RESEARCH COMMENTARIES: FOOD SYSTEMS RESEARCH PRIORITIES OVER THE NEXT 5 YEARS

Toward alternative food systems development: Exploring limitations and research opportunities

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Abstract

In recent years, interest in alternative food systems (AFS) has grown both in the popular imagination and in the academic literature. The literature is rife with justifications (or hopes) for the continued and necessary expansion of AFS in the face of unsustainable conventional food provisioning. Within the next five years it will be important to determine how to make alternatives more stable in order for them to play a more prominent role in battling the food insecurity and other social and

economic challenges equated with agro-industrial foods. The goal of this commentary is to demonstrate some highly context-specific challenges and possible research trajectories in both the global South and the global North. We argue that in the global South more robust data collection can strengthen local food systems and traditional foods research, while in the global North, food skills and food literacy research may be important for scaling up and making alternative food systems more stable without compromising important social and economic ideals.

Keywords

alternative food systems, farm labor, food security, food skills, local foods, producer-consumer relationships, scale, traditional foods

Introduction

"Alternative" food systems (AFS) are often conceptualized in opposition to "conventional" global agro-industrial foods (Qazi & Selfa, 2005). They are assumed to provide higher quality food (Ilbery

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& Kneafsey, 2000), use more ecological agricultural practices (Morris & Kirwan, 2011), and foster more equitable labor relations (Born & Purcell, 2006). While some scholars have described "alternative" agriculture as "post-productivist" (Ilbery & Bowler, 1998) or focused on "quality" over "quantity" (Stock & Carolan, 2012), many agree that we must move beyond the dichotomy of conventional vs. alternative conceptions of food provisioning because such simple distinctions are unhelpful and limiting (Evans, Morris, & Winter, 2002; Friedmann, 2007; Maxey, 2006; Mount, 2012; Sonnino & Marsden, 2006). The challenge now is to understand how AFS can in some sense disrupt this dichotomy and become more stable food sources capable of providing both "quantity" (more food for more people), and "quality" (social, economic, health, and environmental benefits) (Jaffe & Howard, 2010; Jarosz, 2008; Milestad, Bartel-Kratochvil, Leitner, & Axmann, 2010).

To identify new research areas for improving the stability of AFS, we reviewed literature published since the early 2000s, focusing on keyword clusters such as food security, alternative agriculture, alternative food networks, traditional foods, agricultural development, and local foods. Given the inherent volume of this endeavor, we divided the review among six contributors from backgrounds in political science, international development studies, and geography. To ensure consistency across the review we met throughout the process to present preliminary results and shared information to compare emerging themes. To identify core tensions in the literature we drew on a qualitative "thematic analysis" (Bryman, 2012) of our chosen body of work.

Against this backdrop, the goal of this paper is to demonstrate that making AFS a more stable food source is highly context-specific and takes on a different character in the global South and the global North, requiring different research trajectories. To accomplish this goal, we organized our commentary into two main sections. The first section addresses key tensions and identifies possible research avenues in regard to strengthening local food systems and traditional foods research in the global South through more robust data collection. The second section addresses key

tensions and identifies possible research avenues in regard to scaling up and making AFS more stable in the global North without compromising important social and economic goals.

Key Tensions in the Literature: Global South

Coincident with an ongoing trend of increasingly cheaper food available on global markets (Timmer, 2010), the number of chronically malnourished people had dropped since the 1970s despite a growing world population (Food and Agriculture Organization of the United Nations [FAO], 2013). However, these positive trends reversed in 2007 with the global economic downturn. As food prices spiraled upward in 2007-2008 and again in 2009–2010, food riots erupted as undernourished people across world regions were exposed to food price shocks (Sneyd, Legwegoh, & Fraser, 2013). According to the FAO, the countries most exposed to the crises were food-importing nations located in sub-Saharan Africa (FAO, 2011) and countries dealing with the worst impacts of climate change, such as recurrent droughts in arid and semi-arid (ASAL) regions (Inter-Agency Standing Committee [IASC], 2009). The impact of the food crisis on poor urban households in sub-Saharan Africa has been profound (Swan, Hadley, & Cichon, 2010). These households have had to adopt damaging coping strategies such as "spending a greater share of income on food, buying lower cost items, reducing the quality and diversity of food," and perhaps most damaging, "eating less and going hungry" (Hossain & Ebyen, 2009, p. 11). The possibility of irreversible damage to a country's productive capabilities, as well as the "obvious human suffering, following the fall of food consumption below a certain minimum need," emphasizes the call to seriously address food security issues (Chang, 2009, p. 482).

The dominant narrative for addressing food security in the developing world rests on the assumption that by increasing trade, foreign exchange will grow and countries will be able to "access the bounty of global food markets" (Weis, 2011, p. 2), thus bringing in lower prices and more stable food supplies (Rosset, 2008; Weis, 2011). However, the promotion of export-oriented, capital-intensive agriculture by wealthy countries in

order to "maximize foreign exchange earnings" (Weis, 2011, p. 2) has contributed to the transformation of the agricultural sector of African economies (McMichael, 2009). Africa's dependence on the global market for food security erodes self-sufficiency and national sovereignty (Rosset, 2008). Past policies such as debt and structural adjustment programs, combined with trade liberalization, have reduced the state's role in agriculture, further contributing to food insecurity and difficulties for farmers (Crush & Fayne, 2011).

The food crises of the recent past clearly demonstrate that this type of "export oriented," "free market" approach may no longer be viable, as it has been found to erode the viability of farmers' livelihoods across the globe, especially in sub-Saharan Africa (Cooksey, 2011; Wittman, Desmarais, & Wiebe, 2010). A new approach to food security is needed, but as the International Food Policy Research Institute (IFPI) points out, "a strong evidence base for an effective development strategy in the [Sub-Saharan] region is missing because the scientific analysis of ASAL regions is limited by poor data, limited policy experimentation, lack of scale, and lack of integration." (Headey, 2011, p. 1).

Research Priorities: Global South

While complex research efforts have been undertaken to assess the scope and impacts of AFS in the global North (e.g., Bean Smith & Sharp, 2008; Conner, Becot, Hoffer, Kahler, Sawyer, & Berlin, 2013; Peters, Bills, Lembo, Wilkins, & Fick, 2009), our review of the literature suggests that knowledge gaps in this field persist with regard to the global South. In recent years, household conditions in particularly vulnerable groups have been examined in numerous isolated studies (e.g., Hadley, Linzer, Belachew, Mariam, Tessema, & Lindstrom, 2011; Oluoko-Odingo, 2011). Research agendas should now seek to assess the scope and impact of AFS in a more comprehensive way in order to help specify their potential to contribute to improving food security in vulnerable households. Focusing on the linkages between local-scale food provisioning and food security is one way to promote AFS development as a possible approach to food security research in the global South.

National food balances (import-export) guide policies on trade, aid, and the domestic and international declaration of food crises (FAO 2001). Notably absent from food balance sheets at present is the contribution made by traditional foods, local foods, and foods that are not commonly traded internationally (Bharucha & Pretty, 2010; Chang, 2009; FAO, 2001). Although modern agricultural specialization has resulted in a global homogenization of diets (Grivetti & Ogle, 2000), a substantial number of native species of crops and livestock as well as native wild plants and animals are consumed by households and often make their way into local food baskets. These types of understudied foods tend to be overlooked in trade or aid policies, as well as in the academic literature.

With the routine underestimation of nonstaple foods "comes the danger of neglecting the provisioning ecosystems and supportive local knowledge systems that sustain these food chains" (Bharucha & Pretty, 2010, p. 2913). For example, the concept of the "orphan crop" — neglected or underutilized foods that are regionally important but not traded around the world, including tubers, sorghum, and millet (Naylor, Falcon, Goodman, Jahn, Sengooba, Tefera, & Nelson, 2004) — are very good for food security under climate change conditions, but are more or less ignored by mainstream food security work, which focuses on wheat, rice, and corn instead (see special issue of Africa Technology Development Journal, 2009). Therefore, we prioritize the need to understand the impacts of the global food crises on food choices, how local diets are changing and incorporating noncommodity, "orphan" crops, and households' experiences of food security and health.

Within the next five years, more data need to be generated about food security and the role of traditional food/AFS in the global South (Headey, 2011; Moseley, Carney, & Becker, 2010). This will allow for adequate planning and implementation of effective development strategies. Researchers should also include the implementation of complex baseline surveys, particularly in urban households that are vulnerable to food insecurity in various regions of the global South (Crush & Frayne, 2011; Legwegoh & Hovorka, 2013). More large-scale research initiatives — such as the African Food

Security Urban Network (AFSUN) (see Crush & Frayne, 2011) — need to be undertaken throughout the developing world that involve universities, nongovernmental organizations, and government actors. Expanding such comprehensive research initiatives to other geographical regions would allow data to be analyzed and compared at local, regional, and international levels.

Key Tensions in the Literature: Global North

In the global North, we focus on two interconnected challenges to AFS development. The first challenge is that despite social, economic, health, and environmental goals associated with AFS and the "local" scale (Born & Purcell, 2006) there is limited empirical research to confirm their achievement. The second is that even if or when AFS can be said to achieve such goals, the practical ability of AFS to expand is unclear.

One of the primary goals of many AFS is to foster a renegotiated relationship between individual producers and consumers of food (Ilbery, Morris, Buller, Maye, & Kneafsey, 2005; Sage, 2003). Geographically close producer-consumer interactions along with shorter food supply chains are seen as underpinning the structure and value of alternative food networks (Renting, Marsden, & Banks, 2003; Watts, Ilbery, & Maye, 2005) and local food initiatives (Hinrichs, 2003; Holloway & Kneafsey, 2004; Holloway, Kneafsey, Venn, Cox, Dowler, & Tuomainen, 2007; Venn, Kneafsey, Holloway, Cox, Dowler, & Tuomainen, 2006). Decreasing geographical distance is assumed to achieve some sort of reconnection where both parties feel satisfied and share mutual interests (Dupuis & Goodman, 2005; Ilbery et al., 2005; Sage, 2003). However, despite geographical proximity, scholars have begun to draw attention to disparities between consumer and producer understandings within AFS and local food systems (Hinrichs, 2003). While consumer interests and/or motivations might be based on "symbolic" (Guthman, 2002) or "subjective experiential" values (Miele, 2006; Smithers & Joseph, 2010) associated with alternative foods, producer interests and/or motivations are predominantly based on material production costs and livelihood concerns (Guthman, 2002). Thus, although producers and consumers might be brought closer together geographically in alternative or local food systems, they might not necessarily share goals, interests, and values about food and food systems.

A second important goal embedded within AFS is the achievement of more equitable labor relations (Born & Purcell, 2006) in comparison to the industrial food system's exploitation of human workers. Producers involved in alternative agriculture and AFS are often thought of as enlightened and conscientious small-scale farmers (Smithers, Lamarche, & Joseph, 2008) committed to social, environmental, and economic justice. While many AFS do intend to create more equitable production relations than the industrial food system creates, the seasonal and unskilled nature of farm work paired with economic constraints and the infamous "price-cost squeeze" (Weis, 2007) create incentives for farm operators to populate their labor force with vulnerable workers.

In North America, much alternative agricultural production depends on migrant labor, particularly where crops are labor-intensive to plant or harvest, including southern Ontario (Barndt, 2008) and California (Brown & Getz, 2008). Underpaid, temporary farm internship programs are also a vital source of labor for many farms in Ontario (Knezvic, Landman, Blay-Palmer, & Nelson, 2013). Preliminary research has noted that many enterprises specializing in local or direct marketing and/or ecological production, draw heavily from volunteer labor programs such as WWOOFing (World Wide Opportunities on Organic Farms), as well as family labor, as they cannot afford to pay minimum wage prices (Knezvic et al., 2013; Ohberg, 2012). The reliance of many alternative food enterprises on migrant workers, interns, volunteers, or self-exploitative and/or family labor suggests that ideals of social and economic justice in alternative food systems are not easily achieved and also suggests that if equitable labor is not possible in many AFS, then the way in which we value food and food systems is problematic.

Research Priorities: Global North Significant research has been devoted to identifying broad ideological goals surrounding AFS. The literature has also begun to point out that these goals are not always met. Important research priorities, then, are to understand *why* certain economic or social goals are not always achieved in AFS, to provide potential solutions to meeting these goals, and to move toward a "scaling-up" of AFS. Food skills and food literacy represent one possible avenue for understanding some of the challenges and potential solutions for AFS development.

Food skills and food literacy research are most frequently connected to health and nutrition studies. There is some evidence to suggest that improving food skills may have a small but positive effect on food choices and food preparation (Wrieden, Anderson, Longbottom, Valentine, Stead, Caraher, & Dowler, 2007) and a significant improvement in the ability to estimate portion sizes (Ayala, 2006). One study in Europe found that those with higher food skills were likely to eat more vegetables and less processed convenience foods (Hartmann, Dohle, & Siegrist, 2013), while a comparative study found that Iceland, where food skills are taught from the age of six, had better health standards than Canada, where food skills are not entrenched in education (Stitt, 1996).

Some scholars also have suggested that food skills have significant impact on societal conceptions of food and food value. The shift over the past century from preparing meals primarily from raw ingredients to consuming pre-prepared convenience foods requiring little or no effort (Engler-Stringer, 2010; Shapiro, 2004) is inextricably tied to the industrialization of the food system. The convenience, variety, and overall cheapness of industrial foods have fundamentally changed what people expect from and how they value food (Hinrichs, 2000; Miele, 2006; Mount, 2012; Smithers et al., 2008). Not only has the industrialization of food arguably contributed to a significant food "deskilling" of developed world consumers, but also to a "de-valuing" of food in general. It is perhaps the "de-skilling" and "de-valuing" processes that present the largest underlying obstacles for AFS development. This avenue of research however, is overlooked in connection to challenges in AFS development, such as farm profitability and labor relations, or producer-consumer understandings and valuing of food and food systems.

In the next five years, it will be important to examine the social-justice implications of the precarious labor force upon which alternative agriculture in North America often relies; gain greater understanding into the potentially conflicting interests between producers and consumers in AFS; and understand how increased food skills relate to understanding and valuing of food and AFS. This research will paint a clearer picture of why social and economic goals are not always met in alternative food provisioning and help determine what role, if any, food skills and literacy can play in improving the economy and potential of AFS.

In addition to the challenges of AFS in the developed world meeting broad ideological goals, the question of how to make AFS more widespread is important for future research. Because most of the literature has been focused on case studies that identify and explore alternatives operating at a limited scale (Campbell, 2009; Chiffoleau, 2009; Feenstra, 2002; Hinrichs, 2000; Ostrom, 2009), there is room to explore how AFS can grow, become more stable, and operate at a larger scale. The call for scaling up is complementary to and hinges on gaining greater understanding of the above-mentioned challenges. Research in the next five years should focus on understanding current infrastructure, networks, and distribution options for alternative food systems, as well as the ability for some alternatives to make use of more conventional food system networks.

Conclusion

In the past decade, the study of alternative food systems has gained a great deal of momentum. Much research in the developed world revolves around determining *what* various AFS look like and defining and outlining their different qualities. AFS study is less robust in the developing world, but research into local and traditional foods and food security is growing. In both contexts, determining how to make alternatives more stable in order for them to play a more prominent role in battling food insecurity and other social and economic challenges related to agro-industrial foods is important for the next five years of research. The following table summarizes some of the key tensions this

commentary identified in the existing literature, as well as future research priorities to help in the

development of alternative food systems in both the global South and the global North.



Figure 1. Summary of Key Research Themes and Priorities

	Key Themes in Literature	Key References	Research Priorities
Global South	 2007/08 global economic downturn and increasing food prices Export oriented agriculture, commodity crops 	 FAO, 2011, 2013; McMichael, 2009; Rosset, 2009; Weis, 2011 	 Local scale food provisioning and traditional foods Changing diets and 'orphan' crops Complex data collection
Global North	 Social and economic ideological goals of AFS (reconnection and equitable labor relations) Small-scale case studies 	 Ilbery et al., 2005; Renting et al., 2003; Sage, 2003; Feenstra, 2002; Hinrichs, 2000; Ostrom, 2009 	 Food skills and literacy Social justice, labor relations producer-consumer interests Infrastructure and/or networks

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