State of the Sector Report on Philippine Organic Products 2006

April 2007
Pearl2 Project

The State of the Sector Report - Philippine Organic and Natural Products is one of a series of State of the Sector Reports published by the Pearl2 Project for 2006. This report also updates the one prepared in 2004.

Pearl2 is a project funded by the Canadian International Development Agency and managed by Agriteam Canada Consulting Ltd. The Project started in 2002 and is designed to support the development of small and medium enterprises throughout the Philippines. It aims to help create meaningful jobs for both men and women through the strengthening of Business Support Organizations (BSOs) and Investment Promotion Centers (IPCs). Pearl2 is scheduled to end in 2008.

This report uses the definition provided by the Department of Trade and Industry (DTI) for micro, small and medium enterprises. Micro firms are companies with assets totaling below Php3 million. Small enterprises are those with total assets of over Php3 million to Php15 million, while medium enterprises have assets ranging from over Php15 million to Php100 million.

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Pearl2 Project
Technical Paper #1 (2007 Series) "State of the Sector Report – Philippine Organic Products 2006"

April 2007

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Printed by: Ample Printing Press, Paco, Manila City, Philippines

Front Cover Design – pITstop, Legaspi Village, Makati City, Philippines

The Pearl2 Project gratefully acknowledges the assistance of the Organic Producers Trade Association and their members in the preparation of this report.

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Acronyms

ACB	Accredited Certifying Bodies
ATC	Alter Trade Corporation
ATI	Agriculture Training Institute
ATO	Alternative Trade Organization
BAFPS	Bureau of Agriculture and Fisheries Product Standards
BETP	Bureau of Export Trade Promotion
BSO	Business Support Organization
CBI	Center for the Promotion of Imports from Developing Countries (Netherlands)
CHIPI	Chamber of Herbal Industries of the Philippines, Inc.
CITEM	Center for International Trade Expositions and Missions
DA	Department of Agriculture
DAP	Development Academy of the Philippines
DBP	Development Bank of the Philippines
DTI	Department of Trade and Industry
EMS	Environmental Management System
EO	Executive Order
EU	European Union
EUR	Euro Currency
FDC	Food Development Center
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Points
IBS	IFOAM Basic Standards
ICT	Information and Communication Technology
IFOAM	International Federation of Organic Agriculture Movements
LGU	Local Government Unit
MASIPAG	Magsasaka at Syentipiko para sa Kaunlaran ng Agham Pang-Agrikultura
NGO	Non-Government Organization
NTC	National Technical Committee
OCCP	Organic Certification Center of the Philippines
OGS	Organic Guarantee System
OPTA	Organic Producers Trade Association
PDAP	Philippine Development Assistance Programme
PGS	Participatory Guarantee System
PNOAB	Philippine National Organic Agriculture Board
PNS	Philippine National Standards
PTTC	Philippine Trade Training Center

QMS	Quality Management System
R&D	Research and Development
SBGFC	Small Business Guarantee Fund Corp.
SME	Small and Medium Enterprises
TESDA	Technical Education and Skill Development Authority
USD	United States Dollars
USDA	United States Department of Agriculture
VCOP	Virgin Coconut Oil Producers and Traders Association of the Philippines, Inc.

1 Background

The organic products industry was one of the original sectors identified by the Pearl2 Project, in coordination with the Department of Trade and Industry, for assistance under the Project's Sectoral Enhancement component. The production of organic products is a relatively new industry but has good potential for growth and export development given the shift to a more healthful lifestyle among certain segments of the population here and abroad.

This study is an update of the previous one prepared in 2004 but focuses only on the organic products sector. The initial report also included natural products. This edition covers only the organics sector since this is the largest of the two industries and had relatively more data sources.

Methodology

The Pearl2 Project partnered with De LaSalle University (DLSU), Manila through its Center for Business and Economic Research and Development (CBERD) to undertake the development of this edition of the organics products report. The researchers used primary and secondary sources of information in this study. Primary research

was undertaken through a survey of organic producers and consultations with some industry personalities. The survey was conducted among members of the Organic Producers Trade Association (OPTA), a beneficiary of the Project. These firms are engaged in the production, processing and marketing of organic products. The secondary sources of data include statistics and reports from government agencies such as BETP and CITEM of DTI and BAFPS of DA, NGOs like PDAP, MASIPAG and OCCP, and International organizations like IFOAM and CBI.

This report uses the value chain model developed by Dr. Michael Porter of the Harvard Business School to analyze industry activities. (Please see Annex 1 for a background on the Value Chain Analysis) Based on the value chain analysis, the needs of the industry were assessed covering the sector's primary activities- inbound logistics, operations, outbound logistics, marketing and sales, and services. Based on an analysis of the sector's value chain and industry data, a proposed strategic direction for the organics products sector was developed and is presented at the end of this report.

Limitations

The survey conducted for this report is limited to the members of OPTA. A total of twenty nine firms responded to the survey. This represents about 29 percent of the active membership of the group in the middle of 2006 when the survey was conducted. Other primary data obtained on the sector were also derived from interviews with industry players. The report focuses on the producers and processors of organic products. It only briefly touches on the suppliers and other external linkages of the sector. This edition of the study is also limited to organics produce and makes minimal, if any, references to herbal products.

The value chain analysis used in this report is based on the primary and support activities of the producers. It does not consider the external value chains of suppliers and buyers. In addition, financial data were not considered in the value chain analysis as these would be hard to obtain and reconcile on an industry level.

Acknowledgements

The Pearl2 Project acknowledges with gratitude the assistance and support for this report of the following persons:

- Ms. Alicia S. Pineda of DLSU for drafting the State of the Sector Report on Philippine Organic Products 2006;
- Ms. Mitzie Irene Conchada and Ms. Fredelita De Mesa of DLSU for helping research the data in this report;
- Dr. Rizalito Gregorio for helping develop the initial value chain analysis for organics products;
- Ms. Rosalina Tan, Founding President of OPTA;
- Mr. Agerico Valdez, President of OPTA;
- Ms. Christine Turno, Executive Director of OPTA;
- Mr. Jerry Facturan, Executive Director of PDAP
- As well as the other officers and members of OPTA for their cooperation in providing data for this report.

2 Executive Summary

The organic products sector covers a broad range of product lines produced under the organic agriculture system. It includes the various enterprises engaged in growing crops and raising animals (organic production), processing the fresh produce (organic processing) and trading and distribution of the products to trade buyers and consumers (local and export marketing). Major Philippine organic products for export include muscovado sugar, fresh bananas, banana chips, desiccated coconut, banaba leaves and virgin coconut oil. Other organic products are chicken, vegetables, vinegar, rice, eggs, mango products, juices, herbal teas/supplements, coffee, fruit juices, cocoa, culinary herbs/ spices, among others.

The organic industry in the Philippines is still considered to be in its infancy or emergent stage. Its development and promotion have been spearheaded by the private sector, non-government organizations (NGOs) and people's organizations. More recently, efforts to develop the sector have expanded with the active participation of the government and sustained collaboration among stakeholders.

Majority of organic producers supplying the domestic market are community- based, small and medium enterprises spread out in various parts of the country. Exporters to the foreign market include multinationals, medium and large- scale companies based in Mindanao, Negros, Central and Southern Luzon. Enterprises obtain their organic certification from a local certifying body like the Organic Certification Center of the Philippines (OCCP) or international certifiers which may have tie-ups with locally-based inspectors. Other groups that cater to the local market install their internal control system among their constituents to guarantee the products as organic or in the process of becoming organic.

The global organic market was estimated at US$27.8 billion in 2004, up from US$23 billion in 2002. Global sales was expected to expand by US$2.4 billion in a year, equivalent to a 9% annual growth rate, and would have reached US$ 30 billion in 2005. The European Union (EU) accounted for 49.3% of total sales worldwide while North America accounted for 46.7% in 2004, or a total of 96% for the two regions. In terms of country sales, the U.S. is the leading market, followed by Germany, United Kingdom, Italy, France and Switzerland.

Organic food has no Harmonized System (HS) classification and is not registered by the local Customs Bureau. Thus, there are no official trade statistics on export volume and value for local organic products. For the Philippines, unofficial estimates placed the export value for organics at US$10 million or more in 2003, and at an estimated 20% annual growth rate, it would have reached US$18 million or more in 2006. The bulk of organic food export is undertaken by companies which produce organic versions of their conventional products such as desiccated coconut, fresh Cavendish and balangon bananas, banaba leaves, banana chips and virgin coconut oil. Major export markets are Japan, U.S.A., Canada and Europe.

There has been a significant increase in the hectarage under organic management in the Philippines. From 3,500 hectares and 500 farms in 2002-2003, the area expanded to 14,134 hectares and 34,990 farms in 2004, based on IFOAM statistics published in 2004 and 2006. Despite this increase in coverage, the organic area was estimated to be 0.12% only of the total agricultural land in the country.

There are no reliable estimates of the total number of enterprises and ventures engaged in the organic and natural products sector at present. Most companies in the industry are small to medium in size. These are spread out in various parts of the country.

The value chain of the organic sector is structured in a manner similar to the agriculture industry and characterized with farmers cultivating small parcels of land. Some operations cover the entire chain from production to processing and marketing activities. Some producers sell their produce to consolidators (private sector) or through cooperatives and NGOs that provide marketing services. Consolidators and processors provide processing and/or trading as value adding activities while cooperatives and NGOs provide financing or training support to farmer growers.

Issues on the inbound logistics of the sector's value chain concern the lack of supply and insufficient quality of organic inputs. Producers have limited knowledge on technologies that will aid the production of organic inputs within the farm, as well as inadequate know-how on organic conversion technologies. Other issues include difficulty in meeting the terms and conditions of funding sources, limited knowledge of the market, and co-mingling of both organic and conventional produce.

There are also many issues at the operations level of the value chain, notably the limited access to training and mentoring services regarding organic agriculture technology, lack of trainers training for organic certification, inadequate productivity enhancement programs, difficulty in getting GMP and HACCP certification and lack of market-driven production planning. Aside from these, there are the need for sharing and dissemination of best practices, extensive R and D programs, extending the shelf life and freshness of commodities, cold chain system, greenhouses/common services facilities, and mechanism for price monitoring.

At the outbound level, the use of ICT is not yet maximized to manage outbound activities. Sourcing of packaging consistent to the lifestyle promoted by organic products is also needed. Packaging design is not distinct enough to differentiate an organic product from a conventional product. Payment terms and other conditions of large supermarket chains are also not friendly to small producers.

At the marketing and sales part of the value chain, issues involve limited awareness/education on compliance with organic standards and marketing requirements, lack of solid market information as basis in crafting a marketing strategy, need for marketing mechanism and capability building as well as intensive promotion and consumer awareness. Under service, there is a need to maximize the use of e-commerce to enhance connectivity with buyers and to tap the fair-trade movement to encourage and sustain fair-trade practices in the industry.

Being relatively young, the organics sector needs to have an appropriate industry development plan to set the proper directions for its growth over the medium to long term and define the parameters for its coverage. A basic requirement for continued development is expanding the awareness and acceptance by the local market for organic produce.

Over the short to medium term, the organic sector needs to signficantly expand market awareness for its products and improve the capability of producers to supply organic certified and properly packaged items to the market. Specific programs which the sector can consider undertaking include the following: 1.) market development program which combines commercial marketing and social marketing; 2.) research/development on organic production and processing and the dissemination of R & D findings; 3.) establishment of a resource information and advocacy center which will keep and enhance the knowledge-based assets of the organic sector and make these accessible for information and guidance of stakeholders; 4.) human resource development to build the capability of the various stakeholders in key areas of technical, marketing and management functions critical for organic production; and 5.) financial sustainability program which will aggressively source and build up funds for the development of the sector.

3 Overview

Industry Background

The organic industry in the Philippines is considered to be in its emergent or infancy stage. For many years, its development and promotion has been largely through the efforts of the private sector, non-government organizations (NGO) and people's organizations (PO) or cooperatives advocating for sustainable farming systems. The adoption of organic agriculture has been slow over the past twenty years in view of many constraints ranging from lack of supportive government policies, insufficient infrastructure to produce and market quality products, land tenure issues and " wait and see" attitude of producers.

More recently, however, there have been positive developments for the industry with the active participation of the government and sustained collaborative efforts among stakeholders. These include the approval of EO 481 for the Promotion and Development of Organic Agriculture in the Philippines, RA 9003 or the Ecological Solid Waste Management Act, a series of national organic workshops, collaboration of LGUs with various NGOs to promote

organic agriculture within their constituency, the growing cooperation of the national agricultural research system and the academe towards embracing ecological principles in farming system, and an annual promotion event (Bio Search Exhibition and Conference) for organic products.

To be labeled as organic, products have to be certified by a local or international certifying body. Certification implies that the producer has complied with all the standards and requirements for organic agriculture set by the certifying body. In the local market, however, products can be labeled as organic, i.e., organically grown or chemical-free, without such certification. Please see Annex 2 for some background information on organic agriculture and Annex 3 for information on the International Federation of Organic Agriculture Movements (IFOAM).

The local consumers are generally not aware of the distinction between "certified organic" and organically grown items. However, the export market requires certification by an international body as 3rd party certifier. The demand for certified organic products by the foreign market and a growing health consciousness of consumers have encouraged the shift to organic production by conventional farmers. This has also increased the efforts to obtain international organic certification among exporters.

The Philippine National Organic Agriculture Board (PNOAB) which was established on 10 January 2005 by the Department of Agriculture, is set to strengthen the country's organic agricultural industry. The PNOAB is a policy-making and oversight body, supported by the National Technical Committee (NTC) which will serve as the implementing body. It is a private sector- led group

wherein stakeholders are empowered to participate in the policy making and planning processes. The PNOAB is considered to be the long awaited culmination of years of lobbying efforts by the organic sector to accelerate its development.

Product Coverage

There are two major types of organic products in the local market, namely: 1. certified, which includes the locally certified products and those which are certified for export by international certifiers; and 2. organically produced but not certified, which includes other organic products and organic inputs.

Certified organic products include fruits and vegetables and rice. Products certified for export cover such items as virgin coconut oil, bananas and muscovado sugar. Other organic products may include cereals, poultry and beverages. Organic inputs refer mainly to compost fertilizer, seeds and microorganisms. Among the various products in the industry, the most important produce include rice, sugar and virgin coconut oil.

Industry Coverage

The Philippine organic sector broadly covers the various enterprises from growing crops and raising animals (organic farming) to processing the fresh produce (organic processing) and distribution of the products to consumers (trading and marketing) including quality control.

Majority of producers which supply to the domestic market are community-based enterprises, and small and medium enterprises located in various parts of the country. Exporters to the foreign market include multinationals and medium to large-

scale companies based in Mindanao, Negros island, Central and Southern Luzon. The bulk of exporters consist of producers of fresh Cavendish banana and green balangon banana for Japan; processors of banana chips, coconut oil, desiccated coconut and coconut chips for U.S. and Europe, banaba leaves for Japan, and virgin coconut oil for the U.S.

Enterprises obtain their organic certification from the Organic Certification Center of the Philippines (OCCP) for local certification, and from international certifiers like IMO (Switzerland), Naturland (Germany) and Ecocert (France) for export. International certifiers have tie-ups with locally based groups or individuals who do the training and inspection during the process of certification.

There are three types of certification system, namely: first party, second party and third party certification (OCCP, 2006). First party certification is when a producer with installed internal control system claims that the farm is organic. An example is the Participatory Guarantee System (PGS). Second party certification is when the consumer verifies the production system and producer adheres to the standard set by the consumers. An example is the Community Supported Agriculture System where there is an organized consumer and producer group. The third party certification is done by a third party which has no direct interest in the economic relationship between supplier and buyer. Examples are the international certifiers and OCCP. Companies that export are required by their foreign buyers to obtain third party certification by international certifiers.

Small-scale producers sell their products in the domestic market through direct sales in subdivisions of the middle and upper class, or via retail stores in communities and organic weekend markets in some areas. Others have tie-ups with hotels and restaurants or

with marketing intermediaries that sell to supermarket chains. Exporters get their trade contacts through their participation in international trade fairs and mission, on-line promotion and market matching.

Important partners of the industry are the local government units (LGU) along with NGOs who promote organic products through such activities as " Go Organic" movement in South Cotabato, development of bio-dynamic rice in Magsaysay and Surallah, Negros as " Organic Food Island", Valencia as " Organic Rice Capital", Bohol as "GMO-free" and Baras, Rizal as " First Organic Town".

The major business support organizations active in the organic movement is the Organic Producers Trade Association (OPTA). Another group active in the organic area is Alter Trade Corporation (ATC), a fair trade company. Both OPTA and ATC have initiated support services for producers in the production, post-handling, processing and marketing of products. Another group in the industry is the Virgin Coconut Oil Producers and Traders Association of the Philippines, Inc. (VCOP), which promotes the development of virgin coconut oil products. Annexes 4 to 6 provides some background information on these groups.

Local Market for Organics

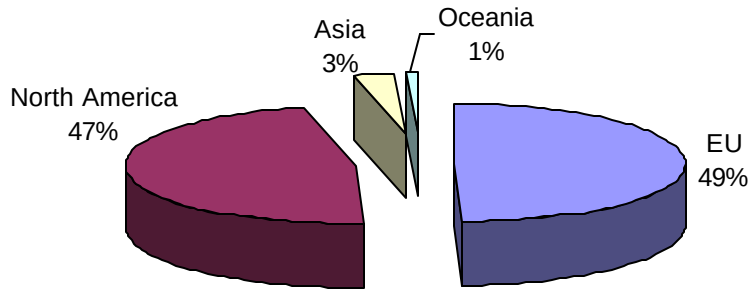
The domestic market for organic products is relatively small. Based on data from the Foreign Agriculutural Service (FAS) of the US Department of Agriculture, the Philippine organic market was estimated at around Php250 million or US$6.2 million in the year 2000. Sixty percent (60%) of this is made up of imported processed goods. The annual growth rate of the market is placed at 10%-20%. Major organic items produced locally are rice, fresh vegetables and sugar. Major organic imports include: honey, tea, coffee, spices and mostly processed food from the United States.

4 Global Market for Organic Products

World Market Demand

The latest IFOAM publication "The World of Organic Agriculture 2006" provides some global market data on organic products. The total global sales for organic food in 2004 was reported at US$ 27.8 billion, with the European Union as the largest market at US$ 13.7 billion, equivalent to 49.3% of the total sales. North America came a close second in sales at US$ 13.0 billion or 46.7% of the total. Together, these regions accounted for 95% of the total global sales in organic food in 2004. The remaining sales were contributed by Asia at US$ 0.75 billion or 2.7%, and Oceania at US$ 0.25 billion or 0.9% of the total. Sales worldwide of organics was expected to expand by US$ 2.4 billion a year, or about a 9% annual growth rate, and would have reached US$ 30 billion in 2005. Chart 1 on the next page shows the major areas of demand for organic food products.

Chart 1
Global Sales of Organic Food Products 2004, by Region
(in percentage share to total)



Source: World of Organic Agriculture, 2006, IFOAM

North American Market for Organics

The United States is the leading country in terms of organic product sales. In 2004, sales of organic produce in the U.S. reached US$12.1 billion. The country is considered to be the fastest growing market for organic food with a growth rate of 14% yearly. In North America, the US accounted for about 93.0% of sales of organics in 2004. Canada, with US$ 0.9 billion sales, accounted for the balance of the total sales in North America for the same year. U.S. sales of organic products was estimated to have reached US$14.5 billion in 2005.

In 2003, the U.S. had 8,035 certified organic farms occupying 889,048 hectares equivalent to 0.22% of its total agricultural land. It had 3,000 facilities that process and distribute organic products which are certified according to U.S. standards.

Interest on organic food has been steadily growing in the U.S. Food service is a growing outlet for organic food as evidenced by the availability of organic menus/food in schools, cafeterias, restaurants, eateries in parks, museums and hospitals. Organic options are becoming part of corporate philosophy among food service concessionaires.

The implementation of the U.S. national organic standards in October 2002 gave impetus for large companies to enter the organic marketplace. Fueled by consumer interest, large companies have started to introduce organic versions of their established brands. More mainstream consumers are being exposed to organic food through club stores, supermarkets, fast food chain (e.g. Mc Donald's organic coffee), and convenience store retailers.

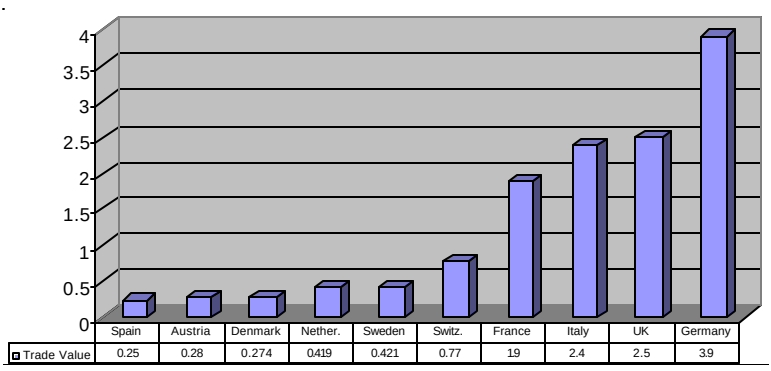
U.S. organic companies also import organic food to meet their needs and cut costs. Products imported include banana, coffee, soybeans for organic soymilk, beef, fruits and vegetables. There are no up-to-date statistics on U.S. imports and exports of organic food but it is estimated that imports reached as much as US$1.5 billion in 2002 while exports were in the range of US$125 million to US$250 million for the same year. According to the World of Organic Agriculture (2006), there is high demand for organic food in both U.S. and Canada but supply is not enough. Imports are a way of augmenting local supply of organic products in these countries.

E.U. Market for Organics

The leading markets for organic food in Europe are Germany, United Kingdom, Italy, France and Switzerland. Other notable markets are Sweden, Netherlands, Denmark, Austria and Spain. Chart 2 on the next page shows the estimated turnover for organic food in Europe in 2004. Chart 3 on page 21 indicates the per capita

consumer expenditures for organic food in selected European countries for the same year. The estimated turnover indicates the gross revenue generated from the sales of organic products while the per capita consumer expenditure indicates where the potential market demand is.

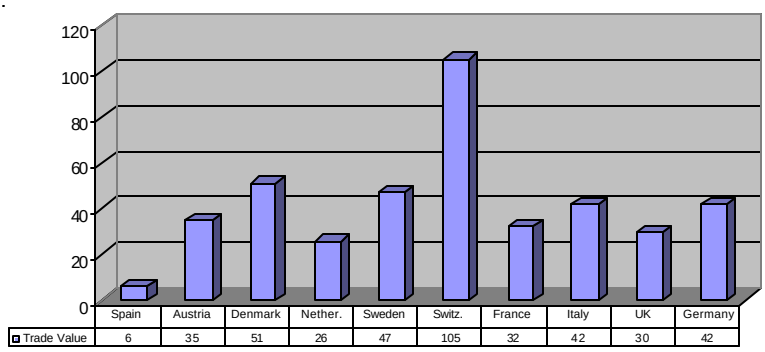
Chart 2
Estimated Turnover for Organic Food in Selected E.U. Countries, 2004
(in Euro Billions)



Source: World of Organic Agriculture, 2006, IFOAM

Germany is the largest market for organic products in the EU for 2004 with a turnover value of EUR 3.5 billion. The other major consuming countries and their turnover values are the UK (EUR 2.5 billion), Italy (EUR 2.4 billion) and France (EUR 1.9 billion). In terms of per capita consumer expenditure for organic food, Switzerland is highest at EUR 105, followed by Denmark at EUR 51, Sweden at EUR 47, Germany and Italy at EUR 42 each, Austria at EUR 35, France at EUR 32 and UK at EUR 30.

Chart 3
Estimated Per Capita Consumer Expenditure for Organic Food in Selected E.U. Countries, 2004
(in Euro)



Source: World of Organic Agriculture, 2006, IFOAM

The German market experienced the highest growth in demand for organics, estimated at 12% in 2004. More conventional supermarkets offered organic products. The number of organic supermarkets continued to increase with 40 new organic outlets opening in 2004. Conventional supermarkets accounted for about 36% of sales of organic products, health food shops, 34%, and direct sales, 16%. Nearly every conventional supermarket or discounter in Germany provides a basic range of some 20-50 organic items.

The UK market, the 3rd largest in the world, after U.S. and Germany, was estimated to have grown at 10% in 2004. Much of the growth occurred in non-supermarket channels like organic food shops, box schemes, farmers' markets and among catering and food service companies. Growth rates for the other important markets in Europe, the Italian and French markets, have slowed down due to unfavorable general economic conditions.

Leading EU Importers of Organic Products

Germany

Germany is the largest importer of organic products in Europe. According to a CBI Market Survey in 2005, imports accounted for about 38% of the value of raw materials for the German organic market, equivalent to EUR 156 million, or 10% of total sales at retail level. Germany's largest import items consist of fruits and vegetables (fresh and processed), with a share of 30% of turnover of all imported organic goods. Other major organic imports include cereals and cereal products, eggs and poultry meat, nuts, tea, coffee, cocoa, spices, culinary oils and fats, sweeteners and bakery products.

United Kingdom

The UK market is considered to be the most import-dependent of all markets in Europe based on the same 2005 CBI Market Survey. Imports accounted for about 65 % of the UK organic retail value in 2002. However, the import level is expected to decrease considerably, as British policy makers set a target of 70% of organic food consumed in the UK to be produced in the UK by 2010 under the Organic Action Plan. The current level of organic import is estimated at 56 % of retail sales.

UK's imported organic food products include cereals (wheat for animal feed, milling wheat), potatoes, vegetables (onions, salads), fruit, including nuts (apples, pears), and milk products. It is estimated that half of the imports of organic foods in the UK come from other EU countries. The major non-EU suppliers include the U.S.A., Egypt, Israel, Argentina, South Africa and Central America.

Netherlands

The Netherlands is a major importer of organic food products. Some products are re-exported by Dutch firms, mostly to other European countries. Imports of the Netherlands include fresh fruits and vegetables, grains, cereals, dried fruits, nuts and seeds, coffee, tea, spices and herbs. Most imports are from developing countries, especially from Asia and Latin America. Supplying countries often export in bulk to the Netherlands for packing or processing in the country and other EU countries. Several organic products from developing countries make their way to the UK and other EU countries from the Netherlands.

Italy

Italy has a growing organic market which encourages product importations. Imports are generally done triangularly with other European counties like the Netherlands, which import and then re-export products. Major organic food products imported consist of cereals, vegetables, fruit including nuts and milk products. Suppliers are usually other EU countries like Germany, France, Austria, the Netherlands and Spain. Non-EU supplying countries include Egypt, South Africa, Argentina, Colombia and Peru.

It has been reported that there are bureaucratic difficulties in obtaining organic import certificates from the Italian Ministry of Agricultural Policies (CBI Market Survey, 2005). Further, certifying bodies in Italy are also reportedly too busy to cope with the Italian organic boom and thus have little time to attend to imports from third countries.

France

Imports account for about 10% of France's organic food consumption. Most imports (60%) originate in Germany and Scandinavian countries, while 40% are from countries outside the EU. Main organic imports from non-EU countries included exotic fruits (mango, bananas, citrus, and avocado), coffee, tea, cocoa, nuts, spices, edible oils, cane sugar and cereals. New organic products like ready- to- eat frozen foods and vegetarian meals are also increasingly imported in France.

Asian Market

Asia which is home to about 60% of the world's population has a small market for organic products. Sales are largely in the affluent countries of the region. The Asian market for organic food was valued at US$ 750 million in 2004, with more than half or US$ 400 million accounted for by Japan.

Growth in demand for organic products in Asia is estimated to be highest at 30% in China. The country also has the largest area of organic farmland in Asia. In recent years, production of organic crops in China has increased significantly, encouraged by the growing affluence of Chinese consumers and an expanding expatriate community. The country's export of organic products is estimated to grow yearly by around 10%.

Other Asian countries with large organic markets are South Korea, Taiwan, Singapore and Malaysia. Consumers in these countries have high disposable incomes and perceive organic food as healthier and more nutritious than conventional food.

Philippine Exports of Organic Products

Philippine trade statistics do not specifically indicate the export of organic products. As mentioned earlier, organic food has no HS classification and is not registered by the customs bureau.

Based on data gathered from the local organic sector, Philippine certified organic exports include the following: muscovado sugar, desiccated coconut, fresh Cavendish bananas, green balangon bananas, banaba leaves, banana chips, virgin coconut oil, mango products, coffee, herbal tea and supplements.

There are no available export volume and value for local organic export. Unofficial estimates of MASIPAG (Magsasaka at Siyentipiko para sa Ikauunlad ng Agham Pang-Agrikultura) placed the value of exports at US$ 10 million or more in 2003. At an estimated 20% growth rate, exports would have reached US$ 18 million or more in 2006.

The bulk of local exports for organic food is undertaken by companies who also export conventional products. In view of market demand for the organic version of their products, these companies made the necessary adjustments in their production and processing operations and obtained organic certifications from international certifiers. Examples of these products with organic versions are desiccated coconut, fresh Cavendish banana, banaba leaves, banana chips and virgin coconut oil. The U.S. and Japan appear to be the leading markets for local organic products. In Europe, Germany is the biggest market. Two export products, muscovado sugar and balangon bananas have been exported with fair trade as their competitive positioning. The fair trade market is a niche market for products manufactured locally based on the principles of social responsibility.

Export of organic food can be expected to increase tremendously if Philippine exporters are ready to supply in quality and quantity. Desiccated coconut, fresh Cavendish banana, banana chips and dried tropical fruits produced in conventional way have established export markets among mainstream buyers. Since these are already known and accepted, the organic versions can be introduced easily. These products are classified under fresh and processed fruits, a food export category identified as an export winner by the Department of Trade and Industry. Trade statistics indicated that this category has steadily performed well compared with other product groups.

Areas Under Organic Farming in Asia

Data from the World of Organic Agriculture 2006 provide some indications on the relative size of land under organic management in selected Asian countries. Based on the survey published in 2006, China has the largest land area under organic management among Asian countries at 3,466,570 ha. which is about 0.60% of its total agricultural land. The main organic products planted are vegetables, rice and fruits. Other Asian countries with significant land areas under organic production are Indonesia (52,882 ha.), Japan (29,151 ha.) and Korea (28,218 ha.).

The Philippines has an estimated 14,134 hectares of land and 34,990 farms under organic management. This is a significant increase over the previous data of IFOAM published in 2004 which indicated that there were only 3,500 hectares and 500 farms under organic management. The most recent data show that the average area per farm is 0.40 hectare, an indication that more small landholders are involved in organic production. The survey reported

that these farms are only for areas with organic rice production. Thus, the total hectarage in the Philippines could be much more, considering that there are also organic areas planted tor banana, muscovado sugar and coconut.

Thailand closely follows the Philippines in terms of organic farm areas with 13,900 ha. based on the survey released by the World of Organic Agriculture in 2006. Rounding out the survey are Vietnam with 6,475 ha. under organic management and Malaysia with 600 ha. Please see Annex 7 for more details on the organic land areas of selected Asian countries.

5 Sectoral Profile

As in previous years, a survey was conducted among the members of OPTA in 2006 to update the profile of the industry. Findings are segregated into two sub-sections, one presenting a summary of key findings from the 2006 survey and the other covering the findings from multiple years from 2004 to 2006. It should be noted that some queries had multiple responses from the survey participants. In these cases, the total responses would be more than the number of respondents. There are also some data in 2005 and 2006 which were not available in the 2004 survey. Statistical data from the the surveys taken in these three years are presented in Annex 8.

Summary of Key 2006 Survey Findings

A total of 29 respondents participated in the 2006 survey conducted by Pearl2 among members of OPTA, representing roughly about 29% of the active members of the association during the time of the survey.

Most of the respondents are relatively young enterprises with about 68% being ten years old or less when surveyed. About one fourth (27%) have been operating for less than five years. Small and micro enterprises comprise an almost equal proportion of

companies in the survey. There were no large or medium size firms noted among respondents. Slightly more than half (55%) of companies are set up as sole proprietorships while the rest are corporations.

More than half or 55% of respondents have business premises exceeding 250 sq. m. About 31% have smaller operating spaces of 250 sq. m or less. The others gave no indication of the size of their businesses. Direct employees of respondents total 346 with most (72%) being male. Production personnel comprise about 60% of the workforce, the rest are spread out in administration, management, marketing and other functions. Wages are higher for male workers who average a monthly pay of Php6,714.30 while female personnel average Php5,816.67 a month.

Most organic producers (49%) still practice a predominantly manual production mode. Only about 23% said they were semi-mechanized and an even lower proportion (5%) indicated being fully mechanized. Respondents derive almost all or 94% of their sales from the local market with only 6% coming from exports. Among those who export, more than half of sales (56%) go to the U.S. About three fourths of surveyed firms target both the middle and high end markets. Only 24% said they also sell to the low end.

Only a third of respondents gave any export sales data. Of this number, only one firm had significant export levels exceeding US$5 million in 2005. The rest all had exports below US$50,000 during the same year. On the domestic market, about 41% of companies sold less than Php1 million also for 2005. A fourth of respondents sold between Php1 million to Php3 million while 14% had varying sales levels exceeding Php3 million.

Funds for operations are usually self generated with 83% of surveyed firms relying on their own money for their business. An average of more than half (55%) of the respondents' budget is used for production. The rest are utilized for marketing (21%), administration (14%) and R & D (9%).

Key Survey Findings 2004 to 2006

Number of Respondents

OPTA members who participated in the Pearl2 survey totaled 29 in 2006. There were 36 respondents in 2005 and 29 in the 2004 survey. Eleven of the firms which participated in the 2004 survey were from the Virgin Coconut OIl Association of the Philippines.

Company Setup

Over the past three surveys, small and micro enterprises have made up most of the respondents in the organic sector averaging about 84% of all firms surveyed for the period. Micro sized companies averaged about half of all respondents in the three surveys. The proportion of small enterprises was noted to have increased in 2006 when these made up 52% of respondents, up from 28% in the previous two years.

The 2006 respondents from OPTA are almost evenly divided between sole proprietorships (55%) and corporations (45%). The number of sole proprietorships in 2006 (55%) is lower than in 2005 (72%) and similar in 2004 (55%). On the other hand, the number of corporations in 2006 (45%) is higher than that of 2005 (25%) and 2004 (22%). There are other company set-ups in 2005 (3% as cooperative) and in 2004 (17% as cooperative and 5% as partnership).

Ownership and Management

Among the owners of sole proprietorships in 2006, there is a slight increase in the percentage of men (56%) to women (44%). In contrast, the ratio of men to women was 1:1 in both the 2005 and 2004 surveys. In terms of education, most sole proprietors (69%) are college graduates in 2006, up slightly from 65% in 2005. However, a larger proportion of owners have postgraduate degrees in 2005 (35%) compared with 2006 (25%).

There is no definite pattern in the gender of corporate chairpersons over the past years with more women serving in this position in 2006 (54%) and 2004 (67%) and more men (89%) in 2005. In terms of education, there is an increase in the percentage of chairpersons with college degrees, from 44% in 2004 to 61% in 2006. However, the proportion with postgraduate degrees was higher in 2004 (56%) than in 2006 (23%).

Company Presidents were still mostly male in 2006 (41%) and 2005 (58%). Women Presidents made up only 24% of respondents in 2006 and 39% in 2005. Most Presidents are still college graduates in 2006 (48%) and in 2005 (56%). A higher proportion of Presidents (42%) were noted to have post graduate education in 2005 compared to only 17% in 2006.

Facilities

Business premises for most respondents in 2006 (55%) and 2005 (67%) exceed 250 sq. m. Majority of firms in both surveys also own their place of business. About 59% of respondents in 2006 and 67% in 2005 said they owned their operating premises. Only a smaller proportion of 14% in 2006 and 28% in 2005 rented their facilities.

Firms generally hold business in their residential premises. About half of respondents in 2005 and 31% in 2006 said that their offices were in the same place as their homes. Only about 21% of firms in both surveys said they conducted business in commercial areas.

Product lines

Most respondents produce or trade organic products such as rice, vegetables, virgin coconut oil, sugar and processed food items. Some also produce organic inputs such as fertilizers. Others manufacture and sell natural and herbal products, personal care items and food supplements. A number of firms manufacture and sell both fresh produce and processed products. Very few respondents specialize in only one product or product line such as virgin coconut oil or herbal capsules. Most are engaged in a variety of organic or natural products.

Employment

The 29 respondents in 2006 indicated total direct employment of 346 workers. In 2005, there were 958 employees from 36 firms while there were 125 direct workers from 18 respondents in 2004. The figures in 2005, however, include eleven respondents from VCO, the association of virgin coconut oil producers.

Over the past years, there was no clear trend as to the predominant gender of respondents' workers. Male workers were in the majority in 2006 (72%) and 2004 (65%) while females outnumbered men in 2005 (57% vs. 43%).

Production workers and supervisors comprised the majority of personnel among firms surveyed throughout the past three surveys. Production staff accounted for 71% of total employment in 2004, 51% in 2005 and 60% in 2006. The balance are spread out over the other functional sections such as marketing, technical and administration.

Workers in production are predominantly male who comprise anywhere from two thirds to three fourths of the production workforce during the three surveys conducted. Quality control staff of respondents are also male dominated with almost two thirds of personnel being men in the 2006 and 2005.

Women dominated administrative positions consistently throughout the three surveys conducted averaging about 73% of administrative workers from 2004 to 2006. There was no definite trend noted in gender among the other functional areas of operations as well as in the other management positions among respondents in the surveys conducted.

Monthly wages averaged Php6,265.49 for all workers in 2006, up by about 3% from the level of Php6,087.84 noted the previous year. Male personnel consistently got higher wages relative to women workers with the difference increasing in 2006 when men averaged Php6,714.30 in monthly pay vs. Php5,816.67 for women. Averaged monthly wages for female workers in 2006 among respondents actually declined from Php6,042.40 in 2005.

Subcontractors

Most respondents did not subcontract their work in all 3 surveys conducted. The proportion of firms who subcontracted work ranged from 28% in 2004 and 2005 to 31% in 2006. The rest relied on their in-house production capabilities. Most of the subcontractors are located within the same province as the respondents: 80% in 2004, 50% in 2005 and 100% in 2006.

Skills training ranked first among support given to subcontractors in 2004 and 2005. In 2006, credit was the main assistance given by respondents to their subcontractors. Tools ranked consistently as the second major support given to subcontractors in all three surveys.

The hierarchy of problems encountered with subcontractors varied in the three survey periods although issues on delivery dates was ranked first in 2004 and 2006. The other problems concern quality of work and reliability.

Sourcing of Materials

Data on raw materials sourcing cover only the years 2005 and 2006. Most respondents used 100% local materials, although the proportion of those who do decreased slightly from 53% in 2005 to 45% the following year. In 2005, there were 2 respondents who used 100% imported materials. A considerable proportion, 25% in 2005 and 31% in 2006, used both local and imported raw materials.

In terms of the mode of raw materials procurement, there was an increase on the use of the open market as source, from 36% in 2005 to 52% in 2006. Procurement through own source decreased from 78% in 2005 to 34% in 2006.

Respondents generally ranked the problems associated with raw materials in the following order: availability, price, quality, and delivery of materials.

Mode of Production and Operations

Although most respondents utilized manual operations in all the three years of the surveys, there was a decreasing trend noted in the average proportion of firms who relied on such methods: 66% in 2004, 61% in 2005, and 49% in 2006. This trend, however, could be affected by the large number of respondents (23% to 24%) who did not indicate their operating mode in the 2005 and 2006 surveys.

Firms that employed semi-mechanized varied from an average of 31% in 2004 to 14% in 2005 to 23% in 2006. Companies that used a fully mechanized operating system remained minimal during the three surveys.

All aspects of operations from materials handling, production, processing, packaging and labeling remained predominantly manual in mode for the past three years.

Capacity Utilization

Most respondents indicated under utilized capacity in their operations at the time of the survey. Available data show average capacity usage was about 71% in 2005. Respondents reported underutilized capacity. Among the reasons for low utilization, equipment limitations ranked first in 2004 and 2005, while insufficient raw materials was the main cause in 2006. Personnel and space limitations were also cited as causes for under used capacity but ranked lower in the surveys conducted.

Quality Control

There has been an increase in the use of outside quality control facilities among respondents, from 11% in 2005 to 31% in 2006. Likewise, there has been an increase in the use of internal facilities from 19% in 2005 to 41% in the following year. However, the use of specifically assigned personnel for quality control decreased from 33% in 2005 to 21% in 2006, while the use of standard procedures also decreased from 53% in 2005 to 27% in 2006.

Quality control problems related to production process increased from 14% in 2005 to 31% in 2006. Problems arising from raw materials source also increased to 31% in 2006 from 22% in the previous year.

Product development

Most product development functions are still done internally by respondents although there is an increasing trend noted for using external expertise. The percentage of firms relying on their own product development capabilities decreased slightly from 75% in 2005 to 66% the following year. Companies using outside facilities increased to 38% in 2006 from 22% previously.

The respondents source their information on product development increasingly from buyers, from 39% in both 2004 and 2005 to 65% in 2006. They also used publications as a source but the proportion who used such decreased from 55% in 2004 to 44% in 2005 and to 31% in 2006. Many firms also used the internet as source for product development: 50% in 2004, 33% in 2005, and 41% in 2006. The bulk of respondents still obtained product development information from trade fairs. In 2006, about 69% of respondents indicated trade fairs as their main source of product information, up from 55% in 2005 and 61% in 2004.

Surveyed organic firms generally feel that their present sources of information for product development are still insufficient. Two thirds of respondents in 2006 was still dissatisfied with their present product design sources, up from 44% in 2005 and 61% in 2004.

Close to half (44%) of companies in the 2006 and 2005 surveys said that they had no internal R & D capabilities. In 2004, a larger proportion (66%) said they had none. Firms also generally design their products based on buyers feedback.

Market Coverage

About 93% to 94% of sales made by respondents are in the local market. Only some 6% to 7% come from exports. Majority of the respondents are increasingly serving both the high end and middle end markets. About 53% to 55% of firms surveyed in 2004 and 2005 sold to the high end market. This percentage increased to 72% in 2006. The middle end market was served by 72% of respondents in 2004, 67% in 2005, and 76% in 2006. The proportion of firms selling to the low end did not change significantly from 28% in 2004 to 22% in 2005 and 24% in 2006.

Export Markets

The U.S. remains the major destination of organic exports for most respondents. About 56% of surveyed companies exported to the U.S. in 2006, up from 17% in the previous year. Other countries exported to include Canada, Japan, the Middle East and other Asian countries. Exports to Europe were noted to be minimal, with less than 1% of respondents selling to this region in 2006.

Competitors

Competitors for the organics sector are varied with no single country cited as a major threat. Among the competitors mentioned are Australia, China, Europe, Hawaii, India, Indonesia, Japan, Malaysia, Peru, Sri Lanka, Thailand, USA and Vietnam. Among these countries, only Thailand was cited by a number of respondents, 11% in 2005 and 7% in 2006. Market development efforts among organic firms is slow. Only 21% of respondents said that they exported to a new country in 2006.

The surveyed companies listed several factors that contribute to the advantage of competing countries in the global market including lower labor costs, low price, and prevalence of certified organic products.

Sales

The number of firms who gave indications on their exports remained few, totaling 2 in 2004, 3 in 2005 and increased to 9 in 2006. Almost all of these companies said their exports did not exceed US$50,000 in any of the three surveys. One firm, though, exported more than US$5 million worth of products in 2006.

Local sales also generally remained low for most respondents. About 61% to 64% of firms surveyed in 2004 and 2005 had sales below Php1 million. In 2006, 41% sold at the same level. There was an improvement among companies that sold between Php1 million and Php3 million, with the proportion of respondents in this sales bracket increasing from 17% in 2004 and 2005 to almost 28% by 2006. Only about 2 to 3 companies had domestic sales exceeding Php5 million during each of the three survey periods.

Market Access

Market channels for exports are mainly through importers and buyers as reported by 27% of respondents in 2006. Other channels include distributors (10%), chains of stores (7%) and other retailers (3%).

Market access in the local market is more varied. Generally, organic producers prefer to do their own selling with more than half (53% to 55%) of respondents relying on direct selling to domestic buyers in 2005 and 2006. There was also an increasing proportion of firms having their own stores which rose from 31% in 2005 to 55% in the following year. Other local market channels mentioned include traders, department stores and boutiques.

Promotions are increasingly being made through the development and distribution of brochures and catalogues. About two thirds of respondents in 2006 relied on company brochures for marketing, up from 39% in 2005. The percentage of companies using trade fairs as a marketing activity declined from 75% in 2005 to 66% in 2006. The number of firms going on business missions also declined from 7 in 2005 to only 3 in the following year. The internet remains an alternative promotional medium for about 31% of respondents in 2006.

Despite the decreased proportion of respondents going to trade fairs, about a third of firms in 2006 indicated said events as their main source of foreign buyers, up from 14% in 2005. There was also an increase in the percentage of companies getting foreign buyers through referrals, from 6% in 2005 to 28% in 2006. A fourth of respondents in both surveys also indicated getting buyers through their own contacts.

Finance

The composition of the respondents' operating budget did not change significantly during the surveys made in 2005 and 2006. Respondents still allocated most of their budget to production, followed by marketing, administration, and lastly, R & D. Funds for production normally consumed 55% to 56% of the total budget . There was an increase noted in budget allocation for marketing, which rose from 15% in 2005 to 21% in 2006. An increase was also noted in the percentage share of R & D expenditures from 6% to 9% during the same period. Administrative expenses remained almost the same at 14% to 16% of budget.

A large proportion of respondents in 2005 or 92% relied on their own funds for operations. This figure declined somewhat to 83% by 2006. There was also a decrease in the number of firms which availed of bank credit from 4 in 2005 to 1 in 2006. The number which used private money lenders remained the same at three respondents under both survey periods.

Value Chain Analysis

Structure of the Industry

The organic industry consists of different layers, namely: farmers or growers, groups organized into cooperatives or associations, processors, traders, exporters, financiers and support groups.

At the first layer are the farmers or growers who are mostly small landholders as in the case of cultivator owners. Farmers may be organized into a cooperative or association led by non-government organizations or government agencies. They may be organized as self-help groups, empowered to access government programs and services.

Another layer is the processors who utilize the organic produce of farmers and growers for manufacturing. Most of them are community-based micro, small and medium enterprises that sell to the domestic market. A few are medium to large companies that have contract growing arrangements with growers, handle the processing in their factories and sell to the export market.

The other layer consists of traders, consolidators and exporters. They buy the organic produce from small growers; consolidate these to attain bigger volume and diversity, and sell these to the market. There are marketing intermediaries that specialize on trading and consolidating finished products for the local market to help community-based enterprises. Others are consolidators for export.

Another layer is the private entrepreneurs that provide financing capital and organic inputs to growers. Parallel to the private entrepreneurs are non-government organizations or cooperatives that provide alternative support to farmers in post-production and marketing activities.

Since most of the players are small landholders and micro, small and medium enterprises, they have limited financial resources and capabilities to upgrade their production facilities. The issue of land ownership is also a big constraint in converting from conventional farms into organic farms.

Plant based organic products are both governed by cycles of farm production or season based production. For instance, farm produce such as rice and corn are grown within 3-4 months cycle and if with irrigation, can be grown 2-3 times a year. All organic farming, production and processing must conform to standards set for organic products. Products sold as organic in the market have to be certified as such by a recognized certifying body. Outlets for organic produce include supermarkets, groceries, bazaars and smaller stores. Producers may also use direct selling in getting their products to the market.

The number of organic retail outlets in the country is limited. Organic products are perceived to be high priced but their appearance, manner of presentation, and packaging may not be at par with conventional products. The consumers in the domestic market as well as potential investors are not yet educated on organic agriculture and its benefits to society.

A major challenge is how to mainstream the organic products so that consumer awareness is expanded. Another issue is on increasing organic production to maximize the opportunities offered by the export market, while at the same time, enhancing the environment, health of people and livelihood of farmers.

Process Flow

The organic production system can be divided into three general stages, namely: preparation of inputs, production of crops or livestock, and processing. Some inputs such as compost fertilizer and botanical pesticides are available from suppliers. However, since supply of inputs is limited, farmers are encouraged to prepare their own inputs using waste by-products in their own farms. Technologies for inputs production include use of microbial preparations and earthworms.

The production of crops generally involves land preparation, mulch or straw incorporation, fertilizer application (compost or foliar), irrigation, pest control and management, maintenance and harvesting. Some techniques or practices are encouraged like crop rotation, intercropping, relay cropping, multi-story cropping and integration of fish or ducks in rice production. These are useful to avoid mono-culture systems, improve farm productivity, and ensure food security, high quality and safety of food.

Crop diversification and animal integration are part of organic farming practices to attain the so-called ecological balance that optimizes the relationship of soil, plants, animals and other organisms in the ecosystems.

After harvesting, the produce may be sold immediately to the market as fresh produce or it goes through the stages of processing operations. Producers may have their own processing and packaging facilities or may send the produce to off-farm processing facilities.

For products to be labeled and certified as organic, they have to comply with the Philippine national standard for organic agriculture and processing and go through the process of certification by a local or international certifier. Organic standards generally include:

- Avoidance of synthetic chemical inputs and GMO
- Use of farmland free from chemicals for a number of years
- Keeping detailed written production and sales record (audit trail)
- Maintaining strict physical separation of organic products form non-certified organic products
- Undergoing periodic on-site inspections

Organic certification by a third party is a strict requirement in the export market. It is a procedure by which a third party gives written assurances that a product, process or service conforms to organic standards. Inspection is done in the farm or factory to verify actual practice of organic system and compliance of documents. The organic inspector may either be employed by the organic certification body or contracted as independent organic inspectors. If evaluation is satisfactory, the certifier grants the right to label the product as certified organic by the use of seal, logo or certification mark of the certifier. An international certifier's

mark is required for export products. However, small producers and processors selling to the local market usually cannot afford the cost of a 3rd party certification. These enterprises have to find other means to gain some recognition as an organic supplier.

Marketing of organically- grown products is done mostly through the conventional distribution system and a few through alternative marketing systems. In conventional marketing system, organically-grown products are mixed with conventionally grown produce such that they lose their identity as "safe and healthy products." The product may pass through a long distribution network of "middlemen" before it reaches the final consumer.

In an alternative marketing system, trading and distribution is facilitated by NGOs as an offshoot of agricultural credit or extension projects. Some NGOs, serving as marketing intermediaries, are able to market organic products, particularly rice and muscovado sugar, to supermarket chains and institutional buyers in Metro Manila and other regional centers.

In the case of export, certified organic products are contracted by alternative trading organization (ATO) overseas. ATOs adhere to the principles of fair trade. In this case, farmers through a cooperative or farmers' association enter into an agreement with the trading partner (ATO) for the provision of production capital and the pre-determined price premium for the product(s). Please see Annex 9 for a diagram of the organic products process flow.

Value Chain Diagram

The value chain diagram for organic products is shown on the next page. The diagram refers to industry level activities and are based on research materials and interiews with key industry personalities.

The Organic Products Value Chain Diagram

FIRM INFRASTRUCTURE	**General management, planning, financing, accounting, labor relations, government affairs**				
HUMAN RESOURCE MANAGEMENT	• Training on organic farming • Training on preparation of organic inputs • Partnershiop and value formation for contract growing • Training on information drive on market opportunities	• Training on organic agriculture technology, quality management systems, GMP, HCCP • Farmers training on farm recording •Training for organic trainers and inspectors • Organizing farmers and social benefits for workers	• Staff training on proper handling / hauling of produce • Training of farmers on proper labeling and segregation of produce • Training of staff on electronic database and accounting system	• Staff Training on social marketing • Training on use of farm tours to raise consumer awareness for organics • Training in trade fair participation	• Training on handling customer complaints, product rejects
TECHNOLOGY DEVELOPMENT	• System for screening of suppliers of organic seeds, fertilizers and botanical pesticides • System for handling, labeling , recording and storage of inputs • Protocal on organic conversion technologies	• Develop or align production and processing methods based on organic standards • Maintenance of tools and equipment used for organic farming. • Product development and R&D • Market oriented operations planning	• Develop segregation system of different product qualities • R & D on packaging for organic products to extend shelf life • Proper transport equipment and practices for organic produce	• Develop market intelligence system for organics and green consumers • Certification systems and compliance to standards • Collection/Payment System • Develop promotional materials	• Buyer/market information and communication system
PROCUREMENT	• Identification and screening of suppliers of inputs • Inputs price monitoring • Inputs hauling / handling / preparation • Price negotiation • Inspection of inputs purchased	• Information on input and ingredient suppliers • Transportation service • Tools suppliers and service • Factory and office supplies • Price monitoring • Acces to ommon service facilities, toll packing	• Packaging materials appropriate for organic products • Telecommunications service • Transportation service • Market information	• Information-gathering on trade fairs • Purchase of marketing materials • Telecommunications • Canvassing of transportation and courier services	
ORGANIC PRODUCTION	• Sourcing of organic inputs • Inputs delivery / collection • Inputs receiving • Inbound inspection • Inventory/material management • Storage	• Land preparation • Fertilizer application • Planting / transplanting • Irrigation • Weeds & Pest control • Harvesting • Quality inspection • Equipment/tools maintenance	• Packing in packages designed for organic products • Delivery/pick up by processors or traders • Storage • Billing/collection of payment	• Product pricing • Distribution/marketing procedures • Direct selling • Store management	• Product rejects handling • Managing customer complaints
ORGANIC PROCESSING	• Sourcing of organic raw materials • Delivery/ collection • Initial quality control • Receiving • Inventory management • Storage	• First Stage: Cleaning, sorting and drying • Second Stage: Mechanical, physical, biological, smoking, drying, extraction, precipitation, filtration and others	• Storing • Order processing • Delivery scheduling • Packing • Delivery • Billing/collection of payment	• Pricing • Promotion • Trade fair participation • Conduct of business mission	• Product rejects handling • Managing customer complaints
	INBOUND LOGISTICS	**OPERATIONS**	**OUTBOUND LOGISTICS**	**MARKETING & SALES**	**SERVICE**

MARGINS MARGINS

Key Findings from the Value Chain Analysis

At the firm infrastructure level, there are issues faced by organic producers in the registration or certification of their products. Farmers need to comply with organic farming standards and requirements and to obtain the needed certification for their products. Compliance with these standards entail both time and cost for producers before they can market their produce under a certified organic label.

Issues in the INBOUND LOGISTICS involve the supply and quality of organic inputs, access to financing, knowledge of technologies and market that will encourage organic production and proper segregation and recording. The supply of organic inputs, certified organic seeds, planting materials and fertilizers are either limited or not of desired quality. If producers produce their own organic inputs using farm by-products, their production cost can be reduced considerably. However, producer's knowledge on the technologies such as natural farming and vermi-composting is still limited because these are not yet widely disseminated.

Some producers may be resistant to convert and expand to organic farming because they are not sure of the market or they have difficulty complying with terms and conditions of banks/ organizations providing funds needed to upgrade their production. However, with limited production, producers may not reach the desired economies of scale for the operations to be profitable. They are not able to maximize the opportunities offered by the market for organic produce. The support of LGU's is critical in expanding organic production areas since they can provide assistance via information dissemination, host market or special events and provide a better policy environment for organic production.

Small producers tend to lump organic and conventional products in their recording system. The practice will cast doubt on the organic integrity of the produce.

At the OPERATIONS level, the issues concern education on organic agriculture, productivity enhancement, quality management systems, R and D, production planning, common service facilities and price monitoring. Producers lack education on organic agriculture and farm productivity enhancement. There is a shortage of trainers and inspectors for organic certification. Processors have limited knowledge on enhancing productivity in their factories, and on quality systems such as GMP and HACCP.

Production operations in the sector remain mainly manual up to packaging and labeling except for processing which require certain equipment and facilities in the product transformation. Companies need support in the acquisition of equipment and facilities to expand operations. Staff training is seen as critical in the implementation of quality management systems and compliance with standards and regulations.

Research and development from organic farming to product packaging is limited. Extension of shelf life and freshness of fresh fruit and vegetables should be achieved by determining the optimum packaging and transport/storage conditions. Further, small producers do not plan their production based on market forecast. Cold chain system[1] and greenhouse facilities are not available or are insufficient at present. Thus, a good price for the produce is not always obtained because the quality is not competitive. In the case of small processors, there is a need for

[1]Cold chain refers to the logistic system that includes transport and storage facilities that keep the products or crops at the required cold temperature to ensure their freshness from harvesting to processing and marketing.

toll packaging[2] and common service facilities so that they can free up their capital for production instead of investing in fixed assets while still studying the operations and exploring the market. There is also a need to monitor prices of raw materials and products so that competitive prices can be set which are affordable to a bigger market segment and bring equitable margins to farmers.

Improvements also have to be made in the use and maintenance of tools and equipment to make sure that these conform with organic standards. Storage areas also need to be segregated and kept free from contamination from articles or produce of conventional agriculture.

At the OUTBOUND LOGISTICS level, the issues involve use of ICT, segregation of produce, separation of accounting systems, packaging, payment terms and other arrangements with large retailers. The use of ICT is not yet maximized to manage outbound activities to improve efficiency and reduce cost. Small producers still employ manual recording; their accounting records and systems for organic products are not yet segregated from conventional products.

Sourcing of packaging materials which are bio-degradable and consistent to the lifestyle promoted by organic products is not consciously done. Further, packaging design is not distinct enough to differentiate an organic product from a conventional product. The payment terms and other requirements of mainstream distribution channels are not favorable to small producers. With such limitations, organic products will have a hard time competing in the market, more so in commanding a premium price.

[2]Toll packaging involves the use of another company or facility that handles the packaging of products manufactured by another company. The toll packaging company is paid by the manufacturer for its packaging services based on prior agreements made between them.

At the MARKETING and SALES level, the issues include compliance with organic standards and market requirements, marketing strategy based on solid market information, marketing mechanism and capability building, promotion and consumer awareness. Small producers lack awareness and education on organic market standards, compliance and certification.

Organic certification is important in marketing as a competitive positioning. The process of getting an organic certification can be long and costly for small producers. Thus, there is a clamor among small producers to have a different set of standards for the domestic market, i.e., the requirements should be simple, cheap and practical.

Solid market information necessary to craft a viable marketing strategy is not available or is insufficient. There is a need for a marketing mechanism that will enhance information exchange, linkages and support among the organic players, starting from the farmers to the exporters. To develop and expand consumer awareness, comprehensive social marketing and commercial marketing programs have to be set in place. Such programs can help build marketing skills, intensify promotion efforts and expand distribution channels for organic products.

At the SERVICE level, the use of e-commerce to connect with buyers is not yet widely practiced. Social responsibility (fair trade) as a core value needs to be developed and sustained among organic enterprises. In addition, the sector needs some means to be able to deal with customer complaints or product rejects in a manner appropriate with the features of organic produce.

More details on the value chain analysis for the organics sector is provided in the cross reference matrix presented in the next few pages.

The Organic Products Value Chain Cross Reference Matrix

FIRM INFRASTRUCTURE		
FINDINGS	**CONCERNS**	**RECOMMENDATIONS**
Producers need to comply with standards and requirements for organic production and obtain certification prior to marketing of their products as organic produce.	The process of getting certified is long and entails strict adherence to the requirements set by the certifying body. Only a few producers apply for organic inspection and certification. Some firms have difficulty maintaining their compliance with such standards.	Provide support to farms and enterprises that want to undertake or convert to organic farming or production by disseminating information on the requirements needed for certification, establishing a source for handling technical inquiries and related matters. Tax incentives may also be considered for organic producers. These measures could be established with the cooperation of government and the BSOs in the organic sector.
Small producers have limited capability to prepare proposals and documentary requirements of financing institutions to obtain loans.	This situation limits the resources and capacity of small producers to make capital investments that can improve product quality and quantity.	Provide support on loan requirements and make available a special guarantee mechanism responsive to the financial needs of organic producers. Tap the help of the DTI, DA, DOST and SBGFC, among others.
INBOUND LOGISTICS		
Human Resource Management		
Producers turn out limited volume of organic produce due to their " wait and see" attitude that prevented full conversion of their operations to organic farming.	Organic producers and processors are not able to maximize trade opportunities offered by the export market because of limited supply.	Organize massive information drive on market opportunities for organic produce. Help establish organic demo farms that serve as models for potential organic producers. Seek the support of LGUs to expand organic producing areas.

INBOUND LOGISTICS		
Findings	**Concerns**	**Recommendations**
Human Resource Management (continued)		
Producers have limited knowledge on new developments regarding composting process and microbial preparations such as vermi-compost and natural farming.	Producers are not encouraged to make their own organic inputs. They resort to buying organic inputs which add to their cost or may use conventional inputs.	Conduct training on production of desired organic inputs within the growers' own farms. Support private sector advocates that conduct extension services on composting process and microbial preparations that utilize farm by-products.
Some farmers do not honor the terms of contract growing arrangements. This may be due to calamities and farmers' interest to increase their income given their financial constraints.	Lack of commitment and pole vaulting of some farmers will damage relationships with partners and in the long term lead to financial losses due to loss of loyal buyers.	Develop effective, mutually beneficial partnership in contract growing activities by providing values orientation, shared equity arrangement and other forms of social preparations to enable farmers to respect the terms of contract growing.
Technology Development		
Average yield in organic production is perceived to be lower or at par with that of conventional methods during the conversion stage.	The perception that yield is lower discourages potential organic producers. If technologies related to conversion are not disseminated, organic production output will be limited.	Develop and sustain organic conversion process teams which can transfer technologies to farmers and producers nationwide. Conduct massive information drive to correct misconceptions pertaining to organic farming and to highlight success stories.
Receiving records are lumped for both organic and conventional products, particularly among small scale enterprises.	Inefficient recording will cause incorrect inventory and will make traceability of organic product from its source difficult or impossible.	Develop and set up a recording system that allows for a clear separation of organic from conventional products, including proper labeling of organic products.
Farm produce are not segregated properly according to categories (organic, in-conversion or conventional) during warehousing/ stocking.	Contamination or co-mingling of organic produce with non-organic results from improper segregation.	Develop a system that allows segregation of produce with different organic qualities during storage.

INBOUND LOGISTICS		
Findings	**Concerns**	**Recommendations**
Procurement		
Supply of organic inputs either produced in farm or purchased is insufficient, inappropriate, and/or not of desired quality.	Lack of appropriate inputs, quality and quantity-wise, will hamper production and producers will not be able to serve orders.	Develop a database of suppliers with indications as to the quantity and quality of organic inputs that they can provide. Disseminate information from the database to producers.
Planting materials maybe treated with chemicals not allowed in the national standards for organic produce; certified organic fertilizers are not available or are limited in quantity.	If reliable sources of organic seeds, planting materials and fertilizers are limited or not widely disseminated, producers will not be able to turn out organic produce which complies to standards.	Undertake mapping of organic producing areas in the country to identify sources of inputs and verify their process. Screen the sources and establish a data base system of reliable sources.
OPERATIONS		
Human Resource Management		
Producers/ farmers are not generally aware and educated on the use of organic agriculture technology and approaches.	If awareness and education are on a limited scale, organic agriculture will not make a nationwide impact and producers cannot tap market opportunities.	Intensify/sustain efforts to educate producers/ farmers through training programs by government, academe and private sector advocates. Facilitate effective sharing of good and creative production practices. Document and disseminate best practices.
Social benefits for human resources involved in the practice of organic agriculture (farmers, workers, private sector advocates) are inadequate.	Inadequate social benefits will hinder the entry of new players and may even cause existing practitioners/ personnel to shift to other industries.	The sector should lobby government for a policy on social benefits to organic workers, i.e. a Magna Charta for organic farmers, workers and private sector advocates.
Trainers and inspectors for organic certification are not enough.	With limited personnel, organic farming and certification methods are disseminated only to a small segment of the population leading to limited production output.	Provide a support mechanism and training for potential trainers and inspectors who can transfer technology/information to farmers/ producers.

OPERATIONS		
Findings	**Concerns**	**Recommendations**
Human Resource Management (continued)		
Farmers/producers and processors do not have enough orientation and understanding on the process involved to increase productivity of organic farms and processing plants.	Insufficient knowledge on improving productivity leads to lower yields and outputs.	Provide and sustain a training program on productivity to farmers/producers and processors through tie-ups with government agencies like DA, DTI, TESDA and DAP as well as the academe.
Organic processing needs trained/skilled personnel in order to comply with established standards such as GMP (good manufacturing practices) and HACCP (hazard analysis and critical control points).	Knowledge and application of quality management systems such as GMP and HACCP are a must in the food trade in order to be competitive in the market	Provide training on GMP and HACCP to producers involved in processing. Avail of existing GMP/HACCP training programs provided by PTTC-DTI, DOST and Food Development Center (FDC).
Technology Development		
R & D on organic farming technologies up to product packaging is insufficient	Extensive R & D is needed to increase knowledge, improve current technology and practices, expand industry prospects and enhance its competitiveness	Government and academic research institutions should link up on R & D programs for the organic sector. Explore partnership with foreign academic institutions which are supportive of the organic movements. Conduct scientific conference on organic agriculture researches and provide awards to best organic researches.
For small processors, quality management systems are either absent or undocumented.	Documentations and upgrading of quality assurance facilities are required in order to obtain certifications for quality as well as environment management systems.	Government together with the organics BSO must develop a scheme or a support system that will enable small firms to access services on management systems such as QMS and EMS and their certifications. This system can include a funding mechanism to enable the firms to acquire the needed QA equipment.

OPERATIONS		
Findings	**Concerns**	**Recommendations**
Technology Development (continued)		
Operation planning is still oriented with production season and not on market forecast, a general problem in the agriculture industry	Production season may not correspond to the time that the market requires it. Thus, if operation planning is not based on market requirement, the best price for the produce is not obtained or the opportunity to maximize income is lost.	Adjust operation planning so that production season is timed with the market demand. Develop production technology in order to produce during off-season. Provide access to producers for cold storage facilities and greenhouses.
Shell-life/ freshness of fresh fruit/vegetables geared for retail outlets is limited. Studies are needed to determine optimum packaging and conditions, as well as facilities providing favorable transport and storage conditions,	Short shelf life of organic produce leads to lower prices, wastage and lost sales	Conduct R & D on packaging and storage conditions that can extend the shelf life of organic produce. Encourage the establishment of the cold chain system through private sector investment or government intervention. Identify existing service providers and set-up a mechanism that allows small producers to avail of their facilities.
Facilities and equipment are utilized for both conventional and organic products.	Poor cleaning procedures may result in contamination of organic product.	Establish proper cleaning procedures for equipment used in both conventional and organic farming and disseminate the same to farmers.
Equipment and tools are often old and nearing obsolescence.	Old or obsolete equipment leads to low productivity and wastage.	Identify appropriate and affordable equipment for organic production and work out a scheme for the acquisition of the same by producers at comfortable terms.
Procurement		
Price monitoring of organic inputs, raw materials and products is not seriously considered.	Knowledge of price trends of inputs, raw materials and products is necessary in negotiating with suppliers and in setting a competitive price.	Conduct price monitoring at farmer's or cooperative levels. Set up a mechanism to disseminate price information widely and regularly.

OPERATIONS		
Findings	**Concerns**	**Recommendations**
Procurement (continued)		
Small processors need toll packaging/ common service facilities for their processing operations	Common service facilities or similar set-ups will help small processors to save on investments needed to put up a plant. These are useful for trial production while they explore the market initially	Identify and tie-up with existing toll packing/ common service/ incubation facilities operated by government academe and private sector.
OUTBOUND LOGISTICS		
Human Resource Management		
Staff of most companies employ manual recording of outbound operations which has been found inefficient.	Manual recording makes file retrieval and consolidation laborious	Provide training on electronic database management and analysis to staff of processors
Small companies do not segregate accounting records and systems for organic products.	Tracking sales transactions of organic is difficult if mixed with other records.	Provide training on separate accounting system appropriate for small producers/processors of organic products.
Technology Development		
The organic sector has not generally availed of the advances in information and communication technology to help optimize outbound operations.	The use of ICT can improve transactions with the market, reducing time and cost for producers.	Government and the organics BSO should help disseminate information on the advantages and applications of ICT. Develop transaction facilities using ICT.
Appropriate transport facilities for moving organic produce to markets are limited.	Lack of proper transport under required conditions can lead to wastage and reduce income.	Identify technologies that can be applied for proper transport of organic products and pool resources of producers for access and use of such facilities.
Current packaging design is not distinct for organic products and is similar to that of conventional products.	Lack of distinction of organic produce from conventional products leads to lower consumer awareness and lost sales.	Conduct R & D on appropriate design for organic packaging which promotes the benefits of these products.

OUTBOUND LOGISTICS		
Findings	**Concerns**	**Recommendations**
Procurement		
Sourcing of packaging materials which are natural, bio-degradable, and consistent to the lifestyle promoted by organic products is not usually done.	Lack of these features in packaging materials for organic produce limits the use of packaging as a marketing tool to promote the benefits of organics.	Tap the support of agencies such as the PRDCP and DOST and the private sector to help source appropriate packaging materials.
Appropriate packaging for organic products such as biodegradable packaging is either not available or is costly for the small producers/ processors because minimum volume required by suppliers to sell the packaging is high.	Appropriate packaging can enhance the market positioning and protect the products.	Develop partnership with packaging suppliers/ associations to identify and source packaging materials appropriate for organic food and to provide a mechanism for the small producers/ processor to buy these in volumes affordable to them.
Payment terms, delivery schedules, listing fees and other requirements of large chains of supermarkets are not friendly or beyond the reach of small producers	Small organic producers do not benefit from the wider coverage and exposure given by large store chains.	The organics BSO should negotiate with supermarkets on favorable arrangements for the benefit of small, regional producers and explore tie-up with marketing intermediaries that consolidate products of small producers.
MARKETING AND SALES		
Human Resource Management		
Marketing skills of enterprises are usually gained from selling conventional products and using conventional methods.	Marketing of organic products is not effective if skills employed are designed for conventional products	Provide training on marketing and develop/ enhance marketing skills of enterprises. Enhance the capability of organic farm owners to utilize farm tours as tools to raise awareness of consumers.
Small producers usually lack marketing experience.	Lack of marketing skills limits sales as well as consumer awareness.	The organics BSO should link up with NGOs involved in marketing organic produce and work out a training or mentoring system for small producers.

MARKETING AND SALES		
Findings	**Concerns**	**Recommendations**
Human Resource Management (continued)		
Producers/ processors of organic products are not fully aware of the marketing implications of knowing the standards of organic market and getting certification.	Compliance to standards and being certified as organic are requirements in the export market for organic products	Provide training on standards and certifications starting from the grower's level. Training medium and materials should be in local dialects that producers can easily understand.
Consumer awareness and understanding of organic agriculture is limited in the domestic market	Consumer demand is limited if there is no appreciation of the value of organic products among the public	Develop and implement a cohesive social and commercial marketing programs to build the image of organic products, Get the support of tri-media, experts and celebrity endorsers to put organic into the consciousness of consumers.
Technology Development		
Marketing activities are limited and do not make use of ICT to promote and sell organic products to the market	The use of ICT can facilitate reach to a wider audience, particularly the traders and consumers of organic products.	Develop a one-stop website for organic products that enhances connectivity to the market, both local and export, and provides promotion and market matching effectively.
Market information on "green" consumers and their purchasing behavior is lacking or not available	Organic sector is hampered in developing a more effective marketing strategy in view of insufficient data on the market.	Conduct marketing studies to profile the "green" consumers and their purchasing habits.
Specific market information on organic products with potential, requirements of the market, identity of buyers and prevailing competition are limited or not readily available.	Lack of specific market information limits the quantity and quality of organic products that could have been developed for both local and export markets.	Conduct market research considering the specific needs of organic enterprises and recommend workable marketing strategies. For the export market, get the support of trade/ agricultural attaches and fair trade networks.

MARKETING AND SALES		
Findings	**Concerns**	**Recommendations**
Technology Development (continued)		
The organics sector lacks access to regular and updated market information which could be used by individual producers in their marketing programs.	Individual producers and the organics sector as a whole cannot develop a more long term program for market development without sufficient information.	Establish a market intelligence system via the internet. For those with constraint in accessing the internet, published documents should be available and disseminated widely.
Selling in the export market require certification from recognized bodies which is expensive and time consuming.	Only a few producers can afford to get international certifications which limits the number of exporters in the industry.	Establish a resource center and information dissemination mechanism on organic certification so that producers make the most of their efforts to get certified.
Certification is not yet a necessity to sell in the domestic market but the future implementation of E.O. 481 will require 3rd party certification for products to be labeled as organic.	Small producers are not yet ready for a certification by a third party especially one that uses international standards.	The organic sector should establish a transition proram for producers between now and the time when E.O. 481 is fully implmented. This may involve a participatory/ internal guarantee system type of certification later evolving into a 3rd party certification.
The organic sector lacks both funds and capability to organize and conduct regular trade fairs to attract buyers	Lack of regular trade fairs slow down the capability of the sector to raise consumer awareness, promote their products and get info on new trends.	The organics BSO should develop several smaller regional trade fairs which are more affordable and easier to manage. Later, the sector can move on to a national trade event.
The organic sector lacks image building materials that promote the industry as a whole.	The lack of promotional materials limits the market reach of organic products and hinders consumer awareness.	Develop image building industry promotional materials with persuasive messages appropriate to target segments.
There is a need to set- up a marketing mechanism that allows for information exchange, linkages and support among the organic players from farmers to buyers.	A mechanism/system is necessary to synergize marketing initiatives of organic players.	Develop a marketing mechanism/ structure that includes pricing, distribution, market matching , among others, from barangay level to national and export levels to achieve wider market reach

MARKETING AND SALES		
Findings	**Concerns**	**Recommendations**
Technology Development (continued)		
Importing countries have market access regulations and standards which might be difficult for producers to comply with.	Failure to comply will cause detention problems in the importing country if shipment has been made. Compliance with standards is a key to success in the export of organic products.	Identify and understand the market standards and regulations of importing countries. Provide technical advisory on the requirements imposed by importing countries. Disseminate information to producers through the organics BSO.
Procurement		
High cost involved in putting up retail shops for organic products limits the number of available shops located in strategic areas	Lack of retail outlets in high traffic areas reduces visibility of organic products among consumers and hinders market awareness efforts.	Encourage investors to put up organic shops in strategic areas which are convenient to their target market segments. The organics BSO can also expand its store operations to cover more areas.

7 Needs Assessment

The value chain analysis of the organic products sector identified some of the industry's issues and needs. These needs are presented below.

Firm Infrastructure

- Farmers interested in going into organic production need continued support and information on the requirements and process for converting to organic farming.
- Access should be developed to special guarantee or funding mechanism responsive to the financial needs of organic producers

Inbound Logistics

- Producers need access to training and monitoring services on:
  1. Preparation/production of desired organic inputs using farm by-products.

2. Organic conversion technologies
3. Values orientation, shared equity arrangement and other forms of social preparation to achieve mutually beneficial partnership between farmers and buyers in contract growing activities.

- Support mechanism is needed for private sector advocates and organic conversion teams that conduct training, technology transfer and extension services to producers in the regions.
- Development, improvement and dissemination of effective organic conversion technologies, methods of production of organic inputs, as well as avenues to sustain sharing of best practices and innovative approaches involving inbound activities.
- Appropriate systems and corresponding training on proper labeling, segregation and recording of organic materials are needed by producers.
- Mapping of organic production areas should be done to identify and screen sources of organic seeds, planting materials, inputs and development of database system on reliable suppliers.
- The sector needs a massive information drive to encourage conversion to organic production through updates on market opportunities, to correct misconceptions pertaining to organic farming and to highlight success stories.
- Support of local government units (LGUs) is critical in expanding the areas for organic production.
- Adequate storage facilities are needed to ensure that organic inputs and materials are not contaminated by items used in conventional agriculture.

Operations

- Access to training and mentoring services is needed by producers on:
  1. Organic agriculture technology for producers/ farmers
  2. Trainers and inspectors' training for organic certification
  3. Productivity enhancement for organic farms and processing plants
  4. GMP and HACCP for processors
  5. Production planning based on market forecast
- Avenues should be developed for sharing of best practices on production and processing with documentation and dissemination through languages/dialects and methods appropriate to target audience
- Support mechanism and social benefits are needed for organic producers and private sector advocates that transfer technologies and conduct extension services
- Extensive R and D programs need to be instituted covering farming technologies up to product packaging, with possible tie-ups with academic institutions and conduct of scientific conferences on organic researches
- Research on appropriate packaging and favorable transport and storage conditions to extend the shelf-life and freshness of fruit and vegetables needs to be sustained
- A support mechanism should be devised to access services for quality management systems (QMS) and environment management systems (EMS) for producers so they can obtain certifications. This includes:
  1. upgrading of facilities to comply with certification requirements
  2. provision of retired experts from countries supportive of organic agriculture.

- Cold chain and greenhouse facilities and production technologies are needed that will make production supply available in quantity and quality as market demands.
- Toll packing and common service facilities, particularly for small processors, is needed while these firms undergo trial production and explore the market
- Mechanism for price monitoring and regular dissemination of information to parties concerned should be explored.

Outbound Logistics

- Producers and traders need access to training and mentoring services on:
  1. Electronic database management and analysis
  2. Accounting system appropriate for small producers/ processors of organic products
  3. Proper segregation and labeling of organic produce
  4. Use of ICT in outbound operations
- The sector should try to work for special arrangements on payment terms, distribution schedule and fees imposed by large chains of supermarkets for small producers
- A separate accounting system for organic products should be developed to segregate records and transactions from non-organic items.
- Access to packaging materials which are biodegradable and consistent to the lifestyle promoted by organic products should be expanded
- Producers need more access to package designers who can enhance the competitive positioning of organic products through package design

- There needs to be increased access to package suppliers that can sell appropriate packaging to small producers in small volumes, the value of which is affordable to them.
- Local transport cost, especially in the regions where farms are located, need to be reduced to make prices of organic products more competitive.

Marketing and Sales

- Access to training and mentoring services is needed, especially for small producers, on:
  1. Marketing especially designed for organic products
  2. Organic standards/certifications and other requirements of the local and export markets.
- The sector should explore linkages with marketing groups that can handle marketing of organic products, especially for small producers.
- Cohesive social and commercial marketing programs are needed to build and expand consumer awareness and understanding for organic products
- A sector wide marketing strategy is needed based on solid market information from the conduct of market studies on "green" consumers and data on products with potential, international competition and other market variables.
- Producers need a market intelligence system that uses appropriate databases and the internet for access
- An industry one-stop website should be explored to enhance connectivity to both local and export markets and provide for promotion and market matching effectively.

- Supportive mechanism is needed for enterprises that will pursue organic certification as competitive positioning, and a resource center with information dissemination and advisory system on organic certifications and other requirements of importing countries
- The industry should consider the institution of a participatory internal guarantee system type of certification, which is simplified, cheap and practical for products geared to the local market initially as well as a mechanism to prepare organic enterprises for E.O. implementation when 3rd party certification is required for products to be labeled as organic.
- Promotion program should be established for organic products which involves:
  1. Higher budget allocation from government on promotional activities
  2. Capability build-up for producers in organizing and participating in trade fairs here and abroad.
  3. Image building promotional collateral for the organic industry.
- Marketing mechanism/structure is needed which allows for information exchange on pricing, distribution, market matching as well as linkages and support among organic players nationwide.
- The sector should promote more partnerships with supermarket chains to provide an "organic corner" and linkages with marketing intermediaries that deal with large supermarket chains.
- Tie-ups with investors should be encouraged to put up organic shops in strategic areas convenient to target markets.
- Tie-ups with the fair trade movement should be encouraged to promote fair trade practices to enhance sector-wide value differentiation

Service

- Producers need to increase use of e-commerce to connect with buyers: build relationships and support customers with after sales service.

8 Strategic Direction

Based on the value chain analysis of the organic products industry and other parts of this report, some indications for the future direction of the sector were identified. There are essentially two major areas for development that organic producers should focus on. These concern: (1) expanding market awareness and acceptance for organic products, especially among local buyers and (2) building up the capabilities of the industry, especially the small producers, to qualify for international certifications. Both need to be done in parallel as building up the market would require the sector to increase the supply of produce that conform to organic standards.

Further developing the local market for organics means raising consumer awareness on the benefits and features of the industry's product lines. Efforts at market development should be sustained over a significant length of time. It is essential that the right market segments be targeted from the start which means that the sector needs to do considerable market research and craft a suitable marketing and promotional strategy.

In line with marketing efforts, the industry needs to organize their classification standards and accelerate a program for expanding the number of products getting certified. Product packaging also needs to be improved to reflect the promotional activities being undertaken in market development. These programs will extend all the way down the organic products value chain where productivity, quality assurance and adherence to standards will have to be improved.

The following discussion presents some specific programs that can help implement the strategic direction recommended for the organics industry.

1. Planning and Implementation of a Market Development Program for the Organic Industry.

This program seeks to raise market awareness for organic products and develop more buyers. It will have two (2) components, namely, social marketing and commercial marketing. Social marketing works toward increasing awareness and support among consumers, producers and other stakeholders like local government units to scale-up market demand and organic production. Commercial marketing aims to increase sales of producers and traders.

Market development entails external environment analysis with market research focused on the following areas:

- Profile of the " green" consumers
- Trends and competition
- Market segmentation and requirements
- Inventory of organic products and corresponding local/ export markets.

A marketing strategy needs to be developed considering the profile of target market segments, available products and resources, competitive factors and commitments from the industry stakeholders. Given the relatively young stage of the industry and the lack of market data, the initial strategy established may go through several iterations and revisions before a suitable one is accepted.

From the strategy, an appropriate program can be derived to implement market development efforts. The marketing mix should provide for the following:

- Use of organic and fair trade certifications as competitive positioning
- Set up of market intelligence system
- Use of e-commerce to offer organic products via internet
- Conduct of trade and investment missions
- Sustained participation in local and foreign trade fairs
- Set-up of marketing mechanism/structure for information exchange, linkage and market matching support for the local and export market
- Partnership with:
  - Supermarket chains and investors for organic shops
  - Government and schools to promote use of organic products in institutional programs (e.g. feeding programs)
  - Trade promotion organizations (e.g. CITEM, BETP, CBI) and Foreign Trade Service Corps for export market information, market matching and other trade opportunity programs
  - Fair trade network of buyers
  - Tri-media for a sustained public education campaign on organic products

2. Planning and Implementation of a Research, Development and Extension Program

This program concerns an institutionalized R & D effort on organics, with the appropriate follow through activities to disseminate the findings or results throughout the industry. The program should be instituted in partnership with supportive government agencies which are mandated to do research, development and extension (e.g. PCARRD), and schools (e.g. UP at Los Banos). The following components should form part of the program:

- Extensive R & D on key areas of the sector's value chain from organic production to product packaging
- Development and improvement of technologies on organic conversion, inputs production and organic agriculture.
- Mapping of organic production areas
- Holding of scientific conferences on organic researches and recognition/ awarding of best research
- Extension of freshness/ shelf life of organic produce

3. Set up of a Resource Information and Advocacy Center

Information dissemination is crucial to an emerging industry like organics. A Resource Information Center with advocacy functions is proposed to handle a program for gathering and processing data useful for developing and promoting the industry and undertaking efforts to lobby for better government support and working environment. The Resource Information Center should have an office in NCR and satellite offices in selected regions of the country. It should also have a website which is regularly

updated. The Center can develop publications, web content, position papers, informational brochures and identify resource persons for fora, seminars and public events. Among the major areas that the Center can focus on are:

- Organic technologies, alternative composting
- Database of reliable suppliers of organic seeds, planting materials, inputs
- Systems on proper labeling, segregation, accounting and recording
- Price monitoring
- Access to a network of useful contacts, service providers and facilities (e.g. package designers and suppliers, organic certification groups, greenhouse, cold chain system, warehouse, toll packaging, and common service facilities
- Market information
- Issues on organic production and processing
- Investment areas to meet the growing needs of the organic industry (e.g. production of organic inputs, seeds, alternative pest control)

The Center should provide avenues for regular sharing of best practices, innovative approaches, trends and development in the organic industry. Partnership with a government institution or foundation(s) which can house and support the Center should be explored

4. Planning and Implementation of a Human Resources Development Program

Expanding the pool of production personnel and technicians is needed to support the further development of the organics sector. In partnership with foundations that support entrepreneurship or government agencies involved in training (e.g., agriculture schools, Agriculture Training Institute (ATI), TESDA and Philippine Trade Training Center of DTI), the industry should institutionalize present modules/courses that strengthen technical skills used in organic farming and processing.. These include the following:

- Organic agriculture technology
- Organic inputs production/vermi-composting
- Natural farming
- Trainers and inspectors ' training on organic certification
- Smallholders group organic certification; participatory/ internal guarantee system and 3rd party type of certification
- E-commerce/use of ICT
- Electronic database management
- GMP/ HACCP, QMS/EMS
- Market-driven production planning
- Marketing and entrepreneurial skills
- Productivity enhancement/continuous improvement
- Fair trade practices
- Value orientation/excellence in the workplace

The Program should consider a supportive mechanism for private sector advocates and organic conversion teams to sustain their efforts in transferring organic technologies to producers in the regions. Since the organic movement aims to benefit the environment and society as a whole, the Program should also work towards providing social benefits like a Magna Charta for organic workers.

Further, the Program should also harness the expertise of resource persons provided by international organizations like IFOAM, as well as retired experts made available by countries supportive of the organic movement like Japan, Germany, and Netherlands. In line with continuing education on latest trends, productivity and study missions should be held in selected countries. This will enable the participants to benchmark and learn technologies and best practices from their counterparts in those countries.

5. Financial Sustainability Program

Since funding is always a big constraint in the implementation of programs, a Financial Sustainability Program should be a priority for development. The program should have the following components:

- Access to funding support from international organizations supportive of the organic movement for planning and implementation of the various programs for the sector.
- Access to government subsidy for third party organic certification. Third parties that will certify will include OCCP and international certifiers.
- Access to a special guarantee or funding mechanism that provides liberal terms to small producers and SMEs to enable them to upgrade their production operations
- Funds build-up for the organics BSO by charging reasonable fees for services rendered such as:
  - Training and mentoring services
  - Publications, market studies and database
  - Participation in trade missions and trade fairs
  - Assistance in preparation of proposal and loan applications

Annexes

Annex 1:
The Value Chain Analysis

The Value Chain Concept

Value chain analysis is a method of identifying and understanding the various activities of an organization that provide value to its products or services and the linkages among such activities. It is used to determine which aspects of a firm's operation can be enhanced, and where to reduce costs, optimize resource use, or even reconfigure the entire chain of operations for better performance. The end result of this effort is increased product or service value, lower costs of operation, or both.

A value chain covers two sets of activities. The first refers to the primary activities of a firm and consists of inbound logistics, operations, outbound logistics, marketing and sales, and service. These are the activities that organizations engage in to produce a product or service.

The second set covers support activities that indirectly contribute to the firm's operations. These include the organization's infrastructure, human resource management, technology development and procurement.

All these activities are interconnected and work in a process that can be structured into a value chain diagram. A firm's value chain can also be linked with external chains such as those of its suppliers or buyers.

Value Chain Analysis in Sectoral Enhancement

An adaptation of the generic value chain described in Dr. Michael Porter's book Competitive Advantage was used to analyze the structure and performance of industries or sectors covered in Pearl2's Sectoral Enhancement program. Originally, the value chain was designed for company-level evaluation. For the Pearl2 project, however, it is used to develop a framework for understanding how a particular industry operates, with the objective of determining the needs of that sector. On the basis of such a needs assessment, it is possible to identify areas where appropriate assistance can be provided.

Basically, work with all the sectors covered by the program included: (i) designing the value chain diagram, (ii) developing a value chain table, (iii) describing the main components of the value chain, and (iv) analyzing the flow of the chain to identify issues and problems and possible courses of action. Such an assessment brings to the surface the needs of the sector for closer evaluation. The value chain analysis focused primarily on producers which are members of

the Business Support Organization identified for the sector. The analyses are not by any means comprehensive and do not involve any cost estimates for the chain or a comparison of the value chain of a similar industry or with similar features in other countries or regions. Due to time and resource constraints, no references were made to external value chains.

Reference: Michael E. Porter, "Chapter 2: The Value Chain and Competitive Advantage," *Competitive Advantage* (NewYork: Simon & Schuster, 1985), pp. 33-61.

Annex 2: Brief Background on Organic Agriculture

Organic agriculture is an agricultural production system that promotes environmentally, socially and economically sound production of food and fibers, and excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, livestock feed and additives and genetically modified organisms.

Utilizing both traditional and scientific knowledge, organic agricultural systems rely on practices that promote and enhance biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain or enhance ecological harmony.

The purpose of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.

Organic agriculture adheres to globally accepted principles which are implemented in specific social, economic, geo-climatic and cultural contexts. The principle aims of organic production and processing are outlined in the IFOAM Basic Standards. These set out an international framework for organic production and processing.

Organic Agriculture is based on a number of principles and ideas. All are important and this list does not seek to establish any priority of importance. The principles include:

- To produce sufficient quantities of high quality food, fiber and other products.
- To work compatibly with natural cycles and living systems through the soil, plants and animals in the entire production system.
- To recognize the wider social and ecological impact of and within the organic production and processing system.
- To maintain and increase long-term fertility and biological activity of soils using locally adapted cultural, biological and mechanical methods as opposed to reliance on inputs.
- To maintain and encourage agricultural and natural biodiversity on the farm and surrounds through the use of sustainable production systems and the protection of plant and wildlife habitats.
- To maintain and conserve genetic diversity through attention to on-farm management of genetic resources.

- To promote the responsible use and conservation of water and all life therein.
- To use, as far as possible, renewable resources in production and processing systems and avoid pollution and waste.
- To foster local and regional production and distribution.
- To create a harmonious balance between crop production and animal husbandry.
- To provide living conditions that allow animals to express the basic aspects of their innate behaviour
- To utilise biodegradable, recyclable and recycled packaging materials.
- To provide everyone involved in organic farming and processing with a quality of life that satisfies their basic needs, within a safe, secure and healthy working environment.
- To support the establishment of an entire production, processing and distribution chain which is both socially just and ecologically responsible.
- To recognise the importance of, and protect and learn from, indigenous knowledge and traditional farming systems.

Source: IFOAM

Annex 3: Background Information on International Federation of Organic Agriculture Movements (IFOAM)

IFOAM's mission is leading, uniting and assisting the organic movement in its full diversity. The goal of IFOAM is the worldwide adoption of ecologically, socially and economically sound systems that are based on the principles of Organic Agriculture.

Brief History

The International Federation of Organic Agriculture Movements was founded in Versailles, France on November 5th, 1972. The late Roland Chevriot, former president of Nature et Progrès, led the initiative. The founding members of IFOAM aimed to establish a communication network among organic agricultural communities that had appeared in several countries.

IFOAM represents the complete spectrum of stakeholders in organic agriculture movements worldwide.

Major Aims and Activities:

- Provide authoritative information about organic agriculture, promote its worldwide application and exchange the knowledge.
- Represent the organic movement at international policy making forums.
- Make an agreed international guarantee of organic quality a reality.
- Establish, maintain and regularly revise the international "IFOAM Basic Standard" as well as the "IFOAM Accreditation Criteria for Certifying Programs".
- Build a common agenda for all stakeholders in the organic sector

The Organic Guarantee System

IFOAM provides a market guarantee for integrity of organic claims. The Organic Guarantee System (OGS) unites the organic world through a common system of standards, verification, and market identity. It fosters equivalence among participating IFOAM accredited certifiers, paving the way for more orderly and reliable trade whilst acknowledging consumer trust in the organic 'brand'.

IFOAM's Basic Standards and Accreditation Criteria (the IFOAM Norms) are the international guidelines for organic agriculture. Members build their own standards on the basis of the IBS and Accreditation Criteria, and they are also utilized as models for setting national and intergovernmental standards. Additionally the norms form the basis for harmonised inspection and certification of organic products by over 30 internationally recognized IFOAM accredited certification bodies (ACBs).

The IFOAM Basic Standards are the keystone of the organic movement. They define the principles, recommendations, and required baseline standards that guide operators in producing their organic crops and maintaining organic integrity in the further handling and processing of organic commodities. They are the only truly democratic and internationally adopted independent standards, which allows flexibility for diversity and regional variations. Indeed their independence from the regulatory system gives them a special sector empowerment, unrivalled in governmental control.

IFOAM Accreditation Criteria are strictly based upon ISO 65 requirements, adapted to the specific needs of organic agriculture and manufacturing using a process based approach. The criteria require that accredited certification bodies have effective quality systems.

The contact information for IFOAM is given below:

IFOAM Head Office
Charles-de-Gaulle-Str. 5
53113 Bonn - Germany
Tel: +49 (0) 228 926 50-10
Fax: +49 (0) 228 926 50-99
Email: headoffice@
Web site: http://www.ifoam.org

Source: IFOAM

Annex 4:
Background Information on the Organic Producers Trade Association

The Organic Producers Trade Association (OPTA) was established in 1995 by a group of conscientious and dedicated people with a common goal to promote organic farming in the Philippine Agricultural scene. From a start of 11 incorporators it has now grown into about 469 members, composed of traders, producers, academicians, and advocates of organic farming and consumers likewise.

Apart from advocacy work OPTA has established marketing network in order to promote consumption of organic produce. Believing in directly linking producers with consumers, organic products are made available thru the OPTA Cooperative Store located at #69 Esteban Abada St., Loyola Heights, Quezon City. OPTA also conducts week end markets in various locations to further expand availability of organic products. Organic Produce is greatly promoted with OPTA's participation in various national exhibits held throughout the year. It is a member of International Federation on Organic Agriculture Movement (IFOAM) and Organic Trade Association (OTA). OPTA is an active participant in the formulation of organic production standard in the Philippines.

The OPTA Motto: Healthy Soil, Healthy Food, Healthy People for a Healthy Nation. Its mission covers the following:

- To promote and mainstream organic farming in the Philippine Agricultural scene as the sustainable and alternative way of farming.
- To raise people's awareness towards responsible stewardship of our finite resources for our future generation.
- To implement accountability in food production and satisfy consumer demand for clean, safe and healthy food.

The contact information for OPTA is given below:

Organic Producers Trade Association
#21 Makaturing St., Brgy. Manresa,
SFDM, Quezon City
Tel. No. (02)3643517

Source: OPTA

Annex 5: Background Information on Alter Trade Corporation

Alter Trade Corporation (ATC) is a Philippine company registered with the Securities and Exchange Commission (SEC) on May 6, 1988. The firm is based in Bacolod City, Negros Occidental province in Western Visayas.

The goals of ATC are:

AnnexesTo create effective marketing services that satisfy increasing number of customers;
- To deliver best and quality products;
- To strengthen, control and optimize resources to ensure viability and productivity;
- To strengthen and expand the organization to improve efficiency and performance, to be more professional and better able to serve the stakeholders;
- To maximize the organization experiences and impact which makes it different from other organization's, and pioneer in alternative trade by providing and developing capacity of producers to increase their self-reliance and independence and of their organization and their community; and
- To strengthen local and international strategic partners and solidarity networks supportive of and respond to trade issues and concerns affecting small marginalized producers.

ATC is engaged in both domestic and international trading of various products and commodities. Two major products traded internationally by ATC are Balangon, a native variety of green banana, and Mascobado, a non-centrifugal sugar made from boiled sugarcane juice. Mascobado has established distribution channels in Japan, Germany and Switzerland while Balangon is traded mainly to Japanese consumer cooperatives numbering close to a million households at present. Alter Trade is also developing exports of mangoes, frozen pineapple and organic corn.

The contact information for ATC is given below:

Alter Trade Corporation
Blk-6 Lily Street, Bata Subdivision,
Bacolod City 6100
Negros Occidental, Philippines
Tel. Nos. (+6334) 441-0051 to 55
Fax No. (+6334) 441-0051

Manila Liason Office
Block 1, Lot 3 Sampaguita Avenue
United Parañaque Subdivision IV
Parañaque, Metro Manila, 1700, Philippines
Tel. Nos. (+632) 821-1707 to 08
Fax No. (+632) 821-5275

Website: http://www.altertradegroup.com.ph/atc/default.html

Source: www.altertradegroup.com.ph

Annex 6: Background Information on the Virgin Coconut Oil Producers and Traders Association of the Philippines

The VCOP (Virgin Coconut Oil Producers and Traders Association of the Philippines, Inc.) is a non-stock, non-profit organization representing the virgin coconut oil sector in the Philippines. The VCOP was informally organized in September 2003. The association's first formal activity was its entry into the membership of the DTI-CITEM initiated TECHNICAL WORKING GROUP which was tasked with the drawing of the standards for Virgin Coconut Oil. The organization was formally registered with the Securities and Exchange Commission (SEC) on January 9, 2004. In April of the same year, the VCO had the formal induction of Chapter Members and Officers at the Rockwell Center in Makati City.

The mission of the VCOP is to promote and produce the best quality virgin coconut oil. As of early 2007, it had about 84 members nationwide. To date, the VCOP has initiated the drafting of the Philippine National Standards for Virgin Coconut Oil, organized national promotional events and has worked on developing partnerships with research and medical institutions.

Over the medium term, the group aims to make the Philippines the primary source of high quality virgin coconut oil in the global market. Among its programs are the following:

- Advocacy
- International and local marketing promotions
- Scientific research and development
- VCO Philippine National Standards integrity
- Regional chapters development
- Training and technology
- Communications and networking
- Resource mobilization

Contact information for the VCOP is as follows:

VCO Philippines Secretariat Office
Hall 1, International Trade Center (ITC) Complex
Roxas Boulevard corner Sen. Gil J. Puyat Avenue
1308 Pasay City, PHILIPPINES
Tel. No. (+632)8312201

Source: www.vcophils.org

Annex 7: Land Area and Number of Farms Under Organic Management in Selected Asian Countries

Country	Year	Land under organic management	Share of total agricultural land	No. of organic farms
China	2004	3,466,570	0.60%	1,560
Indonesia	2004	52,882	0.12%	45,000
Japan	2004	29,151	0.56%	4,539
Korea	2004	28,218	1.46%	28,951
Malaysia	2003	600	0.01%	-------
Philippines	2004	14,134	0.12%	34,990
Thailand	2004	13,900	0.07%	2,498
Vietnam	2001	6,475	0.07%	1,022

Source: The World of Organic Agriculture 2006, IFOAM

Annex 8: Summary of Key Findings From Pearl2 Survey of Organic Companies, 2004 to 2006

	Total					
	2004		2005		2006	
Years in Business	N	%	N	%	N	%
1-5 Years	11	61.1	16	44.4	8	27.6
6-10 Years	1	5.6	12	33.3	12	41.4
11-15 Years	3	16.7	3	8.3	2	6.9
16-20 Years	0	0.0	2	5.6	2	6.9
21-25 Years	0	0.0	0	0.0	1	3.4
More than 25 years	0	0.0	1	2.8	0	0.0
No Response	3	16.7	2	5.6	4	13.8
Total	18	100.0	36	100.0	29	100.0
Company Size	N	%	N	%	N	%
Micro (assets below Php 3M)	8	44.4	18	50.0	14	48.3
Small (assets from Php 3M to 15M)	5	27.8	10	27.8	15	51.7
Medium (assets from Php 15M to 100M)	3	16.7	8	22.2	0	0.0
Large (assets above Php100M)	0	0.0	0	0.0	0	0.0
No Response	2	11.1	0	0.0	0	0.0
Total	18	100.0	36	100.0	29	100.0
Company Setup	N	%	N	%	N	%
Sole Proprietorship	10	55.6	26	72.2	16	55.2
Partnership	1	5.6	0	0.0	0	0.0
Corporation	4	22.2	9	25.0	13	44.8
Cooperative	3	16.7	1	2.8	0	0.0
No Response	0	0.0	0	0.0	0	0.0
Total	18	100.0	36	100.0	29	100.0
Owner of Sole Proprietorship	N	%	N	%	N	%
Male	6	50.0	13	50.0	9	56.3
Female	6	50.0	13	50.0	7	43.8
Total	12	100.0	26	100.0	16	100.0

	Total					
	2004		2005		2006	
Education of Sole Proprietor Owner	N	%	N	%	N	%
Some College	-	-	0	0.0	0	0.0
College Grad.	-	-	17	65.4	11	68.8
Post Graduate	-	-	9	34.6	4	25.0
No response	-	-	0	0.0	1	6.3
Total	-	-	26	100.0	16	100.0
Chairperson of Corporation	N	%	N	%	N	%
Male	2	33.3	8	88.9	4	30.8
Female	4	66.7	1	11.1	7	53.8
No response	0	0.0	0	0.0	2	15.4
Total	6	100.0	9	100.0	13	100.0
Education of Chairperson	N	%	N	%	N	%
Some College	-	-	0	0.0	0	0.0
College Grad.	-	-	4	44.4	8	61.5
Post Graduate	-	-	5	55.6	3	23.1
No response	-	-	0	0.0	2	15.4
Total	-	-	9	100.0	13	100.0
President of Corporation	N	%	N	%	N	%
Male	-	-	21	58.3	12	41.4
Female	-	-	14	38.9	7	24.1
No response	-	-	1	2.8	10	34.5
Total	-	-	36	100.0	29	100.0
Education of President	N	%	N	%	N	%
Some College	-	-	0	0.0	0	0.0
College Grad.	-	-	20	55.6	14	48.3
Post Graduate	-	-	15	41.7	5	17.2
No response	-	-	1	2.8	10	34.5
Total	-	-	36	100.0	29	100.0
Size of Business Premises	N	%	N	%	N	%
Less than 100 sq.m.	-	-	6	16.7	5	17.2
Between 100 - 250 sq.m.	-	-	6	16.7	4	13.8
More than 250 sq.m.	-	-	24	66.7	16	55.2
No response	-	-	0	0.0	4	13.8
Total	-	-	36	100.0	29	100.0

	Total					
	2004		2005		2006	
Ownership of Business Premises	N	%	N	%	N	%
Owned	5	27.8	24	66.7	17	58.6
Rented	0	0.0	10	27.8	4	13.8
Owned and Rented	0	0.0	2	5.6	0	0.0
No Response	13	72.2	0	0.0	8	27.6
Total	18	100.0	36	100.0	29	100.0
Venue of Business Premises	N	%	N	%	N	%
Residential	-	-	18	50.0	9	31.0
Commercial	-	-	8	22.2	6	20.7
Others	-	-	10	27.8	3	10.3
No Response	-	-	0	0.0	11	37.9
Total	-	-	36	100.0	29	100.0
PERSONNEL						
Management Employees	N	%	N	%	N	%
Male	-	-	8	36.4	23	52.3
Female	-	-	14	63.6	21	47.7
Total	-	-	14	63.6	21	47.7
Production Supervisors	N	%	N	%	N	%
Male	9	75.0	24	72.7	26	65.0
Female	3	25.0	9	27.3	14	35.0
Total	12	100.0	33	100.0	40	100.0
Production Workers	N	%	N	%	N	%
Male	53	68.8	301	66.3	128	75.7
Female	24	31.2	153	33.7	41	24.3
Total	77	100.0	454	100.0	169	100.0
Technical R&D Staff	N	%	N	%	N	%
Male	1	50.0	15	44.1	5	35.7
Female	1	50.0	19	55.9	9	64.3
Total	2	100.0	34	100.0	14	100.0
Quality Control Staff	N	%	N	%	N	%
Male	2	100.0	12	63.2	12	63.2
Female	0	0.0	7	36.8	7	36.8
Total	2	2.5	19	100.0	19	100.0

	Total					
	2004		2005		2006	
Marketing Staff	N	%	N	%	N	%
Male	13	65.0	33	9.5	15	57.7
Female	7	35.0	314	90.5	11	42.3
Total	20	100.0	347	100.0	26	100.0
Office and Administrative Staff	N	%	N	%	N	%
Male	3	25.0	15	30.6	9	26.5
Female	9	75.0	34	69.4	25	73.5
Total	12	100.0	49	100.0	34	100.0
Total Employees	N	%	N	%	N	%
Male	81	64.8	408	43.6	218	72.2
Female	44	35.2	550	58.8	128	42.4
Total	125	100.0	958	102.4	346	114.6
Average Monthly Income	in pesos					
Male			6,132.88		6,714.30	
Female			6,042.40		5,816.67	
Total			6,087.64		6,265.49	
Subcontracting	N	%	N	%	N	%
Yes	5	27.8	10	27.8	9	31.0
No	13	72.2	26	72.2	20	69.0
Total	18	100.0	36	100.0	29	100.0
Subcontractors	2004		2005		2006	
Ave. % of Work Subcontracted			48.8		47.9	
Ave. Number of Subcontractors			4.0		3.0	
Ave. No. of Workers/Subcontractor			5.0		9.0	
Subcontractor Location	N	%	N	%	N	%
Within Region	0	0.0	3	30.0	0	0.0
Within Island Group	0	0.0	0	0.0	0	0.0
Within Province	4	80.0	5	50.0	9	100.0
Subcontractor Support	Rank		Rank		Rank	
Credit	-		3		1	
Tools	2		2		2	
Product Development	-		4		3	
Skills Training	1		1		-	
Others	3		-		-	

	Total					
	2004		2005		2006	
Subcontractor Problems	Rank		Rank		Rank	
Delivery Date	1		2		1	
Quality of Work	3		1		2	
Reliability	2		3		3	
Stage of Work Subcontracted	N	%	N	%	N	%
Production			5	50.0	0	0.0
Pre-production			3	30.0	4	44.4
Finishing			2	20.0	1	11.1
Raw Materials Source	N	%	N	%	N	%
100% Local			19	52.8	13	44.8
100% Imported			2	5.6	0	0.0
Local and Imported			9	25.0	9	31.0
No Response			6	16.7	7	24.1
Total			36	100.0	29	100.0
Capacity Utilization	%		%		%	
Average Utilization Rate				71.0		
Reasons for Low Utilization	Rank		Rank		Rank	
Equipment Limitations	1		1		2	
Personnel Limitations	4		3		3	
Lack of Raw Materials	2		2		1	
Space Limitations	-		5		4	
Others	3		4		-	
Quality Control Systems	N	%	N	%	N	%
Use outside facilities			4	11.1	9	31.0
Use internal facilities			7	19.4	12	41.4
Have specific personnel			12	33.3	6	20.7
Follow standard procedures			19	52.8	8	27.6
Quality Control Problems	N	%	N	%	N	%
Production Process			5	13.9	9	31.0
Raw Materials Source			8	22.2	9	31.0
Others			7	19.4	3	10.3
Product Development	N	%	N	%	N	%
Use Internal Capabilities			27	75.0	19	65.5
Use External Capabilities			8	22.2	11	37.9

	Total				
	2004				
Mode of Production	Materials Handling	Production	Processing	Packaging	Labeling
Manual	75.0	56.0	56.0	75.0	69.0
Semi-Mechanized	19.0	44.0	38.0	25.0	31.0
Fully Mechanized	6.0	0.0	6.0	0.0	0.0
No Response	0.0	0.0	0.0	0.0	0.0
Avg. Manual	66.2				
Avg. Semi-Mech	31.4				
Avg. Fully Mech	2.4				
	2005				
Mode of Production	Materials Handling	Production	Processing	Packaging	Labeling
Manual	61.1	38.9	63.9	69.4	72.2
Semi-Mechanized	11.1	5.6	36.1	11.1	5.6
Fully Mechanized	2.8	0.0	0.0	0.0	0.0
No Response	25.0	55.5	0.0	19.5	22.2
Avg. Manual	61.1				
Avg. Semi-Mech	13.9				
Avg. Fully Mech	0.6				
	2006				
Mode of Production	Materials Handling	Production	Processing	Packaging	Labeling
Manual	55.2	31.0	48.3	48.3	62.1
Semi-Mechanized	20.7	13.8	37.9	37.9	6.9
Fully Mechanized	3.4	0.0	6.9	6.9	6.9
No Response	20.7	55.2	6.9	6.9	24.1
Avg. Manual	49.0				
Avg. Semi-Mech	23.4				
Avg. Fully Mech	4.8				

	Total					
	2004		2005		2006	
Mode of Raw Materials Procurement	N	%	N	%	N	%
Open Market		0.0	13	36.1	15	51.7
Own Source		0.0	28	77.8	10	34.5
Others		0.0	0	0.0	0	0.0
Product Development Info. Source	N	%	N	%	N	%
Buyers	7	38.9	14	38.9	19	65.5
Publications	10	55.6	16	44.4	9	31.0
Designers	3	16.7	1	2.8	0	0.0
Internet	9	50.0	12	33.3	12	41.4
Trade Fair	11	61.1	20	55.6	20	69.0
Enough Information on Product Dev	N	%	N	%	N	%
Yes	6	33.3	14	38.9	5	17.2
No	11	61.1	16	44.4	19	65.5
No response	1	5.6	6	16.7	5	17.2
Total	18	100.0	36	100.0	29	100.0
Has Internal R&D Capability	N	%	N	%	N	%
Yes	5	27.8	13	36.1	10	34.5
No	12	66.7	16	44.4	13	44.8
No response	1	5.6	7	19.4	6	20.7
Total	18	100.0	36	100.0	29	100.0
Designs Based on Buyer Specifications	N	%	N	%	N	%
Yes	12	66.7	17	47.2	17	63.0
No	4	22.2	12	33.3	7	25.9
No response	2	11.1	7	19.4	5	18.5
Total	18	100.0	36	100.0	29	107.4
Source of Sales	%		%		%	
Export	-			7.2		6.0
Local	-			92.8		94.0
Total				100.0		100.0
Countries Exported To	%		%		%	
Europe	-			2.8		0.6
US	-			16.7		56.3
Japan	-			8.3		6.9
Australia	-			2.8		0.0
Middle East	-			2.8		7.5

	Total					
	2004		2005		2006	
Countries Exported To (cont'd)	%		%		%	
Canada	-			0.0		13.8
Other Asia	-			0.0		15.0
Others	-			0.0		0.0
Total				100.0		100.0
Source of Foreign Buyers	N	%	N	%	N	%
Own Contacts			9	25.0	8	27.6
Trade Fairs			5	13.9	10	34.5
Business Missions			4	11.1	3	10.3
Referrals			2	5.6	8	27.6
Others			1	2.8	1	3.4
Means of Trade Promotion	N	%	N	%	N	%
Brochures/Catalogues			14	38.9	19	65.5
Attending Trade Fairs			27	75.0	19	65.5
Internet			9	25.0	9	31.0
Business Missions			7	19.4	3	10.3
Others			9	25.0	2	6.9
Competitor Countries	N	%	N	%	N	%
Australia	-	-	0	0.0	1	3.4
China	-	-	2	5.6	1	3.4
Europe	-	-	0	0.0	1	3.4
Hawaii	-	-	1	2.8	0	0.0
India	-	-	1	2.8	2	6.9
Indonesia	-	-	1	2.8	1	3.4
Japan	-	-	0	0.0	1	3.4
Malaysia	-	-	2	5.6	0	0.0
Peru	-	-	0	0.0	1	3.4
Sri Lanka	-	-	1	2.8	0	0.0
Thailand	-	-	4	11.1	2	6.9
USA	-	-	1	2.8	0	0.0
Vietnam	-	-	2	5.6	0	0.0
Exported to New Country	N	%	N	%	N	%
Yes	-	-	-	-	6	20.7
No	-	-	-	-	9	31.0

	Total					
	2004		2005		2006	
Exported to New Country (cont'd)	N	%	N	%	N	%
No Response	-	-	-	-	14	48.3
Total	-	-	-	-	29	100.0
Local Marketing Channel	N	%	N	%	N	%
Department Stores		0.0	8	22.2	8	27.6
Boutiques		0.0	6	16.7	4	13.8
Own Stores		0.0	11	30.6	16	55.2
Traders		0.0	10	27.8	8	27.6
Direct Selling		0.0	19	52.8	16	55.2
Others		0.0	13	36.1	8	27.6
Export Marketing Channel	N	%	N	%	N	%
Importers/Buyers					8	27.6
Distributors					3	10.3
Chain of Stores					2	6.9
Other Retailers					1	3.4
Export Sales	N	%	N	%	N	%
Under US$50,000	2	11.1	3	8.3	9	31.0
US$50,001 to US$100,000	0	0.0	0	0.0	0	0.0
US$100,001 to US$300,000	0	0.0	0	0.0	0	0.0
US$300,001 to US$500,000	0	0.0	0	0.0	0	0.0
US$500,001 to US$1,000,000	0	0.0	0	0.0	0	0.0
US$1,000,001 to US$3,000,000	0	0.0	0	0.0	0	0.0
US$3,000,001 to US$5,000,000	0	0.0	0	0.0	0	0.0
Over US$5,000,000	0	0.0	0	0.0	1	3.4
No response	16	88.9	33	91.7	19	65.5
Total	18	100.0	36	100.0	29	100.0
Local Sales	N	%	N	%	N	%
Under Php1M	11	61.1	23	63.9	12	41.4
More than Php1M to Php3M	3	16.7	6	16.7	8	27.6
More than Php3M to Php5M	0	0.0	1	2.8	2	6.9
More than Php5M	2	11.1	3	8.3	2	6.9
No response	2	11.1	3	8.3	5	17.2
Total	18	100.0	36	100.0	29	100.0

	Total					
	2004		2005		2006	
Budget Allocation	%		%		%	
Adinistrative				16.2		14.0
R&D				6.4		9.0
Marketing				15.4		20.6
Production				56.3		54.8
Others				5.1		1.6
Fund Source	N	%	N	%	N	%
Own funds		0.0	33	91.7	24	82.8
Bank Credit		0.0	4	11.1	1	3.4
Private Lenders		0.0	3	8.3	3	10.3
Others		0.0	2	5.6	1	3.4

Notes:

1. Average Monthly Income on page 95 refers to the weighted average monthly salary of workers in the surveyed firms.
2. Ave. No. of Subcontractors and Ave. Workers per Subcontractor on page 95 refer to the weighted average of total number of subcontractors and workers among surveyed firms.
3. Subcontractor Problems on page 96 are ranked based on the weighted average responses of the surveyed firms. The closer a number to 1 is, the more serious the problem.
4. Stage of Work Subcontracted on page 96 refers to the stage in the firms' operations that is outsourced.
5. The reasons for low utilization on page 96 are ranked based on the weighted average responses from surveyed firms. The closer a number to 1 is, the more significant the reason.
6. Quality Control Problems on page 96 refer to where in the firms' operations quality control problems are encountered, in this case, raw materials or in production.
7. Exported to New Country on page 99 refers to whether a respondent has exported to a new country during the time of the survey.
8. The total respondents for queries with multiple answers has been ommitted.

Source: Pearl2 2004 to 2006 Survey of members of the Organic Producers Trade Association.

Annex 9:
Organic Products Process Flow