



Deutscher Tropentag, October 11-13, 2005, Hohenheim

“The Global Food & Product Chain—
Dynamics, Innovations, Conflicts, Strategies”

Building Opportunities for Small Holder Farmers to Commoditize Indigenous Fruit Trees and Products in Southern Africa: Participatory Selection, Propagation and Cultivation

FESTUS K. AKINNIFESI¹, THOMSON CHILANGA¹, JARRET MHANGO¹, IRENE KADZERE², DAGMAR
MITHÖFER³, F. KWESIGA⁴

¹World Agroforestry Centre (ICRAF), SADC - ICRAF Programme, Malawi

²Cornell University, Department of Horticulture, United States of America

³International Centre of Insect Physiology and Ecology (ICIPE), Kenya

⁴World Agroforestry Centre (ICRAF), Kenya

Abstract

Many rural households rely on indigenous fruit trees (IFTs) as sources of cash and subsistence in Southern Africa, but until recently there has been little effort to cultivate, improve or add value to these fruits. Since 1989 the International Centre for Research in Agroforestry, ICRAF (also known as the World Agroforestry Centre), initiated research-and-development work on indigenous fruit trees in five countries in southern Africa. A participatory approach was used at all stages of their domestication, product development and commercialisation. Species preference by diverse groups of users varied. From this information, country-specific priorities were identified. Using vegetative propagation, clones are being developed from superior trees within the very diverse wild population. These clones have been established in trial orchards for selection of true-to-type, high yielding cultivars with large, sweet fruits, and pest tolerance. Multi-locational provenance trials showed that some Mozambique provenance of *Sclerocarya birrea* grown in Malawi are prolific and early fruiting. With clonal propagation, preliminary results indicate that the long juvenile phase of *Uapaca kirkiana* can be shortened from 12–16 years to less than four years. An ex ante impact analysis based on ‘real options’ theory, indicates that a combination of a robust technical change (improvement) and decrease in abundance of fruits in the forest will create incentives for farmer-led investment in the cultivation of IFTs, as an alternative to wild fruit collection. In Zimbabwe, the returns to family labour of collecting wild fruits are two to three times greater than other farming activities, especially for *P. curatellifolia* (4.8 times). It is anticipated that domestication will further increase the returns. Results from surveys of nursery operators, post-harvest research, land tenures and pest and disease management are also discussed in this paper.

Keywords: Clonal development, livelihoods, post-harvest, propagation, wild fruits