



Tropentag, September 14-16, 2010, Zurich

“World Food System —  
A Contribution from Europe”

## Analysis Pertaining to an Agent of Deforestation and Forest Degradation: The Smallholder Farmer on the Forest Fringe in Madagascar

AZIZA RQIBATE<sup>1</sup>, TAHIRY RABEFARIHY<sup>1</sup>, ZO RABEMANANJARA<sup>2</sup>

<sup>1</sup>*Johann Heinrich von Thünen Institut, Federal Research Institute for Rural Areas, Forestry and Fisheries, Institut for Worldforestry, Germany*

<sup>2</sup>*University of Antananarivo, Agronomy School, Forestry Department, Madagascar*

### Abstract

The analysis pertains to a specific kind of agent of deforestation and degradation - namely the smallholder farmer on the forest fringe in Madagascar - and provides a basis for developing adapted incentives in the scope of REDD. In a context of poverty and of ambivalence between traditional and classic land tenure, Malagasy farmers are involved in land use change which endangers their environment and traditional way of life. The study analyses the needs of these rural households that lead to deforestation and forest degradation. It aims for developing adapted, viable and environmental friendly alternative land uses that respect the traditions of the local population and are financed through the carbon market. In 2007 and 2008, field data were collected on three regions which differ in their social and cultural characteristics and their forest types. Initially, the history of deforestation and forestry politics in Madagascar is examined. Interacting functions of the forest that respond to the needs of the farmers are described and uses of the forest are quantified. “Incomes from deforestation and forest degradation” and “non-forest income” opportunities are calculated. Afterwards, these values are compared to analyse the influence of endogenous and exogenous decision parameters and of the agent’s characteristics on forest use and farm output management. The study shows, among others, that the “poorest poor” are more dependent on deforestation and forest degradation while gaining less benefit from it than the “rich poor”. In the community forest management the “poorest poor” also have less influence on the decision process.

**Keywords:** Community forest management, farmers, incomes, land use, madagascar, REDD