000), SE LEVER (N = 3342), TRAIN (N = 9823), and WorldVeg (N = 1408).  
**Note:** Weighted by inverse project sample size.
Women more disempowered compared to men

Table 4
Pro-WEAI results.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of observations</td>
<td>11,513</td>
<td>10,689</td>
</tr>
<tr>
<td>3DE score</td>
<td>0.57</td>
<td>0.76</td>
</tr>
<tr>
<td>Disempowerment score (1 - 3DE)</td>
<td>0.43</td>
<td>0.24</td>
</tr>
<tr>
<td>% achieving empowerment</td>
<td>16%</td>
<td>43%</td>
</tr>
<tr>
<td>% not achieving empowerment</td>
<td>84%</td>
<td>57%</td>
</tr>
<tr>
<td>Mean adequacy score for not yet empowered</td>
<td>0.49</td>
<td>0.59</td>
</tr>
<tr>
<td>Mean disempowerment score (1 - adequacy) for not yet empowered</td>
<td>0.51</td>
<td>0.41</td>
</tr>
<tr>
<td>Number of dual-adult households</td>
<td>10,689</td>
<td></td>
</tr>
<tr>
<td>Gender Parity Index (GPI)</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>% achieving gender parity</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>% not achieving gender parity</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Average empowerment gap</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Pro-WEAI score</td>
<td>0.59</td>
<td></td>
</tr>
</tbody>
</table>

*Source*: Baseline data from ANGeL (N = 7523), AVC (N = 1000), SE LEVER (N = 3342), TRAIN (N = 9823), and WorldVeg (N = 1408).

*Note*: Weighted by inverse project sample size. Respondents with missing indicators are dropped from the sample.
Figure 1. Distribution of inadequacies

Source: Baseline data from ANGeL (N = 7,523), AVC (N = 1,000), SE LEVER (N = 3,342), TRAIN (N = 9,823), and WorldVeg (N = 1,408). Notes: Shaded box indicates disempowered respondents, i.e., those who are inadequate in four or more indicators. Weighted by inverse project sample size.

More women than men are disempowered

Women experience higher intensity of disempowerment than men

Fig. 1. Distribution of inadequacies. **Source**: Baseline data from ANGeL (N = 7,523), AVC (N = 1,000), SE LEVER (N = 3,342), TRAIN (N = 9,823), and WorldVeg (N = 1,408). **Notes**: Shaded box indicates disempowered respondents, i.e., those who are inadequate in four or more indicators. Weighted by inverse project sample size. DHH = dual-adult household that includes both a male and female adult. FHH = female-adult-only household that includes a female adult but no male adult.
Figure 2: Absolute contribution of each indicator to disempowerment

Source: Baseline data from ANGeL (N=7,523), AVC (N=1,000), SE LEVER (N=3,342), TRAIN (N=9,823), and WorldVeg (N=1,408); Note: Weighted by inverse project sample size
Figure 3: Contributors to disempowerment by age group

Top contributors across all age groups

- Autonomy in income
- Self-efficacy
- Attitudes about domestic violence
- Respect among household members
- Input in productive decisions
- Ownership of land and other assets
- Access to and decisions on credit and financial accounts
- Control over use of income
- Work balance
- Visiting important locations
- Group membership
- Membership in influential groups

Larger contributor for younger women compared to older women
<table>
<thead>
<tr>
<th></th>
<th>% of dual-adult households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male adequacy score &gt; female adequacy score</td>
<td>72.0</td>
</tr>
<tr>
<td>Female adequacy score &gt; male adequacy score</td>
<td>16.2</td>
</tr>
<tr>
<td>Female adequacy score = male adequacy score</td>
<td>11.8</td>
</tr>
<tr>
<td>Only male is empowered</td>
<td>35.3</td>
</tr>
<tr>
<td>Only female is empowered</td>
<td>8.1</td>
</tr>
<tr>
<td>Both male and female are empowered</td>
<td>7.4</td>
</tr>
<tr>
<td>Neither male nor female are empowered</td>
<td>49.2</td>
</tr>
</tbody>
</table>

Source: Baseline data from ANGeL (N = 7523), AVC (N = 1000), SE LEVER (N = 3342), TRAIN (N = 9823), and WorldVeg (N = 1408).

Note: Weighted by inverse project sample size.
Interconnections among indicators

- Time as a tether: workload limits mobility, income generating ability
- Lack of transport (asset) limits mobility, income generation
- Intrahousehold relations $\rightarrow$ trust $\rightarrow$ mobility $\rightarrow$ income generation
- Group membership requires mobility, time, support of husbands, family
- Income generation supports greater decision-making (and vice versa)

Source: Meinzen-Dick et al. (2019)
Local understandings of empowerment

Common elements
- Difficulty in translating “empowerment”
  - “emancipated”, “admired”, “dignified”, “lift up”, “enable”
- Economic status (resources and achievements)
  - Taking care of oneself and family needs
  - Well dressed, good appearance
- Relational, not individualistic
  - Taking care of others (family and community)
  - Having means or status to do so, connections
- Not power over (especially not over men)

Differences, tensions
- Ambivalence of men, women to empowered women
  - “Lift the burden” vs threat to men
- Following social norms, ideals of femininity (“submissive”) vs Strong, able (sometimes stand against norms)
- Age (young or old)
- Marital status
  - Unmarried women seen as having more/less independence

Source: Meinzen-Dick et al. (2019)
Key takeaways

- **Pro-WEAI** retains many properties of the original WEAI
  - Decomposable by sub-index, indicator, and population subgroup
- Responds to demands of ag development projects
  - Intrahousehold harmony, attitudes about IPV, freedom of movement
  - Qualitative work identified many of these indicators as important to community members
- Comparisons with other versions of WEAI are possible
  - Abbreviated WEAI is nested within pro-WEAI
  - Beware of differences in sampling frame - project samples vs. nationally-representative samples
Key takeaways

- **Added value of qualitative work**
  - Qualitative data important for contextualizing index scores and mechanisms for project impact
  - Despite variability in local understanding of empowerment, many of the underlying concepts can be mapped to the three pro-WEAI domains

- **Pro-WEAI is still under development!**
  - Yount et al. (forthcoming in WD): using IRT methods to assess the measurement properties of a subset of pro-WEAI indicators
  - Meinzen-Dick et al. (2019): Lessons from qualitative work
  - Ongoing work on add-on modules: Health and Nutrition, Livestock, Market Inclusion
  - GAAP2 endline data coming soon: Which strategies work best to empower women?
Join our community of practice!

weai.ifpri.info

WEAI RESOURCE CENTER

Released in 2012, the Women’s Empowerment in Agriculture Index (WEAI) is an innovative tool that measures women’s empowerment in agriculture. This measurement tool helps diagnose areas of disempowerment and design development programs to address those areas. Since the WEAI’s initial release, several versions of the WEAI have been developed. This site offers information about the WEAI and related research instruments, how to calculate empowerment using the quantitative WEAI surveys, WEAI-related publications, and more.

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