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Household Food Security and Food Sovereignty:

Framing the Future of Hunger and Agriculture

by

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Abstract

Globally, agriculture is both threatened by and contributing to the converging, interlinked problems of hunger, malnutrition, climate change, resource competition, and the degradation of natural resources critical to food production, including the health and resilience of agroecosystems. Sustainable solutions to hunger will maximize the multifunctional potential of agriculture to address a multi-faceted crisis. Realizing this potential depends on the resolution of a political struggle over contrasting food system models, rooted in contrary visions of what it means to resolve hunger. This paper analyzes the logics and claims embedded in the "food frames" employed by the World Bank and peasant organization Vía Campesina to define their respective visions of food security and the food system best suited to achieve it. This analysis reveals that these frames express dramatically different conceptions of the causes of hunger, the roles of corporations and peasant producers, and the social functions of agriculture. I argue that these conceptual foundations are directly related both to the food system models the organizations propose, and to the relative ability of each model to address the related problems of hunger, the empowerment of food producers, and environmental crisis. These foundations also express themselves in different futures for the social role of agriculture, and the lives of its participants: choosing a path for resolving hunger is a political act.

Introduction

On a global scale, enough food is currently produced to supply everyone on the planet with sufficient calories (D'Odorico, Carr, Laio, Ridolfi, & Vandoni et al., 2014; FAO, 2014a). Some argue that sufficient food is produced to feed more than the projected global population peak (Holt-Giménez, Shattuck, Altieri, Herren, & Gliessman, 2012; UNCTAD, 2013). Yet hunger remains a persistent problem in the 21st century. The Food and Agriculture Organization of the United Nations (FAO) estimates that one in nine people on the planet suffer from chronic hunger (2014b, p. 12), while each year in the developing world, nearly five million children under five die of causes related to malnutrition (2012). This is compounded by a multi-faceted environmental crisis that is both impacted by and threatening to constrain food production (FAO, 2011; Pretty et al., 2006; Rosset, 2011; United Nations Conference on Trade and Development [UNCTAD], 2013). Key elements of this crisis include climate change, the environmental costs and declining returns of industrial production, and increasing competition for finite agricultural resources. Sustainable solutions to hunger will maximize the multifunctional potential of agriculture to mitigate environmental problems alongside multiple social ones (Altieri, Rosset, & Thrupp, 1998; Holt-Giménez & Altieri, 2013; International Assessment of Agriculture Knowledge, Science and Technology for Development [IAASTD], 2009; McMichael & Schneider, 2011; Rosset, 2011; UNCTAD, 2013).

While ending hunger is a common goal of the global community, there is a lack of consensus regarding the food system model best suited to resolve it (Fairbarn, 2010; Holt-Giménez & Shattuck, 2011; McMichael & Schneider, 2011). Not only does

disagreement exist regarding the ideal structure, methods, and leaders of food production, models for ending hunger exist within a broader, conceptual debate concerning the very goal of such efforts. Madeleine Fairbarn (2010) uses the term food frame to describe the various, subjective concepts employed by different actors over time to define what it means to end hunger, and, in doing so, to influence communal efforts to achieve this goal—and the structure of the food system itself. Fairbarn identifies the World Bank and Vía Campesina as key actors among those that "compete...over the naming and interpretation of food-related frames that convey their own distinctive visions of how the food regime¹ ought to be structured" (p. 16). While the World Bank espouses the dominant concept of household food security, Vía Campesina, an international peasant organization, contests the Bank's model by introducing food sovereignty as an alternative vision of what achieving food access entails (Fairbarn, 2010). These frames incorporate contrasting perspectives on the methods, leaders, subsidiary goals, and organizing structures of global food production (Fairbarn, 2010; Holt-Giménez & Shattuck, 2011; McMichael & Schneider, 2011).

Given the urgency and contested nature of the problem at hand, resolving hunger requires an ongoing, incisive examination of both the problem and the proposals offered to resolve it. Ultimately, there is more than hunger at stake in the path to resolve it, and while the Bank's frame for food access has long been the standard of international discussions regarding how to achieve this goal, food sovereignty advocates make clear

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¹ In this context, *food regime* "describes the political and economic structures that undergird successive periods of stability within the world food system" (Fairbarn, 2010, p. 15). First elaborated by Harriet Friedmann and Philip McMichael (1989), Friedmann (1993) defines a food regime as the "rule-governed structure of production and consumption of food on a world scale" (p. 30-31). For further in-depth considerations of the concept of food regimes see McMichael (2005; 2009).

that this is but one of many options in a highly subjective, political, and value-driven project.

In this paper I consider the models for understanding and resolving hunger expressed by the World Bank and Vía Campesina. I examine 1) how these actors define their respective food frames, and the claims, values, and assumptions this analysis reveals, and 2) how these frames are leveraged to develop contrasting recommendations for a global food system that will end hunger, and produce particular subsidiary outcomes for agriculture. I argue that the differences between the food production and distribution models promoted by each organization can be directly linked to conceptual differences in the way each organization frames what it means to truly resolve hunger, and what comprises hunger's central cause(s). The World Bank's economically-focused household food security frame locates the problem of hunger in lack of income, and therefore argues that its solution lies in maximizing economic growth, through a free trade, profit-focused global food economy. In this context, the hunger of impoverished rural producers in the developing world is achieved by increasing their productivity (relying on genetically modified seed and other inputs to overcome environmental constraints), and by incorporating them into global supply chains. In contrast, Vía Campesina uses the food sovereignty frame to expand the definition of food security, arguing that it depends upon socially and environmentally sustainable production, and democratic food system governance. Vía Campesina's food sovereignty perspective locates the problem of undernourishment in the expansion of a corporate, industrial food system and the structural oppression of small-scale farming communities in the developing world by global economic policy. As a result, Vía Campesina argues that hunger's resolution can

only be achieved by undoing this power structure and by creating the policy environment to enable local, nutrition-oriented food systems based on small-scale, agroecological production by peasant and family farms.

In addition, I find that the food system models defended by the World Bank and Vía Campesina differ in the power they afford specific food system actors—namely corporations and family farmers—and in the way they define agriculture's relationship to food security and to other social and ecological goals. I argue that Vía Campesina's food sovereignty frame, in possessing a more multifunctional view of agriculture, generates a food system model that allows for greater empowerment of impoverished food producers, and more deeply addresses the ecological crisis in agriculture, than does the model presented by the World Bank. While these subsidiary outcomes are likely to greatly influence the effectiveness of plans to resolve hunger itself, these findings also demonstrate that the conceptual foundations upon which each food system model is founded have consequences beyond an impact on the incidence of hunger. Selecting a path to end hunger is a political and value-driven act, with collateral consequences that are critical for the global community to consider, given its many and diverse social goals.

In the remaining sections of this paper, I 1) present my methodology, 2) summarize key background information that shapes the current debate over food security and informs the entries of the World Bank and Vía Campesina, 3) analyze in turn the food frames and food system models presented by the World Bank and Vía Campesina, and 4) offer my conclusion regarding the central findings of this analysis and areas for further inquiry.

Methodology

This paper is primarily a literature review. My research began with the question, "What models exist for understanding and resolving the hunger of small farmers in the developing world?" A broad sampling of the literature regarding this question revealed a schism between dominant development institutions and the food sovereignty movement, both in the conceptual frameworks they use to understand the problem and to propose solutions, and in the faith they place in the dominant organizing structures of our current food system (Fairbarn, 2010; Holt-Giménez & Shattuck, 2011; McMichael & Schneider, 2011; Wittman et al., 2010). My initial research also made clear the significance of the World Bank and Via Campesina as key representatives and disseminators of these models, and the significance of the conceptual differences between them in the future of our food system.

For these reasons, I chose to focus my study on the models for understanding and resolving the problem of hunger presented by the World Bank and Via Campesina. To explore these conceptual frameworks, I analyzed documents produced by each organization on the topics of hunger and poverty. I attempted to select documents that are widely cited in scholarly literature on the topic, and those which most clearly present a) the food frame, or conceptual model for understanding food access, utilized by the organization, and b) the plan for hunger's resolution they present.

I used the following set of questions to guide my analysis:

1. How do the authors frame the problem they are addressing?

- 2. What food frame do the authors use to conceptualize or measure the resolution of hunger (what term is used and how is it defined)?
- 3. How do the authors understand the cause of hunger?
- 4. What agenda or action plan do the authors produce regarding how to resolve hunger and secure sufficient future food supplies?
- 5. In what ways do these agendas accept or contest current organizing structures in the global food system?
- 6. What assumptions, ideologies, or values accompany these agendas?
- 7. What views do the authors express on the role of agriculture in society, and the role of small-scale or subsistence producers in the resolution of hunger?

In my analysis of the documents, I build upon similar work produced by other scholars: my product is a synthesis of these findings and my own observations.

Background: Setting the stage for the debate

As Fairbarn (2010) asserts, the food frames presented by the World Bank and Vía Campesina are a part of an ongoing, larger debate: they both respond to and are informed by the recent history of agricultural development, understandings of hunger, and the global food system. While this paper will not explore these subjects at length, certain characteristics will be given attention, as they are key to understanding the commentary these food frames present, as well as to evaluating their effectiveness as models for ending hunger.

While civil society actors and scholars present diverse objections, the dominant response to the food crisis is to further expand industrial models of food production, "under the slogan 'growing more food at less cost to the environment" (UNCTAD, 2013, p. i), and to further incorporate economically isolated food producers into global food markets (McMichael & Schneider, 2011). The global spread of industrial production as the dominant agricultural model (characterized by monoculture, high-yield seed varieties, heavy use of inputs, and mechanization) has occurred in tandem with the development project to end hunger and with the globalization of food systems through the liberalization of agricultural trade (McMichael, 2005). The expansion of this model in the developing world began in earnest with the Green Revolution, which sought to reduce hunger by increasing food supply, through the dissemination of high-yielding seed varieties dependent on extensive industrial inputs (Holt-Giménez & Shattuck, 2011). While industrial production has correlated with reduced hunger as a proportion of the global population, and with higher per capita calorie consumption, it has not eradicated hunger. Furthermore, its viability as a model for future food security is contested on a number of counts (FAO, 2011; Holt-Giménez & Altieri, 2013; Pretty et al., 2006; Wittman et al., 2010; UNCTAD, 2013).

The FAO acknowledges that the expansion of industrial agriculture has come at ecological cost severe enough to jeopardize future food security, including the loss of 75 percent of genetic diversity in the food system, "land degradation, salinization of irrigated areas, over-extraction of groundwater, the buildup of pest resistance... deforestation, the emission of greenhouse gases and nitrate pollution of water bodies" (2011, p. 5). The adoption of industrial methods and associated environmental damage has also

exacerbated inequalities among farmers, posing a particular threat to the many rural poor who depend on the productivity of marginal land for their food and livelihoods (Holt-Giménez & Altieri, 2013, pp. 92-93; Pretty et al., 2006, p. 1114). The expansion and globalization of industrial agriculture has also correlated with loss of land for small farmers, as large-scale and corporate agriculture has expanded its control of resources in the developing world (GRAIN, 2014, p. 9; McMichael, 2005, p. 270). These outcomes indicate that the spread of industrial production has had negative social and environmental corollaries; furthermore, as a solution to hunger, its supply-side focus fails to address the roots of food insecurity.

While early attempts to address global hunger focused on increasing food supply, it is now widely understood that a viable solution must secure sustainable, resilient food access for excluded populations. Amartya Sen's pioneering research on famine (1981) demonstrates that hunger is due to a lack of *entitlement* to food, and often occurs when food is readily available. Sen argues that diverse factors—from an individual's assets and occupational status, to the changing environmental and economic conditions that govern the exchange rate of an individual's labor for food—influence entitlement, and differ dramatically for occupational subgroups within one geographic region. Thus to successfully increase food entitlement, we must first understand who is hungry.

The FAO's aggregate assessments of the population that remains chronically undernourished (defined as consuming inadequate calories for an active life on an annual basis) mask vast regional, occupational, and temporal disparities in who is hungry today.

Employing 2015 statistics from the FAO, the World Food Programme ([WFP], n.d.) finds

that 98 percent of the hungry live in the developing world, 70 percent live in rural areas, and the vast majority of the hungry depend upon agriculture for their food and income:

Around half of the world's hungry people are from smallholder farming communities, surviving off marginal lands prone to natural disasters like drought or flood. Another 20 percent belong to landless families dependent on farming and about 10 percent live in communities whose livelihoods depend on herding, fishing or forest resources. (para. 3)

Most of the world's poorest people, those who earn under \$2 a day, "are resource-poor farmers cultivating un-viably small plots of land" (Holt-Giménez et al., 2012, p. 595). The members of this population, while capable of producing food, can neither produce enough to supply their full caloric needs (World Bank, 2008, p. 71), nor afford to buy sufficient quantities of the abundant food available.

Small-scale farmers² in the developing world are recognized by many as critical to resolving food insecurity. Not only do they comprise the majority of the food insecure (Pretty et al., 2006, p. 1114; FAO, 2014a, p. vi), how food security efforts impact this population will have significant effects on the global food system and agricultural resources. Small-scale farmers cultivate the vast majority of farms on the planet, produce the majority of the world's food, and are responsible for care of large quantities of its agricultural land (GRAIN, 2014; FAO, 2014a). This population is also recognized as a sanctuary for unique traditional knowledge, agrobiodiversity, and sustainable (resource-

² While definitions of "small" differ across sources, and are often alternated and mixed with other identifiers, such as "family," "peasant," "traditional," and "subsistence" farmers, common definitions include producers cultivating plots of less than 2 hectares, and producers cultivating less then 10 hectares (GRAIN, 2014).

conserving, low-capital, and low-input) production methods that are threatened by the expansion of industrial production.

These qualities of small-scale and traditional farming are viewed by many as critical assets for the construction of sustainable, climate-resilient food systems (Gonzalez, 2011; Altieri, 2002, p. 3; FAO, 2011, p. 13). This is particularly clear in the context of increasing environmental and economic constraints for food production, including the poverty of food producers, the need to respond to increasing fuel prices, increased competition over agricultural resources (due to population growth, changing diets, and other demands for agricultural land), current and projected yield declines (due to climate change and the falling productivity gains of industrial agriculture), and agriculture's contributions to climate change and environmental degradation (FAO, 2011; Pretty et al., 2006; Rosset, 2011; UNCTAD, 2013). The UNCTAD (2013) argues that addressing these and other social problems hinges on deep and structural changes in the way agriculture is utilized on a global scale:

The required transformation is much more profound than simply tweaking the existing industrial agricultural system. Rather what is called for is a better understanding of the multi-functionality of agriculture, its pivotal importance for pro-poor rural development and the significant role it can play in dealing with resource scarcities and in mitigating and adapting to climate change. (p. i)

The UNCTAD also acknowledges the considerable challenges in making such a change, including "the sheer scale at which modified production methods would have to be adopted, the significant governance issues, the power asymmetries' problems in food input and output markets as well as the current trade rules for agriculture" (p. i).

Regardless of the outcome of attempts to fundamentally transform the global food system, the ongoing loss of small-scale and traditional farmers—and their redirection intro production prioritizing economic growth—may have critical negative impacts on the multifunctionality of agriculture, and is a key point of contention in the food frame debate.

The food crisis been interpreted by both scholars and civil society actors as indicative of the systemic failure of industrial agriculture and trade-based food security as an option for feeding the world (Wittman et al., 2010). Nevertheless, the dominant response to the food crisis does not seek structural change but calls for an expansion of industrial production to "[grow] more food at less cost to the environment" (UNCTAD, 2013, p. i), in a "new Green Revolution coupled with a continuation of neoliberal economic policies" (Holt-Giménez & Altieri, 2013, p. 90), and the incorporation of small farmers in global production networks (McMichael & Schneider, 2011, p. 119). This is likely to further concentrate ownership of agricultural resources and to eliminate many smallholder livelihoods (Holt-Giménez & Altieri, 2013, p. 97; McMichael & Schneider, 2011, pp. 120, 123). In response, peasant-based food movements such as agroecology and food sovereignty challenge the dominant approach, demanding redistribution of productive resources, peasant and community empowerment, prioritization of social and environmental goals in agriculture, and democratic food system governance (Fairbarn, 2010; Holt-Giménez & Altieri, 2013; Wittman et al., 2010). Philip McMichael and Mindi Schneider (2011, p. 120) summarize the clash in perspectives as follows:

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 fulfill its various socioecological functions.

It is within this greater context that the conversation between household food security and food sovereignty must be understood.

The household food security frame as presented by the World Bank

In this section I examine the concept of household food security as presented by the World Bank, the way it frames the cause of—and solution to—hunger, and the assumptions and analytical limitations embedded in the Bank's approach.

Fairbarn (2010, p. 24) argues that frame of household food security, most prominently defined by the World Bank (1986a), dramatically altered the focus of development efforts to address hunger. The Bank (1986a, p. 1) defines food security as "access by all people at all times to enough food for an active, healthy life," focusing on the consistent attainment of energy (calories) by individuals. Here the Bank draws on Sen's research (1981) on the causation of famine, in which Sen demonstrates that food access is determined most immediately by factors governing individuals' economic entitlement to food, and may occur where surplus food is available but inaccessible to specific populations. Fairbarn (2010, p. 24) notes that the World Bank's definition of food access represents an analytical advancement from previous measurement and pursuit

of food security, as it redirected analysis from an exclusive focus on securing domestic food supply.

Fairbarn also observes the frame's ideological affinity with a neoliberal approach to development, asserting that its focus upon individual caloric intake and economic access to food transformed the concept of food security into a goal and task located within the market. In Fairbarn's words, "Food security is now a frame about the microeconomic choices facing individuals in a free market, rather than the policy choices facing governments" (p. 24). In practice this has meant the conversion of the pursuit of food security from a domestic project managed by national governments to one compatible with trade liberalization and a reduced role for the state. By refocusing efforts to end hunger on increasing individual purchasing power, the household food security frame is both informed by and has served as a justification for the expansion of neoliberal policy and structures of the corporate food regime (Fairbarn, 2010; McMichael, 2005).

This transformation in conceptual focus and policy is evidenced in the way the Bank frames hunger's cause and solution, which builds on a simplified understanding of Sen's empirical work. The Bank (1896a) identifies the cause of hunger as a lack of sufficient income to gain access to food, and concludes that the *only* viable solution must to be raise the purchasing power of households (p. 6). While Sen finds that food entitlement rates are impacted at the occupational level, arguing this is evidence that entitlement is influenced by broader economic and political structures in addition to individual assets, the Bank's focus on the individual precludes the possibility of examining such broader structures as causes of differing entitlement. Sen's work (1981) on the causation of hunger focuses on the structures and circumstances that generate

unequal economic entitlements to food (such as environmental changes, unequal endowments of productive assets, and agriculture and trade policies that generate unequal food exchange rates for the labor of different kinds of producers). In contrast, the World Bank focuses on amending a single *result* of extant, yet alterable, structures: low incomes among food poor populations.

By excluding an analysis of how broader structures impact different populations in different ways, the Bank is free to argue that broad-level economic growth will resolve hunger for all populations. Presuming that "economic growth ultimately provides most households with the incomes to acquire enough food," the Bank concludes that national economic growth is the best long-term solution to hunger and therefore must be the primary goal for developing countries (1986a, p. 28). Furthermore, the Bank (1986b, p. 3) argues, because agriculture is the primary economic sector for many developing countries, and because it is in this sector that the majority of the poor and food insecure are employed, efficient economic growth in agriculture must become a priority in the governance of the sector. The Bank's approach to resolving hunger is thus narrowed by a simplified understanding of its cause.

The Bank's particular view of hunger's cause and solution is compatible with growth-centered, neoliberal governance of the global food system. According to Fairbarn (2010, p. 25), the Bank was an "early convert" to the neoliberal logic that only free trade policies can generate sufficient economic growth to generate the rise in household incomes necessary to eliminate hunger. In its 1986 *World Development Report*, The Bank (1986b) stresses the negative impacts of government intervention in agricultural markets, advocating instead the pursuit of comparative advantage and free trade in the agricultural

sector. The Bank (1996, p. 1) has continued to argue that countries should "refrain from costly self-sufficiency policies and specialize in producing the commodities which are most profitable for them," supported by free and "fair" international trade. In addition to advocating trade liberalization in agriculture, the Bank repeatedly stresses the need to improve agricultural productivity and increase output as a path to food security, using productivity growth to spur national economic development and income growth for the poor who remain employed in agriculture (1996, p. 1; 2008, p. 1, p. 7; 2015, p. 5).

The Bank's agenda for food security is based upon a series of assumptions that require further inquiry. The policy recommendations above are based upon the claim that to sustainably eradicate hunger, national economic growth must remain the primary goal for all countries. This rests upon two assumptions: that national economic growth is the surest way to increase the incomes of the most vulnerable sectors of the population, and that pursuing increased incomes for these populations is the surest path to their food security. Two additional assumptions employed by the World Bank are that free trade and export agriculture are necessary to generate such economic growth (Fairbarn, 2010; McMichael & Schneider, 2011, p. 129), and that free trade in agricultural goods will function like free trade in any other commodity to generate beneficial economic growth, without costs to food security.

The Bank's household food security frame is also limited by its view of agriculture through an exclusively economic academic lens. The Bank portrays food production as an *indirect* source of food security: the primary role of agriculture in society is as a source of employment and of economic growth. Viewing agriculture as an economic activity allows the Bank (1993, p. 134) to describe food as first and foremost a

commodity, and to assume that access to food is "governed by the same factors that govern access to any other commodity" (as cited in Fairbarn, 2010). In addition to the possibility of a more direct link between cultivating food and food access, the Bank's economic lens means that other potential benefits and harmful outcomes of agriculture are ignored or given cursory attention. Subsistence agriculture is presented as a "chance to survive" (2008, p. 1), rather than a meaningful way of life; the exit of small producers from agriculture into "non-farm employment" or urban areas is considered a beneficial part of development, rather than potentially destructive of communities and their cultures (2008, p. 8), and addressing the environmental costs of industrial agriculture is addressed not as a goal in its own right, but rather as a subsidiary task of pursuing economic growth in the context of climate-constrained yields (2015, p. 5).

Not only does the Bank's limited consideration of the functions and impacts of agriculture cripple its analysis of how hunger and food access occur on the planet, it cripples the possibility of analyzing how subsidiary outcomes of growth-focused agriculture could impact food security itself. An example of the limits of such an approach lies in the Bank's imperative to increase agricultural productivity, output, and profit as a source of rural income growth—regardless of its relationship to the nutritional needs of local populations or to ecological costs. For example, the fact that world food demand is projected to increase by 20 percent in the next 15 years—largely via urbanization and associated shifts toward more resource-intensive diets—is portrayed not as a potential environmental conflict but as a happy coincidence, as demand increases will match needed income gains for rural poor (2015, p. 8). In the Bank's model, any food demand is good demand, and developing countries are exhorted to direct

agricultural production toward production for the most profitable global markets (2008, p. 22), without a critical examination of how this interacts with sustainability goals, local nutrition, or the inequalities inherent in directing poor smallholders to fulfill the demand trends of richer global consumers.

In summary, the Bank's neoliberal approach to food access focuses on providing individuals with monetary power over food commodities, with agriculture (particularly in developing countries) as a source of that monetary power. Focused on income shortage as the cause of hunger, the Bank describes the solution to hunger and poverty as centered in changing the behavior and economic position of the poor (2008, p. 8), without considering how global economic structures and consumption patterns may play a role in their poverty, not to mention agriculture's ecological crisis. Such a economically-focused view of both agriculture and food access is the foundation for the Bank's defense of a global food system based on "agriculture for development" (2008, p. 2).

Household food security employed in the Bank's vision for the global food system

In this section I examine the World Bank's vision for a global food system that will address poverty and hunger, as expressed in the Bank's more recent publications (2008; 2015). I argue that the model promoted by the World Bank, drawing directly from the household food security frame, expresses and amplifies its analytical limitations.

Among the results of these conceptual foundations are that the Bank's food system recommendations, endeavoring to solve hunger while prioritizing economic ends and means, serve to replicate unequal power structures between corporations and (food

insecure) small-scale producers, and to afford insufficient attention to the current ecological costs of global agriculture.

In its 2008 World Development Report: Agriculture for Development, the World Bank advocates an approach to food system governance that is defined by the economic focus and limitations of its food frame. A key premise of the *Report* is that across the world, though in different ways in different countries,³ agriculture can—and should—be used to accelerate economic development and reduce rural poverty (and, as a consequence, hunger), when it is properly leveraged to generate growth that includes the poor (p. 1). The Bank's argument is premised on an unexamined prioritization of economic growth, both as a goal in its own right and as a path to poverty reduction and food security. The Bank asserts that "agriculture for development" is the most effective tool for achieving the Millennium Development Goals for the reduction of poverty and hunger (p. 6). However, the Bank considers neither the possibility that "development" could mean more than economic and income growth, nor whether agricultural policy that prioritizes other measurements of development could more effectively address poverty and hunger. Rather the Bank begins its work with the assumption that "development" is an inviolable priority of the countries and communities its recommendations concern, and that the Bank's conception of development—indirectly defined as the growth of national economies and incomes (2008, p. 26)—is universal. The Report's stated objectives are not to uncover the most efficient path toward hunger reduction, but to uncover what

³ The Bank (2008, p. 4) differentiates its agriculture-for-development agendas based on the division of countries into three different groups, according to agriculture's contribution to aggregate economic growth and the share of poverty concentrated in rural areas. Countries are identified as "agriculture-based," "transforming," or "urbanized," and "follow evolutionary paths that can move them from one country type to another."

"agriculture [can] do for development" (p. 2), taking it as a given that this is the ideal path. This focus on economic growth, the Bank's primary measurement of progress on food security, has extensive impacts for the organization's recommendations for global agricultural governance, and the problems embedded in them.

Prioritizing the goal of economic development leads the Bank (2008) to recommend specific roles for producers, the private sector, and the state in a global, profit-driven agricultural economy:

The emerging new agriculture is led by private entrepreneurs in extensive value chains linking producers to consumers and including many entrepreneurial smallholders supported by their organizations....Production is mainly by smallholders, who often remain the most efficient producers...But when these organizations cannot capture economies of scale in production and marketing, labor-intensive commercial farming can be a better form of production, and efficient and fair labor markets are the key instrument to reducing rural poverty. The private sector drives the organization of value chains that bring the market to smallholders and commercial farms. The state—through enhanced capacity and new forms of governance—corrects market failures, regulates competition, and engages strategically in public-private partnerships to promote competitiveness in the agribusiness sector and support the greater inclusion of smallholders and rural workers. (p. 8)

In this vision, the Bank describes a world agriculture where the private sector (functioning in free market conditions) plays an organizing role, creating viable livelihoods for small farmers by linking them to global and regional value chains. While

the Bank acknowledges the superior productivity of small-scale farms, 4 the role of most small producers in its growth-oriented vision for global agriculture is limited to the production of commodities for profitable value chains, in many instances stimulated by demand from a wealthier class of global consumers. While the role of the state is to ensure fair opportunities for smallholders to succeed in agriculture, it is also to facilitate their exit from agriculture when they fail to be the most competitive satisfiers of market demands. Because the ultimate goal is economic growth, preserving the livelihoods of long-standing agricultural communities is not considered a goal in itself. In fact, the Bank considers the progressive loss of farm employment as a positive and inevitable part of a nation's economic evolution from "agriculture-based" to "urbanized" (p. 27-28). In this context the state's role is also to facilitate non-agricultural "pathways out of poverty" (p. 2), through the improvement of labor markets that will direct uncompetitive producers into agricultural labor, non-farm rural employment, or urban migration (p. 8).

The Bank's assignment of roles in its vision for global agriculture is justified by a number of assumptions and omissions that reflect its growth-centered focus. Beyond the basic supposition that directing agricultural production to pursue economic growth is the surest path to food security in developing nations, these include the assumption that a global food system and corporate-led supply chains grow developing economies more effectively and equitably than locally-focused agriculture dominated (and governed) by small producers, and that corporations play a "coordinating" rather than controlling role (in other words, that they play out the will of the invisible hand, rather than directing it).

⁴ See Rosset (1999) for details on the well-documented inverse relationship between farm size and total food output, and other ecological and social advantages of small-scale agriculture.

Furthermore, the Bank leaves unexplored whether pursuing the most profitable and "productive" forms of agriculture produces equally beneficial economic outcomes for all parties, as well as its potential impacts on many non-economic outcomes, including the health of the complex ecological and social systems that support future food security, and quality of life for small farmers around the world. The Bank's view of the outcomes of its model are limited by the economic blinders of its conceptual frame, which promote a view of agriculture as playing a primarily economic function, a view of hunger as caused by lack of income (and not the structures that enhance income inequality), an acceptance of the current neoliberal structure of the global food system, and an inability to recognize poor and subsistence farmers in the developing world as possessing assets beyond labor (directly stated in the World Bank's 2015 report (p. 6)). In the rest of this section I identify potential, problematic outcomes of the Bank's food system model and key ways it may work against food security.

The Bank's vision for current small-scale and traditional farming systems is premised on an inaccurate assessment of the social value of agriculture as lodged primarily in its role as an economic activity, ignoring its functions as an immediate source of food, a form of ecological stewardship, a source of knowledge creation and transmission, an educational activity, and a place-based tradition and form of cultural heritage. The Bank's view is exemplified in the imagery of subsistence farming used to open its 2008 *Report*, in which such a life is presented as an uncomfortable and meager last resort ("the only chance to survive") for many rural poor, in contrast to the lives of those who have chosen to "escape poverty" via incorporation in a "new agriculture" based on the expansion of industrial methods, modern markets, and global value chains

(p. 1). Measuring progress in agriculture by the Bank's economic yardstick precludes recognition of the many social advantages of preserving small-scale, traditional, and family-farm-based agriculture not yet incorporated in a global agricultural economy. It also precludes acknowledging the critical role small and peasant producers play in food security present and future, as current providers of local food security through the production of staple crops, and as the creators and stewards of critical agricultural resources (Vía Campesina, 2010). These resources include local ecological health, genetic diversity in the food system, and multigenerational practical knowledge invaluable to maintaining and sustainably intensifying production in unique agroecosystems across the planet (Altieri, 2002, p. 2-3; IAASTD, 2009, p. 11). In contrast to those who would cast small producers across the developing world as peers and experts in food security, the Bank's growth-centered model leads to the presumption that such producers possess primarily one asset: labor (2015, p. 6). Rather than cast as agricultural experts, small producers across the developing world are presented as persons in need, which are to be incorporated into the global agricultural system as is, or to be escorted out. Not only do these oversights have direct consequences for the (dis)empowerment of human beings, recent reports by the IAASTD (2009) and UNCTAD (2013) argue that a global food system that prioritizes economic growth at the cost of recognizing and preserving the multifunctional contributions of agriculture to ecological and social goals will fail to address hunger and will jeopardize future food security.

Regardless of other outcomes of the global food system model outlined above, the undeniably hierarchical production structure advocated by the Bank supports corporate

power and leadership, while limiting the role of subsistence production and small producers, in their capacity as contributors to both food security and other social and ecological goals. In addition to supporting corporate leadership of smallholders through the coordination of value chains, the Bank (2015) supports the dissemination of new technologies (such as high-yielding, climate resilient seeds) *to* smallholders as the path to the productivity revolution it envisions for poor farmers. The Bank's model not only seeks to change the methodology and production orientation of traditional farming communities, it will likely result in ongoing concentration of corporate ownership in the food system and the loss of agricultural livelihoods for small farmers (Holt-Giménez & Altieri, 2013; McMichael & Schneider, 2011).

The Bank is able to justify this outcome by building upon the logic and oversights of the household food security food frame, particularly its view of agriculture as an indirect provider of food security, via its function as a source of employment and economic growth. The Bank writes that in agriculture-based countries, "Agricultural production is important for food security because it is a source of income for the rural poor" (p. 3). The Bank holds that agriculture must be leveraged as the main source of national economic growth in such countries (p. 19), because they hold a comparative advantage in the production of agricultural goods (p. 24). In the Bank's view, such countries will ultimately best provide food security (and economic growth) for their citizens not by protecting domestic food production but by shifting production increasingly toward the (global) market demands they can most efficiently and profitably fulfill, and acquiring staple foods through trade as needed. The Bank advises agrarian-based and transforming countries to facilitate growth, and smallholder participation, in

the production of high-value crops for urban and global consumers, to maximize agriculture's contributions to national economic growth and poverty reduction (pp. 2; 33-37).

Yet such an approach to food security and growth for developing nations depends upon global wealth inequality to generate luxury food demand, and on poor farmers to fulfill it, rather than critically examining or working to uncover and challenge the underlying structures that may perpetuate such inequalities. This shallow solution to hunger echoes the shallow analysis of its causes by the food frame that supports it. Throughout the Bank's food security agendas runs the unexamined assumption that developing nations both can and ought to model industrialized nations in their developmental trajectory: that extant global poverty can be resolved by fitting the poor into a global economic structure that is a legacy of historic inequalities. Yet research suggests that pursuing trade-based food security through agricultural liberalization, rather than ensuring national development, has generated uneven food dependencies between the Global North and South (Otero, Pechlaner, and Gürcan, 2013, p. 265). Furthermore, McMichael and Schneider (2011, p. 124) argue that this approach to agricultural development prohibits movement on the national development trajectory the Bank purports to defend, writing that the Bank advocates the "instant incorporation of smallholders into a hierarchical global market structure, rather than an 'evolutionary' process within their particular country" (p. 124).

In a similar fashion, the economic focus of the household food security frame expresses itself in a food system model that, driven by the pursuit of profit through global trade, fails to offer viable solutions to the environmental crisis in agriculture. In fact in

can be argued that such a food security model will exacerbate this problem. The Bank's food frame, despite purporting a focus on generating access to food, in practice is married to a supply-side focus on the food security problem. In the Bank's hands, a focus on income growth for the rural poor becomes an imperative to increase their agricultural productivity and their fulfillment of market demands, as this will (it is presumed) allow them to profit within the unchallenged structures of a neoliberal, global food system. Increasing the output of food producers is key to the Bank's food security plan, as this is presumed to increase rural incomes and to help spur national economic growth (which in turn generates alternative sources of employment and wealth for the rural poor losing agricultural employment). Rather than crafting a food system that embeds incentives for resource conservation and meeting nutritional needs efficiently, in the Bank's model any market demand is "good" demand. Meeting such demand, so long as it is profitable, is considered ideal, regardless of local food supply needs and how they might be met were resource conservation, community health, farmer empowerment, and the nutrient density of food to be the focus of measurement, instead.

The Bank's solution to the environmental costs of agriculture is based on a shallow analysis of their causes. This is exemplified in the Bank's 2015 report, *Ending Poverty and Hunger by 2030*. Rather than considering how the broader structures of a global food security model (such as the amelioration of rural poverty through the production of high-value, resource-intensive export crops) may impact—even preclude—environmental sustainability, the Bank argues the ongoing development and dissemination of new agricultural technologies will overcome environmental barriers (p. 15). The proposed action plan for increasing climate resilience alongside productivity

growth centers on altering current agricultural practice among poor farmers, primarily through greater access to inputs and the adoption of "improved" and "climate smart" technology. The report not only limits its consideration of the environmental consequences of agricultural production to climate change alone, it considers this largely from the perspective of climate change's threat to productivity by constraining yields. The health of agroecosystems is not seen as a goal in its own right but rather a subsidiary goal that is necessary—but only to a degree—to permit economic growth in the foreseeable future.

In the context of severe global inequalities, using the pursuit of profit on a free global market to direct agricultural production decisions poses severe threats to both food security and sustainable resource use in the Global South. McMichael and Schneider argue that allowing corporations to drive agricultural investment in the developing world is more likely to generate food *insecurity* in such nations, as corporations will invest where and how agriculture can be made profitable, not in the interest of regional food security:

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....While economic theory postulates that high-value exports can assist in financing staple food imports, the food crisis [of 2008] revealed the limits of this scenario. (p. 127)

Examples of the environmental and food security losses associated with increased corporate control of agricultural resources includes land grabbing by foreign investors,

and the diversion of agricultural land into production of biofuels and livestock feed at the expense of direct human food (Gonzalez, 2011, p. 51; McMichael & Schneider, 2011, p. 127). These outcomes are in addition to the loss of traditional farming systems whose social, environmental, and agricultural value may be measured in a multitude of ways.

In summary, the household food security model presented by the World Bank, building on a limited, economic analysis of hunger and agriculture, and focusing on a growth-centered solution to hunger, generates a growth-oriented, global food system model that shallowly addresses the ecological and food crises. Indeed, the Bank's model may work against the resolution of these problems, as it ties two problematic actions to the achievement of its goals. These are the ongoing transfer of wealth and power from small and peasant producers to corporations, and an insufficient attempt to address the ecological crisis in agriculture and its potential links to growth-oriented production. These failings, and their roots in the household food security frame, are precisely what the peasant organization Vía Campesina critiques in its presentation of the food sovereignty frame.

The food sovereignty frame as presented by Vía Campesina

In *The Right to Produce and Access to Land*, a position paper presented at the 1996 World Food Summit, Vía Campesina introduces the concept of food sovereignty as a novel food frame in the international dialogue on ending hunger. Representing the desires and experience of peasant and family farmers across the world, Vía Campesina presents food sovereignty both as a direct challenge to the neoliberal model of household

food security and food production pursued by institutions such as the World Bank (Fairbarn, 2010, p. 26; Wittman et al., 2010, p. 4), and as a system of rights and principles that is a "precondition" of genuine food security (Vía Campesina, 1996, p. 1). Food sovereignty as a concept is not presented as sufficient to guarantee universal food access in its own right, but as a way of extending the limited meaning of food security used by development institutions to define success in ending hunger. Food sovereignty's diverse demands represent the objections of Vía Campesina's constituents to what they perceive as undesirable subsidiary outcomes of the dominant agenda for agricultural development (epitomized in the Bank's model), overlooked by a model that measures primarily economic criteria. In doing so, the concept of food sovereignty calls attention to the political nature of selecting a conceptual frame—and set of actions—for ending hunger, by identifying the ideological underpinnings of the model pursued by dominant development institutions (such as the World Bank), as well as the unequal outcomes its pursuit has generated for different members of global society. Yet more than a subjective redefinition of the goal of food security by an underrepresented group, food sovereignty's emphasis on the social and environmental outcomes of global agricultural governance also forms the basis of an alternative framework through which to understand hunger's causes, the goal of ending hunger, and the functions of agriculture.

Food sovereignty expands the dominant definition of food security by incorporating specific social and environmental outcomes. While the Bank's frame of household food security requires only that each person obtain sufficient caloric energy to support an active life, Vía Campesina (1996), in its first position paper, defines food sovereignty as "the right of each nation to maintain and develop its own capacity to

produce its basic foods respecting cultural and productive diversity" (p. 1). Food sovereignty has been later defined by Vía Campesina (2007, p. 1) as "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems." By demanding that specific food, specific production methods, and specific people (all food producers) be involved in the achievement of food security, food sovereignty rejects the Bank's notion that agriculture can be governed primarily by economic goals.

Vía Campesina's argument that non-economic goals must take precedence in the governance of agriculture is informed by the frame's particular understanding of the role of agriculture on the planet, and in food security. Food sovereignty establishes a more direct link between agricultural practice and food security than does the Bank's model. This is expressed in Vía Campesina's statement that food is "first and foremost a source of nutrition and only secondarily an item of trade" (1996, p. 3). Rather than theorizing that economic and income growth will form the missing link between the poor and food commodities, the food sovereignty model involves empowering disadvantaged food producers to use their own knowledge to produce nutrition for themselves or their communities. Food sovereignty also acknowledges the direct link between agricultural practice and food security by claiming that humans have a right to food that is produced in a way that maintains local ecological health. Rather than addressing the ecological harm of agriculture as an obstacle to the economic growth that would generate food access, food sovereignty acknowledges that ecological harm impacts community food security by impairing the resources for future nutrition production, and the health of human beings. Food sovereignty, in objecting to a food system that disposes of longstanding agricultural communities because they are economically inefficient, also relates agriculture more directly to social life, acknowledging that among agriculture's non-economic social functions are those with value to real human beings—including its role as a way of life, source of knowledge creation and transmission, and way of maintaining communities and ecosystems. These qualities are also recognized by the IAASTD (2009, p. 4) as critical elements of agriculture's potential to combat multiple social challenges. In short, food sovereignty is a food frame that recognizes agriculture as a multifunctional human activity, and in this way makes room for ecological and social goals to take precedence in the governance of agriculture for food security.

Food sovereignty also present a different lens through which to understand the central causes of hunger. While both Vía Campesina (2010, p. 1) and the World Bank (1986, p. 6) identify poverty as a primary cause of hunger (Vía Campesina sees it as among hunger's causes, another being a lack of access to the resources to produce food), the Bank views poverty as an indicator of poor development and the need to pursue economic growth more efficiently. In contrast, Vía Campesina (2001) sees both hunger and poverty as generated by political and economic structures in the global food system that exacerbate inequality and food insecurity by prioritizing the pursuit of profit over the pursuit of nutrition, democracy, equitable distribution of resources, and sustainability. While the World Bank attempts to combat a symptom of such structures, the impoverishment of individuals, Vía Campesina argues that systemic change must occur to address the roots of food insecurity.

By naming food sovereignty a "precondition" of "genuine" food security, Vía Campesina (1996, p. 1) not only expands the subjective meaning of food security, but

also asserts that establishing food sovereignty is a superior approach to resolving hunger than the dominant model. This is because Vía Campesina identifies this latter model as enhancing systemic causes of hunger, by generating clear winners and losers among agriculture's participants, and jeopardizing agricultural resources.

Vía Campesina acknowledges and objects to the unequal outcomes of a globalized agricultural model that prioritizes export agriculture and trade liberalization, and affords greater power to transnational corporations and international financial institutions than to local farmers local food policy (Fairbarn, 2010, p. 27). Vía Campesina argues that such a model results in a flow of resources from rich to poor areas (2010, p. 3), as it has consolidated resource ownership and displaced peasant farmers in the absence of alternative livelihoods,⁵ or required them to enter the wage labor market as agricultural workers on large farms producing export crops for richer global consumers (2001, p. 6). Food sovereignty's claim that peasant and family farmers have a right to continue producing staple foods for their communities is a direct response to the displacement of such farmers via the expansion of the Bank's globalized agricultural model.

Among the structures Vía Campesina contests as a source of such inequality in the global food system is the expansion of neoliberal economic policy in the developing world, required as a condition of development loans from the World Bank and the IMF through structural adjustment programs. Vía Campesina (2001, p. 5) explains how

developing world, rural to urban migration in increasing numbers presents massive challenges for urban centers that have been unable to supply sufficient jobs (Rosset, 1999, p. 12: De Schutter, 2013, p. 36)

1999, p. 12; De Schutter, 2013, p. 36).

⁵ The Bank, which views depeasantization as a positive inevitability of a nation's economic evolution, argues that leveraging agriculture for economic growth will generate non-agricultural employment as it reduces agricultural jobs. However, across the

developing countries have been required to liberalize trade, orient production to commercial export, privatize agricultural resources, and dismantle state support for domestic producers, in accordance with the assumption that such restructuring will accelerate economic growth. Yet concurrently, countries in the Global North have continued to protect domestic agriculture and subsidize the production of staple crops, depressing prices below the cost of production and generating a surplus that is "dumped" on the international market. This lowers the international price of such goods, making cheap quantities of food available for transnational corporations to purchase and redistribute for profit (p. 4). It also eliminates the possibility of a livelihood for many small producers who must now compete on the international market, but without the benefits of corporate subsidies and high-capital inputs (including harmful agrochemicals) they cannot afford. From this perspective, small farmers in the developing world are left without a livelihood in agriculture not because they are "inefficient" or less equipped to contribute to regional food security, but because global integration is pursued without first disabling policies (and material inequalities) that distribute the benefits of integration inequitably. This process thus serves to "entrench inequalities [between] the developed and developing world and to reproduce colonial structures of production and distribution" (Vía Campesina, 2001, p. 5).

In addition to exacerbating inequality, or rather *because* of the particular way it does so, Vía Campesina sees the expansion of such a food system as contributing to hunger on multiple levels. Vía Campesina (1996) posits that the expansion of corporate control of agricultural production, and the concurrent exclusion of peasants from access to productive resources, exacerbate systemic causes of hunger, both by removing

sustainable livelihoods for rural poor and by jeopardizing the resources for agricultural production:

The liberalization of trade and its economic policies of structural adjustment have globalized poverty and hunger in the world and are destroying local productive capacities and rural societies. This corporate agenda takes no account of food security for people. It is an inequitable system that treats both nature and people as a means to an end with the sole aim of generating profits for a few. Peasants and small farmers are denied access to and control over land, water, seeds and natural resources. (p. 1)

Vía Campesina lodges much of this problem in the increased entrenchment of a profit motive in agriculture that is a result of the replacement of peasant producers by corporations. Vía Campesina (2010, p. 3) reiterates the findings of the FAO (2011, p. 8) that the expansion of corporate, industrial agriculture has correlated with the degradation of global agricultural resources—through the loss of biodiversity and traditional, conservationist farming methods, and through increased reliance on harmful industrial production methods such as monoculture and the intensive use of chemical pesticides and fertilizers—while productivity gains have begun to fall. Vía Campesina furthermore expresses doubt that the further expansion of corporate agriculture will provide sufficient nutrition in addition to calories, arguing that this has correlated with the production and spread of processed, nutrient-poor food, and with greater incidence of diet-related diseases (2010, p. 3), while small farmers continue to produce the majority of staple foods consumed in developing countries (p. 4). For these reasons, Vía Campesina argues that increasing global agricultural integration through trade liberalization and in the

context of poorly regulated corporate investment is not primarily in the interest of the Global North at the expense of the South, but rather in the interest of corporate profit at the expense of food security for all (1996, p. 1).

In the above examples, Vía Campesina portrays these trends as rooted in a central contrast the organization perceives between corporate and "family farm-based" agriculture. In the words of the organization, "Peasants and family farmers have a food producing vocation. Agribusiness has an export vocation. Brazilian agribusiness is more likely to feed cattle in Europe or produce ethanol for automobiles than to feed a hungry child in Brazil" (p. 5). Vía Campesina argues that the high mobility of transnational corporations, coupled with an exclusive focus on producing short-term profit, makes them poor stewards of local environments, communities, and economies, as each becomes a disposable resource from which to extract profit before moving on (p. 5-6). In contrast, Vía Campesina postulates that the smallholder agricultural communities corporations have so often replaced possess unique assets in the provision and protection of nutritious food and food access. According to the organization, peasant and family farmers are rooted in place and therefore invested in nourishing wellbeing of their communities and environment (p. 6), and as small-scale producers they are more likely to employ greater biodiversity and sustainable production methods (p. 2-3). Furthermore, the promulgators of food sovereignty argue that peasant farmers are the creators and stewards of enormous genetic diversity and unique agricultural knowledge (1996, p. 1; 2010, p. 6), including how to achieve sustainable, year-round yields using local resources in unique microclimates around the world (Altieri, 2009, p. 103). In sum, Vía Campesina argues that the transfer of control over agricultural resources and policy from peasant

smallholders to corporations entails the transfer of food production from communities invested in sustainably producing nutrition, to corporations invested in producing profit at any cost. In doing so, the organization emphasizes that small producers—including many of the hungry—in the developing world are peers and experts in the production of food security.

In this light, the globalization of agriculture and increased commodification of nutrition can be seen not as a path out of poverty for all, but as the incorporation of previously self-reliant peasants into a global capitalism that benefits few at the expense of many (Holt-Giménez & Altieri, 2013, p. 91). Vía Campesina (2001) summarizes this phenomenon as follows:

Bank-Fund policies mandate the transformation of subsistence based, community oriented and self-sufficient agriculture systems to commercial and market dependent production and distribution systems. Food crops are replaced by cash crops for export, and communities and societies are compelled to rely on external markets that they have no control over for food security. (p. 6)

Evaluating the food sovereignty frame

In the documents explored above, Vía Campesina does not offer sufficient empirical evidence to demonstrate that the Bank's model of market-based food security, and global agricultural development for economic growth, is a direct cause of the environmental crisis and food insecurity. In fact, some evidence, such as the fact that the numbers of the hungry have decreased as a proportion of the global population

concurrent with the expansion of industrial agriculture, works against these claims. Yet these apparent conflicts are not only a result of the limitations of available data, but also the complexity of the connections between a particular agricultural model and the incidence of hunger, as well as the existence of multiple, value-driven options for reducing it—and for defining what food security means.

Food sovereignty advances the debate concerning hunger and agriculture by identifying that the Bank's model works to produce a particularly *form* of food security that may not be desirable to many of the hungry, and many others involved in agriculture, given their pursuit of multiple social goals. Vía Campsina distinguishes between the freedom to access food via the market, and the freedom to gain greater empowerment and self-sufficiency, by participating in the production of food. By arguing the latter is a prerequisite of true food security, Vía Campesina not only redefines what food security means, but hypothesizes that food security's dependence on a global economic system in which certain communities are currently disadvantaged will never fully resolve their risk of hunger. Instead, solutions to food insecurity must combat inequality at its root. Vía Campesina (2010) also hypothesizes that doing so will result in a more sustainable food system, by returning food production to place-based communities with an incentive to preserve local resources, and a unique knowledge base from which to achieve this.

Vía Campesina's arguments, while flawed, presents hypotheses about our food system that open important areas of future inquiry. These include the connections between a profit-driven model of food production and the sustainability of resource use, the connections between such a model and inequality, and the differences in the social and environmental outcomes of community-based and corporate agriculture. Studies at

the national and community level will help illuminate the complexity of these connections and how they differ under different conditions.

Further research needs are exposed by visible weaknesses in the food sovereignty model. Among these is that the model fails to define critical terms for different farming populations, such as peasant, small farm, family farm, traditional farming practices, and "sustainable farming systems" (Vía Campesina, 2010, p. 1). While Vía Campesina (2010, p. 2) offers a list of characteristics that "sustainable" agriculture should possess (acknowledging such a term is challenging to define), it remains a working definition. It should be noted that this lack of clear-cut definitions does not only indicate an analytical failing of the food sovereignty model in its early stages, but also reflects the challenging nature of conceptually isolating groups of people and farming practices in a way that is insightful and useful. Nevertheless, a lack of clear terms hinders understanding, measurement, and effective policy creation. Unanswered questions also arise when considering the presentation of food sovereignty above. First, if the incidence of hunger has been declining (albeit alongside a growth in processed foods, obesity-related diseases, and environmental problems) as corporate model has grown, are there advantages to this model, and in which characteristics are they isolated? Second, are there factors beyond the spread of free trade policies and corporate ownership that are driving small farmers from their livelihoods in agriculture (in other words, to what degree would establishing food sovereignty reverse depeasantization and its associated problems)? (Here is also important to consider that employment choices and recent rural-urban

⁶ For some of the problems associated with accurately defining and differentiating corporate agriculture's "other" in food sovereignty literature, as well as obstacles to the complex process of enacting food sovereignty, see Henry Bernstein (2014).

migrations are influenced by malleable social factors such as the social devaluation of agricultural work, something that Vía Campesina contends we must change (1996, p. 2).) Finally, an assumption that is critical to Vía Campesina's argument is that "peasants" are characteristically superior to corporations at producing food sustainably, and that they will continue to be so. Even if it is so that peasant producers possess a superior track record than other producers in terms of certain environmental or social outcomes, this does not demonstrate that peasants possess inherent characteristics that make them more sustainable in all circumstances. Among the questions to be considered here are, who are the peasants and family farmers Vía Campesina refers to (how are they to be defined), in what ways and under what circumstances do they use more sustainable practices, and how can this trend be maintained or augmented?

Regardless of its limitations, Vía Campesina's argument highlights the way in which supporting the transfer of power over agricultural resources, markets, and policy from family farms to corporations—and from national governments to international financial institutions—is tied to a focus on profit production as a measurement of success. This may or may not match the goals of the communities such an agenda will affect. Vía Campesina claims that such a limited measure also fails to track with the production of food security in its truest sense: while peasant farms in the developing world may be poor competitors *economically* and under current conditions (including structural inequalities in policy and capital, and in the measurement of output (Rosset, 1999, p. 5)), they may also possess critical assets for food security that are lacking in corporations. In this way, Vía Campesina argues that a food system governed by economic goals is both unsustainable and counter to social justice, as it exacerbates inequality in terms of the

distribution of power and resources on the planet, while enhancing ecologically destructive production and consumption trends. Food sovereignty links peasant interests with global food security interests, and critically redefines food security as something that must include political empowerment, not merely access to food.

Food sovereignty employed in Vía Campesina's vision for global food production

In addition to redefining what it means to resolve global hunger, Vía Campesina's food sovereignty frame has direct implications for the organization's recommendations for the structure and methodology of global food production that is best suited to achieve food security for all. Challenging key organizational structures of the current food system, and the Bank's vision for a "new agriculture" that further consolidates these structures, Vía Campesina's vision includes the decentralization of food system governance and state policies to support local, nutrition-oriented agriculture that prioritizes domestic food security, and "environmental, social, and economic sustainability" (2007, p. 1), before international trade. In this section I will focus on the organization's recommendation regarding the producers and cultivation method "best suited to meet future food needs," namely "agroecological production by peasant and family farmers" (2010, p. 1). Here the food sovereignty frame aligns itself with a production model that casts new roles for corporations and small producers in feeding the planet and reducing the numbers of the hungry. In contrast to the production model endorsed by the World Bank, Vía Campesina's vision involves greater empowerment for peasant producers, and takes a different and deeper approach to addressing the ecological

crisis facing (and caused by) agriculture. All of the above may have implications for long-term food security on the planet.

In order to understand how such a production model resonates with the food sovereignty frame, and the outcomes it entails beyond hunger's resolution, it is useful to first review in more detail what agroecological production entails. While Vía Campesina (2010) does not define agroecology explicitly, the organization states that it is but one of many terms that describe sustainable agriculture on the planet, and offers a set of principles characteristic of such production (p. 2). As commonly understood, agroecology "is both a science and a set of practices" (De Schutter, 2010, p. 6). Agroecological science can be defined as "the application of ecological concepts and principles to the design and management of sustainable agricultural ecosystems" (Altieri, 2009, p. 103). "As a set of agricultural practices, agroecology seeks ways to enhance agricultural systems by mimicking natural processes, thus creating beneficial biological interactions and synergies among the components of the agroecosystem" (De Schutter, 2010, p. 6). Key emphases include "biodiversity, recycling of nutrients, synergy among crops, animals, soils, and other biological components, and regeneration and conservation of resources" (Altieri et al., 1998, p. 1). As noted by Stephen Gliessman (2007) and Miguel Altieri (1995) (as cited in Holt-Giménez & Altieri, 2013, p. 92), agroecology as a science and practice is rooted in and indebted to traditional agriculture and its cumulative knowledge of local ecosystems.

Agroecology possesses critical advantages as an agricultural technology for increasing yields among resource-poor farmers, who often cultivate marginal land of low productive quality. Among these advantages are that agroecology is knowledge intensive

rather than input (or capital) intensive (Holt-Giménez, 2006, as cited in Holt-Giménez & Altieri, p. 92), and that it may generate yield gains while conserving and even restoring agricultural resources (Altieri et al., 1998). Furthermore, Eric Holt-Giménez (2006) (as cited in Holt-Giménez & Altieri, 2013, p. 92) argues that agroecology is highly suited to further expansion among extant small-scale farming systems, as agroecological intensification often depends upon the high biodiversity possible on small farms, as well as community-generated, farmer-to-farmer knowledge sharing, research, and innovation.

Agroecology as defined above resonates deeply with the values and demands of food sovereignty (Holt-Giménez & Altieri, 2013). In particular, generating an agroecology-based food production system is synonymous with greater empowerment and self-governance for marginalized agricultural communities around the world, a key tenet of the food sovereignty frame. Like other authors, Vía Campesina (2010, p. 12) argues (based on original research in Cuba) that agroecology thrives where it is led by food producers, and where farmers are empowered to create knowledge-sharing networks and to drive their own innovations, rather than where a top-down approach to implementation is taken. This is partly because much of the knowledge essential to the success of agroecological production and intensification of productivity comes directly from the experience and knowledge of peasant producers and the traditional practices they maintain, in unique environments and communities that are often resource poor (Altieri, 2002, p. 2-3). Thus agroecology is also synonymous with accepting and celebrating the bioregional specificity and diversity of farming systems that work in concert with local ecosystems, culture, and knowledge, and countering the drive toward homogenized diets and unsustainable production choices promoted by a global, corporate

model of food production (Vía Campesina, 2010). Vía Campesina's model for global food production also reflects the food sovereignty frame's emphasis on direct sources of food security, the multifunctionality of agriculture as a human practice (from a source of food to a steward of knowledge, culture, and community), and sustainability.

Vía Campesina's model for global food production casts a more empowering role for small and peasant producers than that of the World Bank. Rather than requiring smallholders to tailor their production choices to global consumption trends and economic structures over which they have no control and with which their best interests may be at odds, a food sovereignty model of agroecological production empowers poor producers to create sustainable, local food systems independent of such structures, by relying on local knowledge and resources. By (for example) improving and expanding agroecosystem diversification, such as bioregion-specific polyculture, crop and livestock integration, and agroforestry, agroecology can result in an increase in total food output, and output stability, while releasing impoverished smallholders from dependence on distant markets or commercial input suppliers for their long-term food security (Altieri, 2002, p. 16; De Schutter, 2013, p. 36). Altieri notes that while agroecology doesn't preclude the use of external inputs, "farmers cannot benefit from technologies that are not available, affordable or appropriate to their conditions. Purchased inputs present special problems and risks for less-secure farmers, particularly where supplies and the credit to facilitate purchases are inadequate" (2002, p. 15). Thus a goal of agroecology—and key to its success in increasing food security for resource poor farmers—is to depend as much as possible upon local resources, creating self-sustaining and resource-conserving ecosystems. Because resource poor farmers often manage marginal lands highly

vulnerable to degradation (Altieri, 2002, p. 5), it is critical to make agricultural production truly sustainable rather than increasing output in ways that further degrade smallholders' limited resources, as occurred during the Green Revolution (FAO, 2011, p. 9). Acknowledging that resource poor farmers have been poorly served by top-down technology transfers (such as the Green Revolution) that "neglect local participation and traditional knowledge" and exacerbate wealth inequality among farmers (Altieri, 2002, p. 1), Vía Campesina's agroecological model for global food production demands a horizontal structure for agricultural production and knowledge sharing that values local knowledge, and diffuses rather than restricts access.

The UN Special Rapporteur on the Right to Food (Ahmed, 2014) argues alongside many others (Altieri, 2002; de Schutter, 2010; Gonzalez, 2011; Holt-Giménez & Altieri, 2013; IAASTD, 2009; Rosset, 2008; UNCTAD, 2013) that increasing the food sovereignty of the poor through agroecology and other forms of small-scale, sustainable agriculture is a necessary and more practical path to food security for the half billion low-income smallholders and their families that make up many of world's chronically undernourished (FAO, 2011, p. 5), and the 2.5 billion small farmers Holt-Giménez and Altieri identify as threatened by the expansion of industrial agriculture (2013, p. 97-98). Furthermore, they argue that expanding this model of production is the only option to sustainably meet global nutrition needs on a planet facing multiple environmental and social crises. As argued by Vía Campesina, agroecology has the potential to restore degraded land, conserve resources, preserve agrobiodiversity, contribute to climate change mitigation, and make food systems more resilient to climate change and other shocks (Altieri et al., 1998; De Schutter, 2013, p. 37). At the same time, agroecology as a

technology for increasing yields is less likely to generate further inequality, as it is highly adaptable to the unique needs of resource-poor farmers in marginal and highly variable environments across the world, builds upon local knowledge, and is low-cost, making it in many instances superior to industrial methods in its capacity to be utilized by and benefit the poorest producers (Altieri, 2002). Agroecology also has the potential to contribute to national economic development, and to sustainably employ more people than conventional industrial agriculture, reducing problematic rural to urban migration streams facing nations across the developing world (De Schutter, 2013, p. 36).

While skeptics question the capacity of smallholders to feed the world, food sovereignty advocates respond that they already do. Hilal Elver, UN Special Rapporteur on the Right to Food, reports that 70 percent of the world's food is produced by small farmers (as cited in Ahmed, 2014). The FAO (2011, p. 5) reports that "low income smallholder farmers and their families" produce the vast majority of the developing world's food. This is despite the fact that some research finds small farmers (those cultivating less than 10 hectares) to control a smaller percentage of land than large-scale producers, and that smallholder land access has been shrinking across the developing world as industrial agriculture expands (GRAIN, 2014). Elver (as cited in Ahmed, 2014) also points out that research and subsidization vastly favor large agribusiness companies and farms using conventional industrial agriculture. Both of these facts expose huge unmet potential for the sustainable intensification of smallholder yields, were resources to be directed toward this goal. While more research is needed, already large-scale studies demonstrate that agroecology has increased yields for resource-poor farmers in many parts of the world (de Schutter, pp. 7-9).

Critiques of the ability of small-scale agroecological production to meet future food demand are also colored by an uncritical acceptance of current demand trends. Projections accepted by dominant development, which call for a 70 percent increase in food production by 2050, take as given ongoing shifts toward meat-centered diets, enormous food waste, and the use of farmland for biofuels and other non-food goods (Holt-Giménez & Altieri, 2013, p. 91; De Schutter, 2010, p. 4). The United Nations Environmental Programme (UNEP, 2009) finds that the diversion of grains from human consumption into livestock feed, when factoring in energy gained from meat consumption, represents a loss of calories sufficient to feed more than 3.5 billion people (p. 27). Olivier de Schutter (2010, p. 4) argues that redirecting grain supplies toward human consumption, reducing harvest loss and waste, and removing subsidies for the production of energy on arable land, can meet much of projected food availability needs and simultaneously reduce the health problems associated with meat-heavy diets.

Regardless of the great potential of agroecology and sustainable intensification of small-scale farming, the points above also make evident some of the challenges inherent to "scaling up" agroecology. While it is clear that agroecology is in practice and has increased yields for smallholders across the developing world (de Schutter, 2010, p. 7-9; Holt-Giménez & Altieri, 2013, p. 93), restructuring food systems to supply domestic consumers through local, agroecological production, as called for by Vía Campesina, requires a major shift in political will and policy that no nation has yet achieved (Bernstein, 2014). The replacement of global commodity chains with more local networks between consumers and producers would be a phenomenally complex process that is as of yet unmapped, with complex economic, environmental, and social impacts

that are not fully known. Enacting food sovereignty also requires reformulating international structures, such as the Agreement on Agriculture, that impair the ability of national governments to act in the best interest of their smallholders and to cultivate more self-reliant food systems (Vía Campesina, 2001, p. 7). Perhaps the greatest obstacles to the "scaling up" of agroecology and food sovereignty are those positioned to gain from the incorporation of smallholders into a global food system that is predisposed to disadvantage them (Holt-Giménez & Altieri, 2013).

A further challenge to implementing Vía Campesina's agroecological model of food production are the contradictions and unanswered questions inherent to the model itself, which does not come with a fully fledged plan for its enactment. Unanswered questions include 1) how will the transition to food sovereignty be enacted and regulated; 2) how will resources be redistributed, to whom, and how will they be protected; 3) how will the protagonists of the food sovereignty model ("sustainable," "small," "peasant," and "family" producers) be identified (Bernstein, 2014); 4) how will the right of persons to produce their own food be balanced with the need of some to procure a livelihood exclusively from farming; 5) what does democratic food system governance entail, and how will the right of producers to govern their food systems be balanced with the need for strong state support (McKay, Nehring, & Walsh-Dilley, 2014); 6) how does the right of producers to self-governance interact with the need to protect resources that exist on regional and global scales (such as climate and water) and with food sovereignty's claim that persons have the right to produce food when they do so sustainably; 7) how will the sustainability of food producers be measured and ensured; 8) how will trade be conducted and regulated; 9) how will the transition to more self-sufficient, local food systems affect

overall economic growth, particularly in developing countries, and how will this affect the material wellbeing of populations in those countries; and 10) would a hodgepodge of agroecological, local food production and international food trade better meet global food needs than either extreme, and how would this balance be negotiated?

Further research regarding the implementation and impacts of food sovereignty and agroecological production is critical, both because of the model's unmapped impacts and its unique advantages, as explored above. Yet regardless of whether food sovereignty is enacted on a global scale, Vía Campesina's model for our food system is evidence that the way we conceptualize the resolution of hunger impacts the agricultural models we support in the world, and the social and environmental outcomes they promote beyond their immediate impact on the incidence of hunger. In the case of food sovereignty, this model promises to empower peasant producers and to reduce the ecological harm of food production through the expansion of agroecological production.

Conclusion

The World Bank and Via Campesina present two very different food frames through which to define the goal of international efforts to resolve hunger. I have argued that these models also embed two very different frameworks through which to understand the causes of hunger, how it may be resolved, and the role of agriculture. While each model in itself presents an incomplete view of the complex problem at hand, the food sovereignty frame advances the debate over hunger and agriculture in critical ways, which future food security efforts must consider and build upon.

In particular, food sovereignty illuminates key weaknesses in the dominant model, namely its propensity to overlook non-economic goals and questions, and its narrow understanding of both agricultural practice and what resolving hunger might mean. I argue that food sovereignty's unique conceptual characteristics express themselves in a global food system model that is more likely to sustainably resolve hunger, by leveraging agriculture's potential to address multiple social and environmental crises, and is more likely to grant a deeper empowerment to hungry populations and other small food producers.

Yet because each model represents a different set of subjective goals, because it is likely that different models are needed in different contexts, and because there exists an incomplete empirical understanding of the problems each model attempts to remedy and the effects of proposed actions, it is neither fruitful nor within the scope of this paper to argue that any particular model is the correct and ultimate one. Inevitably, the model we select in any context will be chosen based on a combination of subjective goals, empirical evidence, and unknowns. The effectiveness of our ability to resolve hunger as a global community will be aided by incisive empirical examination not only of the assumptions and hypotheses embedded in models to resolve it, but of the experience of hunger, in specific communities and nations, and in recognition of the complex systems—economic, environmental, and social—in which this experience occurs.

Perhaps most significantly, food sovereignty's contentious presence in development dialogue reveals that the project of ending hunger is not one with a single clear-cut answer. Successfully ending hunger will also depend on our ability to

collectively make subjective and political decisions regarding the collateral outcomes we wish to support in lieu of a "correct" path.

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