Tropentag, September 17-19, 2018, Ghent

"Global food security and food safety:
The role of universities"

Consumption Intensity and Production Constraints of Indigenous Vegetables: A Step in African Food and Nutrition Security

Hadijah Mbwana[1], Joyce Kinabo[1], Wolfgang Stuetz[2], Constance Rybak[3], Nyamizi Bundala[1], Khamaldin Daud Mutabazi[4], Stefan Sieber[3], Hans Konrad Biesalski[2]

[1] *Sokoine University of Agriculture, Food Technology, Nutrition and Consumer Sciences, Tanzania*
[2] *University of Hohenheim, Inst. of Biological Chemistry and Nutrition, Germany*
[3] *Leibniz Centre for Agric. Landscape Res. (ZALF), Inst. of Socio-Economics, Germany*
[4] *Sokoine University of Agriculture, School of Agric. Economics & Business Studies, Tanzania*

Abstract

Food and nutrition insecurity has been a major challenge in Africa. Farmers need to diversify food production in order to alleviate food and nutrition insecurity. With climate change at hand, indigenous vegetables can provide prospects to diversify production systems and improve food, nutrition and income security in many countries. Regardless of their potential, the extent of consumption and diversity of indigenous vegetables in lessening food, nutrition and economic insecurity are not fully exploited in Tanzania. Estimation of consumption intensity of these vegetables is important to understand how their utilisation can be enhanced at the household level.

The study evaluated consumption intensity and production constraints of indigenous vegetables. The study was carried out on 600 farm households from four villages in Dodoma and Morogoro, Tanzania. A multi-stage sampling procedure was used to select districts, villages and households. Districts were selected purposively based on their different agro-ecological characteristics and data was collected using a structured questionnaire.

The mean consumption of indigenous vegetables was high in 74 % of households, but the quantities were below 80 % the recommended daily intake (RDI) in 72–96 % of households. The mean intakes of vegetables were significantly ($p < 0.001$) different among the two agro ecological zones. Age of household head, household size and distance to a water source influenced consumption intensity of indigenous vegetables. Identified production constraints were lack of knowledge on the vegetables for example; production practices, cooking methods, utilisation and preservation methods; lack of seeds, low yields and competition with some exotic.

The diets of rural community were somehow deficient in terms of different vegetables and amount consumed thus contributing to high prevalence of undernutrition and micronutrient malnutrition. Therefore, strategies that could promote consumption intensity of indigenous vegetables such as health and nutrition education and involving young and male decision makers, extension services and production of these vegetables in home gardens should be employed.

Keywords: Food and nutrition security, indigenous vegetables, undernutrition

Contact Address: Hadijah Mbwana, Sokoine University of Agriculture, Food Technology, Nutrition and Consumer Sciences, Morogoro, Tanzania, e-mail: hadija27@yahoo.com