



# The gendered yield gap and women's empowerment

## Evidence from smallholder farmers in Uganda's central region

Lukas Welk, Elizabeth Bryan, Edward Kato, Christine Bosch, Regina Birner

### 1. Introduction

- Despite a substantial increase in agricultural productivity in developing countries during the past decades, there is evidence of a significant gap between men's and women's agricultural productivity, estimated at roughly 25% (FAO 2011).
- There is little data on the determinants of this gap and how women's empowerment influences agricultural productivity and yields.
- **Aim:** Identify which indicators of women's empowerment have a significant potential to narrowing the agricultural productivity gender gaps.

### 2. Methods

- Empirical analysis based on a recent intrahousehold survey conducted in Uganda which includes yield data.
- Women empowerment is measured using the Abbreviated Women's Empowerment in Agriculture Index (A-WEAI) developed by IFPRI.
- To measure the impact of women's empowerment and potential influencing variables on the yield gap a Kitagawa-Oaxaca-Blinder decomposition or an OLS will be conducted.

### 3. Preliminary results

- Previously, women's empowerment was determined by calculating the A-WEAI and a clear difference was found. Figure 1 shows the contribution to disempowerment of each indicator. Workload contributed the most.
- We tried different approaches to determine the gender gap, e.g. yield data per crop and plot in kg/ha and the examination of aggregated yield values (UGX/ha) (see Table 1).
- Men have significantly higher value per plot for all crops, women produce more coffee and banana on average.
- Further analysis will be done to determine the extent to which women's empowerment and other determinants contribute to the yield gap showed in Table 1.

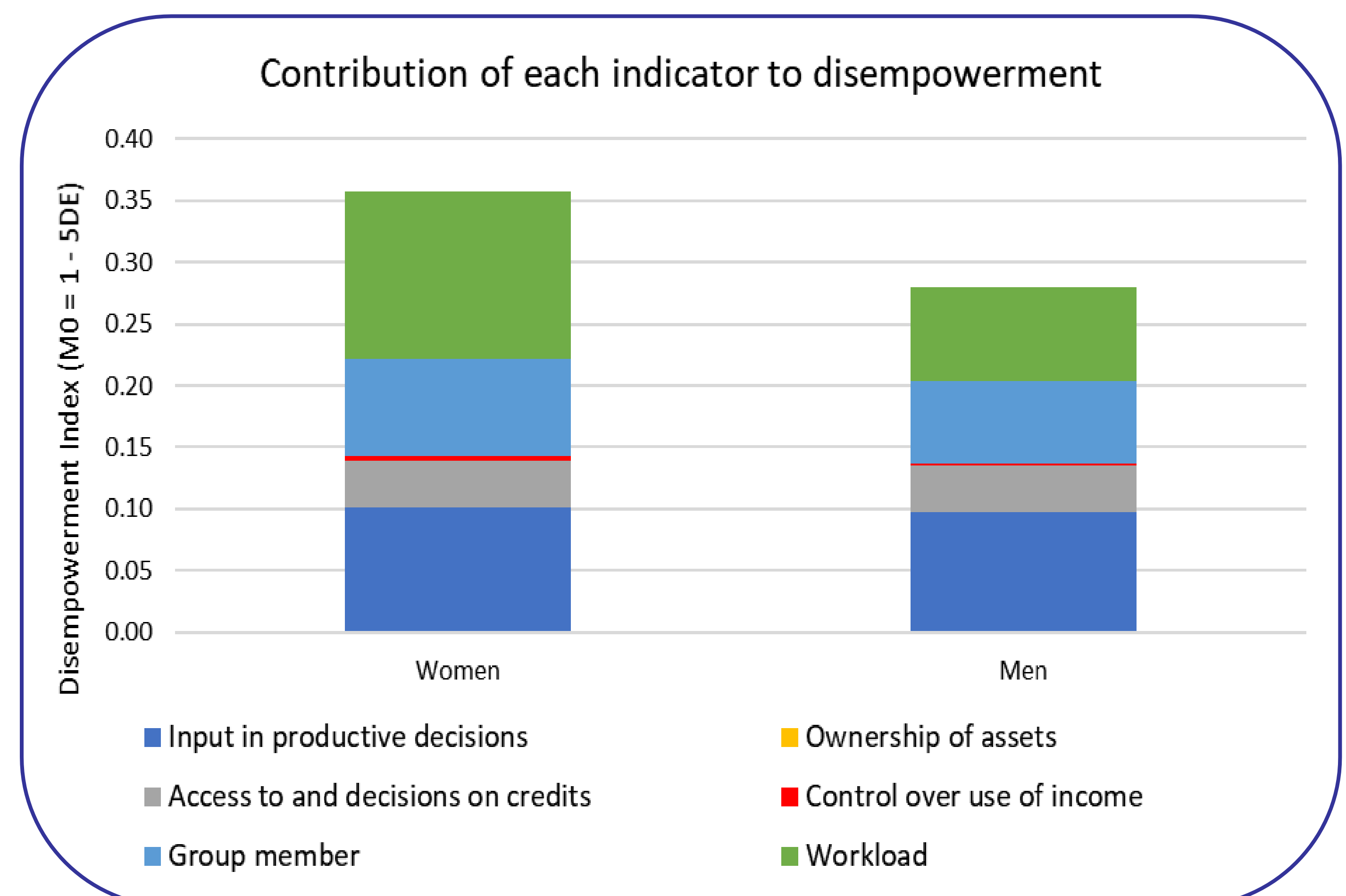


Figure 1: A-WEAI indicator contributions to disempowerment

Table 1: Yield value by sex of the plot manager

Variable	Male observations			Female observations			Mean diff.	Median diff.
	n	Mean	Median	n	Mean	Median		
Total yield value per ha	435	459884	173437	483	387134	226300	72750.1*	-52863.5
Total yield value per ha (annual crops only)	249	347560	135780	247	218090	134775	129470.7**	1005.8
Total yield value per ha (cash crops only)	139	749490	258999	198	630053	388499	119437.4	-129499.6
Total yield value per ha (only staple crops)	280	269056	135338	263	211818	131909	57237.6**	3429
Maize yield kg/ha	122	1733.3	1359.1	111	1880.9	1390.0	-147.6	-30.9
Banana yield kg/ha	71	7573.5	5930.5	81	11180.6	9884.2	-3607.0***	-3953.7
Coffee yield kg/ha	52	867.8	658.9	73	1288.7	1235.5	-420.9***	-576.6
Bean yield kg/ha	80	537.9	395.4	90	599.2	477.7	-61.4	-82.4

\*\*\*p<0.01, \*\*p<0.05, \*p<0.10