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## Characterisation of Organic and Non-Organic Smallholder Farms: A Case of Highlands and Lowlands in Kenya

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### Abstract

The contribution of smallholder farmers is crucial for sustainable development in Kenya. These farmers are highly diverse and differ in many structural and functional aspects and any policy intervention targeting them requires a comprehension of this diversity. Among these smallholder farmers, the importance of organic farming is growing and its practice has received special attention from policy makers in recent years. In this study, a typology of smallholder farmers from a survey of 488 farm households in Kajiado and Murang'a counties in Kenya was developed using different multivariate analysis techniques. We found significant differences across five farm types determined through principal components and cluster analyses in terms of resource endowment, farming practices and other socioeconomic factors. Farm Types 2, 5 and 3 mainly practised organic agriculture, were market oriented and had high to medium levels of wealth as well as strong social networks unlike their counterparts in Types 1 and 4. Overall, the practice of organic agriculture was associated with higher agricultural income, legal ownership of land, older household heads, larger household sizes, stronger social networks, higher access to information, richer diets and higher levels of gender equity. On the contrary, poorer, younger and less well-connected farmers were less involved in organic agriculture. The typical farm types found in the two regions of study provide a baseline for further research in similar smallholder farming systems in Kenya and beyond. This study may help to design inclusive measures and incentives targeting also those farm types that currently do not apply organic farming principles necessary for successful policy interventions.

**Keywords:** Diversity, farm typology, gender, multivariate analysis, organic agriculture, policy