

Economic development and its influences and risks for nutrition, cuisine and health

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This paper reviews the evidence on some of the major trends in economic development at a global level and assess their influence on food, nutrition and health. Food and nutrition are themselves broad topics, and each is influenced by a myriad of local and international forces, making them both interesting and important, but also challenging in their complexity. It is especially difficult to deal with such a vast and complicated terrain in such a short paper, and one must inevitably deal only superficially with a number of complex areas. This paper will review a number of key forces for change in the global system, with a focus on the implications of each for food and nutrition. Each area is central to the experience of economic, social and political development, particularly in the period since 1945, and each is tied in various ways with that complex and interrelated set of changes that we call globalisation. Seven key factors will be explored: global population growth, leading to strong pressures on world availability of arable land and food; increasing integration in the global economy, as measured through such things as trade, financial flows and information exchanges, and with specific implications for the food industry and for trade in food products; growing gaps between rich and poor countries; similar increases in disparities between rich and poor segments within individual countries; the rapid growth of cities in the developing world, resulting in massive challenges for the food supply systems of many nations; the growth within some countries, for example in a number of Asian countries, of a "new middle class" with distinctive patterns of consumption; and, high levels of population movements between countries resulting in the creation of significant communities of immigrants in a number of nations. Examples will be drawn from the two regions familiar to the author, Asia and Sub-Saharan Africa, but with a particular emphasis on East Asia.

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The pressures of global population growth

The growth of the world's population is not a new phenomenon of course, but the pressures that derive from sheer numbers of people are being viewed with a new urgency. Precise predictions of future population numbers are difficult for several reasons. We have seen in a number of countries, for example in East Asia, rapid declines in birth rates as a result of economic change, and it is not clear whether such stabilisation will also take place soon in countries such as India. The precise impact of various diseases, notably HIV/AIDS is also difficult to predict. However, most projections suggest that even taking into account these factors, global population numbers will still increase substantially over the coming decades. In particular, a number of recent studies have questioned whether it is possible for the world to support a population of 10 billion, something that is expected to be achieved around the middle of this century.^{1,2} Even before the achievement of this important symbolic milestone, a number of critics have sounded the alarm about the carrying capacity of the Earth, and our ability to feed an ever increasing number of people. It took until 1500 to achieve the first half billion, and until 1825 to reach the first billion. By contrast, the sixth billion was recorded in only a little over a decade, from 1986 to 1998.

There are, of course, wide differences of opinion over the question of whether current and future levels of population are sustainable, especially in terms of supplies of food and water. On the one hand we have the pessimism of Thomas Malthus and his Chinese counterpart Hung Liang-chi, and more recently of Paul Ehrlich, while other have confidently predicted that any potential crisis will be solved through technological progress.³ Some have even suggested that a population of 50 billion could be accommodated given potential scientific advances. It is generally recognised that there are six important ways in which the supply of food can be increased to meet future need:¹

1. Increases in the area of land under cultivation.
2. The use of higher yielding varieties to increase output per hectare.
3. Increase in the intensity of crop production through the achievement of more crop harvest each year.
4. Replacement of lower yielding crops with more productive ones.

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5. Reduction of post-harvest losses.
6. Reduction in the amount of produce fed to animals.

Up to 1960, expansion of the area under cultivation was the major source of increased food output, but since then the area under cultivation has expanded only slowly. At present, some 1.34 billion hectares are under crops, and it is estimated that some 3 billion hectares more might be available, but much of this land is of poor quality, inaccessible, vulnerable to erosion or too valuable in its present use, for example the rich and biologically diverse forest areas of the Amazon and elsewhere in the Tropics. In addition, much good quality arable land is being consumed by urban growth or is being ruined by desertification, salinity or industrial pollution, a topic that will be addressed later. Thus, intensification of crops and the generation of higher yielding varieties seem to offer the best hope for continued increases in food output, but opinion is divided on the extent to which this may be possible. It may be that the limiting factor in the intensification of agriculture may be the supply of water for irrigation. Between 1900 and 1995, consumption of water grew by six times, or twice the rate of population increase. Now, more than 500 million people live in areas with chronic water shortages, and this is expected to increase to some three billion in the next 20 years.³

There is also the unanswered question of what impact global warming may have on food production in the coming years. In any event, the generation of sufficient food for a world population of 10 billion will require enormous changes at all levels. Even to feed a population of 8 billion would require the average world yield of cereals to rise to a level equal to the yields achieved in Europe and North America at present, and an increase to 10 billion would mean an increase of 25 per cent above these average outputs per hectare. This is a daunting prospect, and highlights the need for continued emphasis on policies to limit national population growth in a wide range of countries. As Ruttan⁴ has pointed out, any attempts to tackle this complex set of problems – technical, institutional, environmental, cultural, political and more – will require much more than just science, and must rest on intense multidisciplinary efforts.

Within the Asian context, much attention has been focussed on China and India, questioning whether these two very large societies can feed their growing populations in the future. In the case of China, Brown⁵ has consistently presented a rather negative view of the prospects, arguing that increased urban expansion and the compromising of agricultural yields through industrial pollution of land, air and water resources are bound to limit the expansion of food output. Yet, others have given a much more optimistic assessment.

Globalisation and its implications: the growth of the international food industry

We are constantly told that we are living in an era of globalisation, and the common message is that this is a completely new phenomenon. There are indeed some new features of life in our age, but as Gray⁶ has pointed out, this is perhaps the third time since the middle of the

nineteenth century that free trade and global integration of various kinds have been to the fore. As he points out, global levels of trade, movements of peoples over long distances, international flows of capital, the dominance of multinational corporations, and improved communication systems are not inventions of the 1990s, but were strongly present, for example, in the 1880s. Indeed, on a per capita basis population movements were rather larger in the nineteenth century than they are now. There are some important differences however. Communication systems are certainly more effective now, and the nature of capital flows is rather different, and certainly much larger.

Arguably, there have been some changes that have implications for food and nutrition, but there have also been some continuities. A major change has been in the scale of the global financial flows devoted to various kinds of speculation. In earlier phases of internationalisation, the amount of money flowing between countries was roughly equal to the flow of trade moving in the opposite direction, plus some international investment of one kind or another. Now, by contrast, by far the largest component of financial flows consists of short term speculative capital, moving at a bewildering pace seeking profits from what is essentially betting on the future value of commodities, share prices, currencies or whatever. Strange⁸ has called this “casino capitalism”. She suggests that this has added considerably to the volatility experienced in most commodity markets, including those in agricultural products, much to the detriment of producers, especially those in poorer countries. The sheer scale of the money moving at a global level now, plus the rapid flow of both information and money through technological improvements, coupled with the relaxation of many older forms of regulation by governments, has created a gambling system that can produce great wealth for some, but impoverishment for many others. Related to this kind of globalisation is the increasing use of offshore banking facilities which, among other things have been used extensively by unscrupulous national leaders to lodge the large sums stolen from their countries and their people. This is something also explored in a later book by Strange⁸ which concentrates on what she calls “mad money”, the next stage in the development of the casino.

The growth of large conglomerates and multinationals is certainly not new, but again the scale is very much larger now. McMichael⁹ has argued that since the 1980s we have seen a drastic restructuring of global agro-food systems, again as a result of reductions in the level of regulation undertaken by many governments. This has involved, among other changes, the drastic reorganisation of markets and technologies, increased flexibility in production and marketing systems, growing specialisation in food systems, expansion of a number of niche markets for fresh and processed foods, increased use by agribusiness corporations of contract farming on a global scale, and the development of intensive meat complexes. This has involved, as he points out, an increased emphasis on national competitiveness, often at the expense of national coherence in policy formulation in the agriculture and food sectors.

Another important innovation has been the emergence of a much more global culture and pattern of consumption, including the emergence of some symbolically important food retailers such as McDonalds and Starbucks. In part this has reflected the growth of a global entertainment and film industries based predominantly in the United States, which has brought images of a new lifestyle to peoples around the world. The significance of these trends will be examined below.

International disparities in growth, income and living standards

One enduring feature of the global system is the massive disparity in incomes between rich and poor countries, although a lively debate is currently raging on whether the gap is now widening or narrowing (for some wildly divergent views see, for example, Dollar & Kray¹⁰, Easterly¹¹). Much of this debate involves arguments about the reliability of various statistical sources and the appropriateness of alternative measures of growth, but it also moves around the question of whether globalisation and free trade have exacerbated or reduced levels of inequality. But what seems to be the picture is that practically all of the growth that has taken place in the developing countries is to be found in the Asia, in China, the Newly Industrialising Countries (NICs) and more recently in India. The rest have been left very far behind, and this is particularly true for Africa. Thus we still have a very strong division in the international system between the rich and the poor, with important consequences for food and nutrition.

Almost 30 years ago now, Susan George published her classic study of the problems in the global food system, under the title *How the Other Half Dies*.¹² In this study she argued that the major problems stemmed from the inordinate control that interests in the rich countries have over the livelihood of people in the poor countries, including their food. Given the very large role of US based companies in the international food trade, Washington has acquired the power of life and death over millions of needy people.

This is exactly what food has become: a source of profits, a tool of economic and political control; a means of insuring effective domination over the world at large and especially over the 'wretched of the earth'.

(George¹², p.16)

Since then, very little seems to have changed for the better. In a recent study of the political economy of food¹³ (Action Against Hunger, 2001) exactly the same points are made about food as a weapon of control, both between and within nations. But a particular problem that they highlight is the use of food as a weapon in regional conflicts and in civil wars. Thus, they argue, we must now consider food security as central to the broad new definitions of security that are emerging.¹⁴⁻¹⁶ We have seen one manifestation of growing impatience with this situation in the recent stand taken by a number of developing countries at the WTO meeting in Cancun. There the most important issue was agriculture, and the unwillingness of the Europeans and the Americans to

dismantle the system of agricultural subsidies that has distorted the world market in agricultural products for decades. These subsidies have allowed products from the rich countries to flood the commodity markets in developing countries, forcing local farmers out of business. At the same time, producers in poor countries have been denied access to markets in the rich countries. There is more general resentment in the developing countries about their lack of power over a whole range of issues relating to food - the rules governing trade, quarantine regulations, non-tariff barriers of various kinds are only some of the most salient concerns.

This area is bound to receive a lot of attention in the coming months. It is certainly too early to write off any new round of trade agreements. Such large and complex negotiations always take time, but there does seem to be a new mood in North-South relations, partly as a result of the leading role that China, India and Brazil have taken in voicing the concerns of the poor countries.

Growing disparities within nations

There is also a very bitter debate raging about the impact of globalisation and economic liberalisation on levels of income disparities within countries. Gray⁶, among others, has argued that in this current period of economic liberalisation, as in earlier ones, differences in income between various segments of society have increased dramatically. He has gone so far as to postulate that it was the political instability that resulted from this polarisation of incomes that caused the downfall of the earlier reform regimes, and that similar instability will also lead to the abandonment of the current obsession with "economic rationalism". Marked differentials in access to food are, of course, an important component of these growing pressures.

Mirroring the situation at the international level, we have essentially two quite distinct worlds, each with its own patterns of food consumption, nutrition and health. In the developed world, the life of the richer segment is one of wide choice in food items from around the globe, a more than adequate total calorie intake, and a life expectancy that is generally above the nation average.¹⁷ Causes of death are generally from the so-called lifestyle diseases, principally heart disease, cancers, strokes and the like. By contrast, the poorest segments of society are generally recognised to be significantly worse off than they were in the 1950s or 1960s. This is particularly true in those societies that have been most enthusiastic in their embrace of market reforms. In the United States a series of studies have highlighted the plight of a significant number of the poorer groups, including the aged as well as some ethnic groups and many blue-collar workers displaced by the closure of traditional sources of employment especially in the manufacturing sector.¹⁸

Within poor countries, the contrasts are even greater, with a small rich elite and a generally impoverished mass of the population. Here, little has changed for decades - we have exactly the situation and the consequences for food that Susan George railed against 30 year ago.¹² There is some evidence that the elite group now takes in a rather larger percentage of the population, but a number of studies have also suggested that the privations suffered

by the large majority of the population have, if anything, intensified. One partial exception to this generalisation is in the Asian NICs, where the distribution of the wealth derived from rapid industrialisation has been significantly more even, at least until very recently. This new and quite significant middle class in Asia is the topic of the next section of this paper.

The rapid spread of urbanisation

One of the most dramatic and important changes that has taken place at the global level in the last decades is the growth of cities and towns, and in particular the explosion of very large urban areas or “megacities”. Until recently, large cities such as New York and London were seen as an expression of modernity, prosperity and power. Now, large cities are predominantly to be found in developing areas, and in many cases they contain large concentrations of extreme poverty. Rural distress, malnutrition and low income levels are still to be found in the countryside, but policy makers must also now take account of such problems in many urban environments.

The percentage of the population in low income countries classified as urban increased from 24 per cent in 1980 to 31 per cent in 2001, and in absolute terms the total urban population of poor countries now stands at 773 millions, more than is found in the towns and cities of the rich countries.¹⁹ Particularly remarkable has been the growth of very large cities. In Guinea, for example, 32 per cent of the population now live in cities of more than one million inhabitants, compared with only 12 per cent in 1980. In Pakistan the comparable figures are 15 per cent in 1980 and 25 per cent in 2001. In China, urban population has increased from 193 million in 1980 to 467 million in 2001, or from 20 per cent of the total population to 37 per cent, with 17 per cent now living in cities of more than one million. Four extended metropolitan regions have now emerged in China – the Pearl River Delta, the Lower Yangtze Delta, the Bohai Rim and the Liaoning Corridor.²⁰

The implications of these developments for the food situation in many countries are numerous and complex. As was noted earlier, the growth of cities often takes place in areas that are also among the best agricultural land, and there have been frequent studies showing that the growth of industry creates pollution that can have a significant impact on soil fertility. Thus, urbanisation has a clear detrimental effect on food supply. The concentration of the population in cities, and especially very large metropolitan areas, also complicates the chain of food supplies that must be created, putting severe strain on the planning system. In the case of China, the growth of the population, changes in its distribution, and problems in meeting demand for food from local producers, will probably result in large increases in agricultural imports. It is estimated that imports of agricultural products will increase by an average of 15 per cent over the next decade.²¹ This will put pressure on the well-established concerns for food security that emerged in the wake of the famines of the 1960s.²²

The emergence of the “New Middle Class”

The growth of the “new middle class” or the “new rich” in Asia represents a transformation of staggering proportions.^{23,24} This group now constitutes quite a large section of the population of nations such as South Korea or Japan, but it is clear that this “class” is very diverse, and much effort has been put into defining terms and identifying sub-groups. Much has also been written about why it should be that in Asia the process of growth has resulted in much higher levels of equity than in the West, although in the last decade inequalities in Asia have also increased sharply. But from the point of view of this discussion, one of the most interesting debates concerns the extent to which this large group has become “Westernised”, especially in its patterns of food consumption. While much has been made of the expansion of Western processed food franchises into Asia, a number of commentators have argued that the foodways have remained remarkably stable, and still very much Asian.

All five of these East Asian countries [Japan, South Korea, Taiwan, Hong Kong and Singapore] have embraced Western capitalism. Most of their people are dressed in Western suits; many of them speak English; a good proportion of them travel, study, and do business abroad. In their outward appearance these Asian nouveaux riches are Westernised. Yet behind this façade the people of these countries pursue a way of life that remains essentially Oriental. They prefer to eat oriental food, observe lunar-calendar-based festivities, place the family at the centre of their social and economic relationships, practice ancestor worship, emphasise frugality in life, maintain a strong devotion to education, and accept Confucianism as the essence of their common culture.

*(Tai, 1989, 1-2)*²⁵

A number of critics have however questioned this formulation. For example, the assertion of continued frugality flies in the face of much evidence about the growth of consumer cultures and the fashion industry in the region, especially among young women. Food, however, seems to be rather different from other consumer items, and the shifts there are rather less marked. For example, in the Asian society with which I am most familiar, South Korea, there is still a marked preference for Korean food even among the young people, and even a revival of restaurants serving identifiably “peasant” food and drinks. The growth of a new group of relatively rich consumers in the burgeoning urban centres of China has also attracted a great deal of interest in the literature, but without any real consensus emerging on the key questions of change versus continuity.^{26,27}

An important new contribution to this debate, and one that bears directly on the issue of changing or stable foodways is a recent study out of Hong Kong that investigates Chinese food consumption in a number of settings.²⁸ In part, the chapters in this book consider the impacts of migrations of various groups on their food consumption patterns, something that will be touched on

below, but some also examine processes of change within communities undergoing rapid economic change. Space does not allow me to do justice to the very rich evidence that emerges from this study, but the dominant conclusion is that change and continuity in cuisine are very complex and subtle phenomena, and subject to a great deal of variety within individual settings. Foodways are changing, especially among the young, but there is also a great deal of affection for the traditional and tried components of diet, and adaptation of old patterns. We simply do not know enough about such changes in a wide variety of environments, and this is one of the challenges for the current conference.

International population movements and their impacts

Although, as we have seen, large-scale population movements are not a new phenomenon at the global level, there are some important new patterns in these migrations in the current era. There is a great deal of diversity in the current flows of population: many are refugees fleeing wars, famines and a range of environmental disasters; others are poor economic migrants seeking any kind of life in new lands that must offer better prospects than their impoverished homelands; and still others are highly skilled professionals moving between or within corporations located in any one of the growing urban centres of the new global economic system. In some cases, these new arrivals conform enthusiastically to the patterns found in their new homes, but in most cases many of the old ways also survive. The evidence seems to suggest that foodways are perhaps the last remnants of the old to disappear. Food habits, it appears, survive even longer than language in many migrant groups. But, again, patterns of food consumption, in this case in an overseas situation, reflect a subtle combination of both continuity and change, processes about which we know far too little. As Chee-beng²⁹ has concluded in a study of food patterns among the Chinese community of Malaysia:

Chinese immigrants to Malaysia (or for that matter anywhere in the world!) carried with them Chinese principles of cooking and consuming food (reflecting regional characteristics in China). These principles have persisted and the localised Chinese have used them to related to the local environment, modifying some principles and creating new ones in the process. Cultural principles are used creatively in local settings which are open to regional and global influences. Chinese Malaysian food and foodways today reflect both historical continuity and local transformations, as well as local identities.

(Tan Chee-beng, 2001, p.154)²⁸

This observation on the complexity of patterns of change, survival and adaptation in the modern global economy serves as a very appropriate point on which to conclude this brief discussion. Patterns of development in the modern era are characterised by complex mosaics of growth and impoverishment, opportunity and desperation. The study of changing foodways in this complicated environment is important in its own right, but it has also

much to teach us about the subtleties of the broader processes that are currently reshaping the world.

References

1. Evans LT. Feeding the Ten Billion: Plants and Population Growth, Cambridge: Cambridge University Press, 1998.
2. Brunel S. Feeding ten billion people? In: Action Against Hunger, The Geopolitics of Hunger, 2000-2001. Boulder: Lynne Rienner, 2001; 247-250.
3. Newbold KB. Six Billion Plus: Population Issues in the Twenty-Fist Century. Lanham MD: Rowman & Littlefield, 2002.
4. Ruttan V. Population growth, environmental change and technical innovation: implications for sustainable growth in agricultural production. In: D Ahlburg, A Kelley, K Mason, eds. The Impact of Population Growth on Well-Being in Developing Countries. Berlin: Springer, 1996; 139-174.
5. Brown L. Who Will Feed China? New York: WW Norton, 1995.
6. Gray J. False Dawn: The Delusions of Global Capitalism, London: Granta, 1998.
7. Strange S. Casino Capitalism, Manchester: Manchester University Press, 1997
8. Strange S. Mad Money, Manchester: Manchester University Press, 1998.
9. McMichael P, ed. The Global Restructuring of Agro-Food Systems, Ithaca: Cornell University Press, 1994.
10. Dollar D, Kray A. Spreading the wealth. Foreign Affairs 2002; 81 (1): 120-133.
11. Easterly W. The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics, Cambridge Mass: MIT Press, 2002.
12. George, S. How the Other Half Dies: the Real Reasons for World Hunger. Harmondsworth: Penguin, 1976.
13. Action Against Hunger, The Geopolitics of Hunger. Boulder: Lynne Reinner, 2001.
14. McRae R, Hubert D, eds. Human Security and the New Diplomacy: Protecting People, Promoting Peace. Montreal & Kingston: McGill-Queens University Press, 2001
15. Tow R, William R, Thakur Ramesh, Hyun In-Taek. Asia's Emerging Regional Order: Reconciling Traditional and Human Security, Tokyo: United Nations University Press, 2000.
16. McKay J. APEC's role in political and security issues. In: R Feinberg, ed. APEC as an Institution: Multilateral Governance in the Asia-Pacific, Singapore: Institute of Southeast Asian Studies, 2003; 229-266.
17. Fine B, Heasman M, Wright J. Consumption in the Age of Affluence: The World of Food. London: Routledge, 1996.
18. Lieberman T. Hunger in the United States. In: Action Against Hunger, The Geopolitics of Hunger, 2000-2001. Boulder: Lynne Rienner, 2001; 303-312.
19. World Bank. World Development Report 2003, Oxford: Oxford University Press, 2003.
20. Rimmer P. The Spatial Restructuring of Northeast Asia in the New Millennium. Korea Observer 2003; 34: 559-588.
21. Australia. China's Industrial Rise: East Asia's Challenge, Canberra: Department of Foreign Affairs and Trade, Economic Analytical Unit, 2003.
22. Fan Gang. China's 'compatible opening': lessons from the Asian Crisis. In: T Fisac, L Fernandez-Stembridge, eds. China Today: Economic Reforms, Social Cohesion and Collective Identities. London: Roudledge Curzon, 2003; 28-52.
23. R Robison, D Goodman, eds. The New Rich in Asia: Mobile Phones, McDonalds and Middle-Class Revolution, London: Routledge, 1996; 225-242.

24. Pinches M, ed. *Culture and Privilege in Capitalist Asia*. London: Routledge, 1999.
25. Tai Hung-chao, ed. *Confucianism and Economic Development*, Washington DC: Washington Institute Press, 1989.
26. Goodman, D. The People's Republic of China: the party-state, capitalist revolution and new entrepreneurs. In: R Robison, D Goodman, eds. *The New Rich in Asia: Mobile Phones, McDonalds and Middle-Class Revolution*, London: Routledge, 1996; 225-242.
27. Buckley C. How a revolution becomes a dinner party: stratification, mobility and the new rich in urban China". In: M Pinches, ed. *Culture and Privilege in Capitalist Asia*, London: Routledge, 1999; 208-229.
28. Tan Chee-beng. Food and ethnicity with reference to the Chinese in Malaysia. In: D Wu, Tan Chee-beng, eds. *Changing Chinese Foodways in Asia*. Hong Kong: Chinese University Press, 2001; 125-160.
29. Wu D, Tan Chee-beng, eds. *Changing Chinese Foodways in Asia*. Hong Kong: Chinese University Press, 2001.