

odi Briefing Paper

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FOOD POLICY OLD AND NEW

The character of the food system and the nature of food policy are both changing, as urbanisation, technical change and the industrialisation of the food system transform the way food is produced, marketed and consumed in developing countries. The challenges are daunting and immediate – and need to be on the agenda of policy-makers throughout the developing world.

Policy-makers are used to thinking about the food problem in developing countries in terms of 'food security'. Their attention has been focused on hunger and malnutrition, food subsidies and feeding programmes, drought shocks and rehabilitation. Those concerns remain valid, especially in the poorest countries. At the same time, a new set of concerns is forcing its way onto the agenda. The changes are summarised in Box 1. Few countries conform exactly to the 'old' or 'new' characterisations in the table but most – including the poorest – are moving along a continuum from old to new.

Urbanisation, industrialisation and globalisation mean that the

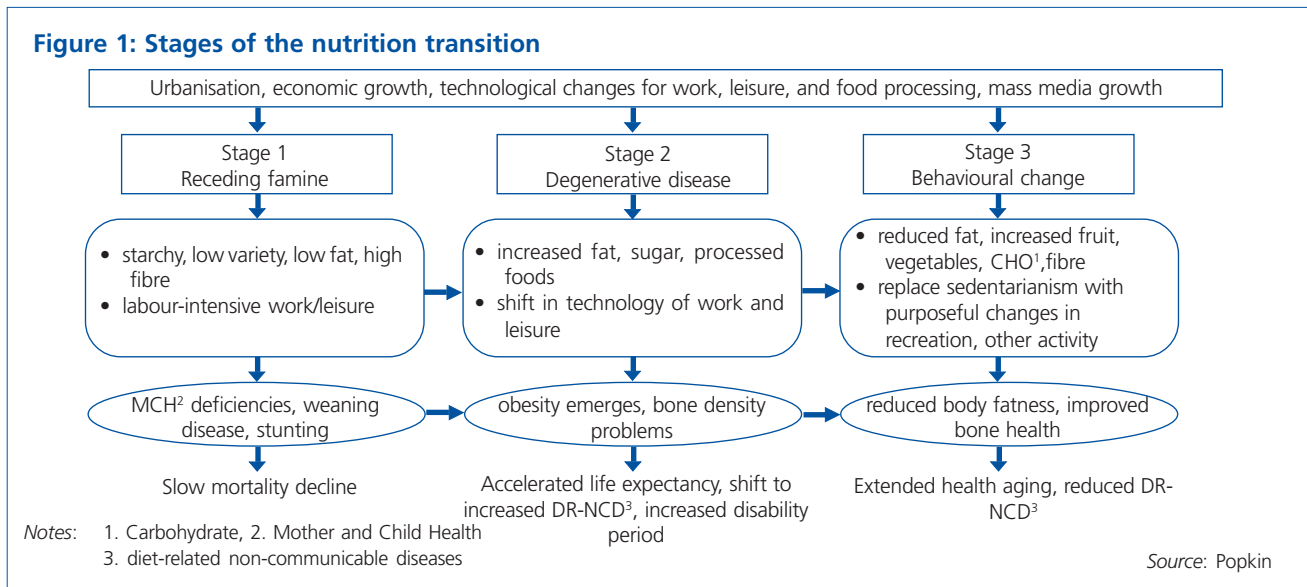
food system can no longer be viewed simply as a way of moving basic staples from farm to (local) plate. Food is increasingly produced by commercial growers, feeding long and sophisticated supply chains, and marketing often processed and branded products to mainly urban consumers. This change can only accelerate as urbanisation proceeds. For example, there will be an additional 300 million urban dwellers in India by 2020, an additional 200 million in West Africa by the same date: feeding these increasing, and in principle increasingly affluent, numbers will require further transformation of the food system. As in current food security analysis, policies with regard to the production, marketing and consumption of food will be inter-linked: the need for an over-arching food policy will be reinforced.

Food businesses, including supermarkets, play an increasing role, not only in moving food between countries, but also in food supply chains within developing countries. In parts of Latin

Box 1: Food policy old and new

		Food policy 'old'	Food policy 'new'
1	Population	Mostly rural	Mostly urban
2	Rural jobs	Mostly agricultural	Mostly non-agricultural
3	Employment in the food sector	Mostly in food production and primary marketing	Mostly in food manufacturing and retail
4	Actors in food marketing	Grain traders	Food companies
5	Supply chains	Short - small number of food miles	Long - large number of food miles
6	Typical food preparation	Mostly food cooked at home	High proportion of pre-prepared meals, food eaten out
7	Typical food	Basic staples, unbranded	Processed food, branded products More animal products in the diet
8	Packaging	Low	High
9	Purchased food bought in	Local stalls or shops, open markets	Supermarkets
10	Food safety issues	Pesticide poisoning of field workers Toxins associated with poor storage	Pesticide residues in food; Adulteration Bio-safety issues in processed foods (salmonella, listeriosis)
11	Nutrition problems	Under-nutrition	Chronic dietary diseases (obesity, heart disease, diabetes)
12	Nutrient issues	Calories, micronutrients	Fat ; sugar; salt
13	Food-insecure	'Peasants'	Urban and rural poor
14	Main sources of national food shocks	Poor rainfall and other production shocks	International price and other trade problems
15	Main sources of household food shocks	Poor rainfall and other production shocks	Income shocks causing food poverty
16	Remedies for household food shortage	Safety nets, food-based relief	Social protection, income transfers
17	Fora for food policy	Ministries of agriculture, relief/ rehabilitation, health	Ministries of trade and industry, consumer affairs, finance; Food activist groups, NGOs
18	Focus of food policy	Agricultural technology, parastatal reform, supplementary feeding, food for work	Competition and rent-seeking in the value chain, industrial structure in the retail sector, futures markets, waste management, advertising, health education, food safety
19	Key international institutions	FAO, WFP, UNICEF, WHO, CGIAR	FAO, UNIDO, ILO, WHO, WTO

Figure 1: Stages of the nutrition transition



America, for example, the market share of supermarkets has increased rapidly, to the point where supermarket groups, often transnational, now account for 50–60% of all food marketing. A similar pattern is found in Asia, though so far more in China and the rest of East Asia than in India and South Asia. Even in South Africa, the figure is 55% – and the South African chain, Shoprite, has 64 outlets in 13 other countries outside South Africa. Wherever supermarkets appear, the supply chain undergoes significant change, with producers facing new requirements for quantity, quality, timeliness and traceability: small producers, in particular, often find these demands difficult to meet.

Even for those who do not sell to or buy from supermarkets, there are big changes, particularly as a result of urbanisation. In urban areas, rich and poor households acquire a significant share of their calories outside the home, because they work further from their homes and because the opportunity costs of time spent cooking food can be high. The share is often highest for the poor: there is evidence of this from Ghana, Bangladesh and the Philippines. The ‘street foods’ sector offers employment, especially for women, but is also associated with poor hygiene and diet quality.

Accompanying other changes is the ‘nutrition transition’ (Figure 1), a shift towards a diet high in fat, sugar and refined food, and low in fibre, found throughout the world and at progressively lower levels of income. This has serious health and public and

private spending implications. For example, the health costs of changes in diet are leading insurance industries and Finance Ministries in the developed world to take an unaccustomed interest in issues like obesity and heart disease. Again, these problems are increasingly found in developing countries – obesity is equal to or higher than in the US in countries as diverse as Mexico, Egypt and South Africa. By 2020, the cost of diet-related non-communicable diseases (including heart disease and diabetes) will exceed the cost of under-nutrition in both India and China. Obesity, it is important to note, is often a marker of poverty, associated as much with poor diet as with affluence.

Finally, food safety issues pose new challenges, particularly for regulation (Box 2). The 2002 debate over genetically modified (GM) food aid in Zambia highlights that, even in developing countries, biotechnology is highly controversial. However, contrary to public perception in Europe, diseases resulting from technological applications in agriculture (for example from agricultural residues, pesticides and veterinary drugs) account for less than one per cent of food-borne diseases. More dangerous is contamination by bacteria, parasites, viruses and fungi that are introduced during food handling. Problems are emerging in rapidly growing cities in developing countries, particularly where food retailers do not have access to clean potable water. Food safety has already become an important driver of food policy reform: witness the furore associated with ‘mad cow’ disease and foot and mouth in the UK.

Box 2: Food Quality and Safety: Global and Developing Country Issues

- An estimated 70 per cent of the approximately 1.5 billion annual cases of diarrhoea in the world are caused by biological contamination of foods
- Contaminated food plays a major role in the epidemiology of cholera and other forms of epidemic diarrhoea, substantially contributing to malnutrition
- Overuse of antibiotics has led to the appearance of resistant strains of bacteria. Factors contributing to this include overuse of antibiotics in farm animals and crops.
- Microbial contamination is commonplace where hygiene is poor, frequently because of lack of access to clean water.
- Misuse and excessive use of pesticides sometimes lead to dangerously high residues in food
- Where inspection systems are weak, countries are vulnerable to dumping of unsafe food by unscrupulous traders
- Exports of poor-quality food to developed countries can lead to rejection of shipments, depriving the exporting countries of foreign exchange and causing hardship in farming communities.

Issues in the new food policy

Many observers are concerned about the implications of change in the food system. They point to the competitive pressure on small farms, the concentration of power in marketing and distribution, the pressure of advertising on consumers, and the health costs of the nutrition transition. These matter in themselves, but food issues carry additional weight because food is central to social and cultural well-being. As Dowler has observed, ‘food is more than a bundle of nutrients: it represents an expression of who a person is, where they belong and what they are worth, and is also a focus for social exchange’. The US, Canada and New Zealand are all examples of countries where subjective assessments of food security have come to play an important part in surveys of poverty: respondents talk about the risk of basic insufficiency, but also about the importance of being able to eat the same diversity of food as other people and provide food for visitors and special occasions.

In thinking about these issues, it is important not to be

dismissive of technical and organisational changes which increase productivity and efficiency. The many actors in the world food system, including farmers, have been astonishingly successful in increasing the supply and diversity of food, whilst simultaneously reducing prices. Innovations shift the production function outwards and help improve both technical and allocative efficiency. They have included the Green Revolution, which, despite much criticism, turned out to be good for poor people; and also a whole set of innovations in manufacturing and distribution (from the Chorleywood process for baking bread to the use of satellite tracking of lorries delivering food to supermarket distribution centres).

Imperfect competition

At the same time, there are genuine concerns. First, the risk of market failure is ever present, and there is at least circumstantial evidence of oligopoly, monopsony and rent-seeking in the food system. Concentration in input supply, processing, manufacturing and marketing is frequently cited, often across national boundaries. For example, the market share of the top twenty food manufacturers in the US has doubled since 1967, with 100 firms now accounting for 80% of all value-added in the sector. In Europe also, there is rapid concentration. For example, large multinational food chains are emerging, such as Carrefour, with branches in 26 countries, and Ahold, with branches in 23 countries.

Concentration does not in itself prove uncompetitiveness, but it does raise questions about power along the global supply chain, and about the scope for regulation by single states. This is a major theme of global value chain analysis, of which there has been a good deal, especially in the horticulture sector. It also explains why competition authorities in developed countries have taken an interest in the food sector: for example, the UK Competition Commission carried out an enquiry into the supermarket sector in 2001. As it happens, it found the UK industry to be broadly competitive.

Rents can also be earned as a result of trade policy, by a combination of tariffs and preferences, and usually accrue not only to the intended recipients (usually producers), but also to intermediaries of various kinds, including traders and processors. The costs are borne by consumers. The EU sugar regime illustrates the dilemmas. A substantial and usually prohibitive tariff is in place on imports to the EU, equivalent to about 116% *ad valorem*, but a number of countries in the Africa, Caribbean, Pacific Group, the ACP, have tariff-free quotas to sell into the European market. The benefits of artificially high sugar prices in Europe, borne by consumers, are shared with the main sugar cane refiner, Tate and Lyle. A major shake-up to the regime will happen when the EU's Everything But Arms regimes comes fully into force in 2009. All least developed countries will be able to export to the EU tariff-free, but competition between them may lead to a redistribution of benefits in favour of the intermediaries. Consumers will also gain from lower prices if imports increase and force down Beet prices.

Externalities

Second, health and environmental externalities are also important. The figures cited for the health costs of poor diet are remarkable. For example, the costs of diet-related non-communicable diseases (DR-NCDs) are already substantial, amounting to 0.35% of GDP for India (in 1995–6) and to 1.6% of GDP for China (1998). These figures will grow rapidly in the next few decades. In the UK, it has been estimated that the National Health Service could save £30 billion a year by 2022 if the population ate better, were less obese, and took more physical activity (and also smoked less).

The environmental costs of modern agriculture can also be

high: in the UK, for example, the estimate is £2.3 billion per annum or £208/hectare. Water is another focus of concern throughout the world.

Winners and losers

Third, the income distribution effects of changes in the food system need to be kept under review. In the wider literature, for example about the Green Revolution, or about agricultural growth more widely, the consensus is that increases in output tend to benefit the poor, because they are small farmers themselves, or work on farms, or buy food the price of which is falling – though different poor people will gain, depending on the precise outcome. But there also needs to be a focus on the difficulties faced by the poor – as producers, traders and consumers. In the worst case, small farmers and traders may be squeezed out of supply chains, and poor consumers may find themselves either paying higher prices for a less healthy diet and/or facing a degree of social exclusion because they live far from supermarkets or cannot afford the kind of diet society considers normal.

Policy-making

Fourth, policy-making and regulation are problematic. This is partly a familiar problem of how to deal with a cross-cutting issue, but it arises particularly in relation to 'new' topics like biotechnology, and to other issues that cut across national borders. For example, the environmental risks of biotechnology are specific to particular places and therefore need to be assessed at country level. Such assessment is expected under both the WTO Agreement on the Application of Sanitary and Phytosanitary Measures and the Cartagena Protocol on Biosafety – but quite apart from cost and capacity issues, the science itself is evolving rapidly and is often uncertain. Furthermore, individual countries also have more scope for discretion than sometimes realised, for example in determining acceptable risk levels – and this may lead to disputes.

The process of improving policy is also problematic: the science is complex and may be contested; the links between production, marketing and consumption are also complex; public opinion may or may not give priority to certain issues; and, as always, there are many interests in play. Few countries have a coherent food and nutrition policy, or even a coherent capacity to make food policy. Certainly, in developing countries, the many food security units set up following the African famines of the 1980s are strangers to the new agenda.

What might be done?

Ideas about what might be done range from those well outside the narrow remit of food policy, such as views on urban design and the connectivity of streets, designed to encourage higher levels of physical activity, to those which are very precisely about food, such as increasing the price, and thereby reducing the attraction, of unhealthy diet options.

One focus has been how to help small farmers participate successfully in more integrated supply chains. Sometimes, farmers and traders have managed this for themselves, as with vegetable producers in Andhra Pradesh in India (Box 3). Sometimes, outsiders have provided a helping hand, as in the case of fair trade cocoa in Ghana (Box 4). There is much more to do on the question of small farm participation in markets, both domestic and international: options include sub-contracting, stronger farmers' organisations, and information provision by export promotion agencies.

Another focus has been on consumer behaviour. Education

Box 3: Can poor producers participate in the new supply chains

Evidence drawn from village-level research in two districts in Andhra Pradesh shows that conventional production and marketing arrangements have excluded the lower castes and marginal farmers from the booming vegetable sector, but that innovations in resource sharing have allowed some disadvantaged groups to share in the 'golden revolution'. In Voolapadu Village in Chittoor District, for example, crops like coriander, chilli, radish and aubergine are supplied to the Bangalore market, often under contract to traders who provide seed and credit as well as technical advice and support. Farmers collaborate, exchanging water for labour, or leasing land in groups – acting together, demonstrating a high degree of trust, and building on the strength of local institutions.

can play a part, though needs to take into account the real economic and social constraints operating on poor people, for example lack of access to shops (in so-called 'food deserts'), or social pressure to consume certain kinds of food. Taxes and subsidies can also be important. For example, a policy-induced increase in meat prices in the US would have some positive effects on diet, such as a reduction in fat and cholesterol intake, but also some negative effects, such as a reduction in iron and calcium. By contrast, an increase in the price of edible oil would have more generally favourable effects, encouraging diet changes which lead to a reduction in fat intake, but an increase in almost all other nutrients and micro-nutrients, including vitamin C, calcium and riboflavin.

Market intervention or regulation is a more difficult option, particularly as free trade principles become progressively enshrined through the WTO or regional common markets like the European Union. France is one country that has legislated to protect wholesale markets for fresh produce and to limit the expansion of supermarkets in urban areas, sets of measures which combine to reduce the transactions costs and protect the margins of small retailers. Relatively less stringent food safety and traceability requirements (compared to the very high hurdles adopted by supermarkets in the UK) have also made it easier for a more diverse supply and retail chain to survive. However, these kinds of arrangements are subject to challenge under European competition law.

In general, new trading arrangements are placing great pressure on developing countries, especially in the area of standards. Small farms may find it especially hard to meet standards, for example with reference to pesticide residues in the horticulture sector.

Conclusion

The changes to the food system mean that new actors are drawn in. At a national level, food policy has historically been the preserve of Ministries of Agriculture, with a supporting role played by Ministries of Health and, in some places, departments dealing with drought relief and rehabilitation. Increasingly the actors are shifting, with more involvement from Ministries of Trade and Industry, Ministries of the Environment, competition authorities, and even Ministries of Finance. The EU, and many of its member states, have created independent Food Standards Agencies.

Internationally, also, there is evidence that the new food policy is driving changes to the agenda of organisations like FAO: the role of international regulatory bodies like *Codex Alimentarius* has expanded significantly, for example to assess food safety risks associated with the new biotechnology. Reform of international

Box 4: Kuapa Kokoo and the Day Chocolate Company

Following the restructuring of cocoa in Ghana in 1993, which allowed private companies and co-operatives to participate, a farmers' organisation acquired a buyer's licence. It worked with a Fair Trade organisation. Twin Trading, which was looking for a suitable partner to reproduce its existing activities with fair trade coffee. In 1998, Twin Trading and Kuapa Kokoo established a company in the UK, Day Chocolate, in which they share ownership. This takes some of the cocoa produced by Kuapa Kokoo (and exported through a trading company) and, after subcontracting the processing, sells the chocolate through normal retailers. About 40,000 tonnes of cocoa per annum is now marketed through this arrangement.

Producers receive a guaranteed price (a minimum level and a guaranteed minimum differential above the market price: this added US\$1.6 million to Kuapa Kokoo's revenues in the eight years 1993-2001. Of the extra funds, 25% goes directly to farmers. The rest is spent through a Trust Fund on investment in trading and production companies in Ghana and on community projects, including education, health, water, and mills for alternative income.

institutions is not straightforward, however. Too often, piecemeal reform produces an overly complex and unsatisfactory set of agreements, rules, institutions and programmes: the current arrangements for food aid may be a case in point.

Public pressure is one of the main drivers of policy change in the food arena. For example, the 'triggers' for public action on obesity in the US have included social disapproval, mass movements and interest-group action, as well as the core medical arguments. In the UK, the food policy debate has been driven by health issues, but also by environmental and animal welfare concerns. Some argue that a food industry characterised by the pre-eminence of large companies with brands and reputations to protect is especially sensitive to public opinion. Food activism is growing fast, both in developed countries (e.g. the UK Food Group) and internationally (e.g. the food sovereignty movement).

However, the capacity to respond to public pressure and to make better food policy is probably weakest in just those poorest countries where the new challenges are emerging most rapidly. Food policy is expensive. For example, the Food Standards Agency in the UK has a staff of 600 people and a budget of £115m p.a.. In developing countries, the scarcity of expertise and of finance is a significant constraint. Regional collaboration can help, but international organisations also have an important part to play.

Key Reference

Maxwell, S. and Slater, R. (eds) (2003) 'Food Policy Old and New' *Development Policy Review* 21:5/6

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