

Ethnobotanical study on Sustainable use of Non-Timber Forest Products and their Source Plant Species contribute to balance Livelihood and Conservation: a case of Sera Forest, Amigna District, Southern Ethiopia

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Research

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Abstract

Background: Non-Timber Forest Products (NTFPs) do have significant role as local source for medicine, fiber, forage and sustenance and offer income opportunities for poverty mitigation mainly in rural families. Sustainable use of NTFPs is imperative so, this study was focused on the documentation of plant species used for NTFPs and their conservation status in Sera forest.

Methods: The study applied a combination of plant ecological and ethnobotanical methods. Ethnobotanical data were gathered through semi-structured questionnaires and interviews which involved 230 (206 randomly sampled general and 24 purposively selected key informants); group discussion, guided field walk and market survey. Data were analyzed and presented using analytical methods of ethnobotany including descriptive statistics, informant consensus factor (ICF) and ranking.

Results: A total of 137 plant species belonging to 49 families used as a source of NTFPs were documented from the study area. In addition, 11 major use categories of the NTFPs were identified. Out of these, medicine, fire wood and charcoal making and construction materials were the most dominant uses requiring large volume of NTFPs in the study area. The output of direct matrix ranking of plant species used for multipurpose revealed - *Hagenia abyssinica* ranked first followed by *Olea europaea* ssp *cuspidata*, *Grewia mollis*, *Croton macrostachyus*, *Ximenia americana* and *Carissa spinarum*. Hence, local communities of the study area possess rich potential indigenous knowledge that helped to use their natural resources for sustainable livelihood.

Conclusions: Sera forest is rich in NTFPs bearing plants and associated indigenous conservation knowledge. However, nowadays illegal timber extractions, grazing, over harvesting NTFPs, farm expansion and fire hazards were found to be threatening of the plant resources in the study area. Therefore, awareness creation on complementary conservation (in-situ and ex-situ) and sustainable use of plant resources of the area for higher livelihood outcomes with lower environmental impacts is desirable.

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Figures

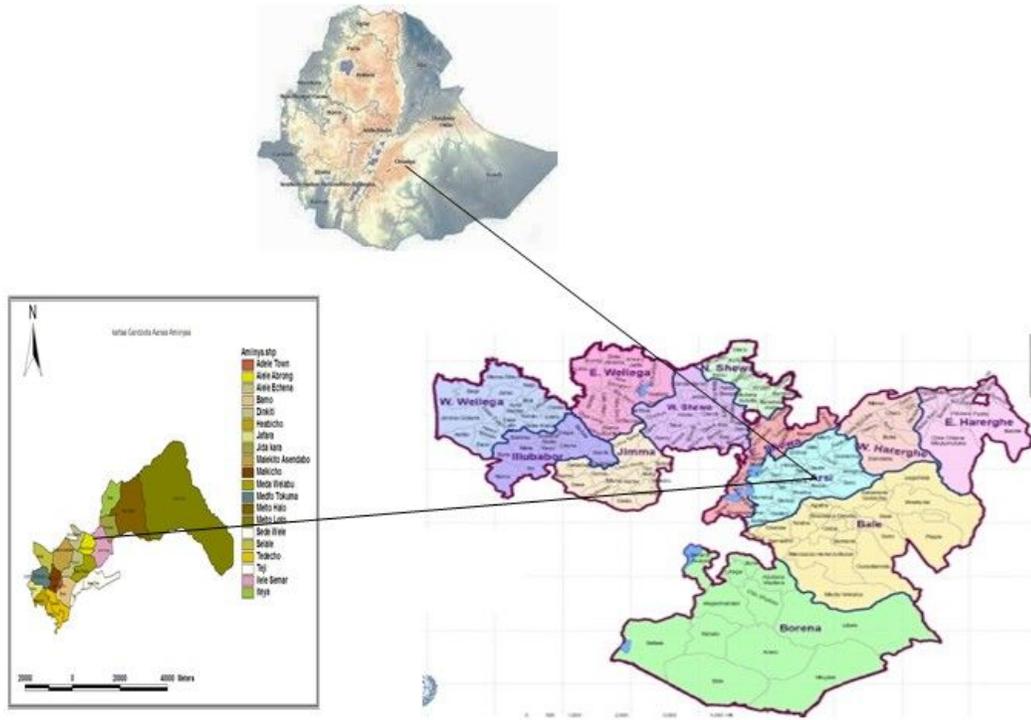


Figure 1

Map of the study area

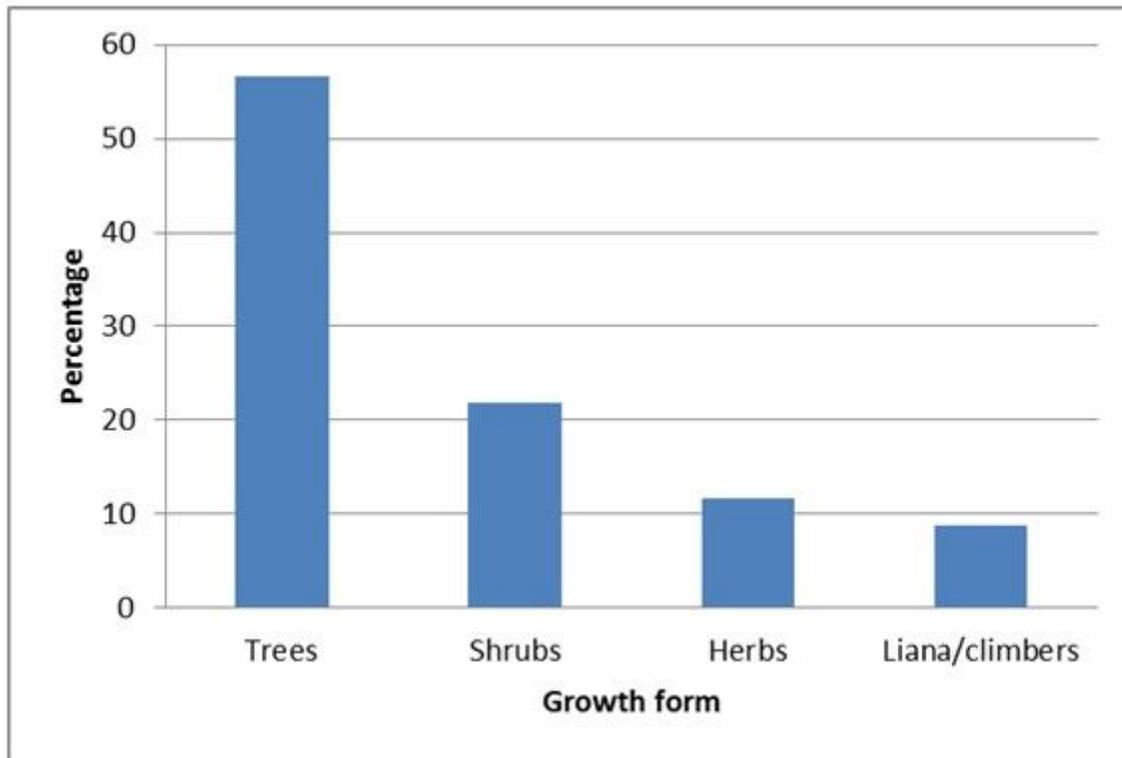


Figure 2

Growth form of plant species collected from the study area

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