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“Solidarity in a competing world —
fair use of resources”

Dietary Contribution of African Indigenous Vegetables to Rural and Peri Urban Households in Kenya

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Abstract

Food security is a serious recurrent problem in developing countries. Contemporary research on food security has reached consensus that food security has four components namely availability, access, utilisation and stability (continuity). We focus on the access and availability dimensions to determine the adequate dietary intake of nutrients. Population explosion and climate changes call for novel agricultural based hunger eradication strategies.

We argue that incorporating African Indigenous Vegetables (AIVs) in daily diets is a key step in ensuring food security. They contain high levels of vitamin A, C, iron, calcium, magnesium and protein and are a valuable source of nutrition in rural areas. Production of AIVs does not require much capital investment, involves short labour-intensive production systems and low level of purchased inputs. This makes it relatively easy for resource poor households to plant them in their backyards or inter-crop them with staple crops such as maize.

The above characteristics of AIVs have important implications to the contribution of AIVs to food security. On the one hand, because of the macro and micronutrients that AIVs contain, they are the closest solution to the ‘hidden hunger’ dimension of food security. On the other hand, because of their production characteristics, they become handy in filling the food insecurity problem of poor and vulnerable population.

We use data from the HORTINLEA survey collected on 1232 AIV producers in rural and peri-urban areas of Kenya in 2014 by Humboldt University of Berlin in collaboration with Egerton University. We analyse the five priority indigenous vegetables namely amaranth, cowpeas, African nightshade, spider plant, and the Ethiopian kale. Quantitative analysis is conducted using food security indicators produced by ADePT-Food security Module (ADePT-FSM) data analytical software.

Our findings indicate that, consumption of AIVs provides a maximum of 48.6 Kcal day⁻¹ which covers estimated 2.3 % of the total energy requirement. The AIVs contain significant protein content that add variety to staple diets at comparatively low median dietary unit values. They cover up to 48 % of additional protein requirement for vulnerable groups like pregnant and lactating mothers. Therefore, efforts to enhance AIVs consumption should be sustained through research, awareness and policy formulations.

Keywords: African indigenous vegetables, food security, nutrients

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