

Chapter 7

Global financial and food crises: a Malaysian's perspective

by
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I. Introduction

High food prices from 2007 through mid-2008 spawned serious implications for food security, macroeconomic stability and even political stability in many countries, especially developing ones. Subsequently, the unfolding global financial crisis and economic slowdown have inadvertently pushed food prices down by about 40 percent; prices have settled at higher than pre-crisis levels, perhaps marking the end of the cheap food era. The financial crunch has also dampened the availability of capital at a time when accelerated investment in agriculture is most urgently needed. These dynamics have invariably culminated in a 'double whammy' to many countries, especially the poor and marginalized ones. However, beyond the gloom and doom, there are, as always, opportunities in times of crisis, particularly in the East.

In this regard, Moisi (2008) reminds the world that, "the torch of history seems to be passing from West to East" and, paraphrasing French President Francois Mitterrand, she suggests that "growth is in the East and debts are in the West. Furthermore, fear is in the West and hope is in the East." Consequently, recent developments may well provide a golden opportunity for Asian economies to show the way to global recovery by bringing back increased and shared prosperity in a more holistic, inclusive and sustainable development mode.

This paper considers the food and financial crises from a Malaysian perspective with an Asian orientation and optimistic slant, while incorporating a business dimension (given the increasing importance of public-private partnerships). Unfortunately, it is not sufficiently grounded empirically nor is it yet the result of rigorous analytics. This paper is also motivated by the author's urge to share some of his thoughts, aspirations and concerns at this forum.

It explores the interrelatedness of the unfolding financial and food crises and some of the accompanying policy challenges and their impact on and the increasing relevance of agriculture. The paper hones in on food security issues and new dimensions regarding the future of food from a Malaysian's perspective. It highlights Malaysia's time-tested strategic approach to food security and argues that although it has served the country well so far, Malaysia has to be cognizant of emerging trends and refreshing, innovative ideas and initiatives geared towards sustainable development and a better future for all. The paper emphasizes the need to get the balance right in making the necessary strategic adjustments as Malaysia moves with guarded optimism into the future.

The underlying theme of this paper is that it is prudent to recognize the interplay and linkages between the financial and food crises and to find opportunities and examine the relevance of Malaysia's strategic approach to food security, promises of biotechnology and agrifood supply chains and trading networks. It is also important to examine innovative ideas or initiatives to be able to get the right balance. This will involve balancing between "rolling with the punches" and exploiting the opportunities accompanying the crises with eyes firmly fixed on contributing to sustainable development at the local, national, regional and global levels.

⁴⁶ This paper was prepared by Dr Larry Chee-Yoong Wong, Senior Fellow, Institute of Strategic and International Studies (ISIS), Kuala Lumpur, Malaysia.

II. Linkages between the food and financial crises

“While people in the developed world are focused on the financial crisis, many forget that a human crisis is rapidly unfolding in developing countries. It is pushing poor people to the brink of survival. The financial crisis will only make it more difficult for developing countries to protect their most vulnerable people from the impact of rising food and fuel costs.”

Robert Zoellick, President, World Bank, 2008

What has been and continues to be reported in the mainstream media is quite unsettling, to say the least. In late January, the IMF cut its world growth estimate for 2009 to 0.5 percent, the weakest pace since the Second World War. The United States, the European Union and Japan are in recession. Some say that the advanced economies are in depression. The United States’ economy has lost 3.57 million jobs since the recession started in December 2007, its biggest employment slump of any economic contraction in the post-war period. The United Kingdom’s economy will shrink this year by the most since 1946. Developing Asia, on the other hand, is still expected to expand by 5.5 percent this year, albeit at the slowest pace since 1998.

Addressing a gathering of central bankers from Southeast Asia in Kuala Lumpur recently, IMF Managing Director Dominique Strauss-Kahn said, “Stimulus packages alone will not succeed in dragging the global economy out of recession unless confidence is restored in the banking system.”

It is interesting how outlook and perspectives have changed over the last year or so. It may be recalled that at last year’s World Economic Forum in Davos, its president and founder Klaus Schwab declared, somewhat rhetorically, that they would address “what business can do to save the world”. However, a year later the question most certainly seems to have been reversed to “what the state can do to save the business of finance”. In many important ways, it now appears that it is the state that is called upon as the ultimate saviour of capitalism!

Despite massive government interventions (including stimulus packages) announced by advanced countries since the last quarter of last year, business confidence is still largely subdued. This was more than evident at the recently concluded World Economic Forum 2009 in Davos, Switzerland, attended by more than 40 heads of government and 2 500 business leaders. One after another they ventured that bad days are still ahead and that one could not yet expect a light at the end of the tunnel.

Beyond this gloom and doom and despite not being able to be entirely insulated from the fallout from this financial tsunami originating in advanced countries, it is crucial for countries to chart courses that build on their inherent strengths, mitigate their weaknesses and ferret out and exploit selected opportunities that will undoubtedly accompany these crises. Towards this end, it is imperative that policy-makers fully understand the key linkages between the food and financial crises.

In retrospect, both new and ongoing forces drove up the prices of food commodities and food products, causing a major food crisis in 2007–2008. Population and income growth, rising energy prices and subsidized biofuel production have contributed to surging demand and consumption of agricultural products. At the same time, productivity and output growth have been restricted by natural resource constraints, sustained underinvestment in rural infrastructure and R&D over the last one to two decades, limited access to inputs and weather disruptions. The financial crisis in mid-2008, however, stemmed from fundamentally different causes – flawed regulatory regimes and sub-prime mortgage lending. The two crises have fed on each other. Fuelled with capital diverted from the collapsing housing market and lacklustre bourses, speculation in commodities and agricultural futures and ad hoc market and hastily cobbled trade policies, the level of volatility of commodity prices heightened.

Although the food and financial crises developed from different underlying causes, they are becoming inextricably linked in complex ways through their ramifications on financial and economic stability, food security and even political stability.

The food crisis has also added to general inflation and macroeconomic imbalances, to which governments must respond with monetary and fiscal policies. At the same time, the financial crunch and the accompanying economic slowdown have pushed food prices to lower levels by decreasing demand for agricultural commodities for food, feed and fuel. Furthermore, as capital becomes scarcer and more expensive, the expansion of agricultural production to address the food crisis has been somewhat curtailed.

Because the two crises are inextricably linked, a coordinated response is needed, especially to alleviate the “double whammy” on the poor and ride out this storm.

III. New challenges and opportunities for agriculture and food security

It is recognized that agricultural growth is a crucial element in resolving food price crises, enhancing food security and accelerating pro-poor growth. After almost two decades of policy neglect and underinvestment in public goods (such as agriculture R&D, rural infrastructure and information and monitoring), high food prices have provided some positive incentives for policy-makers, farmers and investors to increase agricultural production and productivity. At the country level, global price changes or volatility have been transmitted in varying degrees because of factors such as logistics and freight costs, domestic policies and market structure. However, most countries recorded general patterns similar to the global trends.

This variability in food prices often poses a problem for medium-term and longer-term planning. For example, farmers and investors in developing countries who took advantage of rising agricultural prices and invested in expanding production may now find themselves unable to pay off their debts because of falling output prices. As banks cut lending because of the financial crisis, broader plans for investment in agriculture on a sectoral basis or along entire supply chains are also at risk of being scaled back.

Consequently, it would be prudent to retrace the major drivers for the renewed interest in agriculture around the turn of the century and to consider how a self-elected net food importer like Malaysia addresses food security.

IV. Why was agriculture back on the agenda?

Since the turn of the century, interest in agriculture is resurging after about two decades (since the mid-1980s) of neglect or disinterest by academics, researchers, donor communities and some developing countries. This resurgence of interest was largely fuelled by a new understanding that growth in the agricultural sector plays a major role in overall growth and poverty reduction through the sector’s linkages to manufacturing and services. These linkages are created through the supply chain and international trading network. They connect the poor to growth along the agrisupply chain.

There are four basic drivers of this renewed interest in agriculture:

- The agribiotechnology (or green biotechnology) revolution in the development of genetics (including genetically modified organisms (GMOs) and non-GMOs), microbiology and diagnostics, coupled with information and communications technology (ICT) and nanotechnology, will continue to revolutionize and push out agricultural production and

profit frontiers. The twenty-first century is touted as the “biology century” and there are great expectations that agribiotechnology can contribute greatly to innovations, cost reductions, productivity improvements, new processes and new products.

- The expansion of supply chains and trading networks means that future competition will no longer merely be between firms, but rather will be between supply chains and trading networks, comprising groups of companies intricately linked through partnership and strategic alliances at the various levels of the supply chain. They will provide linkages for agriculture to the manufacturing and service sectors in a broader and more holistic agri-business framework. In so doing, they will contribute towards local, regional and overall growth.
- The rise of supermarkets in Asia has transformed agrifood supply chains, especially food retail markets. There are new important opportunities for farmers to diversify into high-value crops with greater demand potential and capture some of the value-added being generated by the supermarkets and increasingly sophisticated and stochastic supply chains and international networks. They also increasingly connect farmers and other stakeholders more directly to changing consumer preferences and demand. Whether this is a boon or bane for farmers and stakeholders at different levels of the supply chain depends as much on public policies as on the ability of the farmers and stakeholders to be proactive and adaptable and work together.
- It is recognized that as urbanization occurs at unprecedented rates, economic growth generated by agriculture (and the value added along the supply chain) is the main vehicle for reducing poverty and preserving the environment in rural areas.

With the economic downturn, the construction and manufacturing sectors in most economies are expected to be the first to be affected and perhaps hit the hardest. However, within manufacturing there is general concurrence that food manufacturing is still expected to grow. Furthermore, especially in developing countries, the agriculture sector (and to a certain extent the informal sector) is expected to cushion the problem of rising unemployment. Agriculture, by its nature, has great propensity to soak up unemployment and diffuse related tension, largely due to the rural population’s ability to share poverty.

Taken together, all of these factors are compelling many researchers and governments to re-examine the role of agriculture in economic development, reassess the sector’s relative strengths and endowments and rebuild development plans and programmes. It is therefore important to better understand and track the drivers, especially in these turbulent times.

V. Promise of agribiotechnology

The advances in agribiotechnology are nothing short of staggering and promise much with the mapping of rice and other genomes and the spread of biotech crops. The twenty-first century has been touted as the “biology century” and agribiotechnology is expected to lead to “new agriculture” where plants and animals are endowed with new value-creating mechanisms. Consequently, there is focused R&D in biofarming (e.g. biotech crops, biofertilizers, biopesticides), biopharming (e.g. biofactories for insulin and vaccines), biofuels, bioplastics and bioremediation.

Teng (2007) contends that the reported crop biotech R&D to date is “just the tip of the iceberg”. In the area of agronomic traits, there is progress in biotic stress (e.g. insect and disease resistance) and herbicide tolerance, abiotic stress (e.g. drought, cold, heat and poor soil tolerance), desired or hedonic quality traits (e.g. taste, shelf-life, nutrients, seedless), novelty products (e.g. oils, nutraceuticals) and renewable resources (e.g. biomass converting, biofuels or energy farming). A more detailed listing of the possibilities is provided in Figure 1.

Figure 1: Crop biotech R&D to date – “just the tip of the iceberg”

- Agronomic traits
 - Biotic stress
 - Insect resistance
 - Disease resistance: viral, bacterial, fungal, nematode
 - Weed-herbicide tolerance
 - Abiotic stress
 - Drought, cold, heat, poor soils
 - Yield
 - Nitrogen assimilation, starch biosynthesis, O₂ assimilation
- Quality traits
 - Processing
 - Shelf-life
 - Reproduction: e.g. seedlessness
 - Nutrients (Nutraceuticals)
 - Macro: protein, carbohydrates, fats
 - Micro: vitamins, antioxidants, minerals, isoflavonoids, glucosinolates, phytoestrogens, lignins, condensed tannins
 - Anti-nutrients: phytase, allergen and toxin reduction
 - Taste
 - Architecture
 - Fibre
 - Ornamentals: colour, shelf-life, morphology, fragrance
- Novel crop products
 - Oils
 - Proteins: nutraceuticals, therapeutics, vaccines
 - Polymers
- Renewable resources: Biomass conversion, feed stocks, biofuels

Source: Adapted from Teng, 2007.

There are great expectations that agribiotechnology will contribute greatly to innovations, cost reductions, productivity increases, new processes and new products that will benefit mankind in general. However, these changes will unequally benefit different stakeholders in the supply chains, as is the case with all forms of technology.

VI. Management of supply chains and international networks

A central tenet of supply chain management (SCM) is that competition in the future will no longer be between firms but rather will be between supply chains, comprising groups of companies intricately linked through partnerships and alliances at various levels of the chain. A cursory review of the literature indicates that SCM has been applied from the perspective of an individual firm, related to a particular product or item (such as the supply chain for oil palm, rubber or rice) or from the perspective of an industry group or sector (such as grains and agrifood).

Because all components along the supply chain need not belong to one company or group, varying degrees of strategic alliances can be observed at the operational level – from loose structures (Joint Venture “at the door”) to dedicated or designated suppliers (e.g. supermarkets) to cross investments. At the operational level, there is significant value being added along the entire supply chain. Furthermore, supply chains can reduce asymmetry of information at interfaces with each subsequent

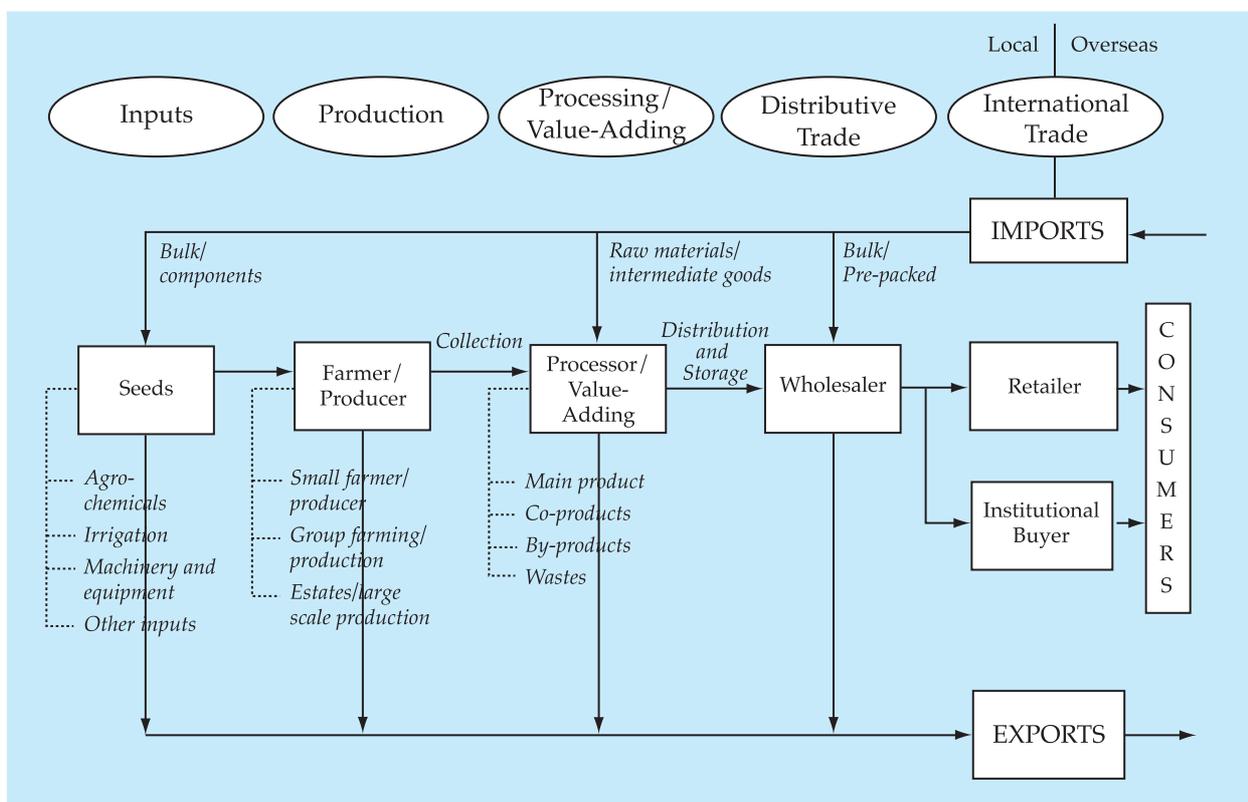
level, thereby reducing transaction costs, increasing feedback and improving response rates to changes in consumer preferences and tastes. This allows premiums to be captured. Of course, this information sharing is greatly facilitated, enhanced and even revolutionized by recent advances in ICT.

Empirical evidence suggests that margins can be shared amicably and sustainably along supply chains and that prices can be transmitted back to farmers and producers. Consequently, an appealing strategy is to hook up (or integrate) small-scale farmers and producers with increasingly sophisticated local supply chains (involving supermarkets) and more lucrative overseas markets, especially niche markets.

In Malaysia, supply chains can and will speedily exploit advances in biotechnology and its impending convergence with ICT and innovations. Similarly, there will be exponential growth, if and when the interconnectivity of supply chains is exploited, as is already happening with telecommunications and multimedia superhighways.

From a policy and institutional standpoint, most government interventions and programmes in Malaysia are overtly “production-centric” to such an extent that the farming and production subsystem is not well linked or integrated and is often out of sync with the post-harvest subsystem. As can be gleaned from the big picture of a generalized agrifood supply chain depicted in Figure 2, the power of supply chains is the value that can be added at each level of the chain when agriculture is viewed from its broader and more holistic agribusiness perspective. This allows agriculture to drive overall development by leveraging the inherent advantages and potential of nations at the levels of input, processing and wholesale, retail and international trade. Via its linkages in the supply chain, agriculture will also contribute to overall national economic growth from agro-based industries and their added value and from agro-based services and consultancies at all levels of the supply chain.

**Figure 2: Agrifood supply chain – from ‘seed to shelf’:
potential economic activities**



This underlying rationale forms the cornerstone of the current Malaysian administration's re-emphasis of agriculture as an engine of growth. A key challenge, however, is to ensure or facilitate the orderly and balanced development of supply chains because, as with all chains, their strength (or competitiveness) is invariably determined by their weakest link. The potential economic activities and avenues for adding value along the entire agrifood supply chain, from "seed to shelf", are depicted in Figure 2.

In many important ways, Malaysia had a head start because agriculture was accorded very different treatment in the Ninth Malaysia Plan (2006–2010); the Plan included revitalizing the sector as one of its key aims and the sector featured strongly in each of the five key thrusts of the national mission. In 2004, the Ministry of Agriculture (MOA) was restructured and renamed the Ministry of Agriculture and Agro-based Industry (MOAAI) and then Chapter 3 of the Plan was entitled, "Strengthening Agriculture and Agro-based Industry". For the first time, the Plan presented and discussed growth, export and employment figures for agriculture and agriculture plus agro-based industry combined. The country also witnessed the introduction of the term "new agriculture" and MOAAI's tag line that "agriculture is business".

The Plan stated: "During the Ninth Plan period, the agriculture sector will be revitalized to become the third engine of growth. The emphasis will be on New Agriculture which will involve large scale

Table 1: Value added of agriculture and agro-based industry, 2000–2010

Commodity	RM Million (in 1987 prices)			% of Total			Average Annual Growth Rate (%)		
	2000	2005	2010	2000	2005	2010	8MP		9MP
							Target	Achieved	Target
Agriculture	18 662	21 585	27 517	100.0	100.0	100.0	2.0	3.0	5.0
Industrial Commodities	11 033	13 278	15 521	59.1	60.6	56.4	0.7	3.8	3.2
Oil Palm	5 860	7 915	10 068	31.4	36.7	36.6	3.4	6.2	4.9
Forestry and Logging	3 055	3 016	2 761	16.4	13.0	10.0	-5.6	-0.3	-1.7
Rubber	1 868	2 264	2 554	10.0	10.5	9.3	1.1	3.9	2.4
Cocoa	250	83	138	1.3	0.4	0.5	0.1	-19.8	10.8
Food Commodities	7 629	8 308	11 996	40.9	39.4	43.6	4.0	1.7	7.6
Fisheries	2 493	2 389	3 875	13.4	12.6	14.1	4.1	-0.9	10.2
Livestock	1 520	2 089	2 483	8.1	8.1	9.0	6.0	6.6	3.5
Padi	590	632	988	3.2	3.4	3.6	2.7	1.4	9.4
Other Agriculture	3 026	3 198	4 650	16.2	15.2	16.9	3.2	1.1	7.8
Agro-Based Industry	13 584	16 928	22 221	100.0	100.0	100.0	4.0	4.5	5.6
Vegetable and Animal Oils and Fats	2 526	3 639	5 614	18.6	21.5	25.3	6.3	7.6	9.1
Other Food Processing, Beverages and Tobacco	4 010	4 790	6 333	29.5	28.3	28.5	2.0	3.6	5.7
Wood Products including Furniture	2 934	2 972	3 761	21.6	17.6	16.9	0.6	0.3	4.8
Paper and Paper Products, Printing and Publishing	2 293	2 640	3 275	16.9	15.6	14.7	3.4	2.9	4.4
Rubber Processing and Products	1 821	2 887	3 238	13.4	17.1	14.6	4.7	9.7	2.3
Total Agriculture and Agro-Based Industry	32 246	38 513	49 738				2.7	3.6	5.2
Gross Domestic Product at Purchaser's Prices	210 558	262 029	351 297					4.5	6.0

Source: Department of Statistics and Economic Planning Unit.

commercial farming, the wider application of modern technology, production of high quality and value-added products, unlocking the potential in biotechnology, increased convergence with ICT and the participation of entrepreneurial farmers and a skilled workforce. The function of agricultural services will also be streamlined to enhance service delivery and efficiency.” [9MP, p. 81]

Interestingly, agricultural value-added grew at 3 percent per year over the Eighth Plan period, higher than the target of 2 percent⁴⁷ as shown in Table 1. Agriculture and agro-based industry grew at 3.6 percent. Over the 9MP period, agriculture is expected to grow at 5 percent per year and agriculture and agro-based industry are expected to grow at 5.2 percent. In 2005, agricultural value-added was RM21.6 billion (in 1987 constant prices) (US\$6.2 billion) or 8.2 percent of GDP, while agricultural plus agro-based industry value-added in 2005 was RM38.5 billion (US\$11.0 billion) or 14.7 percent of GDP. This is targeted to increase to RM49.7 billion (US\$14.2 billion) or 14.2 percent of GDP in 2010.

VII. Malaysia’s strategic approach to food security

Food security, very much like love, means different things to different people and under different circumstances. Maxwell (1996) in his review encountered 32 different definitions! Be that as it may, the current widely accepted definition is, “food security exists when all people at all times have physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life”.⁴⁸ Food security has three dimensions:

- availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports;
- access by households and individuals to adequate resources to acquire appropriate food for a nutritious diet;
- utilization of food through adequate diet, water, sanitation and health.

Malaysia has adopted a pragmatic strategic approach linking food security (mainly focused on rice which is the basic staple and a political crop) and economic growth (growth with redistribution) at the macro and micro levels. At the macro level, the approach involves leveraging policy control over the sectoral composition of income growth and stabilization of food prices. At the micro level, it involves rural development, focusing on:

- rural education and human resource development that is accessible to the poor and females;
- rural clinics, including health care and family planning;
- home economics and nutrition education.

Schematically, the strategic approach comprises three components (see Figure 3):

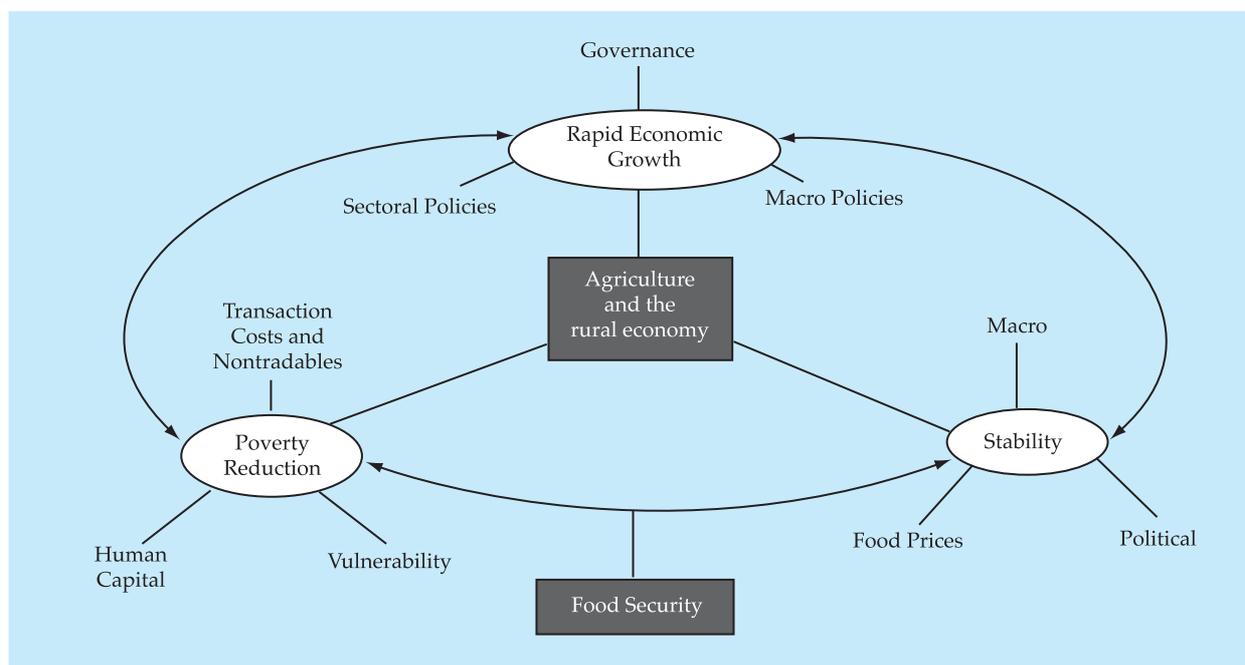
- rapid growth in the macro economy;
- poverty eradication through rural economic growth (i.e. “pro-poor” growth);
- stability of the food system.

The important thing is that the net result of adopting this pragmatic approach is that we consistently got the job done, despite using an approach sometimes frowned upon by some economists because of arguments regarding distortion and efficiency.

⁴⁷ It should be pointed out that this 2 percent is the revised target adopted in the Mid-term Review (MTR) of 8MP, revised down from the original target of 3 percent. In retrospect, having achieved 3 percent annual growth is commendable recalling that in the 7MP, the original target for agriculture was 2.4 percent and it was revised down to 1.9 percent in the MTR; the final achieved rate was 1.2 percent.

⁴⁸ This definition was agreed at the World Food Summit, 1996 and endorsed at the follow-up summit of 2002.

Figure 3: A macro perspective on the determinants of food security
Three virtuous circles of activity, held together by agriculture and the rural economy



Source: Adapted from Timmer, 2004.

Given Malaysia's enviable economic position as well as rapid globalization and technological change, it would seem more relevant to focus on food self-reliance than on food self-sufficiency, which has often been linked to food security. While Malaysia is a small, open economy, it is a large trading nation, ranked in the top 20 (WTO, 2008); its total trade exceeded RM1 trillion (US\$284.9 billion) for three consecutive years since 2006. In 2008, Malaysia was ranked 19th on the World Competitiveness Scoreboard and 18th in the A.T. Kearny/Foreign Policy Globalization Index. That same year Malaysia enjoyed a healthy trade surplus (i.e. balance of trade) of RM108.46 billion. Malaysia was also ranked 20th out of 181 economies surveyed in the 2008 World Bank Doing Business Report.

Malaysia does not envisage serious problems in sourcing and importing the balance of its food requirements in the future, given its extensive trade links, excellent international relations and healthy trade surplus and the absolute quantity and types of food demanded. In other words,

Table 2: Malaysia's self-sufficiency levels in food commodities, 2000–2010
 (in percentage)

Commodity	2000	2005	2010
Rice	70	72	90
Fruits	94	117	138
Vegetables	95	74	108
Fisheries	86	91	104
Beef	15	23	28
Mutton	6	8	10
Poultry	113	121	122
Eggs	116	113	115
Pork	100	107	132
Milk	3	50	5

Source: Ninth Malaysia Plan.

Table 3: Malaysia's food exports and imports, Ninth Malaysia Plan (2000–2010)

Commodity	RM million			% of Total			Average Annual Growth Rate (%)	
	2000	2005	2010	2000	2005	2010	8MP Achived	9MP Target
Exports	5 268.6	7 986.8	15 501.0	100.0	100.0	100.0	8.7	14.2
Live Animals	357.4	425.1	467.0	6.8	5.3	3.0	3.5	1.9
Meat and Meat Preparations	64.6	85.9	2 895.0	1.2	1.1	18.7	5.9	102.1
Dairy Products	410.2	413.2	520.0	7.8	5.2	3.4	0.1	4.7
Vegetables	278.4	491.6	614.0	5.3	6.2	4.0	12.0	4.5
Fruits	512.4	471.9	2 153.2	9.7	5.9	13.9	-1.6	35.5
Sugar, Sugar Preparations and Honey	353.7	479.2	474.6	6.7	6.0	3.1	6.3	-0.2
Cereal and Cereal Preparations	610.8	916.6	576.5	11.6	11.5	3.7	8.5	-8.9
Fish, Crustaceans, Molluscs and Preparation thereof	1 263.3	2 265.9	4 624.7	24.0	28.4	29.8	12.4	15.3
Feeding Stuff for Animals	375.3	547.1	531.0	7.1	6.9	3.4	7.8	-0.6
Others	1 042.5	1 890.3	2 645.0	19.8	23.7	17.1	12.6	6.9
Imports	10 543.5	15 435.0	14 276.9	100.0	100.0	100.0	7.9	-1.5
Live Animals	154.6	177.4	127.0	1.5	1.1	0.9	2.8	-6.5
Meat and Meat Preparations	771.4	1 054.6	1 262.0	7.3	6.8	993.7	6.5	3.7
Dairy Products	1 176.5	1 745.1	1 533.0	11.2	11.3	121.5	8.2	-2.6
Vegetables	1 023.6	1 620.2	670.0	9.7	10.5	43.7	9.6	-16.2
Fruits	561.6	694.9	812.1	5.3	4.5	121.2	4.4	3.2
Sugar, Sugar Preparations and Honey	1 085.8	1 406.0	1 216.0	10.3	9.1	149.7	5.3	-2.9
Cereal and Cereal Preparations	1 839.1	2 267.1	1 464.8	17.4	14.7	10.3	4.3	-8.4
Fish, Crustaceans, Molluscs and Preparation thereof	1 085.8	1 851.9	841.0	10.3	12.0	5.9	11.3	-14.9
Feeding Stuff for Animals	1 928.4	2 838.2	4 303.0	18.3	18.4	30.1	8.0	8.7
Others	917.3	1 779.6	2 048.0	8.7	11.5	14.3	14.2	2.8

Malaysia is and will continue to be quite comfortably food self-reliant. Consequently, it is not surprising that the country has elected to remain a net importer for rice and other food items as spelled out in the Ninth Malaysia Plan (Tables 2 and 3).

VIII. Innovative work and ideas

Two highly innovative works and ideas are thought-provoking and inspiring. The first is that of Ambler-Edwards *et al.* (2008) working out of Chatham House⁴⁹ while the second stems from Tay (2008).

Ambler-Edwards *et al.* (2008) contend that over the next few decades, the global food system will come under renewed pressure from the combined effects of seven fundamental factors: population growth, the nutrition transition, energy, land, water, labour and climate change. Consequently, the United Kingdom, which is an elected net importer of food like Malaysia, cannot afford to take its food supply for granted. They further posit that:

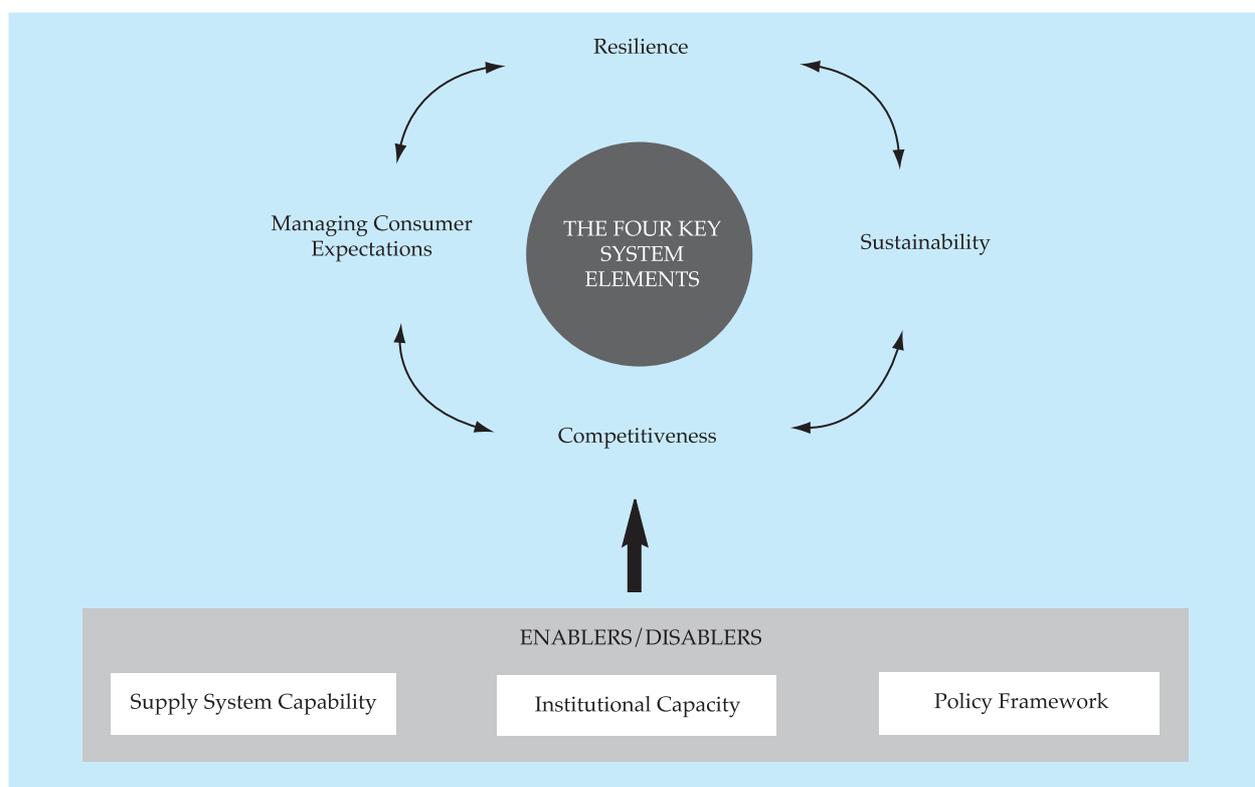
⁴⁹ Chatham House has been the house of the Royal Institute of International Affairs for over eight decades. Its mission is to be a world-leading source of independent analysis, informed debate and influential ideas on how to build a prosperous and secure world for all.

- in light of emerging trends, “business as usual” models could “at worst fail and at best be poor preparation for the coming period”;
- food supply arrangements in the United Kingdom will be required to operate profitably around a significantly higher price norm, one that increasingly reflects the true cost of resources and incorporates wider social and ecological considerations;
- a system that is able to reconcile the often-conflicting goals of resilience, sustainability and competitiveness and that is able to meet and manage consumer expectations will become the new imperative;
- new capabilities, policy frameworks and institutions will become the cornerstone of the new system.

Ambler-Edwards *et al.* provide the framework and basic considerations for developing a strategic vision for the new system. It may be beneficial to highlight some of them because they should be relevant, with necessary modifications, to many Asian countries. In relation to the new supply framework, they identified four characteristics as being of increasing importance in a future food supply system (see Figure 4):

- resilience – a system able to assure longer-term availability in light of increasing global uncertainties;
- sustainability – a system that can supply safe, healthy food with positive social benefits and low environmental impacts;
- competitiveness – a system capable of delivering affordable food around a potentially higher baseline of costs;
- managing consumer expectations – a system which shapes and responds to consumer preferences in line with societal needs.

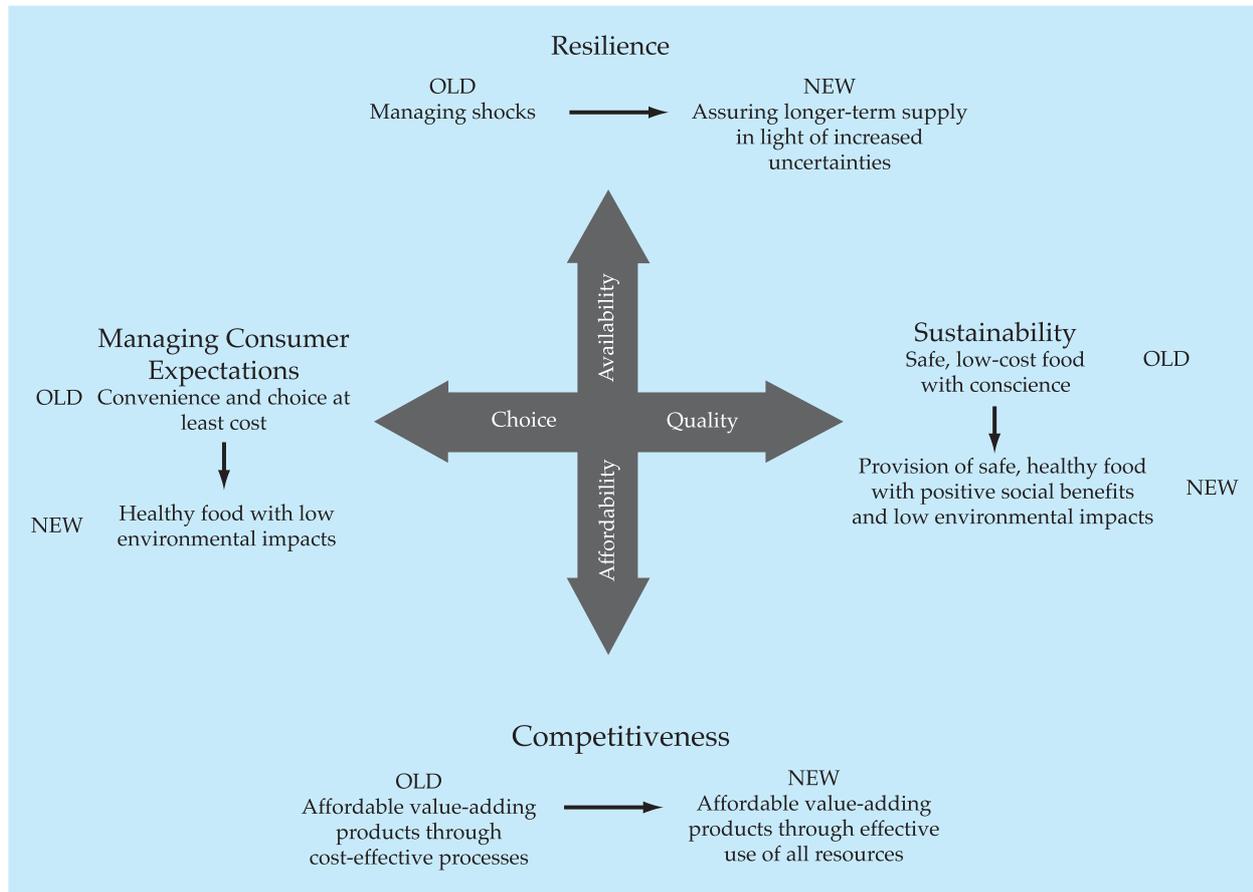
Figure 4: The new supply framework



Source: Adapted from Ambler-Edwards *et al.* (2008).

The reconciliation of these characteristics or elements will create the central challenge of the next decade. This will require a different approach with the development of a new framework of policies, institutions and supply system capabilities. For the sake of exposition and completeness, the transition path from the old to the new goals is presented in Figure 5.

Figure 5: Transition from old to new goals



Source: Adapted from Ambler-Edwards *et al.* (2008).

Closer to home, Tay Kheng Soon (see Tay, 2008), a distinguished architect and Asian visionary, has convincingly argued that in Asia’s mad dash to urbanization, the countryside has been all but completely forgotten. He argues to conceive of the city and countryside as one space – not two – to foster and support social, cultural and environmental justice. In short, he presents an Asian form of sustainable development and an opportunity for the East to lead the world in ideas.

Among other things, Tay highlighted a Mechai Viravaidya-driven, Thailand People and Community Development Association (PDA) initiative started four years ago in Limplimat, one of the poorest areas in Northeastern Thailand. The PDA built a primary school where 180 students were enrolled through a lucky draw, most of them coming from very poor rice-farming families from surrounding villages. The school’s teaching philosophy is a mix of Montessori, Waldorf and Buddhist educational ideas. Each class has 20 students, one teacher and two trainee teachers and is equipped with two internet-linked computers.

Adjacent to the school is a village community centre (designed and built by Tay) which accommodates, among other things, the Rice Academy, where the villagers and children learn about new rice varieties, growing methods and other agricultural knowledge. It also houses a craft shop, internet café, library and radio station, where every afternoon the primary school students broadcast stories

and lessons to surrounding schools. This prompted Tay's question: "If ten-year old kids can be empowered to do this, what might they not do when they grow up?"

Limplimat now has a village bank that provides microcredit. A secondary school (to eventually accommodate the primary school students and which Mechai terms "the poor man's university") is under construction. Besides the usual curriculum, the secondary school will have a business programme, a design school and courses in hygiene and bare-foot medicine. It will be a green school with every classroom and teaching space generating its own electricity through roof-top solar panels. All rainwater will be collected, filtered and reticulated. All solid and liquid wastes will be processed on-site for biogas and compost.

The entire superstructure of the buildings will be made of treated bamboo. Although the author has yet to visit this project, he has had the privilege of viewing some slides and plans. They are impressive and heart-warming because they underscore what is possible when people learn to live their Asian values and, in so doing, forge their own brand of sustainable development. Some projects are in various stages of discussion in a couple of countries in the ASEAN. Tay's clarion call is, "Cities of Asia, behold the countryside and imagine the possibilities. See one space, not two!"

At this juncture, it's worth recalling Moisi's (2008) sentiments mentioned earlier regarding the East. In this regard, it is perhaps appropriate to add Tay's (2008) suggestion that "new satisfactions in life are necessary to wean people from the present environmentally destructive tendencies in the economic pattern of production and consumption. However, shifting from the individualistic and materialistic value system, implicit in the development model of the West, needs fundamental innovation incorporating traditional Asian values of responsibility for family, environment and community."

IX. Moving forward

Crucial elements from this discussion can be distilled and incorporated into immediate and longer-term plans and goals. Countries should consciously strive to get the balance right as they respond, as individual nations and as a region, to weather the storm wrought by the combined effects of the financial and food crises and to seek the opportunities accompanying these crises. They should also garner the resolve and master the discipline to transform and develop new supply systems incorporating various aspects of the refreshing ideas and innovations outlined above.

More focused and holistic studies should be conducted as a basis for strategic government interventions and public-private partnership initiatives. Such studies will facilitate sustainable development and management of new supply systems and networks, innovative applications of the promises of biotechnology advances and incorporation of innovative strategies, policies and programmes. Ultimately, all these efforts should support an appropriate, balanced response to the food and financial crises and the need to put the house in order in relation to food self-reliance, optimum public-private partnerships, productive and equitable sectoral linkages and the interests of stakeholders along agrifood supply chains.

X. Conclusion

There are well-founded reasons to be guardedly optimistic about Malaysia's and Asia's prospects and their ability to weather the storm and harness and exploit opportunities from the current financial and food crises. However, the increasing need to "get the balance right" should be underscored. The dynamic interplay between agrifood supply systems, agribiotechnology and evolving innovative work and ideas can and should be harnessed to generate wealth, income and stability and to ensure food security at the local, national, regional and global levels.

A key challenge is to continuously address the fundamentals of population growth, the nutrition transition, energy, land, water, labour and climate change, as well as emerging trends, new ideas and innovations. Another challenge is to mount multidisciplinary empirical studies to better understand the interplay and impacts of these factors and to guide policy so that future development and progress can be more balanced and sustainable.

It is important to recall Moisi's (2008) sentiments and Tay's (2008) passionate plea to shift from the individualistic and materialistic value system implicit in the development model of the West to one driven by updated traditional Asian values of compassion, humility, care for others and the environment. It is blindingly clear that Asians stand at a moment of considerable risk and great opportunity to try and shape their collective destiny in the twenty-first century.

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