

## **SAFE POLICY BRIEF No. 7:**

# **FOOD SECURITY EFFECTS OF CERTIFIED ORGANIC EXPORT PRODUCTION IN TROPICAL AFRICA: CASE STUDIS FROM UGANDA**

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### **1. Introduction**

As organic farming has caught momentum around the world, critical voices have been raised against it arguing that organic conversion will jeopardize food security in developing countries and even globally by reducing crop yields. Yet little empirical evidence has been advanced in support of these claims, nor in support of the counter arguments. In this light, this policy brief examines the effects on household food security of certified organic export production through a gendered analysis. It also discusses how organic conversion affects men and women differently in respect of changes in the costs and benefits of farming.

### **2. Case studies and methods**

The paper is based on research carried out in 2005-06 among smallholder farmers in eastern and central Uganda, belonging to two certified organic export schemes supported by the EPOPA programme. The first was an Arabica coffee scheme on Mt. Elgon in eastern Uganda. This was certified in 2000-01, had 3,870 members in 2006 and was owned by the Ugandan subsidiary of an international trading house. The second was a pineapple scheme in central Uganda. This was certified in 2004 and had 32 members. An east African exporter and a specialised organic importer in Europe

owned it jointly. A total of 172 organic farmers, and matching control groups of 159 conventional farmers were interviewed in a formal household survey (for coffee, see Bolwig et al., 2009). Nine focus group interviews were also conducted with the organic farmers in the two schemes, separately for men and women (Bolwig and Odeke, 2007). The latter interviews focused on food security and gender issues. Organic production was in both cases organized on a contract farming-type basis, in schemes operated by the firm exporting the organic product and holding the organic certification. Certified organic farming is found mainly in this form in tropical Africa.

### **3. Food security effects in the pineapple scheme**

Organic pineapple farmers enjoyed high levels of food self-sufficiency and organic conversion did not appear to have reduced food production. This was mainly because the expansion of pineapple farms and their improved management had occurred through additional investments in land and hired labour rather than through the diversion of household resources away from food crops. These positive dynamics were related to the high incomes earned in pineapple farming as well as to large average farm size. Hence most organic farmers could satisfy their calorie

needs through own production and moreover purchase higher value foods such as meat, fish, sugar, tea, and rice. Food purchases ranked only fifth in household expenditures due to the combination of high food self-sufficiency and high cash income.

#### **4. Food security effects in the coffee scheme**

In the case of organic coffee, the general trend has been a reduction in local food production since organic conversion, mainly due to the expansion of coffee on land previously cultivated with food crops. Very small average farm size combined with low capacity for buying more land meant that the expansion of coffee had occurred at the expense of land planted with especially maize and its intercrop, sweet potatoes. But farmers had adapted their farming strategies in ways that mitigated the intensified competition for land between coffee and food crops. Firstly, while land scarcity had eliminated mono cropping of beans in the area, improved weed management in coffee induced by the organic project had created new opportunities for intercropping beans with coffee. Secondly, some farmers invested coffee incomes in renting land for maize and rice farming outside their home area where land was more abundant. Other causes of reduced per capita food output that were unrelated to organic conversion included intensified population pressure, declining soil fertility, and disease infestation in banana cultivation.

Organic conversion of coffee had also caused a change in the utilisation of family labour, but without seriously impacting food production. Farmers had clearly increased their labour efforts in coffee farming and processing. This was due in part to higher and more stable coffee prices and to the stricter quality requirements of the organic exporter. Most of this extra labour was supplied by women who were the main responsible for food production,

but because land was the dominant production constraint, this change in labour use did not significantly reduce efforts in food production. Instead, the women had adapted by working longer hours and by reducing the time spent in off-farm activities (reducing their access to personal incomes).

Few organic coffee farmers were self-sufficient in calories and proteins and food purchases thus ranked high in household budgets. This was likely to have been the situation before organic conversion as well, when land was a major production constraint. In this context it is worth emphasizing that despite reduced food production after conversion, the interviewees observed that *food security* had not worsened but rather improved. This was because the higher coffee incomes more than compensated for the loss in food production by improving the capacity for accessing food through the market.

#### **5. Income effects**

Both pineapple and coffee farmers had applied some of the improved farming practices acquired through the organic project on their food crops and there was some reinvestment of organic revenues into food crop farming. In both cases was organic certification associated with moderate increases in production costs, especially in respect of inputs of family and hired labour. But, according to the respondents, the benefits of conversion in terms of higher organic crop revenues far outweighed the extra costs, resulting in significant income increases, especially in the case of pineapple.

#### **6. Gendered effects**

The effects on organic conversion on gender inequality were mixed and depended to a large extent on the local context and on commodity characteristics. The distribution of the

additional costs and benefits associated with organic conversion was much more biased against women for coffee than for pineapple. But it is worth underlining that the interviewed women found that organic farming was well worth the extra work effort due the income benefits for the household as a whole, even if they had no or little control over the use of these incomes.

## 7. Conclusions

The study indicates that conversion to organic export production has not reduced food security in the examined cases but rather improved it by raising cash incomes that have enabled households to increase the amount and quality of food purchased in the market. This suggests the importance of considering changes in the capacity for accessing food through the market as well as through own production when assessing household food security impacts of organic export production. Another insight is that technology and investment spill-overs from the organic export crop to food crop farming, as well as a more efficient use of available land and labour resources achieved through farmer adaptations, may mitigate the competition over factors of production between food crops and the organic cash crop. In general, where local food markets are functioning and organic conversion does not involve major risk-taking by farmers, the integration of smallholders in international value chains for organic products does not normally constitute a threat to food security.

## References

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