



Tropentag, September 14-16, 2010, Zurich

“World Food System —
A Contribution from Europe”

On the Road to Sustainability? Economic, Environmental and Social Performance of Kenyan Smallholdings from 2006 to 2009

JAN GRENZ, CHRISTIAN THALMANN

Bern University of Applied Sciences (BFH), Swiss College of Agriculture (SHL), Switzerland

Abstract

Sustainable smallholder farming arguably is a cornerstone of sustainable development in large parts of the world, including much of Sub-Saharan Africa. There has been much dispute over whether smallholdings are an asset or an obstacle to economic development and resource protection. Smallholders have been acclaimed for securing food supply and maintaining diverse cultural landscapes, and blamed for inefficient resource use and farm management. We present evidence from farm sustainability surveys conducted in the Laikipia district of Kenya. A sample of 29 smallholder farms was analysed in 2006 and again in 2009 using the RISE (Response-Inducing Sustainability Evaluation) method. Analysed aspects comprised nutrient, water, soil, energy, pest, biodiversity and waste management, as well as farm economics, working conditions and social security.

Major deficits were identified at soil management, water supply, and manure management causing environmental pollution and nutrient depletion on the arable land. Poor revenues compared to the invested assets, for the labour and for the raw performance led to poor inadequate social securities and salaries far below the subsistence level. Lack of knowledge on safe use of chemicals impeded a considerable risk for farmer's health.

From 2006 to 2009 most of the farmers participated in trainings predominantly in domains of conservation agriculture, plant protection and livestock keeping. In five villages demonstration farms were established recently, in order to present possible solutions and to train interested farmers.

The re-evaluation results were stamped by severe droughts in 2008 and 2009 causing recurrent crop failures, loss of livestock and high pressure on natural resources (cutting trees). Most farmers were confronted with competition for biomass between livestock (fodder) and crop production (mulch), making effective soil conservation difficult. Farmers accessing water during critical periods were able to produce crops for subsistence and local market. Smallholder farmers mainly compete with large horticultural farms for water resources.

Our results supported both assertions made in the beginning: smallholders exploited not protected natural resources; on the other hand they were important elements in securing food supply. In contrast to them the large horticultural farms exploit natural resources as well; but their products are consumed in Western-Europe.

Keywords: Holistic, Kenya, monitoring, smallholder farming, sustainability