

# The market for organic products in Asia-Pacific

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**摘要:** 本文介绍了亚太地区有机产品需求和供给的总体趋势。从这个区域市场角度分析来看, 全球范围内的有机农产品市场现状及目前的经济条件, 可能对在亚太有机农业的发展产生巨大影响; 对食品安全消费的期望, 政府的承诺, 可持续发展和减少温室气体排放量, 石油价格不稳定, 以及当前全球经济危机。该文件还讨论了进一步发展有机产业在亚太地区的机。

## Summary

This paper presents the general trends of demand and supply of organic products in Asia and the Pacific. This regional market is put in perspective within the global organic agrifood market and the current economic conditions that may have a great impact on the development of organic agriculture in Asia and the Pacific; consumer expectations about food safety, government commitments to sustainable development and reduction of greenhouse gas emissions, the instability of oil prices, and the current global economic crisis. The paper also discusses the opportunities for further development of the organic industry in the Asia-Pacific region.

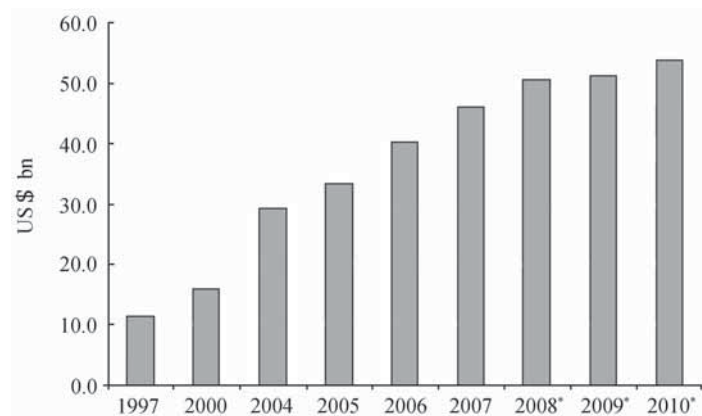
## Introduction

The world organic products market has seen sustained growth over the past decade and has reached an estimated total value of US \$ 45 billion in 2007 as shown in Figure 1 (FAO, 2009). Countries in Asia and the Pacific have seized

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this opportunity to become major producers of organic products. The organization of a China BioFach and India BioFach are testimony to the growing role of these two countries as major business partners in organic marketing chains. The China Organic Food Certification Centre invited FAO to present its analysis of the market for organic products in Asia and the Pacific at its International workshop on organic food product market and development, held in Shanghai from 26 to 28 May 2009. This paper is based on that presentation.



\* Figures for 2008—2010 are projections

Figure 1 Value of the global organic market(FAO,2009)

The first section of this paper will present the organic food demand in Asia and the Pacific. A section on the organic production supply in the region will follow. Section 3 will identify the dominance of industrialized markets as the customers of Asian organic producers. The following four sections will look at trends that may impact the development of organic production in the region: demand for greater food safety, global warming mitigation, oil price instability and the current economic crisis. The concluding section will suggest actions to promote local organic markets.

### Organic food demand in Asia and the Pacific

The demand for organic food in Asia has been growing at 15 to 20 percent every year over the last decade (FiBL and IFOAM, 2009). This sustained

growth can be seen as remarkable in a region where agriculture has to compete fiercely for land and other resources with the industrial and construction sectors. However, this spectacular level of growth can not hide the fact that the market share of organic products in the region remains tiny. According to FAO's estimate, compiled from EBIS data, organic food sales represent only 0.17 percent of the US \$ 1 trillion food retail sales in Asia and the Pacific in 2006.

The organic agricultural products consumed in Asia are of two types:

1. Local products such as rice, fresh produce, sugar, aromatic herbs and medicinal plants;
2. Imported products such as counter-seasonal fresh produce, baby food, breakfast cereals, beverages and dairy products.

The Asian market is characterized by this import of large amounts of processed organic products. The major retail markets for organic foods are Australia, New Zealand, Japan, Singapore, Taiwan Province of China, Hong Kong and the Republic of Korea. These are relatively more industrialized countries from the region. However, a growing minority of urban consumers in emerging Asian countries is starting to develop in countries like the Philippines, Thailand, India, China and Malaysia.

Throughout the region, retail prices for organic food products stay expensive because of their scarcity and high import costs. Organic products can be as much as five times more expensive than conventional products in Asian markets.

### **Organic production in Asia and the Pacific**

Three of the top-ten organic producing countries are located in Asia and the Pacific (cf. Figure 2). Australia remains the largest producer of organic products in the world with over 12 million hectares under organic management in 2007 (FiBL and IFOAM, 2009). One should note though that a large proportion of this land is natural prairie used as forage for livestock. China and India are emerging as leaders in the production of organic products. China was the fifth biggest organic producer in terms of land area with 1.55 million hectares of organic land in 2007 while India reported 1.03 million hectares in that same year.

Although the absolute numbers are impressive, the share of organic agricul-

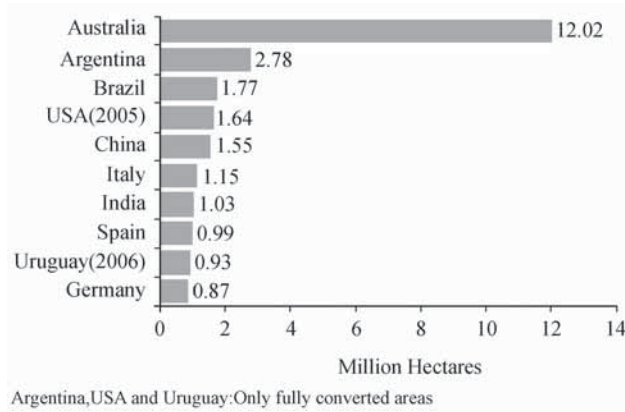


Figure 2 2007 top-10 organic countries (FiBL IFOAM, 2009)

tural land in these two huge countries remains negligible and below 1 percent of total land area. According to FiBL and IFOAM (2009), no Asian country had reached the watershed mark of 1 percent share of organic agricultural land in 2007 (cf. Figure 3).

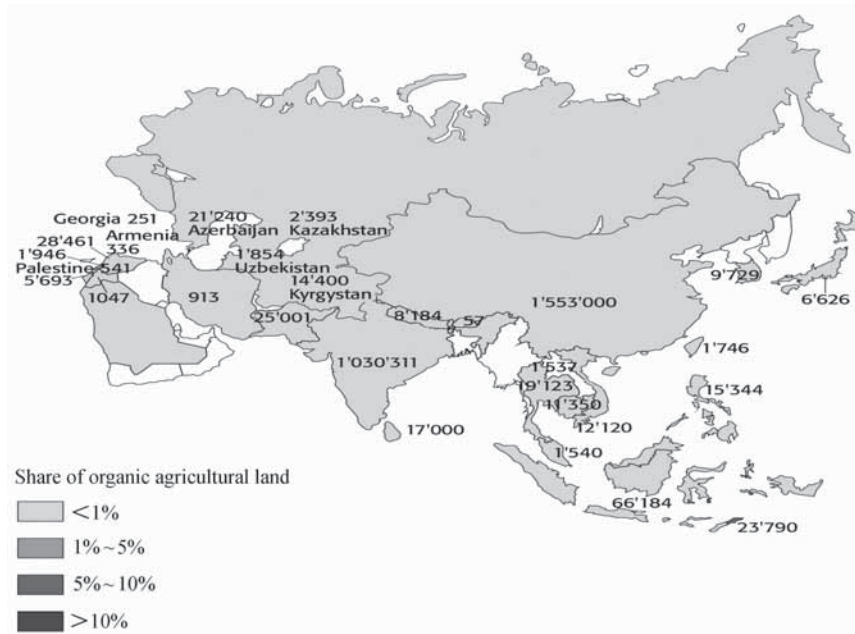


Figure 3 Land under organic management in Asia (2007) (FiBL & IFOAM, 2009)

In the Western Pacific, some countries have higher shares of organic agricultural land, as shown in Figure 4. Australia's 12.02 million hectares of organic land covers only around 1.6 percent of the country's vast total area! In smaller Timor Leste, the 2 497 hectares under organic management in 2007 covered 7 percent of the country's surface. In even smaller Samoa, 7 243 hectares account for 7.8 percent of the country's landmass, putting it as the ninth country in the world in terms of share of land under organic management.

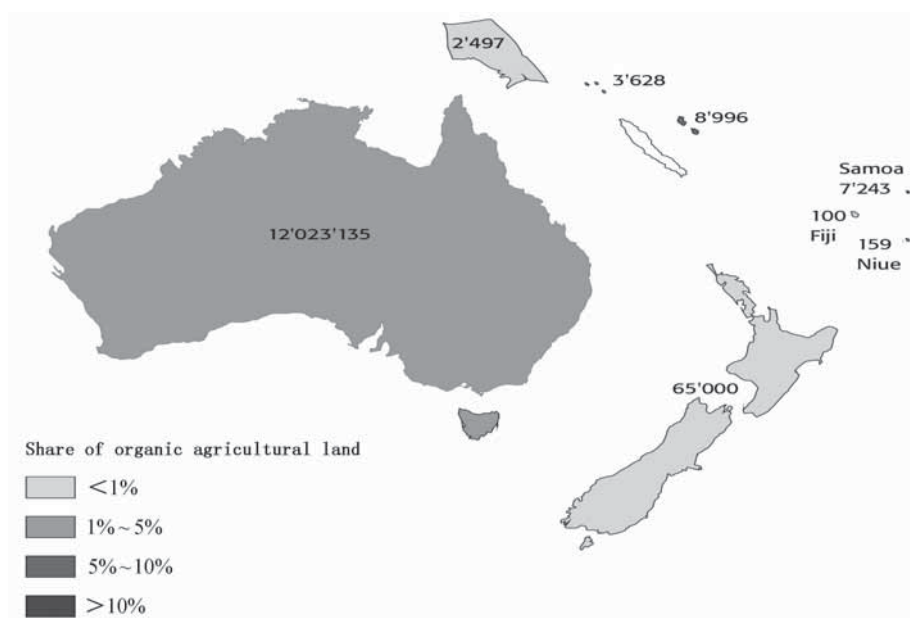


Figure 4 Land under organic management in the Pacific (2007) (FiBL & IFOAM, 2009)

### Industrialized markets remain dominant

When evaluating the relative sizes of organic production and organic consumption in Asia and the Pacific, one can only conclude that there is an imbalance: Asia and the Pacific generally produce much more organic products than their consumers eat. In fact, it is estimated that 90 percent of Asian organic produce is exported (Organic Monitor website). Figure 5 shows that North America and Europe remain the major markets for organic produce with 97 per-

cent of all organic retail sales in 2007.

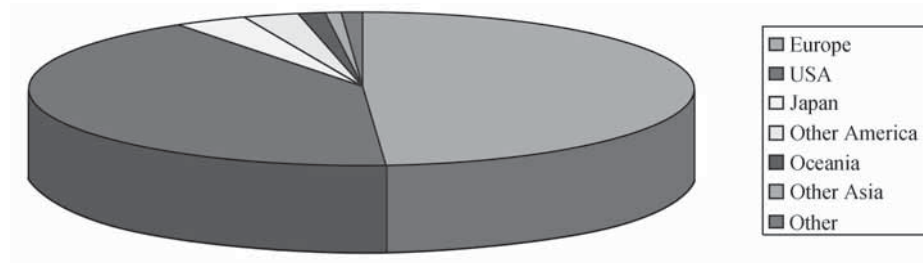


Figure 5 Estimated world market for organic products (2006) (FAO, 2009)

Despite this imbalance, regional trade between Asian and Pacific countries in organic products is growing. Figure 6 shows the trade flows of organic products between countries in the Asia-Pacific region. China exports its organic products to Japan, Australia and New Zealand. Australia in the Southern hemisphere is specializing to supply counter-seasonal fresh produce, and meat and dairy products to Japan and Hong Kong. Finally, the emerging producing region of Southeast Asia is also gaining market share in imports of organic foods into Japan, Australia and New Zealand.

#### Demand for greater food safety

Consumers in Asia and the Pacific are increasingly worried about the safety of their food. Major concerns have appeared because of recurrent food crises involving pesticide residues on fresh produce, food contamination by chemicals in dairy and seafood products, and unregulated use of additives in processed foods. As a result, organic food is perceived as safer by consumers because it is chemical-free or at least guarantees lower levels of chemical residues than products from conventional farming.

Many of the promotion campaigns for organic products insist on this quality attribute: organic products are safer for your health. The quality attribute of environmental protection is not as valued by consumers of organic products in the region, especially in countries that are still industrializing.

Thus there is potential for further growth of local organic food markets in Asia and the Pacific to respond to this increasing demand for safer foods. Pro-

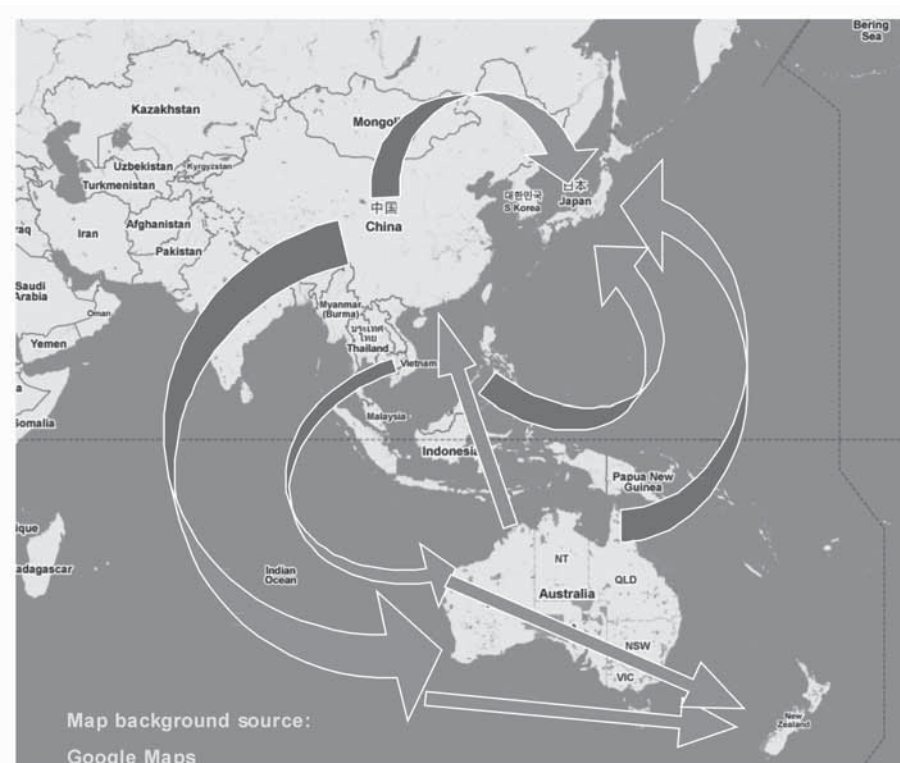


Figure 6 Regional organic trade in Asia and the Pacific

ducers in the region are already struggling to satisfy the demand of distributors for agricultural products under Good Agricultural Practices (GAP) which are also considered as safer for the consumers' health.

### Global warming mitigation

One of the biggest contributions of conventional agricultural practices to greenhouse gas emissions is the use of mineral nitrogen fertilizers produced from natural gas. Indeed, the production process of these fertilizers emits a lot of greenhouse gases; up to 6.7 kg of CO<sub>2</sub>-equivalent per kilogram of nitrogen (Flie ß bach et al, 2009). Conversion to organic agriculture has a first direct impact on reducing greenhouse gas emissions by the abolition of mineral fertilization; as organic plots do not use these fertilizers the demand for mineral fertil-

izers is reduced. Flie  $\beta$  bach et al (2009) also estimated that conversion to organic agriculture would save 1.6 percent of soil N<sub>2</sub>O emissions as nitrogen fertilizers usually decompose into this very potent greenhouse gas.

As organic management practices also promote lower tillage, conversion to organic could also improve the sequestration level of CO<sub>2</sub> in the soil. Flie  $\beta$  bach et al (2009) estimated that conversion to organic farming with reduced tillage of arable land could lead to sequestration rates of 500 kg C/ha/year.

Of more direct consequence to producers of organic products is the consumers' perception of how food miles contribute to global warming. Food miles calculate the carbon footprint of food as it circulates from the area of production to the area of consumption. Fresh produce shipped by plane across continents has been the focus of major controversy as consumers perceived the carbon footprint as excessive. This may depress demand for organic produce air-freighted from developing countries. However, results from life-cycle analyses beg to differ. Life-cycle analyses calculate the emissions or costs throughout all the stages of the life of a product from primary production up to its consumption, including all the transport, packaging and related activities around it. It is still not clear whether a fresh item hand-picked and packaged in Asia in the morning and available in European retail outlets one or two days afterwards has a greater carbon footprint than the same produce grown in heated European greenhouses and stored in cool houses for many weeks. Further research is needed on this topic, as recommended by DEFRA (2005).

One positive aspect of the consumers' growing awareness of climate change on the development of organic agriculture is that organic farming practices are considered to show stronger resilience to external shocks. Due to its longer-term production cycle and lower dependence on external growth factors, organic production offers some stronger guarantee of stability in an increasingly unstable environment because of climate change.

To conclude, the immediate impact of consumers' raised awareness about climate change will probably be a shift towards more local organic marketing chains. This could constitute a challenge to producing countries in Asia and the Pacific, which are geared to supplying export markets.



### Oil price instability

In the past five years, oil prices have been extremely unstable. The peak was reached in 2008 but prices have now subsided back to US \$ 40-50/barrel, as shown in Figure 7.

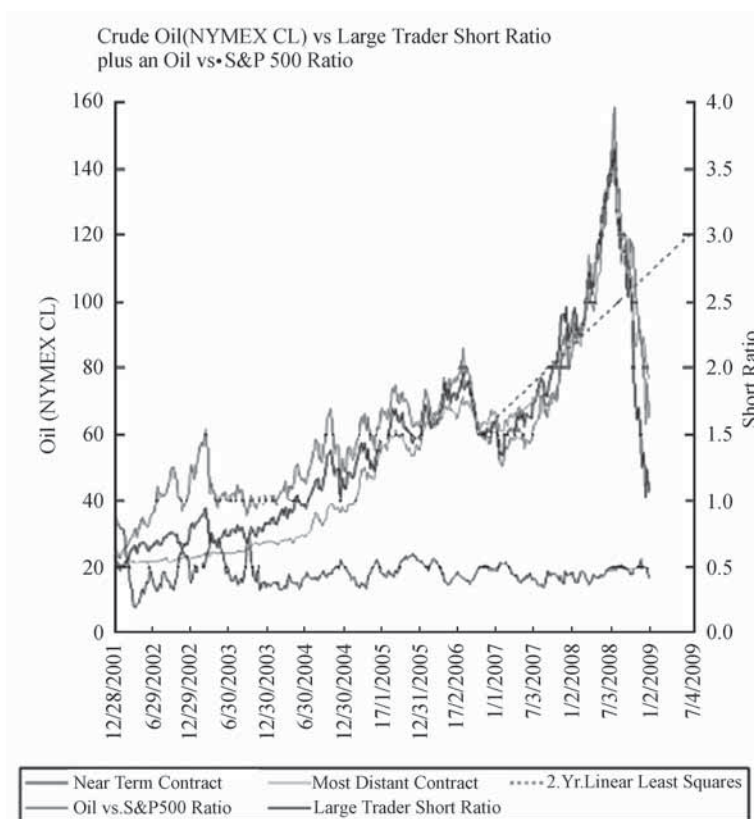


Figure 7 Crude oil price(<http://www.oilism.com/oil/>)

High oil prices had led to higher-priced conventional farm inputs. This had offered an incentive for farmers in countries where imported mineral farm inputs were relatively expensive to convert to organic agriculture, the inputs of which can be produced on the farm by recycling organic matter. High oil prices also led to more expensive shipment costs which had decreased the exporters'

margins on shipments of organic fresh produce. Although oil prices have dropped, there is still high instability in the world that could lead to another peak, which would again affect the transport for food products traded over long distances, and in particular the perishable fresh organic produce flown out of Asia.

### The global economic crisis

It is now undeniable that the world has entered a recession period, as shown by the GDP charts in Figure 8.

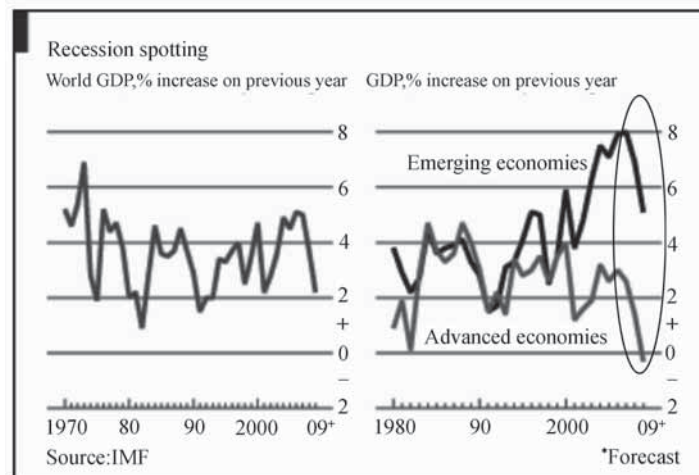


Figure 8 Global recession(<http://www.economist.com>)

The Baltic Dry Index monitored in Figure 9 is an indicator of world trade using ships, which is itself a good indicator of the global economy. This indicator has slumped dramatically in the recent months, thus indicating a drastic slowdown in world trade and economic growth.

Because of the recession, consumers around the world are now focusing more carefully on the price of their food basket. Sales of organic products, which tend to be more expensive than conventional products, have seen their growth slow down since the end of 2008. After so many years of double-digit growth, this has come as a shock to the organic industry.

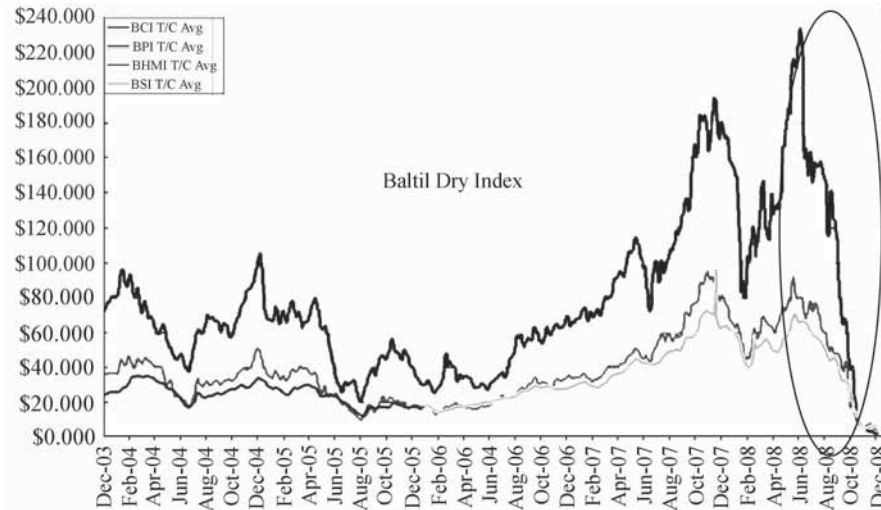


Figure 9 World trade slump(<http://www.economist.com>)

Another negative impact of the global recession may be the likely rise of national protectionism as countries try to protect themselves against imports. As organic production in the region is so export-focused, countries may find that non-tariff barriers to trade suddenly appear on a wide variety of agricultural goods.

Finally, with banks rocked by the impact of the financial crisis on their credit reserves, global investment is also likely to diminish in the coming years. Conversion to organic agriculture may be considered as a considerable investment by producers as they cannot reap the higher valued fruits of their extra costs during the conversion period. With financial sources tightened, it is possible that fewer people may be tempted to convert to organic agriculture if the costs of conversion are deemed too high to cover and no credit source is available to keep the farm running during the lean years.

Therefore, the current economic crisis might prove to be the biggest challenge to the growth of an export-oriented organic sector, which happens to be the system largely prevailing in countries in Asia and the Pacific.

## Conclusions

In order to respond to the challenges of the years to come, two combined strategies can be suggested:

1. Strengthen local demand for organic produce;
2. Respond better to local organic markets.

First, it is important to start diversifying the market outlets of the region's organic producers. This paper has emphasized the reliance of the sector on exports to far-away countries. More demand could be stimulated within the region. This will be achieved by raising the awareness of local consumers on the environmental, food safety and taste attributes of organic products. As many industry stakeholders in the region are already involved in high-profit, export-led supply chains, it is possible for them to use these high profits to invest in the development of lower-cost local marketing channels for produce that is already certified for export. This investment will help develop the local consumer demand for organic products, which will increase overall sales, although at a lower margin than for exported goods. Finally, participatory guarantee systems of certification that involve very closely linked groups of producers with the communities of consumers they are producing for can play a role in developing greater consumer confidence in local organic produce while cutting verification costs. Such participatory guarantee systems have been successful in Latin America, and also to a certain extent in India and Japan (Teikei). Communication and knowledge sharing should be encouraged within the global organic community in order to learn from these success stories of strengthened relationships between local producers and consumers.

In parallel to developing local consumer demand, efforts should be made to adapt production systems to this new demand. In some countries like China, large commercial farms using contracted farm workers have been the preferred model to boost organic production. In other countries, like Thailand and the Philippines, support to groups of independent smallholders has been successfully implemented for organic production. Both models are valid, but careful study of the targeted local markets could help improve business decision making of farmers. As mentioned above, participatory guarantee systems of certification should

be created to monitor food safety issues, as those are the main concerns of consumers in the Asia-Pacific region. Technologies are also needed to address the challenges of transporting such high-value perishable produce towards their destinations. FAO's work in supporting the organic industry in Asia has shown that partnerships between government, civil society and private sector to synergize efforts towards stronger growth is a highly sustainable development model for an organic industry, whether focused on the internal market, as in the Philippines, or highly geared towards exports as is Thailand's.

#### **A final note on the high value of market information**

In order to complete a market study, data on production and demand is essential. In the organic sector, production data is relatively easy to find. However, estimates of market demand and its potential trends are much more difficult to come by. Or rather, they are very expensive. The value of such market analysis should not be underestimated; it is very time-consuming to identify reliable market data that can be compared and compiled into a market analysis report. Therefore, it is not surprising that the more precise a market analysis is, the more expensive it becomes.

The analyses of the organic markets by FAO and the International Trade Centre are free of charge but they can only be an eye opener for those stakeholders who are interested in starting an organic enterprise. In order to manage such a business, more precise market information is needed.

[http://www.fao.org/es/esc/en/15/190/highlight\\_199.html](http://www.fao.org/es/esc/en/15/190/highlight_199.html)

[http://www.intracen.org/mns/Organic\\_Products.htm](http://www.intracen.org/mns/Organic_Products.htm)

IFOAM's data is available to its members and available to the general public for a small fee. IFOAM's market reports give a good overview of production trends but they are weaker when it comes to estimating precise market demand.

<http://www.organic-world.net>

Commercial firms specialized in market research also produce organic market analyses. To have a good understanding of the organic markets comes at a hefty price: EUR454 for the Organic Monitor report on the organic food mar-

ket. Market information is valuable.

<http://www.organicmonitor.com/500140.htm>

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