Case Studies on Cross-Border Ecotrade

This compilation of four country case studies provides a comprehensive understanding of challenges, good practices, and lessons learnt under different situations. In the Lao People’s Democratic Republic, a cross-border vegetable trade agreement with its neighboring, Thailand, aided in stabilizing market prices and provided financial benefits to local contract farmers. Similarly, organic certification and geographic indication of sugar palm in Cambodia linked local farmers to the global market, while an organic fair trade rice supply chain in Thailand ensured quality assurance and product traceability. Organic certification and fair trade practices in Viet Nam enabled farmers to realize fair trade premium prices for their agricultural products.

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CASE STUDIES ON
Cross-Border Ecotrade

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CASE STUDY:

Organic Sugar Palm\(^1\)

The sugar palm (Borassus flabellifer) is an ubiquitous feature of Cambodia’s landscape. Known as thnot in the Khmer language, the tree is a national symbol and plays an important role in the country’s rural economy. The collection and processing of its sugar have traditionally been an important source of income for many rural households. However, these traditional livelihood activities are poorly paid and, as a result, have recently come under increasing pressure from rural–urban migration, as well as illegal logging. Against this backdrop, Confirel initiated production of organic palm products for export with the goal of developing a sustainable source of income for rural Cambodian households while preserving an important natural resource. Although quality control requirements remain a barrier to entry in some export markets, the company may benefit from the government’s recent Geographical Indication\(^2\) (GI) designation of Kampong Speu Palm Sugar.

Palm Sugar Production

Sugar palms are typically planted as seedlings in and around villages, near houses, and along the paths and dikes of rice fields. This traditional method of planting has led to the trees being distributed in small groups throughout Cambodia’s countryside. The sugar palm plays a number of important roles in a mixed farming system, serving as a green fence around houses and rice fields, and providing shade and protection from wind. With roots that extend up to 15 meters below ground, the tree is an important buffer against erosion. Its deep root system may also help maintain soil fertility and productivity by transporting nutrients from deeper soil layers up to the topsoil.

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1 Case study by Adam Stefan based on information obtained from interviews with Chea Ravouth, sales manager, and Hay Ly Eang, president, Confirel, and other sources as noted in the text.

2 Geographical Indications (GI) are a type of intellectual property. They are forms of identification which identify a product as originating in a region or locality in a particular country. For a GI product, its reputation for quality or authenticity is intimately linked to its geographical origin. From: http://ec.europa.eu/trade/creating-opportunities/trade-topics/intellectual-property/geographical-indications/
Local people make many products from the palm tree, including raw sap, fruits, and seeds for both human and animal consumption, traditional medicines from the tree’s roots; and roofing materials and handicraft products from its leaves. Trees begin producing sap only after reaching 15–20 years of age, with harvesting of sap continuing 50 years after they reach maturity. The sap is typically harvested over a 6-month period during the dry season from December to June, although some farmers continue collecting sap during the rainy season. In a single season, an average tree produces approximately 600 liters of sap. The sap is consumed as syrup or cooked into sugar, with roughly 90 kg of sugar being derived from a single tree in a season.

Collecting palm sap and processing it into sugar is difficult and dangerous work, and is generally a poorly paid activity. Harvesting requires farmers to climb 15–20 meters up the tree to its top where the tips of its flowers are cut, allowing the sap to slowly seep out. The farmer must then return later in the day to collect the sap. On average, farmers harvest sap from 25–30 trees in a day. As might be expected, falls from sugar palm trees occur often and result in serious injuries, these risks being compounded during the rainy season when strong winds and rain make tree trunks slippery and unstable.

As the sap ferments quickly, it must be sold immediately or cooked into sugar, which earns little income in local markets. Although sugar production is a viable source of income for those with access to free firewood or alternative sources of fuel for cooking the sap into sugar, some studies have shown that if farmers are required to purchase firewood for processing the sap into sugar, they may actually lose money. On average, farmers earn $5 per tree per season (Confirel). This low level of income from palm sugar harvesting is causing farmers to abandon palm sugar production entirely, and is thus a contributing factor to rural–urban migration, which has increased in recent years.

In part because of the above factors, Cambodia’s stock of sugar palm trees is declining rapidly; however, other factors have also accelerated this decline. Because its wood is hard and rot resistant, the sugar palm tree is highly valued as a construction material. In addition, population growth—especially in neighboring countries—has led to rampant illegal logging of sugar palm trees for export. Further, the wood is also used as fuel for household cooking. As a result of the above factors, many trees are cut each year. Cambodia’s current stock of sugar palm trees is an estimated 2.5–3.0 million trees, which is significantly less than the estimated stock of 8 million trees in 1995 (Khieu 1996). This rate of disappearance of the sugar palm tree threatens not only the environment, but also a traditional livelihood of rural Cambodians.

Supply Chain and Production Contracting

Palm sap is typically collected during the dry season from December to June, when rice fields require minimal attention. Each season the farmers enter into a written contract with Confirel, which specifies the amount of palm sap and palm sugar required by the
company and a fixed purchase price. In 2009, Confirel purchased sap at 900 riels (KR)/kg ($0.23/kg), a 13% premium over the market price of KR800/kg ($0.20/kg).

Confirel bears all market risk, and purchases the amount contractually agreed upon, regardless of prevailing market conditions. However, the farmers bear production risk, since the company does not compensate farmers for production losses or palm sap or sugar that does not meet Confirel’s quality requirements. Further, the company strictly schedules sap collection to avoid overproduction, and typically does not purchase sap or sugar in excess of the amount contractually agreed upon.

The company provides technicians who train farmers in sap collection and sugar production in accordance with organic standards. The farmers receive training approximately once a month. In addition to the technicians that visit the villages monthly, a cooperative leader in each village serves as a communication link between farmers and Confirel, and provides extension services and advice in resolving production problems.

Because the sap ferments quickly, the farmers harvest it every morning and bring it to a central location in the village. Here a quality control inspector examines the sap before purchasing to ensure that it is of high quality and 100% pure. This step has strongly discouraged farmers from diluting the sap with water, and has created a relationship of trust between Confirel and its contract farmers.

Once collected from the farmers, the sap is transported by refrigerated truck to the company’s production facility, where it is immediately treated and manufactured into palm sugar, palm wine, or palm vinegar. In collaboration with the French International Cooperation Center in Agronomic Research for Development (CIRAD), which provides training and technical support to the company, Confirel has developed new techniques for manufacturing products from palm sap, allowing the company to produce crystallized fruits, fruit jams, and palm wines and cocktails (which contain 4%, 8%, 11%, and 40% alcohol).

The company performs several checks at each stage of the production process to ensure that quality control is maintained. These include visual and tactile checks of shape, taste, texture, acidity, water quality, and sugar content. Confirel also uses high performance liquid chromatography to analyze the purity of the product and detect defects. While the company’s quality control engineers receive training and support from CIRAD, the final quality control inspection is completed by the Pasteur Institute of Phnom Penh and the National Laboratory of Control.

Confirel has also developed a value-added cottage industry based on processing other renewable parts of the sugar palm tree. The leaves are used for making baskets, hats, and the traditional boxes known as smock in which palm sugar is packaged. Including the sap, fruits, and leaves, the company estimates that income from a fully exploited tree can range from $100 to $200 per year, far more than the average $5 per tree earned
by non-contract sugar producers. In addition, the company indirectly provides another potential source of income to rural households through fruit production. Although the climate and soil produce an abundance of fruits, farmers typically earn little from the sale of fresh fruit as it quickly rots in Cambodia’s hot and humid climate. Confirel’s purchases of fruit for crystallization add significantly to farm income, since harvesting fruit for purchase by Confirel can be done in tandem with rice farming. Confirel’s production of crystallized fruit thus significantly supplements rural household incomes.

At present, palm sugar is the only product produced by Confirel that is certified organic. Confirel bears all costs of organic certification by ECOCERT. To maintain certification, the company undergoes an annual audit of every step of its production process including collection, storage, transport, processing, and packaging. According to internationally accepted organic standards for wild harvested products, certified organic palm sap must be harvested from trees that have been previously designated organic. The trees must be located in an area where prohibited substances have not been applied, and must be a specified distance from any conventional farming, pollution, or contamination. In addition, farmers are trained to harvest the palm sap in a sustainable manner that does not threaten the existence of the tree.

The company has duty-free access to European Union (EU) markets under the Everything But Arms agreement, and its quality control and organic certification are accepted throughout the EU market. As of 2009, exports were limited to organic palm sugar shipped to France, with the company’s non-organic products being sold only domestically. However, in 2009, the company began the registration process for exporting its products to Viet Nam. Confirel’s plans include expanding the range of products it exports into additional markets, the countries of the Greater Mekong Subregion (GMS) and other affluent Asian countries, such as Japan and Singapore in particular.

Problems and Challenges

Confirel initially faced several challenges in manufacturing high-quality products in a country with high energy costs and limited human resources. The cost of electricity in Cambodia is several times greater than in neighboring Thailand or Viet Nam, and the country is still recovering from the near-complete loss of its educated population during the 1970s. To overcome these constraints, the company adapted its manufacturing facilities to local conditions. With the support of CIRAD, Confirel developed fermentation vats for producing wines and vinegars that require no energy inputs. Similarly, Confirel uses a solar oven and recycles organic waste matter such as fruit peels to reduce its energy dependence. The company has likewise received technical assistance from CIRAD and the nongovernment agency Don Bosco for training of its technicians.

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3 This estimate assumes 600 palm fruits and 600 liters of palm sap per year per tree, and 300 days of handicraft production at the high end of the range of market prices.
The company currently faces a number of challenges as it seeks to expand its presence in its local and export markets. In the domestic market, sale of Confirel products is constrained by lack of brand recognition by local consumers who typically select products on the basis of price rather than quality. Most of the products the company sells in Cambodia are thus purchased by tourists and expatriates rather than Cambodians. At present, Confirel lacks the resources necessary for additional local marketing initiatives, and although the government claims to promote local products in local markets, its efforts have to date been minimal and the company has yet to receive support from the government.

However, the recent recognition of GI status for Kampong Speu Palm Sugar may give Confirel greater visibility in the local market. The Ministry of Commerce is planning an advertising campaign to educate local consumers on GI and GI products. The campaign will target middle- and upper-class Cambodians, and highlight the advantages of GI products in terms of quality, taste, and contribution to health (Ros 2009b).

Internationally, the major constraint to reaching new markets is lack of an accredited quality certification body for Cambodia’s agricultural products. While Confirel’s palm sugar is certified organic and the company’s quality control is recognized in EU markets, additional certifications are required for non-organic products to be exported to other markets. Thailand, for example, requires manufacturers to provide Good Manufacturing Practice certification as a precondition to the importation of food products, while Japan requires certificates of sterilization for certain products.

The above barriers to penetrating export markets are compounded by the fact that no private sector certification or inspection bodies currently exist in Cambodia, and the government agencies that carry out inspection are not internationally accredited. As a result, the certificates issued by these bodies are not always accepted by importing countries, which is the case of exports of rice to the People’s Republic of China (World Bank 2008). In the private sector, the few certification companies that do exist focus on garment exports rather than agricultural products. Unfortunately, the limited size of the market does not provide incentives for establishing a local certification body or for foreign certification companies to establish offices in Cambodia.

As a consequence of the above, Confirel depends on using inspectors from importing countries, a prohibitively expensive option in the absence of external support. This has proven to be a major barrier to exporting to countries with high food quality standards, and has prevented the company from penetrating its target markets. For example, Confirel was unable to supply potential customers in Thailand with non-organic palm vinegar because it lacked the certification required by Thailand’s Food and Drug Administration.

Confirel has likewise to date been unable to attract the external investment and support necessary for expanding production further, and has similarly been hampered by the slow pace of private sector growth in Cambodia. Consequently, the company’s production of palm products continues to be subsidized by its more profitable business activity of importing wine and food products from France into Cambodia.
**Lessons Learned and Recommendations**

Confirel’s stated goal is that of contributing to the sustainable development and environmental preservation of rural Cambodia by providing farmers with income and employment opportunities that focus on the sugar palm tree. Through the company’s contract farming arrangements, it has effectively linked small farmers to the global market. Organic certification of Confirel palm sugar also allows small farmers to be paid a price premium when selling palm sugar to the company, as well as indirect access to high-value, international markets. These opportunities have provided farmers with a financial incentive to sustainably exploit and protect the sugar palm tree, and may ultimately contribute to reducing rural–urban migration and environmental destruction.

Although Confirel and other export producers have expanded output largely without government support, the public sector can play a more active role in facilitating agricultural exports. While certification that Cambodian food producers meet organic, fair trade, or other quality standards gives producers access to lucrative export markets, compliance with such standards remains a major stumbling block for Confirel and similar Cambodian producers. The public sector can significantly lower the cost of certification and increase participation by local producers in export markets by facilitating establishment of a national certification body. To promote intra-GMS trade, the government should seek recognition of its certification system through bilateral or multilateral agreements with other GMS countries.

An enabling business environment is necessary to encourage private sector companies to invest in the rural sector. The public sector should thus encourage entrepreneurship and innovation by promoting local products and attracting investment to enterprises that produce them. This is especially important in the case of firms such as Confirel that advocate socially and environmentally responsible production and contribute to Cambodia’s long-term development. In this regard, the conferring of GI status for Kampong Speu Palm Sugar and other regional products is a step in the right direction.

Despite facing certification barriers and competition from domestic palm sugar producers in other GMS countries such as Thailand, Confirel’s products nonetheless have significant export potential within the GMS. Although palm sugar is typically a low-value product, the company’s organic and value-added product lines are well differentiated from those of competitors and thus command a price premium. That said, Confirel would be better able to take advantage of such product differentiation by seeking organic certification for its other products such as palm wine and palm vinegar, which are currently only sold domestically.

In addition, seeking further opportunities in domestic and GMS markets, and taking advantage of palm sugar’s GI designation will require Confirel to improve its marketing strategy. Both government and nongovernment organizations involved in the organic agriculture sector can assist Confirel and other producers by promoting organic products and educating Cambodia’s small but growing middle class as to the health and environmental benefits of consuming organic products. Finally, the government should create a marketable image of Cambodia’s agricultural products as being safe, healthy, and of high quality as a means of building further on the GI designation of palm sugar and other locally produced food products already achieved.
Company Profile

Hay Ly Eang established Confirel Company Ltd. as a social enterprise to contribute to the sustainable development of rural Cambodia by providing farmers with regular income based on the sugar palm, while preserving the natural resource base. Mr. Hay developed the concept of producing and marketing palm products in response to the poverty, urban migration, and environmental destruction he witnessed after returning from abroad to his home in Cambodia’s countryside. To date, he is the sole investor in the company.

Confirel was registered as a small- and medium-scale enterprise with the Ministry of Commerce in 2002 and began production in 2003. In 2004, the company received organic certification for palm sugar from ECOCERT, an organic certification organization based in France. In addition to palm sugar, Confirel produces a wide range of other products for sale in both local and international markets, including palm wines, palm vinegar, jams, crystallized fruit, and palm handicrafts. Confirel purchases palm sap and palm sugar from farmers at a premium price under a contractual farming arrangement. In 2009, about 500 households were under contract with Confirel in Kampong Speu province, with each household having access to about 30 trees located on communal land. Thus far, a total of 300 trees have been certified for organic palm sugar production.

Although the sugar palm grows throughout Cambodia, Confirel began production in Kampong Speu province, in part because of government efforts to gain Geographical Indication (GI) recognition for Kampong Speu Palm Sugar. In 2004, the Ministry of Commerce launched a pilot project for encouraging output of six regional products, this project being implemented by Agence Française de Développement, the French government development agency. The project improves access to export markets for rural palm sugar producers by giving their products an internationally recognized brand name, and includes technical assistance for improving export capacity and training for palm sugar producers. In June 2009, Kampong Speu Palm Sugar, along with Kampot Pepper, was among the first Cambodian products to earn GI status (Ros 2009a).

By adding value to the sap extracted from the sugar palm tree, Confirel contributes to preservation of the sugar palm, and generates rural employment that helps reverse rural–urban migration. The premium price Confirel pays farmers for palm sap provides a financial incentive for protecting existing trees and replacing those that have been cut down. By producing a wide range of value-added products from palm sap, Confirel has helped turn seasonal palm sugar production into a permanent, full-time job for farmers, and to create new markets for locally produced fruit. In addition to the jobs created by its factory, Confirel also hopes to increase the output capacity of Cambodia’s agribusiness sector by introducing modern production methods.

Confirel has rapidly increased its output of palm products in recent years. In 2006, the company sold 1,057 kilograms (kg) of palm products in the local market and 7,690 kg internationally, with its local and export sales increasing to 6,071 kg and 17,662 kg respectively in 2007. In 2009, its anticipated exports of organic palm sugar to France alone totaled 20,000 kg. In 2008, the company earned revenues of approximately $20,000 from local sales and $24,000 from exports.
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CASE STUDY:

Cross-border Vegetable Supply Chain

Background

Pakxong Development Enterprise Export-Import Company Limited is a family business. Its principal owners are Inpeng Samounty and Montree Chomsamut. The company was registered in 2001, and began commercial activities in the timber sector. The company bought timber from the Government of the Lao People’s Democratic Republic (Lao PDR) and exported it overseas, mainly to Japan and Thailand. Once Lao PDR’s timber supply became exhausted, the company began dealing in fresh produce in 2004 when a high-ranking Lao political leader asked the company for assistance in organizing cross-border trade in fresh vegetables.

Prior to this, Lao PDR had a free-market vegetable trade with Thailand. Under this arrangement, Lao vegetable traders independently brought vegetables to areas near the country’s border with Thailand and sold them to Thai buyers. Once an agreed price was negotiated between Lao sellers and Thai buyers, the latter would arrange for cross-border transport and distribute the vegetables to Bangkok and nearby Thai wholesale markets. Because of the openness of the market, prices fluctuated according to demand and supply conditions on the Thai side of the border. This caused the prices of Lao vegetables to decrease significantly—sometimes to 0.5 baht (B) per kilogram—during the season when the supply of Thai vegetables was at its peak. This was, of course, inimical to Lao producers’ interests as such prices fell far short of production costs.

At the request of the Lao political leader referred to above, the company began organizing Lao PDR’s cross-border vegetable trade with Thailand. At first, the company attempted to fix planting dates in consultation with farmers to ensure a predictable supply of vegetables. However, this plan failed to consider that (i) Lao PDR’s vegetable farms are located in differing agro-climatic production zones, (ii) growing times thus differ, and (iii) the amount of time required for vegetables to mature varies according to the season. Instead of incorporating these variable factors into a fixed planting schedule which would

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1 Case study, figure, and photographs by Vitoon Panyakul
make such a plan extremely complicated, the company simply chose to indicate the volume of vegetables it needed for each delivery and allowed the farmers to plan their production schedules themselves.

The company likewise needed to address the problem of export price fluctuations, since the market price of vegetables was inevitably fixed by supply and demand conditions in Thailand. In particular, the company had to address the problem of prices falling to such a low level that the farmers could not cost-effectively harvest their vegetables. After some discussion and consultation with Thai counterparts and Lao PDR authorities, the company organized a multilateral cross-border trade agreement between Thai buyers and Lao sellers, with the endorsement of the commerce authorities of Thailand’s Ubon Ratchathanee province and Lao PDR’s Champasak Province. This agreement specified a minimum price for 14 fresh vegetables and fruits as well as minimum trading volumes. Figure 1 provides a schematic representation of the cross-border arrangement that the company formulated, and for which it spearheaded implementation.

### Organizing the Supply Chain

Once the total volume of vegetables and fruits to be purchased annually was set by the agreement, the company organized delivery plans with its field representatives. Currently, the

![Figure 1: Cross-Border Fresh Vegetable Trade Arrangement](image)
company has 12 field representatives, all of whom are also vegetable and fruit farmers, each of them being responsible for a particular production zone. The plan specifies quotas for each zone for each of the 14 fruits and vegetables to be delivered during a given time period.

The 12 field representatives then inform their members of the production volume to be supplied by each group during each period. This arrangement currently includes about 500 member producers.

Individual producers purchase their own vegetable seeds and farm inputs, and organize their own production schedules as they see fit. In cases in which producers need credit to produce enough to fulfill their individual quotas, they apply for loans for this purpose from the provincial agricultural bank; these loans in turn are guaranteed by the field representatives operating in the area where the farmers are located. To ensure that the provincial agricultural banks have sufficient cash on hand to satisfy producers’ demand for credit, the company deposits B10 million with the provincial banks. Producers then pay interest to the bank on their loans, these interest payments being used by the banks to cover their administrative and overhead costs. While the banks pay no interest to the company on the B10 million it has deposited, the bank must submit annual financial reports to the company that indicate the total amount of lending the bank has concluded with the company’s contract producers.

The company also makes direct loans to its field representatives for the purchase of transport trucks at approximately B200,000 per vehicle on average. These trucks are used for collecting produce and transporting it to the delivery center near the border.

The company provides no extension services or advice to farmers regarding production technology. Instead, farmers learn farming technology informally by sharing information with one another. As a result, the production technologies they use remain simple ones. Basically, the farmers clear raw land of trees and shrubs, and then simply sow their seeds. Because the soils are quite fertile, vegetables can be grown with a minimum of agrochemicals, small amounts of chemical fertilizers being applied only in areas where crop growth is suboptimal. Rain provides the only water given to the crops, as no irrigation systems exist in the area. Weeding is done manually using mainly family labor, as is harvesting when the crops reach maturity. Once harvested, the farmer transports the produce to the edge of the nearest major road where trucks pick it up in the evening. As for productivity, approximately 30 tons of cabbage are produced per hectare each year.

When the produce reaches the delivery center near the border, it is downloaded, trimmed, re-packed, weighed, and then loaded onto the Thai buyers’ trucks. Buyers pay cash for the vegetables at the price agreed with the field representative, who then delivers cash payments to the farmers for the vegetables delivered that day. When paying the field representatives, the buyers inform them of the amounts of vegetables each wishes to buy over the upcoming days so that the field representatives can organize future deliveries of vegetables accordingly. For fruits and vegetables in excess of the amounts agreed, buyers often offer lower prices than the contract price.
Each delivery of produce to the buyers is recorded by company staff, with the recorded amounts being used by the company to invoice buyers for the additional fee the buyers pay to the company for organizing produce delivery. These invoices likewise serve as the export–import documents required for customs clearance.

During August, the peak vegetable production season, approximately 600 tons of vegetables are sold by the company each day, whereas during the low season in January, only 240 tons per day are sold on average. Annually, the company arranges cross-border trade of approximately 100,000 tons of vegetables. In addition to regional wholesale markets in Thailand's northeast region such as Korn Kaen and Nakorn Ratchasima provinces, the vegetables are sold to various wholesale markets near Bangkok. These Lao-grown vegetables thus ultimately reach low-end retail consumer markets throughout Thailand.

Other than the phytosanitary certificate required for importing the vegetables into Thailand, no other certification is required for the produce sales arranged by the company. While the Thai authorities sample the vegetables from time to time to test for agrochemical residues, thus so far no excessive levels of residual agrochemicals have been detected.

**Development Plan**

The company has attended international trade fairs and participated in trade missions to various countries. As the company is reputed to export fresh produce, foreign buyers often inquire about the possibility of buying organically grown produce. For example, at the 2007 ThaiFEX fair, an annual international food trade fair held in Bangkok, the company met with buyers from Taipei, China, who expressed an interest in investing in the production of organically grown vegetables, as did buyers from Kuwait, who met with company officials in 2008. As a result, the company became keenly interested in producing organically grown produce and began learning about it.

In addition to this growing demand for organically grown produce from international buyers, the company’s owners are also personally interested in producing organically grown produce, as they feel that growing produce organically would help conserve and rehabilitate Lao PDR’s deteriorating natural environment. They also believe that Lao PDR has comparative advantage in fruit and vegetable production that neighboring countries have lost. Thus, exploiting this natural comparative advantage while preserving Lao PDR’s environment would help the country develop not only more rapidly but also sustainably.

As a result, the company applied for a land lease from Champasak provincial authorities and obtained permission to use 505 hectares of land in Ban Phu Din Daeng village of Pakxong district in August 2008. With technical and marketing assistance from Lao PDR’s nongovernment organization Promotion of Organic Agriculture and Marketing...
in Lao PDR (PROFIL), the company began producing organically grown vegetables. Then in 2009, the company participated in the International Trade Center’s organic agriculture training program organized by the Earth Net Foundation. The organic vegetables produced at this farm are sold mainly at the organic farmers’ markets that are currently held twice a week at Wat Thatluang in Vientiane. While this farmers’ market was initiated by PROFIL, it is now run by the organic farmers themselves.

The company won a contract for supplying organically grown vegetables to food catering outlets at the Southeast Asian Games that the Lao PDR hosted at the end of 2009. This, the company hopes, will serve as springboard for moving further into international trade in organically grown produce. Over the coming years, the company intends to further develop competency in producing organically grown produce, and then to expand production to farmers near Vientiane using their existing farm-contract model. The company is considering two versions of this model. The first is to build basic farming infrastructure on their existing organic farm, and then to subdivide it and lease plots to local farmers, supplying them with the farm inputs and production technologies required for producing organically grown vegetables. The alternative version the company is considering would be to contract farmers located near their existing organic farm to produce organically grown vegetables on their own lands. Finally, the company is also considering developing its existing organic farm into an agro-tourism site.

**Lessons Learned**

The major lessons learned from this case study are that when combined with improvements in managing the food supply chain, contract farming can deliver significant financial and other benefits to producers, and stabilize market prices as well. Further, market-based mechanisms, such as minimum price guarantees, minimum purchase volumes, production planning, production credit guarantees, and formalized transport arrangements, can give small-scale producers access to markets that they otherwise would not have access to, and thus can produce economic benefits for their families and communities.

However, a critical success factor in this case is the efficient supply chain management and planning contributed by the company since, in its absence, the benefits referred to above would not have been achieved. The company’s management skills in organizing its field representatives and the cooperative arrangements it concluded ultimately brought about a level of certainty for farmers, exporters, and buyers that facilitated efficient functioning of the supply chain. Regarding distribution of the organically grown produce that the company is planning, the contributions of nongovernment and international development organizations, such as PROFIL and the International Trade Commission, in training the
company’s extension staff will likely play significant role in expanding production and trade in organically grown produce. Thus, another lesson learned from this case study is that such bodies may have an important role to play in facilitating successes such as that described in this case study. In this regard, capacity building of the company’s staff may produce much wider benefits if it is extended to technical training and experience-sharing programs organized at the subregional and regional levels.

Another factor critical to success in the case described above was the annual agreements concluded between private sector transactors on opposite sides of an international boundary, since these were key in producing mutual benefits for all parties concerned. Such agreements have two important implications. First, some degree of collaboration between producers, exporters, and buyers can result in additional benefits for all transactors as opposed to producers independently planning production and engaging in price competition when their produce is brought to market. Second, contracting for minimum prices and volumes benefits all parties to the transaction, and provides exporters with sufficient certainty to encourage them to invest in improving the supply chain. In this case, this included posting financial capital used for extending production credit to farmers, as well as direct loans to producer representatives for vehicle purchase.

Finally, while support from international trade authorities in both countries was critical to achieving success in this particular case, this would probably be true for all such arrangements. In particular, endorsing the annual agreement concluded between the company, its field representatives, producers, and the buyers facilitated the cross-border trade that delivered benefits to all parties to the agreement. This type of agreement with official endorsement thus might be used as a model for cross-border trade in agricultural products in other countries of the Greater Mekong Subregion. Finally, this case study suggests that overall, policy and technical support from regional development agencies such as the Asian Development Bank can help foster such agreements for facilitating cross-border trade within the subregion.
CASE STUDY:

Organic Rice Trade

The Organic Fair Trade Rice Project

Bak Ruea Farmer Organization (BRFO)’s organic rice project is part of the national network of organic rice producers set up by Earth Net Foundation-Green Net Cooperative (ENF-GNC). This latter organization assists in improving the competency of BRFO extension staff in disseminating information regarding organic rice production methods, and in setting up internal control systems necessary for organic certification. Currently, BRFO’s five extension staff members are working with ENF-GNC, one of them in quality control at the BRFO rice mill.

At the beginning of each year, farmers interested in joining the organic fair trade rice project contact BRFO, which then organizes an initial workshop where farmers learn about the project and the requirements of producing organically grown rice. This latter information concerns the general principles of organic farming, the standards and certification procedures relating to organic rice production, as well as information regarding product quality and rice producers’ organizations. Upon completing this training, participants are asked to discuss this information with their families prior to making a decision as to whether they will begin organic rice production. This is an important step in transitioning from conventional to organic rice production, because while they rarely attend this initial workshop, women generally play an influential role in the decision to transition or not into organic rice production. Attendance at the follow-up meeting is sometimes significantly reduced compared to the initial workshop, as only those farmers truly interested in joining the project attend the second meeting.

Following the second meeting, extension activities are organized that include a farmers’ field school (FFS) at which participants build organic rice farming skills and improve their overall understanding of organic farming. Developed by the Food and Agriculture Organization, the FFS teaches participants to observe field conditions in a systematic way, to apply appropriate technological interventions to local production methods, and to experiment with these interventions in their own fields. Organized once a month during the cropping season in BRFO’s case, FFS participants learn about agro-ecosystem management at a single rice field that is divided into two plots, one using organic production methods, the other, conventional methods. This allows farmers to

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1 Case study, figure, tables, and photographs by Vitoon Panyakul.
observe organic rice production techniques under local conditions comparable to those in their own fields. To encourage active participation and interaction, classes are kept small. This allows each set of participants to evolve into a group, which discusses and analyzes crop conditions, and then formulates crop management recommendations that are shared with the other FFS participating groups. At a subsequent joint session, these small groups each present their findings and recommendations, and a facilitator merges the recommendations of each group into a single list, so that these can be later tested under actual rice-growing conditions at the FFS demonstration plot. As these sessions are convened once a month, following each session participants are able to observe the outcome of implementing their recommendations under actual rice-growing conditions. This gives participants an opportunity to collectively apply organic farming interventions to rice production techniques with which they are familiar, and to decide for themselves which organic crop management techniques are most applicable to the conditions in their own fields.

Apart from the field activities described above, the FFS facilitator also organizes group-building activities that (i) disseminate knowledge regarding special topics to participants, and (ii) strengthen the farmer organization itself. For example, compost production is a special topic of interest to most farmers, and information regarding organic standards and certification requirements is a topic that strengthens BRFO.

These FFS sessions, which typically last for half a day, are organized at regular intervals throughout the cropping season. This allows participants to learn basic organic rice production techniques in a single season–long FFS. This method of information dissemination has proven far more effective than conventional training sessions in which farmers sit through lectures that last a full day or longer.

Once participants have attended FFS for a few years, they are encouraged to attend a participatory technical development learning program on a continuous basis. This teaches participants to first identify and prioritize problems, then to analyze the causes of these problems, and finally to explore possible interventions for resolving them. Once possible interventions have been identified for evaluation, participants are taught to design experimental plans and to conduct field trials in their own fields; the results of these trials are later shared with other participants.

In addition to organizing extension activities, the organic fair trade rice project also organizes and manages the rice supply chain—which includes activities such as collective purchase of inputs for organic rice production, ensuring that organically grown rice seeds are available to member farmers—and harvest and postharvest coordination. For example, before the paddy is harvested, staff visit all farms in order to make yield estimates. These yield estimates are then used to organize delivery of special paddy bags into which members pack their organic paddy once it has been threshed.
BRFO then buys the organically produced paddy from its members at an agreed premium price set in consultation with Green Net Cooperative. The paddy is then stored at BRFO facilities and milled according to Green Net Cooperative instructions. BRFO then delivers the milled rice to Green Net Cooperative’s packing facility in Yasothorn province where it is packed. This allows all rice produced by BRFO’s organic rice farmers to be exported by Green Net Cooperative.

Organic and Fair Trade Rice Supply Chain

BRFO’s organic and fair trade rice supply chain is organized by ENF-GNC. Individual farmers enter into contract farming arrangements with BRFO, which then enters into a contractual agreement with Green Net Cooperative.

At the production level, responsibility for organizing extension support to farmers is shared between BRFO and ENF. Five staff members organize extension activities and manage the internal control system used by all member producers associated with the

ACT = Organic Agriculture Certification Thailand.

Figure 1  BRFO’s organic and fair trade rice supply chain

![Diagram of rice supply chain]
organic rice project. The number of producers and the total area of farmland under organic rice production was expected to expand rapidly during BRFO’s initial 5 years. However, growth has leveled off in recent years as a result of the government’s rice price support scheme which has priced conventionally grown rice above market levels (Table 1). This has in turn narrowed the price premium between organically grown and conventionally produced paddy.

Table 1  Number of BRFO-Member Organic Rice Producers and Total Acreage Under Cultivation, 2002–2008

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Farmers</td>
<td>18</td>
<td>37</td>
<td>141</td>
<td>219</td>
<td>241</td>
<td>218</td>
<td>194</td>
<td>193</td>
<td>212</td>
</tr>
<tr>
<td>Acreage (rai)</td>
<td>365.50</td>
<td>668.50</td>
<td>1,753.25</td>
<td>5,938.50</td>
<td>6,670.00</td>
<td>5,923.50</td>
<td>5,053.00</td>
<td>4,947.00</td>
<td>5,393.00</td>
</tr>
<tr>
<td>Acreage (ha)</td>
<td>58.48</td>
<td>106.96</td>
<td>280.52</td>
<td>950.16</td>
<td>1,067.20</td>
<td>961.33</td>
<td>808.48</td>
<td>791.52</td>
<td>862.88</td>
</tr>
</tbody>
</table>

The contractual agreement between BRFO and GNC referred to above assigns BRFO responsibility for managing, handling, collecting, storing, and milling organic paddy. While the paddy is milled at BRFO’s rice mill, the local transport used in collecting the paddy is organized by BRFO members.

Following processing at BRFO’s mill, the rice is either exported bulk or retail-packed. While the bulk organic rice is trucked to Bangkok or delivered to the port for export, rice that will ultimately be sold retail-packed is transported to the packing unit, which is located in another province. In both these cases, transport is organized by BRFO, while GNC manages the retail packing by subcontracting it to a packing unit operated by another organic farmer cooperative in Surin province. Under GNC’s management, this portion of the crop is packed according to the specifications of importers as indicated in their purchase orders.

GNC exports to fair trade buyers in European countries are coordinated by Claro Fairtrade AG, a Swiss-based fair trade organization. Under GNC’s arrangements with Claro Fairtrade AG, BRFO’s organically grown rice is shipped directly to European Union fair trade buyers, which then distribute it to retail outlets throughout the importing countries.

GNC also sells BRFO’s organic rice on the Thai domestic market, both in bulk and retail-packed form. The organic rice destined for bulk sales is transported directly to the facilities of domestic distributors where it is packed and distributed to retail outlets. GNC also sells a small volume of the organic rice for which it has organized retail packing to specialized health food stores under its own “Green Net” brand name through its central office in Bangkok. Both the GNC organic rice sold in Thailand and European markets is certified by Organic Agriculture Certification Thailand (ACT), a national organic certification body, while European Union importers rely on national certification entities in their home countries.
Good Practices and Success Factors

In addition to its fair trade component, a striking feature of the arrangements described above is the good practices it promotes in association with the Earth Net Foundation. Some of these are as follows:

- BRFO guarantees prices to its members for both organically grown rice and that grown by member farmers transitioning into organic production. This guaranteed price for organic rice maintained a significant premium over that of conventionally grown rice until recently, this especially being true of BRFO’s initial years of operation. In addition to increasing the income of its member farmers, these guaranteed prices offer BRFO members both price stability and income security over time, as indicated in the data in Table 2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Price of Jasmine Paddy</th>
<th>Guaranteed Price for Organic Paddy</th>
<th>% of Organic Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>5,725</td>
<td>10,000</td>
<td>175%</td>
</tr>
<tr>
<td>2001/02</td>
<td>5,328</td>
<td>10,000</td>
<td>188%</td>
</tr>
<tr>
<td>2002/03</td>
<td>6,940</td>
<td>10,000</td>
<td>144%</td>
</tr>
<tr>
<td>2003/04</td>
<td>8,460</td>
<td>11,400</td>
<td>135%</td>
</tr>
<tr>
<td>2004/05</td>
<td>7,685</td>
<td>10,530</td>
<td>137%</td>
</tr>
<tr>
<td>2005/06</td>
<td>8,032</td>
<td>10,890</td>
<td>136%</td>
</tr>
<tr>
<td>2006/07</td>
<td>8,875</td>
<td>11,280</td>
<td>127%</td>
</tr>
<tr>
<td>2007/08</td>
<td>11,363</td>
<td>12,500</td>
<td>110%</td>
</tr>
</tbody>
</table>

Under its contractual agreement with GNC, BRFO maintains a guaranteed purchase price for paddy produced by its members, which is set by a committee comprising representatives of all organizations of rice producers, GNC, and the NGOs involved in the project. The factors taken into account when setting this guaranteed purchase price include the costs associated with organic rice production, purchase prices set under the government’s rice price support scheme, and the marketability of organically grown rice.

- The price and quantity guarantees extended by GNC to farmer–producer organizations such as BRFO not only allow such organizations to purchase all organically grown paddy produced by its members, but they also form the foundation of the fair trade project itself. While under this arrangement, GNC assumes all market risks for its member organizations such as BRFO, doing so provides farmer organizations with a stable environment in which to invest in increasing competency in organic
production methods on the part of its members and in their own quality assurance schemes, particularly during their initial periods of operation.

- Developed by ENF, the quality assurance scheme BRFO introduced into its rice mill operations improved both the quality of its organic rice and the efficiency of its mill operations. Introducing this scheme required mill staff to analyze critical points in the milling process at which product quality might be impacted. This analysis identified the quality and management control points at which quality checks and record keeping were introduced. This permitted product traceability, which in turn facilitated identification of how and where quality problems occurred, which allowed these problems to be quickly and easily corrected.

BRFO owes much of its success to participation in the organic fair trade rice project, which in turn would not have been possible without the collaborative efforts of BRFO, ENF, and GNC. However, internal factors such as the following likewise led to BRFO’s success.

- BRFO has remained committed to the organic fair trade rice project rather than changing its focus, as is sometimes recommended by external aid agencies. This single focus has allowed BRFO to develop its own expertise in organic rice production and handling, which in turn has increased the efficiency of its own operations.

- The leadership of many producer cooperatives and farmer organizations tends to change every few years as per national-level regulations. This often results in abandonment of the commitments made by the previous leadership. In contrast, BRFO’s leadership has remained stable, which is a necessary element in executing long-term projects such as producing organically grown rice.

- BRFO is able to obtain loan financing for stocking its organic paddy. As its members are generally only able to produce one rice crop per year, the rice produced must be stocked to allow sales to continue throughout the year. This means that BRFO must have sufficient funds to purchase all of the organic paddy produced by its members. While the 50% advance payment that GNC makes to BRFO under its agreement with the latter helps in this regard, this payment falls far short of the amount required for purchase the total rice harvest of its members. Thus, BRFO must secure a loan to finance the remainder of the amount required to purchase all of the rice its members produce. The ability of BRFO to access such financing enables it to expand its organic rice production over time.
The Challenges of Scaling-Up

The organic fair trade rice alliance of BRFO, GNC, and ENF described above has been replicated and scaled-up by five other rice producer groups in other parts of Thailand. As a result, the GNC–ENF organic and fair trade rice enterprise now comprises more than 700 organic rice-producing networks. The key challenges facing this collaborative eco-enterprise are similar to those faced by other socially oriented entrepreneurship groups. As the rice trade becomes more competitive, achieving success becomes increasingly difficult. In short, the socially oriented objectives of such groups demand that they adopt certain practices that raise their costs relative to other producers, which in turn reduces their price competitiveness, at least in the short term. This difficulty in maintaining price competitiveness is evidenced by the fact that some present-day eco-enterprise groups began pursuing the social objectives they now embrace after they became profitable enterprises. This suggests that the most critical issue in scaling-up such enterprises overall is that of maintaining a delicate balance between achieving profitability and pursuing the socially oriented objectives they embrace, a balance that has become even more difficult to maintain in recent years as the global economy slips into recession.

An additional challenge facing the scaling-up of the BRFO model is that of synchronizing development of the four critical elements of the organic rice supply chain, which are (i) expanding farmer membership through the provision of extension services; (ii) expanding post-harvest handling capacity, which requires ever-larger amounts of financial capital and loan finance for purchasing paddy and financing facilities for storing organic paddy; (iii) improving mill throughput capacity and efficiency, which are both necessary if the organization is to mill increasing amounts of paddy and maintain cost competitiveness while increasing quality; and (iv) increasing the organization’s marketing capability to allow it to handle ever-increasing quantities of rice. While each of these elements is a serious challenge in and of itself, the most critical challenge of all is addressing all four of these elements simultaneously and in a synchronized way to ensure that the throughput of the entire organic rice supply chain is developed in a way that prevents capacity constraints in any of its four components from developing, as the throughput capacity of the entire supply chain is only as great as that of its most constrained component.

Company Profile

BRFO registered with the Ministry of Agriculture and Agricultural Cooperatives in April 1976, thus giving it legal status approximately equivalent to that of a farmers’ cooperative in other countries. In Thailand, farmer organizations were originally organized to assist the distribution of chemical fertilizer under a government-sponsored agricultural modernization scheme. Following its first few years of operation, BRFO’s legal status as a farmer organization was temporarily suspended for failure to collect payments from its members, though the group was reactivated as a farmer organization in 1981 to allow it to continue to assist in fertilizer distribution.
In 1987, BRFO began buying and selling rice paddy collectively, and later expanded into rice milling operations. In 1989, it constructed a small rice mill to meet the milling requirements of farmers in nearby villages, with the rice this mill processed sold and consumed locally. Then, in 1994, BRFO received financial assistance from the government to construct a commercial rice mill. About 2 years later, a local nongovernment organization (NGO) began assisting BRFO in introducing organic rice production to its member farmers. In 1999, BRFO and its NGO partner began collaborating with Earth Net Foundation and the Green Net Cooperative to integrate local rice production into the organic and fair trade rice project, which facilitates distribution of organically produced rice worldwide.

BRFO is located in Ban Don Phueng village (Moo 4) of Tambon² Bak Ruea, Mahachanachai District, Yasothorn province, in Thailand’s northeastern region. It is thus situated approximately 530 kilometers (km) from Bangkok, 10 km from Mahachanachai district, and 35 km from Yasothorn. BRFO’s member rice farms span 45 villages in 25 tambon, all of which are located in Yasothorn province. The farmers of Tambon Bak Ruea, which is a predominantly rice-cultivating area, primarily grow Hom Mali (jasmine) rice as a cash crop, but produce glutinous rice (primarily of the Kor Ko 6 variety) for family consumption. As the soil in Tambon Bak Ruea is sandy and access to irrigation facilities is limited, most farmers there cultivate only one rice crop per year, while those with access to irrigation grow vegetables or watermelons during the dry season that follows harvest of their single rice crop. As a consequence of reliance on rain for rice production, the unpredictable precipitation patterns of recent years have significantly reduced rice yields in Tambon Bak Ruea.

In this area, a chronic shortage of labor is a major constraint to expanding rice production. Nearly every farmer uses a small two-wheeled tractor equipped with a small power generator to plow the rice fields and prepare the soil for planting. Those who do not own such equipment hire such services from others. Because rice is cultivated only once a year, there are few problems with pests. As a result, pesticide use is rare. But owing to the sandy soil in the area, soil fertility tends to be poor, which has led numerous farmers to use chemical fertilizer to improve crop yields. Until recently, harvesting was mostly done by hand, although machinery was used for threshing. However, in recent years, combines (machinery capable of both harvesting and threshing) have been increasingly used for harvesting, and farmers have begun keeping cattle and water buffalo as livestock, these being sold for slaughter once they reach maturity.

² Tambon is a local government unit in Thailand. From: http://en.wikipedia.org/wiki/tambon
CASE STUDY:

Fair Trade for Agricultural Products

Eco-Production and Ecotrade

Because it is a socially oriented enterprise, MDI’s management measures the success achieved by the company not only in terms of its profits but also, to a large extent, in terms of the degree of social change the company’s activities produce. This was the impetus for the company to base its commercial activities on fair trade principles and to seek fair trade certification, despite the fact that such certification is expensive for a small company and the small-scale producer groups with which it deals. On the positive side, MDI’s fair trade certification reassures consumers who are often skeptical about fair-trade claims made by small-scale producers and companies, particularly those who operate in the remote portions of a geographically distant country.

Another of MDI’s major concerns is the impact its activities have on the environment. This is an outgrowth of the company’s firm commitment to ecological production techniques, and to its long-term objectives of ensuring that all products it deals with are produced without agrochemicals, and that all of its commercial activities (production, processing, and transportation) are climate-neutral. That said, because of financial constraints, only MDI’s tea is produced organically, though its tea is not yet certified organic.

MDI works exclusively with small-scale farmers, and thus does not buy its tea, coffee, or cashew nuts from estates or large farms. While it has set up several producer groups itself, it also works closely with producer groups set up by associates. However, all of these producer groups share two characteristics: (i) they are located in remote and poor areas of the country, and (ii) the vast majority of their members belong to ethnic minorities. One reason for working in these areas is that farmers there lack the tradition of heavy agrochemical use common in lowland areas. The number of producer groups with which MDI works and their locations are as follows:

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1 Case study by Koen den Braber and photograph by Dominic Smith.
• Tea: five producer groups with a total of 300 members located in Viet Nam’s northern provinces of Lai Chau, Lao Cai, Yen Bai, and Thai Nguyen.

• Coffee: one producer group comprising 70 members in Son La Province

• Cashew nuts: two producer groups with a total of 125 members in Binh Phuoc and Binh Thuan provinces in the southern part of Viet Nam.

MDI has no immediate plans for increasing the number of products it carries or the number of producer groups with which it deals. Instead, its focus is that of expanding the membership of the producer groups with which it deals, as well as expanding output levels and increasing product quality. Working with ethnic minority farmers is challenging in that they are often very poor, highly risk averse, and lack experience with formal groups such as cooperatives. Improving the cohesiveness of these groups and strengthening their organizational structure is therefore important in both expanding output and improving product quality.

MDI’s domestic sales of its fair trade and organic products are mainly carried out in Ha Noi, where it maintains its own retail outlet, distributes its products to supermarkets, and delivers to offices. Some of the products sold at the company’s Ha Noi–based retail outlet are organic and fair trade products such as coffee and chocolate that MDI imports itself, though it also sells organic or environmentally responsible body care products either produced in Viet Nam or imported by other companies. Other MDI products are exported, including loose-leaf tea, teabags, green coffee beans, roasted coffee, raw and roasted cashew nuts. While MDI initially focused on European export markets such as Denmark, Germany, and the Netherlands, export markets within Asia—particularly Hong Kong, China and potentially Japan—are becoming increasingly important to its overseas operations. MDI’s exports to these markets are mainly in the form of consumer-ready packages containing mainly tea and, to a certain extent, cashew nuts, using package designs developed by importers from Denmark and Hong Kong, China which are sent to MDI for printing in Viet Nam. At present, MDI does not trade with any country of the Greater Mekong Subregion, although it has begun establishing contacts which it will later use to import organically grown coffee from the Lao PDR.

MDI’s Supply Chain

Farm inputs. MDI’s producer group members have little need for external production inputs, since the tea farmers with which it works use no agrochemicals whatsoever in producing tea. Similarly, cashew nut production in Viet Nam uses few, if any, agrochemical inputs. Only in coffee production are some agrochemicals used. The farmers from which MDI buys are themselves responsible for procuring and using their own agricultural inputs. Thus, the company provides no extension support to them, except for training in the production and use of organic inputs such as compost. On occasion, MDI makes advances
to producers for financing farm inputs, these advances being deducted from payments for products upon purchase from the farmers. MDI never charges interest on these advances.

**Extension services.** Since Viet Nam’s national extension service lacks a mandate for working with private companies, MDI employs its own extension staff who work with producers directly. However, some specialists from research institutes or provincial agricultural extension services such as the Plant Protection Department are hired to provide specific training to producer farmers, such as that relating to compost-making.

**Postharvest Activities.** Output per farmer tends to be small, and processing of some products such as black tea, coffee, and cashew nuts must be performed on a group basis. A major postharvest issue for the company in this regard is coordination among the various producers to allow efficient processing. For example, since processing must be performed on a single day to ensure sufficient availability of raw material for effective operation of processing machinery, all group members must agree to pluck their tea leaves or harvest their coffee on the same day. This is particularly true of black tea, since 500 kg of fresh leaves are required to even begin operating the processing machinery.

Efficient information flow between the company and individual producers within a group is made possible by group leaders who coordinate product handling by organizing both harvest and collection of harvests at specified collection points. The produce is then graded according to quality standards, with the company continually stressing that only harvests of good quality will command a good price.

**Processing and packing.** Processing of green tea is done in the households, but scenting and flavoring of the tea (in the case of jasmine and Earl Grey teas respectively) and packing both as tea bags and loose tea are performed by MDI itself in Ha Noi, though black tea is processed on contract by an external black tea factory.

Similarly, processing of green coffee beans is done on contract by a facility in the north, but roasting and packing are done by MDI at its factory in Ha Noi. As for cashew nuts, processing is likewise done under contract at a factory in the north, with MDI doing its own final roasting, salting, and packing in Ha Noi, both as consumer-ready units or in bulk for export. Naturally, MDI is responsible for the cost of transporting its products to buyers.

**Certification.** MDI is certified fair trade by FLO Cert GmbH for both the export and processing of fair trade tea, FLO Cert GmbH being the sole inspection and certification body of FLO International. Several of the tea and cashew producer groups set up by MDI are also certified by FLO, as are two other groups that supply cashew nuts and tea respectively to the company. The coffee producer group from which MDI buys is certified by Utz Certified, an international network that provides certification for “responsible” coffee production.

When MDI sets up a group, it usually pays all certification costs for the group’s first year of operation. However, in subsequent years, MDI pays the certifier and is then reimbursed by farmers at a fixed cost per kilogram of product. This
allows the farmers to jointly share any risks involved in certification with the company. Currently, certification costs are still reasonable for farmers in that FLO discounts these costs by 75% during the first 3 years of certification.

Previously, MDI had an EU organic certificate for tea processing and packing issued through Bangkok-based Organic Agriculture Certification Thailand. However, the company chose to not renew this certificate for 2009. Nevertheless, one producer group supplying tea to MDI is still certified organic through another tea company. Several reasons led to MDI’s decision to not renew its organic certification. These included (i) the high cost of organic certification, (ii) the significant amount of paperwork involved for both the company and the farmers, and (iii) the difficulties experienced by the farmers in meeting strict technical requirements for organic production and certification, particularly by individuals with low levels of educational attainment. In this regard, MDI is considering renewing its organic certification for tea production once tea output levels reach a point at which significant economies of scale can be reaped.

In selling tea on the domestic market, MDI has placed statements on the packages of the tea it sells under the “Betterday” brand name to the effect that the tea was produced with “no chemical fertilizers or pesticides,” and that the production methods used “fulfill European standards for organic certification.” In the company’s experience, such statements are sufficient to assure local consumers of the conditions under which the tea was grown and processed.

**Contract Farming**

MDI enters into contracts with producer groups rather than with individual producers, though the latter farm land they own themselves. Contracts, which are normally written for 1 year, specify purchase prices for coffee and cashew nuts because fair trade minimum prices for these two products have been established by FLO International under their fair trade standards. However, for cashew nuts, these fair trade minimum prices only apply to the four best grades, with lower grades being purchased at market prices. While no fair trade minimum price exists for tea, MDI always sets its tea purchase price above the current market level. In addition to the specified fair trade minimum price, farmers also receive a fair trade premium.

As mentioned above, risks are shared by the farmers and MDI, with the farmers normally assuming all production risks, while MDI assumes all market risks including those relating to price fluctuations. In the case of cashew nuts, MDI assumes additional market risk, in that cashews are harvested in March but processed in June. Thus cashew nut farmers are paid the market price prevailing at harvest, while MDI’s selling price reflects market conditions prevailing several months later in the year.

**Problems and Challenges**

Particularly for coffee and tea, the major problem facing MDI is achieving consistency in the quality and quantity of output. This is particularly challenging for MDI because the company works in remote and distant areas of the country where access is difficult—
indeed, sometimes impossible during the rainy season. In addition to magnifying the company’s challenges relating to quality and quantity of output, the low average level of educational attainment among farmers and the fact that most belong to ethnic minorities mean that few of them have mastered the Vietnamese language. This makes communicating with and educating farmers in the requirements for organic certification doubly difficult.

Regarding trade in MDI’s product line, the company’s major challenge in the domestic market is that of introducing a new type of product marketed under the fair trade and organic concept which is unfamiliar to buyers, even though the company’s products are of good quality and sold at reasonable prices. In Viet Nam, the concepts of “fair trade” and “organic” are almost completely unknown, though organic farming has received minimal attention in local markets.

Ironically, international trade presents MDI with fewer problems than does selling in the domestic market. The fact that most of MDI’s importers are also small companies who trade in small product volumes reduces the size of the cash reserve that MDI is required to maintain. Working with larger buyers presents more of a challenge, in that additional working capital is required for purchasing and stocking additional quantities of product.

Human resource requirements are likewise an important issue for MDI. Since “fair trade” and “organic” are new concepts in Viet Nam, the pool of knowledgeable persons from which MDI can recruit staff members is limited. The company must therefore perform a significant amount of in-house training to ensure that staff are familiar with all aspects of the company’s activities.

Lessons Learned for Scaling-Up Future Operations

A key lesson that MDI has learned is that the company must consolidate its successes and improve the effectiveness of its interventions before increasing the number of products it carries, and expanding the number of producer groups with which it deals. This requires developing knowledge and competency among its employees, particularly its field extension staff who work directly with producers and producer groups. Further, not only individual producers need to be trained in organic production methods and quality control during harvesting, but also the group leaders who managed the producer groups.

With regard to the company’s export operations, MDI has learned that it must reduce its reliance on European markets—particularly in the wake of the financial crisis of 2008—and focus additionally on regional markets such as Hong Kong, China; Japan; and the other countries of the Greater Mekong Subregion. This remains a major challenge, since although markets for organically produced products are emerging in these latter countries, “fair trade” remains an unfamiliar concept to consumers. As a result, for the public sector, international agencies, and nongovernment organizations, facilitating additional ecotrade within Asian markets would be the most efficient means of facilitating expansion of eco-friendly commercial activities such as those pursued by MDI.
Company Profile

In 2007, International Market Development and Investment Joint Stock Company (MDI) was founded as an outgrowth of a personal commitment to social entrepreneurship and ecological production. Registered as a private Vietnamese company, MDI is owned by Nguyen Tuyet Minh and Dominic Smith. The company’s social commitment results from the owners’ long experience of working in agriculture and rural development, and their desire to use their skills, experience, and contacts in achieving social change through practical means.

MDI deals in fair trade agricultural and handicraft products that are produced in an environmentally responsible manner. Agricultural products the company currently trades in include coffee, tea (black, green, jasmine, and “snow tea”), and cashew nuts. As a manifestation of its commitment to fair trade, the company applied for fair trade certification from FLO Cert GmbH soon after its inception. This led to MDI’s becoming the first fair trade certified exporter and processor of cashew nuts in Viet Nam, this certification also extending to the processing and export of tea. MDI is likewise the first Vietnamese fair trade licensee (and in fact the first company in a developing country) that is authorized to sell products labeled FLO Fair Trade both domestically and internationally, which it sells under the brand name “Betterday.” In addition to engaging in eco-production and ecotrade, the company also offers consulting services in agriculture and handicraft production in Viet Nam.
Case Studies on Cross-Border Ecotrade

This compilation of four country case studies provides a comprehensive understanding of challenges, good practices, and lessons learnt under different situations. In the Lao People’s Democratic Republic, a cross-border vegetable trade agreement with its neighboring, Thailand, aided in stabilizing market prices and provided financial benefits to local contract farmers. Similarly, organic certification and geographic indication of sugar palm in Cambodia linked local farmers to the global market, while an organic fair trade rice supply chain in Thailand ensured quality assurance and product traceability. Organic certification and fair trade practices in Viet Nam enabled farmers to realize fair trade premium prices for their agricultural products.

About the Asian Development Bank

ADB’s vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region’s many successes, it remains home to two-thirds of the world’s poor: 1.8 billion people who live on less than $2 a day, with 903 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.