Forgotten Crops and the Vulnerability of Rural Livelihoods: the Case of Enset in Ethiopia

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1. Introduction

Enset



Is forgotten perenial crop



2. Data and methods

• A comprehensive face-to-face household

survey conducted in Ethiopia (Fig. 3)



- "Women's crop"
- Resilient to extreme

environmental conditions

- High nutritional value
- Potential for sustainable food

production systems and climate change adaptation

Aim:

To understand the role of enset in rural

livelihood

Fig. 1: Morphology of the enset plant and its major products.



Fig. 2: (a) enset processing (b) enset products



- Fig. 3: Map of the study area.
- Stepwise regression model
- Sustainable livelihood framework to guide the empirical analysis



Fig. 4: (a) home garden with enset (b) household survey



Table 1: Stepwise regression result on variables of interest and livelihood outcome indicators

3. Results

A. Descriptive

• Enset cultivated by 73% sample

households

- Mainly at the home garden (97%)
- Using female family labor (71%)
- Limited marketability (< 6% of the total production)

Regression Β.

- We find that having more enset plants (table 1):
 - Household income
 - No significant direct role in food

security

	Income indicators							
	Total household income				Per capita household income			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
No enset (dummy)	-2,579	-387	-1,008	-1,076	-5528	52.3	-68.1	-80.4
Enset plants (in 100)	1,587***	1,076***	1,069***	1,639**	310***	236***	235***	338**
Past shocks			-151*	-99.9			-29.3	-20
Enset plants * past shocks				-22.9				-4.2
	Food security indicators							
	Months of adequate household food provisioning				Household food insecurity access scale			
No enset (dummy)	-0.011	0.17	0.035	0.066	1.083	0.442	0.773	0.73
Enset plants (in 100)	0.036	0.014	0.012	-0.137**	-0.065	0.011	0.016	0.223*
Past shocks			-0.299***	-0.398***			0.735***	0.872***
Enset plants * past shocks				0.043***				-0.06**
	Risk and vulnerability indicators							
	Perceived risk			Perceived vulnerability				
No enset (dummy)	0.017	-0.039	0.28	0.296	0.613	0.51	0.615	0.625
Enset plants (in 100)	-0.071**	-0.076**	-0.072**	-0.152***	-0.075**	-0.072**	-0.07**	-0.118*
Past shocks			0.708***	0.655***			0.235***	0.203**
Enset plants * past shocks				0.023				0.014
Village fixed effects	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Livelihood capital		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark
Number of observations	684	684	684	684	684	684	684	684
Models 1 to 4 are stepwise regre	ession results. *** p<	<0.01, ** p<0.05,	, * p<0.1					

4. Conclusions

- Enset as an ex-ante adaptive and ex post risk coping strategy reduces livelihood vulnerability
- Partially mitigates adverse impacts of agricultural shocks on food security

Perceived risk and vulnerability

- Complementary investments in the development of efficient enset value chains are needed \bullet
- Policies that promote and support forgotten crops like enset contributes to the resilience of rural

livelihoods

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Further information

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