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How to Increase the Adoption of African Indigenous Vegetables by Kenyan Small-Scale Farmers?

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Abstract

African indigenous vegetables (AIVs) have high nutritional values and most of them can be grown with very few inputs and under more difficult climate conditions. While AIVs are widely cultivated in sub-Saharan Africa for subsistence and home consumption, only 3% of the farmers in Kenya have AIVs currently included in their production portfolios. However, the growth of the domestic horticulture market and the wide variety of AIVs offer substantial possibilities for market development. Kenyan urban end-customers and domestic supermarket chains increasingly ask for AIVs. This could motivate small-scale farmers to increase their production of AIVs, and not only for subsistence, but also for income generating purposes. In fact, some AIVs like pigeon peas have already shown to increase income and reduce poverty when cultivated as a cash crop. However, AIVs are considered as poor people's food and are thus not adopted as cash crops by small-scale farmers. Lack of knowledge about cultivation, processing and marketing could play a role as well. This study aims to explore which factors motivate small-scale farmers to integrate AIV as a cash crop or for subsistence farming in smallholders' livelihoods. The analysis is based on primary data from 1,175 rural and peri-urban small-scale vegetable producers in Kisii, Kakamega, Nakuru, Kiambu and Kajiado in Kenya. In a two-stage cluster analysis, households are divided into 4 groups characterised by different levels of AIV cultivation and consumption intensity. A multinomial logit regression is then used to determine the influence of households' assets on deciding for certain AIV usage intensity. Results show that households in the peri-urban areas with relatively high amounts of land and a high share of off-farm employment are more likely to specialise in AIV production as a cash crop. Rural households with relatively high income and asset endowments, however, produce AIVs only for subsistence on a small share of their land and focus on other crops for generating income. Rural households with relatively low income and land holdings tend to employ most of the little land they have for AIV farming, while producing almost no AIVs for cash.

Keywords: Adoption, african indigenous vegetables, AIV, food security, livelihood