

## Review Article

# Food industry & economic development in the Asia Pacific

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The food industry in the Asia Pacific region is gigantic in size, and is therefore a key element in the economic development prospects for the region. It is estimated that in 2000, for example, total expenditure on food and beverages in China was worth \$US 188.5 billion, second only to that in Japan at \$322 billion. Yet it is clear that given the expansion of both populations and incomes in the region this market will expand rapidly over the next few years. Particularly important will be the continued growth of cities and of the share of employment in industrial and service activities. Much of this growth in food purchases will be supplied from local sources, but this will demand some fundamental changes in domestic food production systems. There will also be a substantial growth in the food trade, with ever increasing levels of national and regional specialisation. These developments will put increasing pressures on quality standards at all levels, with a growing emphasis on food safety, integrity, quality, and nutritional and health impacts. This paper reviews the current status of the food industry and the food trade in the region, and presents some projections for future developments. Particular emphasis is given to policy choices that must be made to ensure that the food system in the region develops in ways that are sustainable and most beneficial to the population as a whole.

**Key Words:** Asia Pacific food trade, economic development, food security, food policy

## Introduction

In this short paper I want to examine the impacts within the Asia Pacific region of the emerging food trade and associated systems that can be regarded as aspects of the spread of globalisation. The paper is divided into two parts. First I examine the growth of the food trade in the region. Here I present some statistics to demonstrate the very large size of this trade, and identify some of the forces that are now shaping the growth of this sector. These include the rapid growth of cities, a range of other demographic changes including the ageing of the population in a number of countries, the growth in the demand for processed foods, and the rapid growth in supermarkets and similar new retail outlets. Secondly, I present some evidence on the impacts of these changes. While the rapid growth of food output in many countries in the region is to be welcomed there are still some serious problems of malnutrition. Some two-thirds of all hungry people in the world are to be found in Asia, and India alone has more malnourished people than the whole of Africa. Here I use some of the tools and concepts of food security to examine why this should be so, and identify a number of key causal factors. On the basis of this evidence I argue finally that governments should not simply accept the growth of the food trade in its present form as some kind of irresistible force that must simply be accepted. Good policies can still be applied to generate food systems that are more effective and produce better nutritional outcomes. But, I argue, much multidisciplinary research on an "all of food system" basis will be needed to inform policy makers and result in better outcomes.

## The growth of the Asia Pacific food trade and some emerging trends

It is well known that the food industry in the Asia Pacific region is now enormous, although precise and up-to-date statistics on many aspects of this area of the economy are surprisingly hard to come by. It is particularly difficult to assemble properly comparable statistics across nations, since there is such wide variability in many national definitions. But let me at least try to give some picture of this key sector. By 2000, the total value of the food and beverage industry in Japan was worth \$322 billion, compared with \$188 billion in China, \$67 billion in South Korea and \$46 billion in Taiwan. These are of course vast sums, and it is clear that the food industry is a key element in the economic development prospects of the regions. Much of this market demand is met from local sources. In many countries in the region, a significant element in agricultural production is the subsistence economy, although this is generally declining in importance. Beyond this, because of the relatively low value and high bulk of many foodstuffs, as well as questions of food spoilage and freshness, much demand for food is met within nations, often within local regions or communities. However, the food trade across national borders is of increasing importance. Japan now imports some 15 per cent of its total food consumption (by value), and the figure for South Korea is roughly similar.

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In the case of China, given the huge size of the agricultural sector, only 4 per cent of all imports are of food, but there is a clear upward trend. In the case of Indonesia, some 10 per cent of all imports and 9 per cent of exports are made up of food products.

Not only is the size of the food trade increasing, but a number of important economic, demographic and social factors are leading to important change in the nature and composition of this trade.

- *The rapid growth of industrial cities in the Asian region.* The Asian economic miracle has been built primarily on the development of industrial products for the export market, and this industrialisation has been predominantly located in urban centres. In the Asia Pacific region as a whole it is expected that urban populations will increase by more than 580 million by 2020 as compared with levels in 2000. During the next few years the total size of the urban population in the region will overtake the total rural population for the first time in history. China's urban population is expected to increase by a further 308 million by 2020, and there will also be similarly rapid increases in Indonesia (+ 77 million), the Philippines (+ 33 million), Vietnam (+ 16 million), and Malaysia (+ 10 million). At the same time, rural populations will shrink rapidly in most of the region. The largest change in the balance between urban and rural populations will take place in China, where declines in total population growth rates plus large scale migration to the cities will reduce rural populations by some 145 million people by 2020. These changes will of course have massive implications for the overall food system and for the international food trade. Urban incomes are generally higher, and rather different kinds of foods are consumed there. Generally, rather higher proportions of animal products are consumed there, and there is a demand for a more varied range of foodstuffs.
- *Other demographic factors.* The significant ageing of the population in a number of countries such as Japan and South Korea will also have an impact on the demand for particular kinds of foods. Between 2000 and 2020 the median age of the population in the region is expected to increase from 30 to 36 years, and life expectancy should increase from 72 to 77 years. Generally, food intake decreases later in life as activity levels are reduced, and there is general tendency for the consumption of animal products to decrease, while the intake of fruit and vegetables increases. In Japan, for example, it is expected that demand for meat will decline significantly, while that for fruit, vegetables and fresh fish will increase. As populations age, the balance between the economically active and economically dependent parts of the population – the dependency ratio – will also change. This will have many implications for the structure of the economy, for rates of savings and for investment.
- *Changing demands for processed food.* At present, by far the most important components of the food trade – both within and between nations – consist of unprocessed items such as grains and bulk meat products. However, the growth of incomes and of urban populations in the region is resulting in a sharp increase in the demand for processed foods. Another factor here is the gradual liberalisation of the international food trade, as part of the overall reform of world trade rules, even though the trade in agricultural products is proving much more difficult to liberalise than that in industrial products. In the past, it was much more difficult to export processed foods, because of the prevailing tariffs and quarantine regulations, but this is slowly changing. Perhaps even more important has been the rise of the multinational food retailers. These companies have partly been responding to new kinds of demands for convenience foods in urban areas, especially from younger consumers, but it could also be argued that these emerging global food brands have created new demands through their advertising and related strategies. The majority of this demand, however, is not met through the flow of products through the food trade system. Rather, demand is met through direct foreign investment, the creation of new food outlets with their accompanying systems of supply, many from local sources. The net result is major changes in both the food supply structure, and in the nature of the products consumed. In many cases, while the external emphasis may be on the supply of a homogenous global brand of product there may be some subtle changes that reflect local preferences and tastes. It is estimated that US food companies now sell some five times as much through FDI than through export sales (\$150 billion, as against \$30 billion). In some cases, this FDI strategy also involves alliances with local business groups.
- *Growth of supermarkets and similar retail outlets.* Related to the growth of these new convenience food outlets has been the strong emergence of the supermarket as a new and dominant form of retail outlet in many countries. During the last decade or so there has been a rapid expansion of supermarkets in Asia and in Latin America. This has been driven by increasing incomes and new demands for processed food products. A major result of these new developments has been the increased centralisation of food distribution networks. One feature of the food available in supermarkets is the all-year-round nature of their products, and this in turn drives further expansion of the food trade. In part this has resulted in increased flows of food between the northern and southern hemispheres, dictated by the succession of seasons and the need to maintain constant supplies. However, some commentators have also suggested that the presence of these global retailers also encourages more local processing

companies to move into this new system, harnessing local production sources. It has also been argued that the use of global retail brands encourages an upgrading of quality standards.

### **Some key issues and policy debates**

These developments are seen as inevitable and desirable by many, especially by the food suppliers and processing companies in the west who see this as an inexorable and unambiguous process of modernisation. Yet there are others who are now raising some fundamental questions about this whole dynamic and asking whether policy makers should not be more critical and sceptical in their approaches to decision making. Let me look at some of these key concerns.

#### ***Environmental sustainability***

The basic theory of competitive advantage, which underpins much of current economic orthodoxy, argues that each nation and region should concentrate on the production of those items in which it has some kind of advantage, and hence the benefit of a significant cost edge over other producers. The constant drive for a competitive edge in costs and efficiency has a number of detrimental effects in agriculture, as a number of commentators have pointed out.

The environmental and health impacts of the overuse of fertilizers and pesticides have been well documented, following a large number of food contamination and other safety issues in China and elsewhere. However, a number of other environmental issues are now being raised. Controversially, some authors associated with Food First are now arguing that the food trade is now a significant contributor to global climate change (Schwind, 2005). The environmental costs of transporting food products often over very long distances are argued to be quite significant. This would of course be an argument against all kinds of international trade, but it is argued that agriculture need to be looked at very carefully since buying food locally can almost always be seen as a viable alternative. Schwind argues that if the citizens of the state of Iowa bought just 10 per cent more of their food locally they would collectively save 7.9 million pounds of carbon dioxide emission per year. Similarly, if Japanese families consumed local food instead of imported products, the impact would be equivalent to a 20 per cent saving in household energy use. While some food trade is inevitable, since crops such as coffee cannot be produced in many climates, a good deal of food transport is ecologically disruptive and wasteful, Schwind suggests. For example, Californian tomatoes are sent to Canada for processing into Heinz ketchup, and a significant amount is then returned to California for consumption.

The increasing commercialisation and scale of food production on a global scale is also increasing concerns about the impact on the environment of turning over large tracts of land to single crops, especially if this first involves the removal of forest cover or rain forest. The impact of soya bean and beef production in the Amazon region has received much attention in the international press, and there have also been concerns for the environmental impacts of large scale oil palm estates especially

in a number of Southeast Asian countries. In Malaysia, the world's largest producer of oil palm, some 54 per cent of total agricultural output is now accounted for by palm oil compared with 30 per cent in 1985. While declines in rubber cultivation partly account for this increase, concerns about the reduction in agricultural diversity are now being expressed. In Peninsula Malaysia some 62 per cent of all agricultural land is now devoted to oil palm production, and as land runs out for further expansion there, massive new estates are being developed in Sabah, resulting in considerable losses of rainforest. It is estimated that some 87 per cent of all deforestation in Malaysia is now the result of new oil palm developments. In Indonesia, oil palm production has increased 30-fold since the 1960s. Much of this new production is in Sumatra, again with large-scale losses of forest.

#### ***Local self-sufficiency and issues of food security***

Some commentators have argued that the growth of commercial agriculture throughout the world, the application of new scientific and technological advances to food production, processing, storage and distribution, and the growth of the global food trade have all served to reduce global hunger and the chances of renewed famine and starvation. However, the evidence on this is in fact very mixed. Certainly food production has increased markedly in much of Asia in recent years – for example, there was a 430 per cent increase in food production in China between 1990 and 2000, largely as the result of increased output of grain crops. However, these kinds of increases may not by themselves result in declines in the prevalence of malnutrition. Nor do programs designed to tackle problems of poverty always produce better results – the problems associated with food supplies are much more complex and multifaceted.

The concept of food security is perhaps the one that comes closest to expressing the reality of hunger, food availability and nutritional levels in a variety of environments. Food security is generally measured with reference to three quite distinct elements:

- *Food availability*: which measures the total food supply that can be accessed from local and other sources. Questions of the *reliability* of this supply are often included here as well.
- *Food access*: which evaluates the entitlement of people to an adequate food supply – which includes issues of power of various kinds – and their ability to access in various ways of purchase the inputs necessary to produce their own food or to buy an adequate amount of food.
- *Food utilisation*: which measures the capacity of individuals to utilise and absorb the nutrients in the food that they eat, including micronutrients. This concept raises issues of food safety and quality and evaluates the adequacy of hygiene, sanitation and food preparation facilities in local communities.

Using these measures a much more mixed and complex picture emerges of recent trends in Asia. India, for example, has moved from being a large food importer to being

now a major food exporter, but as recently as 2001 frequent cases of malnutrition were reported from all over the country. It is estimated that India still has some 200 million people living in hunger, or about 20 per cent of the population, although it has a current grain surplus of around 38 million tonnes. This picture is the result of poverty in large sections of the population, and many people are simply too poor to buy food. One of the key Millennium Development Goals is the halving of the number of hungry people between 1990 and 2015. However the FAO has reported that only 7 Asian countries are on target to meet this goal, while 8 Asian countries are in fact going backwards in terms of their targets. Some two-thirds of the world's undernourished people are still to be found in Asia, despite the real advances in food production in many areas, and India alone has more hungry people than are to be found in the whole of Africa.

A recent report by the Overseas Development Institute (Gill *et al.* 2005), based on seven detailed case studies of countries in Asia has put forward a number of reasons why food security is still such a serious problem in many parts of Asia:

- *Stagnating local production.* In many countries supplies of adequate land and water for increased food production are severely limited. The easy gains from the Green Revolution have now been used up.
- *Changes in prices for agricultural products.* Processes of trade liberalisation and changes in the structure of the global agricultural industry have tended to push up the prices of many of the inputs needed for food production locally. The rapid growth of industries and of urban areas is absorbing some of the best agricultural land. In some cases food prices more generally have increased, adversely affecting many consumers.
- *Lack of access to land.* Even where land is available in rural areas it is often taken by the richer and more powerful landowners, and smaller farmers are often denied land. Thus in many countries there are particular problems facing landless labourers, and this is compounded by seasonal factors. The hungry season is still a fact of life (or death) in many rural areas in Asia.
- *Rural-urban gap.* In many countries of Asia, the rapid growth of export-oriented industries has introduced a large income gap between urban and rural areas, and often between various parts of the country. For example, in China much attention is now being given to the large gaps between the coastal regions and those further to the west. Incomes are important factors here but so are differential access to power and influence over resource use.
- *Increased shocks and hazards.* Major economic shocks, notably the Asian financial crisis of 1997/8, continue to cause major problems for large sections of society, and some commentators have suggested that with an increasingly integrated global economy such crises may in fact become more frequent and their shocks may now

reverberate through larger numbers of countries. Similarly, many Asian nations are being seriously affected by natural disasters of various kinds. It seems certain that with global climate change these extreme events are going to be more frequent and catastrophic.

- *Conflicts and insurgencies.* In a number of countries in Asia there have been serious internal conflicts and insurgencies, resulting in severe hardship for many people. With increased competition for resources and increased gaps between the rich and the poor, such instability seems here to stay. There are also risks of terrorist attacks in several places.

#### ***Issues of nutrition and health***

Questions of what I referred to above as *food utilisation* are extremely important, and result in serious problems in many countries. Large parts of Asia are subject to iron deficiencies in their diet, and many suffer from Vitamin A and iodine deficiencies. Lack of iron results in anaemia and a consequent loss of energy and productivity. In India this deficiency is estimated to cost the economy some 1.3 per cent of GDP per year. Better availability of Vitamin A, it is estimated, could save some 1 million lives per year in Asia. It has been argued that such problems can more easily be solved through national food programs, and the presence of large quantities of imported food makes it more difficult to control nutritional and micronutrient components, but there is little real evidence on this. Contamination of water sources, often through the uncontrolled spread of manufacturing industries is certainly a serious problem that is directly related to structural changes taking place in many Asian economies.

#### ***Scales of production and the decline of the small farmer***

Many critics of the emerging global food trade point to its adverse impacts upon small farmers in much of the developing world. Once again, this is a complex and multifaceted issue, but it is possible to isolate a number of key factors and processes that are having an impact in much of Asia, consequences that many commentators see as very detrimental to the quality of life of large numbers of people.

- *Overproduction, dumping and export subsidies.* Currently the world has a large surplus in many food products, partly as the result of the large subsidies that are paid to farmers in many rich countries. The result is that many of these commodities are dumped on world markets at prices that bear little relationship to production costs. For example, prevailing world prices for rice are some 25-35 per cent lower than the costs of production in the United States. This is only possible through large production and export subsidies to farmers, and this is having a devastating effect on producers in poorer countries, farmers that in many cases are much lower cost producers of such crops. Yet the rich countries that control international institutions such as the IMF and the WTO ensure that poorer countries are

not allowed to give financial incentives to their farmers to stimulate higher production. Dumped food has a devastating impact on prices within many countries resulting in severe losses of income for most rural producers. It is hardly surprising then that at least 50 per cent of the people suffering from hunger are in the small farm sector of poor countries. Cheap food may be seen as advantageous to urban communities, but in fact devastation of rural communities results in increases in rural-urban migration, resulting in downward pressure on urban wage rates.

- *Land consolidation.* In a number of countries, the growing commercialisation of agriculture and the new opportunities offered to some large producers by an expanding global food trade is leading to the growth of a small number of very large production units, often through land consolidation. As was noted above, it is the landless rural labourer that is usually most vulnerable to poverty and malnutrition.
- *Growth of supermarkets.* The growth of supermarkets has resulted in the decline of traditional marketing channels of various kinds. These new retail units tend to concentrate their procurement practices, favouring the larger-scale farmers at the expense of the smaller farmers that traditionally supplied local markets. Such procurement practices are designed to drive down the prices paid to farmers, and tend to decrease the amount of money that is spent in the local economy. The result of all these forces is to squeeze out the smaller, local producers in favour of the larger units often based in rich countries.

### **Towards a more sustainable and effective regional food system**

The picture I have tried to paint in this short paper is a complex and multi-faceted one, and in many areas we simply lack enough knowledge and evidence. This is an area that evokes strong emotions, and sometimes this has resulted in simplistic or unrealistic analysis and policy advice. Yet it is clear from the evidence that I have cited that all is far from well with the food system(s) of Asia, and there is much work that must be done to improve current policies and programs. At present, the rise of the global food trade can be seen as just one facet of some much broader forces that we generally call globalisation. It is clear however that many of the consequences of these processes are not contributing to the welfare of the region's citizens. While it is certainly not possible to turn back the clock and remove all of these strong global tendencies, it is necessary to temper all of the most pernicious of these impacts. In particular, governments need to re-emphasise the national and the local rather than simply accepting the often deleterious impacts of internationalisation. This might be possible, since throughout the emergence of the Asian 'miracle' economies the role of government has been central, often to ensure the maximum benefits for local interests. Many governments in the region, for example in China, now realise that the unrestrained impact of international forces is resulting in

many dangerous economic, social and political impacts on local regional and communities.

But in many cases, as I have already noted, detailed evidence on which to base new policies is lacking, and a great deal of carefully targeted research is needed. In all of the cases I have outlined, the food industry is complex and multifaceted, and to understand the true nature of these emerging food systems we need research that concentrates on the entirety of the food system at all scales from global to local, isolating factors and forces that operate at all these levels. We also need to recognise that national communities are becoming more differentiated, and we must therefore expect that some will gain and some will lose from the new features that are emerging again at various geographical scales.

All of this will require an approach that stresses the complex linkages that exist throughout all parts of these emerging food systems. Of necessity, this will involve collaborative research between a wide range of disciplines. We need to understand the nutritional outcomes as they impact on communities and individuals, but in order to do this we need to appreciate the political economy of food systems, of trade in agricultural commodities, of food production systems and wide array of other things. This will be difficult, but it is important that we make a start, because no other topic is of greater importance in determining the future quality of life of the region's population.

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