GENDER DIFFERENTIALS IN COLLECTION AND COMMERCIALIZATION OF FOREST PRODUCTS IN MALAWI

DENNIS OLUMEH[1] & DAGMAR MITHÖFER[1]

[1]HUMBOLDT UNIVERSITÄT ZU BERLIN

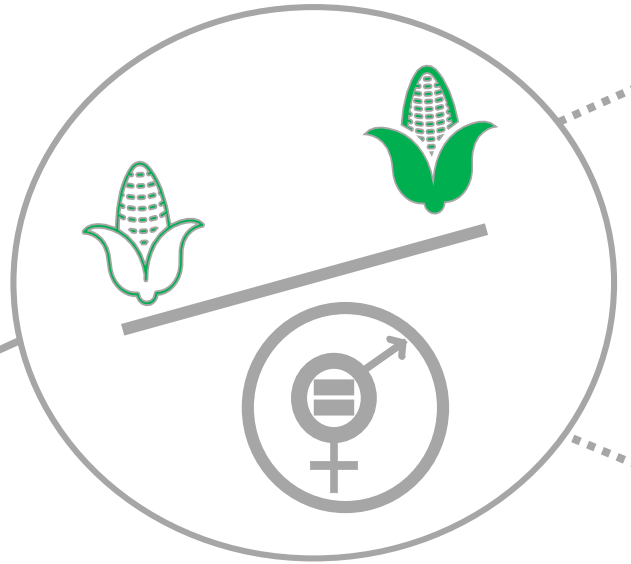
CORRESPONDING AUTHOR: DENNIS.OLUMEH@HU-BERLIN.DE

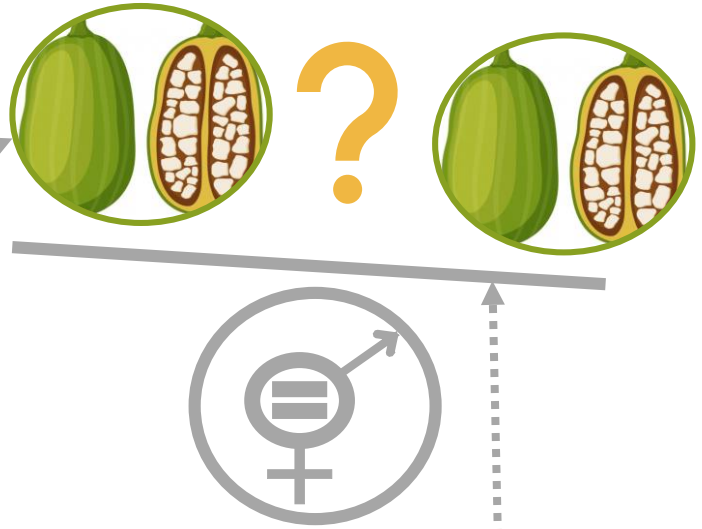
INTRODUCTION

Participation in forest products
Gender gaps?

Differences in agric. productivity

Pronounced gender inequalities





Food & Nutrition security

RESEARCH PROBLEM

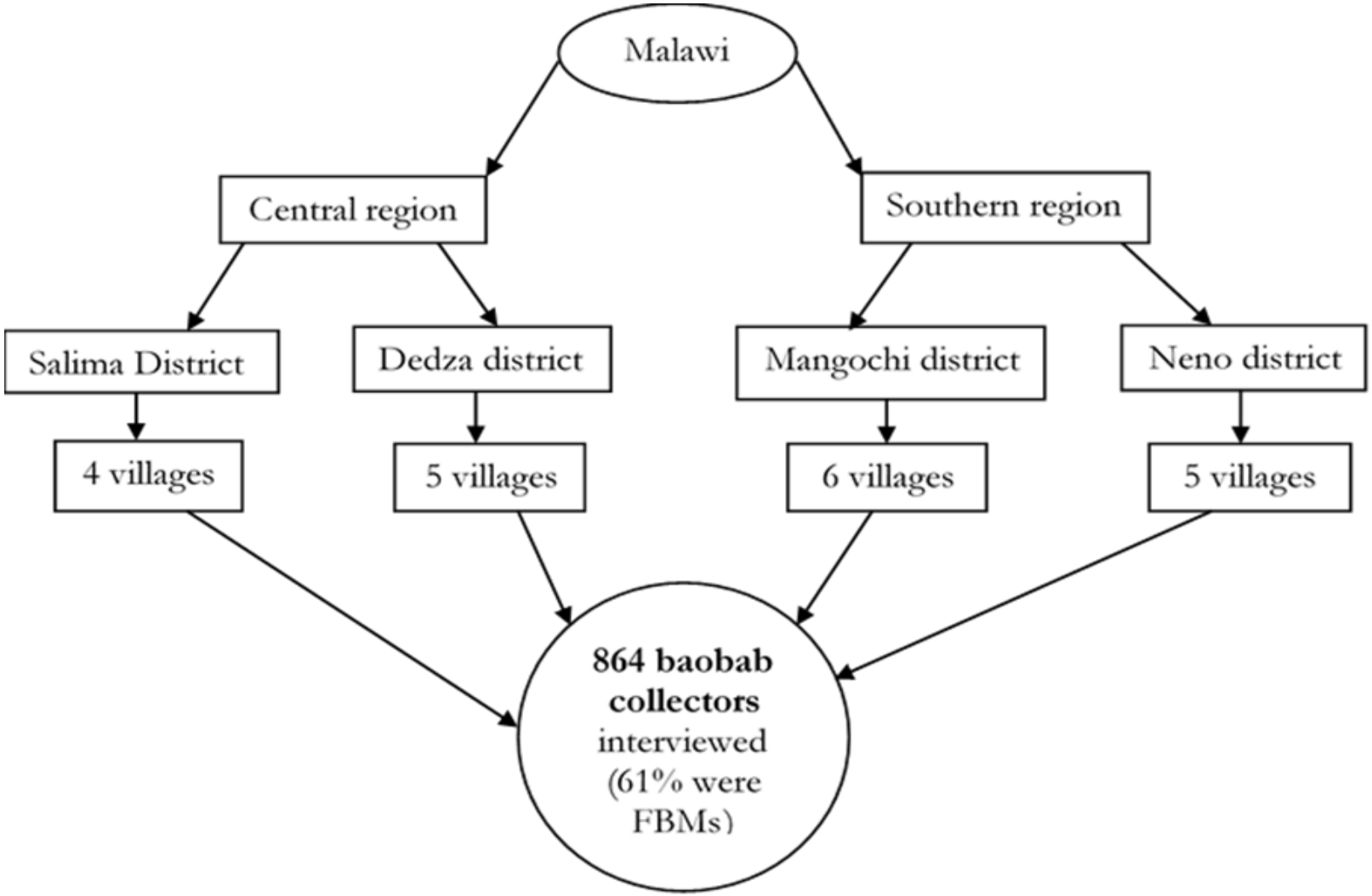
- Women in rural areas are now diversifying in areas where they have a comparative advantage.
- Collection & commercialization of underutilised plant species (UPS).
- Low-cost system, limited barriers to entry, minimal use of inputs attract women in UPS chains
- However, the level of participation in these chains is highly gendered.

RESEARCH PROBLEM CONT

- Literature has focussed on the magnitude and causes of gender gaps in Africa.
- Focus is mainly on gender gaps in agricultural production.
- We contribute to literature by decomposing the existing gaps in collection and commercialization of baobab
- Gender is defined based on the main decision maker in the baobab enterprise.
- Male baobab managers (MBMs) & female baobab managers (FBMs).

Data & Methods

Household survey collected in March 2021 in four districts in Malawi.



EMPIRICAL FRAMEWORK

- Exogenous switching treatment effect regression (ESTER) model in a counterfactual framework.
- This method takes into account the interaction of gender with other variables (Nwaka et al., 2020).
- Advantage: ability to estimate individual equations for each gender group.
- It also allows us to estimate counterfactual outcomes.
- To determine the gender gaps, we compare the actual and counterfactual scenarios

RESULTS & DISCUSSIONS

Outcome variable	Quantity of whole fruit collected			Per unit value of whole fruit sold			Per unit value of baobab pulp sold		
A	B	C	D	E	F	G	H	I	J
Type of enterprise manager	Male Manager	Female Manager	Treatment Effects	Male Manager	Female Manager	Treatment Effects	Male Manager	Female Manager	Treatment Effects
Male Manager	(a) 830	(c) 625	205*** (17.88)	(a) 48	(c) 56	-8*** (1.17)	(a) 118	(c) 107	11*** (1.77)
Female Manager	(d) 691	(b) 540	151*** (13.38)	(d) 43	(b) 51	-8*** (1.13)	(d) 120	(b) 108	12*** (1.49)
Heterogeneity effects	139*** (34.15)	85*** (26.94)		5** (2.51)	5* (3.15)		-2 (2.69)	1 (1.71)	

Note: ***, ** and * imply significance at less than 1%, 5% and 10%, respectively.
Standard errors are in parentheses

Green color – actual or observed values in baobab collected & sold

Dark yellow – show counterfactuals for FBMs (what would have been the levels of baobab sold and commercialized if FBMs observed characteristics had had the same returns as those on MBMs characteristics)

RESULTS & DISCUSSIONS

- Actual values show that whole fruit collected and baobab pulp sold were lower for FBMs than that of MBMs.
- In a counterfactual scenario, the gap in baobab collected would have been reduced.
- Treatment effects show that FBMs would collect & sell more if they had had MBMs characteristics.
- The results indicate that difference in both observed and unobserved factors account for the gaps.

DETERMINANTS OF THE GENDER GAP

	Quantity of whole fruit collected	Value per unit of whole fruit sold	Value per unit of baobab pulp sold
VARIABLES	Coefficient	Coefficient	Coefficient
Marital status	-0.317***	0.218***	0.086***
Age of the baobab manager	0.001	0.000	-0.001
Log (Years of schooling)	-0.035	-0.011	-0.042
Baobab labour contribution	0.000	0.000	-0.001
Household size	0.001	-0.022***	0.000
Log (Total land owned)	0.066	-0.096	-0.111**
Log (Experience in baobab collection)	-0.017	0.175***	0.029
Hired labour	0.002	0.021	0.003
Log (Price information time)	0.024	-0.058	-0.023
Knowledge of price in other markets	0.055*	-0.084***	0.070***
Baobab Group Membership	0.104***	0.178***	0.008
Log (Number of traders known)	0.032	-0.121*	0.022
Credit access	-0.020	0.036	-0.018
Access to extension services	-0.005	0.054	-0.019
Value addition	-0.019	-0.022	-0.079***
Wealth Index	-0.526***	-0.467***	-0.109*
Region	-0.086**	-0.084**	-0.055**
Prob>F	P<0.0001	P<0.0001	P<0.0001

CONCLUSIONS AND POLICY IMPLICATIONS

- Evident gender gaps in the quantity of baobab collected and commercialized.
- This gap is by both observable and non-observable factors
- Indicating that policy strategies should go beyond the observable factors.
- Regression results show that labour, household size social networks, and asset ownership (wealth index) reduce the gap.
- Household size, indicate that access to labour is a key factor in reducing gender gaps.

ACKNOWLEDGEMENTS

- Baobab collectors for providing data.
- Enumerators for beating the challenging odds

Find out more on : **baoquality-project.de**

With support from

Federal Ministry of Food and Agriculture

by decision of the German Bundestag

Thank you for listening!