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Is Organic Farming Financially Competitive at the Farm Gate Level in the Tropics?

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Abstract

Climate change, coupled with land degradation and growing population, has severely threatened food security. The effects of the aforesaid challenges are more profound in the tropics; home for half of the global human population by 2050 and accounts for 18.7% of the global economic activities. Decisions regarding more sustainable farming practices, like organic farming, are more complex in tropical contexts as many smallholder farmers in tropics operate at the interface of sustainability, agroecology and economic viability of farms often tangled in socio-economic and biophysical challenges. The economic performance of Organic in comparison to Conventional is often the decisive argument for producers. The present study draws on twelve years of economic data from four long-term experiments located in Bolivia, India, and Kenya. The trials are based on three different main crops (cocoa, maize, and cotton) and compare the performance of organic and conventional farming systems. We found that the economic performance of organic farming systems is site-specific and is not necessarily dependent on main crop performances. Associated crops also provide a similar contribution to the income in conventional and organic farming; however, it was also evident that relative contribution of the associated crops would increase in the organic Systems if fair prices are paid for the associated crops, and it will reduce the dependence on one crop (export crop) make farmers more resilience to market fluctuations. Diverse and balanced crop production is an integral element of organic agriculture, hence effort need to be taken to focus research and development of organic farming systems beyond often export-orientated main crops towards associated crops.

Keywords: Cacao, cotton, farming systems, long term experiments, maize, organic farming