

Beyond yield: Exploring gendered adoption pathways of plantain innovations in Ghana

Lilli Scheiterle¹ and Regina Birner²

¹German Institute for Tropical and Subtropical Agriculture (DITSL)

²Social and Institutional Change in Agricultural Development (490c), Hans-Ruthenberg-Institute, University of Hohenheim



Introduction

- Plantains are a central staple in Ghanaian diets and agriculture
- Cacao major commodity in southern Ghana, usually managed by men
- Plantains usually managed by women used to shade new cacao plantations
- Two key innovations in Ghana’s Central Region:
 - High-yielding hybrid varieties (greater yield and fruit size)
 - Macro-propagation techniques to reduce pest incidence

Aim: Assess to what extent the introduced hybrid varieties are still in use and which characteristics were important for their adoption

Conclusion

Development projects and researchers: underlying assumptions not aligned with farmers’ priorities

- Focus on higher yields neglected key aspects:
 - Taste and cooking quality
 - Gender dimensions (heavier workloads for women, low storability, poor market acceptance)
- Reflexivity is needed: assumptions underlying interventions must be critically examined
- Qualitative, gender-sensitive, and interdisciplinary approaches are key to designing interventions that meet people’s needs

Results

Characteristics of introduced hybrid varieties

- Heavy bunches with large hands and fingers, but fewer overall
- High water content
- Poor taste (locally called “the tasteless ones”)
- Low pounding qualities
- Poor texture (softness) when cooked (not suitable for “fufu”)
- Reduced shelf life

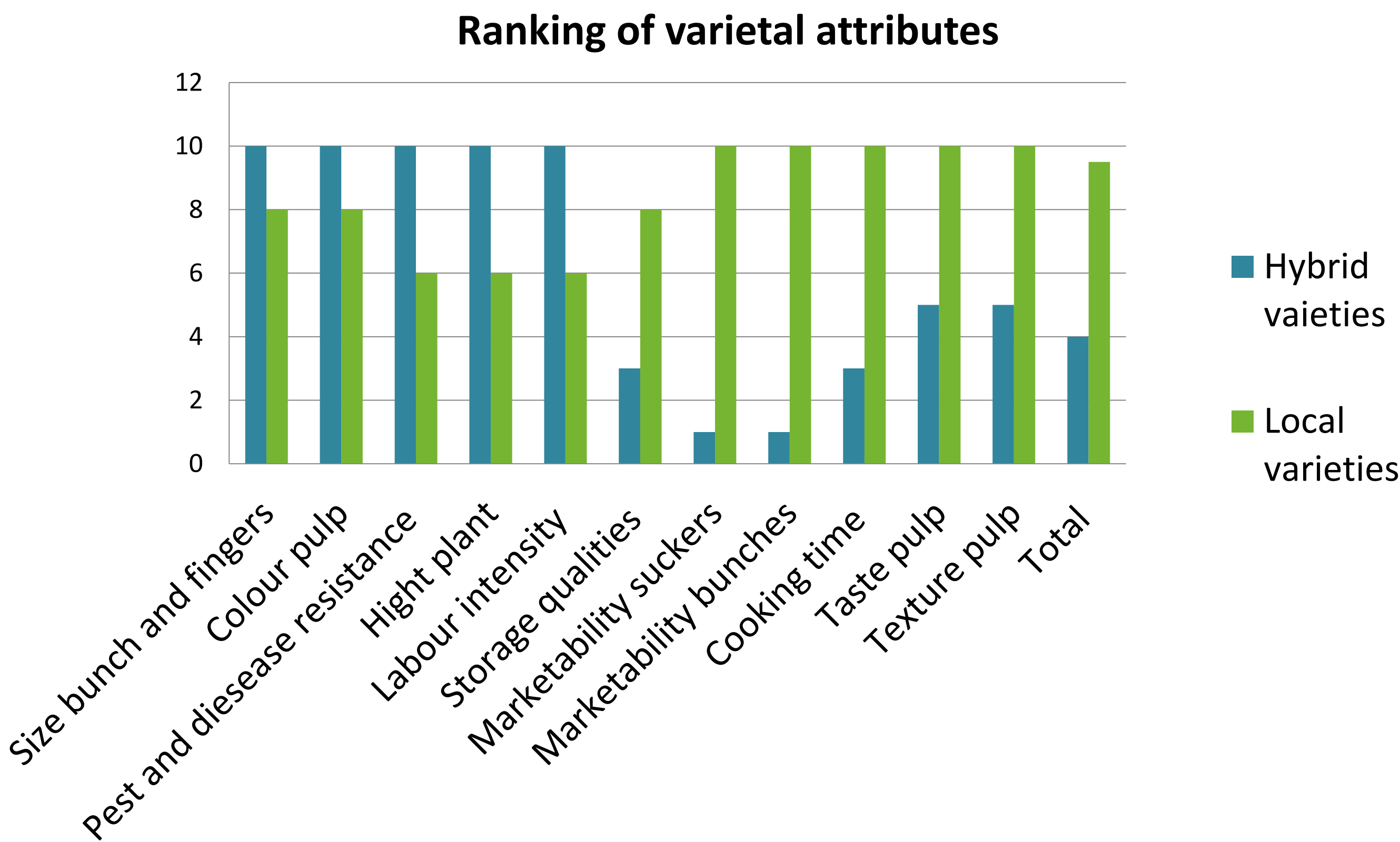


Figure 2: Farmers ranking of hybrid and local plantain attributes

Characteristics of new propagation techniques

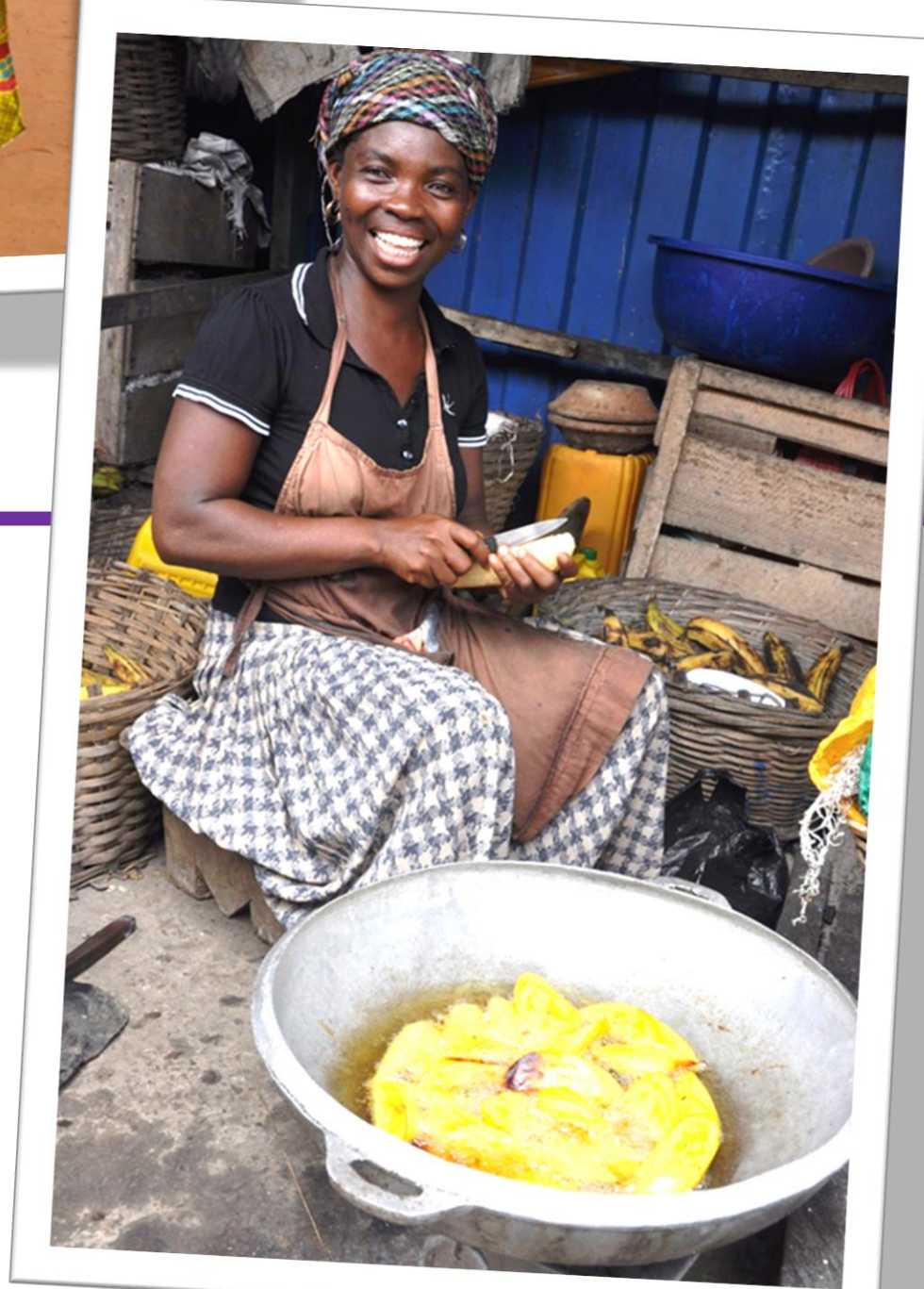
- Very labor-intensive: not the propagation itself, but creating the right environment (small greenhouse + sterilized substrate)
- High natural availability of suckers
- Perceived low pest/disease pressure reduce adoption

Adoption results of introduced hybrid varieties

- Farmers maintain a few plants in their backyards, mainly out of respect for the ministry that introduced them
- Due to their taste, the varieties are neither marketable nor suitable for home consumption
- Their high water content leads to spotting during transport and a shorter shelf life, making them unattractive to traders
- While the plant height was appreciated for cacao farms, women found it unfavorable as it made harvesting more difficult

Adoption results of introduced propagation techniques

- Only the low resource intense macro- propagation techniques are still in use
- However, the interventions are still promoted by development and research institutions



Study area

- Central Region – District of Assin Fosu
- Cacao production area
- Bimodal rainfall regime 1,400 -1,600 mm



Figure 1: Plantain growing regions of West Africa

Methods

- Focus group discussions
- Participatory rural appraisal tools (e.g., ranking, timelines)
- Key informant interviews with farmers, NGO members, government, and research institutions



Contact: Dr Lilli Scheiterle
L.Scheiterle@ditl.org

Acknowledgements:

We would like to thank the community members for their participation, as well as all respondents from the interviewed institutions. We are also grateful to Yaa Dankwa for her research assistance, translation, and facilitation



Tropentag 2025

