# Market Integration Shape Organic Farmers' Organisation

Sultan, T.<sup>1</sup>, Mursal, A.<sup>1</sup>, Salem, S. G.<sup>1</sup>, Liu, Y.<sup>1</sup>, Oelofse, M.<sup>1</sup>, Knudsen M.T.<sup>1</sup>, El-Araby, A.<sup>2</sup>, Delve, R.J.<sup>3</sup>, Yuhiu, Q.<sup>4</sup>, Hauser, M.<sup>5</sup>, Kledal, P.<sup>6</sup>, Egelyng, H.<sup>7</sup>, Halberg, N.<sup>8</sup> & Høgh-Jensen, H.<sup>1</sup>

## Abstract

Increasing consumption of organic products in globalised food chains will require the involvement of thousands more smallholder farmers in many regions of the world. A study of Egypt, China and Uganda identified the three key factors of property rights regimes, cultural differences and social organisation as determents of the supply chain organisation and farmers' degree of direct integration in the export markets. Patterns are emerging where smallholder farmers are being socially and economically linked to larger farmers who may do some processing before the raw materials are handed over to the contracting company. Where transactions costs are high, local communities may develop and contract out the land directly to exporting companies who farm using employees. Four organisational patterns are identified which each leads to different types of livelihood benefits for the producers; preliminary results indicate that income and a reliable market access are the dominant benefits.

### Introduction

There is an increased conversion to organic farming on a global scale. The organic food systems are transforming groups of loosely coordinated market actors to globalised systems of regulated trading linking socially and spatially distant sites of production and consumption.

Although certified organic products make up a minor share of the world food market (1-2%), agricultural development organisations, such as IFAD and FAO, as well as many NGOs, increasingly see organic farming as a beneficial development pathway for smallholder farmers (Egelyng and Høgh-Jensen, 2006).

The primary drivers of conversion are an increased demand for organic products in the rich countries of the North and increasing domestic markets in large cities. This paper reports an investigation of consequences on farmers mode of market integration

<sup>1</sup> Department of Agricultural Sciences, Faculty of Life Sciences, University of Copenhagen, Højbakkegaard Allé 9, DK-2630 Taastrup, Denmark, E-mail hhj[a]life.ku.dk

<sup>2</sup> Faculty of Agriculture, Ain Sham University, P.O.Box 68, Haidaik Shoubra, 11241 Cairo, Egypt 3 TSBF-CIAT, P.O. Box MP228, 12.5km peg, Mazowe Road, Harare, Zimbabwe

<sup>4</sup> College of Resource and Environmental Science, China Agricultural University, No. 2

Yuanmingyuan West Road, Beijing, China

<sup>5</sup> University of Natural Resources and Applied Life Sciences, Gregor Mendel Straße 33, A-1180 Vienna, Austria.

<sup>6</sup> Institute of Food and Resource Economics, Faculty of Life Sciences, University of Copenhagen, Rolighedsvej 25, DK-1958 Frederiksberg, Denmark.

<sup>7</sup> Danish Institute for International Studies, Strandgade 56, DK-1401 Copenhagen, Denmark

<sup>8</sup> Faculty of Agricultural Sciences, Aarhus University, Blichers Allé 20, Postboks 50, 8830 Tjele, Denmark

and their ways of organising themselves to meet the requested market requirements for organic products.

## Materials and methods

A cross-sectional study approach (Yin, 2003) was chosen and strategic cases selected in China, Egypt and Uganda, due to these countries major role in global export oriented food supply chains. Cases were selected that reflects diversity in the global export integration at all sites. Open-ended interviews were conducted with farmers and key-informants in all cases. A questionnaire was developed and enumerators were used to collect data from approx. 20 farmers per case area (Mikkelsen, 2005). In addition, field data were collected and observations made as part of several ongoing field studies. The analytical frame for data interpretation was based on the Sustainable Livelihood Framework approach as developed by DFID (2007).

## **Results and Discussion**

# Organisation of the product chain

Four distinct organisational patterns emerged during the investigation of the organic product chain in the selected countries. First, in North East China, a private organic company aided local soybean producers in all aspects of production - from cultivation to certification. The company then purchased the produce directly from farmers prior to export. An important aspect of this case was that the company only approached farmers with sufficient and easy accessible land holdings. This approach traversed the traditional and administrative village structure and it was basically contract farming with select farmers in the area suitable for organic production. Secondly, in Mid-East China (Shangdong region), an organic company works together with villages as an entity, essentially making a contract with the village. In this way the village hierarchical power structure is used by the company to control production. Thirdly, smallholders farming less than one hectare for organic export either depend upon non-market forces (for example NGO's) for market linkages or upon businessmen for certification. Fourthly, exporting companies or traders may produce their own commodities on land they own or rent around large metropoles like Shanghai. Such cases also include contracted farms operated by farmers and supervised by companies.

In Egypt all four structures in farmers' way of organising were found, with farm size an important determinant of product chain structure. Large capital intensive organic farms, like those located upon reclaimed desert, normally have direct links to export markets. This direct linkage diminishes with decreasing farm size thus resulting in more steps in the chain and alienating small farmers from the final step in the chain. For example, some small farmers in Egypt supply to larger farmers, who may process a bit before supplying to the companies or to traders.

The second and third structure in farmers' way of organising resembles the case of Uganda; a developing country with a diversified organic production structure where various development agencies play active roles. The background of the organisation driving the organic agriculture initiatives influences the organisation of the production chain. It is in the interest of private sector players to organise farmers in such a way that cost are kept as low as possible. As in practice the private sector owns the organic certificate, the degree of production and marketing autonomy of small producers is low. Recent NGO involvement has contributed to the debate about

options to organise the production chain in favour of smallholder farmers, especially through the participatory guarantee systems, where the farmer group themselves owns the organic certificate. Among the consequences of this debate are attempts to outsource some of the private sector activities to farmers, such as processing and value addition in general. Moreover, the type of the organic commodity influence the organisation of the production chain as the demands, requirements and capabilities of farmers to handle high value crops differs from low value / high quantity crops.

### GO and NGO involvement

The level and scale of enforcement of farmers' property rights varies between countries. In Egypt and Uganda government has very limited if any involvement in the organic sector. In contrast, in peri-urban areas of Shanghai local government involvement in the organic product chain was evident in reaction to abandonment of small farms, invests in infrastructure for large scale production and then rents out the land to companies who run the farms based on farm labour. In Uganda, organic agricultural training and education is spearheaded by the informal sector and development organisations offer externally funded and market-led initiatives. NGOs and the private sector organise and conduct training, education and research with the support of external donors. This support of development organisations has given Uganda a significant break-through to the international organic market through export of coffee, vanilla, cotton, dried sweat bananas, mangoes and pineapples. Recently, research institutions and universities have started seeing the need for conducting research in the organic sector.

## Farmers' livelihood

The manner in which farmers are organised is crucial for the benefits they may accrue from organic farming. The role of the size of their property is important. As described above, smallholder farmers' linkages to the market may be weak where middlemen are involved, reducing their financial gain. The organic farmers in the case area in NE China had larger land holdings than the conventional farms in the area, providing them not only entry to the organic market but also increased profits. Most conventional farmers in the area (with exactly the same cropping systems yet on smaller land holdings) had never even heard of organic farming. They sold produce on the local market or to the government. Indications are therefore that the '*village model*' of certification has the possibility of supporting all farmer types.

Involvement in the organic production chain was found beneficial to local organic associations. It facilitated smallholder certification and their access to markets on a large scale and enabled better economical benefits. Such local organic associations can help train farmers and enable experiences sharing in social acceptable ways. In Uganda, local organisations have enabled smallholder farmers to do their own research to reach an optimal quality of the desired product (Mursal, 2007).

All cases in the three countries indicate that that livelihood benefits that farmers derive through certified organic agriculture are skewed towards monetary benefits. In Uganda, agricultural growth has benefited poor people most where land ownership has been relatively equitable. Land ownership often remains inequitable, reducing the potential of organic agriculture to reduce poverty. Therefore well defined and secure property rights are very important in encouraging farmers to invest in their production systems. In Egypt, some organic farmers' organisations were organised by companies or traders in order to guarantee organic products supply flow for their export activities but without support to farmers' right needs and market linkages.

#### Organisation to get the market access

A number of trends can be identified from the ways in which the product chains are structured in the case areas. Generally, farmers are highly reliant upon organic companies that can ensure quantity and quality requirements for the export markets. In particular small scale farmers are dependent upon companies, when the state and civil society organizations are absent. The size of land-holdings and the type of production structure plays a pivotal role in farmers' market access.

Transaction costs influence the economic organization between smallholder farmers and organic companies. In the case of Shandong region, both organic companies and smallholder farmers had decreased their transaction costs by contracting. "Organic" companies have an excellent knowledge of markets, quick access to capital and new technologies. On the other hand, small farmers have a good knowledge level regarding vegetable production, access to lands and cheap labour. By contracting, both of the contractors have eliminated "*uncertainty*" problems, small farmers secured their markets and organic companies secured quantity and quality of their organic products. In the Shangdong case, smallholder farmers have increased their household income by adopting organic agriculture and secured their market by contracting with "organic" companies. Anecdotal evidence indicates that some farmers, who used to seek off-farm income, are coming back to the villages as organic agriculture offers an acceptable income. The opportunity costs on-farm and off-farm is the main factor whether to involve in organic agriculture (Sultan, 2007).

### Conclusions

The rapidly growing organic markets in Japan, Europe and USA offer a significant opportunity for farmers in low-income regions to produce and sell high value products. The current study demonstrates four organisational patterns with which the farmers reach the global organic market chain. For the farmers, the opportunity costs on-farm and off-farm, property rights, the social relations to the other actors in the chain, and cultural boundaries seems the main factors determining the involvement in organic agriculture.

#### References

DFID (2007): http://www.livelihoods.org/info/informationresources.html (assessed 2007-09-22).

- Egelyng, Henrik and Henning Høgh-Jensen. 2006. Towards a global research programme for organic food and farming. Chapter 11. In: Global Development of Organic Agriculture: Challenges and Promises (eds.) Halberg N, Knudsen MT, Alrøe HF and Kristensen ES. CABI Publishing, Wallingford. pp. 153-179.
- FAO, 2007. International Conference on Organic Agriculture and Food Security. May 3-5, Rome
- Mikkelsen B. (2005) Methods for Development Work and Research. A new guide for Practitioners. 2nd Ed. Sage Publications, New Delhi. 373 p.
- Mursal A. (2007): The acceptance of organic agricultural technologies in Western Uganda. M.Sc. Thesis, Faculty of Life Sciences, University of Copenhagen, Denmark.
- Sultan T. (2007): The organic vegetable supply chain in China a case study in two regions for domestic and export markets. M.Sc. Thesis, Faculty of Life Sciences, University of Copenhagen, Denmark.
- Yin R.K. (2003): Case study Research. Design and Methods. 3<sup>rd</sup> Ed. Applied Social Research Methods Series, Vol. 5. 179 p.