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Assessment of the Importance and Utilisation of Cowpea (*Vigna unguiculata* L. Walp.) as Leafy Vegetable in Small-scale Farm Households in Tanzania — East Africa

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Abstract

Cowpea (*Vigna unguiculata*) is an important food legume and its use as a leafy vegetable is essential in many African countries. Drought tolerance, short growing period and its multipurpose use make cowpea a very attractive alternative for farmers who cultivate in marginal areas, where infra-structure, food security, and diminishing malnutrition are major challenges. Despite its regional importance, cowpea used as leafy vegetable has been neglected in research and improvement programs.

Within the project “ProNIVA”, conducted by the World Vegetable Center (AVRDC) and partners, this research was performed in order to reveal the current status of cowpea use as leafy vegetable from small scale farmers in Tanzania.

Semi-structured questionnaires were applied in non-standardised interviews, and group meetings were held in three main cowpea-growing districts of Tanzania (Arumeru, Mwanaga and Dodoma) to gather farmers’ experiences and knowledge on cowpea use as leafy vegetable. 138 farmers participated in the survey. The analysis was stratified by different levels of infrastructure and agro-ecological conditions. Mainly descriptive statistics were used to describe the basic features of the data gathered.

In Dodoma district, weed resistance and drought tolerance were major preferences. In Arumeru, quality of plant residue and leaf colour were of main concern. Whereas farmers from Mwanaga had preferences for seed colours. The study showed strong responsibility of women in cultivation and marketing of cowpea, until it reaches the status of a cash crop. Furthermore, preferences for distinct cowpea types were depicted. The dryer the environment, the more the farmer cultivated a mixture of erect, early-maturing varieties for grain yield mainly and spreading types for repeated leaf harvests as well as grain yield. Although smallholders appreciated cowpea as an additional source of vitamins and micronutrients, many farmers were not satisfied with the germplasm accessible to them.

The multipurpose use of cowpea as leafy vegetable for human consumption should be further improved by considering traits of local importance. The low intra-specific diversity in cowpea and farmers’ demands for improved varieties is an indicator that collaboration

among the government, researchers and farmers needs to be strengthened by site-specific selection approaches.

Keywords: African leafy vegetable, cowpea, food security, germplasm, malnutrition, multipurpose use, poverty alleviation, Tanzania