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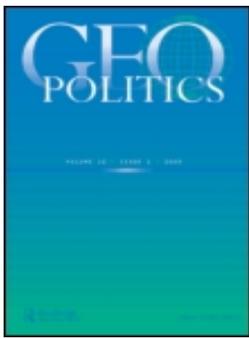


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University of British Columbia

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Melanie Sommerville, Jamey Essex & Philippe Le Billon

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The ‘Global Food Crisis’ and the Geopolitics of Food Security

MELANIE SOMMERVILLE

*Department of Geography, University of British Columbia, Vancouver,
British Columbia, Canada*

JAMEY ESSEX

Department of Political Science, University of Windsor, Ontario, Canada

PHILIPPE LE BILLON

*Department of Geography, University of British Columbia, Vancouver,
British Columbia, Canada*

Growing anxieties over food security have recently brought sharp geopolitical overtones to debates about the agro-food sector. Contending that this ‘geopolitical moment’ highlights the mutually constitutive nature of geopolitics and political economies of food, we examine how dominant geopolitical framings of food security extend and deepen neoliberal models of agro-food provisioning, and highlight the need for further attention to these dynamics from political geographers. We develop a preliminary research agenda for further work in the field, focusing on the recent spate of global farmland acquisitions, questions of agro-food governance, the securitisation of hunger and obesity, and the environmental impacts of dominant agro-food systems. Throughout, we highlight the value of a counter-geopolitics of food security for re-situating agro-food politics outside hegemonic policies and institutions, and of the alter-geopolitics of food pursued by communities embodying concrete alternative food production and consumption systems.

Address correspondence to Philippe Le Billon, Department of Geography, University of British Columbia, 1984 West Mall, Vancouver, BC, V6T 1Z2, Canada. E-mail: lebillon@geog.ubc.ca

INTRODUCTION

Since 2007, rising prices and pronounced volatility in international food markets have combined to dramatically refigure global food security and produce what many have termed a 'global food crisis'. Driven by a variety of factors including demand for agrofuels, the intersection of food with oil and financial markets, the steady erosion of agroecological systems and social safety nets, and pronounced inequalities in global agro-food systems, these food price shifts have had profound social and political effects. In many poorer countries, price spikes led to domestic unrest and widespread food riots, prompting emergency market-control measures by several governments. Increased unrest and rising food bills led many governments to reconsider their agricultural and food policies, with exporting states shutting down food surplus shipments, and several import-dependent countries further investing in offshore food production, a practice linked to a broader 'global land grab' with severe repercussions for small-scale farmers and the rural poor. For many observers, these combined social, economic, and political features have been read as the markers of a new 'global food crisis', which has continued into 2013, and shows few signs of imminent resolution.

Internationally, concerns about a new global food crisis resulted in new funding streams, combining overseas development assistance with philanthropic capital, and emphasising the development opportunities associated with agriculture as the seat of rural economic growth. These new capital flows, in combination with strengthened activism by agrarian social movements, have reshuffled the global governance architecture around agriculture and food security, creating new political actors and allegiances and strengthening others. Yet with almost 870 million people continuing to suffer from chronic and acute hunger, there are genuine questions about whether the root causes of global food insecurity have been addressed, and indeed whether a solution to the crisis is within grasp.¹

Price shocks and the broader 'food crisis' have brought considerable attention to the geopolitical dimensions of food security and the shifting political geographies of agro-food systems more generally. In both popular and policy forums, food security increasingly appears as a matter of urgent geopolitical calculation and strategy, and as an issue central to discussions of national and human security, climate change, development and global inequality. Leveraging neo-Malthusian predictions of an imminent descent into socio-political chaos amidst growing global food supply-demand imbalances, such narratives call forth liberal humanitarian interventions promising development for the hungry and security for the (privileged) rest of us in one tidy package. These doubly securitised framings are now being used to press forward technological and market-driven solutions to food insecurity with new urgency. Even as the global food crisis has offered a potent opportunity to challenge dominant agro-food political paradigms, then, it has also tended

to reinstall them. Political geographic knowledges and geopolitical framings are not neutral in this process, but rather are deeply inscribed within it.

This re-prioritisation of food security within political discussions and the geopolitical agenda appears to have gone largely unnoticed by political geographers. Indeed, agriculture and food issues have long occupied a somewhat marginal position within the subdiscipline, a curious situation given the growing attention they have garnered from scholars elsewhere in geography in recent decades.² Our aim in this paper is to begin reversing this pattern of neglect and filling the gap that has resulted. Our paper proceeds in two main parts. In the first section, we examine the geopolitical framings of food security that have come to dominate popular and policy narratives in the last few years, and demonstrate the importance of critical political geography approaches for unseating these dominant narratives. We argue that these framings promulgate a neo-Malthusian and securitised reading of food security that privileges technological and market-extending responses deployed through further liberal humanitarian interventions. Rather than interrupting the structural conditions underpinning the current food crisis, such instances of 'neoliberal geopolitics' obscure both the continuing relevance of questions regarding inequality and domination within the global agro-food system, and the role of crisis narratives in depoliticising recent interventions into this system. We call for critical political geography perspectives to attend to the central role of geopolitical discourses in constituting the political economy of agro-food production and consumption, and to highlight counter- and alter-geopolitics readings of food security. In the second section, we take up this challenge by examining four key areas where such approaches can help question the status quo, while also finding common ground with contemporary research in agro-food studies. In so doing, we hope to inspire political geographers to direct more attention to food and agriculture as important areas of geopolitical inquiry.

THE 'NEW' GEOPOLITICS OF FOOD?

The emergence of food security as a pressing geopolitical concern is clearly demonstrated in the popular press, which has carried a steady flow of stories about poor harvests, food shortages, famine, and rising food prices over the last six years. More in-depth studies asking "Could Food Shortages Bring Down Civilization?" and explaining "How Hunger Could Topple Regimes" have appeared in *Scientific American* and *Time*, respectively.³ A June 2009 story in *National Geographic* asserted that the crisis represents a Malthusian moment in humankind's struggle to feed an ever-growing population, while former head of the US Agency for International Development Andrew Natsios warned of "The Coming Food Coups" in *The Washington Quarterly*.⁴ More recently, prominent environmental commentator and

activist Lester Brown identified a “new geopolitics of food,” arguing that the failure to resolve the underlying causes of the 2007–2008 food price increases and volatility meant that “the food crisis of 2011 is for real.” He warns that “farmers and foreign ministers alike” should get ready “for a new era in which world food scarcity increasingly shapes global politics.” This new era of food-insecure geopolitics is driven by familiar ills (for example, “population growth and climate change”) coupled with deepening global inequalities and an international system unable or unwilling to coordinate across the range of policy fronts required to resolve the underlying roots of crisis.⁵

Yet it is not just the media that is heralding a new era of food-insecure geopolitics, but also mainstream policy narratives. A report to the World Food Program suggested that “food insecurity – especially when caused by a rise in food prices – is a threat and impact multiplier for violent conflict”, though noting it is rarely the direct (and singular) cause of conflict.⁶ Participants to an FAO Forum on Addressing Food Insecurity in Protracted Crises “emphasized the circular link between food insecurity and conflict”.⁷ The UN High Level Task Force on Global Food Security, the philanthropo-capitalist Alliance for a Green Revolution in Africa (AGRA), and many other development, aid, and philanthropic organisations have suggested that there is an urgent geopolitical need for rapidly increased food production through a so-called “new” or “second Green Revolution”, with massive new investments targeted for agricultural production and research in the developing world.⁸ At a 2012 symposium in Washington on global food security, US President Barack Obama stated that the danger of food riots and price volatility producing global geopolitical instability “will only grow if a surging global population isn’t matched by surging food production.” Investment in agricultural productivity that reduces the incidence of hunger and vulnerability, argued Obama, “advances international peace and security – and that includes the national security of the United States.”⁹

Although it is unsurprising that concerns about overpopulation, dwindling resources, (under)productivity, and political turmoil are being aired amid the lingering impacts of food price shifts, we assert that such concerns must be critically interrogated. Grounded in neo-Malthusian discourses of eco-catastrophe and the return of environmental determinism (or, as Robert Kaplan put it, the ‘revenge of geography’), such narratives overlook the central role of politics in organising abundance and scarcity.¹⁰ They offer a securitised framing of food insecurity, where hunger is seen not only as a politically revolutionary force but also as a fount of secondary problems such as disease, terrorism, illicit drugs and refugees. In such framings, the dangers posed by hunger threaten to reach far beyond the low-income populations and countries in which hunger resides. In doing so, they open the way for liberal humanitarian responses rooted in the nexus of security and development, and which rely on ‘technologies of betterment’ to resolve the threats posed by hunger and thereby prevent their circulation.¹¹ These efforts

and discourses privilege technological solutions to complex conditions of food insecurity, and hinge on the expansion and intensification of liberalised market relations and North-to-South technology transfers, doing little to challenge existing inequalities or limit exposure to economic shocks that threaten livelihoods and contribute to vulnerability, poverty, and hunger. As such they reflect not only the 'rendering technical' and 'anti-politics' aspects of aid projects, but also more broadly the 'post-political' character of 'common sense' neoliberal policy debates.¹²

In this sense, a critical political geography approach towards food crisis narratives can not only help reveal the assumptions and perspectives that frame them, but also how this framing contributes to the reproduction of a conventional agro-food political paradigm. This paradigm is predicated on assumptions drawn from two main realms. On the one hand, it employs the tropes of political realism to construct a world in which combative nation-states are competing in a zero-sum contest for global influence and power, with food security envisioned and strategised as an element of geopolitical risk and calculation. On the other, it re-substantiates the battered but still-dominant economic assumptions and practices of global neoliberalism, in which market openness and economic interdependence and connectivity are enthusiastically embraced as policy platforms for advancing food security. Both visions of world geopolitical space envision geographic relationships between people and places in which food insecurity and resultant sociopolitical unrest threaten, respectively, geospatial order and the security of the state and the unimpeded flow of investment and trade upon which capitalist globalisation depends. The resulting 'neoliberal geopolitics' frame those people and places that are disconnected from or that lie outside of such flows and systems of accumulation and calculation as gaps, risks, and threats. Security-oriented responses reliant on traditional institutions of state power and geopolitical control uneasily intertwine with coercive and unequal forms of neoliberalised economic connection, extending and reproducing the power of dominant institutions and conventional paradigms while excluding other policy approaches and discourses as unfeasible, too expensive, too radical, or simply illegitimate.¹³

Predictions of rapidly unfolding chaos sparked by unequal access to uncertain food supplies advance a powerful geopolitical view of a world struggling with scarcity, as opposed to inequality and domination, and on the brink of conflict, disaster, and generalised turmoil. Such chaos threatens the vision of ever-increasing stability and growth that has guided the governance of food and agriculture since the end of World War II, a vision of continued improvements in food security premised on the sustained expansion of food supplies through Green Revolution technologies and methods designed to intensify and industrialise agricultural production. The structural adjustment programmes that began in the 1980s and the liberalisation of agricultural trade at the World Trade Organization after 1995 was supposed to

stretch the benefits of this system even further through a new supra-national governance and regulatory structure that would bring the benefits of liberalised market dynamics to poor farmers and consumers around the world. In the promised and hoped-for success of these initiatives, food security had little geopolitical relevance. While significant food insecurity continued to exist, especially in many parts of the Global South, this was seen primarily as an economic rather than a geopolitical issue, to be addressed through injections of commodities, technology, capital, or expertise.¹⁴ In short, the increasingly hegemonic geopolitical practices of a globalising agro-industrial model were rendered largely invisible by universalising discourses of neoliberal development that depoliticised the model's social and environmental consequences.

Popular framings of and responses to the current 'global food crisis' could challenge these developmentalist discourses by postulating a future marked not by steady progression toward improved food security, cohesive economic integration and international peace, but by deteriorating food security, economic unravelling and political upheaval in the Global South and, potentially, the North as well. The food crisis thus represents a disruption to the existing geopolitical order of global agro-food systems, calling into question established food production and consumption practices and neoliberal framings of food security. At the same time, however, it serves as an opportunity to re-establish some dimensions of neoliberal hegemony, by directing new funding and investment streams into the agro-industrial model, thereby reproducing and expanding the dominant geopolitical order to incorporate new spaces, populations, and agro-food systems (especially but not uniquely in the Global South), in effect turning 'zones of chaos' into 'zones of potential growth'. What the food crisis reveals is the degree to which shifting geopolitical discourses and interventions into global agro-food systems are not just intimately interlinked with the political economy of agricultural production and food consumption, but rather integrally constitutive of this political economy (and vice versa).¹⁵

In this context, conceptualising recent shifts in food security as a temporally discrete and global 'crisis' is not a neutral framing, but one that risks neglecting longer term and structural drivers of food insecurity, lending legitimacy to securitised forms of intervention and creating new opportunities for capitalist accumulation in the global agro-food system. This speaks to the need to bring a critical eye to shifts in governance resulting from the food crisis, and to situate these amid longer term trajectories of both agrarian change and geopolitical projects and discursive formations. Within this, it is also imperative to examine the opportunities opened by gaps, silences, and failures in the prevailing geopolitical order and to engage critical and radical voices that emphasise alternative geopolitical arrangements, including governance from below and forms of de-globalisation, localisation, and translocal networking based on peasant and consumer power.¹⁶

The extent to which these can contribute to a counter-geopolitics of food that seeks to purposefully denounce hegemonic policies of food security, and nurture the myriad alter-geopolitics of food embodied by communities striving to pursue concrete alternatives to the agro-industrial model is also in need of further elucidation.¹⁷

REVITALISING CRITICAL AGRO-FOOD POLITICAL GEOGRAPHIES

Critical perspectives on the geopolitics of the global food crisis, and more broadly the political geographies of agro-food systems, hold considerable promise for unravelling and interrogating the multiple and complex spatialities of global food security; the ways in which these have been incorporated into larger discourses and systems of geopolitical calculation, risk assessment, strategy, and action; and the significance of food security for contemporary modalities of sovereignty, (geo)economic regulation, and sociopolitical legitimation. There is a need to revitalise the study of these topics within political geography as a discipline. In this section, we present a preliminary research agenda for future work in the field, identifying four themes that speak to current debates amongst both political geographers and agro-food scholars. These themes are: (1) the 'global land grab' and the relationship between rural farmland, territoriality, and sovereignty; (2) the role of states within larger assemblages of global agro-food power and governance; (3) the metabolic geopolitics of securitising food, hunger and obesity; and (4) the geopolitics of agro-ecological crisis and alternatives. In each case, we offer a preliminary survey of recent relevant work, highlighting key questions and avenues for further research.

The Geopolitics of the 'Global Land Grab': Farmland, Sovereignty, Territoriality

Large-scale farmland acquisitions have received much attention during the food crisis, and have lent the crisis an acute geopolitical dimension. Dubbed a 'global land grab' by critics, these acquisitions affect at least 71 million hectares of farmland globally, and encompass a wide range of shifts in both *de jure* and *de facto* land control.¹⁸ Early reports focused on international acquisitions by cash-rich but farmland-poor governments (e.g., Saudi Arabia, Qatar, South Korea), whose presumed motivations included reducing food import bills, improving food security, and preventing food price-related political instability.¹⁹ More recent studies have demonstrated that such acquisitions are less significant than those by a broader suite of domestic and international actors, including institutional investors such as pension and mutual funds, national and trans-national corporations (TNCs), and wealthy individuals (whether foreigners or national elites).²⁰ In some

cases, investors motivated by predictions of continued high food prices and growing demand for biofuels have used leased or purchased farmland to establish new large-scale agro-industrial operations. Many others have acquired farmland to 'hedge' against instability in global financial markets, as a speculative investment, or to secure land for non-farming purposes including money laundering.²¹ Together, these acquisitions are forcing the consideration of global food security in more robust geopolitical terms, opening questions about the role of non-state actors in driving development through financing and foreign direct investment, the changing character of imperial and neo-colonial relations amid widespread neoliberal crisis, and the meaning of territoriality and sovereignty in relation to land rights and decision-making over land use.

The ongoing farmland rush has generated considerable debate amongst international development agencies, national governments, and civil society groups.²² Proponents argue that agro-investments will increase global food supply, reduce poverty and promote rural development by ending a decades-long neglect of agriculture by both domestic governments and international donors. Such framings characterise agro-investments as a 'win-win' option that will generate profits for investors as well as benefits for host countries and communities, including infrastructural development, modernisation of the agriculture sector, employment opportunities, and enhanced taxes and revenues.²³ Critics, in contrast, denounce these acquisitions as undermining local land rights, livelihoods, food security and environments. Framing these projects as a contemporary form of 'primitive accumulation' or 'accumulation by dispossession', they argue that agro-investments will enable the expansion of an industrial and export-oriented model of agricultural production, furthering a geopolitics of dispossession set in motion by colonialism and more recent processes of neoliberal restructuring.²⁴

The centrality of land dispossession and cash crop farming in the colonial project has invited framings of the 'global land grab' as a 'neo-colonial' or 'agro-imperial' phenomenon. Such framings rightly recognise the important similarities between recent acquisitions and those of the colonial period, including the demonstration of a strong anti-smallholder farming sentiment and the use of colonial tenure norms to limit the rights of rural communities.²⁵ They often overlook, however, important distinctions from earlier dispossessions, including the relatively more complex socio-spatial dynamics of the contemporary land rush. As Saturnino Borrás et al. note, these dynamics not only include North-South acquisitions but also South-South investment deals, as well as a range of national projects that the authors characterise as a form of 'internal colonialism'.²⁶ The South-South dynamic raises questions about how contemporary acquisitions by 'emerging economies' such as Brazil and China help constitute an imperial realignment. Similarly, the extent to which international agro-investments – through their deployment of capital, investment and trade agreements, 'expertise' and

labour – will come to facilitate and embody new geopolitical alliances or regional blocs is in need of further exploration.

The contemporary agro-investment rush also draws attention to the degree to which global, national and local claims to farmland increasingly stand in tension with one another.²⁷ Borras et al.'s conception of the 'internal colonialism' inherent in many recent land acquisitions highlights the conflicts that may arise when governments pursue agro-investment to meet national development objectives, irrespective of the consequences for local populations.²⁸ At the same time, the fact that farmland targeted for foreign investment exists within an international system of sovereign states marks another important difference from earlier rounds of imperialism where such recognition did not exist or was constrained and overstepped by colonial treaties. In this system, claims to farmland in the interest of global food and environmental security may run up against the sovereignty claims of host nations, and farmland in the global South may increasingly be represented and positioned not as nation-states but rather as 'needed' resources.²⁹ This process has both material and ideological dimensions, which play out through such development agencies as the World Bank, whose discursive interventions into debates around agro-investment help to legitimate 'global access' to 'under-utilized' farmland, thereby reproducing a neoliberal model of agriculture prone to land dispossession and other forms of injustice.³⁰

At the same time, the sovereign status of states encompassing 'targeted' farmland also opens questions about the complex intersections between agro-investment and processes of state building. New characterisations of farmland as a 'strategic asset', have led some states to consider or impose restrictions around foreign ownership of farmland, even as domestic investment continues to be supported and encouraged.³¹ In contrast, other states actively promote foreign investment as a modernisation mechanism. Pál Nyíri suggests that for this latter group, agro-investment constitutes a "concessionary model of development" similar to that used historically in countries such as China during the colonial period, a model that he suggests is both discontinuous with and a reaction against the neoliberal approach to development, where, amidst "frustration with *both* the financial prescriptions of neoliberal economics *and* the individual-empowerment approach to development . . . the kind of state capitalism represented by China suddenly has wider appeal."³² While this perspective may neglect important overlaps between Chinese-style authoritarian state capitalism and neoliberalism (e.g., the selective application of liberalised market dynamics in the Chinese agricultural economy and China's important, if incomplete participation in global governance mechanisms), Nyíri's formulation does expose the new forms of 'extra-territoriality' and 'shared sovereignty' that may result from agro-investments, and the potential of these projects for informing a conception of states and state power that reaches beyond the 'territorial trap'.³³

Agro-investments' potential role in facilitating the establishment and expansion of state authority and territoriality are perhaps most evident in countries where civil and ethnic conflicts have created an 'internal frontier' characterised by illegibility, insecurity, and governance challenges. In his detailed study of projects in Laos's upland interior, Michael Dwyer finds that large-scale rubber production projects backed by Chinese capital have been central to state efforts to secure the region, a site of insurrectional geopolitics during the Cold War.³⁴ Also highlighting the centrality of non-state actors to state-building processes, Kevin Woods demonstrates how the deployment of a postwar state territorialisation strategy that he terms 'ceasefire capitalism,' has used rubber plantations to actively reconstruct areas of Northern Burma, enrolling national and regional ethnic elites, in order to make the region more conducive to state control.³⁵ Similarly, Teo Ballvé demonstrates how narco-paramilitaries have used decentralisation processes associated with neoliberal tropes of 'good governance' to gain control over local government institutions and secure state and international support for the development of large oil palm plantations in Urabà, Colombia, thereby facilitating the territorialisation of exploitative state power rather than countering it.³⁶

Agro-investment projects can also function as a site where indigenous, sub-national, and subaltern groups can assert sovereignty claims and attempt to establish alternatives to state territorialisation processes. While early critiques have emphasised the dispossessive elements of agro-investment for indigenous people (noting in particular investment projects' roles in displacing those with insecure land tenure and facilitating the privatisation of common property regimes), such framings overlook the possibility that indigenous and other marginalised groups will actively negotiate their involvement in agro-investment projects to gain political recognition and territorial control.³⁷ More broadly, while scholars have suggested that the discourse of 'food sovereignty' may provide a basis for resisting farmland acquisitions and protecting the rural poor, the spatial and scalar dimensions of food sovereignty-as-praxis remain under-theorised and in need of further elaboration.³⁸ Critical scholars examining the political geographies of farmland acquisition must similarly grapple with the contradictory effects of such processes as land reform and regularisation which, while securing the land rights of hitherto landless or land-insecure populations, may simultaneously dispossess through the creation of new state-authored political subjectivities and, by enhancing the legibility of the landscape, may facilitate future agro-investment projects.³⁹

States and Global Assemblages of Agro-Power

Large-scale attempts to purchase farmland are part of a much broader and longer term trend that has remade global agro-food regulation and governance and redrawn the configuration of institutional, political economic,

and discursive power across scales. As global systems of food production, consumption, and trade have expanded, so too have the mechanisms and frameworks that regulate these systems become more complex. A critical geopolitics of global food security demonstrates how such mechanisms and frameworks are constructed, the geospatial and socio-political assumptions that support them, and the ways in which these reproduce highly unequal power relations and uneven geographies of food security. Such an approach recognises that food security is itself multi-faceted: it is an idealised concept, a set of practices, a platform for establishing benchmarks, and a mechanism for geopolitical assessment and calculation, among many other things. These different usages articulate “food security” with traditional geopolitical conceptions of national security and regional and global order, but also with new registers and understandings of environmental, economic, and sociopolitical risk and danger, resulting in new institutional configurations and regulatory practices. Critical political geographic research on this front should therefore consider the intertwined, alternately contradictory and complementary roles of different actors in forging new forms of agro-food governance. Tied to this is the question of how to conceptualise shared, distributed, and often highly contested forms of power and their associated geographies within new governance schema.

National governments have long approached food security as a central component of both national security and development, with technological and economic advances promising greater food security also seen as key drivers of urbanisation, industrialisation, and modernisation. In the domain of international relations, systems of food provisioning have legitimated and underpinned systems of geopolitical dominance. Fears that unfulfilled demands for food could lead to anarchy, communism, or terrorism, according to the prevailing enemy of the time, have played an important role in shaping the geopolitics of development intervention in food-insecure states. Scholars of food regimes – a primarily structuralist approach to the global agro-food system based on regulation theory – have delineated two historical regimes wherein particular configurations of agro-food regulation supported the imperial ambitions of Britain (and, to a lesser extent, other European nations) and, more recently, American hegemony.⁴⁰ While the food regime approach privileges broad, historically delimited structural shifts over geographic specificities and differentiation, and emphasises strategies of capital accumulation over other systemic characteristics, it nevertheless provides strong accounts of expanded reproduction and consumption norms tied to industrialisation and globalisation, and of the shifting articulations of geopolitical power, agro-food production, and trade.

In the four decades following World War II, the regulation and governance of agro-food systems was by and large the domain of national states operating in an international state system dominated by the US. Trade liberalisation and globalisation ushered in a new era of neoliberal

agro-food governance beginning in the 1980s and 1990s, with a host of new institutional configurations and geospatial arrangements. The World Trade Organization (WTO), regional and global trade agreements, agro-food capital and TNCs, finance capital and complex futures and commodities markets, radical social movements groups, and elements of the UN system – all became strongly intertwined in the regulation and governance of agriculture and food systems. Yet the persistence of widespread food insecurity and hunger during the neoliberal period, and the food price shocks of the last several years, have demonstrated the fragility and contradictions of current forms of agro-food governance, raising questions about the ability of liberalised market dynamics to expand or ensure global food security. While capital and major agro-industrial producing and exporting states (led by the US) continue to stump for deeper and more widespread liberalisation of trade and investment controls, some other states are resurrecting older forms of export control, national protectionism, and goals of food self-sufficiency. This fractured context raises questions about both the differential power of states and the role of non-state actors in determining domestic and global food security, and has initiated debate among food regime scholars on whether we have exited the second regime, entered a third one, or remain in a protracted transition period.⁴¹

A key concern here is acknowledging the articulations between different fractions of capital and the state, and the impacts of these articulations on state power, structure, and legitimacy amid the neoliberalisation and privatisation of agro-food governance. The continuing expansion of agro-food TNCs in the production, processing, distribution, and retail sectors heralds important changes for both the structure and governance of the global agro-food system. As Clapp and Fuchs argue, these corporate actors “are increasingly playing a role in setting the very rules that govern their activities,” raising “concerns about the efficacy and legitimacy of these rules.”⁴² However, agro-food TNCs are not the only important private actors in the governance of global agro-food systems. Further attention should also be paid to the changing influence of finance capital, including through the development of exotic financial instruments tied to food commodity prices, futures, and derivatives that operate in a largely unregulated and highly volatile financial sector.⁴³ Philanthropic wings of large diversified TNCs, such as the Bill and Melinda Gates Foundation, are also playing an increasingly prominent role in agro-food governance, particularly through discourses and practices of development and agricultural investment in the Global South. Finally, privately funded development actors, themselves relying on both this philanthropic capital and government contracts, have similarly become important agents of governance. While at first glance such institutions and mechanisms seem to challenge assumptions about the centrality of states in global governance, they are also closely intertwined with the structure and exercise of state power. Officials within and outside the state’s formal

boundaries share an ideological predilection for neoliberal forms of governance and regulation, an affinity made easier by a policy environment that views market liberalisation and competitive deregulation as the only possible options.⁴⁴ Addressing the complex geopolitics of such new governance arrangements thus demands paying close attention to the instrumental, structural, and discursive power of private actors in their diverse interactions with state institutions.⁴⁵

Alongside the rise of corporate and private actors, civil society groups are also taking on new roles in emerging forms of agro-food governance. The participation of non-governmental, intergovernmental, and social movement organisations in institutions such as the FAO's Committee on World Food Security provides opportunities to bring non- and even anti-capitalist voices from the margins of governance to its very heart.⁴⁶ This speaks to the new openings that the food crisis may create for such groups, a point explored by Kim Burnett, who shows how two key international agro-food movements – the fair trade and food sovereignty movements – have responded to these opportunities, demonstrating that while the food sovereignty movement has remained relatively truthful to its original understanding of power relations and associated vulnerabilities within the liberalised system of global agro-food regulation, the fair trade movement has become more solidly ingrained within decidedly neoliberal approaches and institutions. Such work points us to questions of ideological and institutional cooperation and co-option within global agro-food governance, and the relationship between discursive and political economic power within these.⁴⁷

The significant shifts in global agro-food governance emphasise broader questions regarding the means by which the diversity of governance and regulatory actors share power, and the forms and exercises of power that are most important in the emerging 'post-crisis' geopolitics of global food security. The theoretical exposition of "global assemblages" holds some promise in this regard. Initial framings of the assemblage concept in work by Aihwa Ong and Stephen Collier, as well as Saskia Sassen, stress the active and dialectical production and reproduction of networks of actors, knowledge and technology in and across institutions spanning multiple scales, presenting a means for conceptualising the decentred and networked forms of power characterising the dynamic geographies of agro-food systems.⁴⁸ For Saskia Sassen, the "larger assemblage of elements that amounts to a structural enablement and embedded governance" of land acquisitions signals a further "disassembling of national territory through a new type of global geopolitics, one where national sovereign territory increasingly is subject to non-national systems of authority – from familiar IMF and WTO conditionality to elementary controls by diverse foreign actors over growing stretches of a country's land".⁴⁹ Gail Hollander, more specifically, describes a global sugarcane ethanol assemblage that includes states, corporations, growers, technologies, urban consumers, and rural communities and landscapes. This

assemblage constitutes agrofuels as a simultaneously global and regional phenomenon whose political economic power means that industrial and transportation energy demands are privileged over global food needs.⁵⁰ Such global markets and the forms and exercise of power associated with them should not be taken for granted, but instead considered as products of state action in combination with the interests, actions, and capacities of other actors, especially but not only or necessarily corporate actors. The changes to state power and position within global agro-food governance thus portend shifts in the discourses and forms of geopolitical calculation and strategy around food security, as poverty, hunger, security, and development are recalibrated and reconceptualised against new visions of geospatial and geopolitical order.

Metabolic Geopolitics: Securitising Food, Hunger and Obesity

Food has long been used as a ‘geopolitical weapon’, from the burning of crops to quell insurgencies, to the deployment of famine in international wars, to the use of food trade and aid to establish geopolitical dominance during (supposedly) peaceful periods.⁵¹ But in the lead up to and the wake of the ‘global food crisis’, both food and our metabolic relationship with it have increasingly been conceptualised in terms that are at once geopolitical and biopolitical, and that reveal the contradictions inherent to neoliberal development models.⁵² Contemporary debates around food safety, hunger and obesity reveal anxieties relating to recent changes in global agro-food systems and ongoing shifts in political and economic ideology and power. In doing so, these debates demonstrate the multiple ways in which both food and global appetites are being securitised.

That food itself has become a securitised commodity is perhaps most evident in the growth, especially since 9/11, of state discourses highlighting the vulnerability of food production and distribution systems to bioterrorism. The threat of deliberate food contamination adds a terrifying new bodily register to the politics of agro-food system globalisation, and has resulted in the creation of new governmental bodies, legislation, and ‘bromatovigilance’ practices.⁵³ But the management of accidental contamination – including that resulting from increasingly frequent food scares and outbreaks of plant and animal diseases – raises similar geopolitical issues, including border closures, government legitimacy crises, and new food surveillance and regulation processes. Neoliberal responses introduce risk-based approaches relying on corporate self-discipline and audit-based verification and emphasise the harmonisation of food safety standards, ostensibly to ensure the ‘free flow’ of goods across borders. In doing so, they often profoundly restructure agro-food systems, favouring multi-national capital while presenting barriers to small-scale producers, or introducing new forms of domination and vulnerability into post-colonial food supply chains.⁵⁴ These new food safety

mechanisms are intimately bound up with geospatial practices, including the reproduction of the neoliberal 'security state' (and its attendant population), as well as the emergence of both intra-state and international relations as a means for managing and containing food safety hazards.⁵⁵

Yet it is not only food that is being securitised, but also global appetites, as narratives linking food insecurity to global political and economic instability are regaining prominence following the onset of the food crisis. Emphasising the rise of food riots and linking rising bread prices and the 'Arab Spring', such accounts reproduce the neo-Malthusian ideology of earlier (and ongoing) debates about the political implications of the 'changing appetites' of emerging economies, conflating hunger and demands for a 'richer' diet into a geopolitics of endangerment.⁵⁶ By defining 'food scarcity' as the future driver of 'world politics', such framings risk occluding or even inverting the actual direction of a causal relationship, as outlined in seminal works on famine by Michael Watts and Mike Davis: namely, that world politics (e.g., colonialism and the expansion of capitalism) determine food security, not the contrary.⁵⁷ Moreover, casting food security in strongly geostrategic terms marks an important shift in the meanings attached to the concept, and creates tensions with humanitarian conceptualisations and practices.⁵⁸ Articulations of humanitarian institutions, spaces, and objectives with strategies that seem to favour status quo neoliberal geopolitical approaches have heightened the ethical ambivalences of development assistance directed towards hunger and food insecurity, and placed questions of ethics, morals, and responsibility at the centre of geographic debates over global food security and food system governance more generally.⁵⁹

Indeed, the shifting placement of hunger and the hungry under neoliberal geopolitics generates a peculiar 'scalar tension' when it comes to resolving food insecurity, insofar as "the geoeconomic solution of greater openness to flows of food commodities and aid does not neatly fit with a geopolitical response emphasizing sociospatial containment and disciplining the hungry."⁶⁰ A similar tension exists in the approaches of development organisations such as the World Bank, which describe an 'order of preference' favouring 'domestic' food policies that open trade flows over those that restrict them.⁶¹ In this ordering, countries that bow to domestic perceptions and pressures by utilising food stocks or implementing price controls and subsidies have not only succumbed to political parochialism, but are contributing to instability via increased "prices and volatility on international markets, with disproportionate costs for fragile states, which are more dependent on food imports and have less ability to meet these costs."⁶² In contrast, a counter-geopolitics or critical political geography perspective must attend to the ways in which these contemporary efforts to re-spatialise food security mark a resistance to the contingencies of 'openness' and '(en)closure' within neoliberal food systems, and to the installation of 'selectively permeable'

borders that reproduce the global North as a zone of relatively greater food security and privilege compared to the South.⁶³

If ‘the hungry’ are portrayed as a threat, so too are ‘the obese.’ The World Health Organization describes a growing ‘globesity epidemic’ having major negative socioeconomic impacts and resulting in more deaths annually than the problems posed by underweight.⁶⁴ For Julie Guthman and Melanie DuPuis, calls to such an ‘epidemic’ in the United States must be situated within the contradictions of neoliberal development, in which obesity acts as a bodily and spatial fix to over-accumulation crises, but also belies tensions within neoliberal discourses that refigure the citizen as simultaneously consumer and self-disciplining subject.⁶⁵ Yet attention is also needed to the broader political economic anxieties and agendas that underlie ‘fat phobia’, and that conflate the bodies of citizens not only with the economic health of the nation (amidst productivity losses and growing health care costs), but also its political security and reputation, as citizens become ‘too fat to fight’ and potential leaders ‘too fat to govern’.⁶⁶ Here too neoliberal prescriptions framing obesity as a “shaming sickness of [individual] sovereignty” or emphasising a problematic lack of self-discipline amidst the need to be (and be recognised as) ‘lean, mean and competitive’ convey a sense that if the hungry are fighters, the obese are hampered, missing not only the physical ability to fight, but also the primal drive to do so.⁶⁷

In this regard, Patricia Price’s work examining the similarities between the language used in the governmentality of female thinness and the ‘corporeal discourse’ of neoliberal economic reforms – when countries are urged to “tighten their belts, cut the fat, and shape up their bloated, swollen, top heavy economies” – is insightful.⁶⁸ Used to promote structural adjustment programmes in the Global South through the late 1980s and 1990s, such discourses not only facilitated the wholesale restructuring of national economies, but resulted in dramatic increases in food insecurity, borne disproportionately by women.⁶⁹ The contemporary resurgence of similar discourses in the promotion of austerity measures in Europe and North America raises questions about whether deepening neoliberalisation will soon yield a changed picture of food security for the global North.

Food and the Geopolitics of Agro-Ecological Crises

Framings of and responses to the food crisis are also tightly interlinked to environmental issues and their geopolitical representations. Not only does agriculture depend on ecological services, such as soil, rainwater and pollinators, but it is also a major ‘driver’ of environmental change. This interdependence juxtaposes food production with an environmental crisis characterised by climate change, deforestation, land degradation, widespread pollution and biodiversity loss.⁷⁰ Covering about 40 percent of the world’s landmass, agricultural activities account for 85 percent of

consumptive water use, most deforestation, significant biodiversity loss, and a third of anthropogenic greenhouse gas emissions.⁷¹ The food crisis is thus also an agro-ecological crisis, the symptoms of which are partly found in environmental ills, and for which proposed remedies often entail further environmental impacts.

Contemporary accounts of this agro-ecological crisis often stress the particularly negative environmental impacts of modernised or industrial agriculture, whose massive scale, monocultures, and mechanisation are seen by many to have a uniquely deteriorative quality. These contrast with earlier accounts, which stressed the destructive character and underproductive outcome of small-scale or 'traditional' agriculture, and the need for more efficient, intensive and larger scale agricultural sectors. Issues of scale remain significant within geopolitical narratives of the food crisis. Options for addressing the crisis continue to be contrasted according to their environmental impacts, often pitting supporters of 'Sustainable Big Ag', promising the agro-environmental modernisation ethic of a truly *Green Revolution*, against the neo-Malthusian 'Prophets of Doom' with their concerns of climate change and 'peak everything', or the supposedly 'deluded Luddites of Small Ag' who assert that 'food localism' and more broadly food sovereignty can achieve food self-sufficiency for 7 billion people and more.⁷² In each case, geospatial framings and power relations influence which model comes to dominate and through what political processes. These dynamics play out in three major debates focused on the intersection of agriculture, biofuels and climate change; the diffusion of the 'Green Revolution' and adoption of genetically modified organisms (GMOs); and the 'meatification' of diets.

As a key part of the hydrocarbon-fuelled economy, the current agro-industrial model requires vast oil and gas inputs. Replacing crude oil with agrofuels (or, to use the greener appellation, 'biofuels') is frequently portrayed by agro-industry and supporting governments as part of the solution to high oil prices, the threat of 'peak oil', depressed rural incomes, and concerns about climate change; domestic biofuel production is also a supposed solution to the geopolitical quandary of reliance on 'terrorfuel' from the Middle East.⁷³ Nadine Lehrer's work on the 'Patriotic' rise of 'biofuels' in the 2008 US Farm Bill, shows how, through the discursive association of "biofuels development with concepts of national security, energy independence, environmental conservation, and rural revitalization, biofuels came to be seen as a 'common good' solution to many of the nation's woes".⁷⁴ Yet first-generation agrofuels, such as the corn ethanol that dominates US production, or oil palm-based fuels grown on deforested land in tropical regions, mostly compound social and environmental problems by allocating farmland to fuel rather than food production, while having a low Energy Returned On Energy Invested (EROEI) and heavy carbon footprint.⁷⁵

Agrofuel production also further consolidates agro-industrial models with highly unequal social relations between local farming communities and

vast corporations, and ends up serving the capital accumulation interests of agro-industries through a series of spatial and environmental fixes. These include the diffusion of resource control to new production areas domestically and internationally, product replacement (by shifting from fossil to biofuels), and market extension, adding cars to livestock, cheap carbohydrates, and food aid to deal with agricultural surpluses.⁷⁶ Privileging the choices and interests of urban groups over those of rural communities, this logic entrenches a hydrocarbon economy that aggravates climate-related concerns for agriculture, such as extreme flooding or drought events. While fuelling the mobility entitlement of privileged populations in the global North, agrofuels undermine the very production of food for some of the most vulnerable and least culpable populations on the planet – namely subsistence farmers in drought-prone regions concentrated in the Global South.⁷⁷ A critical political geography perspective thus requires attention to how agrofuel production is sustained through high fuel prices and continued agricultural subsidies in spite of these effects.

The reengineering of crops for biofuel development also adds a new dimension to the input-intensive agro-industrial model that has come to dominate agricultural production in many countries. The geopolitical narratives of the Green Revolution played a major role in establishing this model, through their portrayal of a Global South in need of modernity and agro-industrial development. As critics point out, the US instrumentalised the Green Revolution not only to feed the hungry, prevent the spread of communism and widen the Sino-Soviet split, but also to establish a food regime in which Western agro-industrial capital could become dominant.⁷⁸ While Green Revolution narratives were deployed less frequently following the end of the Cold War and the South's stagnation in debt crises and global trade liberalisation, they are now being mobilised anew in 'South-South relations'. Examining the deployment of Chinese Green Revolution narratives in contemporary agro-development schemes in Mali, William Moseley argues that the region "has been sold a set of flawed policies based on a misreading of another region's history and experiences."⁷⁹

The Green Revolution gave way to a 'Gene Revolution' in the mid-1990s with the advent of genetically modified (GM) crops. Covering an estimated 150 million hectares (barely fifteen years after the first GM seeds were commercially planted), the expansion of these crops is now fastest in 'developing' countries. Yet the adoption and regulation of GMOs pits proponents and opponents against each other at a wide diversity of scales, from regional trading blocs to neighbouring farmers and individual shoppers.⁸⁰ The dominant geopolitical discourse in these conflicts is one of a "new age of biodiplomacy," where agro-biotechnologies are used to solidify US agro-dominance and advance the neoliberal food regime – a formulation to which the dominance of firms like Monsanto gives credence.⁸¹ Tensions between the US and the EU and amongst food aid recipients are further expressions of

this discourse, as are suggestions that anti-GM movements that delay domestic research and development in Europe – such as the *Faucheurs Volontaires* in France destroying GM field trials – are 'unpatriotic' and enabling of future US market dominance in agro-biotechnologies.⁸²

At the same time, widespread adoption of GM crops in the US and some Latin American countries, such as Argentina and Brazil, has raised concerns about biodiversity and labour losses, especially following the impacts of GM corn on Mexican ecosystems and farmers.⁸³ That such adoption has come in part through companies' use of aggressive commercial and judicial practices to impose their patented seeds and resist product labelling is particularly disquieting and provides opportunities for articulating the concerns of producers and consumers in resistance movements. Some prairie farmers in Canada, for example, have used claims about the supremacy of consumer choice and the environmental risks of GMOs to advance their own concerns about the extraction of surplus from agriculture and the control of food systems.⁸⁴ Such movements counter the grand claims of agro-companies associating GM crops with greater food security and lower environmental impacts, and point to the risk of GM crops locking even unwilling farmers and consumers in 'adopting' regions into a new, selectively profitable, phase of agro-industrial development.⁸⁵ At risk is not only the diversity of crops and ecosystems nurtured by the great variety of localised agro-ecological models, but also the many social cultures associated with food growing and consumption, and more broadly the ethics of relating to the land and 'nature'. As long stressed by Arturo Escobar, the geopolitics of cultural framings here again plays an important role.⁸⁶

A final focal point of political geographic debate around the agro-ecological dimensions of food security regards the changing geographies of meat production and consumption. A direct contributor to climate change (through methane emissions), land-grabs, enclosures and deforestation (for growing feed and expanded livestock production), meat production is a clear villain in the agro-ecological crisis. Just as important are the questions that meat raises about disparities in consumption, including whether the world would more appropriately be thought of not as 'too hungry' but rather 'too meaty'. As Anthony Weis demonstrates, meat production and (over)consumption drives much of the global 'food deficit', meaning that the food crisis is not simply the result of poor countries' agricultural 'under-production', but in part a diet problem.⁸⁷ The geopolitical dimensions include not only the wastage inherent in the meat-based diets of industrialised countries, and more generally in the agro-industrial model, but also the broader climatic and trade impacts of industrialised agricultural models that have put the production of cheap meat and calories at the core of accumulation strategies.⁸⁸ This perspective suggests that critical perspectives must focus on politicising resistance to these accumulation strategies (and their influence on specific food production and consumption 'choices'), and on developing

alternative political geographies in which meat consumption and other forms of 'modern diets' are not seen as a marker of progress and development, but one of irresponsibility (e.g., climate change impact), selfishness (e.g., effects on food security for the poorest), and speciesism (e.g., animal rights and environmental ethics questions raised by the annual slaughter of billions of animals).⁸⁹

CONCLUSION

The 'global food crisis' marks yet another contradiction in the global neoliberal order. Geographically and socially uneven in its manifestation and impacts, this crisis combines the effects of long-established agricultural surplus policies with the sudden price shifts and political upheaval triggered by 'unexpected factors' tied to concurrent fuel and financial crises. Whereas in 2005 the FAO could still write that *low* food prices resulting from subsidised surplus production in the North threatened agricultural livelihoods and the "food security of hundreds of millions of people" in the South, two years later it was *high* prices that constituted the main threat – not only to poor populations but also political regimes.⁹⁰ From this perspective, the food crisis has been widely understood (and represented) as a symptom of a still divided world in need of greater economic integration, as a challenge to extend neoliberal policies in the face of revisionist governments seeking to (re)establish food trade barriers and protect 'their' farmland and agricultural sectors, and as an opportunity to solve long-term food security concerns by closing the 'yield gap' between a 'highly productive' North and an 'under-producing' South.

As suggested in this paper, such geopolitical representations require critical engagement, including through counter-geopolitics sensitive to the power relations that shape such narratives. As demonstrated in the contributions discussed above, counter-narratives draw attention to a (neoliberal) food system that financialises food commodities, encloses lands and dispossesses the rural poor, and institutionalises both profound food insecurity and environmentally disastrous production and consumption patterns. Questioning why governments and development organisations have seen fit to respond through a simplistic duality of either 'greater liberalization' (for agro-investments and trade) or 'atavistic responses' (such as food self-sufficiency and subsidies), a counter-geopolitics of the global food security situation suggests that a richer array of responses and solutions can be found in the alternative forms of agro-food system organisation and social regulation pursued by myriad organisations and communities 'from the ground up'. These have begun to produce an alter-geopolitics of food security and governance. Understanding this new alter-geopolitics requires empirical research that attends to the nuances and variegations of representations of the 'global

food crisis' and solutions to it, but also the multiple strategies pursued within (and beyond) its context. We hope that by identifying several key areas deserving of further attention, this paper will help to encourage the expansion of critical geopolitics and political geographic studies on the food crisis and global agro-food governance.

NOTES

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68. P. Price, 'No Pain, No Gain: Bordering the Hungry New World Order', *Environment and Planning D: Society and Space* 18 (2000) pp. 92.

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McMichael sees an intrinsic contradiction reminiscent of the metabolic rift associated with capitalism, mainstream environmental organisations such as the United Nations Environment Program (UNEP) essentially proposes a weak (or light) form of ecological modernisation; see *The Environmental Food Crisis: The Environment's Role in Averting Future Food Crises* (Rome: UNEP 2009).

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