



*Adapting the Women's Empowerment in Agriculture Index to
specific country context: Insights and critiques from field work
in India*

Soumya Gupta, Vidya Vemireddy, Dhiraj Singh, Prabhu Pingali
Cornell University

TECHNICAL
ASSISTANCE AND
RESEARCH FOR
INDIAN NUTRITION
AND AGRICULTURE

*Seeds of Change Conference: Gender Equality through Agricultural
Research for Development*
April 3, 2019





Background

What we know about the WEAI ?

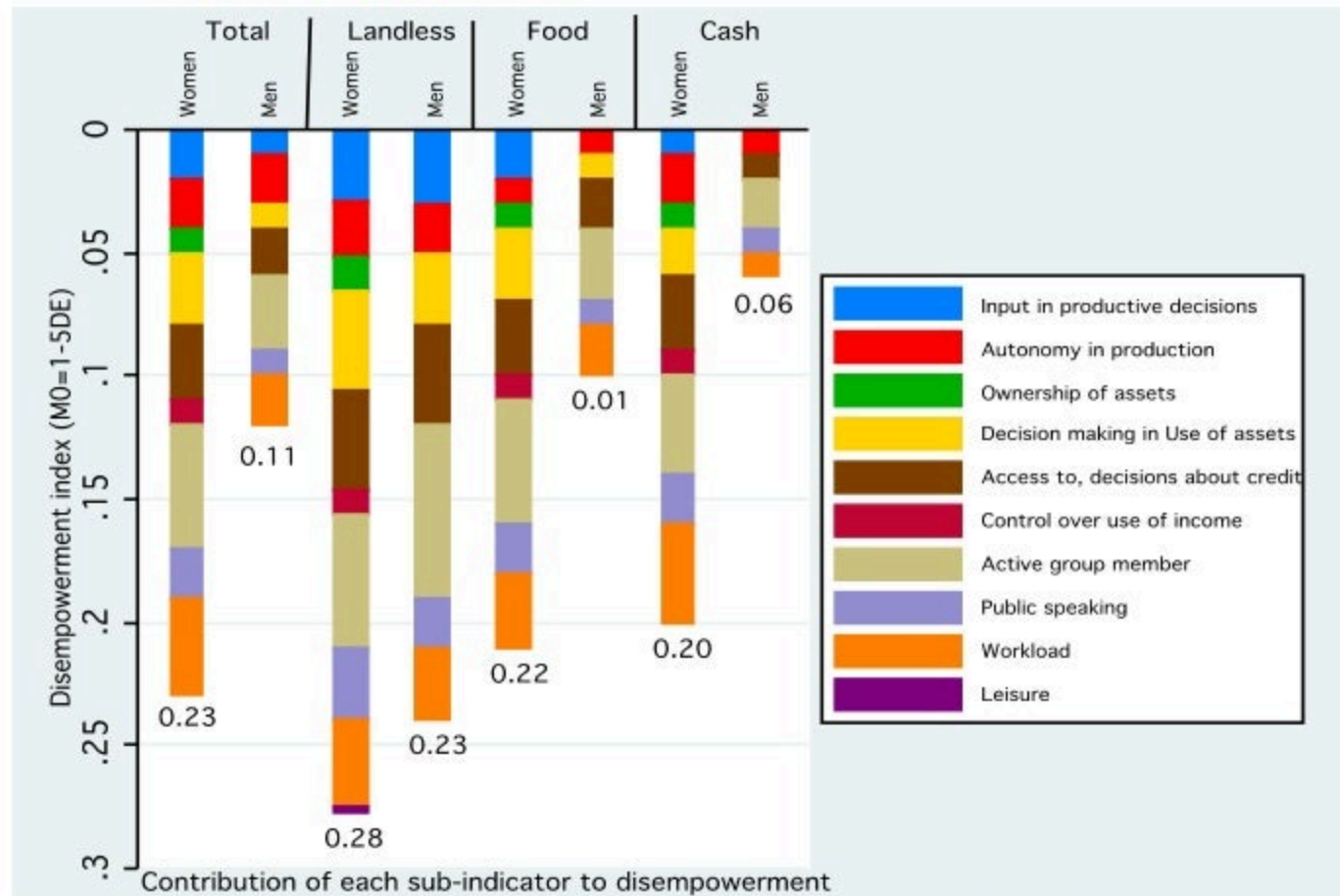
- Multi- dimensional, direct measure
- Intra- household differences in empowerment
- 5 domains of agriculture
- Consists of 2 sub- indices
 - 5 Domains of Empowerment (5DE)
 - Gender Parity Index
- A shorter version – A-WEAI was recently introduced

Domain	Indicator	Weight
Production decision-making	Input in productive decisions	1/10
	Autonomy in production	1/10
Access to productive resources	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	Control over use of income	1/5
Community leadership	Group member	1/10
	Speaking in public	1/10
Time allocation	Workload	1/10
	Leisure	1/10

Source: Alkire et al. (2013).

WEAI in India

- TCI implemented the WEAI in India in 2014
- Account for differences across farming systems
- Key drivers of women's disempowerment: Group membership, credit, workload



Absolute contribution of sub-indicators to women's disempowerment in India (Gupta et al 2017)

Present limitations of the WEAI

Used mainly in the USAID's Feed the Future zones.

- Evidence base is lacking for other South Asian countries

Questionnaires used in the initial pilots in Bangladesh, Uganda and Guatemala are identical

- It is unlikely that the same set of activities/ assets/ sources of income or credit are common across locations

The updated WEAI questionnaires recommend using context- specific examples but not how that might affect index construction

- Stop short of addressing any associated changes in adequacy thresholds/ cut-offs if the number of activities is in fact revised

Our objectives

Adaptation of WEAI

- context-specific, operational, well-defined indicators of access and ownership.
- Changes to adequacy requirements

Sensitivity analysis

- Modify adequacy threshold from 80% to 60% and 40%

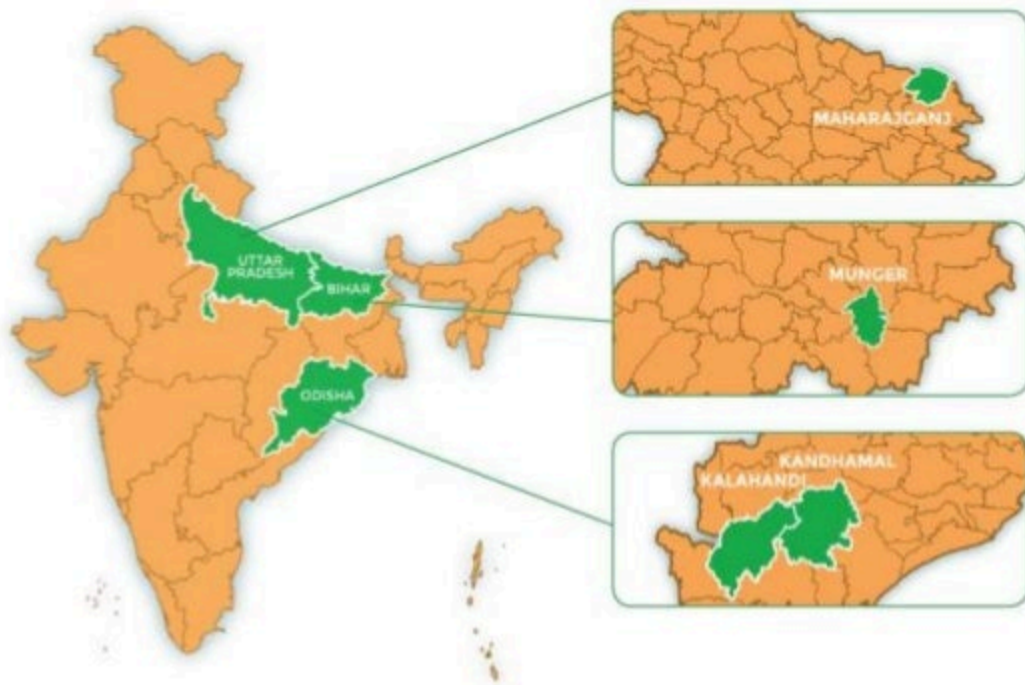
Consistency check

- Compare results from WEAI_India (adapted AWEAI) to AWEAI

Methodology

Primary data: TARINA Baseline Survey, 2017

TARINA PROJECT LOCATIONS

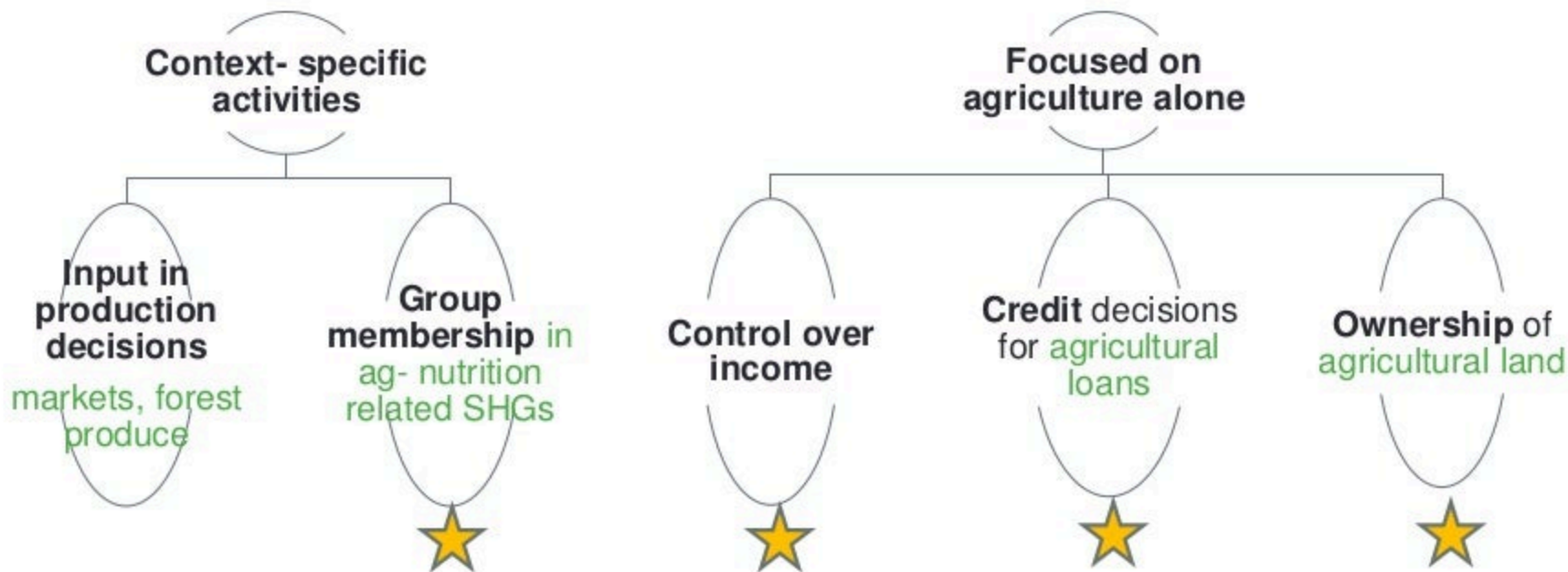


Sample: 3600 households,
120 villages, 4 districts

Multi- topic individual,
household and village
surveys

Adapting the WEAI to an Indian context

Modifications to 5 of the 7 AWEAI sub- indicators



 *Change in corresponding adequacy requirement for sub- indicator*

Data analysis

District- level WEAI_India after index adaptation

- ❖ We compute the 5 Domains of Empowerment (5DE) sub- index for women in each district (0-1)
 - ❖ Headcount ratio, average inadequacy score, aggregate 5DE score
 - ❖ Decompose the 5DE to identify absolute & percentage contribution of sub- indicators to disempowerment

Sensitivity analysis

- ❖ Use two alternate thresholds to compute 5DE: adequacy in 40% and 60% sub- indicators
 - ❖ Test for differences in headcount ratio, average inadequacy score and district 5DE score

Consistency check

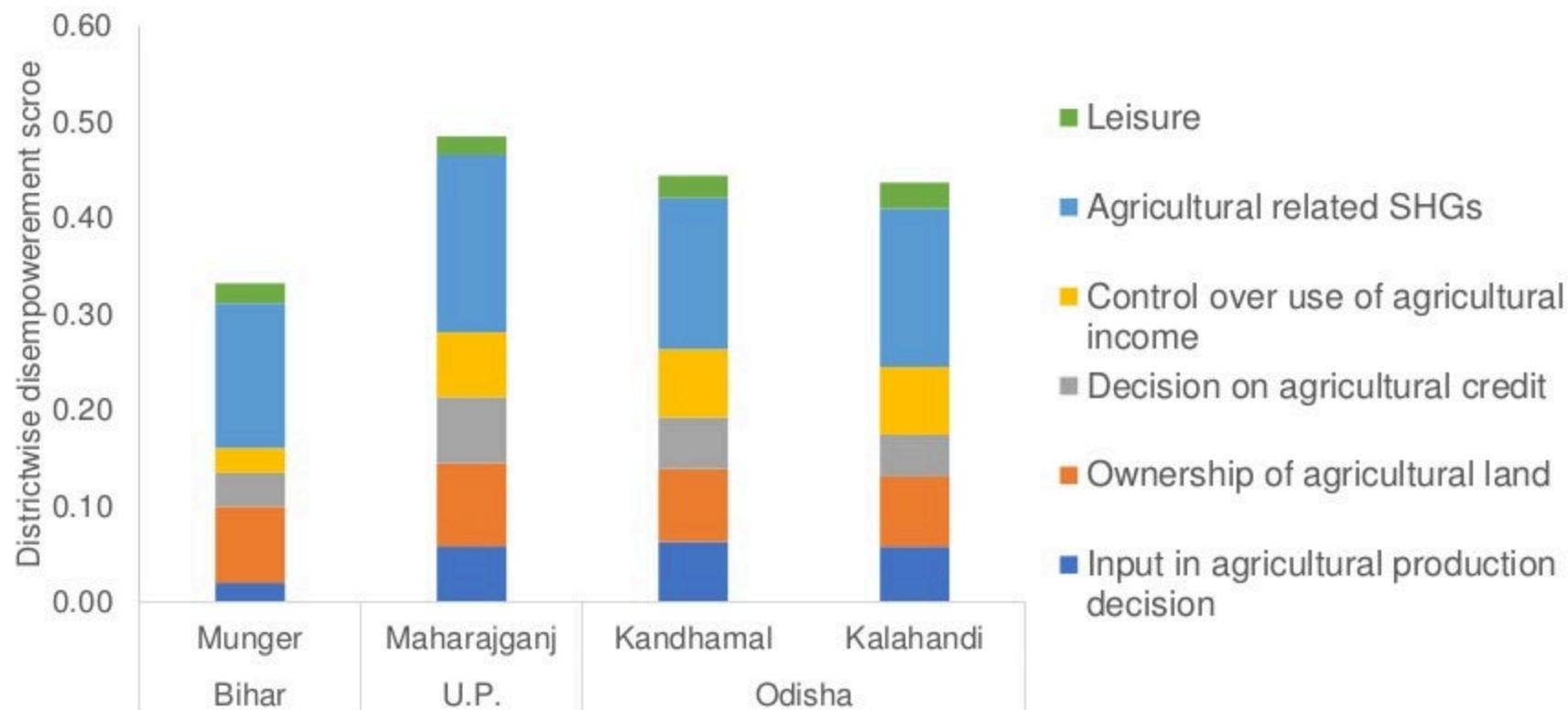
- ❖ Compare components of WEAI_India to AWEAI
 - ❖ Headcount ratio, average inadequacy score, aggregate 5DE score

Results



Photo credit: TCI, 2015

WEAI_India: at least 80% women are disempowered



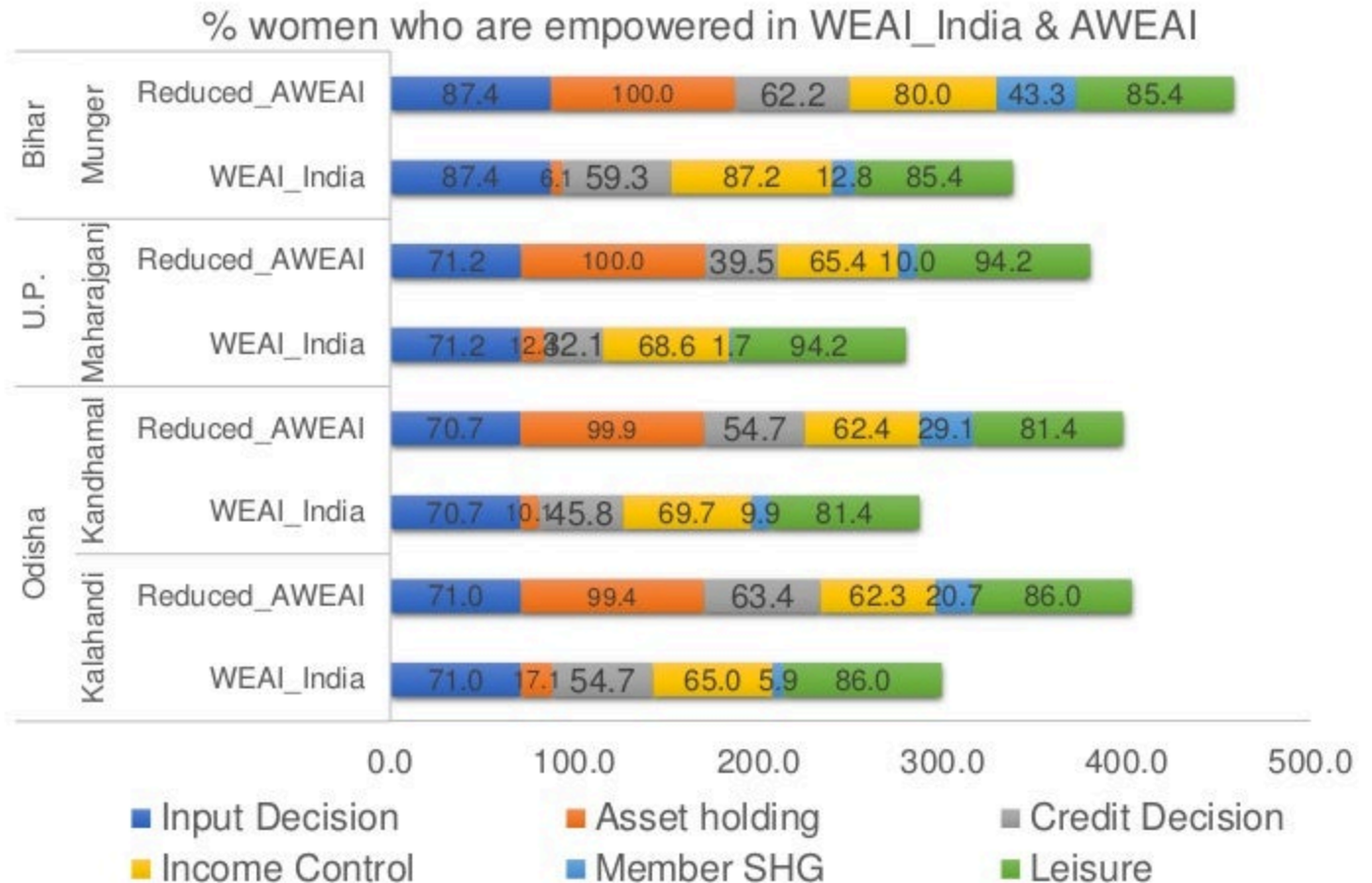
The main drivers of women's disempowerment are a membership to agriculture-related SHGs, ownership of land and control over income.

Sensitivity results: as threshold is relaxed, empowerment levels improve

- As the threshold for identifying disempowerment increases there is an increase in district 5DE scores
 - Relative to the original threshold of 20% for identifying disempowerment, an increase to 40% and 60% results in average district 5DE scores that indicate **women are empowered in all four districts.**
- This improvement in district 5DE scores is due to change in the proportion of disempowered women
 - **Significant decline in the proportion of disempowered women** in each of the four districts as thresholds varied.
- Magnitude of the decline in the disempowered headcount is greater than the magnitude of increase in the average inadequacy scores across districts.

Consistency: significant differences in 5DE b/w WEAI_India & AWEAI

- Relative to WEAI_India, the **AWEAI underestimates** the proportion of disempowered women in each district.
- Across districts, **at least 82% of women are disempowered as per WEAI_India** vis a vis as low as 24% based on the AWEAI.
- Likely being driven by **tighter adequacy thresholds** in WEAI_India.



Discussion & Conclusion

What did we find?

When we attempt to adapt the WEAI to site-specific, well-defined indicators of women's role in agriculture

- We end up with a smaller set of relevant agricultural activities
- Often accompanied by tighter adequacy requirements

Sensitivity analysis indicates that as the threshold is made 'loose', there is an improvement in empowerment status at the district level

- Driven by an associated change in the proportion of women who are identified as disempowered.

Our consistency checks indicate that there are significant differences in the aggregate 5DE statistics between the existing tool (AWEAI) and our adaptation to India (WEAI_India) in each district

Relevance

Methodological

- Need for direct, context and sector-specific measures of women's empowerment
- We show how the WEAI can be adapted to suit contextual and operational requirements
- Context- specificity may lead to lack of comparability
- Generate empirical base for India
- Contribute to technical knowledge base by way of sensitivity and consistency analysis

Policy

- By adapting the index we know precisely what aspect of the sub-indicators is driving women's disempowerment in a given location
 - ensure a targeted and efficient program/policy interventions.
- Balance between context- specificity and comparability across locations



Thank you