



Tropentag, September 10-12, 2025, hybrid conference

“Reconcile land system changes
with planetary health”

Gender gaps in productivity and food security: An intersectional study of cocoa cooperatives in Peru

SIMONE SANTALUCIA¹, CLAUDIA GUTIERREZ MIRANDA ², MEIKE WOLLNI³

¹University of Goettingen, Department of Agricultural Economics and Rural Development, Germany

²Alliance of Bioversity International and CIAT,

³University of Goettingen, Dept. of Agricultural Economics and Rural Development, Germany

Abstract

Addressing women's constraints in agriculture is key to closing the gender gap in agricultural productivity and tackling both food insecurity and gender inequality. Smallholder farmers' participation in cash crop production and marketing through farmer-producer organisations (FPOs) is considered an effective strategy to improve farmers' welfare. However, evidence on the effectiveness of FPOs in reducing gender gaps in productivity and food security among their members remains limited. This study examines the determinants of gender gaps in cocoa production, food security, and diet diversity among cooperative members in Peru and whether the gaps are smaller in cooperatives combining activities to strengthen women's participation and access to resources. We surveyed 566 cocoa-producing households with a cooperative member, interviewing both a woman and a man, resulting in 1,050 survey participants. Leveraging data from the Abbreviated Women's Empowerment in Agriculture Index module, we provide four approaches to identify the household's cocoa manager(s). We use the Oaxaca-Blinder decomposition method with recentered influence function regressions to estimate productivity differences – cocoa yields and revenues – across the distribution. We find gender gaps in cocoa productivity ranging from 24–45 % in yields and 39–65 % in revenues, depending on the cocoa manager(s) identification approach. Household composition largely explains these gaps: women cooperative members and managers have limited access to male family labour. While at the lower end of the distribution, the gap is explained by differences in resources, at the upper end, different returns to resources contribute to widening the gap. The gender productivity gap is smaller in cooperatives that provide pre-harvest credit and other credit services and have youth and women's committees or women-led enterprises in their organisations. Despite lower productivity, households with women cooperative members and managers are equally food secure and have as diverse diets as other households. Beyond gender and household structure, groups showing low cocoa productivity are mainly women cocoa managers without secondary education and indigenous families with joint or male management. Our study can inform interventions at the FPO level to address intersectional inequalities in cocoa production across the productivity distribution.

Keywords: Cacao, collective action, gender equity, Peru