

For discussion
on 10 January 2012

**Legislative Council Panel on Food Safety
and Environmental Hygiene**

Organic Food

PURPOSE

This paper provides an overview of the global organic food landscape and sets out some pertinent issues for Hong Kong. It serves as a prologue to future discussions on the development of the local organic food sector.

BACKGROUND

2. Consumer demand for organic food is on the rise across the world due to greater awareness of environmental protection and human health. In Hong Kong, there are no official statistics on organic food consumption. However, it is understood from traders that there has been a steady growth in demand although organic food is unlikely to gain a significant share in overall food consumption, mainly due to the smaller supply and higher price. Today, a wide range of organic food products ranging from fresh produce, meat, poultry, fish, eggs, milk, juice, tea to canned food and baby food are available in the market. Most are imported and sold at a premium as compared to conventional food. They are also often associated with positive attributes such as being healthy, safe, environmental friendly, and of good quality.

DEFINITION OF “ORGANIC”

3. There is no universal definition of organic food. The term basically refers to food produced under organic farming principles and methods. There are various definitions and explanations for organic farming or organic agriculture. Generally speaking, organic agriculture is a holistic production system that relies on site-specific ecosystem management (e.g. crop rotation, inter-cropping, good animal husbandry, use of green manures, etc.) rather than synthetic inputs (e.g. synthetic fertilisers and pesticides, veterinary drugs, genetically modified organisms, preservatives, additives and irradiation) for maintaining long-term soil fertility and prevention of pest and diseases. The International Federation of Organic Agriculture Movements (IFOAM), a non-governmental organisation leading organic movements worldwide, defines organic agriculture as follows –

“Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.”

4. In places with government standards and regulations on organic food or organic agriculture, organic food usually refers to products certified by authorities or certifying bodies according to the relevant organic standards. The certified products may then be labelled and marketed as organic. It should however be noted that the definitions of “organic”, “organic production” and terms alike, as well as the coverage of organic regulations, vary from country to country.

ORGANIC STANDARDS AND CERTIFICATION

5. Organic products often appear identical in look to their conventional counterparts. Some countries with a developed agriculture sector have developed organic labels to certify those products which have been produced according to specific organic standards. An organic label usually indicates the name of the certification body and the standards with which it complies.

Certification bodies adopt different organic standards in evaluating the production of organic food¹, and they themselves can be formally recognised by more than one authoritative body. The label of a given certification body, therefore, informs the consumer of the type of standards complied with during production and processing as well as on the type of recognition granted to the certification body. At present, there is not any official multilateral organic standard. None of the existing international or national organic standards is universally recognised by all governments or international inter-governmental organisations. In other words, an “organic” product in one country may not be certified as such in another place.

International voluntary guidelines

6. The Codex Alimentarius Commission² published in 1999 the *Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods* to guide producers, protect consumers against misleading claims and facilitate trade. The guidelines are also intended to facilitate the harmonisation of requirements for organic products at the international level and provide assistance to governments wishing to establish national regulations in this area. The guidelines include general sections describing the organic production concept and the scope of the text; description and definitions; labelling and claims (including products in transition/conversion); rules of production and preparation, including criteria for the substances allowed in organic production; inspection and certification systems; and import control.

7. The private sector’s equivalent to the Codex guidelines is the *IFOAM Basic Standards for Organic Production and Processing*, which set out general principles, recommendations and standards for the production, processing, packaging and labelling of plants, livestock, bees, aquaculture

¹ According to IFOAM’s brochure “The IFOAM Organic Guarantee System – Guaranteeing Organic” published in 2011, close to 500 public and private certification bodies now operate on the global organic marketplace. There are more than 100 different standards used to certify organic products across the world.

² The Codex Alimentarius Commission is an intergovernmental body with over 180 members, within the framework of the Joint Food Standards Programme established by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization, with the purpose of protecting the health of consumers and ensuring fair practices in the food trade. The Commission also promotes coordination of all food standards work undertaken by international governmental and non governmental organizations.

and other organic products. Like the Codex guidelines, the IFOAM standards are regularly reviewed.

National standards

8. The Codex and IFOAM guidelines have been international reference or minimum organic standards to guide governments and private certification bodies in standards setting. They can be considered as standards for standards. Governments can use these texts to develop national organic standards and regulations, which are often more detailed and specific to local needs. Most national standards (e.g. those of European Union countries, Japan and the United States) are specified in regulations which are legally binding. In some countries, certification bodies may adopt standards which are more stringent than the basic, mandatory requirements. In places without organic regulations, where government guidelines may or may not exist, certification bodies may establish their own standards with reference to the international guidelines.

Accreditation of certification bodies

9. Accreditation is a procedure by which an authority evaluates and gives formal recognition that a certification programme is in accordance with the standards of the authority. Certification bodies for organic products can be accredited by the relevant authorities if they conform to applicable international standards and/or national standards. At the international level, IFOAM administers an accreditation programme. IFOAM accreditation is awarded to certification bodies which use certification standards that meet the IFOAM Basic Standards and comply with the IFOAM Accreditation Criteria³. IFOAM accreditation is carried out by the International Organic Accreditation Service Inc., a daughter company of IFOAM. An “IFOAM Accredited” logo can be used on product labelling and related promotional material by operators of IFOAM accredited certification bodies.

10. At national levels, governments or national accreditation bodies accredit certification bodies operating in their countries according to their

³ The IFOAM Accreditation Criteria establish requirements for conduct of organic certification by certification bodies. The criteria are based on International Organization for Standardization (ISO) standards for the operation of certifying bodies and they are additionally developed to reflect the particular circumstances of certifying organic production and processing.

organic agriculture legislation.

Recent developments

11. Organic standards as well as certification and accreditation requirements are evolving. Some changes have been necessitated by developments in the global environment such as the proliferation of organic regulations, labelling initiatives, and the rapid growth of all organic sectors including the number of certification bodies. Many advocates of organic agriculture believe that the multiple organic standards and technical regulations have hindered further development of organic agriculture and created obstacles to trade. Accordingly, the international organisations have embarked on initiatives aimed at harmonising organic standards and facilitating trade. An example is the Global Organic Market Access project, jointly overseen by FAO, IFOAM and the United Nations Conference on Trade and Development, which seeks to simplify the process for trade flow of organic products among various regulatory and private organic guarantee systems. It focuses on harmonisation and equivalence of organic standards and certification performance requirements as mechanisms for clearing trade pathways.

12. In 2010, IFOAM launched its new Organic Guarantee System with major changes to requirements for certification bodies seeking accreditation. For instance, the current IFOAM Basic Standards are being transformed into a new IFOAM Standard, an off-the-shelf certification standard instead of a standard for standards. This has the possibility of reducing costs for accreditation as certification bodies will no longer need to develop and maintain their own standards. The new IFOAM Standard is being crafted with equivalence to major regulations in mind, and is therefore expected to simplify equivalence assessments, ease import authorisations, and help reduce the current large number of organic standards in use around the world. It is IFOAM's objective to create a framework under the Organic Guarantee System for mutual recognition and harmonisation of standards and verification systems.

SITUATION IN HONG KONG

Organic farming

13. The development of organic farming in Hong Kong has only a brief history. It began in 1988 when an environmental education group Produce Green (now known as Produce Green Foundation) started an educational farm using environmentally friendly cultivation practices to raise crops and promote green living. Around the same time, another organisation, Hong Kong Organic Agriculture & Ecological Research Association, did a lot of work in promotion of organic farming. More people showed interest in organic farming in the 1990's. By 1999, a group of avid farmers started the Hong Kong Organic Farming Association, presently known as the Sustainable Ecological Ethical Development Foundation. Back then, there were only about ten local organic farms with small acreage, the organic crops output was negligible.

14. As at November 2011, there were 405 organic farms with a total acreage of 110 hectares in Hong Kong. These included the traditional family-operated farms, enterprise-operated farms, educational hobby farms and self-claimed organic farms.

15. In December 2000, the Agriculture, Fisheries and Conservation Department (AFCD) launched an Organic Farming Conversion Scheme (later renamed as the Organic Farming Support Service (OFSS)) to assist conventional farmers to switch to organic farming. A protocol for organic crop production was also compiled to provide a technical guide for farmers who wished to enter conversion. Working closely with AFCD, the Vegetable Marketing Organisation (VMO) and the Federation of Vegetable Marketing Co-operative Societies Ltd. (FVMCS)⁴ provide technical and marketing support to organic farmers. The number of farms which had joined OFSS was 182 as at November 2011. These farms concentrated in two vegetable growing zones in the New Territories, namely Ng Ka Tsuen and Tai Kong Po, but had also expanded to other zones including Ping Che,

⁴ FVMCS is a local farmers' organisation which keenly supports the development of organic farming. To better serve their members, of whom many are organic farmers, FVMCS set up the Community Growers Group Office in November 2004 aimed at assisting farmers in organic certification application, providing farmers with quality organic seedlings and promoting local organic produce through agri-tourism and direct sales.

Fanling, Pat Heung, Sheung Shui and Tai Po. Their produce is distributed through supermarkets, health food stores, wet markets and farmers' markets. On average, the OFSS farms produce a total of 4.5 tonnes of organic vegetables per day, equivalent to about 10% of the supply of locally produced fresh vegetables or 0.2% of the total supply of fresh vegetables in Hong Kong. This shows that despite the growth in the number of organic farms in Hong Kong, our local organic output still constitutes an insignificant share of the fresh vegetables consumption market.

16. AFCD and VMO work closely in the marketing and promotion of organic vegetables. VMO collects the vegetables produced by organic farmers for distribution via the wholesale market in Cheung Sha Wan. Kadoorie Farm & Botanic Garden and FVMCS also regularly operate farmers' markets at the Kadoorie Farm, Central, the site of Tai Po Vegetable Marketing Co-operative Society Ltd. or Tuen Mun. Interested organic farmers may bring in their produce to sell at the farmers' markets.

17. Apart from fresh vegetables and fruits, organic food produced in Hong Kong is limited to organic fish. Organic fish was introduced to the Hong Kong market very recently and the supply was insignificant.

18. Given the very small local agricultural sector, practically almost all organic food available in Hong Kong is imported from overseas and the Mainland. Many of these products are sold at supermarket chains and specialty stores, often as high-end products fetching much higher prices than conventional food. The Administration does not possess information on the exact amount of organic food imports as they do not require separate import declaration by category. There is also no published statistics on the ratio between conventional and organic food products sold at retail outlets.

Standards and certification

19. As far as food safety is concerned, our policy has always been that, irrespective of whether a product is organic or not, it has to meet all safety and labelling requirements under Hong Kong legislation on food.

20. With the gradual development of organic farms in Hong Kong, AFCD has been assisting local organic farmers to further develop the

industry as a means to move up the value ladder. In response to the trade's request for providing independent organic certification service, Hong Kong Organic Resource Centre (HKORC) was co-founded by Hong Kong Organic Farming Association, Produce Green and Hong Kong Baptist University in 2002, with AFCD's assistance. Having considered prevailing international (IFOAM) organic standards and adaptations required for domestic circumstances, HKORC completed a set of organic production and processing certification standards for Hong Kong in 2004, and launched its independent organic certification service for organic farmers and organic food processors in December of the same year.

21. Like other organic certification bodies, HKORC certifies the organic production process of a farm rather than the products of the farm. The farmland and the farming practices, materials used, management and the organic integrity of products are subjects that should comply with the organic standards. Once HKORC certifies a farm as "organic", all products from the organic production area of the farm are certified organic. The farm may claim those produce as "certified organic". It may use HKORC's certification seal as stickers on product packages, and the certificate issued by HKORC as evidence of certification. As at mid-December 2011, HKORC has certified 89 local crops production farms, three processing and handling operations and two aquaculture operations.

22. Apart from HKORC, Hong Kong Organic Certification Centre (HKOCC) is another private agency that provides organic certification service in Hong Kong. According to the website of HKOCC, it has certified a few local farms and a number of farms on the Mainland and in Taiwan.

ISSUES WITH ORGANIC FOOD CONSUMPTION

Price

23. According to FAO, certified organic products are generally more expensive than their conventional counterparts for a number of reasons –

- (a) organic food supply is limited as compared to demand;

- (b) production costs for organic foods are typically higher because of greater labour inputs per unit of output and because greater diversity of enterprises means economies of scale cannot be achieved;
- (c) post-harvest handling of relatively small quantities of organic foods results in higher costs because of the mandatory segregation of organic and conventional produce, especially for processing and transportation; and
- (d) marketing and the distribution chain for organic products is relatively inefficient and costs are higher because of relatively small volumes.

Prices of organic foods include not only the production cost but also a range of other factors that are not captured in the price of conventional food, such as environmental enhancement and protection, higher standards for animal welfare, avoidance of health risks to farmers, additional farm employment and assurance of a fair and sufficient income to producers.

24. As it is generally not possible for consumers to distinguish organic and non-organic food and it can also be difficult to prove the organic origin of food sold at the retail level, some retailers are tempted to falsely claim conventional food items as organic and sell at higher prices.

Health benefits

25. Consumers may choose to buy organic food for many different reasons, one being the belief that it is safer and more nutritious. While advocates strongly put forward the case for organic food⁵, there is no clear consensus on the superiority of organic food in terms of safety and nutrition content. It should also be emphasised that “organic” is a production process claim rather than a product quality or food safety claim.

⁵ See, for instance, IFOAM’s arguments for organic agriculture from environmental protection, food quality, food security, climate change and social justice perspectives; and responses to skepticism against the benefits of organic agriculture.

http://www.ifoam.org/growing_organic/1_arguments_for_oa/arguments_main_page.html

26. From the food safety angle, there should be no difference between organic food and conventionally produced food, as all foods must meet the same quality and safety standards. Some research has found that organic food contains less residue of pesticides, antibiotics and hormones, but the data do not suggest any significant difference with regard to food safety. On the other hand, some organic production practices and restrictions may imply potential health hazards including bacterial and fungal contamination, although current research has not substantiated increased risks associated with organic foods.⁶ A belief in the greater safety of organic food may result in certain health risks if it means that consumers pay less attention to basic food hygiene.

27. Similarly contested is the notion that organic food is more nutritious. According to the Alternative Farming Systems Center of the United States Department of Agriculture, “valid scientific research comparing organic and conventional foods is scant and what has been done focuses on very specific foods and conditions”. Some general trends identified from studies have shown slightly higher levels of trace minerals, vitamin C and antioxidant phytonutrients than in conventionally grown crops, but the evidence is mixed and often specific to one crop or product. The results of a systematic review commissioned by the Food Standards Agency of the United Kingdom, published in July 2009, shows that there are no important differences in the nutrition content, or any additional health benefits, of organic food when compared with conventionally produced food. Also, as the Agency points out, nutrient levels in food vary depending on many different factors including freshness, storage conditions, crop variety, soil conditions, weather conditions and how animals are fed. All crops and animals vary in nutrient level to some extent, and the available evidence shows that the nutrient levels and the degree of variation are similar in food produced by both organic and conventional agriculture.

The local context

28. In March 2011, the Food and Health Bureau commissioned a

⁶ Information is sourced from the websites of (i) the Alternative Farming Systems Center of the National Agricultural Library, United States Department of Agriculture; and (ii) the Food Standards Agency of the United Kingdom.

http://afsic.nal.usda.gov/nal_display/index.php?tax_level=1&info_center=2&tax_subject=296

<http://www.food.gov.uk/foodindustry/farmingfood/organicfood/>

consultancy study to analyse issues pertinent to the trend of increasing consumption of organic food in Hong Kong. A part of the study is to gauge the level of understanding of organic food by the public and the trade through consumer and industry stakeholder surveys. Research so far has shown that –

- (a) most consumers have heard of the term “organic food” and are able to associate it with concepts like no-use of pesticides and chemical fertilisers;
- (b) there is a widespread belief that organic food is a premium product which is safer, more nutritious and of better quality. Many consumers also consider that organic consumption can help protect the environment and is worth the additional cost. That said, the perceived health benefits remains the major reason for their purchase;
- (c) consumers purchase most organic food from supermarkets, followed by specialist stores and wet markets. They are more confident in the authenticity of organic food in supermarkets;
- (d) consumers are often unsure how much to trust organic food claims, uncertain about the food’s origin and confused by the multiple organic food labels in the market;
- (e) most consumers agree that promotion by local authorities of well-established organic certifications and labels of different origins would help them identify organic food. They are also in support of enhancing oversight of the organic food market;
- (f) industry stakeholders generally do not prefer regulations imposing a local certification scheme and the creation of new local standards. Some suggest that Hong Kong could consider accepting a basket of internationally recognised certification bodies and their certifications if regulation of the market is necessary; and
- (g) educating the public on organic labels is seen by the trade as a more fundamental way to enhance consumer awareness of the authenticity

of organic food.

29. The preliminary findings above suggest that potential problems of organic food consumption in the local context mainly revolve around a lack of common understanding of organic food claims, uncertainty in making informed choices by consumers, and the risk of fraudulent selling of conventional products as organic food which might be more of an issue with wet markets.

30. In the next stage of the consultancy, we will look into the organic food sector and regulatory regime of some other jurisdictions. The study will then assess, taking into account local circumstances, whether and how the production and sale of organic food in Hong Kong should be regulated, if at all, as well as how to enhance consumer education and information with regard to organic food. The study is expected to conclude by the first quarter of 2012. We will brief this Panel when the final results and recommendations are available.

ADVICE SOUGHT

31. Members are invited to note and comment on the content of this paper.

Food and Health Bureau
January 2012