Agriculture and Food in Crisis Conflict, Resistance, and Renewal

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felt widely as a loss of autonomy, "the peasant principle, with its focus on the construction of an autonomous and self governed resource base, clearly specifies the way forward."36

2. The World Food Crisis in Historical Perspective

PHILIP McMICHAEL

The "world food crisis" of 2007-08 was the tip of an iceberg. Hunger and food crises are endemic to the modern world, and the eruption of a rapid increase in food prices provided a fresh window on this cultural fact. Much like Susan George's well-known observation that famines represent the final stage in an extended process of deepening vulnerability and fracturing-of-social-reproduction mechanisms, this food "crisis" represents the magnification of a long-term crisis of social reproduction stemming from colonialism, and was triggered by neoliberal capitalist development.¹

The colonial era set in motion an extractive relation between Europe and the rest of the world, whereby the fruits of empire displaced non-European provisioning systems, as the colonies were converted into supply zones of food and raw materials to fuel European capitalism. In recent history, liberalization policies have deepened the conversion of the Global South into a "world farm" for a minority of global consumers, concentrated in the Global North and in strategic, states and urban enclaves of the Global South. The combined approximates

priation and redirection of food production and circulation underlies the socially constructed food scarcity and permanent hunger experienced by, at conservative estimate, over 1 billion humans (about 14 percent of the world's population).

The "agflation" that brought this crisis to the world's attention at the turn of 2008 saw the doubling of maize prices, wheat prices rising by 50 percent, and rice increasing by as much as 70 percent, bringing the world to a "post-food-surplus era." In an article in the *Economist* titled "The End of Cheap Food," the editors noted that, by the end of 2007, the magazine's food-price index reached its highest point since originating in 1845. Food prices had risen 75 percent since 2005, and world grain reserves-were-at-their-lowest, at fifty-four days. According to the International Food Policy Research Institute (IFPRI), agflation from rising agrofuels production "would lead to decreases in food availability and calorie consumption in all regions of the world, with Sub-Saharan Africa suffering the most."

of energy and food demand in an age of peak oil. A rising class of one billion new consumers is emerging in twenty "middle-income" countries "with an aggregate spending capacity, in purchasing power parity terms, to match that of the U.S." This group includes new members of the OECD—South Korea, Mexico, Turkey, and Poland, in addition to China and India (with 40 percent of this total)—and the symbols of their affluence are car ownership and meat consumption. These two commodities combine—through rising demand for agrofuels and feed crops—to exacerbate food price inflation, as their mutual competition for land has the perverse effect of rendering each crop more lucrative, at the same time as they displace land used for food crops.

Simultaneously, financial speculation has compounded the problem. For example, the price of rice surged by 31 percent on March 27, 2008, and wheat by 29 percent on February 25, 2008. On April 22, 2008, *The New York Times* reported that "This price boom has attracted a torrent of new investment from Wall Street, estimated to be as much as \$130 billion." According to the same article, the

Commodity Futures Trading Commission noted that "Wall Street funds control a fifth to a half of the futures contracts for commodities like corn, wheat and live cattle on Chicago, Kansas City, and New York exchanges. On the Chicago exchanges... the funds make up 47 percent of long-term contracts for live hog futures, 40 percent in wheat, 36 percent in live cattle and 21 percent in corn."

Conventional explanations bring together the pressure on food cropland with extreme weather patterns and ecological stress. In November 2007, as summed up by John Vidal in the *Guardian*,

The UN Environment Program said the planet's water, land, air, plants, animals and fish stocks were all in "inexorable decline." According to the UN's World Food Program (WFP) fifty-seven countries, including twentynine in Africa, nineteen in Asia, and nine in Latin America, have been hit by catastrophic floods. Harvests have been affected by drought and heat waves in South Asia, Europe, China, Sudan, Mozambique and Uruguay.

With respect to agrofuels, there is in addition the so-called "knock-on" effect, outlined by the OECD-FAO Agricultural Outlook 2007-2016, where expanding U.S.—eorn—production—for—ethanol reduces oilseed acreage, such that "oilseed prices then also increased as a result of tightening supplies and this price strength was enhanced by rising demand for meals as a cereal feed substitute and increasing demand for vegetable oils for bio-diesel production." In these terms there appears to have been a perfect storm.

The "perfect storm" metaphor, however, suggests a conjunction of seemingly uncontrollable forces, with transformations in demand threatening and threatened by dwindling supplies. For example, the Financial Times's editorial of April 9, 2008, offered a simplistic economic view of problem and solution:

In the medium term, the imperative must be on increasing supply, for which much of the responsibility lies with developing countries—improving infrastructure, including storage where necessary for buffer stocks, bringing more land into production and encouraging crop insur-

ance or forward markets where they do not exist. Those countries resisting the introduction of genetically modified food should take another look at the productivity gains that it can unleash. Security and stability of food supply are enhanced when markets are allowed to work by being given clear and enduring price signals, with governments providing social and physical infrastructure support. ¹⁰

While the market may signal resource limits, the structure and politics of the market are ultimately responsible for this situation, and for its interpretation as requiring better market practices. And for this reason it was unsurprising that the crisis served as an opportunity for corporate and multilateral financial institutions to deepen their control and management of the global food system. In the meantime, governments with varying resources have resorted to food import liberalization, price controls and/or export controls on domestically produced food to quell civil unrest, and a global land grab has ensued as governments scramble to secure food supplies offshore. 11 At bottom, however, rising food prices signal a more fundamental structural process at work, manifest in both famine and food riots—phenomena with long genealogies.

FOOD RIOTS AND FAMINE IN THE EMPIRE

From "moral economy" to civil rights/entitlements, the food riot registers the violation of social norms. 12 Outside of Europe, where colonialism brought ecological and cultural catastrophe, food rioting in historical times took characteristic forms. Consider the imperial conjuncture Mike Davis describes as a late-Victorian holocaust stretching from India through Northern China to Brazil. What Davis called synchronized El Niño famines—ostensibly caused by a devastating drought across the tropics in the last quarter of the nineteenth century, resulting in substantial famine-induced death (estimates vary between 30 and 60 million people)—were actually intensified by empire. What empire accomplished in India, for example, was

the dismantling of village grain reserve systems, as grain was commodified and transformed into an export product.

girded national market in grain, village-level food reserves were marched into the world-market," and between 1875 and 1900, the plus areas better insulated against speculation."13 Davis notes of the 1840s, a century later in the 1943 Bengal famine, and in recent is commonplace, occurring for example during the Irish potato famine eating India's bread" and quotes an observer, who wrote: "It seems ar worst years of Indian famine, grain exports rose from 3 to 10 million larger, patrimonial welfare more widespread, and grain prices in surother parts of the world,"14 Hardly an anomaly, such market perversity anomaly, that, with her famines on hand, India is able to supply food for deaths during this period. As Davis remarks, "Londoners were in effect land to hoarding centers. Through this device, India was "forcethe line to transfer grain inventories from the drought-stricken hinterprice hikes-regardless of local conditions, enabled merchants along that transport systems-including the telegraph and its coordination of famines, when food has been diverted for commercial purposes lion people, coinciding with the rough estimate of 12-to 29 million tons annually, an amount equivalent to the annual nutrition of 25 mil-Prior to the British Raj, "before the creation of a railroad-

Davis emphasized that "the perverse consequence of a unitary market was to export famine, via price inflation, to the rural poor in grain-surplus districts." The response, across what came to be called the third world, was an anti-imperial millenarianism that laid the groundwork for the decolonization movements of the twentieth century. Whereas Polanyi's "double movement" of social protection from market privation described European modernity in the making, Davis completed the narrative by revealing what he termed "the secret history of the nineteenth century"—documenting the profound impact of the gold standard on the non-European world. Modernity, for non-Europeans, involved the subjection of their material life to the price form, which was a lever by which necessities and new

resources alike could be removed without immediately evident force,

THE WORLD FOOD CRISIS IN HISTORICAL PERSPECTIVE

and transported by price-making merchants to price-taking consumers in Europe. Modernity, in short, was double-edged, and the food trade provides one of the most dramatic traces of this paradox.

An early food riot contested the infamous "Temple wage," instituted in 1877 by the lieutenant governor of Bengal, under the militarized conditions of the central governor, Lord Lytton, to reduce expenses of relief works authorized by the Bombay and Madras governments. This rice ration, absent the addition of protein-rich legumes, fish, or meat, "provided less sustenance for hard labor than the diet inside the infamous Buchenwald concentration camp and less than half of the modern caloric standard recommended for adult males by the Indian government." A "relief strike" ensued, as famished peasants "organized massive, Gandhi-like protests against the rice reduction," leaving work camps en masse, and inciting a short-lived proto-nationalist movement among local merchants, absentee landlords, and professionals that resulted in the viceroy raising the ration and reducing workloads in the camps.

Meanwhile, in China, which, like India, had complex pre-colonial systems where "both the Moguls and Marathas flexibly tailored their rule to take account of the crucial ecological relationships and unpredictable climate fluctuations of the subcontinent's drought-prone regions," a combination of drought and monsoon flooding in the mid-1870s exposed a compromised grain reserve system "thanks to epic fraud by hundreds of corrupt magistrates and their merchant conspirators, as well as the seasonally unnavigable condition of the Grand Canal."

In addition to eating their homes, famished peasants crowded together in underground pits as relief efforts dwindled, and in Shandong "peasant women organized highly theatricalized demonstrations, suggestive of customary precedents, against greedy gentry and dishonest magistrates." Davis claims these kinds of ritualized protests expressed an explicit "moral economy," remarking that such "militant self-organization, however, was generally only possible in the early phase of famine, before starvation began to dissolve the social fabric of the village and, eventually, of the extended family itself."

Unlike caste-divided India, Davis notes, "a proliferation of heterodox religious sects and underground anti-Qing traditions offered Chinese peasants a cultural matrix for organizing and legitimizing agrarian insurrection." In Lushan Hsien, well known for its tradition of banditry and rebelliousness, peasants and irrigation workers rioted, opening local granaries for the poor, and sparking a rebellion of tens of thousands, eventually put down by government troops.

In northeastern Brazil in the late 1870s, sugar monocultures, an exclusionary commercial grain trade, and severe drought displaced peasants into coastal regions, leading to a starving mob looting the municipal market in Fortaleza, prompting work camps with a rations system that "was a banquet compared to the Temple wage," even though living conditions were "fully as deplorable as in the Deccan." 18

In each instance, peasant unruliness stoked by hunger found expression in food riots. Such uprisings, born of desperate straits, informed millenarian movements that identified the fimmoral with compradors and colonists. Across East and Southeast Asia, and Africa, religious movements combined with anticolonial struggles, stimulating intellectual debates over the social force of what might be termed "semi-proletarianization" through one lens, or peasant revolution through another, associated with Mao Zedong's Yenan Way. The larger point, of course, is that while food accessibility might be reduced through market inflation or removal by commerce or rationing to displaced peasants, food rioting in the colonial and postcolonial regions was inevitably linked with contention over the foolitical-economic order) fineling a movement of decolonization across remaining European empires.

THE NEOLIBERAL CONJUNCTURE

The neoliberal conjuncture has its origins in the post-Second World War reconstruction of the world economy, as decolonization yielded a near complete state system through which Cold War politics

pulsed, and the United States and the Soviet Union elaborated aid programs to secure influence and strengthen their respective industrial (and military) capacity.²⁰ The twin colonial legacies of evident (and comparative) impoverishment, together with rising development claims by anticolonial movements, yielded the midcentury "development project," elaborated in Washington, London, and Paris, and at the Bretton Woods conference of 1944, which created the World Bank and its sister institution, the International Monetary Fund.²¹

In this world order, bilateral economic power overshadowed pultilateralism. The U.S. food aid program, formalized in 1954 as Public Law 480, dominated the food trade landscape over the next two decades. U.S.-managed food surpluses were distributed as concessional food aid to states on the geopolitical frontline, and/or those regarded as future customers following transition from aid to trade. This food export regime reshaped, indeed westernized, social diets of newly urbanized consumers in industrializing regions of the third world, at the same time as it undermined local farmers with low-priced staple foods.²²

Postcolonial states within the Western orbit of (technical and military) aid and trade embraced the development model, commercializing public goods (land, forest, water, genetic resources, indigenous knowledge), and expanding cash-cropping systems to pay for imports of technology and luxury consumer goods. Subsistence cultures experienced a sustained assault from cheap food imports and expanding commodity relations. Peasant dispossession intensified with the deepening of colonial mechanisms of primitive accumulation by postcolonial states. From 1950 to 1997, the world's rural population decreased by some 25 percent, and now 63 percent of the world's urban population dwells in, and on the margins of, sprawling cities of the Global South.²³

Monoculture transformed rural landscapes as the American model of capital/energy-intensive agriculture was universalized through the European Marshall Plan, agribusiness deployment of counterpart funds from the food aid program, and green revolution

tively low proportion of market access, exposure to the artificial world

of the neoliberal development model. virus spread across the twenty-first-century world, marking the crisis of social reproduction underlies the ease with which the food price the global integration of supply chains, social diets, and the conditions and oils, converting Brazilian pastures to soybean fields as cattle exporter of soybeans to the world's largest importer of whole soybeans which is largely produced using Brazilian soybeans.25 As the Chinese this global process, accounting for two-thirds of meat consumption, geting Argentina, Brazil, China, India, Mexico, Pakistan, the the burgeoning of corporate-led factory farming-currently tarpendent producers into its (tenuous) contractual webs, and further expansion of supermarkets exploded, incorporating small or indeherds invade the Amazon. 26 From a physical and financial perspective middle class has emerged, China has been transformed from a net Philippines, South Africa, Taiwan, and Thailand. Asia is the vortex of has frequently helped to eliminate traditional markets as outlets integrating the world food market.24 The influx of supermarkets technologies. As urbanization spread rapidly in the Global South, the for small producers, putting many out of business. Related to this is From an institutional perspective, neoliberal development

Organization (WTO)—its regime of liberalization and privatization facilitating the integration of transnational agribusiness and food markets. The WTO's Agreement on Agriculture (AoA) outlaws artificial price support via trade restrictions, production controls, and state trading boards. Forcing southern states to open their farm sectors while the United States and the European Union retained huge subsidies, it constructed what is misleadingly understood as a "comparative advantage" by generating the lowest prices in history for their grains, meat, and milk products. Decoupling subsidies from prices removes the price floor, effectively establishing "world prices" for agricultural commodities—which have fallen 30 percent or more since 1994. Through the AoA's "minimum import" rule, countries have been denied a strategy of food self-sufficiency, and even with this rela-

price has devastated small producers everywhere, displacing them into urban slums or as labor on plantations and agricultural estates dedicated to exporting food to relatively affluent global consumers. The resulting intensification of corporate food circuits under the WTO regime has enabled "food security" to be privatized in the hands of corporations.²⁷

An initial lowering of food prices that led to the destruction of small producers has now led to agflation under increased global monopolistic control of world food supplies. Indeed, under such conditions of "corporate liberalization," global transmission of the food price inflation was automatic. As a counterfactual, while rice prices increased across Southeast Asia in 2008, Raj Patel noted:

East Asia hasn't, however, been affected. In China, the prices are barely up at all, and they're lower than last year. This compares to a 200% increase in the Philippines over the same period. South Korea is opening its grain reserves to keep prices down. Japan isn't suffering at all, by the sound of things. What distinguishes all three of these countries from others in Asia? First, they have their own domestic production. Second, they augment domestic production with domestic grain reserves. Third, they're only able to do this because they're aggressive and powerful negotiators in international trade agreements. Japan has long held that its rice isn't just a commodity but a way of life. 28

Beyond price trends, the crisis is embedded in a fundamental structural transformation in the world food system. What we might call the "food from nowhere" regime²⁹ emerged through the steady displacement of staple food crops with exports—whether through Northern agro-export dumping practices, or viathe embrace of capitalist export agriculture in the Global South as a debt repayment strategy. Thus Chile, the largest supplier of offseason fruits and vegetables to Europe and North America, experienced declines in the 1990s of more than a third in food cropping in beans, wheat, and other staples, as corporate plantations displaced

local farmers into the casual labor force. By the end of the twentieth

mated to have lost their land under the impact of trade liberalization and export agriculture. 30 The displaced form a casual labor force on urban fringes, and, of course, depress wages throughout the global economy, as firms take advantage of this low-cost labor by out-sourcing. The consequences are a depletion of smallholder food production for the working poor and greater vulnerability of the working poor to rising food prices. And these trends are only exacerbated by an intensified "global land grab" that has accentuated dispossession by private appropriation and public commandeering of agricultural land for energy security (biofuels) and now food security, in the wake of the recent "food crisis." The irony is that governments now, all of a sudden, show little faith in the market for "food security," and invest in land offshore to guarantee food supplies in the event of future shortages. 31

agflation.³² According to one report: export suppliers, mainly Thailand and the United States, fueling global market; for rice, export bans or restrictions from China, exports and, in 2008, wheat export bans or restrictions in cies, which have dismantled public capacity (specifically food Zimbabwe, Burkina Faso, Cameroon, Yemen, Jordan, Saudi Arabia, riots cascading across the world in 2007-2008 (Italy, Uzbekistan, Indonesia, Vietnam, Egypt, India, and Cambodia left only a few Kazakhstan, Russia, Ukraine, and Argentina closed off a third of the reserves) and deepened food dependency across much of the Global based food riots today express dissatisfaction with neoliberal polifood prices, forcing President Préval of Haiti out of office. Urban-Egypt, Mexico, Argentina, and Haiti) bore witness to rising basic Morocco, Guinea, Mauritania, Senegal, West Bengal, Indonesia, South. In response, governments implemented moratoria on food food riots, to which governments are perennially vulnerable. Food Spurring such non-market initiatives is the ever-present threat of

Countries like Bangladesh can't buy the rice they need now because the prices are so high. For years the World Bank and the IMF have told coun-

tries that a liberalized market would provide the most efficient system for producing and distributing food, yet today the world's poorest countries are forced into an intense bidding war against speculators and traders, who are having a field day. Hedge funds and other sources of hot money are pouring billions of dollars into commodities to escape sliding stock markets and the credit crunch, putting food stocks further out of poor people's reach. According to some estimates, investment funds now control 50–60 percent of the wheat traded on the world's biggest commodity markets.⁵³

In effect, the crisis revealed the inherent vulnerabilities of the corporate food regime, where the large-scale commodification of food renders it a speculative target, and control by either financial markets or agribusiness enables price inflation (even with record harvests of staple crops). Food stocks are highly centralized—five corporations control 90 percent of the international grain trade, three countries produce 70 percent of exported corn, and the thirty largest food retailers control one-third of world grocery sales. Farguably, such concentration of corporate power was enabled by the vision articulated by the chairman of Cargill: "There is a mistaken belief that the greatest agricultural need in the developing world is to develop the capacity to grow food for local consumption. This is misguided. Countries should produce what they produce best—and trade." Se

Liberalized trade relations, under WTO rules, have restructured food circuits, deepening a food dependency that started when prices were low. Wheat imports in Africa increased "by 35 percent between 1996 and 2000, while the total value of these ever-cheaper imports actually fell by 13 percent, on average"37; about 70 percent of countries in the Global South are net food importers38; and in 2007, the "food import bill of developing countries rose by 25 percent as food prices rose."39 Such food dependency often results from import surges of low-price products that harm local producers. Thus, the FAO noted 669 cases of poultry import surges between 1983 and 2003, 50 percent of which occurred in Africa, responsible for only 5

percent of global poultry trade. During this time 70 percent of Senegal's poultry industry and 90 percent of Ghana's local poultry production were wiped out by poultry imports from the United States, the European Union, and Brazil.⁴⁰ Meanwhile, the debt crisis encouraged the dismantling of strategic grain reserves in the Global South. International agencies such as the IMF proposed conditions that governments (e.g., in Malawi)⁴¹ had to reduce strategic grain reserves to defray debt,⁴² and governments like that of India sold grain reserves on the world market.⁴³ The transnational peasant movement, Via Campesina, noted:

National food reserves have been privatized and are now run like transnational companies. They act as speculators instead of protecting farmers and consumers. Likewise, guaranteed price mechanisms are being dismantled all over the world as part of the neo-liberal policies package, exposing farmers and consumers to extreme price volatility.⁴⁴

Paul Krugman invoked this problem in a New York Times column, "Grains Gone Wild":

Governments and private grain dealers used to hold large inventories in normal times, just in case a bad harvest created a sudden shortage. Over the years, however, these precautionary inventories were allowed to shrink, mainly because everyone came to believe that countries suffering crop failures could always import the food they needed.⁴⁵

Not unlike the dismantling, or deterioration, of customary grain reserves in colonial hinterlands, the <u>corporate food regime substitutes</u> the <u>price mechanism for public methods of meeting social needs for food provisioning. The consequence has been the removal of obstacles to the rapid passing along of price increases for staple foods. But transmission of rising commodity prices is not simply a matter of integration of markets; rather it is a result of consolidation of power in the agri-food sector. A case in point is the Mexican corn market. While corn prices fell continuously following</u>

NAFTA's liberalization of corn imports from the United States, tortilla prices in Mexico tripled during the 1990s. And during 2006, when world corn prices did rise rapidly, tortilla prices doubled again, so that "low-income people found themselves priced out of the tortilla market, and forced into less-nutritious alternatives like white bread and ramen noodles." With only two food processors controlling 97 percent of the industrial corn flour market, and the state reducing food subsidies, tortilla riots have become part of the political landscape—spurred by a 10 percent reduction in wages resulting from rural migrants displaced by corn imports. 47

Emblematic of the food crisis, Mexican underconsumption is related to the construction of profitability. While real wages have declined as tortilla prices increased, the production cost of tortillas has been cut—as industrial methods have adulterated the food commodity for the working poor. That is, capital has managed with state support to reduce costs and raise prices—an accomplishment depending on conditions of neoliberal trade relations, complemented by cronyism and the privatization of the Mexican state.

The consolidation of agribusiness under the neoliberal food regime thus set the stage for the world food crisis. Liberalization and privatization combine to accelerate food circulation globally and restructure food production and retailing along corporate lines. This enables corporate profits from price fixing, in addition to the transmission of rising prices through processes of corporate integration of markets in agricultural and food products. The monopoly structure of the heavily subsidized agribusiness food system not only means producers receive low prices for their products, but also that traders, processors, and retailers are in a position to raise food prices. Rates of profits for agribusiness have soared. For example, in 2007, Cargill's profits rose 36 percent, ADM's 67 percent, and Bunge's 49 percent; and in the first quarter of 2008, Cargill's net earnings rose 86 percent, ADM's gross profits were up 55 percent, and Bunge's gross profits increased by 189 percent. Fertilizer companies profited also—

for example, in 2007, Potash Corporation's profits rose 72 percent, and

Mosaic's profits rose 141 percent; in the first quarter of 2008, Potash's

net income rose 186 percent and Mosaic's net income rose more than 1,200 percent. Meanwhile, seed and agrochemical corporations reported unusual profits for 2007: Monsanto, 44 percent; DuPont, 19 percent; and Syngenta, 28 percent. Rising prices for inputs like fertilizer, seed, and chemical sprays explains why most small farmers have not benefited from rising food prices. GRAIN remarks:

Intimately involved with the shaping of the trade rules that govern today's food system and tightly in control of markets and the ever more complex financial systems through which global trade operates, these companies are in perfect position to turn food scarcity into immense profits. People have to eat, whatever the cost. 49

CONCLUSION

oil, compared with just 4.8 litres in Mexico where farmers rely on based fertilizers and pesticides exhaustion and erosion that suggest the world faces steadily declining is still arable land available globally, soils in use exhibit forms of and nutrient cycles and degrading soils. This means that while there have intensified the "metabolic rift," interrupting the natural carbon monocropping (originating in the colonial plantation system) responsible for the crisis of "peak soil," as inorganic fertilizers and production of fertilizer and chemicals."50 The latter is, of course, third for fuel, including electricity, and two-thirds indirectly for the for as much as 16% of total US agricultural production costs, onemore traditional methods. In 2005, expenditure on energy accounted claims, producing "one tonne of maize in the US requires 160 litres of heavy fossil-fuel dependence. As a recent Chatham House report world. But its roots lie in the industrial agricultural model, and its price increases are encouraged and rapidly transmitted around the tion is a proximate cause of the globalization of a system in which food Corporate control through a food regime based in market liberaliza yields under the present regime of dependency on petroleum

crops. Popular perceptions of the underlying cause of food inflation not only by barely offsetting emissions, but also by putting pressure of energy, such as biofuels. But biofuels compound the problem. the chief culprit in the explosion of world food prices: food stocks in the Global North were run down by ballooning food industrial path dependence in substituting fuel crops for food on cropland. A corporate bloc that a decade ago claimed to "feed emissions.⁵¹ Ironically, industrial agriculture's dependence on fossi without substantially affecting the total greenhouse gas cheaper (mainly southern) forms of ethanol and biodiesel, but cially for U.S. corn-ethanol, identified by international institutions as trade deficits, in addition to highly subsidized agrofuel policies, espeof agricultural commodity prices."52 Here, the argument is that deficits of both countries," being "at the heart of the current explosion noting that the unsustainable agriculture and agrofuels policies of the the world" with new agricultural biotechnologies now follows an agrofuels has contributed to the search for alternative, renewable sources fuels project, to supplement (mainly) northern fuel needs with United States and the European Union have led to "huge food trade lay considerable blame on the biofuels revolution, with one author The twin crises of peak oil and peak soil legitimize a global agro-

ZU.S. corn ethanol explains one third of the rise in the world corn price according to the FAO, and 70% according to the IMF. The World Bank estimates that the U.S. policy is responsible for 65% of the surge in agricultural prices, and for . . . the former USDA chief economist, it explains 60% of the price rise. The World Bank states that: "Prices for those crops used as bio-ficels have risen more rapidly than other food prices in the past two years, with grain prices going up by 144%, oilseeds by 157% and other food prices only up by 11%." The U.S., as a result of its corn ethanol production, is clearly responsible for the explosion of world agricultural prices. The second largest world corn exporter, Brazil, produces ethanol from sugarcane and hence has not influenced world market prices for corn. In addition to the U.S. corn ethanol program, the U.S. biodiesel program [soybeans] also contributes to soaring prices. 53

crops, the Global South continues to fuel northern-style consumption ened agro-exporting of some commodities from the Global South, same time, liberalization and structural adjustment policies have deepwhile allowing the Global North to continue to subsidize its corporate as other types of subsidies) compounds the legacy of agricultural libmodities (certainly with substantial subsidies for energy crops as wel mation of almost all agricultural products into undifferentiated cominternal consumption. now including agrofuel crop exports encouraged by the European throughout the global food market in the form of price inflation. At the farm sectors. Additional subsidies for agrofuels have reverberated dismantled-protections for domestic agriculture in the Global South, eralization. This legacy has produced a trade regime that has steadily Jamaica have greatly lessened their production of basic foods for patterns. At the same time, many countries such as Mexico and $\{\!\!\{\}\!\!\}$ Emissions Trading Scheme. Whether in the form of calories or energy The market fetishism evident in industrial agriculture's transfor-

of the long-standing patterns of inequality in the global food regime, and of its social and ecological unsustainability. progressively realized. The food crisis of 2007–08 serves as a reminder, port, and in which the food sovereignty vision has an opportunity to be industrial food system faces increasing problems and decreased supmand the food they want. We stand on the brink of an era in which the to production for those (anywhere) with the purchasing power to comsystems-and the power of corporations controlling them-oriented tionally with the food they need, and in culturally and ecologically vention made by the food sovereignty movement, which emerged in appropriate ways. This means an end or drastic curtailment of food tections, so that inhabitants can be provisioned adequately and nutriwords, states as well as communities, especially of producers, should the 1990s to challenge the privatization of food security, arguing have the right to develop their own policy instruments, including prothat "hunger is not a problem of means, but of rights."54 In other One significant corrective to this neocolonial pattern is the inter-