Tropentag, September 17-19, 2018, Ghent

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

Importance of Native Edible Tree Species for Improving Nutritious Food Availability for Local Communities, Benin

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Abstract

Native edible trees species (NETS) are very important resources for local people in Sub-Saharan Africa. In this region, they play an important role in the livelihoods and culture of local communities. Several plant parts, including leaves, fruits, bark, roots, stems, are locally valued. This study aimed at summarising NETS available in Benin and assessing traditional knowledge. A literature review was conducted in libraries, research centres and institutes, ministries and other services dealing with staple crops in general and NETS. Ethnobotanical surveys were also conducted using a semi-structured questionnaire in two localities in the Sudanian zone and two localities in the Guineo-Congolese zone on a sample of 160 informants (80 men and 80 women) from the two major ethnic groups of each agro-ecological zone. A list of preferred NETS of local communities was provided followed by the ranking of priority species per agro-ecological zone. From the literature review, there are 121 NETS belonging to 90 genera and 38 families in Benin. Regarding nutrient composition, NETS offer among others, considerable amount of lipid (20.1g/100g of DM and 9.19g/100g of DM respectively by Blighia sapida and Vitex doniana), fiber (16.14g/100g DM and 18.60g/100g DM respectively by Blighia sapida and Borassus aethiopum), carbohydrates (79.0g/100g DM by Dialium guineense), protein (2.5–8.4g/100g DM by most of NETS) and micronutrients by *Adansonia digitata* and *Parkia biglobosa*. *A. digitata* is the priority species to be promoted in Sudanian zone while *Irvingia gabonensis* is the one in Guineo-Congolese zone. These species are used for food, medicinal and socio-cultural, but due to the over-exploitation and little interest for their plantation by local people, they are threatened. An awareness of the threats to species is essential for sustainable management and their long-term availability to ensure their food and nutritional functions.

Keywords: Benin, food security, native edible tree species, valorisation

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