

Collection, use and commercialization of indigenous plant species by households living in the Barotse floodplain, Zambia

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1. Overview of forest use

- Forests contain most of earth's terrestrial biodiversity [1]
- They provide shelter, raw materials and are of cultural importance to humans [2]
- Around 2 billion people across the world depend on forests to meet their livelihood needs [3]
- However, changes in land use and climate change threaten the products and services they provide to households who depend on them [3]

4. Current challenges of Miombo woodlands utilisation by local households

- Rapid loss of forest cover threatening the existence of some species [1]
- Lack of enabling policy environment [1]
- Inadequate marketing infrastructure [10]
- Lack of property rights for rural households [10]

6. Future expectations

- Moving toward integrated farming systems that ensure sustainable utilization of forests and their derivatives [1]
- Understanding the role that forests play in poverty reduction strategies and biodiversity conservation [1]
- Enhancing property rights of rural households to offset the tragedy of the commons [10]
- Emphasize the cultural links between humans and forests [10]

2. Non-timber forest products

- Useful products obtained from forests that do not require the harvesting of trees [1]
- Food
 - Supplement household diets [4]
 - Contribute to diet diversity [1]
 - Contribute to household incomes [5,6]
- Firewood
 - Cheap source of energy [5]
 - Contributes to forest loss and degradation [7]
 - Health risks associated with use [1]
- Medicine
 - Provide cheaper and sustainable option to synthetic drugs [6]
- Construction [5,6]
- Tools and utensils [5,4]
- Other uses [5,4,1]



Table 1. Overview of species used in the Miombo Woodlands

Non-timber forest product	Number of species used
Fruits	83
Firewood, tools, handicrafts	34
Medicine	32
Wild meat (including Insects)	51
Mushrooms	25

Source: FAO (2018)

3. Miombo woodlands

- The most dominant woodlands in Central and Southern Africa, covering 2.4 million km² across 5 countries [8]
- Receives an average of 700 mm of rainfall annually [8]
- Vegetation varies depending on climate, edaphic factors and disturbance regimes, among other things [5]
- Contains an estimated 8,500 plant species [5]
- Sustain the livelihoods of more than 100 million rural poor and 50 million urban people [9]

5. Socioeconomic factors influencing forest use

- Age – Older age groups more likely to collect NTFPs like medicinal plants [5,7]
- Education level - Educated individuals are more likely to exploit NTFPs commercially [5,11]
- Household size – Larger households consume more NTFPs [5,7]
- Land ownership – Families who own more land are less dependent on NTFPs [5,7]
- Gender – Women mostly collect food and medicine while men mostly burn charcoal [5]
- Distance to forests – Households living close to forests are likely to use more NTFPs [7]



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