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Rural geography II: Discourses of food and sustainable rural futures

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Abstract
A dominant discourse in contemporary rural debate relates to food. Deliberated in multiple and complex ways, the conversation vacillates between issues of food sustainability, security, type and provenance, to those of food scarcity, access and safety. Further compounding this complexity, food is equally central to discourses of energy, climate change, biofuels, production patterns, land use and a '21st-century land rush'. The use and management of rural resources consequently finds itself near the top of current political, social, economic and environmental agendas. However, while there have been limited contributions by rural geographers on food-related issues, there is no doubting that the oft-declared challenge of providing safe and secure food supplies, and feeding a growing world population, has witnessed increased vigour of engagement. This report explores this engagement, deliberating on the promotion of a 'new productivism', the endorsement of the role of GMOs (genetically modified organisms) in securing food supplies, the escalation of global land grabs, and the subsequent impacts on sustainable rural futures.

Keywords
food security, genetically modified organisms, land grab, productivism, rural geography

I Introduction

The recent United Nations Conference on Trade and Development (UNCTAD) Trade and Environment Review 2013 calls on all countries to recognize the levels of hunger, poverty and environmental crises that continue unabated. The report particularly criticizes the tendency toward 'quick fixes' as evidenced in responses to the food-price crisis of 2008. In the Foreword, Carlos Pérez del Castillo suggests that while there may be some reversal of the long-term neglect of agriculture in developing countries 'one does not see the necessary level of urgency nor the political willingness, for drastic changes [with] [t]he priority remain[ing] heavily focused on increasing production (mostly under the slogan 'more with less')' (p. iii). Apparent throughout the report is the realization that our understanding of changing land use, ownership practices and exploitation of rural resources ultimately determines how poverty, hunger, population growth and environmental issues are addressed. Further, while it is reasonable to assume there would be little protest at the eradication of global hunger and poverty, there is nothing like agreement when it comes to deciding the best practice that

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might be followed. It is interesting, therefore, to scrutinize discourses of food and the rural, specifically: productivist ideologies and the notion that food production must double by 2050; the potential of new technologies (for example, GMOs – genetically modified organisms) to boost food production; and, finally, the reconfiguration of a globalized industrial agriculture and food system, wherein the new 'grab' of land resources can be seen as 'a ploy to control the food systems of the world and subject people to the vagaries of speculation' (Bassey, 2013).

II The 'new productivism'

Recent contributions within, and outside, the academic sphere contain many stark, sometimes alarmist, but, more often than not, worrying observations about food. Narratives of food riots and protests (Bush, 2010), environmental degradation, resource depletion (Brown, 2012b) and the dominant question of how we will feed a world of 9 billion people by 2050 (FAO, 2009) abound. Dismay at growing numbers of people undernourished or those who chronically suffer from starvation are paralleled by discussions on the number of children under five who are obese or overweight, or that roughly one-third of food produced for human consumption is lost or wasted globally (FAO, 2012; Gustavsson et al., 2011; Midgley, 2013; see also the Global Health Observatory of the World Health Organization, www.who.int/entity/gho). In Brown's (2012b) book *Full Planet, Empty Plates: The New Geopolitics of Food Scarcity* we are informed that 'food is the new oil', with the folly of using ethanol (from grain) to power cars, rather than use grain to feed people, among the many concerns outlined. Connected to discussions around the implications of increasing meat consumption and proliferation of fish farming, Brown not only argues for the reversal of the biofuel policy of recent years but warns of the global threats of land acquisitions, soil degradation and over-dependence on irrigated lands for world grain harvests.

So how do we address these challenges? Garnett (2013) suggests that dealing with the food 'problem' has become a global obsession. While few arguments could be made against this global characterization, Maye and Kirwan (2013) suggest there are anything but multiple actors involved. It is their contention that the food problem is very much caused by one main player, namely the group of actors comprising the agri-industrial food regime. Lang (2010) also harbours suspicions about the global prioritization of food and what he terms the 'normality of the current food crisis' (p. 87). While the world must look at ways of producing food that are 'diverse, ecologically sound and resilient' (p. 95), he equally suspects that the 2005–2008 food crises merely gave a shock to the political elite, being more reflective of the exception rather than the norm. Critiques from Allen (2013), Anderson (2013), Marsden (2013) and others likewise raise questions about the persistence of food insecurity and how neoliberal policies and practices are promoted as a key solution. Indeed, there are a number of views (Lawrence et al., 2013; Marsden, 2013; Rosin, 2013) which suggest that increases in production, intensification and specialization have worked against food security – a premise all the more crucial, when we see the 'new productivist' ethos being promoted by some governments and national agencies.

The Food and Agriculture Organization of the United Nations (FAO) advise in their report of 2009 that not only will there be a need for new technologies to enable the world to 'grow more from less land with fewer hands' (p. 4), but overall food production will have to increase by 70%. This, it is argued, can be achieved 'if the necessary investment is undertaken and policies conducive to agricultural production are put in place' (p. 2). In the European Union (EU), discussions on reforming the Common Agricultural

Policy (CAP) 2013 are also predominantly framed by questions on how the EU will respond to the challenge of food security, growing populations and changing diets (Ciolos, 2010). A productivist trajectory seems the likely response indicated by the numerous references made to 'active farmers', 'coupled payments', 'efficiencies' and ensuring farmers can be 'reliable participants' in the food production chain (Dabertrand and Waite, 2013).

In Ireland, the Government have a Food Harvest 2020 strategy (Department of Agriculture, Fisheries and Food, 2010). This approach, unsurprisingly, is contextualized by a growing world population, the rapid economic development of the BRIC (Brazil, Russia, India and China) countries, and the consequent creation of 'sophisticated new consumer audiences' (p. 6). Similarly, in the UK, the Foresight Report (2011) describes the possibility of 'an unprecedented confluence of pressures over the next 40 years' which could result in 'a strategic reappraisal of how the world is fed' (p. 9). This, it is argued, will emerge from the demand side with increases in population and calls for more varied, high-quality diets, and on the supply side in terms of land, water and energy. Rosin (2013), critiquing the spike in food commodity prices in 2007–2008 and its effects on production in New Zealand, suggests that rather than exposing the failure of productivist ideologies to 'feed the world', there has been limited impact on existing practices. Conversely, the increasing numbers of those hungry seem to provide 'a moral justification for continued practice as usual' (p. 58). The underlying narrative seems one dominated by quantities of food produced and efficiencies in production processes with little appreciation of unsustainable rates of resource use (Allen, 2013).

One could be forgiven for buying into this policy-driven rhetoric. However, when presented with reservation and insight by rural researchers, significant questions emerge for commentators. Tomlinson (2013), for example, contests the dominant framing of the problem of food security and the call for increased global food production. She suggests that such increases were 'never intended as a normative goal of policy' and attempting such a feat 'would exacerbate many of the existing problems' (p. 82). Sage (2013) reiterates this view and argues for a 'thorough revision of understandings of food security that go beyond the conventional framing of access, availability and affordability' (p. 78). He further indicates that any short-term focus on productivist ideologies would likely create far greater long-term difficulties in associated areas of energy costs, climate change and low nutritional quality food. Tomlinson (2013) also points to the 'wrong' statistics on which much of the policy discourses have been drawn. Here, it is argued, not only have such statistics provided an 'air of scientific precision' but they have taken on 'a life of their own reproduced without regard for the assumptions on which they were originally based' (p. 86). The consequence is that 'a moral economy of hunger (is) gradually replaced by a political economy of food security that promotes market mechanisms as a better protection against scarcity' (Nally, 2010: 37). Indeed it is worrying to see the ease with which 'wrong' statistics take centre-stage and ultimately skew our understanding of food security by excluding from the conversation such things as nutrition transition, climate change, food waste and reducing the prevalence of hunger (Tomlinson, 2013).

III The role of genetically modified organisms (GMOs)

While the productivist paradigm assumed that the 'Earth was limitless, the new era's policies must assume the connection between environment, social justice and health' (Lang, 2010: 94). Equally, however, the growing dominance of transnational corporations and the 'capitalist imperative to maximise returns on investment' (Woods, 2005: 57; see also Woods, 2012) presents a considerable challenge. In the rural, this

challenge is played out in particular in the debate on the use of the 'new magic bullet' (Lang, 2010: 94) that is genetic engineering and its potential impact on rural futures.

Promoted predominantly in scientific discourse, the role of biotechnology and the development of GMOs are often depicted as one potential solution to addressing the 'food sustainability problem'. Advocates of GMOs point to improvements in farm viability and competitiveness. Arguments against are often 'based on constructions of rural futures that feature local production systems, ''clean and green'' production and short-food chains' (Gibbs et al., 2008: 145). GMOs are also depicted as posing a threat. This threat is illustrated in the favouring of large- over small-scale farmers alongside potential threats of contamination 'through the unintentional mixing of GMOs with traditional varieties (Mooney and Hunt, 2009). There is also the view that we need to 'get beyond popular biases against the use of agricultural biotechnology and develop forward-looking regulatory frameworks based on scientific evidence' (Fedoroff et al., 2010: 833). It is argued, for example, that in a 'continent like Africa where one-in-four go hungry' we 'must carefully examine the potential of all new technologies to boost food production' (Karuku, 2013: no page). Indeed Karuku also contends that this 'does not mean pushing GMOs or any other technology on reluctant governments (but) neither does it mean slamming the door shut on discussion'. Questioning the role GMOs might play in future food systems, Sage (2013) points to the concentration of agricultural biotechnologies in a few corporations. The deep suspicion this creates, he argues, centres on 'the use of science for private gain rather than public good, particularly for something as essential as food' (p. 72). Nally (2010), drawing on Foucault, reinforces this concern when he points to how easily the 'corporate management of food folds into biopolitical strategies for managing life' (p. 37).

In further exploring the merit of the 'biorevolution', Nally (2010) describes the clever way in which 'feeding a world of 9 billion' is invariably linked to increasing agricultural production. Consequently, with the 'earth not getting any bigger', the advances of genetic engineering are easily promulgated. This is cleverly illustrated in the campaigns of agribusiness giants like Monsanto and their stressing that 'worrying about starving generations won't feed them. Food biotechnology will' (cited in Nally, 2010: 45). Reservations abound, however, particularly about the largely uncontested way in which both media and policy depict genetic engineering as a means to address food security. This, Nally (2010: 45) argues, culminates in a 'suite of prescriptive norms that invariably conclude that agricultural production must be increased if we are to deliver more calories to the poor of today and the hungry of tomorrow'. Effectively, GM technologies become a more integral part of the global agri-industrial model of rural development, based 'to varying degrees upon neo-liberal principles, on the one hand . . . [and] private-interest governance principles and procedures on the other' (Marsden, 2008: 192). Indeed, it is interesting to see also how Kautsky's 1899 publication *The Agrarian Question* and the promotion of large farms over small re-emerges in this discussion (see McDonagh, 2013). That is, not only do GMOs become contextualized as key to addressing the food 'crisis' (Godfray et al., 2010) but, as Marsden (2008) suggests, GM becomes reconfigured as:

> partly re-solv[ing] the problem of connecting the labour and production time disparities inherent in capitalist agricultural development, at the same time as finding a solution to the problems of allowing the centralisation of production, on the one hand, and the concentration of capital, on the other. (Marsden, 2008: 193)

Thus, very different conceptions of sustainable rural futures are possible. Marsden (2008)

depicts the GM debate as a 'battleground' with efforts to address a history of public concern regarding human health and ecological threats paralleled by declarations of GM crops having an 'excellent safety and efficacy record' (Fedoroff et al., 2010). The place of farmers in this 'intense', 'controversial', 'conflictual' arena is also interesting. As Hall (2008) rightly argues, it is the decisions of farmers about 'whether or not to cultivate GM crops (that) will be crucial to the future of the technology' (p. 204). Consequently, farmers find themselves in a difficult position. That is, they are caught between the promptings of industry to adopt new technology, protest groups opposed to GM, and consumer wariness in relation to GM foods. What also becomes apparent is the added contradictory stimulus GM seems to provide, whereby anti-GM voices increasingly push for alternative and greener food sources (Lang, 2010). Finally, there is the ever-present role of government and the challenge of not only 'protecting their consumers' but at the same time ensuring growth and employment in thriving agri-food and biotechnology sectors.

IV The global land grab

The conversation so far has been about the 'new productivist' ideology emerging in current discourse. Another piece of this complex discussion is how one rural resource, land, is becoming a key commodity in the global market place. The increasingly prevalent phenomenon of global 'land grabs' (Liu, 2013) sees wealthier countries buy up lands and cultivate crops that are immediately exported. In Ethiopia, Liberia, Cambodia, Indonesia and Sierra Leone, among others, the 'amount of relinquished land ... equates to an area the size of London sold off every six days' (Kugelman, 2013: 27). This, of course, is nothing new. Geographical literature has long critiqued the phases of imperialism. What is interesting from current research, however, is the scale and pace at which this global land rush is happening and the type of cultivation undertaken. Delving further into the discussions, there would appear to be a passive justification in some of the language of the FAO (and the G8), whereby addressing the formidable challenge of feeding a growing world population requires every means possible. This sentiment is skewed in reality, as rather than investors working with farmers and improving their capabilities they are appropriating their land (Liu, 2013). Figures from the United Nations (UN) and the International Institute for Environment and Development (IIED) suggest the scale at which this is happening should not be underestimated, with thousands (in some cases up to a million) hectares of land changing hands regularly (Kugelman, 2013). This rhymes with Nally's (2010) discussion around 'imperial agribusiness' and the 'use of state and institutional mechanisms to control world agriculture and the circulation of goods – made possible through colonial expansion' (p. 41). This advance of 'occupation, confiscation and displacement' (Nally, 2010) is likely to deliver what Kugelman (2013: 28) describes as a 'serious blow to a global food economy already hampered by sluggish harvest, high commodity prices and recession'.

In an effort to (re)position where this leaves the debate in terms of rural research, Lang (2010) argues for a redefining of food security beyond the three As – access, availability, affordability. He suggests that food (and agricultural) policy needs to consider other aims – including production on ecological terms, sustainable food systems, meshing embedded carbon, water and land use with calories, factoring in all diet-related ill health – not just hunger and creating resilient food systems. The rate at which 'investment' in global South land continues points, however, to a new global food system, 'a no-holds-barred resource scramble' (Kugelman, 2013: 30). This new geopolitics of food suggests that we might be 'much closer to an

unmanageable food shortage than most people realize' (Brown, 2012a: no page). Should this be the case, moving toward a new food era in which it will be 'every country for itself' (Brown, 2012a: no page), the importance of challenge, critique and direction from rural researchers will be required more than ever.

V Challenges ahead

Drawing this second report to a close, the contributions rural researchers can, and do, make to addressing sustainable rural futures are clear. While very often it is an individual, a community group, a social movement or a non-governmental organization (NGO) that champions the plight of food-insecure people, rural researchers 'can assist by leveraging academic freedom and intellectual credibility to address (such issues) that may be beyond the scope of (such) organizations' (Allen, 2013: 136). Helping unpack and configure how different social conditions are understood or addressed is very significant. Further, as rural researchers it is imperative that we embed the realization that, to address issues of food security or land grabs or increases in agricultural productivism (to name but a few), it is crucial to understand the historical, cultural and sociopolitical framework in which these are played out. What is also evident here is that rural researchers contribute in multiple ways, ranging from problem definition, questioning neoliberal policies and practices, and raising concerns about potential solutions, to framing more people-centred visions and strategies. Rural geographers will not have all the answers but they are well placed, through the use of different conceptual frameworks, ideologies and relational approaches, to inform and direct sustainable rural futures.

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