



Tropentag, September 17-19, 2014, Prague, Czech Republic

“Bridging the gap between increasing knowledge and decreasing resources”

## Changes of Property Right Institutions on Namibian Marula Fruits as Impacts from Biotrade

SHIGEO WATANABE, KATHARINE NORA FARRELL

*Humboldt-Universität zu Berlin, Inst. of Agricultural and Horticultural Sciences, Germany*

### Abstract

Marula (*Sclerocarya birrea*) is one of the traditionally used multipurpose fruit trees in southern Africa. In the north central region of Namibia, a traditional custom rule regulates access to marula fruits and its processing as collective actions of local women. The abolition of apartheid and expansion of urbanization were accompanied by commodification of marula fruit products and commercialization of production through biotrade contracts.

This study aims to depict mechanisms of a sequence of economic institutional changes at local level with analytical frameworks of Hagedorn's Institutions of Sustainability (IoS) and Williamson's four level analyses on economic institutions and using the concept of power from Herbert Simon, in order to evaluate changes of behaviours of resource users due to biotrade contracts. Qualitative data on institutional changes were collected by interviews and document surveys in fieldworks in Namibia in 2011.

The combination of designed institutional sets of biotrade contracts and a primary producer co-operative are found to create new choices for the sales of marula products. These include the introduction of fruits processing machines, which enabled intensive use of marula fruits. However, this has brought economic incentives for local women to alter property right rules on resource allocation of fruits. Contrary to traditional rules, access rights to fruits are now allocated not only among local women but also to men. Considering a social cognitive norm that labour using a machines is male dominated, processing work has shifted from women to men. This can exacerbate power asymmetries between the rich and the poor as well as between genders. Referring to the IoS, these unintended institutional innovations can be understood as adverse transactional effects of biotrade on the income and equality of local women.

Increasing unequal present patterns of resource uses may reduce the interdependencies of local women as found in social capital. This study reveals the significance of gender power asymmetries for understanding adaptation of the biotrade contracts on marula oil. It is suggested that changes in property rights on marula fruits might help to limit future damage from biotrade contracts for sustainable uses of marula fruits.

**Keywords:** Gender, institutions of sustainability, marula, power