

The Future Okavango (TFO) [project](#)

Subproject 05 - Impacts of altered land use practises on the plant related Ecosystem Functions & Services

The Department of Geospatial Sciences and Technology (Faculty of Natural Resources & Spatial Sciences) of the Namibia University of Science and Technology was responsible for:

Task 6 - Timber provision of woodlands

The main objectives of this study are to determine the stock, population structure, growth, regeneration and sustainable yield of valuable timber species in the *Brachystegia* and *Burkea* woodlands of the study area. Standing volume of timber wood and wood used for carvings and construction in the *Brachystegia* and *Burkea* woodlands is estimated. This is done by estimating the age structure, growth and sustainable yield of those valuable timber species of the *Burkea* woodlands that have growth rings. Comparable information for the *Brachystegia* woodlands is collected. Another objective is to assess the potential to reproduce *Pterocarpus angolensis*, through assisted germination of seeds. *Pterocarpus angolensis* is one of the most valuable and threatened timber species in the region.

Duration of the project: 2011 - 2015

Researchers involved:

- Vera De Cauwer (PI), Lecturer Department of Geospatial Sciences and Technology and PhD student within the [Forest Ecology and Management Research Group](#) of the University of Leuven, Belgium
- Miya Kabajani, Honours Natural Resources Management
- Ninda Baptista (MSc), research assistant from Angola
- Master students from the University of Ghent, Belgium, supervised by Dr Jan Mertens: Fien Vander Heyden, Jolien De Ruytter, Sam Van Holsbeeck and Maarten Schelstraete,
- forestry student team from the Universities of Göttingen and Stellenbosch lead by prof Christophe Kleinn and Cori Ham.



1: Student Miya Kabajani measuring DBH during forest inventory work in Katope community forest

2: Seedling of *Pterocarpus angolensis* from in-vitro experiments Fien Vander Heyden

3: Student team Göttingen - Stellenbosch doing forest measurements in Ncaute community forest

4: Forest Research Day organised at the Polytechnic of Namibia in 2014

Outputs of the project :

Part of the work is listed in the [journal Biodiversity & Ecology](#) and in the [final TFO report](#). A handout on forest management by communities was produced in [English](#) and [Rukwangali](#). Other outputs are still being produced till 2016 and include amongst others:

- Baptista, N., 2014. Literature study of the woody Miombo vegetation and forest management in southeastern Angola with focus on data from the colonial era. Polytechnic of Namibia - The Future Okavango Project, Lisbon, Portugal & Windhoek, Namibia.
- De Cauwer, V., 2013. Timber provision of *Burkea* woodlands. The Future Okavango (TFO) project fieldwork report 2010 - 2012 for task 6 of SP05. Polytechnic of Namibia, Windhoek, Namibia.
- De Cauwer, V., Muys, B., Revermann, R., Trabucco, A., 2014. Potential, realised, future distribution and environmental suitability for *Pterocarpus angolensis* DC in southern Africa. For. Ecol. Manag. 315, 211-226. doi:10.1016/j.foreco.2013.12.032
- De Ruytter, J., 2015. The growing stock of *Pterocarpus angolensis* in Namibia (M.Sc. Thesis). University of Ghent, Gent, Belgium.
- Kabajani, M.W., 2013. The population structure of *Pterocarpus angolensis* (Kiaat) in response to recent harvesting in western Kavango, Namibia (B.Sc.Hons.). Polytechnic of Namibia, Windhoek.
- Schulz, R., 2015. Vergleich zweier Waldbewirtschaftungsarten im Norden Namibias mit der Datengrundlage einer Waldinventur (Bachelorarbeit). Georg-August-Universität Göttingen, Göttingen.
- Vander Heyden, F., 2014. Germination experiments with the southern African tree species *Pterocarpus angolensis*: in-vivo and in-vitro (M.Sc. Thesis). University of Ghent, Gent, Belgium.
- Van Holsbeeck, S., 2015. Annual diameter growth of *Pterocarpus angolensis* (Kiaat) and other woodland species in Kavango, Namibia (M.Sc. Thesis). University of Ghent, Gent, Belgium.