Strengthening the capacity of farmers' groups to enhance quality through organic certification: a case study of cashew nut producers in Flores, East Nusa Tenggara, Indonesia

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Abstract

Cashew is a major source of income for most farmers in Flores, an island of East Nusa Tenggara Province of Indonesia. Most of the cashew are grown organically and sold in shell (gelondongan) to traders who frequent the farmers' villages. The price of cashew in shell is considerably lower than the price for nuts in either a fresh or processed form. With the aim of enhancing the competitiveness of selected farmers' groups and local producers through value adding, two international non-government organizations (NGOs), in collaboration with two local NGOs embarked on a project to certify selected farmers' groups in Flores for organics. The project focused on the organic certification process, as managed by the farmer group themselves, and capacity building in terms of collective marketing and cashew processing. The paper describes how VECO Indonesia, a Belgium NGO and Swisscontact, a private sector-funded Swiss development agency, collaborated with two Indonesian NGOs - Bangwita and YMTM - to enhance the capacity of selected farmers' groups to add value to their produce. While not without its share of problems, the project led to an enhanced understanding by the farmers and the NGOs of the certification process and the required documentation. More importantly all four participating farmers' groups received organic certification in accordance with standards from the American National Organic Programme (NOP), the European Union and Bio Suisse (Switzerland). An added outcome of the project was that farmers' groups became more aware of sustainable land management practices. The market-linking process is still a challenge that the project collaborators have to deal with. Lessons learned, both technical and institutional, now serve as a basis for planning future activities.

Introduction

Organic farming is growing worldwide. The total land area under certified production has reached 25 million hectares (Gier, 2004). In 2003, worldwide sales of organic products reached US\$23 billion. The world's biggest markets for organic products are the United States of America (US\$11–13 billion) and Europe (US\$10–11 billion). Britain's largest trader in organic products estimates that the market will grow to US\$100 billion within the next ten years, with most of this growth taking place in the United States of America, Europe and Japan.

For export, organic certification adds a great deal of value (Scialabba and Hattam, 2002). Organic certification not only provides consumers with a guarantee of quality, but it also gives farmers the opportunity to obtain premium prices. However, most consumers will pay a premium only to a certain point. As the premium increases, the

number of consumers willing to pay decreases, mainly because the conventional commodity is always available as a substitute.

In Indonesia, the market for organic products is growing too, especially in major cities. Indonesia's main organic products are rice, fruit and vegetables, coffee, cashew nuts, spices, coconut oil and shrimp. According to Prawoto (2005), organic coffee, cashew nuts and shrimp from Indonesia are exported to Europe, the United States of America and Japan.

The majority of Indonesia's cashew is produced on the island of Flores in East Nusa Tenggara province. Based on the area, the province of East Nusa Tenggara is the largest area for cashew nut production, with 23 percent of the country's area under cashew (Dipokusumo, 2004). In the districts of East Flores, Sikka, Ngada, Ende and Manggarai, the total land under cashew nut production has reached around 90 570 hectares. The cashew nuts produced are typically sold unprocessed and ungraded to processors from India and local traders. The farmers usually just dry the nuts on the ground for a short period (about one day) and do not segregate the nuts by size.

This paper will discuss the experience of developing organic cashew nut production in four villages in Flores based on the joint project between VECO Indonesia and Swisscontact. Flores is a natural area for organic production as the farmers do not use chemical fertilizers or pesticides. Much of the discussion in this paper is drawn from the results of the project over the years 2005 and 2006.

Objectives

The project aimed to help farmers optimize the potential for cashew nuts in Flores through organic certification while maintaining a low input system of production. The specific objective was to create a learning process for farmers, VECO Indonesia and Swisscontact through: (i) arranging organic certification of cashew nuts through farmers' groups; (ii) introducing internal control systems (ICS); (iii) building the capacity of farmers in processing cashew nuts to increase the added value. Organic certification was viewed not only as a means of securing better markets, but also as a means to improve product quality in the long term.

Project methodology

Project design

The multistakeholder organic cashew nut certification project officially began in 2005. It involved farmers' groups, local NGOs, private sector traders, Swisscontact and VECO Indonesia. The local NGOs involved were YMTM and Bangwita, VECO Indonesia partners with much experience on farmer empowerment.

The organic certification process was undertaken in cooperation with the Swiss-based International Marketecology (IMO). The set up of the pilot project between VECO Indonesia, Swisscontact and IMO, and various other institutions such as PT PMA, NGOs and farmers' groups in Flores is shown in Figure 1.



Figure 1: Setup of the pilot project for organic certification of cashew nuts

The roles of each of the stakeholders in this project were as follows:

- the farmers' groups involved were from four locations (Rowa, Ilin Medo, Kringa and Ilepadung);
- IMO is an international institution that provided international certification according to Regulation (EEC) No 2092/91 for organic production;
- the Consulting Cashew Centre (CCC) assisted in implementing internal control systems (ICS), especially in Ilepadung, where no local NGO was involved;
- PT PMA, a private company, purchased the farmers' organic cashew nuts;
- local NGOs (YMTM and Bangwita) provided support to the farmers' groups in the form of technical assistance in sustainable agriculture and capacity building. In the organic certification process, YMTM and Bangwita served as the ICS provider (local ICS coordinator), facilitating coordination of the local inspectors in documenting and monitoring processes in the field;
- VECO Indonesia and Swisscontact facilitated and supported project implementation as well as forged links or networks with all stakeholders, including traders and the IMO.

Selection of the project location

The project covered four villages in three districts of Flores, namely: Rowa (Ngada district), Kringa and Ilin Medo (Sikka district) and Ilepadung (Flores Timur district). These locations were selected on the basis of the potential for organic cashew nut production as a result of; (i) a preassessment study which determined the potential for the development of organic cashew nuts in Flores; and (ii) the PT PMA study in 2004 which explored the potential and challenges of the cashew nut and vanilla business in five districts in Flores.

Project stages

In keeping with its objectives, the project involved several stages of activity:

Selection and verification of farmers' groups: Based on the results of the preassessment of the risk of contamination (fertilizer, pesticide and surrounding lands), four villages were selected as suitable for involvement in the pilot project. From these four villages, a total of 561 farmers were involved.

Assessment: A joint team from IMO, YMTM, Bangwita, Swisscontact and VECO Indonesia conducted a field assessment of the selected locations. Results indicated that the land in Flores was in reasonable condition for the cultivation of organic cashew. The farming systems developed by the farmers typically feature low external inputs. Chemical fertilizers and pesticides were not used. However, the assessment also indicated that there were no existing farmers' groups capable of providing continuous internal control for the development of organic farming enterprises. For this reason, the need arose to strengthen farmers' capacity to undertake internal control as required by an internal control system (ICS).

Selection of local inspectors (local ICS): In the organic certification process, at the farmer group level, there was a need for an internal system to be set up that functions as a documented control system. The ICS is more than just a "control system", because ICS is an overall quality management system for the farmers' groups. ICS is a must if organic products are to meet the standards required for organic certification.

Local inspectors were recommended by the groups and they were selected jointly by YMTM, Bangwita, Swisscontact and VECO Indonesia. Most of those selected as local inspectors were farmer cadres with field experience and knowledge of organic farming.

ICS training: To introduce ICS and its role in the organic certification process, ICS training was given for the first time in October 2004, facilitated directly by IMO. Representatives of the farmers' groups, ICS providers (YMTM and Bangwita) and local government participated in the training. The level of participation and motivation of the training participants were found sufficient enough to begin developing internal organic standards for cashew nuts produced in Flores based on the IFOAM (International Federation of Organic Agriculture Movements) standards used by IMO.

Preinspection by local inspectors: A preliminary inspection was carried out by local inspectors together with the ICS provider to initiate implementation of the ICS. This stage included awareness-raising for farmers on the benefits of organic farming and organic certification. Farmer members of organic groups were involved as they needed

to give their approval of the contract made by the group members, internal inspectors and the coordinator (ICS provider).

The local inspectors inspected the lands of all group members. The resultant data was then cross-checked by the external inspector. During the inspection process, the local inspector also offered advice on the technical aspects of organic soil management and raised farmers' awareness of the benefits of organic soil management.

International inspection by IMO: The internal inspections by the local inspectors were followed up by international inspections by IMO in May and June 2005. The aim was to verify the data and evaluate the performance of the ICS providers and local inspectors. On the basis of having met the standards, the cashew nut farmers were awarded international organic certification. These certificates are owned by the farmers' groups.

Building a marketing network: From the outset, Swisscontact and VECO Indonesia had agreed that the organic cashew nuts produced by the project would be purchased by PT PMA. However, these two organizations were also actively networking with several other Indonesian and foreign traders and buyers via e-mail and direct contact. The aim was to build a network of potential buyers for the long-term marketing of organic cashew nuts.

Monitoring and evaluation: To determine progress towards the project outcomes, regular monitoring and evaluation was carried out by VECO Indonesia and Swisscontact programme officers. This involved undertaking field visits to the farmers, the ICS providers and local inspectors, as well as intensive meetings between VECO Indonesia and Swisscontact. The aim was to identify and discuss progress and problems arising in the field to improve the project further.

As organic cashew certification was a first for VECO Indonesia, Swisscontact, the local NGOs and farmers in Flores, an in-depth evaluation was made at the end of the first year to reflect on the challenges faced. This self-reflection involved all project stakeholders. The results of the self-reflection were used as inputs for the project's planning for the second year.

Results

The role of the ICS in the organic certification process

The organic certification process requires a quality control mechanism to ensure that farming practices, products and processes are organic. In the case of this project, a control system known as the Internal Control System (ICS) was introduced and this was implemented by IMO. Control processes were implemented on a regular basis to assess whether the organic cashew nut production processes in the field met the standards and were properly documented.

From the four farmers' groups, 31 local inspectors were selected to perform the internal control, broken down as follows: ten from Rowa, eight from Ilin Medo, six from Kringa and seven from Ilepadung. In terms of documenting the local inspection activity,

YMTM and Bangwita helped the local inspectors, as ICS providers, to remind the farmers to make detailed records.

In keeping with the principles of ICS, the roles and responsibilities undertaken by the internal inspectors in the process of organic certification for cashew nuts are defined as follows:

- plan inspection visits to each location;
- prepare or inform farmers of inspection dates;
- ensure that all relevant ICS documents on the farmers (from the ICS manager) are available for inspection;
- ensure that all relevant forms are available for inspection;
- arrange transport, for example for field visits (or the ICS coordinator does this);
- perform inspections of the group members' land;
- report inspection findings to the ICS provider for documentation.

The ICS work structure is illustrated in Figure 2.





The ICS control mechanism for this project involved two stages. Stage One is the internal inspection by local inspectors coordinated by the ICS provider. This stage involves the registration of organic cashew nut farmers, gathering data on land area, number of trees, estimated total production and how organic the land is in accordance with the standard set by IMO. The results of this internal inspection were then sent to IMO for verification. Stage Two involved a field inspection by IMO to verify the information and data gathered by the local inspectors. If they qualify, based on the results of this inspection, IMO will issue organic certification to the farmer group, along with a list of the names of the members of the group that has been registered. If they do

not qualify, they do not get the certificate. However, reinspection is still an opportunity. The ICS control mechanism is illustrated in Figure 3 below.



Figure 3: ICS control mechanism

The role of farmers' groups in the development of organic cashew nuts

The project partners worked through farmers' groups to attain the objectives of enabling farmers to produce cashew nuts with an organic certification, to implement the ICS, to minimize inspection and certification costs by sharing the costs, and to develop collective trading to improve the farmers' bargaining power. Farmers' groups play a key role in the organic certification process. Moreover, certificates are held by the smallholders' groups, not by individual farmers.

Each of the four farmers' groups have their own respective administrative structures and rules. Each of the groups was further divided into three or four subgroups based on geographic location or administrative boundaries. From each of these subgroups, one or two members were chosen to be local inspectors (local ICS), whose role was to undertake the documentation and to control organic farmers in line with the ICS work system.

To build the capacity of the farmers' groups in the institutional and technical aspects of production, training and peer visits were conducted. The training provided included institutional strengthening of groups (including group dynamics, farming analysis, etc.), management and processing of organic cashew nuts (including grading, sorting, drying and storage), and processing cashew into shelled cashew nuts.

The Flores cashew nut marketing chains: conventional versus organic chain

The marketing chain for unprocessed cashew nuts in Flores generally involves four actors: farmers (producers), collectors, traders at the district level, and buyers from India who provide the links to the international market. Specifically, the actors of this conventional chain are:

• Collectors at the village level (individuals);

- Traders at the subdistrict level;
- Traders at the district level;
- Interisland and interdistrict traders in Flores;
- Exporters in Flores and Surabaya (Figure 4).

Figure 4: The marketing flow of cashew nuts in Flores



Source: Gamper (2005)

The organic cashew nut marketing chain developed by this project consists of the farmers, PT PMA/CCC and Flores Farm. According to Wheatley *et al.* (2006), this chain is separate and different from the conventional marketing chain. In 2005, the first year's sales of organic cashew nuts amounted to 60 tonnes. However, exports of conventional cashew nuts from Flores were estimated at 70 000 tonnes.

The organic marketing chain was developed for two main reasons. Organic certification will add value and provide a higher price compared to the unprocessed cashew nut. Furthermore, collective marketing was considered to provide greater returns to farmers. However, the organic chain requires certification, and without it, little or no price premiums will be achieved. The price premiums achieved support the capacity building of farmers.

Price of cashew nuts

The price of unprocessed cashew nuts fluctuates, depending upon market trends. The price per kilogram of unprocessed cashew nuts purchased from farmers ranges between Rp5 000 and Rp6 000. There is a downward year-on-year trend in the price of unprocessed cashew nuts. Collectors in the villages pay cash for unprocessed cashew nuts. Some employ a system known as *ijon*, where the farmer receives the money before the harvest. The long cashew nut marketing chain means that farmers receive a low price.

According to Scialabba and Hattam (2002), price premiums compensate farmers for the additional handling expenses and administrative, inspection and certification fees. The premium price was calculated to cover the cost of certification as well as the local ICS fee. A price premium was also given to maintain the sustainability of organic marketing.

The premium prices per kilogram received for the organic cashew nuts from the project in the first two years of the project are described as follows:

The first year (2005). For the first year, PT PMA was the buyer agreed for the project. The price at the farmer level was Rp7 500 per kg but PT PMA agreed to buy at Rp8 200 per kg. The additional benefit of Rp700 per kg was to be used to pay for the cost of certification in the subsequent year, ICS and sacks.

The second year (2006). After PT PMA resigned from the project, PT Big Tree Farm was commissioned to be the buyer. For the Ilepadung group, the first year premium price of Rp8 200 applied, but for the Uru, Kringa and Rowa groups, the price premium was calculated in a different way.

In Uru, Kringa and Rowa, as the price at the farm level was Rp6 800 per kg, PT Big Tree Farm decided to pay Rp7 500 per kg. These three groups received a lower price than the group in Ilepadung because the quality of the cashew nuts they produced was inferior.

Discussion

Based on these two years of experience, there are a number of points that merit discussion. This discussion is important for monitoring project progress and for the basis of improvements to the project or similar projects in the future.

ICS and certification

In terms of capacity, the local inspectors (local ICS) are fairly well equipped to perform their roles in accordance with the standards set by IMO. Organic certification was issued to farmers' groups. This project is the first one in Indonesia to have introduced international organic certification for farmers' groups. Furthermore, all four farmers' groups obtained certification within one year (Gamper, 2005).

However, as far as coordination is concerned, the local inspectors cannot perform their roles effectively if the ICS providers are not properly coordinating the implementation of internal inspections by the local inspectors, as required. This happened during the first year of project implementation to the farmer group in Kringa. The ICS provider Bangwita failed to coordinate local inspections properly and as a result, the internal inspection was not executed to IMO standards. As a consequence, the Kringa farmers' group did not receive a recommendation for organic certification at the same time as the other groups and had to undergo a second round of inspection. It was only when IMO performed a reinspection that this group met the standards and eventually received organic certification.

The role of the farmers' groups

The achievements of the farmers' groups in this project are quite significant. They were able to participate in an organic certification project, which included implementation of internal control. Gamper (2005) cited as one of the project's achievements, that the four farmers' groups in Flores that had been trained in setting up ICS had passed inspection by the international certification institution, IMO.

The value being increasingly placed on environmentally and socially beneficial production and consumption supports the entry of small farmers in developing countries into the global market (Crucefix, 1998). However, much depends on the capacities and responsiveness of the farmer groups (Manalili, 2003). Unfortunately, not all the farmers' groups participating in this project were strong. This meant that each farmer group had to strengthen its members' capacities in cashew nut marketing. As an example, not all farmers documented their activities as a matter of routine. In fact, this is one of the key lessons learned from the development of organic farming in developing countries. In Uganda, organic cotton exporters found that they had to pay a member of staff to ensure proper documentation was kept (Crucefix, 1998). In this project, although the role of the local NGOs included assisting the farmers with documentation, eventually, the farmers' groups must be able to do this for themselves.

In the first year of the project, the farmers received no training on sorting, grading and processing. As a consequence, the farmers did not pay enough attention to product quality. At the end of the first year and in the second year, the farmers started receiving training in processing (shelling unprocessed cashew nuts). The training was done mainly with the groups in Ngada and Sikka districts, as the farmer group in Ilepadung were already well skilled even before the project began. The three groups are currently receiving training in processing. One particular processing aspect where they still need to build their skills is shelling. Normally, shelling around 1-2 kg of cashew nuts takes a whole day. As a comparison, the Ilepadung group can normally shell 5 kg of nuts a day. A higher rate of splitting nuts shortens the storage time, as well as the time it needs before the nuts reach the market.

Marketing chain and its actors

All the stakeholders in this project are new to the marketing of organic cashew nuts. In the first year, a marketing problem was encountered when PT PMA (the sole buyer) failed to honour its commitment to purchase the organic cashew nuts produced by the farmers. As a result of PT PMA pulling out of the project, the plan to make the CCC the cashew nut processing centre failed to get off the ground. This had a devastating effect on the marketing of the farmers' products.

The unprocessed organic cashew nut market was unable to absorb the entire production. Furthermore, the process market could not be targeted due to the limitations of the buyer to process the unprocessed nuts into grade A shelled nuts. Of the four farmers' groups, only the group in Ilepadung had the skills to produce shelled nuts.

This first year's experience was an important lesson for all involved in this project. The project is now exploring possibilities with other reliable buyers for organic cashew nuts. The project explored market opportunities such as Australia, ACHAL (India), Flores Farm (Germany) and Bali (Big Tree Farm). All showed some interest, however, none of them entered into a contract, except the Big Tree Farm.

Price

In the first year, because the partnership with PT PMA and CCC did not function as planned, the farmers did not receive the anticipated profits from the sale of premium organic cashew nuts. The farmers' group in Ilepadung sold their organic cashew nuts to

CCC. Unfortunately, CCC got into difficulties as a result of which the farmers in Ilepadung suffered some financial loss. The non-functioning of CCC also resulted in problems for the Rowa group when the farmers' cooperative purchased 15 tonnes of organic cashew nuts from the farmers (at Rp7 500/kg) and sold them to the CCC for Rp7 800/kg. As it turned out, the CCC could not buy all 15 tonnes and the cooperative had to dump three tonnes of product on the conventional market at a time when prices had slumped to Rp5 500/kg.

This first year's experience left the farmers disillusioned with the project. In addition, the plan to pay the fee for local inspectors out of the premium price received could not be realized. As a result, the project paid the local inspectors' fees.

Although premium prices were worked out in more detail for the second year, there has been a drastic decrease in yield, especially in Kringa and Uru, where the yield declined by almost 50 percent. The reason for this was the long dry season, which was then accentuated by pests and diseases.

Recommendations

According to Crucefix (1998), benefits from organic farming are seldom immediate. Small farmers will require considerable support or incentives over the initial years if the system is to be initiated and maintained. The project results confirmed this observation. Below are some of the recommendations arising from the project team's own reflection complemented with some insights arising from a livelihood study by Gamper (2005) in the four project locations and a marketing study by Wheatley and Associates (2006).

Collective marketing

Collective marketing, one of the goals of this project, has not been completely realized. Collective marketing is a possibility owing to the poor relationship between traders and collectors that will give farmers' groups an opportunity to deal directly with the traders. Another supporting factor is the competition for supply, which demands that the traders collect the product as quickly as possible. Direct contact between traders and the farmers' groups is more profitable for both parties. For the farmers' groups, this will provide a price incentive for the farmer of around Rp100–150 per kg (Wheatley *et al.*, 2006). Of course this will only be realized when the volume of product is aggregated.

Market Segmentation

The project should explore the possibilities of non-export markets in the context of enhancing the efficiency of conventional marketing channels. Factors in this equation are an improvement of the institutions involved in the marketing chain and of the market players. It also has to do with the farmers' capacity, especially in processing cashew nuts and guaranteeing product quality.

Price information

The project has not managed to achieve the prices as planned. Several compelling reasons are put forward by Wheatley *et al.* (2006) as to the importance of price information in the marketing of cashew nuts. Both farmers and traders confirm that fluctuating prices are a problem for them when it comes to marketing cashew nuts. The

constant fluctuation in the price of cashew nuts necessitates a price information system that is accessible to farmers and traders every day. This system could be used as a tool for analysing seasonal price trends, allowing farmers to store and sell their produce at the right time.

Processing of cashew nuts by the farmers' groups

The farmers in Flores need skills in processing cashew nuts. As well as providing added value, shelled nuts can be stored more easily and for longer than unprocessed nuts. Training the farmers to do this will not be difficult because the farmers' group in Ilepadung is already quite skilled at processing the nuts.

There are two important points regarding the processing of cashew nuts that should be borne in mind. First, as well as processing skills, the farmers also need access to the necessary tools (*kacip* or clippers). This would be of great assistance to the farmers. Second, an area that has not been explicitly explored by the project and should be is the role of women in the processing of cashew nuts, because most women have proven to be quite skilled at shelling nuts.

Better communication mechanism between all stakeholders

The number of stakeholders involved in this project, coupled with the complexity of the certification process, has delayed the implementation of the project. A communication mechanism between stakeholders and with external parties (such as traders and government) should be developed to ensure the free flow of information related to cashew nut marketing. Support for communication equipment is sorely needed, bearing in mind the mountainous topography of Flores and the poor road access.

Conclusions

Several conclusions can be drawn from the first two years of this project. Strengthening farmers, while still in the initial stages, has been achieved by the project.

Organic certification given to cashew nut farmers' groups in Flores

In its first year, the project succeeded in securing international organic certification for the four farmers' groups involved in this project. This certification from IMO is in line with NOP standards and EU standards. This will promote the competitiveness of the organic cashew nuts produced by the Flores farmers at the international level.

The motivation and awareness of the farmers participating in the project to enhance the quality of cashew nuts through organic certification is growing, although in economic terms, the farmers have yet to enjoy the premium prices that were initially expected by the project.

ICS functions to support the organic certification process

The farmers have a growing understanding of the organic certification process and the ICS work system used for internal control by the organic certification institution (IMO). Thirty one farmers are involved as local inspectors. This is a significant achievement in the capacity building of the farmers, which should be continued.

Marketing

Collective marketing must be supported in the future because the farmers' groups have not had much training and are not skilled in this area. The failure to obtain premium prices and the problems with the marketing process are key points to note from the two years of experience of this project.

There has been quite sharp criticism of this project for targeting the export market, which, its critics say, does not guarantee a large- and safe-enough market. Opportunities for improving the conventional marketing chain should also be explored.

Cashew nut processing

The farmers need training in processing cashew nuts. The farmers' groups need the time and opportunity to perfect these new skills.

Multistakeholder collaboration

The benefits of multistakeholder collaboration should be clear for everybody. The first year's experience showed that poor communication and unclear task division among the participants created problems in the project implementation. This was revealed during the self-reflection process. For example, VECO Indonesia focused on strengthening the farmers' groups in organic certification, while Swisscontact focused on market access and orientation.

After the self-reflection process, improvements were made in the second year. Improvements included a clear division of roles, clear operational plans, a contract between local NGOs, farmers' groups, VECO Indonesia and SwissContact. Furthemore, each project stakeholder has searched for new market opportunities. After the improvement, the project has run smoothly.

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