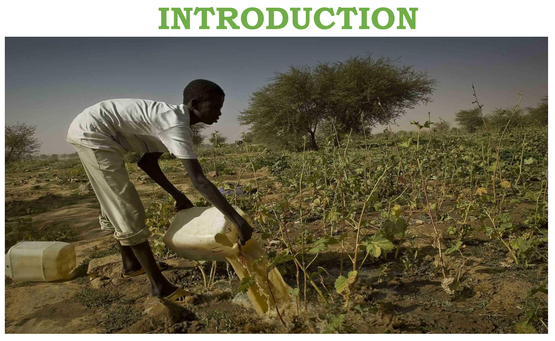
Gender Dynamics and Sustainable Agriculture Adoption for Low Emission Food Systems in Cameroon

Mary E. Ngaiwi[1,2], Majory O. Meliko[2], Ernest L. Molua[2], Eileen Nchanji[1], Martha Vanegas[1], George Amanhui[1], Janelle Syvester[1], Augusto Castro-Nunez[1]

[1]International Center for Tropical Agriculture (CIAT), Cali, Colombia Centre for Independent
[2]Department of Agricultural Economics and Agribusiness, Faculty of Agriculture and Veterinary Medicine, University of Buea, Cameroon

INTRODUCTION



The United Nations in its Sustainable Development Goals aims by 2030 to "end hunger, achieve food security and improve nutrition and promote sustainable agriculture". This calls for technology-solutions and agriculture-based innovations. Understanding the impact of gender disparities in household decision-making on the adoption of sustainable agriculture practices is critical in this context. Gender inequalities can influence who has access to and control over resources, technology, and decision-making processes within agriculture.

GOAL

To investigate the gender differences in household decision making on the adoption of sustainable agriculture on farm plots in Cameroon.

MATERIALS AND METHODS

- This study was carried out in the South and East regions of Cameroon.
- Both open and close-ended questionnaires were used in collecting data from 351 farmers through surveys and observations.
- PCA used to group 14 practices identified in study area
- MNL used to analyze relationships between variables

Fig 1 Questionnaire administration

CONCLUSION

Active female involvement in farming promotes adoption of sustainable agriculture with higher mitigation potential, attributed to their focus on soil conservation and resilience.

BIBLIOGARPHY

Tufa, A. H., Alene, A. D., Cole, S. M., Manda, J., Feleke, S., Abdoulaye, T., Chikoye, D., & Manyong, V. (2022). Gender differences in technology adoption and agricultural productivity: Evidence from Malawi. World Development, 159, 106027.

RESULTS AND DISCUSSION

- Men make decisions related to crop variety, input purchase, farm technology, and use of proceeds. Women are responsible for decisions regarding on-farm activities(Fig 2).
- When women make decisions about farm proceeds, there's a higher chance of adopting comprehensive(M1A1S1) sustainable agriculture(SA).
- More contact with extension agents positively impacts the adoption of SA packages with both mitigation and adaptation properties(M1A1S0) Wekesa et al. (2018)
- Landownership positively correlates with adopting larger SA packages

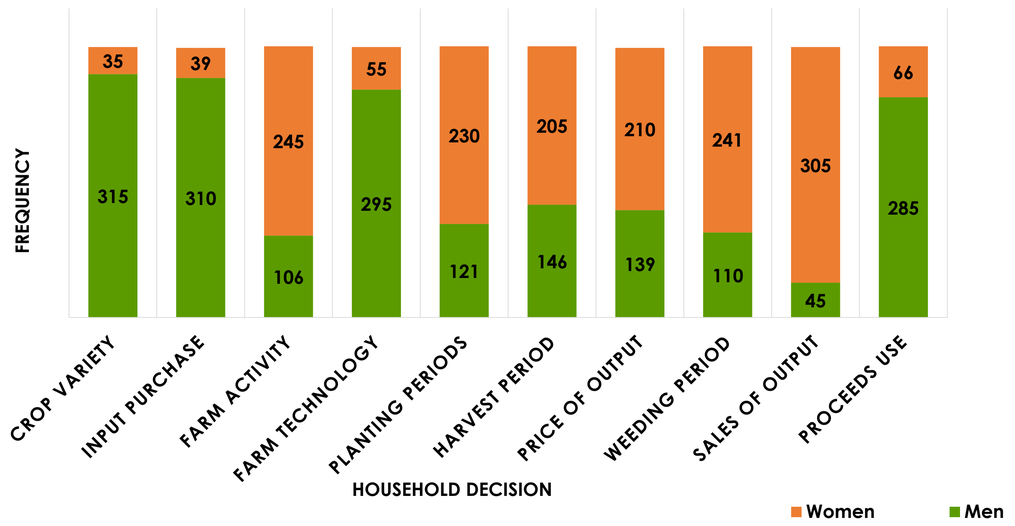


FIG 2 GENDER DIFFERENTIALS IN HOUSEHOLD FARM DECISIONS

Table 1 Marginal effects estimates for the determinants CSA packages

Household decision (men=1, women=0)	$M_0A_0S_1$	$M_0A_1S_0$	$M_1A_1S_1$	$M_1A_0S_0$	$M_1A_0S_1$	$M_1A_1S_0$	$M_0A_1S_1$
	dy/dx	dy/dx	dy/dx	dy/dx	dy/dx	dy/dx	dy/dx
Farm technology	0.01	-0.07**	-0.10**	-0.03	0.07*	0.00	0.05
input purchase	0.00	0.04	-0.06	0.05	0.01	-0.02	0.01
Crop variety	0.00	-0.05	0.06	-0.04	-0.03	0.03	0.01
Farm activities	0.00	0.01	0.09*	0.00	-0.01	-0.02	-0.07
Weeding period	-0.01	-0.02	0.01	0.01	0.06	0.01	-0.05
Harvest period	-0.01	0.06*	-0.05	0.03	-0.04	0.03	0.02
Sales	-0.01	-0.01	0.00	-0.06	0.05	-0.03	0.02
Farm proceeds	0.00	0.02	0.08**	0.02	-0.12***	0.02	0.00
Access to extension	-0.05	-0.03	-0.04	0.03	-0.02	0.09**	-0.06*
Landownership	-0.05	-0.06*	0.01	-0.02	0.01	0.02	0.07
Education	0.01	0.07**	-0.11**	0.05	0.00	0.03	-0.02
Age	-0.03	-0.04	0.15	-0.01	0.18	-0.13	0.00
Household size	0.04	-0.04	0.02	0.04	-0.06	0.09	-0.05
Farm experience	-0.02	0.07	0.06	-0.06	-0.06	-0.02	-0.01
Land size	0.02	0.04	-0.02	-0.06	0.10**	-0.04	-0.01

POLICY RECOMMENDATIONS

Conservation efforts should recognize and leverage women's innate conservation values by involving them in environmental policies, empowering their leadership, and ensuring equitable access to resources for effective conservation.