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From production to the consumer: What German Technical Cooperation offers to establish a successful organic farming business

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Abstract

Under commission of the German Government, German Technical Cooperation (GTZ) has been actively supporting organic production and market development in Southeast Asia, including Thailand. Services included training of farmers, trainers and consultants within certification schemes, introduction of eco-efficiency in production and processing, implementation of new biological approaches to pest control and fertilization, organic value chain promotion, market development, feasibility studies and policy advice. Emphasis has been placed on strengthening the supply side through environmentally friendly production, organic certification and market development in view of domestic as well as export markets.

Keywords:

Introduction

There is a long tradition of support of organic agriculture by GTZ. For more than 10 years GTZ has been an active pioneer in this field in developing countries. Initially, the emphasis was on exporting to a niche market in Europe. Today organic agriculture has become part of the mainstream, with all the attendant consequences of a growing market. As the market for organic products in the European Union (EU) expanded fast and steadily, the plethora of private standards and labels created growing uncertainty for consumers. EU Regulation 2092/91 on organic production was introduced to address this issue¹. Ultimately, inclusion on the European Union's 'third country list' is essential for countries aiming to become long-term exporters of organic products. For example, a very high proportion of the organic food consumed e.g. in Germany and other European countries is imported, approx. 40% according to the International Trade Center (ITC)

(Birthe T Jacobsen. 2006). A large share of this comes from developing countries. This alone prompts a significant need for action. The international legislation gives rise to an array of areas for development cooperation on a range of levels.

At governmental level policies supporting organic agriculture is essential. National legislation, quality control systems and institutions must be created in order to facilitate export potential at the same time support own local market. To meet the rising demand on international and domestic markets, preparing for certification became extremely demanding in particular for smallholders in developing countries. Know-how on organic standards and inspection procedures need to be locally embedded. Supporting institutions must also be created (organic farmers' associations, local inspection bodies, etc.). The lack of know-how about production processes, internal quality control systems and marketing are the greatest obstacles faced by smallholders thinking about converting to organic agriculture. With national markets tracking the international trend, and growing awareness of the fundamental benefits that smallholders can derive from organic agriculture, its broad and growing appeal in developing countries is understandable.

Approaches to promote organic production and market development

Successful and sustainable implementation of organic agriculture in a country requires effort at all levels. Consideration must be given to all links in the value chain from the producer to the consumer. Governments should create the framework by passing organic farming legislation and pursuing agricultural policies which facilitate organic agriculture. Where local certification organisations exist, it is generally easier for smallholder groups to gain certification for export markets, or indeed for local markets.

It is important that producers have access to expert advice, because know-how about appropriate production techniques is the critical factor. While organic farming is not capital-intensive, it is certainly know-how intensive. Producers therefore need support, especially during the conversion phase. It is useful for smallholders to form groups in order to make more efficient use of advisory services and to learn from one another's experience. This is an essential prerequisite for the certification they want to obtain. Producer groups first need to establish internal quality control systems. These are operated by the group itself in order to keep the costs of external certification to a minimum. Once a smallholder group has implemented an internal quality control system, the external certification body will cover by spot check inspections. GTZ has developed internal quality control systems for a range of crops and advises inspection bodies on the certification of these crops. Marketing is the next important point for ensuring that organic production is profitable for the smallholders. Organic products are emerging from their export niche, but also open up an ever-expanding range of opportunities in local markets.

Under commission of the German Government, German Technical Cooperation (GTZ) has been actively supporting organic production and market development in Southeast Asia, including Thailand. Services included training of farmers and trainers within certification schemes, introduction of eco-efficiency in production and processing, implementation of new biological approaches to pest control and fertilization, value chain promotion, market development, feasibility studies and policy advice.

Example: In cooperation with local farmers, parts of the longan sector in Chiang Mai were successfully certified organic and presented on trade fairs in Europe. Based on pheromones to control insect pests, environmentally friendly no-residue pest control technologies are currently introduced to longan and lychee that are compatible with organic certification

requirements. Under Thai-German Partnership Programme for Enterprise Competitiveness (TG-PEC), GTZ together with its partners advises projects and institutions on the sustainable implementation of organic farming projects, taking account of the overall context outlined above.

GTZ also works to create integrated networks of different activities supporting every link in the chain on the following themes.

Policies and enabling framework conditions

Since the mid 1980s, organic farming has received high attention by policy-makers, consumers, environmentalists and farmers in Europe and state institutions have become increasingly involved in regulating and supporting the organic sector. Reflecting the multiple goals for organic farming and for agricultural policy, a varied and complex range of policy measures have been developed and implemented. However, balancing societal and consumer/market goals and balancing institutional and private stakeholder interests in the organic sector present particular challenges for policy-making.

Agricultural policy may address either producer or/and consumer issues. Producers embarking on organic production benefit from advisory services to support farm conversion and can receive financial help for the costs of certification. Marketing is enhanced by consumer information or even the implementation of an organic label. Many governments in developing countries have recognised the importance of organic agriculture, particularly for their smallholders, and are passing laws to regulate it. Such legislation should then be backed by agricultural policies which facilitate organic farming. To bring this about, it is necessary to take stock of the situation and define clear objectives. On that basis, strategies can be developed. The GTZ advises governments engaged in this process¹.

Example: Under the German Federal ‘Organic Agriculture’ Programme, agricultural policies such as subsidising the use of synthetic chemical inputs which tips the balance against conversion to organic farming practices, have been abolished. In Thailand GTZ has published a report on “Organic Agri-Business - A status quo report for Thailand 2007” (see “References”). It aimed to enhance the competitiveness of Thai organic SMEs by providing the current status of organic production, regulatory framework, standard and certification, marketing, labeling and challenges for Thai organic sector development. The study has been used as a base on several policy forums among the stakeholders to discuss necessary cooperation and coordination measures.

Certification and standards

Organic certification assures quality, prevents fraud and promotes commerce. Such certification was not necessary in the early days of the organic movement, when small farmers would sell their produce directly at farmers' markets. As organic products have grown in popularity, more and more consumers are purchasing organic food through new channels, such as supermarkets. As such, consumers must rely on third-party regulatory certification.

For organic producers, certification identifies suppliers of products approved for use in certified operations. For consumers, "certified organic" serves as a product assurance. Certification is essentially aimed at regulating and facilitating the sale of organic products to consumers. Individual certification bodies have their own service marks, which can act as branding to consumers - a certifier may promote a high consumer recognition value by its logo as a marketing advantage to producers.

It is essential for developing countries to build local inspection and certification capacities.

This enables a low-cost certification process. Since international accreditations are expensive, work is in progress to develop simplified certification concepts for local markets. Under these concepts, production standards are no less stringent but simplified inspection procedures are accepted. As yet these procedures are still in the pilot phase. The approach is known as alternative or participatory certification¹.

Example: GTZ and its partners support both the transfer of expertise to inspection bodies through capacity building for local certification bodies, and the development of concepts for participatory certification. For example in Thailand, the Organic Agriculture Certification Thailand (ACT) has been supported. ACT is yet the only Thai private certification body (CB) which has been accredited by the International Federation of Organic Agriculture Movement (IFOAM) and the National Bureau of Agricultural Commodity and Food Standards (ACFS)¹². It provides inspection service for international CB according to their standards in the Southeast Asia region, e.g. for Naturland (German based CB) and ICAE (Italy based CB). Becoming an organic inspector and certification body, ACT has wide experiences, but with limited recognition both at domestic and international markets. GTZ aims to enhance ACT's capacity on organic certification services both in term of technical services and its' business and market development.

Internal Quality Control Systems

Internal Control Systems (ICSs) are part of a documented quality assurance system that allows an external certification body to delegate the periodical inspection of individual group members to an identified body or unit within the certified operator (www.ifoam.org). This means that the third party certification bodies only have to inspect the well-functioning of the system, as well as to perform a few spot-check re-inspections of individual smallholders. The rationale behind ICSs for group certification is two-fold:

- 1) to facilitate smallholder certification, i.e. simplify certification process and reduce its cost for smallholders through coordinated documentation and
- 2) to implement and maintain a high quality assurance system for organic standards in smallholder production.

Group certification enables smallholders to access organic markets and enables developing countries to commercialize their products at the international level. ICSs also provide a good basis for sound quality systems to ensure organic quality and provide consumers with imported organic products at reasonable cost. It calls for a good level of organisation within the groups. This is very difficult in its initial phase, but pays off later in relation to a much broader range of issues. Since internal quality control systems are only accepted for smallholders organised in groups, it was necessary to define the terms 'smallholder' and 'group' more precisely, which is relatively difficult.

Example: GTZ Thailand has worked with the Mae Jo University, Chiang Mai, to provide the Internal Control Systems (ICSs) to small farmer groups, for example for the longan, tangerine and shrimp sector. One of the main activities was to enhance the university's capacities in international recognized standardization and certification system, in particularly in the context of group certification mechanism. GTZ and its partners have developed checklists in Spanish for the internal quality control of four products: coffee, cocoa, vegetables and quinoa. In Germany the average size of a smallholding in hectares can vary greatly depending on location

² ACFS is Thai national accredited body for agricultural commodity. In 2007, ACFS has targeted to develop national organic standards and to build up system for organic certifications within government agencies. These agencies include Department of Agriculture, Department of Fisheries, and Department of Livestock.

and groups. GTZ, therefore, has assisted German authorities with defining in terms of both their size and their form of organization.

Organic farming and production

Organic farming is the form of agriculture that relies on crop rotation, green manure, compost, biological pest control, and mechanical cultivation etc. to maintain soil productivity and control pests, excluding or strictly limiting the use of synthetic fertilizers and synthetic pesticides, plant growth regulators, livestock feed additives, and genetically modified organisms. In order to give plants 'wholesome' nutrition and to promote healthy plant growth, great value is placed on organic matter in the soil. To keep pests within acceptable limits, crop rotation or intercropping are indispensable.

Producers wishing to convert to organic agriculture must first analyse their current situation in order to develop strategies for conversion. For example, it may be necessary to invest in livestock in order to return more nutrients to the soil. In a producer group, however, division of labour is another possible way to proceed. Individual group members can supply manure to others, for instance, or take responsibility for propagating seedlings for the group. The period of conversion to organic agriculture can be difficult in certain cases, particularly for those converting from intensive farming systems. The situation tends to stabilise after three years, and producers can earn higher incomes from stabilised or raised yields within a diversified production system.

Example (e.g. Biopesticides): GTZ has put together information on organic production in the tropics, along with training materials for multipliers. It has supported various governments in developing countries to introduce good agricultural practice, integrated pest management (IPM) policies and, particularly, non-chemical interventions in crop protection for more than 25 years (Förster et al. 2001, Röttger 2004). In 2003, GTZ launched a new initiative, the "Commercialization of Biopesticides" program in Southeast Asia, which has the goal to increase market distribution of biopesticides and other environmentally friendly technologies in the region (Jäkel 2004). It was felt necessary to focus on the private sector as a key player in improving market availability and, eventually, use of bio-control products. Although there is, to some degree, local production of bio-control products for farming communities in parallel to a still limited, commercial market serviced mainly by transnational companies (Quinlan and Gill 2006), local know how and bio-agents have rarely been used to create genuine commercial products, particularly in Southeast Asia.

Besides use in conventional agriculture, biopesticides, which include microbials, beneficial arthropods, insect pheromones and plant extracts, are well suited to be applied in organic agriculture (Mulla 2001). Positive lists of products compatible with organic production can be obtained from various sources, e.g. from EPA with regard to the requirements in the US (www.epa.gov), or from FiBL (www.organicinputs.org) explaining the requirements in Europe. The current introduction and testing of a sex pheromone to control the lychee fruit borer (*Conopomorpha sinensis*) in organic longan and lychee plantations in Thailand is a follow-up of a very successful program of GTZ in Indonesia, where a new pheromone for mass trapping of a sister species, the notorious pest cocoa pod borer (*Conopomorpha cramerella*), was tested (Zhang et al. 2008) and subsequently commercialized. Mass trapping using this pheromone is promising to give about 400,000 small-scale farmers the chance to obtain better cocoa quality without using any synthetic pesticide. This technology is also key in enabling organic cocoa farmers in Aceh in northern Sumatra to get access to organic certification and export markets for their produce in Europe. In 2008, about 1,500 organic cocoa farmers used the technology already and many new farmers have been joining the program since the beginning of 2009. These results

also challenge the often cited paradigm that environmentally friendly technology is expensive and not affordable for smallholders. Due to a south-south business agreement between an Indian producer of the pheromone (Pest Control India) and its Indonesian private partner for distribution of the product (CV Hetts Bio Lestari) prices can be kept low. Therefore, the new technology is affordable for all farmers. As data from field trials with cocoa smallholders in Sulawesi, Indonesia, show, pheromone technology cannot only increase yields, but shows a similar benefit-to-cost ratio like synthetic pesticides.

Preliminary results from trials on organic longan farms in Chiang Mai show that the pheromone is trapping lychee fruit borer effectively. Should it be possible to reduce damage to longan and lychee fruits significantly, sales of organic longan and lychee would be facilitated, because presence of the pest's larva in infested fruits deterred customers of buying it previously.

Marketing

It is marketing that determines whether or not the value of organic products can be generated into economic value. Producers largely set their sights on export markets, believing them to have the best income-generation potential. But export markets demand high quality standards and recognised certification. Many organic growers find marketing to be the most difficult 'part' of farming. Some lack the skills and creativity to find profitable outlets; some simply dislike dealing with the public, doing market research, or addressing the other details essential to successful marketing. These organic farmers find that they, too, are "price takers"—just like most conventional farmers. While demand for organic products has greatly increased since the late 1990s, organic production has also increased. It is inevitable that the rapid rise in production will eventually reduce or even eliminate the premium prices that have attracted many new growers to certified organic production. Actively seeking buyers, evaluating offers, and negotiating the best deals are becoming more and more crucial to the economic survival of organic farmers.

Diverse methods of marketing organic products have arisen in developing countries, including organic stalls at weekly markets, box schemes and shops run by producer groups themselves. Particular attention must be devoted to product quality. To achieve premium prices for organic products, there must be a clear emphasis on maintaining top quality throughout the stages of grading, packing, processing and transport. Uninterrupted refrigeration chains are essential¹.

Moreover, to be sure that the product prices paid will provide an adequate income in the long term, some form of cost accounting should be operated even by smallholder groups. This can be implemented in combination with the internal quality control system.

Sample: GTZ develops concepts and offers advisory services on local and/or international marketing and cost accounting in smallholder groups. For example in Thailand, within the transformation of Thai shrimp farms from conventional to organic production, whereby GTZ was instrumental in market development and business matching with retailers in Europe. A similar approach is planned together with the Thai Organic Trade Organization (TOTA) in certain vegetables. Here, too, emphasis is on strengthening the supply side through environmentally friendly production, organic certification and market development in view of domestic as well as export markets. GTZ has also support organic SMEs to participate in international organic trade fairs, for example BioFach which is the world's biggest organic trade fair. SMEs have to be trained on pricing, cost accounting, negotiation skill and market trend before attending trade fair event.

Moreover, a memorandum of understanding between GTZ and Department of Export Promotion (DEP), under Ministry of Commerce, on the promotion of organic agri-product exporting will be signed on 4 September 2009 in order to enhance the competitiveness of the Thai organic SMEs in the global market. Four main activities can be defined which are exporting training, trade fair participation, business matching and public relation.

Conclusion

To ensure that all services are functioning to support a successful organic market development, the different interventions must be linked with each other towards an organic market based on economic value, social and environmental movements. Vertically, linkages must be considered along a whole value chain, in order to eliminate bottlenecks and barriers for the organic stream within the value chains. This includes market development through labeling and certifications to know-how transfer on the farm level as well as market development of consulting services themselves. Horizontally, framework policies and organic business enabling environments, branding and consumers' awareness for "going organic" are essential to bring about the necessary break event points (economy of scale) and benefits.

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Online resources and further information:

¹ By GTZ at <http://www.gtz.de/en/themen/laendliche-entwicklung/6595.htm>

“Organic Agri-Business - A status quo report for Thailand 2007” available at:
<http://www.thai-german-cooperation.info/en/what-we-do/organic.html>

www.epa.gov

www.ifoam.org

www.organicinputs.org

Further list of publication/literature:

<http://www.gtz.de/en/themen/laendliche-entwicklung/7498.htm>