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"Bridging the gap between increasing knowledge and decreasing resources"

Analysis of Climate Change Related Challenges Experienced by Smallholder Potato Producers in Kenya

Rael Taiy[1], Kibet Ngetich[2], Christopher Onyango[3], Rhoda Birech[4], Bernhard Freyer[5], Folkard Asch[6], Patrick Awuor Ooro[7]

[1] *Ministry of Agriculture, Agricultural Sector Development Support Programme, Uasin Gishu County, Kenya*

[2] *Egerton University, Sociology and Anthropology, Kenya*

[3] *Egerton University, Agricultural Education and Extension, Kenya*

[4] *Egerton University, Crops, Horticulture and Soil Chemistry, Kenya*

[5] *University of Natural Resources and Life Sciences (BOKU), Division of Organic Farming, Austria*

[6] *University of Hohenheim, Inst. of Plant Production and Agroecology in the Tropics and Subtropics, Germany*

[7] *Kenya Agricultural Research Institute (KARI), Kari-Njoro, Kenya*

Abstract

This paper discusses climate change related challenges experienced by smallholder potato producers in Kenya. The analysis is based on a review of scientific and grey literature from various sources and knowledge from national and international research and advisory organisations visited. To triangulate the findings, 30 smallholder potato farmers and 76 potato value chain stakeholders in Njoro Sub-County were engaged through participatory forums including a problem and objective tree analysis, qualitative interviews, focus group discussions and brainstorming in a Collective Learning Community. The study shows that although potato is a food security crop for many smallholders in Kenya and Njoro Sub-County in particular, the yields remain quite low due to limited access to clean planting material, increased post-harvest losses, moisture extremes and pressure from invasive pests and diseases. This may be attributable to variability in drought and rainfall patterns which typify failures in present adaptation practices under rain fed systems which are highly vulnerable to the effects of climate change. Potato pests and diseases are further complicated by failure to follow the correct crop rotation regime. This results in low incomes from potato and food insecurity. Rotation of potato with maize is common and this renders the soil more vulnerable as both crops reduce the humus content. Any efforts to address climate change challenges in smallholder potato production must be complemented by investments in rural transportation infrastructure and storage facilities. Despite the climate change mitigation and adaptation initiatives by the diverse actors and organisations in Kenya, awareness is still low especially in Njoro where there is high dependency on rain fed agriculture and climate sensitive natural resources. We conclude that there is a need for coordinated effort to enhance climate change awareness and improve farmers' capacities to reduce risk or make optimal use of climate variability by applying soil and water management adaptation strategies developed collaboratively by actors in collective learning processes.

Keywords: Climate change adaptation, collective learning community, potato, smallholder

Contact Address: Rael Taiy, Ministry of Agriculture, Agricultural Sector Development Support Programme, Uasin Gishu County, P.O. Box 9361, 30100 Eldoret, Kenya, e-mail: raeltaiy@gmail.com