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Knowledge, Use Diversity and Prioritisation of 46 Multipurpose Species for Conservation in Ouémé Catchment in Bénin

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Abstract

The search for plants with high nutritional, medicinal and/or commercial potential has been intensified to find candidate species that could help in maintaining a balance between agricultural output and population growth. The Ouémé catchment abounds an important diversity of 46 plant species. Due to their nutritional and socio-economic values to rural households, these useful species are preserved and maintained in farms and are made available in shortage times. However, to date, Ouémé catchment experiments increasing degradation of its natural resources caused by anthropogenic pressures. Consequently, most of the species as well as the cultural and endogenous knowledge related to them are facing a very high risk of extinction. Despite this fact, few published studies concerning their conservation have been undertaken. In this regard, our study focused on (i) assessment of impact of socio-demographic factors and climatic zones on knowledge and use of the 46 species; (ii) assessment of the use status of each of these species (iii) ranking these species according to their priority for conservation using a conservation priority index and (iv) inventory local conservation policies and actions to face their degradation. A total of 411 randomly selected informants were interviewed through a semi-structured survey followed by a field survey in 69 random plots of 0.15 ha. Data from available literature were used to complete the surveys. Ecological and ethnobotanical parameters were computed and the highest priority species for conservation were identified. The results showed significant difference in plant use between women and men, ethnic groups and climatic zones. The findings also revealed that more than 50 % of native species in the study area are underutilised. Six species were classified as priorities: *Parkia biglobosa*, *Pterocarpus erinaceus*, *Milicia excelsa, Prosopis africana, Afzelia africana* and *Khaya senegalensis*. The conservation approaches most used by local people were: seedlings protection in farms, reduction of harvesting of sensible organ, plant nursery and pricking out in field, conservation of seeds in garret or jar, practice of apiculture favouring pollination. Non-governmental organisations, governments and agroforestry research institutions are entreated to incorporate these species in local development strategies aiming at sustainable management and long term conservation.

Keywords: Benin, conservation priorities, knowledge and use, local people, Ouémé catchment, useful plants

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