Tropentag, September 17-19, 2018, Ghent

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

Non-timber Forest Products Utilisation Pattern in State and Community Forests in West Usambara Mountains, Tanzania

Hussein Luswaga, Ernst-August Nuppenau

Justus-Liebig University Giessen, Inst. of Agric. Policy and Market Res., Germany

Abstract

Identifying and documenting utilization of the Non-Timber Forest Products (NTFPs) is important in rural communities for maintaining traditional utilization knowledge, reference on discovery for future use and storage of information on the cultural identity. The study aimed to identify the knowledge and utilisation pattern of NTFPs in the fringe of West Usambara Mountains (WUMs) forests in Tanzania, considering state and community institutional settings known as Joint Forest Management (JFM) and Community Based Forest Management (CBFM) respectively. The freelisting technique was used to interview 159 informants randomly selected around JFM and CBFM based forests. The data analysis involved calculation of Relative Frequency of Citation (RFC) and Smith Saliency Index (SSI). Use Diversity Index (UDI), Sorensen and Pielou indices were also calculated. A total of 18 medicinal plants, 7 vegetable plants, 5 fruits plants, 6 mushrooms, plus fodder were identified in JFM, while, 11 medicinal plants, 7 vegetable plants, 3 fruits plants, 4 mushrooms, honey, manure and fodder were identified under CBFM. Asteraceae was a dominantly utilized family in both areas, Shagayu (4 species; 12 %) and Chambogo (4 species; 16 %). Lamiaceae (3 species; 8 %), Cucurbitaceae, Euphorbiaceae, Flacourticaceae, Lyophillaceae, Rutaceae (2 species; 6%) were the families which had more than one species recorded in Shagayu. The Euphorbiaceae, Lyophillaceae and Solanaceae (2 species; 8 %) families recorded more species around Chambogo. The salient NTFPs around Shagayu forest (JFM) were *Amaranthus spinosus* (SSI=0.20), *Toddalia asiatica* (SSI=0.15) and *Myrica salicifolia* (SSI=0.12) while most salient NTFPs around Chambogo (CBFM) were *Amaranthus spinosus* (SSI=0.13), *Piper umbellatum* (SSI=0.06) and *Myrica salicifolia* (SSI=0.06).The use diversity index (UDI) was higher for JFM as compared to CBFM in all four categories; medicinal (3.11 against 2.87), vegetable (3.05 against 2.65), fruits (1.75 against 1.10) and mushrooms (2.07 against 1.25) respectively. The knowledge and utilisation of NTFPs are heterogeneously distributed, JFM villages benefiting more with NTFPs access than CBFM. The cultural pattern was slightly similar (62 % similarity index) among the institutional settings. Therefore, identification and conservation of forests is important to preserve the culture and knowledge of WUMs villages and support rural lives regarding NTFPs utilisation.

Keywords: Chambogo, freelisting, NTFPs, Shagayu, Tanzania, Usambara

Contact Address: Hussein Luswaga, Justus-Liebig University Giessen, Agricultural and Environmental Policy, Giessen, Germany, e-mail: huslus@gmail.com