

Prioritization of Loita Maasai medicinal plants for conservation

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Abstract

Medicinal plants provide biodiversity-based ecosystem services including health to many communities around the world and therefore, medicinal plant conservation is vital for sustainability. Here, we identify medicinal plants to be prioritized for conservation among the Loita Maasai who are pastoralists in the extensive East African savannah. A botanical survey and interviews were conducted with 91 villagers; 49 women and 42 men drawn randomly from 45 households. A conservation priority list was developed based on (1) the plant part harvested, (2) the species use value, and (3) its availability. These criteria were evaluated independently for each species on a scale from 1 to 4 and their sum was taken as the species' score. The score for the species varied from 5 to 9. The higher the total score value of a species, the higher its priority for conservation. Among the medicinal plants used by the community, 20 species were shortlisted as regularly used and found around the village. Out of these, 12 species that had scores above seven were considered top priority for conservation. A total of 1179 use reports were obtained from the villagers and they were placed in 12 use categories as defined in the International Classification of Primary Care system. Plants used to treat *digestive system disorder* had most use reports (21%), followed by the *muscular skeletal disorders* (20%). This study identified 12 medicinal plant species that should be given conservation priority to make them available for the well being of the people and sustainability of ecosystem products and services. An assessment of medicinal plants species using standard ecological methods is recommended.

Keywords: Medicinal plants conservation, Ethnomedicinal uses, Prioritization, Loita Kenya, Maasai