Road to Success of LAO AGRO INDUSTRY CO., LTD.

One day in December 1993, Mr. Loumkham Vongxay[1], faced with tremendous challenges in his saw mill business after the government introduced a policy of restricting logging, was sitting in his canteen for a cup of coffee, looking over the Nam Ngeum River to the other side with green landscape from farmers' gardening. He was considering options to diversity his business. His mind stopped wandering when he saw farmers enthusiastically watering their gardens which grow variety of vegetables. "Is there any potential for me to create a new business while supporting these farmers?" he asked himself. In his mind, he saw great potential of agricultural product business due to the fertility of soil, hard working of farmers, plentiful of non-timber forest products, and untapped agricultural product processing activity in Laos. Nevertheless, he also asked himself why nobody had launched agricultural processing business so far. "Is that due to the difficulty of transportation network? Is there any possibility of getting farmer's involvement? Is existing supply chain network in the market of agricultural product sufficient? Lack of technological no how? Is financing resources efficient? Are natural disasters manageable? Does traditional ways of fresh vegetable consumption hinder the creation of processed agricultural product market? Does political situation and government policy of promoting private business and export facilitate this area of business?" He decided to put efforts to explore the opportunity due to these many unclear issues in mind.

Mr. Loumkham explored further and discussed with various people in both government and business community. In his exploration he realized that most of Laos' products, especially agricultural and forestry products are exported as raw materials with very little value added services being performed in the country. This results in only a small amount of income being generated for local producers. Therefore, the government urges Lao investors to conduct processing businesses. The import of raw material and machinery for production is only 1% taxed. The government provides tax exemption for the first 3-5 years for profit tax and income tax. The government also assists with low interest rate loan for factory expansion. At the same time, Laos has received a zero-tariff privilege under the EU's generalized system of preferences. With this great supporting environment, Mr. Loumkham explored the possibility of technology and co-investor.

One day he met with the president of Lampang Food Products Co Ltd in Thailand, whose business is facing tougher competition because the exports of canned sweet corn from Thailand to EU were facing an uncertain future. Pises Iamsakulrat, who later became a managing director of Lao Agro Industry Co Ltd, told the Nation that EU traders called for an anti-dumping investigating into Thai sweet-corn products. Therefore, Lampang Food Product Co Ltd needs to prepare itself for the situation. At the same time, Lampang Food Products' canned

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This case study does not intend to make company's management evaluation; but is written for educational purposes only. Some content has been modified.

manufacturing - including tomato, bamboo shoot and lychee - lost its competitive advantage to firms in China, where production costs are cheaper and raw materials are more plentiful. Nevertheless, the company is highly experienced in producing canned sweet corn, lychee and fermented fruits and vegetables, as well as ready-to-eat curry dishes. The company produced sweet corn products as a core product, which accounted for 70 per cent of production. Loumkham and Lampang Food Products Co Ltd agreed to invest in food processing and established Lao Agro Industry Co., Ltd. (LAIC).

I. Introduction of Company

Lao Agro Industry Co., Ltd. was established on December 16, 1994 under the permission of the Ministry of Planning and Investment. At first, Lampang Food held a 70% stake, and Loumkham held 30%. The registered capital is US$426,000. Later on, the share was divided 50% for Lampang Food Co. and 50% for Loumkham. Presently, Loumkham owns 70% of the total share. It was under the supervision of Ministry of Agriculture and Forestry from 1994 to 2000. Lao Agro Industry Co., Ltd. is the first fruits and vegetables processing factory in Laos.

The company uses local raw materials to manufacture processing canned food for export. The main products include canned bamboo shoot in water, canned baby corn in brine, canned mango sliced in syrup, and sugar palm seed in syrup contained in rectangular can.

The company started with small target market: Thailand and local consumption. In a later stage, the market is expanded to European Unions and Vietnam, but in the brand name of the “Product of the Far East”. The company has constantly improved its image and raised its capacity. Currently, the company produces in its own brand name, with 95% for export to several countries; namely, England, Finland, Netherland, Denmark, Russia, the Netherlands, France, Lebanon, Spain, South Africa, Germany, Cambodia, Malaysia, Thailand, Japan, South Korea, Taiwan, and Vietnam.

In 1995, the Lao Industry Company began investing in agriculture by encouraging farmers to plant corns in districts of Phonhong and Viengkham in Vientiane province; and Nasaythong and Saythany districts in Vientiane Capital. The company signed contracts with the farmers on planting sweet corns on over 600 ha to supply to its canned fruit factory in Thoulakhom district. The company exports its manufactured products of date plums, sweet corns, garlic and mangos to overseas market and locally sells corn milk products.

Initially, the company set a target to export canned vegetables and fruit in 335 shipping containers a year, including seven containers of pickled mango, 28 containers of bamboo shoots in water, 120 containers of sugar palm seeds in syrup, and 180 containers of sweet corn in brine. The production capacity of the factory is 200-250 containers per year. Recently, nevertheless, the production and export of the company has continually increased: 190 containers in 2007, increased to 205 containers in 2008, to 275 containers in 2009, to 314 containers in 2010, and to

407 containers in 2011. Among these products, sweet corn is the main products, covering 73% of the whole products.

Bamboo shoot in water product has a limitation due to the raw material supply sources since it is collected from the forest. In 2007, the company could produce 50 containers. In 2008, the product output was 40 containers, decreased to 30 containers in 2009, and 12 containers in 2010 and 2011. The product is exported to UK, Finland, and Netherland.

Sliced Mango in syrup also has a limited supply due to scattering farming activities. In 2007 and 2008, the product output was 20 containers each year. In 2009, the production declined by 25% to 15 containers. In 2010, there was no production of mango in syrup due to the scarcity of the raw material domestically since mango did not produce good yield in that year and high price import from Thailand. In 2011, the product output was 10 containers. This product is exported to UK, Germany, Portugal, and Finland.

Sweet corn in can production started in 2007, with the production output of 50 containers in the first year. Due to the contract farming promotion and the increase of market demand, the production increased to 70 containers in 2008. This increase leads to the expansion of the factory to the capacity of producing 300 containers a year in 2009, completed in 2011, with promoting more contract farming with the local farmers. As a result, the production output was 150 containers in 2009, increased to 220 containers in 2010 and 300 containers in 2011. The product is exported to UK, Spain, and Denmark.

Sugar Palm Seed production output has constantly increased. In 2007, the company produced 70 containers, with the raw sugar palm seed supply from the Northern part of Laos. The product increased to 75 containers in 2008, to 80 containers in 2009, increased by 2.5% in 2010, and increased by 3.68% in 2011.

II. Company struggle to create raw material supply system

The creation of a raw material supply system in scattering small household producers into an industrial supply system was very challenging for a new food processing industry. The nature of the producers was that they were used to produce for their own household consumption; with little trading to the middle man or sell in the local early morning market themselves for the consumption excess. The production is also highly depending on seasonal agricultural products. Therefore, creation of a constant supply system for a factory was a brand new concept for the local people. In addition, contract based production system is a totally new practice. The farmers are used to sell to any middle man who offers higher price. As a result, the LAIC was struggling to create a constant raw material supply system when it started the factory.

The company strategy to create the supply chain system was to collaborate with the government. The Ministry of Agriculture and Forestry has a good system channeling administration to provincial agriculture and forestry department, and district agricultural and forestry division to support, administer, and enhance the farmers' agricultural practices, including the know-how, technology, seedling, fertilization, and etc. Nevertheless, the government sector constantly has a limitation with insufficient budget to operate their mission effectively. In this setting, Loumkham has worked closely with the government system to create his supply system through the provision of funding, seedling, and fertilizer; under the condition that the farmers are obligated to sell to his factory at an agreed price and schedule. The government sector, from provincial to district and village level, takes a responsibility to give advice, supervise the practice, and supports conflict resolution. After struggling for the first few years with scattered suppliers, with the strongest efforts from Loumkham and the government support, the supply chain system of raw material becomes stabilized.

The company promoted, supported, and bought raw material from farmers in Vientiane Province, Luang Prabang Province, Xiengkhuang Province, and Xaisomboun Special Zone. The raw material covers both planted agricultural products and non-timber forest products, namely bamboo shoots, sugar palm seeds, mango, garlic, vegetable, ginger, corn, and others according to the season. "Eighty percent of our raw materials are produced locally, but the tin cans are imported," Mr. Loumkham said.

The top government level also strongly supports the agriculture sector, particularly agricultural product processing. The design of Nam Mang Hydropower Dam, which is located in Vientiane Province, for example, includes irrigation schemes for farmers in Vientiane province so that agricultural activities can be conducted all year round. Bouasone Bouphavanh, in his Prime Minister Position, has urged Vientiane province authorities to encourage local farmers to grow more sweet corn for supply to overseas markets. "More of the crop is needed to supply the Lao Agro Industry Company, which produces canned sweet corn in brine in its Thoulakhom district factory," he said. "Expanded cultivation is not only to the company's advantage, it is also to the advantage of farmers and the government in developing this form of enterprise," Mr. Bouasone said during a tour of the Nam Mang 3 hydropower plant, irrigation scheme and the company.

Bamboo shoots and palm nuts (non-timber forest products) are locally supplied from collectors in Xiengkhouang, Luangprabang, Saysomboun Special Region, Vientiane Province and Borikhamxay. The requirement for bamboo shoots is about 1,000 tons per year. From August to September, the factory requires about 30 tons of semi-processed (polished and cooked) bamboo shoots per day. The factory price of semi-processed bamboo is 1,000 kip (0.10 $US) per kilo. The extraction rate is 60%. The factory has no cooling system. The absence of cooling facilities requires that the bamboo shoots be processed within 3 days of delivery. Following the bamboo season, from September to March, the main product is sugar palm seed. The annual demand of this product is about 300 to 500 tons, of which 60 to 70% are dry nuts. The factory-buying price of the wet sugar palm seed is about 2,500 to 2,600 Kip (0.25 to 0.26 $US) per kilo. The buying

price of the dry Tao nut is about 3,200 to 3,500 Kip (0.32 to 0.35 $US) per kilo. With absence of the cooling system, the factory can keep the dry sugar palm seeds for one month and the wet nuts for only 3 days. The dry quality nuts are exported for further processing in Thailand and the wet ones are processed in the factory for export to Vietnam and some domestic market. The factory is planning to expand its sugar palm seed market to Japan. There is one main collector/supplier of these two products in each province. The factory contracts with suppliers to deliver specified quantities of raw materials according to a fixed scheduled, based on factory throughput requirements and operations. The factory plans to expand its product lines to other non-timber forest products during its current five-year expansion plan.

Garlic, Chinese cabbages are supplied locally by the farmers in Thoulakhom District. Mangoes are imported from Thailand each year about 200 to 400 tons. The factory pays import tax of 1%. The supply of mango from Lao farmers represents only 10 % of the demand. The Lao Agro Industry Company plans to reduce its dependency on imported mangoes by organizing local growers and extending technology with guaranteed prices and markets through contract farming agreements. The current factory price of mango is about 1,000 Kip (0.10$US) per kilo. The farm-gate price is 600-700 Kip /kg, giving the collector/traders a 30-40% margin less transport costs from supply assembly points.

As for baby corn, the factory has encountered problems with the supply of baby corn because Lao farmer had no experience in commercial production of cash crops. Presently, the factory has contracted both the Thai and Lao ministries of agriculture to organize the Lao farmers in Tan Piou village for growing baby corn. The Thai inputs will consist of seeds and training of farmers in field management. The Lao government will provide technical assistance to farmers in baby corn cultivation. This project was commenced at the end of the 2004 wet season. The baby corn plantation was 250 rai (one rai equals 1,600 m2). Farmers participating in this project were competitively selected. There were 4 crops/year. Farmers were required by contract to produce a minimum of 200 kg/rai of baby corn. This was the applied research tested farm yield from applying the technology package on Vientiane Plain soils. With this output, participating farmers were able to achieve an equivalent profit of 467 US$/ha, if they used family labor and 292 US$/ha if they used hired labor. This profitability factor compared very favorably with the income from traditional rice farming, where the net margin per hectare averaged 100-200 US$/ha. Participating farmers who did not achieve the minimal yield of 200 kg/rai were removed from the project and replaced by others. The members participating in this project included 60 households. At the beginning they were provided with seeds and technical assistance with no interest. The input loans were repaid after each harvest.

In 2012 more than 300 families are growing sweet corn on 428 hectares in the districts of Thoulakhom, Viengkham, Phonhong and Keo-oudom in Vientiane province and in Naxaithong district, Vientiane Capital. The company provided the farmers with fertilizers, seed and advice. Farmers supplied 20 to 30 tons of sweet corn to the company each day. “However, our production capacity is 60 tons per day,” Mr. Loumkham said. The company is now trying to

expand the planting area. “We expect to have a sweet corn plantation area of about 1,000 hectares,” Mr. Loumkham said. The expansion will not only be good for the company, but will provide jobs and income for local people. Nevertheless, the extension of plantation means that the location of plantation is locating in further distance from the factory, generating higher transportation cost and more challenging time bound for raw material supply, which is a critical point for quality control processing.

III. Quality control to meet international standard

The Lao Agro Industry Co., Ltd. constantly improves its quality and has a great achievement from the beginning up to present. The factory attained the Good Manufacturing Practice certificate from Laos Food and Drug Administration, and passed the factory evaluation from SGS Thailand Ltd. The Factory, cooperated with Thai Food Institute, and has achieved Good Manufacturing Pactice/Hazard Analysis Critical Control Point (GMP/HACCP) from Thailand Food Institute. It also received British Retail Consortium (BRC) certification, which is awarded to companies that consistently produce high quality, safe products, and ISO 9001.

Director General of the Trade Promotion and Product Development Department Mr. Phengsagouane Chounlamany stated in the BRC certification award ceremony: “The food processing industry has been expanding and goods sold in local and international markets must meet the safety and quality expectations of consumers both locally and overseas. The quality of products must be tightly controlled and continue to meet stringent consumer protection laws and the import inspection regimes of other nations, as well as satisfy the buyers.”

“Obtaining international certification such as the Hazard Analysis Critical Control Point (HACCP) or the BRC is one of the most important endorsements for export companies because food safety, particularly for finished food products, is a big concern for consumers in developed countries.”

“It is important for export companies to be knowledgeable about the export market – required standards, import regulations, and consumer behavior – to develop or improve products that are acceptable to international buyers and can be competitive in the marketplace,” said Mr. Phengsagouane.

“The export industry can create more jobs, promote income distribution, increase the amount of foreign currency earned, improve the balance of trade, stabilize the local currency, and bring new technology and knowledge to the country.”

With scattering location of the raw material supply, the company is facing tremendous pressure in production planning and quality assurance. For example, corn has to be processed within 24 hours after harvest, garlic within 3 days, and sugar palm seeds within 1 week.

IV. Labor force arrangement

In a developing country like Laos, labor force, particularly in agricultural sector, is not very skillful to cater for industrial workplace. The attitude, behavior, moral and commitment of the farmers are also obstacle for personnel administration. Workers tend to work according to their desire: for example, they tend to be absent when there is traditional festival, acquaintances wedding, funeral, or farming season to support their families. As a result, businesses are facing difficulties in managing human resources effectively and the personnel turnover rate is usually very high. LAIC faces difficulties in managing its employees.

In 2013, employees of LAIC are divided into 3 categories: daily worker (temporary) 99 persons ($5/day), daily worker (regular) 120 persons ($130/moth), and monthly workers 95 persons ($300/month). In 2003, the Lao Agro Industry permanently employed some 350 people, 75% of these are women. During seasonal peaks, the employment level reaches 500, with the temporary employment of an additional 150 people. Workers receive training course, monthly insurance, and 100% treatment in case of accident in the workplace. In addition, the company offers 7%-15% bonus scheme at the year end. The lowest wage is 850,000 kip, which is higher than the minimum wage set by the labor law.

Apart from the employees in the factory, the company has to create good relationship with more than 300 families who are growing sweet corn on 428 hectares in the districts of Thoulakhom, Viengkham, Phonhong and Keo-oudom in Vientiane province and in Naxaithong district, Vientiane. The company provides the farmers with fertilizers, seed and advice. They can supply 20 to 30 tons of sweet corn to the company each day.

V. Disaster management

Thourakhom District is located below Nam Ngeum Hydro Power Dam. Nam Ngeum, in Thourakhom area, has two rivers combined into Nam Ngeum, one from the Dam and one from Nam Leak. While the Dam can regulate the water flow with its electricity production, Nam Leak cannot be controlled. Once the river flows naturally, floods usually occur during the rainy season. Serious damage, for example, occurred as an impact of typhoon Haima between June 24 and 26, 2011. Over 100 ha of corn plantation in Thoulakhom district, Vientiane province were destroyed. Farmers have asked for government help after their plantation was damaged by flood. Little assistance from government was offered to the destruction caused by natural disaster, according to President of the Lao Industry Company Loumkham Vongxay. Mr. Loumkham said that farmers were asking for assistance from relevant officials so that they could restore their production and asked banks to extend the time for repaying their debts. The destruction caused

by natural disaster is one of the obstacles for LIC. Minimal strategy has been in place to tackle the issue so far.

VI. Marketing

LAIC has a secure market, initially through its partners in Thailand. Under such situation, the company does not have to spend too much exploring the new market. New market development is connected through the existing channel. Company President Loumkham Vongxay said: "The products have been reserved under a purchase agreement, but there is market demand for 100 more containers of sweet corn in brine, including 50 for Holland." The company may not be able to meet the additional demand because customers did not make an order eight months in advance. "Customers say they did not reserve ahead because they did not know whether Laos could produce the product. Now they do. The Russian market also requires supplies," Mr. Loumkham said. The Prime Minister said "I am pleased and happy the company has boosted orders. It is good news." However, the company is afraid it may lose its reputation and customers if it cannot produce and supply as required. "We want to have enough produce for at least 400 containers per year, including canned sweet corn," Loumkham said.

About 5 percent of products are sold in the domestic market, with the remaining 95 percent exported to places like the UK, France, Germany, Poland, Vietnam and Thailand. In 2007 the company exported 180 shipping containers of goods, increasing to 200 containers in 2008.

VII. Environmental Problems

The processing of large amount of agricultural products into canned and syrup creates a mass of residue from the processing. At the start of the business, the waste disposal system was not in place and had caused serious air and water pollution from the factory. Receiving complaints from the surrounding area, Loumkham was seeking ways for better waste disposal. He was considering many options for it. "Should I hire waste disposal subcontractor to clean up the waste and treat water? Should I invest in advanced waste treatment system? What should I do to minimize the cost, but solve the problem sustainably?" thought Loumkham. He put efforts to explore the waste disposal systems in existing factories in Vientiane and neighboring countries and learnt that both ways creates high cost, which is a big burden for a young factory. One day, while looking at the corn processing, there is a light lit up in his mind. The waste from his factory is a valuable source of cow feed. He instantly asked his staff to study and conduct experimentation of turning the waste into cow feed. The experimentation is a big success.

Loumkham established a new cow farm business not far away from the factory. His entire factory residue is sent to the cow food mill and turned into cow feed. He proposed the idea to the government with the public-private-partnership program of cow feeding, offering young cow to the farmers to take care of through his provision of cow feed. The government agreed that his new business idea is very helpful for local development which will lead to poverty alleviation. Therefore, the government offered low interest

loan for his new business. The scheme not only helps him solve environmental issues of the factory, but also support local residents in creating more job and income generation.

VIII. Financial Performance

The company has constantly improved its capital investment. At the beginning, the registered capital was the registered capital is US$426,000. As reported in a report by Ministry of Agriculture and Forestry in 2006, the total registered capital increased to 700,000 in 2003. The factory made profit of about 30,000 $US on 1,000,000 US$ in sales (3%). The factory invested more to expand its warehouse to accommodate the planned increase in output. The targeted sales volume was 2,000,000 US$ following its campaign to increase raw material supplies through improved supply chain management and cost control and expansion of its European markets. In 2009, the company received loan of 4 million US$ from Agriculture Promotion Bank with a 7% interest rate per annum for a 7 year period. Only interest payment is required for the first 3 years, and from year 4, principle payment is one million US$ a year.

Cost of container shipments to Bangkok is one of the burdens for the high operating cost; one container costs 30,000 Thai Baht. With the projected increase in sales volume to 2,000,000 US$/year, Factory management believes that transport contracts might be negotiated at 25,000 Baht/container, resulting in a 12.5% cost reduction. At this volume of sales with cost control measures, the annual profit is expected to reach 100,000US$ per year (5%).

The company achieved the highest sale in 2011, with the sale volume of 7.7 million US dollars. The product share was from sweet corn 73.1%, sugar palm seed 19.2%, mango in syrup 3%, bamboo shoot in water 2.4%, corn milk 1.6%, and fermented garlic 0.8%.

Can was imported from Thailand with relatively high price. The company plans to invest in manufacturing cans by itself by importing raw materials and manufacturing cans in Laos. In so doing, unit costs can be further reduced by another 20%. With factory expansion, the Company will need access to commercial financing for working capital and investment capital to expand warehouse space and procure some additional equipment.

Loumkham gave a recommendation to new entrepreneurs that firstly, new entrepreneurs should learn the cultures of local people in terms of supplying raw materials. Secondly, it is important to learn that local people are not familiar with industry processing so they can leave any time they want. The recruitment needs to be very careful on people management. Flexibility, creativity, and constantly strive for quality leads to good opportunity identification; while commitment, hard work, and good networking lead to success.

References:

Ministry of Agriculture and Forestry (2006). Diagnostic Study of the Agricultural and Agribusiness Sectors.

Ministry of Industry and Commerce (2012). Diagnostic Trade Integration Study 2012.

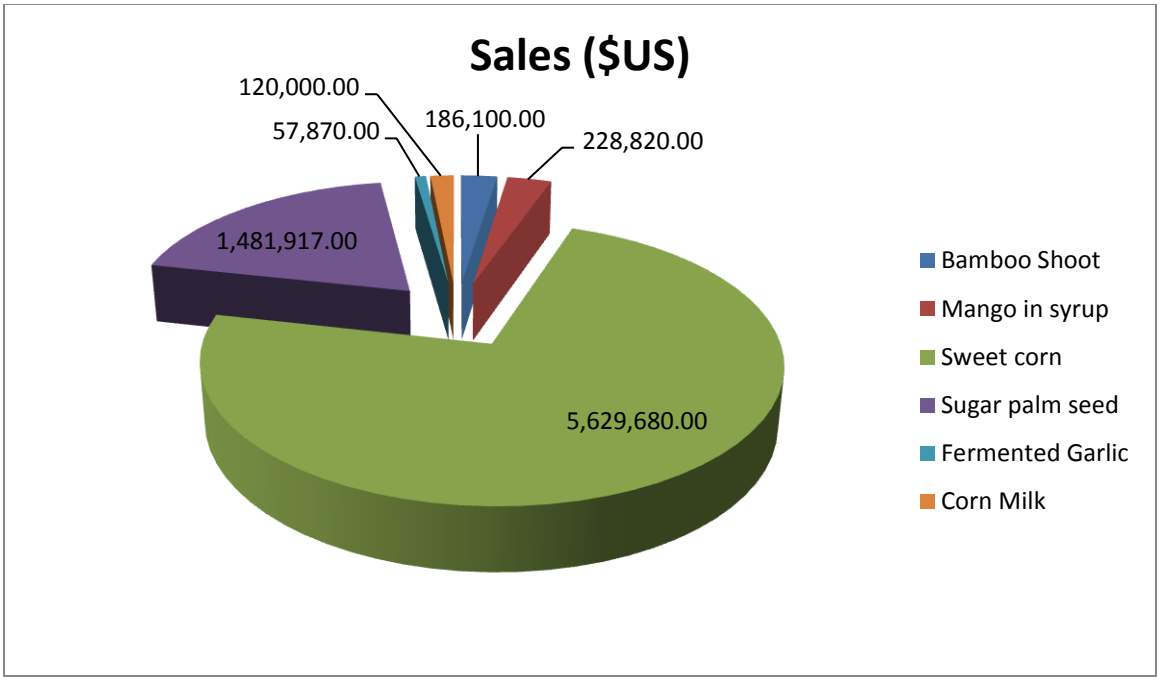
Annual Reports from Lao Agriculture Industry Co. Ltd.

Appendix 1. Products and Packaging

No.	Products	Container size	Unit/carton
1	Bamboo shoot in water	Can 8 oz	8
		Can 20 oz	12
		Can A10	6
2	Mango Sliced in Syrup	Can 15 oz	12
3	Baby Corn in Brine (Whole, Cut)	Can 12 oz	24
		Can A10	6
4	Palm Seed (Attap) in Syrup	Rectangular Can	1
		Can 2 p	12
		Can 4 p	6
5	Fermented Garlic	Can 1 p	24
		Can 2 p	12
		Can 4 p	6
		Can 12 oz	12
6	Corn milk	Bottle 200cc	-

Source: Business Plan of LAIC

Appendix 2. Product Sales in 2011



Appendix 3. Export to EU

Unit: US$

Year	2008			2009			2010			2011		
Products	Unit Price	Quantity	Value	Unit Price	Quantity	Value	Unit Price	Quantity	Value	Unit Price	Quantity	Value
Bamboo Shoot 8 oz x 8	2.24	8,400	18,816	2.24	8,400	20,328	2.60	8,400	21,840	2.80	8,400	23,520
Bamboo shoot 20 oz 12 x 6 (box)	5.18	3,000	15,540	5.57	3,000	16,710	6.00	3,000	18,000	6.46	3,000	19,380
Bamboo shoot A 10 x 6 (box)	11.47	38,000	435,860	12.35	28,000	345,800	13.30	10.000	133,000	14.32	10.00	143,200
Mango in syrup 15 OZ x 12 box	5.39	68,000	366,520	5.81	51,000	296,310				6.73	34,000	228,820
Sweet corn 12 oz x 24 (box)	9.36	36,800	344,448	10.08	92,000	927,360	10.85	202.400	2,196,040	11.68	276,000	3,223,680
Sweet corn A 10 x 6 (box)	12.86	50,000	643,000	13.84	100,000	1,384,000	14.90	110,000	1,639,000	16.04	150,000	2,406,000
Total			1,824,184			2,990,508			4,007,880			6,044,600

Appendix 4. Export to Thailand, Vietnam, and Malaysia

Unit: US$

Year	2008			2009			2010			2011		
Products	Unit Price	Quantity	Value	Unit Price	Quantity	Value	Unit Price	Quantity	Value	Unit Price	Quantity	Value
Sugar Palm Seed (Thailand)	13.70	70,000	890,500	14.74	70,000	1,031,800	15.88	72,000	1,143,000	17.09	75,000	1,281,750
Sugar Palm Seed (Vietnam)	12.83	5,000	64,150	13.82	7,000	96,740	14.88	7,000	104,125	16.01	7,000	112,070
Sugar Palm Seed (Malaysia)				15.30	3,000	45,900	16.50	3,000	49,500	17.82	3,000	53,460
Total		75.000	954,650		80,000	1,174,440		82,000	1,296,625		85,000	1,447,280