

ABSTRACT

This paper assesses adaptation pathways for smallholder African Indigenous Vegetable (AIV) value chains. The analysis is based on field research in three agro-climatic zones (ACZ) of Kenya as part of the interdisciplinary research project HORTINLEA (Horticultural Innovations and Learning for Improved Nutrition and Livelihood in East Africa). Data from the 2014 panel survey comprising 1232 households, of which 610 have been examined in more detail, complements the findings. As in many African countries, Kenya's population will double by 2050 and food value chains will face huge challenges. AIVs, being rich in micronutrients (e.g. vitamins A and C, and iron), are relatively easy to grow within a short vegetation period. Hence they can be part of the solution to hidden hunger. AIVs' share in vegetable area has almost doubled from 8 to 14% within three years, contributing to an increased income for smallholders, provided that production, transport and marketing function adequately. Most farmers suffer from the impacts of climate change. The household survey indicates that 67% are negatively affected by increasing variations in rainfall patterns, and 85% by changes in temperatures. Farmers need to adapt their farm-level management to climate change in order to cope with these challenges. Incremental adaptation strategies such as changing crop portfolios are relatively widespread. In contrast, adaptations that require transformative efforts are rare. Growing AIVs is itself considered an adaptation strategy, as their sensitivity to climate variability is generally low, as is analysed in great detail in this paper. Empowerment of growers to participate in high value and ecologically sustainable AIV value chains requires specific policies and extension in order to close the adaptation gaps of AIV smallholders.