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## The Baobab (*Adansonia digitata* L.) in Southern Kenya — A Study on Status, Distribution, and Use

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### Abstract

Baobab (*Adansonia digitata* L.) is a multipurpose, drought resistant, fruit-bearing, wild savannah tree endemic to drylands of sub-Saharan Africa. Due to its multipurpose properties and its high levels of nutrients in the leaves and fruits, the baobab has a great potential to improve household food and nutrition security through direct consumption and providing alternate income. A recent increase in the demand of baobab fruit pulp on national and international scales has sparked concern over health and utilisation level of wild baobab populations including those in Kenya, for which little data exists. Therefore the main aim of this study was to investigate the population status, distribution and use of baobab in a defined area in southern Kenya.

A stratified systematic transect survey was performed along the road from Voi to Taveta to document baobab distribution. Occurrence, health status and diameter at breast height (DBH) of baobab trees were documented in 49 transects of 1.5 km<sup>2</sup> size each. Household surveys and focus group discussions (FGDs) were used to evaluate use and traditions related to baobab, and baobab distribution in the area.

The baobab population in the research area was found to grow in two main clusters (mean tree density 0.541 baobabs per ha with regenerative populations and 36.5% small trees (DBH<1 m). Of these, 21% showed ‘stunted growth’ caused most probably by pests and/or livestock. The area in between the two clusters, including parts of the Tsavo National Park, had only a few large baobabs (mean density 0.004 baobabs per ha) with no rejuvenation. However, no significant changes in densities over time were mentioned during FGDs. Twenty-seven different uses of six parts of baobab trees were mentioned by the respondent, who highlighted the importance of fruits for family nutrition during food scarce times, while most other uses have become out-dated or substituted. The resource was largely under-utilised, but local communities had great interest in new baobab products or improved marketing channels. Baobab in the research area provides a source of alternate income and nutrients for the local communities, but could be exploited to a larger extent to further improve local livelihoods in Kenyan drylands.

**Keywords:** *Adansonia digitata*, baobab, population structure, rejuvenation, traditional knowledge