Value adding through standards?

Chances for small farmers groups producing organic and conventional mangoes for export markets – a comparative analysis

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Abstract

Do standards add value to the produce and who will reap the benefits from standard implementation in the value chain? Will standards help increase incomes of small farmers in developing countries or are they so expensive to implement that small producers risk to be excluded from export markets?

In the conventional mango chain, the EurepGAP standard (European Retailer Produce Working Group - Good Agricultural Practices) and the International Food Standard (IFS) are defining good agricultural respectively manufacturing practices. A big proportion of European retailers agreed to this (private) standard and purchase accordingly if certified production is available. Organic production, processing and trade are regulated in EU regulation 2092/91.

This study compares conventional production certified according to EurepGAP with organic production certified according to the EU regulation. In the two chains considerable differences can be observed regarding actors, their relationships and the basic rules which define the conditions for participation.

1 Facts and figures

Conventional mango. World mango production has grown steadily in recent decades. From 1983 to 1992, global mango production increased by 16%. From 1993 to 2002 the growth rate was even higher with an increase of 37%. In 2002, the most important producers were India (41% of world production), China (13%), Thailand (7%), Mexico (6%), followed by Indonesia, Pakistan, the Philippines, Brazil, Nigeria and Egypt. Only a small share of mango production is sold on international markets, the largest part is consumed domestically. The most important exporters of fresh mangoes are Mexico and Brazil.

Organic mango. Despite of the absence of trade statistics, it is an observable fact that organic production is rising. Main production countries for organic fresh mango are Dominican Republic
and Brazil. Most of the certified mangoes are produced for export purposes and not for local consumption. Sub-standard mangoes that are rejected for exports are sold on the local markets and partly further processed.

2 Actors in the value added chains

**Conventional mango.** The conventional fresh produce and trading chain has moved away from a decentralised, fragmented structure to a highly integrated one. In the 1990s, supermarkets re-examined traditional supply structures for fresh fruit and vegetables. In the following years marketing and distribution gains were realised through mergers, acquisitions and contractual agreements. The emergence of supermarket owned warehouses changed the marketing chain as these large retailers now had the facilities to act as their own wholesalers. Some few fruit and vegetable retail chains in Europe cater for 80 % of the market and thus have the possibility to impose their standards on producers.

**Organic mango.** The organic fruit and vegetable sector in Germany has developed its own trading structure, which remained essentially unchanged over the years. Specialized organic product importers and wholesalers trade the products that are sold to specialized organic food stores. Supermarkets often have their own buying structures. Due to the small quantities of organic traded goods, there is usually one more step in the organic trading chain than in conventional trade. Costs for logistics therefore play a bigger role in the organic value chain than in conventional trade.

3 Standards in the value added chain

**Conventional mango.** Standards for conventional mango production differ in several aspects from those of organic standards. Their emergence at the beginning of the 90's did not originate from the producers, but from some important retail business entrepreneurs. In a pro-active approach, these “customers” defined what they understand as good agricultural and manufacturing practices. After many uncoordinated approaches the retailers decided to harmonise their requirements and delegated the task of conformity assessment to a third party (certification body), which allows transferring the audit costs from the retailers to the suppliers. Private organisations monitor now the suppliers for compliance with these standards. There are several standards in the conventional chain of production; the most prominent are EurepGAP for primary products and the IFS for processed products.

**Organic mango.** The marketing of fresh and processed organic mangoes is bound to certification. Organic standards cover the entire chain from primary production to processing and trade. Originally developed by producers associations in Europe the organic standards became a legal standard in the European Union. Important incentives for organic producers are premium prices, if they supply their produce to special organic market traders. Certified products can be traced back to the origin since producers, processors, exporters, importers and wholesalers are inspected for compliance with organic standards and the trade is documented. This is a big advantage since traceability has become important in European trade.

4 Options for certification

**Conventional mango.** In order to comply with the EurepGAP standard, mango growers have to invest in installation, protection gear, first aid kits and risk assessments. Permanent costs have to be paid for the maintenance of installations, certification, analyses and training. The average costs of compliance account for 3.8 % of the product price at farm gate but can reach up to 15 %.
Compared to an individually certified large farm, the costs of compliance the individual farmer has to bear, were found to be considerably lower in some cases where small and medium farmers opted for group certification and costs could be reduced further when small farmers engaged in contract farming with an exporter.

It can be observed that the exporter pays the greatest part of the costs of compliance at farm level. This behaviour can be explained by the fact that the exporter remains the owner of the certificate. Producers are thus tied more closely to him. He practically gains control over the farms.

**Organic mango.** Organic mangoes are predominantly cultivated by small producers, for whom group certification is the most promising way to have access to the certificate. As they are hardly able to fulfil the high standard requirements as individual producers. In addition, they are unable to bear the costs of single certification. For group certification, there are well proven systems that are getting harmonized on international level.

Long-term relationships are necessary to ensure continuous quality improvement of the produce in order to meet market requirements. The conversion time of up to three years to organic farming requires investment in terms of infrastructure, technical support, inspection and certification. During the conversion period, inspection and certification have to be paid from the first day while the produce cannot be sold with a premium price during this period.

Processing plants, exporters as well as NGOs often engage in the provision of advice and training to grower groups and hence play a decisive role in small farmers’ organizations. A disadvantage associated is the dependence of farmers groups on their customers. Sometimes, exporters own the certificates and therefore farmers groups are dependant on them, since they cannot export their produce without the certificate as organic product.

On the other hand, the exporter is dependent on the grower group. If producers do not sell their produce to him, the investments in organizing group certification are lost. The same applies if the importers source from other exporters.

**5 Practical experiences from technical assistance projects**

**Conventional mangoes.** In a number of developing countries GTZ has assisted small farmers in implementing standards and preparing for certification. A recent study undertaken in the region of Piura in Peru for conventional mangoes gave some interesting insights into production costs, particularly costs of compliance with standards, and how they are reflected in farm-gate prices.

Small producers still play an important role in the production of conventional mangoes in Piura, while the processing industry and the export business are highly concentrated. Production costs are US$ 112 per t with an average yield of 15 t/ha. Mangoes are sold to intermediaries and to exporters who pay an average price of US$ 215 per t and US$ 245 respectively. The processing industry pays only US$ 80 per t and no information is available if processors use certified mangoes to a considerable extent.

The relations between actors in the conventional mango chain have been subject to drastic changes. Traditional systems, in which intermediaries and wholesalers played a large role, now compete with systems, in which the exporters themselves enter the production process or enter into contracts with individual producers (outgrowers/contract farmers). This kind of cooperation can range from a partnership with mutual support to top-down management of the farm by the firm.
One problem related to this kind of contracts is lack of commitment between involved parties. Enterprises sometimes sign a contract with the producer at the beginning of the season, but do not pick up the harvest. In other cases the farmers are paid after a delay ranging from some weeks up to the next season. Sometimes producers give up any claim to payment. The most severe form of this practice is when an enterprise exports mangoes for one season, closes down the firm without paying the producers and reopens in the next year under a new name and legal form. Producers, too, engage in suspect dealings: although committed to one particular firm, they often sell to other buyers.

When asked about the advantages of being certified, producers mentioned aspects such as cleaner and healthier production, an increase in productivity, better compliance with market requirements and improved cooperation with the buyer which all enhance their ability to maintain their market share. In most cases, the incentive for certification of conventional mango producers is not a price advantage. Currently paid premiums are due to a limited offer of certified produce. However, a consolidation of the production chain, which comprises certified exporter enterprises and “preferred suppliers” could be expected. This consolidated production chain can appear competitive on international markets and can reap the benefits of international trade.

**Organic mango.** Organic mangoes are predominantly produced by small farmers. They are organised in groups as co-operatives or organised by an exporter. As more and more farmers organise themselves in groups and get certified and certified farmers continue to produce organic products it can be deduced that organic production is economically interesting for them. In interviews farmers very often confirm that their income has increased with organic production. The Fairtrade Labelling Organization (FLO) has elaborated minimum prices that reflect the production costs.

The f.o.b. price for fair-traded organic mango varies between 0.61 – 1.03 US$/kg in different countries. Conventional fresh mangoes from Burkina Faso were priced US$ 0.94 kg fob, whereas fresh organic mangos from Burkina Faso were priced at US$ 1.11 kg fob in 2004. According to the FLO table organic mangoes receive a 20% higher price than conventional fair traded mangoes. The variation in production costs in different regions is bigger than the premium for organic. Sales prices to trade vary also very much depending on variety, quality, quantities traded and the season.

The conversion requires investments depending on the initial situation. Crop rotation or intercropping have to be introduced. Organic matter has to be produced and therefore farmers might invest in cattle to get manure. The farmers group has to be organized and internal control systems put in place. Costs of implementation depend very much on the ability to get organized and do a proper documentation of production. Organic agriculture is know-how intensive. Less costs are involved in agricultural inputs but more labor may be required. In Peru small farmers paid between 300 and 600$ per farm for certification in 2002. Prices for certification tend to fall due to higher competition. For group certification farmers paid only between 20 and 30 $ per year.

**6 Conclusions**

Contract farming and certification in both conventional and organic mango production is not an option for every small farmer. Only the fittest - not necessarily the largest - will be able to comply with the requirements of the standards. Others may be reluctant to engage in groups and contractual relationships with their inherent dependencies and risks.
While the organic standard does add value to the product, which is reflected by a higher price, this is not normally the case with EurepGAP. The extent to which producer margins increase when producers comply with either the organic or the EurepGAP standard depends on a number of different factors. Key questions that arise are: How much are the conversion and production costs? How much are the costs for group organisation, internal control and certification? Who is reaping which share of the premium price?

There are more questions than answers and all actors in the chain show certain reluctance to make this kind of information available to the public. Baseline studies are therefore needed to compile data on production costs and farm-gate prices.

Processing is a difficult option as this business is characterised by high investments and complex standard requirements unless producer groups find a processor that is willing to produce for them. Organic products have to be managed separately from conventional ones and the processor needs to be certified.

Our recommendation for producer groups that want to take a decision if they should get certified by EurepGAP or convert to organic is as follows:

An assessment of the actual situation of production, processing and marketing should be made. How is the group organized? Are the production qualities suitable for export? If not, only organic production plays a role sophisticating traditional production techniques. Organic products sold in local markets are often not certified and do not get a premium but clients prefer the product quality and taste. After the conversion period production costs are often lower than in conventional production and therefore incomes rise.

If the group wants to export it has to be considered that the organic market is a growing one but still a niche. Big producer groups with huge product quantities might not be able to sell all their production as organic but have also to sell to “conventional” channels. In this case also a EurepGAP certification has to be considered as this will be the “entry” requirement to most conventional markets in the future. It is recommendable to get advice by an experienced expert because any decision involves investments which shall be cautiously planned.

Selected Literature


