



Tropentag, October 11-13, 2006, Bonn

“Prosperity and Poverty in a Globalised World—  
Challenges for Agricultural Research”

## Economics of in Situ Conservation of Indigenous Trees by Smallholder Farmers in Central Malawi

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### Abstract

Indigenous trees play major roles in the rural livelihood of communities in Sub-Saharan Africa, particularly in terms of their environmental service function and contribution of tree products to the rural household economy. However, the high rate of deforestation in Malawi raises concerns on the sustainability and future supply of these natural resources. A case study was conducted in Dedza district in central Malawi during 2005 to investigate conservation of semi-wild indigenous trees growing and retained at the farm, homestead and dimba fields. The study aims at identifying factors influencing conservation and the use/ non-use of conservation practices of indigenous trees. A total of 133 rural households were interviewed in two geographically and socio-economically different Extension Planning Areas (Kanyama and Linthipe) of Dedza district. Structured questionnaires were used to collect data on demographic, farm household, tree crop and institutional support issues, which are considered to influence the adoption process. Data were analysed by logistic regression analysis. Results show that farm households in Linthipe cut indigenous trees more frequently than in Kanyama. Also, a higher share of farm households in Linthipe uses indigenous tree products as an additional source of cash-income. Consequently, tree resources are scarcer in Linthipe. In addition, the household sizes in Linthipe increases the pressure on the trees. Indigenous tree conservation practices vary between the two locations in form and intensity. Expected factors associated with these differences are socio-economic factors, e.g. consumer- worker ratio and external factors like the distance to markets. The result of this study will give information on the status of conservation of indigenous trees in Malawi and factors that are associated with the decision to conserve the trees. The results will provide input to strategies of non-governmental and governmental organisations that aim at halting the ongoing environmental degradation in Malawi.

**Keywords:** Conservation practices, *In situ* conservation, indigenous trees, Logistic Regression