FEEDING THE EMPIRE:  
THE PATHOLOGIES OF GLOBALIZED AGRICULTURE

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When the negotiations at the World Trade Organization collapsed in the fall of 2003, it was because a coalition of governments from the global South insisted that the governments of the global North meet their commitments under the 1995 Agreement on Agriculture to reduce their farm subsidies and export subsidies, as a condition for negotiating on further rights for multinational corporations, notably investment and intellectual property rights. Agriculture had been explicitly excluded from the General Agreement on Tariffs and Trade (GATT) when it was founded in 1947, so reaching the Agreement on Agriculture (AoA) was one of the great accomplishments of the WTO when it was founded in 1995. But it was mainly an agreement in principle, full of exceptions and exclusions, and few of its promises have yet been kept. Subsidies remain the most divisive issue, and rifts between North and South have now started to overshadow the long-standing rifts on trade issues within the North. In fact, the AoA is now an obstacle to completion of the larger WTO agenda. At the same time, an intersecting mix of new issues, including food safety, genetic technologies and intellectual property, affecting both North and South, are at least as intractable. They pit corporate interests, which now link agriculture and food intimately with the chemical sector, against a range of farm, citizen, indigenous, and consumer groups, and raise jurisdictional questions about the WTO relative to other international institutions.

In this essay I argue that agriculture and food have all along invisibly underpinned relations of property and power in the world system. Now they have finally emerged as key points of conflict in international organizations. A perspective on power and wealth different from the usual one, which emphasizes agriculture as an industry, may indicate alternative paths out of the present impasse of global rule-making. With this goal, I explore in turn
(and in brief) the past, present, and possible futures of agriculture, and the social forces at play in determining the conditions under which any possible future will unfold. At the heart of any solution to today’s global agricultural impasse the dilemma, I conclude, is an appreciation of ‘livelihoods’ and ‘habitats’, that is the living foundations of all human societies: healthy human bodies and relationships and earthly cycles of air, water, soil, and organisms.

**FOOD REGIMES UNDER BRITISH AND US HEGEMONY**

The present impasse over global rules for agriculture goes deeper than inter-state conflicts. It reflects profound changes in social relations across the whole spectrum of activities related to production and consumption of food, and all on a world scale. To analyze these relations, I adopt the concept of ‘food regime’, which refers to a relatively bounded historical period in which complementary expectations govern the behaviour of all social actors, such as farmers, firms, and workers engaged in all aspects of food growing, manufacturing, services, distribution, and sales, as well as government agencies, citizens and consumers. Complementary expectations cannot be taken for granted. They exist only at certain times, and work best when they seem ‘natural’ and are therefore based on norms and rules that are at least partly implicit. Rules for food regimes have been far more implicit than those governing, for example, money or war. Two food regimes have existed so far: the first centred on the Atlantic trade between England and the Americas, which was consolidated after 1870, but also included settler regions that have since declined, such as the Danube Basin and Punjab in British India; the second expanded after World War II to include all the former colonies of Europe, but excluded the Soviet bloc until its collapse, and hinged on the US as rule-maker and – consequently – dominant exporter. The current dissension over food and agriculture stems from structures built in successive food regimes since 1870, and was precipitated by events of the early 1970s, which launched a long unresolved crisis.

*The Settler-Colonial Food Regime*

The Settler-Colonial Food Regime, which emerged at the height of British global supremacy from 1870 to 1914, created the first price-governed market in an essential means of life. Since 1500 long-distance trade had connected inter-dependent and specialized regions, and grain from agricultural regions exporting from Baltic ports had eventually facilitated the expansion of classes of waged workers, relying on the purchase of food, in Western Europe. However, all governments were still in thrall to the ancient belief that subjects hold rulers responsible for a reliable supply of food. The
beginning of the end of this came in 1846 when despite rebellions of rural producers unable to compete in increasingly worldwide food markets, and of urban dwellers still believing that there were ‘just prices’ for food, the British Parliament took the epochal decision to remove import protection from its domestic farmers by repealing the ‘Corn Laws’. This was made possible by the fact that Britain, the dominant power of the time, had created a trans-oceanic market in basic foods (and an ideology of Free Trade to justify it).

The new food regime created an enduring pattern of regional specialization based on the interests and power of the main importer, Britain. Specialized export regions, now re-defined as the world’s ‘breadbaskets’, were established in the Settler-Colonial food regime through the investments by British capital in railways and the violent expulsion of indigenous peoples from their land and their replacement by expanding settler states. The regions settled by European wheat farmers and cattle ranchers included leading members of the present-day Cairns Group of major agricultural exporting countries (led by Australia and Argentina, and including Canada), which at the WTO today promote the complete liberalization of trade in food. Also created as export-dependent regions at this time were those areas feeding the ports on the Baltic and Black Sea, plus Siberia and Northwest British India (these were eclipsed when this food regime collapsed between the First and Second World Wars) and the vast plains area of the United States (which became dominant, however, only in the subsequent food regime). Brazil (an ambivalent Cairns Group member, and key leader of the South at the WTO) would become a major exporter only in the last days of the later food regime. The most important fact to note is that in the Settler-Colonial food regime power and wealth resided in the importing countries, which exported capital and labour to ‘improve’ (or as we would now say ‘develop’) lands taken by force from indigenous peoples.

The Settler-Colonial regime also laid the basis for a later industrialization of agriculture, paradoxically through inventing the modern ‘family farm’. Unlike peasant agriculture in Europe and elsewhere, settlers on newly surveyed land were put there to serve capital as well as states. After 1870 railway and shipping capital was made profitable by the monocultural export farming of settlers. The poverty of the settlers, who emigrated to escape economic marginalization or political repression, chiefly in Europe, combined with their frequent inexperience in dry grassland farming and the absence of wood or other forest resources, ensured that they would produce as much as possible of what was demanded and buy as much as they could afford, such as barbed wire fencing and mechanical harvesters, as well as goods for personal use.
States achieved maximum efficiency in holding territory against indigenous resistance, or against competing states (e.g. along the US-Canada border) by settling immigrants on the largest feasible land areas. This ensured that in the newly settled wheat and livestock export regions labour and not land would be in short supply (a reversal of the European experience), and that labour would be provided by the ‘self-exploitation’ of patriarchal settler families.6 Emigration from Europe served the increasingly explicit interests of European governments in political stability and cheap food, as economic modernization rendered both villagers and urban workers marginal and sometimes unruly. The Settler-Colonial food regime thus unfolded via three mutually reinforcing effects of government policy: emigration from Europe, settlement of lands converted from indigenous use to commodity production of European staple foods, and long-distance shipment of low priced wheat and meat.

A final legacy of the Settler-Colonial regime was the globalization and simplification of a wheat-beef diet. Wheat, like beef, was once the preserve of elites, while ordinary people ate ‘coarse grains’ such as barley, rye, and oats. As more and more people in Europe and the settler regions entered food markets, their nutrition was compromised, not only by low wages (a matter of quantity) but also by lack of variety relative to the garden and wild foods that at least thriving peasantries had enjoyed.7 Their diets became simplified, and tastes shifted towards other colonial imports of sugar, coffee, tea and cocoa,8 while opium-based ‘medicines’ blunted hunger and its effects. In the 1880s a small segment of English workers (and a larger segment in the US) gained wages that allowed them to aspire to middle-class tastes, such as bread and roast beef. In the same years, steel roller mills began to manufacture white flour from hard wheat imported from settler regions, and refrigeration allowed unprocessed meat to be shipped across the ocean. Workers had more to eat but the quality of their diet declined as white bread, industrial beer, sugared tea and jam, and (to some extent) canned foods, lowered its nutritional content.

This directs attention to what Polanyi calls the ‘natural’ substance of society. Despite the agro-ecological reality that sustainable food production relies on an agronomy that preserves and even increases soil fertility, the Settler-Colonial food regime created an illusion of paradise in which this reality did not apply – and a corresponding way of measuring productivity. Monocultures and large land areas per farm created the perception of increased productivity in settler areas based on two temporary phenomena: low prices, thanks to the ‘mining’ of the natural fertility of lands never before farmed; and a shift in measurement from yields per unit of land to yields per person. Low prices and soil mining led to an economic and ecological cata-
strophe (the Great Depression and the Dust Bowl) that within less than half a century ended the Settler-Colonial food regime. For consumers, depression and two world wars renewed fear of scarcity, as trade collapsed and prices soared, and as people who had come to depend on their wages for food could no longer revert to personal or geographical ties to the remaining farms.

At the same time ordinary people continued to experiment in relation to changing conditions, but locally, both in growing food, and in what they ate. In many small farms, gardens, and kitchens, people altered systems of mixed cultivation and invented new flavours by incorporating plants and animals that had become available only after colonialism. In Europe, these included potatoes (for fish and chips), maize (polenta), peppers and tomatoes, while in the Americas cattle, mangoes, grapes and many other Old World domesticates entered into cultivation and cuisines. These, too, provided a legacy available to be appropriated by industrial agriculture and food manufacturing, but also for the continual reinvention of farming and cooking.

The collapse of the Settler-Colonial food regime left four enduring legacies which helped to shape new relations of power, property, and trade in the subsequent regime: a labour shortage in agriculture; deeply commodified farms; measures of efficiency based on land-extensive monocultures; and the globalization and ‘democratization’ of a diet based on wheat and beef.

The Mercantile-Industrial Food Regime

After the prolonged crisis of the Settler-Colonial food regime, which staggered and finally collapsed through the depression and another world war, the United States led the way in creating a new food regime. As the undisputed new hegemon the US had the power and the wealth to protect its domestic policies, and the vision to foster complementary accommodations in the interests of other governments. US post-war economic strategy was explicitly oriented towards re-establishing free trade but as regards agriculture, its situation was unlike that of 19th century Britain in that it faced resistance to free trade by US farmers, who were key to the electoral success of the governing Democratic Party, and had inherited a dependence on exports from the Settler-Colonial regime. Then, in 1947, a convergence of circumstances led to the adoption of a new set of implicitly mercantile rules, institutions and practices in agriculture. The Cold War began, inspiring a new constellation of food policy and foreign policy. US Cold War foreign policy included both dismantling European empires and attracting newly independent governments into a US-centred trading system to compete with the Soviet bloc; until 1972 the US and its allies actually maintained an embargo on trade with the Soviet Union and its allies. Also in 1947 the
World Food Board meeting, led by the US and Britain, rejected plans that had been made during the war for the multilateral regulation of agricultural exports and imports, and agriculture was explicitly excluded from the General Agreement on Tariffs and Trade. Free Trade in agriculture, key to British hegemony, gave way under US hegemony to managed agriculture within the Free World.

Thus in pursuit of both domestic and foreign policies the US led the way in creating a new food regime based on mercantile principles: governments set prices and other conditions for domestic farmers, controlled the distribution (and prices) of food to the poor, and managed imports and exports. Although the mercantile character of ‘export subsidies’ (or ‘dumping’) and related ‘domestic subsidies’ is now recognized in WTO disputes, it was long disguised in the costumes of domestic welfare and foreign aid (‘food stamps’ in the US and a variety of schemes initiated by postcolonial governments, especially those in receipt of ‘food aid’). In one sense food aid really was an innovation, specific to the new monetary regime of fixed exchange rates, and took the form of ‘concessional sales’ of food, purchased in nonconvertible currencies. It began with Marshall Aid, of which a full 40 per cent consisted of food, feed and fertilizers, and which created economic foundations for the former colonies of Britain, France, etc. to reorient their trade from the old empires to the United States.

European governments welcomed Marshall aid for its role in rebuilding their agriculture – mainly wheat and livestock – on ‘modern’ lines, and because the US supported a massive import substitution project for wheat (and sugar beets) via the 1957 Common Agricultural Policy (CAP), which has endured as a centre-piece of European integration. Governments in the former colonies welcomed subsidized exports because cheap food fostered alliances between ruling elites that distributed it and urban populations that received it, lowered world prices even for non-recipients, and provided a model for governments to intervene directly in their own agriculture and trade. Cheap food also fitted well with the shared belief in ‘development’ – also first articulated in 1947 – by encouraging a shift of labour from ‘backward’ peasant agriculture to ‘modern’ industry. Less powerful and wealthy export countries, such as Canada, Australia, and Argentina (which much later formed the Cairns Group), compensated for the loss of exports to the US by creating marketing boards and managing food supplies, both to stabilize domestic agriculture and to cut back production in face of growing US export shares.

New patterns of regional specialization and trade emerged in the Mercantile-Industrial food regime, fostering a ‘modern’ diet based on wheat and beef. First, US export dominance, far from being a natural result of US
resources or efficiency, was based on its unique capacity to use tax revenues to buy vast quantities of domestic wheat and accept payment for exporting it in, for example, pesos or rupees. Similarly, far from lacking land, labour, or skills to feed their own people, in 1947 most of the former colonies of Africa and Asia, as well as of Latin America, had sufficient domestic food supplies, and many exported food. Under the norms of the new Mercantile-Industrial food regime they accepted subsidized imports, sacrificing their domestic peasantries and encouraging a taste for wheat among their own urban consumers.14

Second, during the Allied Occupation Japan changed its imports from Asian rice to US wheat and animal feeds. Third, also with US encouragement, Europe adopted US-style farm support and related trade policies in order to change its historic situation as a food importer. True, an import substitution model required higher levels of import protection and domestic agricultural subsidies than were required in the US. But in less than three decades the CAP reversed Europe’s trading position from importer to exporter, and also led to the subsidizing of exports of government-held surpluses. Europe ultimately came to compete with the US in world wheat markets, leading in the 1980s to conflicts verging on trade war, and to a shift in the perception of what was involved from ‘food aid’ to ‘dumping’.15

The new patterns of international specialization that unfolded in the fifties and sixties reflected and encouraged a deepening of commodity relations through industrial technologies and capitalist firms. US government subsidies for agricultural commodities, including the recently introduced soybeans, supported efforts by machinery and agrochemical corporations to encourage farmers to specialize far more than before. The most significant step was to separate crops from livestock, and offer industrial inputs to replace the complementary functions of plants (as food for livestock) and animals (as power to pull equipment and as the source of manure to fertilize crops). Giant corporations emerged selling farm machinery powered by fossil fuels, and chemical fertilizers and manufactured feedstuffs based on maize and soymeal. Intensive livestock operations in turn encouraged the conversion of grain farms from producing food for human consumption to producing animal feeds, particularly soybeans and maize.16 The new monocultures, however, provided feasts for crop predators of all kinds, and as insects, diseases, fungi and weeds adapted to manufactured pesticides, they required ever greater quantities to be applied. Eventually the main applications of genetic technology to crops would be those designed to increase the tolerance of feed crops (soybeans and maize) to ever greater applications of the herbicide glyphosate.

Within the mercantile framework of the food regime, governments in most regions encouraged the industrialization of agriculture on the US
model, often by importing industrial inputs from the US. In contrast to the labour scarcity and early specialization typical in settler regions, where industrial agriculture was invented, in Europe and the ex-colonial regions industrial monocultures confronted labour-intensive and ecologically-adapted mixed farming or peasant systems. While European feedstuff manufacturers supplied inputs for most domestic intensive livestock operations, they used as raw materials maize and soy, at first imported almost entirely from the US. The producers of the specialized crops supported by the CAP dispensed with the use of animals in favour of industrially produced tools, chemicals, and feedstuffs. The Third World, where peasantries persisted despite pressure from cheap world grain supplies, undertook its own modernization (and sometimes import substitution) in the sixties and seventies through the Green Revolution. High yielding varieties of rice, wheat, maize, and potatoes led to the introduction of monocultures in place of mixed farms and required industrially-produced, often imported, inputs. In post-colonial settings the marginalization of peasant farms through imports and the industrialization of agriculture led to the shedding of farm labour that could not easily be absorbed elsewhere, and compromised traditional agronomic systems and the many foods, medicines, and ecological services they had provided. Vitamin A, for example, a micronutrient contained in many of the food plants destroyed as weeds in the conversion to monoculture, became a more significant deficiency. Eventually genetic modification would be undertaken to insert Vitamin A in rice.

Meanwhile, on the sales side, industrial farmers supplied new customers. Individuals and local retailers gave way to food manufacturing corporations and supermarkets. While small farms had supplied canneries in the first food regime, now they had to become larger and more specialized in order to enter into long distance supply streams or enter into contracts with ever larger firms. Most significantly, there was a proliferation of new manufactured edible commodities composed of many substitutable raw materials, such as ‘fats’, ‘sweeteners’, ‘thickeners’, and ‘flavours’, and eventually of chemically synthesized substitutes for organic food sources. Food manufacturing and, later, service industries transformed diets, beginning in North America. Instead of the form that had characterized human diets for thousands of years, based on a starchy staple complemented by a variety of (mostly) plants providing flavours and proteins, the Mercantile-Industrial food regime introduced a manufactured diet whose main components are fats and sweeteners, supplemented with starches, thickeners, proteins, and synthesized flavours.

But industry and technology inevitably outgrew the mercantile framework, which constrained the freedom of agribusinesses to source agricultural
raw materials, and to sell edible commodities, anywhere on the globe. While still content to accept subsidies,22 in the 1980s agro-food corporations joined efforts, led by governments which could not compete in the mercantile game, to end government management of agricultural commodities. The turning-point was the world food crisis of 1972-73.

THE CONTINUING CRISIS OF THE MERCANTILE-INDUSTRIAL FOOD REGIME

The Mercantile-Industrial food regime rested on trading blocs that had been created and sustained by Cold War embargoes. The defining feature of the regime – government-held surplus agricultural commodities – were like a lake whose elevated level depended on the dam between the rival political blocs. Suddenly, in 1972 and 1973, the dam was breached when the US, as part of its new policy of détente, sold vast quantities of agricultural commodities to the Soviet Union.23 A torrent of grains and soybeans flowing from the Free World to the Soviet bloc ended an era of surplus stocks that had begun in 1947. As in the oil crisis of the same years, grain and soybean prices tripled, and even though surpluses quickly returned in response to the high prices, they changed from a source of power to a liability. The sudden food scarcity undermined each of the convergent expectations that underpinned the regime.

The US quickly lost its dominant position. Panicked by organized protests by consumers angered by high meat prices, and by farm organizations incensed at the windfall profits captured by the grain trading companies, Congress slapped an embargo on soybean exports. Japan, which depended on US exports for the source of vegetable protein in its national diet, protested. The US quickly reinstated shipments but the damage to Japanese confidence had been done, and Japan invested in new sources. As a result, Brazil became the first of several major export competitors with the US.24 Relative earnings were greater for Brazilian soy exports, which in contrast to US raw bean exports were mainly processed in Brazil by joint ventures between Japanese investors and the Brazilian government.

Europe simultaneously reduced its imports of US feedstuffs and became an aggressive competitor in wheat exports. Europe was able to diversify its imports of maize and soybeans by turning to the New Agricultural Countries.25 This contributed to the growth of commercially-priced at the expense of subsidized shipments. At the same time, Europe increased its exports of CAP wheat in direct competition with those of the US, thus intensifying mercantile competition to the point of a near trade war. The US government urged farmers to respond to high prices by removing limits on acreage to encourage maximum production (these limits had contained
surpluses within manageable limits, as well as promoting soil conservation).

In the 1980s and ’90s the US intensified its state-supported export strategies. Ironically, after paying cash for early US shipments, the USSR lost its ability to pay, in part because of the costs of the renewed Cold War arms race in the 1980s. The US, faced with competition from both commercial and CAP-subsidized exports, chose to shift its concessional shipments away from the South and to the USSR and, after its collapse, to Russia. By now the US gained no advantage from these exports other than being able to dump surpluses. The economy was now manifestly hooked on agricultural exports. A new way of talking about food exports emerged, explicitly centred on agriculture as a source of US power.26 This debate reflected a loss of hegemony, in which that power had been real, invisible and widely accepted as beneficial.

Meanwhile, the Third World was abandoned by the new food regime. Development, which in practice meant industrialization, had created widespread dependency on imports of energy and food. When both became scarce in the early 1970s it led to recession in the capitalist world and shifted wealth to oil-rich governments, which in turn lent to governments in the South and Eastern Europe. At the same time, prices for exports from the South plummeted, as food industries developed substitutes for the raw materials produced in the former colonies, notably sugar and tropical vegetable oils. Several major substitutes, such as high fructose corn syrup and maize and soy oils, were relatively cheap because of US commodity programs. The South borrowed, and transnational banks lent, with little prospect of repayment, and within a decade the Mexican default officially launched the debt crisis.

Structural Adjustment policies, widely imposed on indebted countries by, first, the International Monetary Fund, and then the World Bank, forced debtors to adopt policies that worsened the conditions inherited from the now dying Mercantile-Industrial food regime. Most of the items in the standard list of ‘conditionalities’ that emerged during successive debt renegotiations after the Mexican default of 1982 had negative effects for food security. The abolition of food subsidies exposed poor consumers to higher and less stable prices, leading to ‘IMF riots’.27 Convertibility of currencies led to the failure of local industries and the reduction of government expenditures led to fewer public employees and more poor consumers, especially in urban areas. The abolition of agricultural subsidies undermined the remaining peasant sectors, sometimes still quite large, and the dismantling or disempowering of government marketing boards (and other instruments for managing agricultural production and trade) exposed domestic food producers to even more intense competition by commodities from the
North – which continued to benefit from both production and trade subsidies. The conditions set by Structural Adjustment Programs were meant to increase export earnings to repay debts, both by increasing traditional exports (such as sugar and coffee, despite chronically low prices), and by introducing ‘non-traditional’ exports (such as ‘counter-seasonal’ fruits and vegetables, the expansion of cattle production for the hamburger industries, aquaculture of fish and shellfish, and flowers). In the well-publicized case of cattle grazing in the Amazon, poverty encouraged a new round of settler expansion at the expense of the original inhabitants of the area, and of a tropical forest ecosystem that was even more quickly degraded than the grasslands of the Settler-Colonial food regime had been.

**POLICY RESPONSES: HOW TRADE SHIFTED THE AGENDA FROM FIGHTING HUNGER TO ADVANCING PROPERTY RIGHTS**

Within a decade there was a dramatic shift in policy responses to the troubles of the Mercantile-Industrial food regime. The United Nations, which had languished under the Mercantile-Industrial regime, was resuscitated at the moment of crisis. The first response was multilateral and inclusive of the South; indeed it was focused on the problem of world hunger. The Food and Agriculture Organization (FAO) called a World Food Summit (WFS) in 1974 to address the sudden spurt in the numbers of hungry people caused by the price rises. Attending states declared that ‘every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop their physical and mental faculties’ and committed themselves to achieving this right universally within a decade. The Summit created the World Food Council to upgrade the desultory activities of the World Food Program, the International Fund for Agricultural Development and the FAO Committee on World Food Security.

Thus the ‘right to food’ and ‘food security’ were now defined as goals after decades of assuming that such issues could be left to industrial agriculture. Multilateral institutions were upgraded (and European and OPEC bilateral aid was expanded) to fill in for the drastically reduced bilateral US ‘concessional’ flows. The aim of food aid became more consistently ‘humanitarian’. Even US food aid legislation was changed to convert it from sales to grants in the wake of revelations that allocations had been used in unauthorized support of the US war in Vietnam.

The commitments undertaken in 1974 were far from met. Indeed, over twenty years later, in 1996, the WFS adopted a more modest target of ‘reducing by half the number of undernourished people by no later than the year 2015.’ And five years after that the WFS declared that the estimated
reduction required in the number of the hungry by eight million per year would have to be increased to twenty-two million in order to achieve the same target, and feebly called on governments to meet their commitments.\textsuperscript{30} The inclusive and multilateral focus on hunger reduction had been sidelined, along with the more comprehensive initiatives of the New International Economic Order promoted by the United Conference on Trade and Development in the shape of the Brandt Commission report, \textit{North-South: A Project for Survival}. Instead trade, now defined far more comprehensively than in the past, replaced food security as a dominant objective. The neoliberal project that took shape during the 1980s had specific goals for agriculture and food, specifically their inclusion for the first time in trade agreements. The Uruguay Round of the GATT began in 1986 against a background of debt-enforced ‘adjustment’ in the South and dangerous trade conflicts over agriculture in the North. The South was already converting from domestic to export agriculture, under double pressure to open its domestic markets to subsidized food from the North and to increase export earnings through exporting ‘non-traditional’ (mainly luxury) products to the North. Sometimes this meant the conversion of African or Caribbean land and labour to supply \textit{haricots verts} to France, or carnations to Canada; other times it meant the monocultural production of ‘improved’ and standardized traditional crops for export, such as tomatoes from Mexico.\textsuperscript{31} In the North, the US and the European Community were caught in disastrous export competition; the US was pressing a reluctant Japan to remove import barriers; and the US and other exporters attacked European restrictions, notably on the use of hormones in beef production, as ploys designed to protect not consumer health but domestic livestock producers. Smaller exporting countries that could not afford to play the competitive subsidy game formed the Cairns Group to press for an Agreement on Agriculture that would subordinate all agricultural policies to the single criterion of outlawing ‘trade distortion’.

Amidst the many cross-cutting national interests and alliances (extending, as we shall soon see, to new issues and institutions as well), the US was caught between its attachment to the old GATT as a useful tool for shoring up its mercantile advantage (and supporting other strategic goals), and the possible advantages of a new multilateral institution to press its interests as a dominant food producer. In anticipation of agreement, Europe (and to some extent the US) began to restructure domestic farm subsidies to ‘decouple’ production from trade and link them to social, environmental, and rural development goals. But subsidies, including export subsidies, remained high in both the US and Europe. Food safety issues remained unresolved, and continue to
rankle, as a WTO ruling forces the EU to pay $180 million per year to the US for the right to retain the ban on beef hormones, and complex issues of ‘traceability’ have replaced the expired EU moratorium on GM foods.

While US and CAP policies were deeply institutionalized, agrofood corporations – the industrial half of the regime – began to chafe at the mercantile rules and practices that had spawned them. By the 1980s the interests of these corporations had become far more complex than trade alone, and included rules on intellectual property, a concept which was itself widened to cover living organisms; production methods, including new genetic and other technologies; and reorganizations enabling them to source and sell globally. One wave of corporate mergers concentrated food manufacturers into giant enterprises linked to tobacco. Another wave of mergers linked agricultural chemical companies with both grain traders and seed companies. Just as food and agriculture were becoming a branch of the chemical industry, genetic engineering became a leading-edge technology. Profits from control over seeds thus drove the private sector agenda of research in genetic applications – an extension of the earlier agenda driving conventional breeding towards hybrids rather than open-pollinated varieties. In particular, Monsanto Corporation sought to extend the profits on its herbicide glyphosate beyond the life of its patent by substituting patented seeds genetically engineered to tolerate increased applications of the chemical (increased applications were necessary as weeds developed resistance). After US courts accepted Monsanto’s arguments and overruled the Patent Office to allow patenting of life forms, the US pressed to ‘harmonize’ the WTO agenda in that direction. More than three quarters of GM crops planted on 52.6 million hectares in 2001 were designed for herbicide tolerance.

While the corporate agenda increasingly focused on intellectual property as the driver for the global reorganization of agriculture, it was the unwillingness of governments of the North to abolish their domestic farm and export subsidies that inspired the alliance of South states, led by Brazil, India and the newly admitted WTO member China, to refuse to negotiate further. The G20 (whose numbers are in constant revision) may not hold together beyond that veto. This is partly because of their ambivalence about liberalized trade; although food security and viable peasant sectors are increasingly appreciated for a variety of reasons, the deep changes wrought by structural adjustment seem to have narrowed the alternatives to exporting, and the failure of the North to open its agricultural markets is experienced as hypocrisy that is vulnerable in the WTO. At the same time Venezuela, an oil-exporting country free from debt collection conditions, is pursuing food security against American pressures for a Free Trade Agreement of the Americas and the severe threats from multiple forces at home, also supported
by the US. Brazil, whose Workers’ Party was elected on a Zero Hunger platform, may be large enough to challenge the whole system of perpetual debt. At the same time, social movements in both North and South are growing more sophisticated in understanding old issues, such as hunger and land reform, and linking them to new issues, such as control over seeds and knowledge, health, and agroecology.

NEW ISSUES AND INSTITUTIONS

New issues have complicated the politics of hunger and agricultural trade today. Parallel to the WTO and the FAO, three new processes unfolded in the 1990s. First, the Earth Summit of 1992 set a new agenda and created a crosscutting set of inter-state alliances. Responding to social movements and scientific findings, the UN made two agreements – both of which remain to be ratified by enough governments to come into effect, but which also provide a focus for alternatives to emerge for food and agriculture. The Climate Change agreement has not so far been attached to agrofood issues, but this may change with increasing attention to the unsustainable dependency on fossil fuel energy involved in both industrial agriculture and long-distance transport (‘food miles’). More immediately, the Convention on Biological Diversity (CBD) introduced a ‘precautionary’ approach, shifting the burden of proof for safety to exporters. This has been a focal point for organizing against GM crops and has created new alliances. In particular, since most of the world’s genetic diversity, including the wild ancestors of most food crops, is in the South, concern about loss of biodiversity and conditions for sustaining it give the South an advantage in genetic ‘resources’. Thus well-endowed Ethiopia has taken leadership at the CBD, and Brazil has conflicting alliances, protesting against industrial agriculture at the CBD while promoting exports in the Cairns Group. Environmental issues have thus complicated trade agendas and offer alternative foci for shaping the future of food and agriculture.

Second, the health risks associated with industrial agriculture, manufactured foods and fast foods have led to international disputes and rising citizen concerns. New strains of bacteria, antibiotic resistance, and new animal diseases transmissible to humans, are all associated with industrial agriculture. Unknown effects of chemical additives, as well as highly publicized findings of the harmful effects of altered ingredients (such as ‘trans-fats’) in processed foods, and the alarming rise in obesity and related diseases worldwide, are associated with industrially produced diets. A cascade of crises has brought food and agriculture into the public’s consciousness. Some, such as the recent discovery of BSE in a Canadian cow, inaugurated complicated trade negotiations over bans among (at least) Canada, the US, and Japan. Thus, who
should decide on risks, and what criteria should dominate, are in dispute both nationally and internationally.

Governments in the North have always exercised control over imports on safety and health grounds, and applied elaborate national food safety regulations to do so. It has often been used as a hidden protection for domestic producers (e.g. a longstanding US ban on Argentine beef on grounds of hoof-and-mouth disease). The ‘precautionary principle’, which emerged from the early politics of air pollution, is now inscribed in the European Constitution. It is often supported by Japan, and sometimes by states in the South, and has come to play an important role at the WTO through Sanitary and Phyto-Sanitary measures and the WTO-sanctioned food standards body of the UN (the Codex Alimentarius, a joint body of FAO and the World Health Organization). In both venues, the US leads the opposition to ‘precaution’ under the competing rubric of ‘sound science’. Where the former acknowledges uncertainty and the political nature of risk assessment, the latter emphasizes expertise as the arbiter of risks and thus presupposes an objectivity based on formal knowledge. It is important to note that many scientists object to the use of science to make policy decisions, such as whether a genetically modified crop is ‘substantially equivalent’ to one that is not, and to justify risks imposed on citizens without democratic discussion.

Third, social movements have proliferated around all these issues, including some very new ones related to indigenous rights and knowledge, and have increasingly engaged in discussions seeking common ground across national and social divides. In ‘parallel summits’ of non-governmental organizations and social movements at the FAO and other UN organizations, and since 2001 at the World Social Forum, the politics of hunger have found new strength by allowing people from North and South to discuss policies related to price, access, safety and health. Other participants in these meetings are new international organizations of small farmers, including indigenous farmers, such as Via Campesina, and movements for land reform, notably the Landless Workers Movement in Brazil. Agricultural discussions increasingly link North-South issues, such as the appropriation of genetic materials found in the South by corporations using patents acquired in the North. The intellectual property rights governed by the WTO are now regularly disputed legally, patent claim by patent claim. They are also challenged in principle by the proponents of alternatives, including the democratic regulation of the commons, bioregional reorganization of farming systems to follow watersheds and other natural features, and the promotion of cultural diversity clearly resting on livelihoods evolved in specific places.
CONCLUSION: THE PROSPECTS FOR LIVELIHOOD

As a bureaucratic language evolves to reflect these pressures from below (such as the ‘multifunctionality’ of agriculture), conflicts over language (e.g., a ‘right to food’ versus ‘food sovereignty’) reflect unresolved issues in popular movements. Nonetheless, a new vision of ‘livelihood’ may be taking shape in global consciousness. A case in point is the recent decision by Monsanto to withdraw its application to the Canadian government to approve GM wheat due to ‘lack of demand’. Whence comes this ‘lack of demand’? European and Japanese government resistance rests on public opposition, which stiffens governments’ resolve in international negotiations. Consumer resistance, which is surprisingly high in the global South (as shown in the refusal of GM food aid), is lower in North America. Yet the coalition in Canada resisting GM wheat linked interests that otherwise tend to be opposed – farmers, environmentalists, and the Canadian Wheat Board.38

Two successive food regimes and their crises have reflected Polanyi’s ‘double movement’ between periods of freeing market forces and periods in which regulation is renewed in response to damage done to people and their habitats. The free trade of the Settler-Colonial food regime integrated the world’s agriculture and food, but after fifty years collapsed in social and economic catastrophe. The government-managed systems of the Mercantile-Industrial food regime spawned corporations and rising agricultural regions eager to reinstitute Free Trade. This time the cumulative effects of the two regimes has widened the scope and scale of the agrofood system to the point of destroying all the wild places that previously absorbed ecological shocks of agriculture. And it has deepened commodity relations to the point where virtually nowhere can people feed themselves without resort to increasingly global markets.

An increasingly transnational public dialogue is taking place over how to promote human and ecosystem well-being. A promising concept to make the human and natural substance of society into a program for public policy at all levels is that of ‘ecological public health’ proposed by Tim Lang and his associates in the UK.39 Health is the avenue through which citizens all over the world are discovering the fundamental connection between human health and ecosystem integrity. Whether it is this or another concept or concepts that brings into focus an alternative to a trade- and property-centred agenda, certain issues will have to be decided. Who owns knowledge? Who owns plants? Who owns genes? What applications of genetic knowledge serve the well-being of all? How are risks assessed, and who decides which risks are worth taking? Who is responsible for unanticipated problems, such as genetic pollution or loss of pollinating insects or allergic reactions to unknown components of altered foods? What kinds of accounting and
money systems might foster something new at the limits of specialization, industrialization, and homogenization, a web of human food systems based on diversity, ecological awareness, justice, and democracy?

In answering these questions I find it useful to adopt Polanyi’s focus on both the human and the natural substance of society, and to interpret agriculture in terms of livelihood, or social provisioning, conceptually re-linking human activities with needs, and social relations with habitats. The re-emergence of agriculture into the centre of policy conflicts offers the possibility of correcting the curious blindness of the development era to the ineluctable relationship between society and nature, and of making agriculture the fundamental point from which to assess what is right and wrong about current and future global rules and relationships.

NOTES

4 The Economist was founded to argue for free trade, which it continues to do.
11 The US also failed to ratify the International Trade Organization agreement
of 1948, largely to protect its agricultural import quotas.

12 In 1954 US Food for Peace (PL480) legislation created a system of sales abroad, in inconvertible currencies, of surplus US government-held stocks of agricultural commodities (mainly wheat), which had resulted from US farm programs set up to stabilize commodity prices for US farmers. Both Marshall aid and PL480 aid mostly took the form of ‘concessional sales’ in inconvertible national currencies. European and Japanese economies were devastated (and Great Britain indebted to the US) after World War II, and for more than a decade were not able to earn enough through exports to make currencies convertible with dollars. The Third World never aspired to convertibility in these years, because overvalued currencies were key to import substitution in industry. Concessional sales meant that the US held accounts of francs, yen, pesos or rupees in each recipient country, which could be spent only in that country. It was reasonably considered ‘aid’, but at the same time gave the US resources to use in its own interests in these countries, a situation that later contributed to loss of legitimacy (see ‘enduring crisis’ section below). See Harriet Friedmann, ‘The Political Economy of Food’, and Robert E. Wood, From Marshall Plan to Debt Crisis: Foreign Aid and Development Choices in the World Economy, Berkeley: University of California Press, 1986.


15 Humanitarian food aid, in the form of gifts rather than loans, was a minor part of US PL480 shipments. It is now distinct. Multilateral humanitarian food aid, particularly through the UN World Food Program, has also become more important.


17 Netting, Smallholders, Householders.


used cottonseed oil and lard, which were cheap byproducts of textiles and meatpacking. It soon encouraged government commodity programs in soy to create a stable supply of oil. Then, to complete the circle, a byproduct of soy oil was soymeal, which fostered the growth of intensive livestock feed industries. Soymeal required a grain complement for animal feed, and to supply the livestock industry, vast acreages switched to a simple rotation of maize and soy. See Jean-Pierre Bertrand, Catherine Laurent and Vincent LeClercq, *Le Monde du Soja*, Paris: Editions Decouverte, 1983.


Ibid., and Goodman, Sorj and Wilkinson, *From Farming to Biotechnology*.


In 1968 Canada had sold wheat to China, which was by then hostile to the Soviet Union, but both countries were marginal players in the Mercantile-Industrial food regime.

US export share fell within a few years from a virtual monopoly to about two-thirds.

A frequently noted feature of the period was the emergence of Newly Industrialising Countries (NICs). NACs were their counterpart in undercutting US dominance in the food regime. See Friedmann, ‘International Political Economy of Food’.

The idea of ‘green power’ referred to control over world food exports.


Ibid.


Barndt, *Tangled Routes*.


For example, transporting one kg of asparagus from Chile to New York emits 4.7 kg of carbon dioxide (Millstone and Lang, *Atlas of Food*, p. 67); Lang is the originator of this useful measure. For a local application, see Stephen Bentley, ‘Fighting Global Warming at the Farmer’s Market: The Role of Local Food Systems in Reducing Greenhouse Gas Emissions’, A FoodShare Research in Action Report, Toronto, January, 2004.


Royal Society of Canada Expert Panel on the Future of Food Biotechnology,

