Food Security Politics and the Millennium Development Goals

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ABSTRACT This article reviews proposals regarding the recent food crisis in the context of a broader, threshold debate on the future of agriculture and food security. While the MDGs have focused on eradicating extreme poverty and hunger, the food crisis pushed the hungry over the one billion mark. There is thus a renewed focus on agricultural development, which pivots on the salience of industrial agriculture (as a supply source) in addressing food security. The World Bank’s new ‘agriculture for development’ initiative seeks to improve small-farmer productivity with new inputs, and their incorporation into global markets via value-chains originating in industrial agriculture. An alternative claim, originating in ‘food sovereignty’ politics, demanding small-farmer rights to develop bio-regionally specific agro-ecological methods and provision for local, rather than global, markets, resonates in the IAASTD report, which implies agribusiness as usual ‘is no longer an option’. The basic divide is over whether agriculture is a servant of economic growth, or should be developed as a foundational source of social and ecological sustainability. We review and compare these different paradigmatic approaches to food security, and their political and ecological implications.

The recent food crisis has been associated with rising food prices and rising hunger rates across the world and particularly in the global South. This experience has refocused attention on world hunger, its persistence and its potential rise. Roughly 15 per cent of humanity (over one billion people) is considered hungry or malnourished, especially women. The majority of the hungry (65 per cent) are in India, China, the Democratic Republic of Congo, Bangladesh, Indonesia, Pakistan and Ethiopia.1 In Central America, particularly vulnerable because of its dependence on food and fuel imports, a World Food Programme study warned that more than one million people slipped below the poverty line between September 2007 and June 2008.2 While global food prices peaked in 2008, staple foods still cost on average over 25 per cent more than during the 2006–08 agflation and in Africa staple prices remained roughly 50 per cent higher in countries like Senegal (for rice), Kenya (maize) and Sudan (sorghum) one year after the peak.3 Although for
some analysts the recent agflation was largely the result of speculation on food commodities (given investment devaluation elsewhere), the era of ‘cheap food’ is widely regarded as over. The 2010 ‘Agricultural Outlook’ Report of the Food and Agriculture Organisation (FAO) expects grain prices to remain 15 per cent–40 per cent higher in real terms than the average price over 1997–06, vegetable oils 40 per cent higher, and dairy prices between 16 per cent and 45 per cent higher over the next decade. It is also predicted by the Intergovernmental Panel on Climate Change (IPCC) that climate change will increase the number of undernourished people by between 40 and 170 million. This combination of inflation and climatic conditions clearly threatens the anti-hunger intentions of the Millennium Development Goals.

This article considers the food crisis as a signal crisis of industrial agriculture. We review responses to the food crisis, arguing that the official response in particular is consistent with an entrenched market-centric view of agriculture as a source of capital accumulation. As such the understanding of the crisis and methods proposed to solve it simply recycle the problem as solution, promoting the opening up of smallholder farmland to global markets. This strategy serves to deepen the hold of upstream (industrial) investment on food production, to extract more food from underprivileged regions to feed a minority global consumer class, and to further impoverish agricultural producing regions through the replacement of bio-regionally evolved farming practices, knowledge and seeds with industrial methods and technologies built on a model of agricultural science that abstracts from local social and ecological conditions. Our argument is that subordinating food security to market mechanisms threatens to deepen food insecurity in formerly self-reliant farming communities and regions in the global South.

We also consider how the food crisis might be reframed, through the lens of ‘food sovereignty’. While official approaches are concerned with proximate sources of the crisis, food sovereignty understands the crisis as historical and systemic. Each perspective understands the crisis as providing an unusual ‘opportunity’—perhaps best expressed in the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) Report as a ‘crossroads’. While the market-centric perspective focuses on the opportunity to reinvest in agriculture and develop agricultural value-chains, the food sovereignty perspective views this moment as an opportunity to refocus agriculture around questions of social and ecological sustainability. The basic divide is over the question of whether agriculture is a servant of economic growth, or is truly multifunctional and should be organised to express and fulfil its various socio-ecological functions. Here we review and compare these different paradigmatic approaches to food security, and their political and ecological implications.

The official interpretation and response

The global food crisis of 2007–08 appears to have been a relatively short-term event, now that food prices have settled (notwithstanding continuing food insecurity problems). Nevertheless, its occurrence and effects reveal a deeper
structural crisis in agriculture and its organisational and institutional frameworks. Even if, as some argue, the crisis was precipitated by financial speculation and hoarding, this in itself indicates a structural problem insofar as food has become integrated into commodity markets in general.

The official response to the food crisis brings together pressures on food crop-land with extreme weather patterns, rising energy costs, speculation and ecological stress into a ‘perfect storm’ scenario. According to the United Nations’ World Food Programme (WFP) ‘57 countries, including 29 in Africa, 19 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’. From 2004 to 2007 crude oil prices rose 89 per cent, increasingly synchronised with food price rises of 84 per cent. In the case of biofuels Chand notes that the OECD–FAO Agricultural Outlook 2007–2016 identified ‘knock-on’ effects, where expanding US corn 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’.

At the same time official explanations have charted recent food production declines, associating them with investment neglect in agriculture and the infrastructure of national and regional food systems. Expenditure on farming in the global South as a share of public expenditures fell 50 per cent between 1980 and 2004, from US$7.6 billion in 1980 to $3.9 billion in 2006—just three per cent of direct payments to OECD. From 1989 to 2004 the national budget share of agriculture fell from seven per cent to 5.3 per cent in sub-Saharan Africa, 15 per cent to 7.4 per cent in Asia, and eight per cent to 2.5 per cent in Latin America. And the proportion of ODA aid to agriculture from 1980 to 2006 declined from 17 per cent to three per cent. From FAO and OECD data it is noteworthy that the 10 countries accounting for almost 70 per cent of the world’s hungry receive only 20 per cent of all agricultural aid. Much of this has gone to agricultural policy and administration, with aid for food crop production declining by 50 per cent, and that for seeds, fertiliser and machinery falling from 11.3 per cent to 1.9 per cent between 1980 and 2006.

In consequence much of the official discourse surrounding the food crisis viewed it as an opportunity to reverse a long period of declining investment in agriculture and to secure world food supplies. At the same time officials and analysts proposed that smallholders should take advantage of rising food prices by bringing them into, or deepening their connection to, national and global markets. The World Bank’s World Development Report 2008 declared: ‘it is time to place agriculture afresh at the center of the development agenda’. FAO Secretary General Jacques Diouf wrote in a May 2008 press release that ‘high food prices represent an excellent opportunity for increased investments in agriculture by both the public and private sectors to stimulate production and productivity’, adding that ‘Governments, supported by their international partners, must now undertake the necessary public investment and provide a favourable environment for private investments’. In a co-authored article with France’s International Development Agency head
Diouf underlined the need to ‘bring African agriculture into line with changing conditions worldwide’, to prevent ‘its agricultural trade deficit to deteriorate any further’ in the event that food surplus nations reduce exports.17

In 2009 Diouf again urged: ‘World leaders looking for ways to save the global economy from disaster and to create jobs and income for millions of people in rural areas would be well advised to invest heavily in agriculture’.18 What Diouf meant about ‘saving the global economy’ implies a call for rural development driven by new export agriculture initiatives, given the prominence of the food trade now in national accounts. The dilemma is, as the quotes in the previous paragraph suggest, that the improvement of African farming, and of its links to urban areas and local markets (a clear need), is only attractive to foreign investors if there is a quid pro quo, namely new markets for inputs (seed, fertiliser, pesticides, herbicides) and/or new opportunities for transnational value chain agriculture. In either or both cases, there is of course the problem of reshaping African farming as a business rather than a vehicle for regional food security. This problem is at the heart of the controversy over the Alliance for a Green Revolution in Africa (AGRA).

AGRA represents a repackaging of the Green Revolution (targeting key states in the Americas and Asia) of the 1960s, which internationalised agribusiness technologies, but via the economic nationalist model of modernising Third World agriculture. This particular model, in practice, involved states using import protections on staples such as grains, beans, potatoes and poultry, and parastatals providing small farmers with various forms of research, credit, marketing, transport and processing assistance. Some states subsidised food for low-wage consumers, and seeds, compost, co-operatives and equipment for small farmers. In short, during this period most countries met their food needs domestically.19 AGRA, by contrast, is really an extension of the so-called Second Green Revolution,20 distinguished by the privatisation of agricultural modernisation, deepening the application of agri-technologies (including biotechnology), and reorienting agriculture as an export industry producing ‘non-traditional exports’ (eg shrimp and soybeans instead of pineapples and coffee) in the global South for world markets.

The form of privatisation is instructive, notably via the recent alliance of AGRA with the US Lugar–Casey Global Food Security Act (2009) which constitutes a technologically driven ‘development strategy based on opening opportunities for the biotech industry’ by combining public subsidies for GM crop research with private patenting of the results. This alliance includes new funding for GM crop development via the Consultative Group on International Agricultural Research’s (CGIAR) system to produce drought-tolerant corn. While GM crops so far have not lifted yields (only reducing labour costs and crop losses), this is basically an exercise in channelling public monies into private hands that in turn promote commodity crops grown on capital-intensive farms.21 AGRA, and the politico-philanthropic-corporate alliance associated with it, intends to export an agricultural model
developed for the US to sub-Saharan Africa. The problem here is that a high-input monoculture is essentially alien to that region:

African agriculture is overwhelmingly small-scale (on farms of less than one acre) and diverse, allowing for a more diverse diet as well as greater overall output given the dependence on rain-fed agriculture and very limited access to external expensive inputs such as fertilizer. It’s often claimed that biotech seeds will yield larger crops: In fact, there is no evidence that crops from biotechnology seeds produce higher yields than do crops from conventionally bred seeds... Biotech becomes a vehicle to introduce a need for a slew of expensive, and commonly fossil fuel-based, inputs. African farmers have historically, and for centuries, provided necessary inputs for themselves on-farm.22

Parallel to this Western vision of modernising African agriculture, the international development and financial institutions are working behind the scenes on privatising land relations to enable and attract foreign investment in African land. US investment, for example, is encouraged by the US government’s Millennium Challenge Corporation (MCC), which disburses money in the form of grants to particular countries on condition that they meet certain neoliberal economic criteria. Most MCC Compacts signed with African countries focus on agriculture, with a central land privatisation component, supporting ‘market-based solutions to food security’. Such provisions include certifying outgrowers for food exports, constructing infrastructure to gain access to world markets, and partnering with AGRA to provide inputs to farmers in their first year—with the likelihood that eventual indebtedness will force them to sell land to larger farms and agribusiness corporations.23

This instance of the global land grab is sponsored by organisations such as the World Bank, its International Finance Corporation (IFC), the International Rice Research Institute (IRRI) of the CGIAR, the European Bank for Reconstruction and Development, and others, but with particular focus on sub-Saharan Africa. The Gates Foundation claims that, over time, enabling the commercial development of African agriculture ‘will require some degree of land mobility and a lower percentage of total employment involved in direct agricultural production’—a clear allusion to eviction (emphasis added).24 According to GRAIN, over $100 billion has been mobilised since the food crisis summit in Rome in June 2008 for land investments ‘not to harvest food but to harvest money’, according to one analyst.25 Since 2006 between 15 and 20 million hectares of farmland—‘the equivalent of the total arable surface of France’—have been targeted by foreign investors.26 In light of this rush to invest in land questions of legitimacy have arisen, addressed in part by the enunciation in 2010 of seven ‘Principles for Responsible Agricultural Investment’ by the World Bank, the FAO, its International Fund for Agricultural Development (IFAD), and the UNCTAD Secretariat. While these principles claim to benefit investors and affected communities alike, they nevertheless provide an unequal comparative advantage to investors, given the relationship between privatising land and its ‘mobility’.27
Banking on new agriculture

The reason why development agencies represent the land grab as a ‘win-win’ situation is that they proceed from neoclassical assumptions that development is ultimately the transfer of rural people to urban centres. Haroon Akram-Lodhi notes that the Bank’s World Development Report 2008, ‘clearly expects that over time agriculture-based countries should, eventually, shift to becoming transforming countries before, eventually, becoming urbanized countries’, despite various ‘idiosyncracies’. The official response to the food crisis follows this logic, proposing that these shifts be initiated and managed through the neoliberalisation of agriculture and concurrent de-peasantisation.

The World Development Report 2008 subdivides agriculture’s contributions into three distinct worlds: agriculture-based countries, transforming countries and urbanised countries—a hierarchical order in which countries ‘follow evolutionary paths that can move them from one country type to another’. But countries don’t ‘move’; rather, their governments collect statistics recording changes in singular values of monetised activity. So the Bank claims that ‘effective instruments in using agriculture for development’ include increasing assets of poor households, making smallholders more productive, and expanding the rural non-farm economy—logical enough if the goal is to expand the realm of monetary values and develop statistics.

This goal is embedded in what the Bank calls the ‘new agriculture’, ‘led by private entrepreneurs in extensive value chains linking producers to consumers and including many entrepreneurial smallholders supported by their organizations’. But this conception is synchronic, insofar as it advocates instant incorporation of smallholders into a hierarchical global market structure, rather than an ‘evolutionary’ process within their particular country. Amin reclassifies this agrarian hierarchy: high-input grain-livestock farmers in the North, a relatively small group of industrial-capitalist farmers in the New Agricultural Countries (NACs) of the South, and the globally pervasive and underprivileged low-input smallholder population, which comprises about 40 per cent of humanity. Within this hierarchy agricultural productivity ratios across high- and low-input farming have risen from 10:1 before 1940 to 2000:1 in the 21st century, deepening the competitive exposure of small farmers. Thus the Bank conflates a diachronic evolutionary assumption with a synchronic regime—whose competitive advantages reside in subsidised agribusiness trade and investment at the expense of peasant agriculture, understood as a remnant of history.

The apparent obsolescence of peasant agriculture in the face of a market-driven project to subject smallholders to managed competition, accelerated by government and development agency complicity in land grabbing, is reinforced by a developmentalist episteme that is unable to recognise the social, ecological and cultural functions and potentials of small farming practices and networks. This is so even for liberal NGOs such as Oxfam, which views investing in agriculture as potentially having ‘an enormous poverty reduction “pay off”, because of agriculture’s importance to food security’. The Oxfam International Research Report, Harnessing Agriculture...
Agriculture is certainly an important part of the mix of activities that sustain household economies, but has to be viewed in the context of increased multi-activity by poor households, deepening urban–rural linkages and heightened national and international out-migration. Acknowledging that ‘Certain features of small farms—their transmission of local knowledge for instance—can also mean they have a key role to play in protecting environmental goods’, the executive summary continues, ‘it may be necessary to recognise that, in some cases, investment in agriculture will be about enabling rural populations to exercise greater choice about their livelihoods, including leaving farming altogether’. That is, peasant agriculture is represented as essentially a ‘poverty baseline’ for development, and largely accepted as such in the official development paradigm.

Since the register for development is the (apparent) absence of peasantries in the global North, development agencies organise their data along these lines, making the assumption that there is a standard trajectory in play, governed by scale efficiencies, market-rational resource allocation, and so forth. In other words, it is unusual to find development agencies advocating alternative paths of development, and in particular of shifting subsidies to smallholders as stewards of the land and providers of food to local populations. Should peasants leave the land it is a function of either economic underachievement or simply choice, as expressed in different ways in the above quotes from the World Bank and Oxfam.

The market solution, again, is to incorporate small farmers into the World Bank’s neoliberal conception of a ‘new agriculture’. The expectation is that the private sector would drive ‘the organization of value chains that bring the market to smallholders and commercial farms’. The FAO echoes this scenario in noting that many ‘successful cash-crop value chains have effectively overcome the lack of rural credit by providing input credit directly to farmers and farmers’ associations, with reimbursement at the time of product sale’. The assumption is that publicly-supplied rural credit for farmers is easily replaced by corporate credit on contract. But the source of credit has substantive implications for the form of agriculture: privatisation of credit implies a shift from a publicly supported domestically oriented agriculture producing staple foods for local and national markets, to a value-chain-oriented export agriculture producing for those with purchasing power in world markets. The World Trade Organization’s (WTO) export regime has contributed to the transformation of Africa into a food importer, importing 25 per cent of its food, and exporting high-value crops such as green beans, coffee, flowers and biofuels. While economic theory postulates that high-value exports can assist in financing staple food imports, the food crisis revealed the limits of this scenario.

The FAO observes that food security research ‘has highlighted the strong positive interactions between cash-crop and food-crop activities and innovative methods for resolving many of the constraints facing smallholders’. In other words, commercial farming in general is the appropriate strategy to increase productivity and thereby reduce poverty. But improving productivity is one thing, and considering what is produced and where it is consumed is another. Expanding export agriculture via increased
productivity may raise rural income (and price volatility), but it also may reduce the availability of local food for local markets or even self-consumption—one of the key determinants of hunger in the food crisis. If accomplished through market devices, such as commercial inputs, it also tends to lead to small farmer debt and displacement.

Paradoxically rising food prices do not provide sufficient commercial stimuli for small farmers, despite FAO suggestions that rural households producing food staples traded internationally could benefit from rising food prices. Rather, the World Bank reports that, because farmers tend not to seek such market rewards because of fertiliser and fuel inflation, in addition to previous commitments to sell harvests at fixed rates, and/or that, because farmers in poor regions self-consume more of their own output, their gains from price increases are marginal. Another World Bank report, based on a survey of 1000 households in nine low-income countries, noted that poor people are particularly vulnerable to staple food price rises, given the greater share of staple foods in their expenditure patterns. Further, an IFAD report on the impact of the food crisis on the rural poor notes that not only are they becoming poorer, but also, as producers, they are responding either by withdrawing from the market and reverting to low-input, low-output production for home consumption, or, where they have the resources, by shifting into higher-value market-oriented production, as a means to earn the income to assure their own food security. Either way this means that poor and/or small farmers’ choices do not at the moment include (having the public support for) producing food for domestic markets under the auspices of national food security programmes.

The agrarian crisis in context

Just as the official response to the food crisis (an expression of the more fundamental agrarian crisis) has been ‘agribusiness as usual’, with the goal now of incorporating small farmers into global commodity markets, so the response by the ‘food sovereignty’ movement has been to offer an alternative interpretation of the problem, and the solution. The ‘food sovereignty’ perspective critiques the narrative of de-peasantisation and its enabling policies, and advocates protection of peasant farming as a social and environmental necessity in promoting food security across the world. This perspective, and movement, emerged in the early 1990s as a direct result of the pressures on small farming cultures across the world stemming from the privatisation of food security, via the political mechanisms of trade liberalisation and the belief in the ability of transnational food corporations to ‘feed the world’. At a Food Security Summit in Rome in 1996 the substitution of ‘sovereignty’ for ‘security’ was a way in which the international peasant coalition, La Via Campesina, politicised the corporate food regime.

The corporate food regime, with its market-centric organising principle, is represented in the WTO protocols of 1995. Through the Agreement on Agriculture, WTO trade rules stabilised competitive ‘dumping’ of surplus foods by Europe and the US, liberalising agricultural trade via the opening of
Southern markets to (still heavily subsidised) Northern agri-exports. The current global food crisis is deeply rooted in this food regime. Its first phase (1990s) deployed a declining world price of traded agricultural commodities against small producers across the world, providing relatively cheap food to compensate for declining wages in the North. The second phase (2000s) has been the reverse: a rising world price of food—against consumers, broadly, but especially wage-food consumers. The earlier crisis of low food prices (for farmers) has been compounded in this century by a crisis of rising food prices (for wage-food consumers).

The former crisis anticipated and deepened the latter crisis. Briefly, the artificial cheapening of traded food put smallholders across the world under intense price competition in their home markets, producing an ‘income deflation’ which has rendered their farming increasing unviable, and generated land consolidation by agribusiness. A 1997 study by the FAO of 16 Southern countries reported the displacement of at least 20–30 million rural people, identifying the impact of liberalisation as: ‘a general trend towards the concentration of farms, in a wide cross-section of countries . . . While this led to increased productivity and competitiveness with positive results, in the virtual absence of safety nets the process also marginalized small producers and added to unemployment and poverty’. Such ‘accumulation by encroachment’ contributed to the stagnation in food supply over the past quarter century, undermining small farmer capacity to respond to agflation by increasing food production.

The premise for the WTO trade rules was stated clearly by the chairman of Cargill, the global grain trader: ‘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’. This corporate-sponsored ‘free trade’ vision, despite the crisis, remains unshaken (despite the default of land grabbing). The geography of hunger in the food crisis suggests that it is the export priority that is misguided, if food security is understood as a right of national citizens, rather than that of global consumers with purchasing power. When food becomes a market commodity it satisfies monetary demand, rather than social need, which can skew agricultural resources. For some time now it has been acknowledged that, through the market, there is an uneven competition between those with purchasing power who consume grain indirectly (as feed grain) and those who consume food grain directly—translated as pressure by meat eaters on basic grain supplies. This competition has now extended to biofuels, deepening a long-term discrimination against peasant farmers, recently intensified by structural adjustment policies that informed WTO trade rules.

In a comprehensive multi-state review of the consequences of such policies in 2002 the Structural Adjustment Participatory Review Initiative Network (SAPRIN) concluded:

Trade liberalization, agricultural reforms and other sectoral and structural adjustment measures have served to marginalize the poor in rural areas, to
reduce the availability of productive farmland for cultivation for the local market and to undermine food security. The more well-to-do, large-scale producers with access to productive resources, particularly those producing for export, have generally benefited from the liberalizing reforms. Small farmers, particularly those producing food for the domestic population, have seen their costs skyrocket and their access to credit, land and markets become more problematic.59

Such conclusions confirmed an agrarian crisis made manifest several years later in the food crisis, and countered the idealism of the MDGs of 2000. In addition, they anticipated the emerging legitimacy crisis facing the development agencies and international financial institutions—which arguably accounts for the renewed interest in agricultural reform, even though it has come half a decade or so after the enunciation of the MDGs. Structural adjustment policies generally were already in question by the turn of the century, and the development industry was reorienting its focus to ‘empowering’ the grassroots. Most notably food price inflation has made visible the shortcomings of the market as an efficient allocator of food supplies. Under these conditions vulnerable citizens rioted, states and investors are appropriating agricultural land offshore to secure future food supplies, and editorials at the time recalled the importance of public food stocks, even as they may still accord primacy to the market. Public discourse now acknowledges the perverse effect of biofuels on food prices, and sometimes even the folly of a biofuels policy, especially as it concerns the Emissions Trading Scheme in Europe.62 Finally, the moral issue of fuel versus food was articulated by UN human rights rapporteur, Jean Ziegler, in October 2007 as a ‘crime against humanity’.

The official response to this legitimacy crisis, and its material underpinnings, has been to publicly harness agribusiness to the task of addressing the agrarian crisis, targeting the smallholder sector. The proposed public–private partnership in the MDGs has entered here in a very direct manner—not simply through the AGRA-type initiatives mentioned above, but also in the opportunity in the ‘food crisis’ for public–private partnerships to strengthen small farming via value-chain agriculture to increase food production. Acknowledging that the world market is unequal, official analysts assume that farmers should be producing for export markets managed by global agribusiness firms (whose interests are not consonant with local producers and domestic food security). This assumption accords with a structural condition induced by the application of neoclassical economic theory to trade and development policy. That is, the general conversion of food into an export business has been a central consequence of structural adjustment policies over the past three decades. As a result, agro-exporting has become indispensable to macroeconomics and food prices.

However, the world food order does not have to be held hostage to macroeconomic relationships. Incorporating food as an export item like shirts, computers and automobile parts, such that agriculture and national currencies must depend on the viability of the international food trade, is
a political choice that can be reversed or modified. The premise that export agriculture is an economic necessity is perhaps the most questionable assumption of the contemporary world from a social welfare, food rights and environmental sustainability perspective. It is this question that most clearly distinguishes the market-centric from the food sovereignty perspective, which argues against subordinating agriculture to trade and capital accumulation.

Agricultural policy at a crossroads

While there is general consensus on addressing the vulnerability of smallholding agriculture, how policy recommendations emerge suggests a basic divide. This divide is over the question of whether agriculture is a servant of economic growth, or whether it is truly multifunctional and should alternatively be developed as a foundational source of social and ecological sustainability. Here we review and compare these two positions, or paradigms, particularly in the context of the food crisis.

The agricultural value-chain approach

The current focus on improving small-farmer productivity with new inputs, and their incorporation into global markets via ‘value chains’ is a variant of industrial agriculture, and constitutes a central part of the World Bank’s ‘agriculture for development’ initiative. To illustrate, in the context of the food crisis, attention has turned to increasing rice yields in Africa, representing the problem as one of inefficiency to be resolved by high-yielding seeds—a conclusion giving rise to the New Rice for Africa (Nerica) project, supported with substantial private investment, concentrated in the upland agriculture of West Africa.63 Nerica varieties, developed in laboratories with hybrids from the CGIAR gene bank, are channelled to local farmers via ‘participatory variety selection’ processes, or via contract production systems, or produced on large industrial estates.

The Nerica story is symptomatic of a larger narrative. The African small producer, representing a substantial remnant of peasant culture in the world, has become the new object of development,64 especially given that Africa holds a disproportionate amount of unused suitable cropland, such that more than 80 per cent of arable land expansion is projected for sub-Saharan Africa and Latin America.65 While 90 per cent of seeds in Africa are local varieties, the Nerica story reminds us that seed privatisation is very much on the drawing board, since the development paradigm defines productivity in terms of yield per plant, and therefore concentrates on seed technologies. The difference is that hybrid and genetically modified seeds individualise cropping at the expense of systems of crop diversity. Thus the chemicals applied to herbicide-tolerant crops (a major part of the plant biotechnology industry) are at cross-purposes with mixed cropping systems, whose value lies in their ability to reduce soil depletion through chemical fertiliser, to spread risk, to sustain local seed and farming knowledge, and to produce higher outputs of food varieties per unit of land than monocultures dependent on commercial inputs.
In May 2008 the OECD claimed: ‘The curse of higher food prices can be turned into a blessing if African agriculture finally becomes a business’, and FAO director-general Diouf observed that ‘governments, supported by their international partners, must now undertake the necessary public investment and provide a favourable environment for private investments’. It is in this context that ‘value-chain’ agriculture is commanding a great deal of attention. Value-chain agriculture includes production for export as well as for domestic retailers, particularly as the global supermarket revolution spreads. Here we consider some of the evidence.

Kenya is a model of ‘value-chain’ export agriculture. The graphs in Figure 1 illustrate the significant trends: declining domestic production of ‘peasant foods’ (sorghum and millet) juxtaposed with an explosion of tea exports in particular, as value-chain restructuring has transformed these industries, in addition to a rising export trend in green beans and fresh vegetables, plus 90 per cent of horticultural exports destined for Europe (especially the UK). Export earnings on value-chain agriculture in turn finance growing cereal imports of wheat and rice. This is a common pattern for countries that embrace value-chain exporting. While reconfiguring food security through trade in the new international division of labour (speciality crops exchanged for basic grains), it nevertheless renders agro-exporters vulnerable to increased food price volatility, especially during food crises.

In Kenya’s export horticulture growers rely on migrant female labour, with gains being realised through the ‘comparative advantage of women’s disadvantage’ which characterises the global horticulture labour force, where global retailers (with just-in-time inventories) organise global commodity chains. From the household angle female migrant labour patterns complement household decisions about enhancing household security and well-being. Here the shift in the mid-1990s away from smallholder-contract production to centralised employment on farms and in packhouses (now over 80 per cent of horticulture) has depended on a migrant labour force, as women in particular migrate for short-term employment to help sustain the household.

This trend portrays the juxtaposition (and relationship) of peasant agriculture decline and the rising investment in value-chain agriculture. Not all value-chain agriculture inevitably shifts from contract production to estate production. Nevertheless, the Kenyan case is prototypical for successful value-chain agriculture—in particular through the ‘role of upscaling and enhanced supply-chain coordination in responding to increasingly asymmetrical buyer-driven chains’. Here the large UK retailers capture almost 50 per cent of the horticultural industry’s value-adding and determine terms of entry. The shift towards private governance stimulates upgrading for firm dominance involving: ‘increased volume capacity, quality consistency, supply reliability, product variety, innovation and ethical standards’, in addition to the economies of scale allowing large-investments irrigation, machinery and supply-management information technologies. Despite private governance, the Kenyan state has been aggressive in providing extension support, investing in research and development and attracting foreign investment in the industry.
FIGURE 1. Trends in Kenyan agriculture in the context of value-chain restructuring.
In short, value-chain agriculture encourages the incorporation of smallholders into networks dominated by large downstream processors and retailers that now mediate volatile world prices to these food circuits, with uneven results for producers—whether dispossession, enrichment or, in the long term, being subject to downward price trends because of intensifying competition. In addition, much of the food itself becomes just another tradable commodity on the global market. Under these circumstances, while successful agro-exporting nations can use foreign exchange earnings to replace exported food products with staple foods, the consequences are clear in the long run, namely, increased vulnerability to food price spikes (with less access to national food reserves—including domestic capacity), and an increasing bias of food accessibility to urban consumers with purchasing power across the world.

The multifunctionality approach

An alternative approach, consonant with food sovereignty, is prefigured in the research and recommendations of the World Bank and UN-sponsored IAASTD report in 2008. This report, released at the same time as the World Bank’s *World Development Report 2008*, advocates a multifunctional role for agriculture in reducing poverty and social/gender inequality, stabilising rural cultures, reversing environmental degradation, and mitigating climate change. Stating that ‘business as usual is not an option’, given the combination of climate, energy, water and food crises, the IAASTD questions industrial agriculture and GM food as the solution to the social and ecological crises associated with global agribusiness, on the grounds that markets fail to adequately value environmental and social harm. The report also questions the salience of a market-driven approach, and its narrow focus on productivity, versus an integrative view of food, resource and nutritional security—underlining agriculture’s multifunctional contribution to complex social reproduction issues.

Complementing the substantial literature on the greater overall productivity of small-scale farming, IAASTD contributor Jan van Aken noted, ‘a half-hectare plot in Thailand can grow 70 species of vegetables, fruits and herbs, providing far better nutrition and feeding more people than a half-hectare plot of high-yielding rice’. In order to strengthen and secure the future for small farming, IAASTD recommends altering institutional arrangements to ensure the multiple functions of agriculture, in addition to a ‘shift to nonhierarchical development models’, building trust and valuing farmer knowledge and natural and agricultural biodiversity, as well as seed exchange and common resource management systems.

The IAASTD recommends ending subsidies for Northern surpluses and developing subsidies for environmental stewardship, and, contradicting WTO liberalisation, recommends national policy flexibility to balance the needs of poor consumers and small farmers. In other words, the report underlines the key problem in the trade paradigm, namely the attempt to standardise trade relations across a state system in which all states may be
formally equal, but some are more equal than others, and all have their own particular social configurations and needs. In addition, the report notes that ‘international trade in agricultural commodities and food, as currently organized, sets consumers in different countries into competition for the same land and water resources. For example, the global average agricultural land availability is 0.25 ha per person, yet food consumption in many countries, particularly developed countries, makes a much larger claim on this resource’.81

With respect to ‘multifunctionality’, IAASTD offers a holistic vision of forms of agro-ecology in which regeneration of natural carbon cycles, and goals of food and nutritional security, outweigh the conventional path of agricultural development and its narrow focus on increasing agricultural crop productivity, including the use of biotechnological solutions. In this sense the IAASTD report differs markedly from the World Bank’s *World Development Report 2008*, establishing a significant contrast in paradigmatic approaches. IAASTD actually reinforces the critique and advocacy of the food sovereignty movement, by recommending strengthening local and regional food systems, democratising food policy, and prioritising the needs of small farmers by securing access to productive resources (seeds, land, water), credit, information, market infrastructures and fair trade systems.82

Under the heading ‘Options Exist’ the IAASTD report maps out a general strategy to strengthen food system resilience in the face of environmental crises—including promoting agro-ecological practices with ‘triple-bottom-line’ goals, full-cost accounting to incorporate energy, health and environmental costs and, importantly, a rights-based framework, which is at odds with a market-centric organisation of the agriculture and food system.83

In addition to the question of political and cultural rights, there is a wealth of research and practice that supports the claim that small farms are more productive than large mono-cultural factories in the fields.84 Miguel Altieri summarises the advantage of small, diversified farming:

In polycultures developed by smallholders, productivity, in terms of harvestable products, per unit area is higher than under sole cropping with the same level of management. Yield advantages range from 20 percent to 60 percent, because polycultures reduce losses due to weeds, insects and diseases, and make more efficient use of the available resources of water, light and nutrients. In overall output, the diversified farm produces much more food, even if measured in dollars. In the USA, data shows that the smallest two hectare farms produced $15,104 per hectare and netted about $2,902 per acre. The largest farms, averaging 15,581 hectares, yielded $249 per hectare and netted about $52 per hectare. Not only do small to medium sized farms exhibit higher yields than conventional farms, but do so with much lower negative impact on the environment.85

Altieri points out that small farms ‘cool the climate’, treating their soils with organic fertiliser that absorbs and sequesters carbon more effectively than industrial agriculture, noting research claiming that ‘the conversion of 10 000 small- to medium-sized farms to organic production would store carbon in the soil equivalent to taking 1 174 400 cars off the road’.86 At present small
farmers (two hectares and less) produce the majority of staple crops for urban and rural inhabitants across the world—in Latin America 17 million peasant farms produce 51 per cent of the maize, 77 per cent of the beans and 61 per cent of the potatoes consumed domestically; 33 million small (mostly female-run) farms in Africa, representing 80 per cent of the farms, produce ‘a significant amount of basic food crops with virtually no or little use of fertilizers and improved seed’ and in Asia most of the rice consumed is produced by more than 200 million small farmers. Michel Pimbert argues that ‘Food sovereignty is not against trade and science. But it does argue for a fundamental shift away from “business as usual,”’ emphasizing the need to support domestic markets and small-scale agricultural production based on resilient farming systems rich in biological and cultural diversity’. The International Planning Committee on Food Sovereignty declares:

In the context of food sovereignty, agrarian reform benefits all of society, providing healthy, accessible and culturally appropriate food, and social justice. Agrarian reform can put an end to the massive and forced rural exodus from the countryside to the city, which has made cities grow at unsustainable rates and under inhuman conditions.

Conclusion

The 2010 Millennium Development Goals Report summarised global accomplishments over the past decade as follows:

Since 1990, developing regions have made some progress towards the MDG target of halving the proportion of people suffering from hunger. The share of undernourished populations decreased from 20 per cent in 1990–1992 to 16 per cent in 2005–2007, the latest period with available data. However, progress has stalled since 2000–2002. Overall progress in reducing the prevalence of hunger has not been sufficient to reduce the number of undernourished people. In 2005–2007, the last period assessed, 830 million people were still undernourished, an increase from 817 million in 1990–1992. Food prices spiked in 2008 and falling income due to the financial crisis further worsened the situation. The Food and Agricultural Organization of the United Nations estimates that the number of people who were undernourished in 2008 may be as high as 915 million and exceed 1 billion in 2009.

Clearly, the food crisis interrupted what appeared to be palpable progress in reducing measurable hunger. Our claim is that this was not so much an interruption as an underlying structural problem, manifested in a crisis that is endemic rather than episodic. In this sense the crisis is not of prices so much as of industrial agriculture, as it exposes existing global food systems to short-term investment volatilities and long-term environmental and energy vulnerabilities. And it does this at the expense of preserving and enhancing systems of small-holder agriculture that could well be a significant part of the solution to hunger, displacement and environmental and energy crises.

The International Planning Committee for Food Sovereignty has claimed that small farmers ‘feed the world and cool the planet’. While this claim may
not be literally true, it does offer an important insight into the deficiencies of the conventional model, as identified in the IAASTD report. Given the opportunity to realise this claim, with state support, a switching of subsidies from overproducing agro-exports to stabilising smallholding communities (relieving pressure on urban centres, and addressing land degradation from chemical fertilisers and agro-industrial farming) has the potential to revitalise the myriad local and national food markets. These markets are those upon which much of the world (notably low-income consumers) depends even now, however tenuously (as industrial agriculture and food crises impinge on their livelihoods). And these markets will become even more significant as industrial food’s fossil fuel dependence, in combination with food inflation and trade disruption, render global sourcing increasingly nonviable.

In sum, attaining the MDG targets for reducing hunger and promoting food security will require a paradigm shift in development policy and strategies. As the IAASTD report recommends, solutions need to be democratically grounded and attentive to cultural diversity and biodiversity. Realisation of this goal depends first on stabilising small farming cultures and local ecological knowledge, and on recognising the claims made by the food sovereignty movement for a central voice and an alternative narrative of future sustainability.

Notes

This article stems from a 35 000-word thematic paper entitled ‘Global food crisis: causes and prospects for policy alternatives’, prepared for the UNRISD Flagship Report, Combating Poverty and Inequality (2006–2010).


4 The food inflation that brought this crisis to the world’s attention at the turn of 2008 involved the doubling of maize prices, wheat prices rising by 50 per cent and rice by as much as 70 per cent. Arguments were made that this moment registered a ‘post-food-surplus era’ (Cf J Vidal, ‘Climate change and shortages of fuel signal global food crisis’, Guardian Weekly, 11 September 2007); and The Economist published an article entitled ‘The end of cheap food’, arguing that by the end of 2007 the food-price index had reached its highest point since originating in 1845, food prices had risen 75 per cent since 2005, and world grain reserves were at their lowest, at 54 days. E Holt-Giménez & I Kenfield, ‘When renewable isn’t sustainable: agrofuels and the inconvenient truth behind the 2007 US Energy Independence and Security Act’, Policy Brief, No 13, Oakland, CA: Institute for Food and Development Policy, 2008. Financial speculation compounded the problem, for example with the price of rice surging by 31 per cent on 27 March 2008, and wheat by 29 per cent on 25 February 2008. The New York Times of 22 April 2008, wrote: ‘This price boom has attracted a torrent of new investment from Wall Street, estimated to be as much as $130 billion’; with the Commodity Futures Trading Commission noting 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’. Quoted in J Berthelot, ‘Sorting the truth out from the lies about the explosion of world agricultural prices’, Solidarité, 18 May 2008, at http://solidarite.asso.fr. Meanwhile, the International Food Policy Research Institute (IFPRI) suggested that food supply was compromised by the expansion of biofuels production, which ‘would lead to decreases in food availability and calorie consumption in all regions of the world, with Sub-Saharan Africa suffering the most’. Holt-Giménez & Kenfield, ‘When renewable isn’t sustainable’.
7 Quoted in J Vidal, ‘Sorting the truth out from the lies about the explosion of world agricultural prices’.
9 Ibid, p 118.
12 Evans, *The Feeding of the Nine Billion*, p 34.
22 D Keeney & S Murphy, ‘Colonialism is not dead’, Institute for Agriculture and Trade Policy Commentary, *Des Moines Register*, 20 March 2010.
30 Ibid.
50 P McMichael, ‘Global development and the corporate food regime’, in H Buttel & P McMichael (eds), Development

About 90 per cent of the world’s food consumption occurs where it is produced. While urbanites depend on the market for almost all their food consumption, rural populations consume 60% of the food they produce. AF McCalla, ‘World agricultural directions: what do they mean for food security?’, presentation to Cornell Institute for International Food and Development, 30 March 1999.


Thus the opening paragraph of the World Bank’s, World Development Report 2008 reads: ‘An African woman bent under the sun, weeding sorghum in an arid field with a hoe, a child strapped on her back—a vivid image of rural poverty . . . But others, women and men, have pursued different options to escape poverty. Some smallholders join producer organizations and contract with exporters and supermarkets to sell the vegetables they produce under irrigation. Some work as laborers for larger farmers who meet the scale economies required to supply modern food markets. Still others move into the rural nonfarm economy, starting small enterprises selling processed foods’.

This is particularly the case for England and the USA, the two countries from whose development experience ‘development theory’ was derived, even though arguably a process of ‘re-peasantisation’ is underway in Europe. See JD van der Ploeg, The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization, London: Earthscan, 2009.


Ibid.


61 GRAIN, *Seized*.
64 There is some question about whether or why the green revolution did bypass Africa, even though the CGIAR reportedly invested 40% of its $350 million per year budget on Africa’s green revolution during the past quarter century. R. Patel & E. Holt-Giménez, ‘The new Green Revolution and world food prices’, FoodFirst/Institute for Food and Development Policy, 2008, at www.foodfirst.org/en/node/2083.
67 Urquhart, *op cit*.
70 Ibid.
72 Ibid.
73 It should be noted here that downward price trends for producers signal a combination of scale economies of downstream firms, plus rising input costs, given energy price inflation, expressed in rising prices at the supermarket.
74 IAASTD, *Executive Summary of the Synthesis Report*.
75 Ibid, p. 20.
76 The IAASTD emphasises that reinventing ‘agriculture’ requires experts in Agricultural Knowledge, Science and Technology (AKST) to work with local farmers and other professionals such as social and health scientists, governments and civil society.
77 C. Badgley, J. Moghtader, E. Quintero, E. Zakem, MJ. Chappell, K. Aviles-Vazquez, A. Samulon & I. Perfecto, ‘Organic agriculture and the global food supply’, *Renewable Agriculture and Food Systems*, 22(2), 2007, pp. 86–108. While this study claims that organic yields and nitrogen fertility methods could feed the world, this is an aggregate rather than regionally specific point, and depends as much on policies and prices as on yields.
78 Quoted in S. Leahy, ‘Reinventing agriculture’, Inter Press Service, 15 April 2008.
83 See www.panna.org/jt/agAssessment#Optionsexist.
85 M Altieri, ‘Small farms as a planetary ecological asset: five key reasons why we should support the revitalization of small farms in the global South’, Food First, 2008, at www.foodfirst.org/en/node/2115.
86 Ibid.
87 Ibid.

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