Tropentag, September 17-19, 2018, Ghent

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

Ethnobotanical Study of Medicinal Plants in Arsi Nagelle District, Oromia, Ethiopia

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Abstract

Medicinal plants are widely used by local communities for treating human and livestock ailments. This study was conducted with the objective of identifying and documenting medicinal plants and the associated ethnobotanical knowledge of local communities. Semi-structured interviews, group discussions, field observations and market survey methods were used for data collection. A total of 90 informants were interviewed among which 8 were key informants selected from Arsi Oromo ethnic group by purposive sampling method and other informants were selected randomly. Data was collected by stratifying across agroecology, age and sex. Qualitative and quantitative statistical methods, priority ranking, paired comparison, direct matrix ranking, informant consensus and percentage distribution were used for data analysis. A total of 102 medicinal plants belonging to 85 genera and 55 families were collected and identified. Of these, 58 species were found in the wild, 27 species were grown in semi-wild and 17 species were cultivated in home gardens. Seven species were used for treatment of livestock diseases, 65 were used to treatment of human diseases, and the remaining 31 species were used for treating both human and livestock diseases. *Acokanthera schimperi, Afrocarpus falcatus, Agave sisalina* and *Clerodendrum myricoides* were perceived as medicinal plants for treating cancer. Besides, two species were used for treating blood pressure, 15 for treating malaria, two for diabetes, six for haemorrhoids and two for prostate problem. Most important multipurpose medicinal plants were *Syzgium guineense, Allophylus abyssinicus* and *Celtis africana*. Commonly used plant parts for preparation of medicine were leaves (46.7 %) followed by roots (25.5 %) and barks (15.3 %). The most widely practised medicine preparation method included crushing fresh part (85 %) followed by grinding dried part (15 %). The common route of administration was oral which is applied through drinking (53.3 %) followed by dermal (40 %). Nasal (4 %) and optical (2.7 %) applications were also used. Local communities perceived that medicinal plants in the District have been under serious threat due to agricultural expansion, forest degradation and over harvesting for different purposes including firewood collections. Therefore, urgent conservation measures that include both *in situ* and *ex situ* conservation and sustainable management of the natural forest with full and effective participation of local communities and other relevant institutions is recommended as a result of this study.

Keywords: Ailments, ethnobotany, indigenous knowledge, medicinal plants

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