



Tropentag, September 14-16, 2010, Zurich

“World Food System —
A Contribution from Europe”

Effect of the Adoption of REDD Policies on Household Fuelwood Use and its Impact on Forest Degradation: A Study of Kakamega Forest, Kenya

STEPHEN WAMBUA, TOBIAS WÜNSCHER

University of Bonn, Center for Development Research (ZEF), Germany

Abstract

Policies regarding reduced emissions from deforestation and forest degradation (REDD) currently being developed have the potential to deliver multiple benefits besides the reduction of GHGs levels such as biodiversity conservation and enhancing rural livelihoods as well as other ecosystem benefits. Like any other forest conservation policy, the adoption of REDD policies can result in the displacement of deforestation in non-targeted regions reducing the net conservation effect. While the Kenyan government largely succeeded in its efforts to control official deforestation by putting a ban on logging from public indigenous and plantation forests, illegal forest extraction continues to be a particular problem in the fuelwood sector as disperse and small scale activities are difficult to monitor. Fuelwood accounts for 80 % of Kenya's household energy use and could therefore exert major impacts on the forest resources. Studies have shown that forest degradation especially from the cutting of trees for charcoal burning is common in all public forests. We analyse potential displacement effects of more rigorous policy measures on the illegal fuelwood trade in Kakamega forest, Western Kenya. We do so by investigating the determinants of household energy use and estimating the supply and demand functions for communities living next to the forest. We further analyse the supply chain of charcoal in Kakamega town and its environs. The results of this study are derived from a stratified random sample of 300 households living in villages within five kilometres from the forest edge who were interviewed with a semi-structured questionnaire. To understand the trade in charcoal, 20 % of the charcoal traders were interviewed using a structured questionnaire. The main source of charcoal for the Kakamega region is the Rift Valley supplemented by some local production and some importation from Uganda. Preliminary results show that trees from the public forest account for more charcoal locally produced in this area than trees from private property. The small scale traders, especially those without a permanent selling point (hawkers) form the main entry point of charcoal obtained from the forest into the market.

Keywords: Charcoal trade, forest degradation, household fuelwood demand, Kakamega forest, REDD