The Women’s Empowerment in Agriculture Index (WEAI): Quantitative and qualitative approaches

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Roadmap

- Reach-Benefit-Empower: Types of gender-sensitive agricultural development programs
- Women’s Empowerment in Agriculture Index (WEAI) Basics: Overview and evolution
- What have we learned?
  - Quantitative
  - Qualitative
- WEAI for Value Chains in Malawi

Photo credit: Kalyani Raghunathan (IFPRI)
Reach-Benefit-Empower

Types of gender-sensitive agricultural development programs
Objectives of gender-sensitive agricultural development programs

- 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

**Reach**

**Benefit**
- Increase women’s well-being
- Consider women’s preferences and constraints in design and content of training
- Sex-disaggregated data for yields, income, land use, nutrition, time use, etc

**Empower**
- Increase women’s agency in production and nutrition decisions
- 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, tactics, indicators
✓ If seeking to empower, think about what tactics will affect what domains of empowerment

Funders
✓ Check that objectives, strategies, tactics, indicators align

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

No “empowerment bandwagon” with no motor
WEAI Basics

Overview and evolution of the Index
Women’s Empowerment in Agriculture Index (WEAI)

- Measures inclusion of women in the agricultural sector
- Survey-based index - interviews men and women in the same household
- Launched in 2012 by USAID, IFPRI, and OPHI
- Methodology:
  - Similar to multi-dimensional poverty indices (Alkire and Foster 2011) and the Foster-Greere-Thorbeck (FGT) indices
  - Details on index construction in Alkire et al. (2013)
How is the index constructed?

- An aggregate index in two parts:
  - Five Domains of Empowerment (5DE)
  - Gender Parity Index (GPI)

- Constructed using interviews of the primary male and primary female adults in the same household
Feed the Future Malawi results

- Baseline (2013) and Interim (2015) collected for women only for 9 out of 10 indicators (all except autonomy in productive decisions)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Definition of domain</th>
<th>Indicators</th>
<th>Percent with adequate achievement</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>Sole or joint decisionmaking over food and cash crop farming, livestock, and fisheries, and autonomy in agricultural production</td>
<td>Input in productive decisions</td>
<td>90.7</td>
<td>891</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Autonomy in production</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td>Resources</td>
<td>Ownership, access to, and decisionmaking power over productive resources such as land, livestock, agricultural equipment, consumer durables, and credit</td>
<td>Ownership of assets</td>
<td>87.4</td>
<td>891</td>
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<td></td>
<td></td>
<td>Purchase, sale or transfer of assets</td>
<td>75.2</td>
<td>891</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Access to and decisions on credit</td>
<td>35.7</td>
<td>891</td>
</tr>
<tr>
<td>Income</td>
<td>Sole or joint control over income and expenditures</td>
<td>Control over use of income</td>
<td>98.7</td>
<td>891</td>
</tr>
<tr>
<td>Leadership</td>
<td>Membership in economic or social groups and comfort in speaking in public</td>
<td>Group member</td>
<td>76.1</td>
<td>891</td>
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<tr>
<td></td>
<td></td>
<td>Speaking in public</td>
<td>68.0</td>
<td>891</td>
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<tr>
<td>Time</td>
<td>Allocation of time to productive and domestic tasks and satisfaction with the available time for leisure activities</td>
<td>Workload</td>
<td>76.6</td>
<td>891</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leisure</td>
<td>88.1</td>
<td>891</td>
</tr>
</tbody>
</table>

Cross-country baseline findings: Credit, workload and group membership are constraints across countries

Source: Malapit et al. (2014)
Five domains of empowerment

- **Production 1/5**
- **Resources 1/5**
- **Income 1/5**
- **Leadership 1/5**
- **Time 1/5**

**Ten Indicators**
- Input in productive decisions 1/10
- Autonomy in production 1/10
- Ownership of assets 1/15
- Purchase, sale, or transfer of assets 1/15
- Access to and decisions on credit 1/15
- Control over use of income 1/5
- Group Member 1/10
- Speaking in Public 1/10
- Leisure 1/10
- Workload 1/10
Five domains of empowerment

Abbreviated WEAI (A-WEAI)

Ten Indicators
- Input in productive decision 1/5
- Autonomy in production 1/10
- Ownership of asset 2/15
- Purchase, sale, or transfer of assets 1/15
- Access to and decisions on credit 1/15
- Control over use of income 1/5
- Group Member 1/5
- Speaking in Public 1/10
- Leisure 1/10
- Workload 1/5
WEAI used by 86 organizations in 53 countries

Total WEAI (53 countries)
Afghanistan, Armenia, Bangladesh, Benin, Bolivia, Brazil, Burkina Faso, Cambodia, China, Colombia, El Salvador, Ethiopia, Egypt, 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
Project-level WEAI
A portfolio approach
What WEAI had...  

- Women’s and men’s empowerment across 5 domains in agriculture
- Standardized measure, internationally validated
- Ability to diagnose empowerment gaps

what projects wanted

- More adaptability to project context
- Attention to domains related to health and nutrition
- Issues of intrahousehold harmony, mobility, control of income from projects, domestic violence
- Shorter interview time
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 for pro-WEAI: A portfolio approach to measuring empowerment
Project strategies to empower women in GAAP2

**Provide goods and services**
- Direct provision of goods/assets to beneficiaries
- Direct provision of services to beneficiaries
- Indirect provision by supporting availability, quality, or access

**Strengthen organizations**
- Form/strengthen groups or other organizations (such as enterprises)
- Form/strengthen platforms or networks that link organizations

**Build knowledge and skills**
- Agricultural training and extension
- Nutrition education
- Business and finance training
- Other training

**Influence gender norms**
- Community conversations to identify community solutions to gender issues
- Awareness raising about gender issues and their implications

Icons created by IQON, Hea Poh Lin, Chiara Rossi, and Gregor Cresnar for the Noun Project
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
Project-level WEAI

The index
How WE(AI) define empowerment

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

Resources

Achievements

The achievement of one’s goals.

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)
pro-WEAI

Power within (intrinsic agency)

Power to (instrumental agency)

Power with (collective agency)
12 indicators in pro-WEAI
7 indicators build on original indicators
5 new indicators

Intrinsic Agency
- Attitudes about domestic violence
- Self-efficacy

Autonomy in income
- Visiting important locations

Work balance
- Access to and decisions on financial services

Access to productive decisions
- Input in productive decisions

Ownership of land and other assets
- Control over use of income

Group membership
- Membership in influential groups

Collective Agency

Instrumental Agency
- Respect among household members
- Control over use of income
- Ownership of land and other assets
- Control over use of income
12 indicators of empowerment

Each indicator receives an equal proportion (1/12) of the overall weight

Empowered if adequate in 75% of indicators
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%

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

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

All range from zero to one; higher values = greater empowerment
Contributions to disempowerment

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

Quantitative cross-country analyses
Change in % of primary female decision-makers with adequacy in
Access to and control over credit

LEGEND: Indicator INCREASED or DECREASED between BASELINE and INTERIM

Source: USAID/BFS MEL Team
Change in % of primary female decision-makers with adequacy in **Workload**

**LEGEND:** Indicator **INCREASED** or **DECREASED** between BASELINE and INTERIM

Source: USAID/BFS MEL Team
What dimensions of women’s empowerment matter for nutritional outcomes?

Quisumbing, Sproule, Martinez & Malapit (2017)

- Data from population-based Feed the Future surveys in 6 countries: Bangladesh, Cambodia, Ghana, Nepal, Mozambique, Tanzania
- Estimated associations between nutrition outcomes and women’s empowerment using regression analysis
- Controlled for individual, household, and community characteristics
Nepal:
Women’s autonomy in production, asset rights, and comfort speaking in public was associated with lower household hunger score.

Notes: Preliminary findings from A4NH report by Quisumbing et al (2017), “Gender and women’s empowerment in nutrition-sensitive agriculture: New evidence and implications for programming”. Charts report effect sizes, defined as the number of sample standard deviations in the household, maternal, and child nutrition variables that are associated with a 1.0-SD change in the empowerment measure. Stars indicate statistical significance at the 10% (*), 5% (**) and 1% (***) levels.
Nepal:
Hours worked was negatively associated with women’s BMI.

Notes: Preliminary findings from A4NH report by Quisumbing et al (2017), “Gender and women’s empowerment in nutrition-sensitive agriculture: New evidence and implications for programming”. Charts report effect sizes, defined as the number of sample standard deviations in the household, maternal, and child nutrition variables that are associated with a 1.0-SD change in the empowerment measure. Stars indicate statistical significance at the 10% (*), 5% (**) and 1% (***)) levels.
What have we learned?

Lessons from qualitative research
Purpose of qualitative methods

- Contextualizing quantitative pro-WEAI and other findings
  - Presentation of the overall context, not just the person
- Validation of pro-WEAI from participants’ perspectives
  - Empowerment
  - Individual domains and indicators
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
- Key informant interviews: Project staff
<table>
<thead>
<tr>
<th>Project name</th>
<th>Partner organization(s)</th>
<th>Country</th>
<th>In Synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Agricultural Approaches to Reducing Malnutrition (FAARM)</td>
<td>Helen Keller International (HKI) and University of Heidelberg</td>
<td>Bangladesh</td>
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<tr>
<td>Agriculture, Nutrition, and Gender Linkages (ANGeL)</td>
<td>Bangladesh Ministry of Agriculture, IFPRI</td>
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<td>Targeting and Realigning Agriculture to Improve Nutrition (TRAIN)</td>
<td>BRAC, IFPRI</td>
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<td>Bangladesh Agriculture Value Chains (AVC)</td>
<td>Development Alternatives Incorporated (DAI), IFPRI</td>
<td>Bangladesh</td>
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<tr>
<td>Impact evaluation of an integrated poultry value chain and nutrition</td>
<td>IFPRI</td>
<td>Burkina Faso</td>
<td>*</td>
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<td>Small-scale irrigation and women’s empowerment in northern Ghana (iDE)</td>
<td>International Development Enterprises (iDE), IFPRI</td>
<td>Ghana</td>
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<tr>
<td>Deploying improved vegetable technologies to overcome malnutrition and</td>
<td>World Vegetable Center</td>
<td>Mali</td>
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<td>poverty (WorldVeg)</td>
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<td>Empowerment, Resilience, and Livestock Transfers (Heifer)</td>
<td>Heifer Project International, Montana State University, University of Georgia, IFPRI, and Nepal School of Social Sciences and Humanities</td>
<td>Nepal</td>
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<td>Evaluation of women’s food security program for impoverished Maasai</td>
<td>Savannahs Forever, University of Minnesota</td>
<td>Tanzania</td>
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<td>households (Maisha Bora)</td>
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<tr>
<td>Women Improving Nutrition through Group-based Strategies (WINGS)</td>
<td>Professional Assistance for Development Action, IFPRI</td>
<td>India</td>
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</tr>
</tbody>
</table>
Types of Agency

- **Intrinsic (Power within)**
  - Strong, courageous, moral being

- **Instrumental (Power to)**
  - Hard work, good decisions

- **Collective (Power with)**
  - Lifting burden, helping others
    - Husbands, children, parents, other community members

- **Coercive power (Power over) always negative**
  - Men or other women (depend on law)
Intrinsic agency: Intrahousehold relationships

- Other household members:
  - Tanzania + Mali: Co-wives’ mutual support to attend meetings, diversify production

- Spouses
  - Kenya: Supportive
  - Burkina Faso + Ethiopia: Submission
Instrumental agency: Decision-making on agricultural production

- Small vs. large
  - Tanzania: livestock
  - Ethiopia: quantity
- Intrahousehold dynamics
  - Mali: individual, not household production
  - Ethiopia: men have authority
- Ghana: share responsibility was protective

Photo credit: Jawoo Koo
Instrumental agency: Ownership and control over resources

- “Ownership” is context specific
  - Tanzania: decisions vs. legal
- Control over assets is a type of agency, not resource
  - Ethiopia: Public ownership vs. joint decision-making privately
Instrumental agency: Time

- Seasonality, men’s migration
- Changing household gender roles
  - Ethiopia: women take on men’s, but men do not take on women’s, but gradual change...

  “...I this is a result of increased understanding about the situation of women, which came through various trainings” (Mulema 2018:9)
Instrumental agency: Freedom of movement

- Ethiopia: Necessity vs. desire
Collective agency: Leadership and group participation

- Tanzania: “leadership” informal; signified by helping others
  
  "act humbly, participate in community fundraisers and regularly report back to group members or the community" (Krause et al. 2018:28).

- Mali: Self-esteem
  
  “I am a female leader in my community. All the members of the village respect me. I am always informed of the visits in the village and I participate in external meetings, on behalf of my village. I am influential in my village” (Bagayoko 2018:36).
Interconnections among indicators and domains

- Intrahousehold relationships $\rightarrow$ group membership, income generating ability
  - Co-wives
  - Spousal support of businesses
- Decision-making on agricultural production $\rightarrow$ intrahousehold relationships
  - Shared responsibility
- Group membership $\rightarrow$ intrinsic agency
  - Self-esteem
Implications for pro-WEAI: Emic views expand ideas of empowerment

- Each component of empowerment is relational, not simply individual
- Benefit of empowerment is also relational
  - “Lifting the burden” “Taking care of others”
  - Gender transformative
Why are we in Malawi?

WEAI for Value Chains and ATVET for Women
WEAI for Value Chains (WEAI4VC)

- Expands empowerment measure to cover multiple stages, different types of actors in the value chain
  - Pro-WEAI quantitative and qualitative protocols as starting point
  - Expands production module to livelihoods, including entrepreneurship and wage work

**Philippines WEAI4VC Pilot**
- Supported by MCC
- Assess empowerment and gender parity of women across 4 priority value chains (abaca, coconut, seaweed, swine)
- Pilot survey with 1600 households in 4 provinces (Sorsogon, Cebu, Bohol, Leyte)

**Bangladesh WEAI4VC Pilot**
- Supported by USAID
- Assess empowerment and gender parity of women as producers, entrepreneurs, wage workers across entire agricultural value chain
- Pilot survey on 1200 households in FTF ZOI (400/group)
Empowering women through ATVET

- ATVET for Women aims to increase women’s access to, benefits from, and empowerment from formal and non-formal training in the agri-food sector
- Malawi: It Takes Two!
  - Farming couples
  - Formal and informal training through agricultural training centers
  - Focus on aquaculture, mango, pineapple, and vegetables value chains
  - Gender-sensitive and gender-transformative
- ATVET is run by AUDA-NEPAD and funded by GIZ
  - IFPRI contracted to measure empowerment among beneficiaries
Does ATVET for Women increase empowerment?

Study objectives:

- Assess the state of empowerment of beneficiary women in the ATVET for Women program
- Assess gender parity, comparing with men in their households
- Develop and pilot survey instruments and qualitative protocols to assess empowerment of women beneficiaries

Tool for measuring empowerment: WEAI for Value Chains

- Cognitive interviewing: June 2019
- Quantitative household survey: Aug-Sep 2019
- Qualitative interviews: Oct-Nov 2019
- Validation workshop: March 2020
- Dissemination and capacity development workshop: April 2020
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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Resources


