

Tropentag, September 18-20, 2019, Kassel

"Filling gaps and removing traps for sustainable resource management"

Implementation of a Multi-Criteria Assessment of Sustainability of Smallholder Organic and Conventional Farms in Kenya

John Ndungu¹, Anne Muriuki², Johan Blockeel³, Christian Borgemeister¹, Lisa Biber-Freudenberger¹, Oliver Kirui¹, Justa Gitonga², Charity Gathambiri², Paul Kiuru², Marian Kamau², Irene Kadzere³, Christian Schader³

¹University of Bonn, Centre for Development Research (ZEF), Ecology and Natural Resource Management, Germany ²Kenya Agricultural and Livestock Research Organization, Kenya

³Research Institute of Organic Agriculture (FIBL), Switzerland

Abstract

Organic agriculture, which is based on four principles: health, ecology, fairness, and care, is gaining importance in Kenya. However, objective and comprehensive assessments on the comparative sustainability of organic and conventional farming systems are still limited. Through the "Organic Food Systems Africa" (OFSA) project we aimed to evaluate the social, economic, environmental, and governance sustainability dimensions of 864 organic and conventional smallholder farms in Kirinyaga, Machakos and Muranga, in Kenya, and identify hotspots for sustainability improvement. We assessed each farm using the SMART-Farm Tool, which was developed to operationalize the FAO Guidelines for Sustainability Assessment in Food and Agriculture (SAFA). In this paper we present the implementation of the SMART approach and the lessons learned. Fifteen enumerators and 10 other staff participated in this implementation. We selected, oriented and trained the data collection team intensively for two weeks, and sensitized the farmers and their communities about the study. We integrated both classroom-based and field/farm practical testing of the tool and methodological approaches to ensure objectivity, and a good understanding by enumerators of the process and the tool's technical content, i.e. its sustainability dimensions, themes and subthemes, as well as indicators for rating different aspects of the farm performance. For hands-on experience, each enumerator assessed three farms during the practice sessions and exchanged their completed tools for peer review, followed by presentations and discussions on the experiences and outcomes of the field testing. We incorporated the feedback and practical lessons to improve the actual assessments, subsequently. The comprehensiveness of the tool, and efficiency considerations required each enumerator to use a laptop for direct data logging during the interviews. For an affordable workload, each enumerator visited, toured and completed data for one farm, on average, per day followed by data review before submission to a central database. The methodology, although comprehensive, requires good interpersonal skills and judgement, clear understanding of the technical terms, and objectivity by enumerators. The SMART-Farm Tool has been useful for the Kenyan context, but adequate time, human and financial resources as well as good technical capacity and peer learning and exchanges are requisites for its successful implementation.

Keywords: Kenya, organic farming, smallholder, SMART-Farm Tool, sustainability assessment, training

Contact Address: John Ndungu, University of Bonn, Centre for Development Research (ZEF), Ecology and Natural Resource Management, Genscherallee 3, 53113 Bonn, Germany, e-mail: s7jondun@uni-bonn.de