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“Management of land use systems for enhanced food security:  
conflicts, controversies and resolutions”

## Policy Impact Analysis, Sustainable Practices and the Drivers of Food Demand. Selected Works Related to sub-Saharan Africa

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### Abstract

A reliable picture of policy impacts remains elusive in sub-Saharan Africa (SSA). This represents a key challenge for effective food security intervention strategies, mainly due to limited reliable statistical data and sound analysis. As part of an exercise to develop quantitative tools for the analysis of policy impact in SSA and leveraging on its expertise of farm level analysis in Europe, the Joint Research Centre (JRC) of the European Commission is conducting a micro/regional-level analysis. Main task is to use the FSSIM-Dev (Farm System Simulator for Developing Countries) model as a decision support tool to carry out *ex-ante* assessments of the impact of relevant policies on the livelihood of farming households. The FSSIM-Dev model was first used to assess the effects of rice seed policy on the livelihoods of representative farm households in Sierra Leone. Results showed that the seed policy would improve farm productivity and household income, but falls short in fighting poverty since most of the surveyed farm households would continue to live with less than 1USD per person and day. Current exercises are developed for Ivory Coast and Niger with foreseen developments in Ethiopia, Rwanda and Tanzania.

Complementary assessments are conducted on the drivers of food demand and the potential of sustainable agricultural practices in SSA. A comprehensive analysis of the response of food demand to rising incomes shows that income elasticities are highly heterogeneous. As expected, demand is more responsive to changes in income for beverages, or meat, compared to basic diet's food (e.g. cereals). The considerable regional differences in food-income elasticities suggest differing regional impacts of food policy in Africa. In turn, the review of sustainable agricultural practices within a SSA institutional context also looks at how local environmental governance could enable a transition to a more sustainable agriculture. Given the high diversity of African crops, proven record of land-sharing practices but fragile soils of the region, early results suggest a clear potential for agroecological practices along-side the more publicised input-intensive alternatives. Foreseen analysis will look at the interplay of landscape-level choices such as common resource management and agriculture practices for a more sustainable food security strategy.

**Keywords:** Food demand analysis, food security strategy