



"Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources"

Comparison of two Jatropha Production Approaches Targeting Bioenergy Supply in Tanzania and Madagascar

MARTIN GRASS, TIM K. LOOS, MANFRED ZELLER

University of Hohenheim, Department of Agricultural Economics and Social Sciences in the Tropics and Subtropics, Germany

Abstract

With the worldwide agro fuel boom, international companies started to invest in local agro fuel production in Africa. Several compagnies have come to regard Jatropha seeds as the preferred feedstock for liquid agro fuel production. To produce Jatropha different business models like contract farming or plantation estates are applied. These different approaches vary with respect to their effects on the involved farmers and, therefore, rural development. This article is based on a literature review and the authors' socio-economic analysis derived from local household surveys. It addresses the pros and cons of the following two production models. First we take into account the case of a contract farming model in Tanzania which targets smallholders as contracted outgrowers. These outgrowers can sell their Jatropha seed production to the investor at a guaranteed price. Further we look closely on a plantation model in Madagascar where an investor offers income for labourers working on the plantation. By using socio-economic analysis we compare the two systems and describe which parts of the rural population are participating on Jatropha production with respect to the production model. We conclude that, despite the lack of knowledge on Jatropha production, both systems have the potential to push rural development by creating additional income possibilities for the rural population. However, the Jatropha value chain and market structures are still in an initial stage. Therefore, scientific monitoring and support, especially on the production side, is required. Further research on possible effects on rural development is recommended.

Keywords: Agro fuels, Jatropha, Madagascar, rural development, Tanzania

Contact Address: Martin Grass, University of Hohenheim, Department of Agricultural Economics and Social Sciences in the Tropics and Subtropics, Schloss Osthof-Süd, 70593 Stuttgart, Germany, e-mail: mgrass@uni-hohenheim.de