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Defining agroecology: Exploring the circulation of knowledge in FAO's Global Dialogue[1]

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Abstract.

This article traces how 'agroecology' is co-produced as a global socio-technical object. The site of co-production, the Global Dialogue on Agroecology, was convened by the Food and Agriculture Organization of the United Nations (FAO) in different cities around the world between 2014 and 2018 (Rome 2014; Brasilia, Dakar, Bangkok 2015; La Paz, Kunming, Budapest 2016; Rome 2018). We analyze these 'expert' symposia and regional meetings by exploring how knowledge about agroecology circulates and frames the terms of debate. Our analysis is based on an ethnography carried out by the first author since 2013 and participant observations by both authors in the Global Dialogue. We focus on three key processes that contribute to the stabilization of a global agroecology: 1) the work carried out to define 'agroecology', 2) actors' interests and strategies that are revealed through the politics of circulation, and 3) the emergence of the 'evidence based' logic within this dialogue and the 'experts' who are legitimized. We argue that the version of 'agroecology' that was stabilized through the Global Dialogue is one that has been highly influenced by civil society actors, even though they were not recognized as 'experts' in the process. We conclude with reflections upon the politics of 'agroecological' knowledge and what this means for the institutionalization of agroecology.

Keywords

Agroecology, evidence, knowledge, institutionalization, co-production

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DEFINING AGROECOLOGY: EXPLORING THE CIRCULATION OF KNOWLEDGE IN FAO'S GLOBAL DIALOGUE

INTRODUCTION

In a room filled with more than 700 people – the largest audience ever for a technical meeting convened by the Food and Agriculture Organization of the United Nations (FAO) – the Director General (DG) of the FAO opened the Second International Symposium on Agroecology on 3 April 2018 saying:

"During the First International Symposium in 2014, I said we were opening a window in the cathedral of the Green Revolution and bringing the agroecology perspective to the heart of the debate on food and agriculture['s] future."[2]

These words are striking for two reasons. First, since its creation in 1945, the FAO has held the mandate of being a neutral knowledge broker in aiding member nations to eliminate hunger and achieve food security. Yet despite this role as a neutral broker, the type of knowledge that was held sacred within the marble halls of the building that was once the Italian Ministry for Colonial Affairs was one based in the science and politics of the green revolution (Cornilleau and Joly, 2014). As envisioned by Norman Borlaug and colleagues in the Consultative Group for International Agricultural Research (CGIAR), the green revolution introduced hybrid seeds, synthetic fertilizer, agrochemical applications and mechanization. This 'standardized package' (Fujimura, 1992) developed by private agribusinesses made large-scale monocultures a reality in many regions of the world. Because of its success in the rapid increase of yields in post-war Europe and the US, and specifically in Mexico and India in the 1960s/70s, this productivist approach was heralded as the solution to global hunger and food security (Fouilleux et al., 2017). Indeed, it has been the cornerstone of the last 50 years of technical advice provided to member countries by the FAO. As a neutral broker, FAO transferred this knowledge from the CGIAR system and Western Universities in a top-down way to developing countries with the help of the World Bank and private foundations like Ford, Rockefeller, and Gates (Cornilleau and Joly, 2014). While there have been fissures in the marble walls of this cathedral – specifically the critique of the inefficacy of these global institutions (IAASTD, 2008) - the fact the that FAO DG could make such a statement attests to a significant discursive shift that has occurred in global agricultural politics.

Second, agroecology is presented as a perspective that is needed in the global debate about the future of food and agriculture. According to the pioneer authors on the topic, the use and practice of agroecology is as old as the notion of agriculture itself (Altieri et al., 1999). Historically, agroecology was constructed in specific spaces of professional, political and scientific knowledge. These can be characterized as an 'agricultural practitioners' space (farmers, extensionists, food system actors), spaces of scientific research (agronomy, biology, ecology, entomology, social sciences) and social movement spaces that are critical of the industrialization of agriculture (Wezel et al., 2009; Abreu et al., 2009; Lamine and Abreu, 2009; Tomivh et al., 2011; Francis et al., 2003). Based on these empirics, agroecology was coined by Wezel et al. (2009) as science, practice and

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[2] FAO. (2018). *A statement by FAO Director-General José Graziano da Silva*. [online] Available at: http://www.fao.org/director-general/my-statements/detail/en/c/1113703/ [Accessed 03 Apr. 2018].

social movement. Sometimes this phrase is misunderstood as science, practice *or* social movement and thus actors mobilize it to defend disparate political positions. However, this tripartite perspective was meant to explain the interdependencies of knowledge, politics and practice fundamental to a holistic ecological approach to food systems (Francis et al., 2003). This diversified knowledges approach stands in direct contrast to the 'standardized package' of the green revolution and is used as a justification for food system transformation (Gliessman, 2018).

The knowledge used to justify action is fundamental to the future of global food and agriculture because it directly shapes and conditions the policies and actions taken. This article thus analyzes the current global politics around the definition of agroecology. Our core problematic is the co-production of a global agroecology that seeks to be at once a form of resistance and a legitimate, transformative policy. We chose to locate our analysis on the FAO as it is the main global space where agriculture and food security are discussed. More specifically, we explore the FAO's Global Dialogue on agroecology that took place between 2014 and 2018. We analyze the convergences and divergences between actors, their discourses and their material positioning as the concept of agroecology – in the form of a socio-technical object – circulates through time and space. Our question is the following: *how does knowledge circulate and frame the terms of a global debate on agroecology that is simultaneously political and technical?*

This article proceeds in three sections. First, we present our analytical framework and method. Second, we describe each of the international and regional meetings according to this framework, highlighting: who the actors were, the type of knowledge that was privileged and the material means through which the event was politically legitimated. Third, we discuss these results by highlighting how a global agroecology object has stabilized through: 1) the work carried out to define 'agroecology', 2) actors' interests and strategies that are revealed through the meetings, and 3) the emergence of the 'evidence based' logic within this dialogue and the 'experts' who are legitimized. We argue that the version of agroecology that has stabilized through the Global Dialogue is one that has been highly influenced by civil society actors, even though they were not initially recognized as the 'experts' on the topic. We conclude with reflections on institutionalization through knowledge politics.

TRACING THE COPRODUCTION AND STABILIZATION OF KNOWLEDGE

The idiom of co-production (Jasanoff, 2004) is adapted to our analysis for two reasons. First, scientific and political epistemologies are constantly used in FAO technical meetings and day-to-day work (Fouilleux, 2009; Ilcan and Phillips, 2003). As a result, any form of stabilized knowledge to emerge is necessarily co-produced in the constitutive sense intended by Jasanoff (2004). Second, the civil society actors in the Global Dialogue use the term 'co-production' to refer to how agroecological knowledge and practices are co-produced through farmer engagement with other farmers and researchers (Delgado Ramos, 2015). Thus, the idiom of co-production offers an appropriate frame for analyzing this process that is simultaneously epistemic, normative and ontological in its attempt to constitute global knowledge about agroecology.

Analytically, we use actor-network theory (ANT), science, technology and innovation (STI) mixed with public policy analysis, and the sociology of infrastructures to explain the process of definition, stabilization and legitimatization of knowledge within spaces of interaction. We draw on ANT as a method of inquiry, whereby we trace the divisions and distinctions that are the effects - the material and discursive outcomes - of interactions between actors (human and non-human)

(Latour, 1987). From STI policy, we adopt the notion of space to delineate where we can find these actors. Rip et al. (2012: 2) argue that "spaces emerge and/or are intentionally created to address articulation of possibilities and reduction of indeterminacies" (p. 2). In public policy analysis, these spaces are referred to as fora, where much of the negotiation over the meanings and problem-solving possibilities takes place (Fouilleux and Jobert, 2017). In these fora, the actors develop specific political activities and work (e.g., negotiations over definitions, meanings, values, strategies of legitimation) and a variety of forms of 'evidence' is produced. These can be scientific evidence, professional and practitioners' evidence, 'the business case', citizens' evidence, etc. These processes are highly dependent on the institutional configurations and contexts. This production of evidence is then used – or not – in the policy-setting processes that take place in global policy arenas (Fouilleux, 2019).

From the sociology of infrastructures, we use the concepts of circulation of knowledge and standardized objects to understand the stabilization of networks (Callon, 1991; Bowker and Star, 1999). We pay attention to the dynamics of who the actors are in the space that we are studying in order to understand the power dynamics and legitimation of their place in the network. Star (1991: 43) reminds us that "a stabilized network is only stable for some, and that is for those who are members of the community of practice who form/use/maintain it" (p. 43). Thus, beyond the actors, we analyze how and why knowledge about agroecology enters and circulates into a common space and then stabilizes. Circulation "entails transformation and change, which are constitutive of mobility, also accounting for the necessity of partial moorings and immobility (explicit, codified knowledge) for further development of knowledge" (Pellegrino, 2012: 168). In sum, we focus on the Global Dialogue as a forum where standardized knowledge from a variety of other fora (different scientific disciplines and societies, civil society, private sector, diplomacy) circulates. The boundaries of the forum give meaning to the actors' arguments and feeds into the power struggles that fuel the stabilization dynamics of actor-networks.

The data used in this article was collected through an ethnographic study (cf. Goldman, 2005) of the FAO Global Dialogue by the first author between 2013-2018. This ethnography included participation in and observation of internal and public meetings related to the Global Dialogue. Discussions and interviews with organizers and participants in these meetings were used to confirm observations and the interpretation of events. Only public information has been reported in this study. To complement and triangulate this data, both authors also conducted participant observations in international agroecology events, interviewed key informants (15) and analyzed official documents. The official participant and presenter lists were classified following a set of actor categories originally created by FAO but modified by the authors to better reflect the organizational statutes of the actors. These were: producer organizations, private sector, United Nations or Intergovernmental organizations, civil society (NGOs), government, and scientific. For the purposes of this article, La Via Campesina was classified as a civil society organization (and not as a producer organization) given their lead position in the civil society mechanism of the Committee on World Food Security (CFS).

THE GLOBAL DIALOGUE: BRINGING REGIONAL KNOWLEDGE TO A GLOBAL FORUM

We position our analysis of the Global Dialogue within the context of a shift in discursive power in global agricultural politics that has occurred within and outside of FAO. Beginning with an 'unauthorized' food sovereignty protest by La Via Campesina inside the FAO building at the 1996 World Food Summit and the subsequent creation of the Global Forum on Agricultural Research and Innovation (GFAR), private and civic voices began to question the dominance of the government-led process for agricultural development. Following the 2008 food crisis, the CFS was reformed to allow different voices and forms of knowledge into the global debates. The creation of private sector and civil society mechanisms within the CFS changed the way knowledge entered the global agricultural policy debates (Duncan, 2015; McKeon, 2014), although it did not fundamentally change the power relations shaping those debates (Fouilleux et al., 2017 ; Fouilleux, 2019).

Amid these reforms - and a process of internal "cultural change" undertaken within FAO that promoted some institutional entrepreneurs to the management team - a new DG of FAO came into office in 2012. Dr. José Graziano da Silva was known for his commitment to social protection, having implemented Brazil's Zero Hunger policy when he was President Lula's Minister of food security. He was also known for reform, decentralization and member countries' political priorities, which he demonstrated as the Assistant-DG for the Latin American and Caribbean Region of the FAO. While first refusing to address the issue of agroecology,[3] the International Year of Family Farming in 2014 created a political opportunity for FAO to introduce the theme of agroecology in an official event and day-to-day work. In September 2014, the FAO thus organized the first Symposium on Agroecology in Rome, which opened a series of regional and national 'expert' meetings, the "Global Dialogue on Agroecology", which took place in each main world region (Brasilia, Dakar, Bangkok 2015; La Paz, Kunming, Budapest 2016; Tunis, 2017).[4] The process culminated in the 2nd International Symposium in Rome in April 2018, concretizing the opening of the window in the cathedral.

A small number of civil servants within FAO headquarters (HQ), who had a history of pushing alternative visions of agricultural development within the organization, were key in this decision. They seized the opportunity to legitimize and scale up their previous work (e.g., payments for ecosystem services, family farming, organic, integrated pest management, and the Sustainability Assessment of Food and Agriculture (SAFA) program). Throughout the process, the agroecology team was key in supporting and organizing the Global Dialogue. But the political opportunity for agroecology did not appear only by change or through the efforts of the administrative elite (Kingdon, 1984). It was also the result of political positions taken by some member states of the organization. In 2013, France offered to finance an international Symposium as part of its framework negotiations with FAO for the 2013-2014 biennium. An offer very much in line with

[3] Interview with an ex-member of the management team, Plovdiv, Bulgaria, June 2018

[4] Organized by the Cairo office, with HQ support, the Tunis 2017 meeting was small. Interviewees reported a limited number of government and FAO projects on the topic in the region and weak civil society mobilization. No mention was made about available science. No official report was produced and it is generally excluded from FAO presentations on the Global Dialogue (cf. FAO, 2018b) For these reasons, and the fact that we did not attend, we have not included it in our analysis.

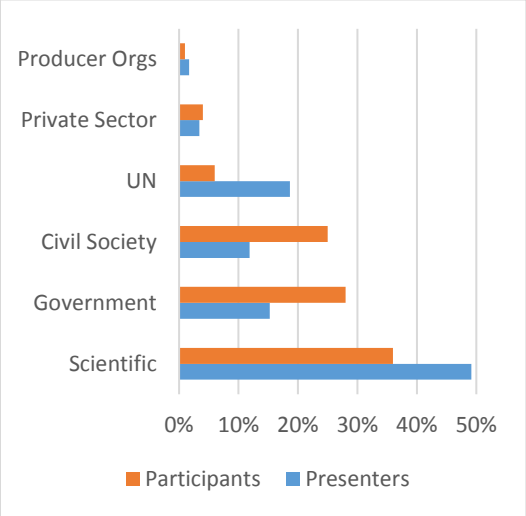
French internal politics at that time.[5] Additional material resources came from the governments of Brazil and Switzerland.[6] The latter's Ambassador was particularly vocal about the importance of agroecology as an approach to be promoted for family farmers in FAO's Committee on Agriculture (COAG)[7] meeting in October 2014. This intergovernmental support for agroecology was reinforced in 2015 with the creation of an informal diplomatic group called the 'Friends of Agroecology'. Initially including the permanent representatives from Brazil, France, and Switzerland, it expanded to include China, Côte d'Ivoire, Hungary, Japan, Senegal, and Venezuela. A main stake for them was to institutionalize agroecology as an FAO area of work, which meant getting a COAG agreement in 2016, despite intense opposition by other states, such as Argentina and the United States.

With such a landscape in mind, we now turn to how agroecology was debated along the Global Dialogue process. In the following sub-sections, we use our three analytical entry points – actors, material resources, discourses/definitions –to describe chronologically how each regional meeting contributed to the stabilization of a global agroecological knowledge object.

Experts vs. Publics in Rome, Italy: 18-19 September 2014

The plan for the first Symposium agenda, which was to become the norm for the organization of each of the subsequent regional meetings, was focused on a mix of different types of sessions. These include: *high-level panels,* with: (i) political statements by the Agricultural Ministers of France, Senegal, Algeria, Costa Rica, Japan, Brazil and the European Union; (ii) *plenary sessions* where keynote speakers set the tone for discussion; and (iii) *parallel sessions* that focused on the 'scientific knowledge' about ecological approaches, ecosystem synergies and people and economies. There was also one session on 'agroecology in practice' that featured experiences from countries mostly in the Global South. As is evident in Figure 1, almost 50 percent of the presentations were made by members of the Scientific community (primarily ecologists and agronomists).

Figure 1: Participants in Rome, 2014



NB: Participants (n=377), Presenters (n=59)

Such exchanges resulted in a certain definition of agroecology, first collectively debated and then approved in both public and private preparatory sessions. Despite a visible influence of the tripartite narrative in such a definition, agroecological systems are defined primarily as knowledge intensive and science-based:

> ***AGROECOLOGY is the science of*** *applying ecological concepts and principles to the design and management of sustainable food*

[5] French Agriculture Minister Stephane Le Foll launched a national plan for agroecology on 18 December 2012 and in 2014 added an international plan focused on the FAO. alim'agri. (2014) *Chantier n° 6 - Promouvoir et diffuser le projet agro-écologique à l'international.* [online] Available at: https://agriculture.gouv.fr/le-plan-daction-global-pour-lagro-ecologie [Accessed 28 June 2019]

[6] Money was also mobilized from FAO's portion of the Global Environmental Facility Global Pollinator Project.

[7] COAG is FAO's governing body for its work on agriculture

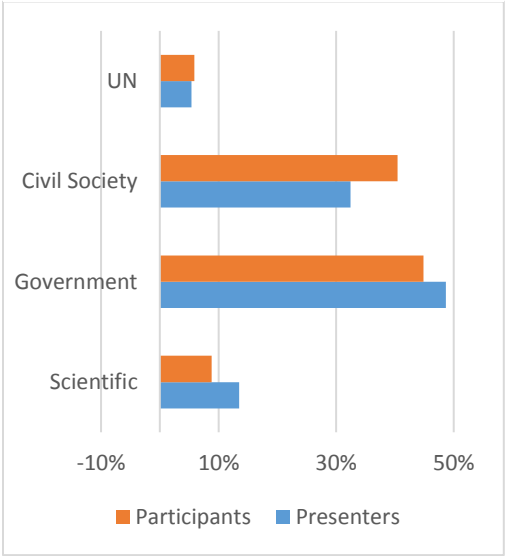
> *systems. It focuses on the **interactions between plants, animals, humans and the environment**. Agroecological **practices** work in harmony with these interactions, applying **innovative solutions** that harness and conserve biodiversity. Agroecology **is practiced** in all corners of the world, with the **traditional and local knowledge of family farmers** at its core. Through an integrative approach, agroecology is a realm where **science, practice and social movements** converge to seek a transition to sustainable food systems, built upon the foundations of **equity, participation and justice.** (FAO, 2015: 426, authors' emphasis)*

With this definition in hand, the agroecology team, diplomatically backed by the Friends of Agroecology, worked within the FAO institutional processes to secure an authorization from COAG to carry out a series of Regional Symposia on this 'new' area of interest for FAO.

A closed State/civil society dialogue in Brasilia, Brazil 24-26 June 2015

The first Regional Seminar for Agroecology in Latin America and the Caribbean was organized and financed by Brazil,[8] the Community of Latin American and Caribbean States (CELAC), the Specialized Meeting on Family Farming of the Southern Common Market (REAF MERCOSUR) and the Alianza para la Soberanía Alimentaria de la Población en Latinoamérica. This invitation-only meeting was tightly controlled by the government of Brazil and the agroecology team in Rome had little control over the program or invitees. Most participants were representatives of governments in 14 countries and civil society, with very few scientists and UN officials and no private sector nor producer organizations (Figure 2). The civil society organizations were mainly made up of members of La Via Campesina and their national chapters, indigenous organizations and other organizations whose members are peasants. The few present scientists were members of the Latin American Scientific Society of Agroecology (SOCLA), an organization historically very close to social movements. The FAO DG sent a video message and there were few high-level speeches.

Figure 2: Participants in Brasilia, 2015



NB: Participants (n=136), Presenters (n=37)

The content of the meeting reflected this political approach as the sessions were set up as Round Table discussions between the social movement activists and public-policy makers. This close and direct dialogue between civil society and policy makers produced a strong claim of ownership over the agroecology concept based in social movement politics and family farming practices:

> *Agroecology in the region has been **carried out in practice** for decades; by **social movements** of small-holder farmers, rural groups, traditional communities, indigenous peoples, artisanal fisher folk, herders, and gatherers. It has a strong*

[8] The country of origin of the FAO DG and first country with an explicit policy dedicated to agroecology. FAOLEX. (1991) Brazil: Law No. 8.171 on agricultural policy. [online] Available at : http://www.fao.org/faolex/results/details/en/c/LEX-FAOC012389/ [Accessed 28 June 2019]

> ***scientific base*** *and is increasingly receiving support from governments through new* ***public policies****. The practices and elements of agroecology ensure* ***food security and sovereignty****, as well as strengthen* ***family farming.*** (FAO, 2016a: 6, authors' emphasis)

This definition was unique to the region. Although they had been very critical of the 2014 Symposium in Rome, the SOCLA scientists lauded this strong definition of agroecology as a holistic approach to social change.[9]

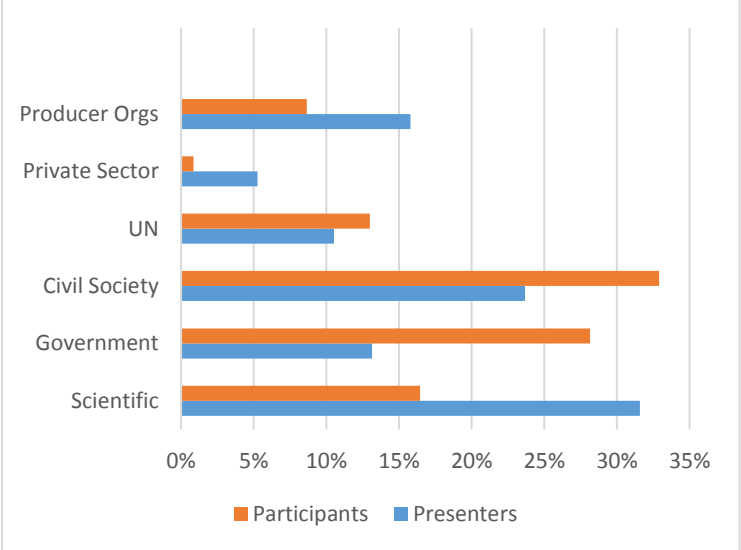
Distributed participation, but civil society mobilization in Dakar, Senegal 5-6 November 2015

In Dakar, the Regional Meeting on Agroecology was financed by France and Senegal and organized in close collaboration with FAO HQ. The largest regional event, counting over 200 participants, it had a greater distribution of actors. But scientists (mostly agronomists) dominated the presentations and civil society was strong (Figure 3).

The greater number of presentations by the private sector, producers and youth shifted the conversation to the questions of gender and the uneasy relationship between agroecology and markets. We trace this to the continental organic movement, which is dominated by the East African export-focused delegations.

The core controversy in this meeting revolved around climate-smart agriculture (CSA), which has been denounced by civil society as 'greenwashing' by agribusiness (Alexander, 2019). This controversy emerged because of an informal lunchtime discussion that FAO put on the agenda to review a report prepared by CIRAD (the French Center for International Cooperation in Agriculture for Development). This report compared CSA and agroecology, with the conclusion that CSA was simply a policy instrument to direct funding for agriculture, but that agroecology can easily be considered 'climate-smart'. This provoked vivid reactions and critics among participants. The fallout was a scathing letter published by SOCLA denouncing the dominance of Northern science, announcing their boycott of future regional seminars and demanding a revision of the report. In response, the division responsible for the report requested internal comments and a revision and eventually refused any publication of the report, which subsequently found its way into a scientific note (Saj et al., 2017).

Figure 3: Participants in Dakar, 2015



NB: Participants (n=231), Presenters (n=38)

The strong mobilization of civil society in this meeting was the result of a proactive strategy that La Via Campesina and its affiliates in the food sovereignty movement developed as a reaction to the science-dominated program of the 2014

[9] Interviews with key informants, Dakar, 2016.

Symposium. In February 2015, these groups met in Nyeleni, Mali from 24-27 February 2015 to produce a declaration on Agroecology.[10] This declaration strongly insisted on the origin of agroecology as a small-scale peasant agriculture that is learnt through collective processes that ensure food sovereignty. They declared: "Our Agroecology includes successful practices and production, involves farmer-to-farmer and territorial processes, training schools, and we have developed sophisticated theoretical, technical and political constructions" (Nyeleni, 2015). In Dakar, the civil society delegates held a small ceremony in the main plenary hall following one of the official sessions. During this ceremony, the Nyeleni declaration was read and civil society representatives pledged allegiance to this definition of agroecology.

In sum, the heated debates between participants from civil society and presenters from scientific institutions dominated over the contributions from governments in Dakar, despite their strong presence both in the agenda and in the audience. The long definition that was co-produced reflects this contentious process as it is all encompassing:

> *Agroecology, stressing **adaptation of agriculture to natural conditions and cycles, as well as to local needs – has been carried out** by African farmers and pastoralists for millennia. Thus, while often not explicitly termed "Agroecology", many actors and initiatives exist within sub-Saharan Africa that build on agroecological principles. Agroecology's holistic approach - incorporating the **traditional knowledge** and skills of the world's farming communities with **cutting edge ecological, agronomic, economic, and sociological research**, has the potential to support strong, democratically-based food systems that provide health and livelihood to small-scale, **family farmers**, rural communities; as well as environmental benefits. During this meeting, agroecological initiatives and practices have been recognized as achieving sustainable agriculture and development while reducing **rural poverty, hunger and malnutrition and increasing climate resilience of agriculture**. Agroecology also provides perspectives for **rural youths** and can help slow the **rural exodus** currently occurring in sub-Saharan Africa.* (FAO, 2016b: 4, authors' emphasis)

A classic multi-stakeholder consultation in Bangkok, Thailand 24-26 November 2015

In Bangkok, a Multi-Stakeholder Consultation on Agroecology in Asia & the Pacific was organized by FAO's Regional Office in collaboration with FAO HQ in Rome. Financing came from FAO and the Global Alliance for the Future of Food[11], with plenaries and parallel scientific sessions. Government representatives were barely present, and the conversation was dominated by civil society (Figure 4). The FAO DG sent a video message.

[10] This meeting had been planned before the FAO Symposium, but civil society actors took advantage of this event to consolidate their political position (Giraldo and Rosset, 2018).

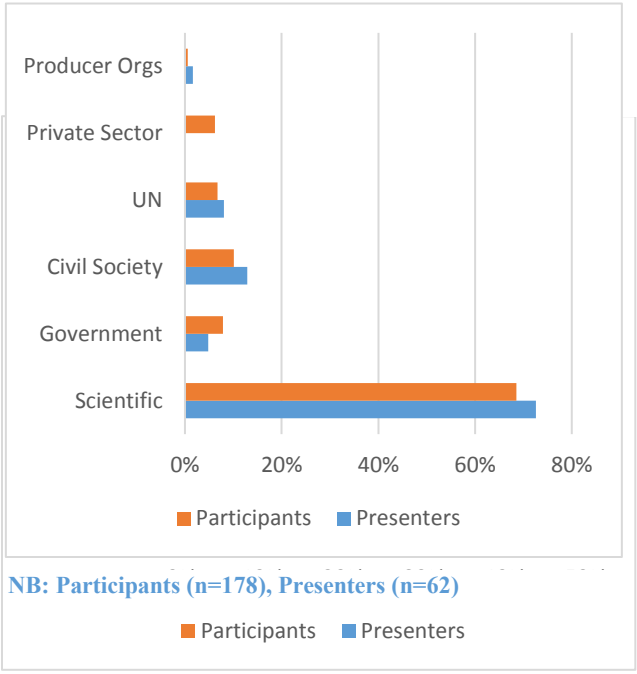
[11] A network of philanthropic foundations working together to transform the global food system and promote agroecology.

This consultation relied upon scientific knowledge coming mostly from agronomy and entomology to discuss a variety of practices that have long been tested and used in Asia, particularly integrated pest management and systems of rice intensification. There was a strong focus from civil society – mainly NGOs – on training farmers in these agroecological techniques that are used extensively in the region.

Rather than a focus on peasant traditions, as was the case in Africa and Latin America, the Bangkok meeting included numerous debates about the negative effects of the green revolution and explicitly addressed the need to 'transition' to more sustainable systems. The definition they developed recognizes, just as the Dakar definition does, that agroecology is not a word developed in the region. However, they do recognize it in their practices related to nature conservation:

> *Agroecology, which is based on the **adaptation of agriculture to local conditions, natural cycles and needs**, is not new to the Asia – Pacific region and **has been practiced** by Asian small-scale food producers across the region, including peasants, fisherfolk, pastoralists, urban communities, indigenous peoples, women's organizations, youth and others, are nourishing and maintaining communities through agroecology. Although they do not systematically use the term agroecology explicitly, many actors and initiatives throughout Asia and the Pacific are based on agroecological principles, which include the **protection of natural habitats**. There are many ecological zones and societal diversity within this region resulting in unique agroecological approaches.* (FAO, 2016c: 45, authors' emphasis)

Figure 5: Participants in Kunming, 2016



NB: Participants (n=178), Presenters (n=62)

NB: Participants (n=153), Presenters (n=54)

A scientific meeting in Kunming, Yunnan, China, 28 August - 1 September 2016

In addition to the three original regional seminars, the Government of China wanted to hold its own International Symposium on Agroecology as part of its commitment to the 'Friends of Agroecology' group. This event was sponsored by China, France and the Chinese Academy of Agricultural Sciences (CAAS). FAO HQ was highly involved in developing the agenda, but CAAS controlled the decisions over panelists and invited participants.

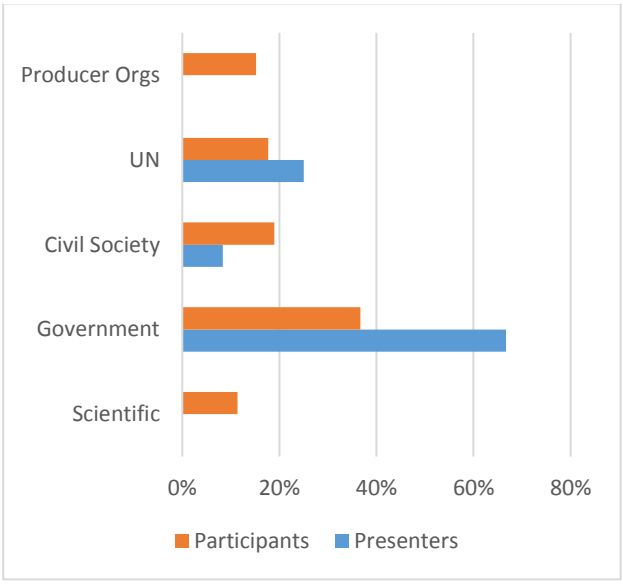
This Symposium resulted in a highly scientific event, with most presentations and participants coming from research and academia (Figure 5). The format followed the standard format with a video message by the FAO DG. The Assistant-DG for Agriculture, who was part of the Chinese agricultural science community, opened the event with the Yunnan Province Governor. But, in contrast to the previous conferences, there were little to no political speeches. Instead, there was a strong focus on the state of the art in biological and environmental sciences and high-tech

approaches to nature and biodiversity conservation and landscape restoration. The main result expected from this event was the publication not just of proceedings, but also of a special issue of a scientific journal.

The preparation of recommendations from this event was an all-night process, where language was carefully chosen so to stay in line with both Chinese and FAO political positions. The final text[12] is quite different from the other definitions in that it adopts concepts – like 'ecological civilization' – that speak to theories of ecological modernization (Mol, 1997):

> *China is a large agricultural country with a very large rural population. The country has rich agricultural resources and a long history of farming traditions; therefore, agroecology* ***is not a new concept*** *in China. Traditionally, farms in China have developed ecologically based farming systems, for instance intercropping and rotation systems, organic fertilization systems, and Rice-Fish integrated systems. Land degradation, soil erosion, grassland degradation, deforestation, water shortages and significant deterioration in water quality standards are imposing severe threats to* ***natural resources and biodiversity*** *in the country, for which technical capacities in combating these changes need to be further improved. Agroecology is seen as a key component of China's concept of* ***"ecological civilization"****, a set of wide-ranging reforms, detailed in a 2015 plan, to reconcile environmental sustainability with economic development. Agroecology advocates* ***innovative solutions*** *to the 21st century challenges, and a holistic and systematic approach towards achieving the SDGs [Sustainable Development Goals] in the face of climate change, to build* ***sustainable food systems*** *that produce more with less environmental, economic and social costs, with a particular focus of benefiting* ***family farmers****.* (FAO, 2017a: 1, authors' emphasis)

Figure 6: Participants in La Paz, 2016



NB: Participants (n=79), Presenters (n=12)

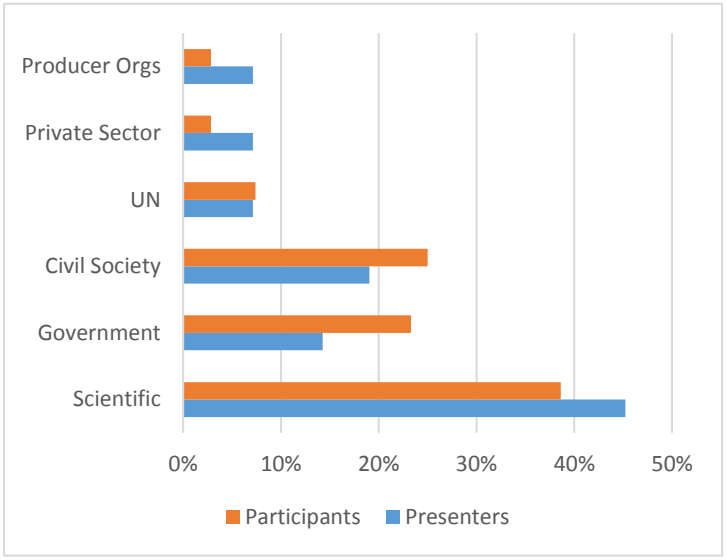
A political event in La Paz, Bolivia, 28 September 2016

As a follow-up to the Brasilia event, the government of Bolivia requested FAO to assist in organizing a workshop in 2016 so to further elaborate a specific political position on agroecology in the region. Financed by the government of Bolivia along with the CELAC, REAF Mercosur and la Alianza para la Soberanía Alimentaria de la Población en Latinoamérica, this workshop was a small invitation only event.

[12] An edited version of this text appears in FAO 2017b.

Figure 6 demonstrates the strong reliance on government presentations in the opening and closing sessions, while the World Café and open space discussions that made up the majority of the day enabled brainstorming and consensus on a series of recommendations. Those recommendations were subsequently brought to the 3rd Ministerial Meeting on Family Farming of CELAC and were integrated into their 2017 plan of action.[13] This direct policy outcome was facilitated through the invitation of civil society partners and academics from the economic and political sciences. Their definition did not change much from the Brasilia definition. Food security became food and nutritional sovereignty and sustainable management of natural resources and ecosystems was added, in line with other CELAC policy priorities.

Figure 7: Participants in Budapest, 2016



NB: Participants (n=176), Presenters (n=42)

> *In Latin America and the Caribbean,* ***agroecology has for decades been a way of life*** *for many farmers, peasants, artisanal fisherfolk, pastoralists, gatherers, indigenous peoples, Afro-descendants and traditional peoples and communities. Agroecology has been promoted and claimed by* ***social movements*** *as a model of agriculture that is harmonious and respectful of the environment, biodiversity and ecosystems, socially, environmentally and economically sustainable.* ***The academy has provided it with a scientific basis,*** *and in recent years, it has been assumed by some governments with the generation of* ***public policies that promote it*** *and that visualize its important contribution to* ***food and nutritional sovereignty and security*** *and to the* ***sustainable management of natural resources and ecosystems****.* (FAO, 2018c: 4, authors' translation and emphasis)

An apolitical event for European science in Budapest, Hungary, 23-25 November 2016

The fourth Regional Symposium on Agroecology was held in Hungary with funding from Hungary and France. This meeting required significant work from FAO HQ team, in collaboration with the Regional office in Budapest, due to political tensions over the idea of FAO convening a technical (yet highly political) event for the European region.[14] Therefore, the geographic region was expanded to include Europe and Central Asia and the government presentations were limited compared to those of the scientists and civil society (Figure 7). Indeed, while representatives of member countries were signed up for the event, most of them were absent, leaving their reserved

[13] CELAC. (2018). *Ministerial Declaration Of Celac On Family Farming And Rural Development* [online] Available at: https://celac.rree.gob.sv/documento-oficial/action-plan-of-the-ad-hoc-working-group-on-family-farming-and-rural-development-of-the-celac-2018/ [Accessed 28 June 2019]

[14] Informal interviews with members of the scientific and organizing committees, Rome and Budapest, 2016.

seats available. Thus, there was a running joke during the meeting where the moderator kept trying to call on government representatives and all of the people sitting in their seats were either from civil society or academia.

Nonetheless, the FAO DG, the Hungarian Minister of Agriculture and a representative from the Directorate General for Agriculture and Rural Development of European Commission (DG-Agri) were there to open and close the event. The French and Swiss Ambassadors to FAO participated throughout the three days. The agenda was dominanted by scientific presentations based in ecology, biology, agronomy and social sciences. These presentations were mixed with practice examples from economic actors and innovators in the standard FAO format. Nonethless, the plenaries were reserved for institutional and diplomatic actors.

In this event, the civil society participation was mediated through a strategy of definitional integrity. In every presention from civil society, the speaker repeated a phrase from the Nyeleni declaration so to ensure that this definition was included in the final report. Some academics – mainly social scientists, did the same. This practice was not witnessed in any of the other meetings of the Global Dialogue. Nonetheless, the definition that was agreed upon remains rather technical and science-oriented:

> *Agroecology is based on principles such* ***as biomass recycling, circular system of food production, soil health and preservation, natural inputs (sun radiation, air, water and nutrients) optimization, loss minimization, conserve biological and genetic diversity and enforcement of biological interactions in agroecosystem components.*** *It relies on a* ***localized value chain, locally-available natural resources and knowledge****, with a strong focus on participatory action research to achieve context-specific and* ***socially-accepted innovations*** *within farming systems. It is multi-disciplinary, drawing on agronomy, ecology, economy and social sciences and therefore developing agroecological programmes and* ***policies*** *requires a multistakeholder approach bringing together agriculture, environment and social perspectives. Agroecology can make an important contribution to the transition to more* ***sustainable food systems****. Its* ***practices, research and policies*** *have seen exponential growth worldwide in the last decade.* (FAO, 2017b: 61, authors' emphasis)

In this meeting, the tension between organic and agroecology was discussed various times, notably due to an active participation of IFOAM Europe. The report by FAO concludes that: "Organic agriculture is largely rooted in agroecological approaches, both in principles and actual practices, and most of the organic farmers respond to an ecological mission as part of their social undertaking. We recommend that Agroecology and organic farming are considered in their synergies and co-evolution."[15]

[15] FAO. (2018). *Report on the Regional Symposium on agroecology for Europe and Central Asia* [online] Available at:.http://www.fao.org/3/a-i7604e.pdf [Accessed 20 May 2018]

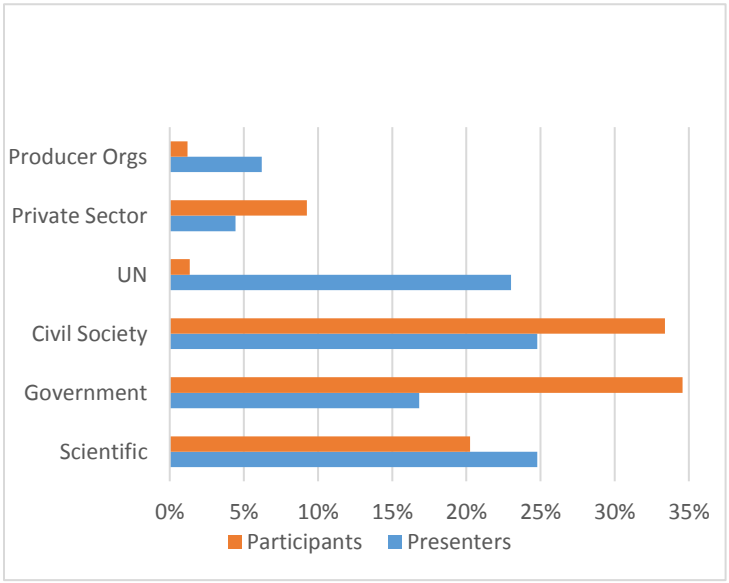
Closing the dialogue in Rome, Italy, 3-5 April 2018

The last meeting of the Global Dialogue on Agroecology began the day after Easter Monday in Rome, 2018 and was the result of significant technical and political work. At least 20 people at HQ were working non-stop on organizing the event since the beginning of the year. A hierarchy of decisions over the content of the agenda, which went through more than 80 versions, was put into place with high level authorization required before the final agenda was published at 5PM on the Friday before the holiday weekend.

All this work, however, did result in a greater balance between scientific and civil society presentations, which was almost on par with presentations from FAO and the other UN organizations (Figure 8). Compared to the first meeting in Rome, the presence of the private sector increased considerably, as a result not just of the convenience of the location for the lobby groups or the inclusion of an innovation fair, but also a significant effort by FAO to increase their presence in the program. The larger number of private sector participants also shows that they realized the importance of this meeting in the framework of global debate on the future of agricultural policy.[16] Producer organizations were also there, but only a few self-financed. In the invitation of the scientific presentations, FAO attempted to maintain geographic balance. Given the tense relations with SOCLA following the Dakar meeting, they were originally not included in the program. However, an official letter denouncing FAO's omission of their foundational role in agroecology worked to include the current president of SOCLA. This large turnout points to the importance that actors placed on this particular event in the stabilization of global agroecology knowledge.

A point of discussion in the 2018 meeting revolved around the institutional status to be given to the conclusions of the meeting. At the last-minute, the FAO DG proposed in his opening speech that the "Symposium should produce a Declaration."[17] The organizing team and the scientific committee had not prepared to develop a declaration but rather a simple 'Chair's Summary'. Throughout the plenary, member government representatives protested this proposal on procedural grounds. They argued that for them to be able to sign such a declaration, they needed to consult their capitals, which was impossible within the timeline of the Symposium. In the end, the Chair also protested and removed the declaration style language from the summary.

Figure 8: Participants in Rome, 2018



NB: Participants (n=746), Presenters (n=113)

In preparation for this final event of the Global Dialogue, FAO published all its reports from the

[16] Interviews with key informants, Rome April 2018.

[17] FAO. (2018). *A statement by FAO Director-General José Graziano da Silva*. [online] Available at: http://www.fao.org/director-general/my-statements/detail/en/c/1113703/ [Accessed 03 Apr. 2018].

regional symposia and they consolidated the varying definitions into an overarching framework called the "10 elements of Agroecology", as follows:

> *Agroecology focuses on the interactions between crops, livestock, forestry, aquaculture, people and the environment – managing these interactions according to the locally-specific context, while addressing global challenges. FAO's framework on agroecology identifies 10 elements shared by different agroecological approaches.*[18]

All divisions of FAO provided heavy comments on the 10 elements and the DG provided handwritten comments, demonstrating the level of attention that was paid by the organization to its definitional mission. This mission was seen as fundamental to the capacity of FAO to implement its 'scaling up initiative', which was conceived as the means to institutionalize agroecology within the organization and to engage its member country governments in implementing agroecology in their national agricultural policies. Indeed, in the Chair's summary, agroecology was not redefined. Rather it was explained in terms of the institutions that are needed for agroecology to "ensure *transformative change towards sustainable agriculture and food systems based*". The document notably insists on the need to include "*all actors in food and farming systems in all continents, from small-scale farmers and their families to the networks of conscientious consumers*". It also claims that "*Reintroducing diversity on farms, strengthening local food systems, valuing traditional knowledge, ensuring equity and access to land and economic resources, and respecting the multiple food cultures around the world are core components of agroecology*" (FAO, 2018a: 1). This document, that draws upon the 10 elements, makes the first mention of consumers and food cultures in its definition of agroecology.

THE POLITICS OF CIRCULATION

The empirical data presented in the previous section offers insights into three dimensions of the politics of circulation and the stabilization of knowledge. First, we see a hybridization of knowledge as it is coproduced. Second, we observe a clear challenge to the tripartite narrative of agroecology. Third, the stabilization agroecology within the FAO has re-focused debate towards the 'data' imperative that dominates discourse within the UN institutions (Independent Expert Advisory Group Secretariat, 2014). We explore each of these dimensions in turn.

The coproduction and hybridization of knowledges within the Global Dialogue

Descriptive analysis of evolving definitions is not sufficient, instead there is an entwined relationship between the ontics, epistemes and politics of the global agroecology object that has been co-produced. The Global Dialogue is a techno-political space where interests and identities are defended by actors through their discursive and material positioning and via coalition strategies. Through the identification of the discrepancies between who was chosen to present, who participated and the stabilized definition that they agreed to, we can see epistemic selectivity, but also clear ontological politics (Mol, 1999). Indeed, despite the efforts of the organizers to

[18] These 10 elements are: efficiency; diversity; synergies; balance/regulation; recycling; co-creation of knowledge; human and social value; circular economy; culture and food traditions; land and natural resources governance. FAO. (2018). *The 10 Elements of Agroecology* [online] Available at: http://www.fao.org/3/I9037EN/i9037en.pdf [Accessed 27 June 2019]

populate the dais with scientists (mostly ecologists and agronomists), the civil society message of agroecology as an alternative way of knowing food production came through clearly. A key voice from civil society admitted following the Rome 2018 Symposium that "*we feel a lot of our language was adopted*". However, he cautioned vigilance claiming, "we *are not naïve, there is a lot at stake with the final definition of agroecology, and unlike what happened with sustainable development we will resist the co-optation of our concept*." As the Dialogue progressed, actors in the different regions consolidated their political stances in their interventions, particularly to avoid such a co-optation. These interventions were supported through alliances that developed within the scientific, civil society, policy and even private sector networks who were meeting each other in between the FAO events. The introduction of the Nyeleni text first in Dakar and then directly into the Budapest discourse is a clear example of this, but not unique.

The organic movement, for example, was working within their networks throughout this same time to consolidate their position that agroecology is simply the basic principle of organic agriculture (Fouilleux and Loconto, 2017). The idea was to counter La Via Campesina, who held the legitimate, representative voice on agroecology within FAO's partnership mechanism. La Via Campesina had actually rejected Organic as a co-opted version of agroecology, due to their standards, certification devices and market presence.[19] The alliances forged by IFOAM with FAO throughout this period, including the participation of key agroecology staff in the Organic World Congress in India in 2017, ensured that they held a more legitimate position on the agroecology dais.

The scientific actors also consolidated their networks into new configurations to stabilize their expertise on agroecology. During this period a dedicated European association called Agroecology Europe and a North American network organized by the Union of Concerned Scientists were formed. The different 'letters from scientists' that were released throughout the Global Dialogue pushed for more progressive and interdisciplinary understandings of agroecology, while also claiming epistemic authority over the agroecology narrative. The Chinese Academy of Agricultural Sciences also made a material statement about the type of knowledge circulating in the Global Dialogue when they withdrew the publication of the proceedings in The Journal of Integrative Agriculture as they felt that the papers did not meet their requirement of scientific rigor.[20] The North American Network began discussions with the FAO agroecology team in the attempt to organize a North American Symposium. However, FAO was not able to sell this idea to its member states and donors. As was the case with the EU politics behind the organization of the Budapest conference, the US Department of Agriculture did not see a mandate for FAO in influencing their own domestic policy debates and were willing only to support a final Symposium in Rome.[21]

Similarly, several administrative and political actors were able to place themselves in positions of authority within FAO's governing bodies, in order either to ensure that the results from the Global Dialogue were not lost. First, some member states have followed their diplomatic strategy of influence. The informal network of the Friends of Agroecology expanded, counting 16 member countries at the time of the Rome 2018 symposium; each with concrete national actions planned.

[19] Interviews with IFOAM and La Via Campesina in Budapest, November 2016, and Rome, April 2018.
[20] Communication between the proceedings' editor and the first author, Rome, May 2017.
[21] Informal interview with US government representative, San José, February 2019.

As a result, they were able to counter the opposition of reluctant states within COAG (e.g., Australia, Canada, New Zealand, USA) and push the notion of agroecology through the formal programme planning process of FAO. Specifically, in 2016 following the completion of the Regional Symposia, the agroecology team received authorization from COAG to work on agroecology within the organization's normative program on Agricultural Innovation Systems. The Budget and Finance Committee of FAO also approved two new regular program posts in Agroecology and Ecosystems. Since 2018 there is an officer working on agroecology in each regional office. Despite this undeniable institutionalization of agroecology that is occurring within the FAO, it is important to underline that this is not the only policy supported by the organization. In parallel to the recognition of the program stream on agroecology, a workstream on biotechnology[22] has been developing within the same division of the FAO. Moreover, the recent election of the Chinese Vice-Minister of Agriculture to the post of FAO DG means that the future of this work stream within FAO is not clear. Indeed, there is constant competition and value conflicts at stake within the organization and the role of neutral knowledge broker remains ambiguous (Fouilleux, 2009).

AGROECOLOGY AS A SOCIO-POLITICAL COMPROMISE

The tripartite narrative of agroecology described above was the *a priori* framing used by the FAO to organize the Global Dialogue, thanks in part to a background paper they commissioned (Wezel et al., 2015). The effect is apparent in each symposium agenda where parallel sessions are organized into 'scientific, practice or socio-economic' sessions. It is also materialized in the organization of content on the FAO webpage[23] and is reflected in the visual presentations of the FAO's 10 elements of Agroecology. As we have described, actors representing the three constituencies of the tripartite narrative were present throughout the Global Dialogue. The dominance of one actor type over another co-produced definitions of agroecology that changed from meeting to meeting. For example, Rome 2014 and Kunming were highly science focused, while La Paz and Brasilia favored social movement and government motivated political discussions. The Bangkok, Budapest and Rome 2018 Symposia used more practice-based cases to ground the political and scientific debates in practical achievements, with a specific focus on innovation in Rome.

However, as Rivera-Ferre (2018) argues, classifying agroecology into a tripartite narrative refers to superficial separations and makes us lose certain elements of the picture. For example, the Dakar definition of agroecology clearly refers to a lifestyle and livelihood, which is not captured in this narrative. In addition, the lack of a consumer or market statement in the definition reflects the absence of private sector voices, which sometimes was intentional. The politics of how framing one element as more science (the knowledge for the farm), another as more practice (the management of the farm) and a third as more of a social movement (the politics of the farmer) may lead to favoring some policies over others. This tripartite vision, which is mostly mobilized by

[22] FAO. (2015). *Biotechnology* [online] Available at: http://www.fao.org/biotechnology/en/ [Accessed 27 June 2017]

[23] FAO. (2015). *Agroecology Knowledge Hub* [online] Available at: http://www.fao.org/agroecology/knowledge/science/en/ [Accessed 26 February 2019].

agronomists and ecologists, clearly separates science from practices and from politics, which is far from the reality of how science and society interact (Gieryn, 1995). It also implicitly supposes a unified science, ignoring the boundaries and conflicts that exist within the scientific sphere itself. As underlined by academics during the 2018 Symposia, not all science has been considered equally in the tripartite narrative: "*We have to learn from history. Sociology and political science were not in agroecology, and the food sovereignty shows that it is needed. We really need to include social sciences in the field of agroecology."* This type of claim was made repeatedly by social scientists and was echoed by civil society requesting that "*Political dynamics must be included in the approach; not only a scientific approach looking at techniques*".

Another artificial boundary created through the tripartite narrative is between science and practice. As we have shown, both scientists and civil society activists pressed to erase such a boundary as it reinforces the idea that the knowledge needed for agroecology is of a scientific kind:

"*we need participatory approaches of science*"

"*farmers as researchers*"

"*DG-Agri recently proposed a revival of extension services. But we saw during these last two days that this may work differently for agroecology than what these services were doing when they were at their high in the 1990s. Which kind of actors can we mobilize for extension? Who will train the trainers?*"

As our empirical data illustrates, this blurring of the boundaries of the tripartite narrative is needed if we are to understand the co-production of knowledge within the Global Dialogue, how different types of evidence were mobilized to stabilize a definition of agroecology that has far reaching influence.

EVIDENCE AND INSTITUTIONALIZATION OF AGROECOLOGY

A recurring theme within the dialogue was the need for more evidence to convince policy makers.[24] This occurred despite the dominance of scientists presenting valid evidence in these meetings. Thus in Budapest, the well known scientist and agroecology activist Hans Herren declared in his presentation, in exasperation, that there are more than 30 years of scientific evidence that agroecology is a more sustainable form of agriculture and that it also performs competitively well according to a wide range of indicators.

This contradiction poses a serious question about whose evidence (or knowledge) the institutional actors feel is lacking. Ecological evidence is well documented and agronomy is not that far behind in the evidence it has found with experiments of individual practices (cf. Ollivier, 2015; IAASTD, 2008; IPES-Food, 2016). We may link this request for evidence back to the politics of the debate and to what form this agroecological object has taken. The dominance of civil society and the international policy priority of partnerships should logically lead to a valorisation of these 'civic' forms of knoweldge. However, while the definitions continuously cited traditional knowledge, old practices and farmers' knoweldge, the embodiment of these concepts in a principle of 'co-creation of knowledge' found in FAO's 10 elements points to the

[24] Specific recommendations on this are found in each regional report.

institutional discomfort with accepting these forms of knoweldge without scientific or political knowledge attached.

Thus, as a follow-up to the Global Dialogue and in response to a request from the 25th Session of COAG,[25] FAO began developing a 'global knowledge product' on agroecology within the organization's strategic objective on sustainable agriculture. This work has been FAO's solution to this institutional discomfort and supposed lack of evidence. In 2018, as the core administrative elite who had been driving this program within FAO were preparing to leave the organization,[26] they put together a group of internal and external experts from academia and civil society to carry on this work. The objective is to determine two types of evaluation: 1) critical criteria that describes the characteristics of an agroecological production system and is based on FAO's 10 elements; and 2) impact that links system criteria to the SDGs. This work is led by the FAO agroecology team and the livestock policy group within HQ and again relies mainly upon stabilized knowledge in agronomic, ecologic and economic sciences. The two sociologists and the civil society representatives on the committee have also introduced a social perspective on power and organizational change that raises the issue of the governance of agroecology. This two-fold evaluation tool will be tested on farms and at landscape (territorial) levels in India, Mexico and Senegal. As members of the 'Friends of Agroecology', they are also some of the key countries that proved the validity of the green revolution. As an additional sign of stabilization of a global definition of agroecology through the Global Dialogue, some private actors developed their own tools, based on FAO's 10 principles, to evaluate agroecology.[27] In this way, the transition to agroecolgy as the means to a sustainable future will be measured in the coming years. This push towards gathering new evidence outside of the space of a forum is significant. It means that the struggles over whose knowledge counts in global agroecology is closely tied to who can bring policy-relevant evidence back into the policy discussion.

CONCLUSION

This article sought to understand how knowledge circulates and how a global notion of agroecology stabilized through an FAO-led series of international symposia. We show that the result of the Global Dialogue is that agroecology has no fixed definition but is constantly co-produced through political processes of knowledge- and policy-making. In these processes scientific, civil society, administrative and political actors interact within spaces of dialogue that are shaped by organizational, institutional and political priorities, and legitimation strategies at different scales. Despite FAO's initial natural sciences-based framing of agroecology as a tripartite narrative – science, practice and social movement - the process created a space for civil society to imbue the concept with political and institutional imperatives to see "agroecology as a transition process", which was a framing acceptable to member states. This was concretized through the claim by social scientists to be better represented in the debate and by civil society to increase the

[25] FAO. (2016) *COAG/2016/REP (Para. 25)* [online] Available at: http://www.fao.org/3/a-mr949e.pdf [Accessed 27 June 2019]

[26] Due to expired consultant contracts, retirement or positions in other departments.

[27] Biovision. (2019). *Criteria Tool*. [online] Available at: https://www.agroecology-pool.org/methodology/ [Accessed 29 June 2019]

recognition of traditional and farmer knowledge in the debate. The larger question that was not answered by the Global Dialogue was: a transition to what?

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Varying Food Practices Among Three Low-Income Groups in the Northeastern United States: Rural, Homeless & Refugee

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Abstract.

The purpose of this research is to gain an in-depth understanding of low-income food practices among groups at or below the poverty line, to include: a rural group, a homeless group, and a refugee group. To explore how food practices differ among the low-income groups, an ethnographic design was used, including 60 hours of observations in group venues and individual/family homes, and 22 semi-structured interviews, conducted in the Northeastern United States. The findings from this study suggest that each low-income group has distinct food practices and consumption patterns. The following paper describes three main characteristics found within each group: 1) time spent preparing and eating food, 2) food item types, and 3) cooking skills. This research adds to the growing body of literature showing heterogeneity in food practices among low-income groups, and calls for increased scholarly and political recognition of the differences that exist within groups sharing similar economic situations.

KEYWORDS: Low-Income Food Practices; Culture & Food Security; Socioeconomic Status & Food; Pierre Bourdieu & Food; Qualitative Methods & Food; Lower SES & Cooking Skills

INTRODUCTION

Lower-income groups are more susceptible to diet-related diseases including obesity, diabetes, and heart disease (CDC 2016; Ogden et al. 2010). They are also more likely to need food and nutritional assistance[i] (Coleman-Jensen, Rabbitt, Gregory and Singh, 2017), yet the eating behaviors of lower-income groups are still imperfectly understood. Too often, in public discourse, lower-socioeconomic (SES) groups are stereotyped as "uneducated poor people making unhealthy choices," however this reductionist perspective continues to be disproven in the literature (e.g. Alkon et al., 2013; Baumann, Szabo and Johnston, 2017, p. 4; Beagan, Chapman and Power, 2018; Smith, 2016). In fact, the dichotomous tendency to view the diets of higher-SES groups as moral, just, and healthy and those of lower-SES groups as unhealthy and

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of 'bad taste' will hopefully continue to erode under the growing body of studies showing that low-income food practices are anything but homogenous and easy to predict (Maguire, 2016).

This study illustrates a unique perspective on low-income food practices by exploring how three discrete groups, or class-fractions, within the same low-income category differ in food behavior. Specifically, this article examines the everyday food practices among three low-income groups: a rural group, a homeless group, and a refugee group. To highlight the heterogeneity in food practices, characteristics like time spent preparing and eating foods, food item types, and cooking skills are presented for each group. Such findings echo the call for a more robust and diversified set of public health policies to mitigate undesirable trends related to food insecurity and diet-related diseases.

BACKGROUND

Socioeconomics, Food Choices & Health

When examining food choices, scholars have routinely found social class differences in diets, eating practices, and health outcomes (Darmon and Drewnowski, 2008; Crotty and Germov, 2004; Prattala, Berg and Puska, 1992). For example, one American epidemiological study revealed that higher-SES groups are more likely to consume whole grains, lean meats, fish, low-fat dairy products, and fresh fruits and vegetables, while refined grains and added fats were associated with lower SES groups (Darmon and Drewnowski, 2008, p. 1108). Moreover, while the diets and food practices of differing SES groups and their related health outcomes persist, the reasons why are still unclear. For example, one point of contention in the literature is how much food costs are associated with healthy eating (Daniels, 2016).

Some argue that the role of economic indicators such as accessibility and affordability significantly influence the food choices made by low-income groups (e.g. Alkon et al., 2013; Sheldon et al., 2010). Similarly, in examining food landscapes in rural New Hampshire, Esala (2011) found that availability, cost, and quality of healthy foods seriously impacted the lower-income families living there. Furthermore, researchers proclaim that discerning and budgeting low-income individuals and families can eat within dietary guidelines for fruits and vegetables at a low-cost (Stewart et al., 2011). An increased prevalence of diet-related diseases and food insecurity among low-income groups, coupled with an unclear picture of why these differences persist makes room for further research on low-income food practices.

Low-Income Food Practices

The relationship between class, tastes, and overall food practices is a complicated one. A multitude of social factors are at play in how people relate to food; for example, previous research shows variables like gender, ethnicity, social class, and regional/geographic location influence food behaviors (Alkon at al., 2013; Beagan et al., 2016; Esla, 2011; Inness, 2000, p. 4). However, patterns associated with how low-income groups relate to food through practices such as cooking, or procurement of (or desire for) healthy foods, remain opaque.

The loss of cooking skills, for example, is not exclusive to one socioeconomic class but one that is currently debated in the literature. In the context of the modern industrial food system, and the increased availability of prepared and pre-packaged foods, the cooking practices of all SES groups are in question (Enger-Stringer, 2010; Lyon, Colquhoun and Alexander, 2003). Furthermore, how people cook (or don't cook) is not necessarily a direct reflection of their cooking skills (Enger-Stringer, 2010, p. 114). A person may know how to cook, but simply not have the desire, resources, or space to do so. Alas, researchers have debunked the notion that

cooking illiteracy is synonymous with low-SES, thus that low-income groups are unable, or uninterested in cooking their own food (e.g. Alkon et al., 2016; Stead, Caraher and Anderson, 2004). One study examining food skills among low-income communities in Scotland finds varying levels of skills and confidence when cooking (Stead, Caraher and Anderson, 2004). In short, the presumed decrease in cooking skills in many developed countries, particularly among low-SES groups, is one that needs more attention. Similarly, how low-income groups think about and acquire healthy foods is more complicated than public perception.

Despite public and political discourse around 'the poor tastes of the poor' of low-income groups, evidence suggests no statistically significant differences in the desire for healthful grocery stores between food-secure and food-insecure households (Maguire, 2016, p. 13). For example, one American study found that, despite low-income families desiring healthy foods, it was not economically advantageous to buy them due to children's taste preference (Daniel, 2016). In the study, the adult caregivers' desires to provide healthy diets to their families were hindered by the economic investment associated with children trying – and subsequently not eating – new, healthier foods (Daniel, 2016).

To understand the multiplicity of food practices among low-income groups, scholars reference the diverse cultural repertories or 'toolkits' (Swidler, 1986) that people employ to explain why members of the same group (for example, low-income groups) can act differently (Baumann, Szabo and Johnston, 2017, p. 2). In other words, the habits, routines, and ways of being around and thinking about food can vary within the same economic groups: not necessarily because these groups have differing values or preference in their desire for healthy foods, but rather because food practices are molded by the 'skills, habits, and styles' of the environments they are in (Swidler, 1986, p. 275). For example, one's social class origin, the SES they grew up in, can significantly influence their taste preferences and food practices regardless of their current SES (Beagan, Power and Chapman, 2015). Defying stereotypes, a middle-class consumer may value getting cheap food over more expensive healthy food (Baumann, Szabo and Johnston, 2017); similarly, a low-income consumer may desire and strive for 'healthy, ethical eating' (Beagan, Power and Chapman, 2015, p. 79). In addition to the varying cultural repertoires used by low-income groups to produce varying food practices, Bourdieu's (1979) concepts of class-fractions and cultural habitus provide further theoretical rational for examining food practices among different low-SES groups.

Class Fractions & Cultural Food Habitus

The seminal work of Pierre Bourdieu in *Distinction* (1979) offers multiple theoretical concepts for investigating social class and food practices, two of which are *class fractions* and *cultural habitus*. First, while we may think of the 'wealthy' as high-class and the 'poor' as low-class, the use of economic, social, and cultural capital varies greatly in every society, and every society consists of many various sub-groups, which he terms 'class fractions' (Bourdieu, 1979/1984). Using Bourdieu's theoretical underpinnings, the following work extends the concept of class fractions to explore the food practices of geo-socially specific groups - rural, homeless, and refugee groups- representing three low-income class fractions. Theoretically, class fractions provide a framework for looking at everyday food practices within three lower-income groups, but the concept also helps to continue to fill a gap in the literature that seeks to tease apart very important differences in food practices within social class groups.

Additionally, Bourdieu's (1979) term cultural habitus offers further rational for exploring how members of the same SES vary in food practices. For example, in *Distinction*, Bourdieu explains that habitus is an ingrained, often taken-for-granted, set of habits, skills, and overall dispositions. The everyday tastes in food, for example, do not necessarily descend from cognitively remembered, learned habits, but rather from the 'smells, looks, and sounds that surrounded and infused the habits of our homes and families while we were growing up" (Bourdieu 1979/84, p. 77; Dillon, 2010, p. 415). While Bourdieu wrote about cultural habitus to link relatively enduring schemas of social class reproduction and inequality (Dillon, 2010, p. 415), the concept of habitus can be extended to explore and describe the food practices among different low-income groups and how they vary. In other words, this research seeks to explore the cultural food habitus characteristics of the three low-income class fractions in this study and how they vary.

METHODS

Data gathering was done by using an ethnographic design, including 60 hours of participant observation and 22 interviews at sites rich in food behaviors, practices, and everyday talk in general. This work began with a grant-funded pilot project to gather data for a regional food summit about the experiences of those at risk of being food insecure. Based on the pilot project, it was concluded that low-income cooking classes, homeless shelter kitchens, and community gardens function as accessible social settings to observe the processes involved in how individuals and families behave around food. These settings are naturally 'food-centered,' with a host of opportunities to observe and talk about food. Therefore, to make observations in public food domains, I observed low-income rural cooking classes, an urban homeless shelter kitchen, and a refugee community garden, all located in the Northeastern United States. As noted, I drew a small sample of subjects for home observations and interviews from these public food domains.

Settings & Observations

To gain access to the low-income cooking class, I observed a Cooking Matters™ class organized by the local food bank. Cooking Matters™ is a nationally funded program by Share Our Strength, an anti-hunger group. Classes are offered at a variety of sites throughout the United States and based on their locations (e.g. rural, urban) draw participants who represent various populations within lower SES groups. To observe the cooking class, I became a volunteer for the six-week duration of the class, with responsibilities ranging from food shopping and preparation to class set-up and cooking. The rural cooking class consisted of four mothers and five children.

Like the rural cooking class, I came to know the food practices of the homeless group by volunteering in a shelter kitchen. The newly constructed building was the largest in the area, serving men, women, and families with approximately 100 beds. It was also equipped with an industrial kitchen; this is where I spent my time prepping, cleaning, and serving food with other volunteers and shelter residents. On typical nights at the shelter, I observed 25-30 people with an 80:20, male to female ratio. The sample was also predominantly white, with only one African American family. The data presented below pertains to food practices seen at the shelter only. I did not gather data on food practices associated with other forms of homelessness, for example, living on the streets, in a car, or 'couch surfing.'

Lastly, to learn about food practices among the refugee group, observations were made at a community garden. The community garden sits next to a small urban college and is approximately one acre in size, with nearly 140 plots. The gardens are primarily maintained by refugee families. The gardeners include refugees from a variety of different countries, including Bhutan, Somalia, Democratic Republic of Congo, Burundi, and Iraq.

Interviews

Interviews consisted of gathering general background demographic information (e.g. age, household size, education, employment, income), along with asking questions related to food preparation, eating, and food security (e.g. Where do you food shop? Have you ever experienced food shortage or hunger? If so, what strategies did you use for obtaining food?).

For all groups, interviews lasted between 30-90 minutes. As noted, the study consisted of 22 low-income individuals: six rural, seven homeless, and nine refugee individuals. Among the individuals interviewed, there were twelve women and ten men, between 21 to 62 years of age. All interviewees, except for one homeless man (due to his immigration status), had been on, or were currently in the Supplemental Nutrition Assistance Program (SNAP), formerly known as the 'Food Stamp Program.' This meaning that they are at, or below, the poverty line, which for a family of four is an annual income of approximately 25,100 dollars a year (U.S. Department of Health and Human Services, 2018). [Note, all study participants' names have been changed to protect their identity. To see a full list of interviewee characteristics, see Table 1.]

Data Analysis & Reflexivity

In exploring the everyday food practices of the lower-income individuals in this study, I systematically wrote down my observations in the field and then transcribed my notes into typed fieldnotes. This included detailed accounts and descriptions of the settings, groups, and individuals' behaviors, as well as face-to-face encounters with the participants. Interviews were audio-recorded, transcribed, and analyzed.

Data analysis began after spending several months in the field, when I shifted to a more systematic look at the compilation of my observations. To produce a coherent and focused analysis of the processes involved with the food practices among the groups in my study, analytical memos were used to sketch out ideas, themes, and patterns (Emerson et al., 1995).

In examining low-income food practices from a middle-class position, it seems logically necessary to address my 'food habitus' background. Like the scholars before me (Began, Power and Chapman, 2015, p. 83), I value contextualizing the researcher in the research. Briefly, my own food practices have shifted with the social class trajectory I have followed, which began with a low-income social class background. I was raised in a rural setting by a single mother, who, at times, was on food assistance. My own past came into mind several times throughout this study as I identified with my subjects in many respects. My non-threatening and empathetic approach is one that I hope allowed the participants in my study to feel at ease and share with me their truest 'food-selves.'

Table 1: Summary of Interviewee Characteristics

Name	Age	Sex	Education	Marital Status	Employment Status	SNAP/ Family Size

Rural						
Tracy	28	F	GED	Never married	Employed	$340/2
Laura	25	F	Some college	Separated	Employed	$440/5
Shelly	41	F	HS	Never married	Unemployed	$200/2
Betsy	23	F	HS	Married	Unemployed	$210/4
Ryan	62	F	HS	Married	Part-time	n/a
Dianna	59	F	HS	Married	Part-time	n/a
Homeless						
Shawn	54	M	HS	Never married	Unemployed	$200/1
Paul	59	M	Some college	Divorced	Part-time	$201/1
Henry	56	M	HS	Divorced	Part-time	$200/1
Paolo	43	M	2 Bachelor's	Divorced	Unemployed	n/a
Emily	31	F	Some College	Divorced	Unemployed	$300/3
Tina	41	F	HS	Divorced	Unemployed	$300/3
Ella	29	F	>HS	Married	Unemployed	$169/6
Refugee						
Ayan	28	F	>HS	Married	Unemployed	$600/9
Michael	34	M	>HS	Never Married	Unemployed	$32/1
Ira	21	F	Some College	Married	Unemployed	$23/2
Rash	20	M	In Technical School	Married	Part-Time	$29/1
Rata	44	M	>HS	Married	Employed	$150/4
Tashi	44	M	>HS	Married	Employed	$300/7
Dawa	22	F	>HS	Never	Unemployed	$524/3
Mindu	38	F	>HS	Married	Employed	$100/4
Sonam	37	F	>HS	Married	Employed	$200/4

RESULTS

To illustrate the heterogeneity in everyday food practices among the low-income groups in this study, three main characteristics are presented, to include: 1) time spent preparing and eating foods, 2) food item types, and 3) cooking skills. In exploring these characteristics across the rural, homeless, and refugee groups, one can see that each group has distinct and differing food practices. It is worth noting that the examination of time as a food practice characteristic follows the work of Bourdieu (e.g. Bourdieu, 1984, p. 186).

Rural Group

Not having money to buy food is hard. Each group in this study, particularly the rural group, suffered from not always having enough money to buy the foods they wanted. Many of the rural individuals I spent time with were caught in a vicious cycle of poverty; they grew up in households that needed food assistance and now as adults, they, too, need food assistance. A poignant example of the food hardships found among the rural group was articulated by a 26-year-old single mother of three, who grew up in a low-income household when she sadly remarked that she "usually only has fresh, fresh fruits and vegetables in [the] house…one to two times a month."

Due to familial backgrounds and economic conditions, the rural cooking class participants' food practices can be typified as one with little time and labor investment in food when compared to the other two groups. For example, one pattern that emerged from the data was how little time was spent preparing and eating meals, and that the group tended to choose easy and inexpensive foods. For example, I found that nearly half of the foods observed and talked about (21 food items out of a total of 48), were quick, inexpensive, often pre-packaged food items (e.g. Macaroni and Cheese, Cup-of-soup™, Ramen Noodles™, Debbie's Cakes™, Mountain Dew™). Betsy, a 23-year old pregnant mother of two, illustrates this point in explaining that Banquet Meals™ (pre-packaged frozen meals) are popular with her children. She said:

> They're like Kids Cuisine™, you know what them are? They're just cheaper than Kids Cuisine™; they're like a dollar instead of 4 dollars…and they like um, if [the kids] eat 2 or 3 a day, I'm happy.

Like Betsy, Laura, a 25-year-old, full-time working mother of three, also talked about making quick, inexpensive, meals for her family. She stated:

> Pasta is a huge filler in my house, four out of seven meals a week probably because it's a filler, and for a family of five, I have to cook a pretty big packet of whatever the main dish is, so pastas a filler. So, like, like I give a plate to the kids and if they want more sometimes, I don't have enough meat, there's pasta and maybe more vegetables.

In addition to easy and inexpensive foods that required little time or labor investment, the rural group had relatively short mealtimes. At the end of each cooking class, the participants would sit down together to eat the meal they had just prepared. Based on these meals, a pattern of quick eating was observed, where the rural group spent approximately 12-15 minutes eating. For the rural cooking class participants, along with the homeless shelter residents discussed below, eating seems to be an activity to feed the body, or as Bourdieu writes, the individuals in these groups seem to have the "taste of necessity" (Bourdieu, 1979/84, p. 6). In other words, a habitus of feeding the body to feel full and eating to satiate the body in an economical way versus concern for the aesthetic presentation, or health, for example. This pattern was not found among the refugee group.

Lastly, limited cooking skills were found among the rural group based on observations of uneasiness and discomfort in cooking. For example, group members were unsure of what certain cooking utensils are, or how to use them. A subtle, yet telling, illustration of limited cooking skills was demonstrated by one of the cooking class participants during an evening class in the kitchen. The participant's task was to grate carrots for one of the dishes being prepared. When she was handed a small metal grater, with a serious and sincere look, she quietly asked, "Which side do I use?" as she held the grater in front of her, unsure of where and how to position it. Her uncertainty with the grater does not mean that she lacked interest in cooking or learning how to cook, but that she has had little exposure to, or experience in cooking, or using a greater. Thus, the cooking skills displayed here are not necessarily synonymous with being uninterested in learning how to cook. Furthermore, the food practices of the low-income rural group are, in many ways, extensions of the food milieu they grew up in, and practices that differ from the homeless and refugee groups.

Homeless Group

"The home is the center of life" (Desmond, 2016, p. 294). It is where we gather, feel at ease, and at times, prepare and eat our food. Without the home, when one is homeless, the insecurities are countless. The homeless individuals in this study faced hardships just as substantial as the rural group; however, the hardships were of a different type and variety. When it comes to food, the homeless individuals in my study generally had positive things to say about the food they ate at the shelter. One male resident stating that he thought the food at the shelter was 'awesome' and another resident said that "the food [at the shelter] is wonderful. Everybody gets fat, nobody gets skinny." Generally, the residents felt the food was healthy, tasty (most of the time), and many of them said they were grateful for their meals.

The shelter's kitchen program, like when and how meals were going to get made, was unclear at times. There was a running joke that while the shelter kitchen was 'where it all happens', the operational structure of the kitchen was chaotic at times. For example, on some nights there 'were too many cooks in the kitchen' and yet on others, there was a scrabble to figure out who was going to oversee the night's meal. Generally speaking, however, meals at the homeless shelter are either prepared by the homeless shelter residents, or what they refer to as 'a resident cook,' or donated by local individuals and groups. When meals are dropped off, or a local volunteer cooks the meal and then leaves right afterwards, without staying to serve or eat the meal, the residents jokingly refer to it as a 'a cook-and-book.'

The food practices found at the homeless shelter are ones that might be expected in an institutional, industrial kitchen setting. For example, the most notable pattern that distinguished the homeless group from the other two groups is the variety of foods observed and talked about. For example, food items ranged from meals like lasagna, baked ziti, chicken casseroles, and haddock to collard greens, cucumbers, Lucky Charms™, and Gushers™. The homeless shelter also had the highest total number of food items observed and talked about (96 food items). One of the resident cooks, a 54 year-old-male named Shawn, noted that while there was a great variety of foods that passed through the shelter, he found that the residents "liked plain food, nothing fancy." He said, "[We] like macaroni and cheese, [we] like spaghetti and sauce, [we] like steak and potatoes." Irrespective of the meal being prepared, however, meal preparation at the shelter was typically a long process.

Meal preparation at the shelter took a long time. There was a notable contrast in the time it took to prepare meals versus the time spent eating meals. For example, the time spent preparing and cooking meals was on average three hours, yet like the rural group, the homeless residents took approximately 12-15 minutes to eat. During one field site visit at the homeless shelter I noted the interesting contrast between the 'buzz' and energy that went into getting the meal ready and the subdued atmosphere when the shelter residents were eating, captured in this short excerpt:

> I noticed that the group eats very quickly…It took the group about 12-15 minutes to eat. It was pretty quiet and what I would call functional – eating to eat.

Like the rural group, food was functional for the residents – "the taste of necessity" - to keep their bodies going, for survival. While the rural and homeless groups ate quickly and quietly, characterized more by an individual versus a communal experience, it is worth noting that quick eating has been attributed to American culture. For example, Americans, in general, are spending less time, and money, on cooking and eating when compared to their past and other developed

nations (e.g. the French/French Paradox) (Pollan, 2008, p. 183; Rozen et al., 2003). In fact, for many Americans, the sit-down, collective, shared meal has been replaced by 'eating occasions', which is marked by eating alone or on the go (Pollan, 2008, p. 189). Thus, the quiet, quick, individualized eating pattern observed in the homeless and rural groups maybe emblematic of a larger cultural trend versus a homeless shelter eating characteristics. Like the diversity of foods found at the shelter, and the varying times spent preparing versus eating meals, so too, was there a range of cooking skills found at the shelter.

As noted, at the shelter, there were resident cooks with a high level of cooking skills to cook for an average group size of 20 or more people, and yet others who expressed little interest in cooking. Ella, a 29-year-old, African American mother of five, for example, said that she is "used to cooking dinner for [her] kids" and her "kids were always used to [her] cooking," but since coming to the shelter, she has no interest in cooking. She stated:

> When the weather was warm, we would do a lot of grilling. You know, hamburgers, chicken, fish, chicken burgers, turkey burgers, you know I would make pasta salads, potatoes salads. You know I love to bake, try new things, I love to make casseroles, I love chili, I love lasagna, um, baked ziti, fried chicken…I used to do big breakfasts for my family, huge breakfasts like I'm talkin' pancakes, sausage, bacon, hash brown, grits, biscuits.

However, since being at the shelter, she said she has no inspiration to cook. She explained that at first, she tried to cook for her family using their shelter unit's kitchenette, but because that space is communal, the kitchen was always unclean, stating that "people wasn't washin' their dishes and oh my god it was a nightmare." This mother links her lack of desire to cook to the specific social context she is in, the homeless shelter. She does, however, come from a 'long line of cooks' in her family and is proud of her cooking skills. Simply put, this mother is an example of a low-income woman who knows how to cook, enjoys cooking for her family, but given her current circumstance, is disinterested in the prospect of making a meal.

The homeless group's food culture is as dynamic as the individuals who shelter there. Mainly, varied foods and cooking skills, along with long food preparation times, yet quick eating characterize the individuals I observed at the shelter. One could reasonably argue that these are attributes of an institutional setting with an industrial kitchen or even, perhaps, of American culture at large; however, the observations illustrate how food practices vary among different low-income groups.

Refugee Group

The refugee individuals in this study are from countries such as Bhutan, Burundi, and Somalia, with a tradition steeped in agriculture, farming, and growing food. While the rural individuals in this study have been socialized in the cycle of poverty and food assistance, the refugees have been immersed in a culture of growing food. During one of my first field site visits to the refugee community garden, a male gardener summarized this sentiment clearly in stating, "We are agrarian people."

Growing food as a cultural tradition, as well as the hardships refugees face with a short growing season, was articulated by Pam, the Refugee Garden Manager, when she said:

> [The refugee gardeners] all come from places where gardening is a year-round occupation. They are used to having fresh fruits and vegetables in their diet. They want to keep that part alive, you know, in their new land. Surely you can't grow everything here, like nobody did a successful mango this year…it takes a little while to get people to understand that yes, when it snows your garden is going to die, even before that it's going to die.

And, while the growing season is shorter than any of the refugee would like, one of the food characteristics found among the refugee gardeners, unsurprisingly, is that many of the food items observed and talked about were garden-grown foods (e.g. kale, mustard leaves, lettuce, tomatoes, zucchini). Interestingly, inverse to the rural group, more than half of the food items observed (32 food items out of a total of 49) were raw foods. Additionally, unlike the rural group, and in part the homeless group, the refugee group spent a great deal of their time on food activities. This time investment included both preparing and eating meals. For example, the refugee group spent approximately 30-60 minutes eating their meals, most often in a communal setting (e.g. family dinner, pot-luck gatherings, celebrating Diwali -the Hindu festival of lights). Spending time preparing foods is something that Rata, a 44 year-old refugee male from Bhutan, feels is important to his culture. He said,

> The American food is not known to us. It, to me…as a vegetarian, I am a vegetarian, so we are not a big culture to go to restaurant to eat…so, we make food at home and uh, we prepare at home…

The members of this group, as Rata notes, spend time preparing meals at home (e.g. various curry dishes), often with vegetables grown in their garden. Ira, a 21 year-old, female Bhutanese refugee, also explains that everyone in her household spends time cooking and eating together.

Ira lives in a small two-bedroom apartment with her husband and his brother, sister, and mother. In their modest apartment she explained that "Sometime if I don't get time, [my husband will] cook, when he doesn't get time, my mother-in-law cooks. My brother, my sister, everybody cooks." In addition to everyone in her household cooking, Ira also explained that meals are often communal and shared. Although each family member has a different work schedule, those that are home during mealtime, sit together at their kitchen table to eat. This was exemplified during my home visit with Ira, as we sat for approximately 30 minutes together, having lunch.

Compared to the other two groups, I spent the greatest proportion of time observing the refugees as they cooked and ate. The most illustrative example of both cooking skills and the socialized process of passing these skills from one generation to another was during a home observation at Ayan's house. Ayan is a 28 year-old Somali Bantu refugee with eight children. In her kitchen there were no expensive appliances, kitchen equipment, or decorations. The counters were barren and the food was in its raw form, with little pre-prepared or pre-packaged food. An excerpt from my field notes, on an evening with Ayan as she and her oldest daughter cooked dinner, reveals her cooking skills and the ingrained ease her daughter has in preparing food:

> A large bag of rice sits next to the stove. Ayan takes a bowl to the canvas bag of rice and scoops six handfuls of rice into the bowl for the nine people she will be serving. She used a wooden spoon to mix the rice with a little salt. Without a recipe, she flawlessly moves around the kitchen making dinner. Every burner on the stove is filled with pots in various sizes. There is an orchestra of sound made by the cooking utensil instruments. There is also a kettle boiling water. Her

> daughter cuts potatoes with a small red paring knife. Ayan pours hot water from the kettle onto the rice and it starts to boil. On a cutting board, on the small counter between the oven and sink, Ayan slices cloves of garlic. She then puts the slices into a small bowl and with the end of her rolling pin crushes the garlic, pounding the handle of the rolling pin over and over into the bowl on the small pieces of garlic. Her eldest daughter stands at the counter at the far side of the kitchen. She has peeled the potatoes.

The two women work mostly in silence. Ayan's teenage daughter moves about the kitchen without direction, suggesting this is their shared nightly routine in the kitchen. The women make an African dish of rice, potatoes, onions, and garlic but instead of using a tomato sauce made from scratch (as Ayan would have liked), they use spaghetti sauce flavored with bouillon cubes. The time investment in growing, preparing and eating food along with a heritage of cooking skills, captures a food habitus unlike the rural and homeless groups in this study. The refugee community gardeners did not appear to have more time to do food-related activates per se, but rather that food is such a central part of their lives and culture that any spare time (e.g. evenings, weekends) is spent doing food-related activities (e.g. gardening, making food).

CONCLUSION

The relevance of this article is its illustration of how food practices vary among distinct groups within the same low-income category. By an in-depth analysis based on observations and interviews among a rural group, a homeless group, and a refugee group, I found differences in time spent cooking and eating, food item types, and cooking skills. This research adds to the growing body of literature that suggests that a dichotomous tendency to view the diets of higher-SES groups as moral, just, and healthy and those of lower-SES groups as unhealthy and of 'bad taste,' is an inaccurate depiction of food practices among lower-income individual and families (Maguire 2016).

In exploring the everyday food practices of the low-income groups in this study, I describe the heterogeneity in food practices found. The rural group opted for quick and easy food items symbolic of the modern industrial 'pre-made' and 'pre-packaged' food system with cost consideration in mind. The rural group, like the homeless group, has a taste and food habitus described by Bourdieu as a 'taste of necessity.' In using a Bourdieusian approach, others have also found low-SES groups that prefer low-cost foods that are easy, efficient, and accessible (Boumann, Szabo & Johnson 2017, p. 15). Unlike previous work, however, when examining low-income groups within a specific geo-social context, it was found that the refugee group did not share the same taste of necessity as the rural and homeless groups.

The refugee community gardeners displayed food practices that are in continuity with their comparatively greater immersion in, and connection to, food work. For example, the food practices of the refugees, one deeply connected to the land and a culture of growing food, is more communal with much more time spent preparing and eating food. The group ate more raw fruits and vegetables, often grown from their gardens, and the food was the centerpiece of their lives. The refugee gardeners' food habitus can be typified by time spent cooking and eating, and by extension, extensive cooking skills. This, too, is a finding that echoes previous work (e.g. Stead, Caraher & Anderson 2004), in that the individuals in this study had different levels of cooking skills: while some seemed uneasy in the kitchen like the rural mother, others longed to

cook but were uninspired due to their current social context (e.g. a homeless shelter), and even still others who demonstrated ease, familiarity, and comfort in cooking.

Limitations & Future Studies

The limitations of this study also serve as a discussion point. One limitation of this study is the inability to disentangle the findings from the specific geo-social locations in which they were found. For example, it is unclear how conceptually meaningful the groups discussed in this paper are. The food practices discussed among the rural group in this study are not necessarily related to 'being rural.' Previous research shows that there are many types of 'rural,' defined not only by geographic location but also by their distinct economic and cultural characteristics (Hamilton, Hamilton, Duncan and Colocousis, 2008). The purpose of this research was an in-depth exploration of how food practices vary among groups within the same economic category, however, one still must wonder how other socio-cultural variables – gender, ethnicity, age, education etc. – influence the food practices observed.

Conversely, does examining different groups of the same low-income strata offer a way to examine the intersection of income, geographic location, gender, race, ethnicity etc.? For example, further research could continue to document other groups susceptible to lower incomes and food insecurity (e.g. senior citizens, single mothers, veterans, first generation college students). Perhaps there is strength in describing food practices within a specific social setting. Thus, in knowing the food practices of specific groups, we can better serve those in need with a tailored approach. For example, could it be helpful for local anti-hunger groups to know the specific food-related needs of a rural group versus a refugee group?

In this vein, it is also recommended that future research adopt a participatory health research (PHR) model. Public health researchers argue that the best health interventions are those that invite the people affected by a particular problem to participate (e.g. Syme and Ritterman, 2009); thus, engaging the target populations most affected by negative health consequences. Soliciting the help of SNAP/Food Stamp participants can better define how to help those in need. By exploring what is working and what is not working from the perspective of those most closely involved with the program, perhaps we could discover a more robust and diversified set of interventions to combat public health issues, like food insecurity and diet-related disease.

The voices in this study frequently talked about what would help increase their food security, ranging in scale from federal assistance programs to smaller community-based initiatives. Here are just a few recommendations given by the people in my study. First, one full-time working mother of three said her greatest barrier to food security was affordable childcare. Another rural participant said that our society needs more low-income cooking classes. This individual, having been a cooking class participant herself, talked about how learning how to cook nutritious meals on a budget has improved her health, food security, and wallet. Increasing the number of low-income cooking classes is a cost-effective, community-centered approach to combatting food insecurity.

To make getting food easier, the homeless group gave an unequivocal response: affordable housing. There is no novelty in writing about the need for affordable housing. As a society, we know that "the home is the wellspring of personhood" (Desmond, 2016, p. 293), and by interpolation without a space of one's own to make food, eat, and feel at ease doing so, naturally there is a sense of food insecurity. What is significant about affordable housing as the recommendation from those directly experiencing homelessness, is that both policy makers and the marginalized communities suffering from the void, know it. Affordable housing maybe a

tired social issue, but like an illness without medication, it is not going away. Better public housing policies are at the core of public health issues like food insecurity.

The refugee community gardeners did not talk about affordable housing but did express the need for more federal assistance in the form of food dollars. When talking about how much federal food assistance they received, I often heard 'it's not enough," and by end of the month they may have rice but that "the vegetables are not in stock." Additionally, one participant recommended increasing the number of community gardens, suggesting that every churchyard have a garden. To alleviate the risk of food insecurity during the winter months for the refugee group, one participant talked about canning classes to preserve their own food for the colder months. For those that love to grow food, it is a dark paradox that they would ever experience food insecurity. A food assistance program that fits the needs of the refugee group could be increasing federal food dollars during the winter months, as well as providing initiatives and resources for preserving food.

Clearly, based on the findings from this study, there is not a one-size-fits-all approach to addressing food insecurity. A suite of interventions, solutions, and initiatives are needed at multiple scales: federal, state, and local. Given the escalating trends in diet-related illnesses (CDC, 2016) and the number of low-income households in need of food and nutritional assistance (Coleman-Jensen et al., 2016), documenting the day-to-day reality of food on the ground is increasingly necessary. Understanding more about low-income food practices can alert policymakers that no single intervention is necessarily effective for all low-income groups.

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[i] Currently, in the United States, approximately 12.3% of all households are food-insecure, "meaning that at times the food intake of one or more household members was reduced and their eating patterns were disrupted because the household lacked money and other resources for obtaining food" (Coleman-Jensen et al. 2017: i).

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Expanding Cashew Nut Exporting from Ghana's Breadbasket: A Political Ecology of Changing Land Access and Use, and Impacts for Local Food Systems

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Abstract.

The Brong Ahafo region supplies most of Ghana's staple foods and is often described as the 'breadbasket' of Ghana. Despite the important role of this region in the provision of local food, farmers are shifting towards the cultivation of cashew nuts for export. The increasing production of cashew for export is driven by multiple factors across scale; including historical legacy of export-led agriculture, increasing global demand for cashew nuts, and a number of local level socio-cultural factors. While farmers may benefit from cashew production, the conversion of land into production of cashew poses local level socio-cultural and economic challenges. In this paper, we adopt a critical perspective through the lens of political ecology to demonstrate how the transition towards the production of cashew is driving land accumulation, social differentiation, alongside a decline in access to land for local food provisioning. Through the use of a range of qualitative methods, including interviews, focus group discussions, observation and policy document analysis, this paper reports on in-depth data collected from cashew farmers and local agricultural actors in the Brong Ahafo region. Findings demonstrate that cashew production is transforming land tenure relations through individualisation, alongside the acquisition of communal land for cashew cultivation. In particular, the acquisition of land by local elites, and alongside the increasing conversion of family land into cashew production, is changing existing social and land tenure relations, with profound outcomes for migrant farmers and local food provisioning. We conclude there is an urgent need for agricultural policies to consider these impacts of export-led cashew production for land tenure and local food security.

Keywords: agricultural change, Brong Ahafo, cashew nut, food security, Ghana, land use change.

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INTRODUCTION

Land in Ghana – and similar in much of the world – represents a productive asset upon which livelihoods are predicated (Amanor, 1999). For centuries, land in Ghana has been tied to the production of food for subsistence, with export crop production expanding from the 18th century onwards. This agricultural transformation was driven by political, economic and cultural colonisation by the British, the outcome of which drove the enclosure of land, and the privatisation and commercialisation of natural resources (Campbell, 2013). Export agriculture has continued to expand since the early colonial period, including via the production of tropical commodities destined for the so-called developed world (Campbell, 2013; Austin, 2007; Austin, 1987; Hill, 1961). Cashew nuts represent one of the most recent commodities to enter the export market. Since its introduction in the 1960s, cashew nut production has increased significantly in Ghana – including specifically over the past decade – a pattern that has also occurred in other West African countries (Evans et al., 2015; Rabany et al., 2015). The primary site for Ghana's growing cashew nut industry is in Brong Ahafo[1], a region often described as Ghana's 'breadbasket'. Brong Ahafo has earned this title on the basis that it produces 30% of Ghana's staple foods such as maize, yam, cassava, beans, sorghum and cowpea (Ghana Statistical Service, 2013; Statistics Research and Information Directorate-Ministry of Food and Agriculture (SRID-MOFA), 2015). The Brong Ahafo region has a long history of integration within the global economy, including via gold mining and the production of cocoa, coffee and timber for export. The expansion of cashew production is further extending the region's global market integration (Amanor and Pabi, 2007; Amanor, 2009). Brong Ahafo's participation in the global economy via cashew trading – the focus of this paper – is driving significant social and ecological transformation at the local level. Despite the increasing conversion of land into cashew production for export, there has been little research giving attention to analysing these changes – with the exception of Evans et al. (2015) and Amanor (2009), who have analysed the changing power and land tenure relations associated with cashew production in the region.

This paper advances these existing studies by examining the transformation occurring in the Brong Ahafo region alongside the expansion of cashew nut production. Through a political ecology approach, the paper considers the ways cashew industry expansion is connected to changes in land tenure, including impacts for changing land access and use. We examine some of the impacts of these socio-political changes related to land for local level social relations and local food production. On the basis of the findings presented, we argue the transformations associated with Ghana's expanding cashew industry in the Brong Ahafo region is concentrating and individualising land ownership and control, with outcomes that reinforce social differentiation, inequalities and class struggle. Migrant farmers are amongst some of the most vulnerable. These findings contribute to the nascent literature documenting accelerated cashew production in Ghana and its local level impacts (see for example Evans et al., 2015; Amanor, 2009).

This paper begins by providing some historical context related to the expansion of plantation agriculture, as well as describing the extension of colonial legacies of plantation agriculture in shaping contemporary local economic and socio-cultural dynamics in Ghana. The paper then

[1] Note that after the fieldwork in 2016, the Brong Ahafo region was divided into three administrative regions namely Bono East, Brong Ahafo and Ahafo through a referendum in 2018. In this paper, Brong Ahafo region is a collection of three regions. Also all administrative regions mentioned in this paper refers to the regions before the creations of six new regions through a referendum in 2018.

introduces the case study of cashew nut production in the Brong Ahafo region. Drawing from political ecology, we analyse the transformations associated with the expanding cashew nut sector in this region, including changes in land tenure and labour relations. At the heart of this analysis are struggles related to power, with outcomes, we argue, that disadvantage already vulnerable communities, including smallholder farmers, migrant workers and ethnic minorities. On the basis of findings presented, we conclude with policy recommendations that can inform policy and planning related to agricultural transition in Ghana.

PLANTATION AGRICULTURE FOR DEVELOPMENT AND THE EXPANSION OF CASHEW NUT PRODUCTION

The concentration of wealth and power amongst elites remains a colonial legacy across much of the global South (Bryant, 1998). The expansion of commercial export agriculture during the colonial period provided a conducive environment for such wealth accumulation. Importantly too, it established the foundations for new forms of industrial commodity production in so-called postcolonial contexts. Colonial plantations, in particular, have provided a basis for the emergence of new social, economic and labour relations, and with outcomes that continue to define current agrarian social structures across the globe, including Ghana, the focus of this paper.

The arrival of Europeans to The Gold Coast (now Ghana) in 1472 marked the beginning of significant political, economic, social and environmental change in the region. The expansion of the colonial project diffused "western civilisation", including market based capitalism, and science and technological "innovation" across landscapes, ecologies and culture. Importantly, the precolonial belief that the environment was sacred was altered, with a colonial ontology that assumed the environment was an inert object available for control – and exploitation – by humans (Campbell, 2013). Although Portuguese were the first European colonisers to establish trade relations with The Gold Coast in the late 15th century, the Danish later introduced plantation agriculture to The Gold Coast by the late 18th century (Yaro et al., 2016; Austin, 2010). Danish plantations were, for the most part, established at the foothills of the Akwapim Range (Awadzi et al., 2001). The main purpose of such plantations was to produce crops for export to the empire, while making use of slave labour without the cost of transporting African slaves to the West Indies and the Americas.

Although there were intentions by the Dutch, British and other European colonial powers to expand plantation agriculture in The Gold Coast, initial plantation agriculture failed to gain acceptance amongst native farmers (Fold and Whitfield, 2012; Awadzi et al., 2001). The rejection of plantations as a model of farming was tied to the struggle of European powers to secure territorial dominance, the fear that the plantation system would dispossess and alienate native people from their land – a fear that would later be realised – alongside internal ethnic conflicts (Yaro et al., 2016; Gyasi, 1996; Dickson, 1969). However, the introduction of cocoa by a Gold Coast native, Tetteh Quarshie in 1879, went on to gain wide acceptance among farmers of the forest regions, and quickly established as a major economic activity by the 1890s (Campbell, 2013). Reflecting this, by 1920 The Gold Coast supplied about 40% of the world's cocoa, positioning it as the world's leading producer of cocoa (Green and Hymer, 1966). While cocoa production was primarily undertaken by local populations – with some technical assistance provided by the British colonial government – Europeans acted as merchants, buying and shipping

cocoa beans to Europe. This expanding cocoa trade integrated Ghanaian smallholder farmers into global economic systems, and tied their livelihoods to the global economy (Campbell, 2013; Grier, 1981).

Production of cocoa was widely recognised as suitable for cultivation in forest regions, and as a result, its production expanded across all the forest regions of Ghana during the colonial and postcolonial eras (Berry, 1993; Whitfield, 2018). As an outcome, cocoa is today mostly produced in the forest areas of the Western, Ashanti, Eastern, Volta and Brong Ahafo regions. In the colonial period, Ashanti was established as the centre of economic activities, including the production of cocoa. Cocoa production was especially concentrated in Ashanti (which included the Brong Ahafo region) during the colonial era. The Brong Ahafo region remains the third largest producer of cocoa after the Western and Ashanti regions (Ghana Statistical Service, 2013). Alongside cocoa, other cash crops such as coffee, rubber and tobacco have also historically been produced in the Brong Ahafo region (Ghana Statistical Service, 2013).

Despite its expanding export-led agriculture industries, the Brong Ahafo region has also historically played a vital role as the 'breadbasket' of Ghana, with the region dominating production of major cereal and tuber staples destined for national consumption, including maize, yam and cassava (SRID-MOFA, 2015). Food crops from the Brong Ahafo region are largely consumed in the countries' urban areas, suggesting the importance of the region for Ghana's domestic food security.

Alongside the historical importance of the Brong Ahafo region to Ghana's food provisioning, the region has experienced recent, and on-going, expansion of export cropping (see Amanor, 2009; Boafo et al., 2019). Cashew nuts represent one of the latest of these export crops gaining acceptance amongst farmers in the region. While it is not clear how cashew production first arrived in the Brong Ahafo region, Ghana's cashew production has a history that dates back to at least the 1960s (Rood, 2017; Evans et al., 2015). During its early production phase, limited markets, combined with low farm gate prices and a lack of government policy support, all constrained sectorial expansion (Frimpong, 2016). By the 1970s, however, cashew production began to expand from the Ivory Coast along the Ivoirian-Ghanaian border into the Brong Ahafo region (Amanor, 2009). By the 1980s, Ghana's national Economic Recovery Programme (ERP) began to encourage the production of cashew as one of a number of non-traditional export crops that could assist to achieve export diversification. This state-led agricultural exporting agenda was part of the broader modernisation and industrialisation of agriculture, reflecting the broader neoliberal policy turn occurring across many African countries (Wiegratz et al., 2018). The liberalisation of commodity markets as part of the ERP and Structural Adjustment Programme further encouraged export crop production, including of cashew nuts.

As a result of state-led market supports and the expansion of cashew cultivation via farmer networks, by 1991 Ghana was exporting 15 metric tonnes of cashew (Government of Ghana, 2000). Estimates indicate that export of raw cashew nuts continued to increase to 3,571 metric tonnes by 1997 (Government of Ghana, 2000). These figures have continued to rise, and by 2015 Ghana was producing 85,000 metric tonnes of raw cashew nuts, of which 98% was exported to Asia (Rabany et al., 2015; Heinrich, 2012). A mix of state and development sector support has supported this cashew industry expansion. The Ghanaian Government's Ministry of Food and Agriculture, for example, commissioned cashew projects with the aim of assessing the potential of cashew production, and to support ongoing development of the sector (Cashew Development

Project, 2009). In addition to these, and other government initiatives, a number of donors – including from cashew consuming countries – have also funded programmes aimed at promoting the production of cashew (Amanor, 2009). In recent years, United States Agency for International Development (USAID), Gates Foundation and *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) have each funded projects aimed at increasing cashew production in Ghana and other African countries (Africa Cashew Alliance, 2016); all of which reflects the privatisation of agricultural development in Ghana. Through these supports, there has been increasing conversion of food crop land into cashew production in the Brong Ahafo region for export. To situate the local level impacts of this cashew production expansion in an analytical context, we now turn to examine the political ecology of cashew production.

THE POLITICAL ECOLOGY OF CASHEW NUT

This paper adopts a political ecology approach to examine the drivers and impacts associated with the on-going socio-economic and ecological transformation of the Brong Ahafo region – Ghana's breadbasket – via cashew nut expansion. In so doing, we acknowledge the uptake of cashew in this region is connected to broad level agrarian restructuring and rural transformation. This approach enables us to draw attention to the intersection between nature and socio-political relationships, and the socio-political, historical and economic forms and forces shaping resource management, land access and use (see also Neumann, 2009; Tan-Mullins, 2007). Political ecology provides a framework for local level analysis of struggles that sit at the intersection of environment and society, that are also grounded in a national and global analysis (Bryant, 1998).

Political ecology has a particular interest in the analysis of access to, and control over, what is often highly contested; land and natural resources (Swyngedouw and Heynen, 2003). Land – including its use and access – is constituted and reconstituted via on-going struggles, including via both material and discursive means. Budd (2004) describes such attempts to control land, water and the environment as highly contested, and generally underpinned by unequal power structures and politics. By focusing on specific points of contestation related to land, our paper offers new understandings of how use of, and access to, land and natural resources is being (re) organised alongside the expanding cashew nut sector in Ghana. Specifically, our analysis of expanding cashew production in the Brong Ahafo region illuminates struggles to secure access to land as the basis for participation in the growing cashew nut export economy. These struggles play out at the local scale – as documented in this paper – and are also connected to the global capitalist political economy, including growing international consumer demand for cashew nuts, alongside national and international neoliberal policies driving the modernisation and industrialisation of Ghana's agriculture (see, for instance, Boafo et al., 2019).

In addition to drawing attention to changes in the forms of access and control over land resources associated with expanding cashew production in the Brong Ahafo region, our approach also enables analysis of the broader social and livelihood implications of these changes (see also Watts, 2000). Specifically, it enables us to identify some of the social and ecological outcomes of these processes, including their impacts for livelihoods, property regimes and social relations (Castree, 2001; Escobar, 1999).

To do this, our analysis is directed towards questions of power, including how relations of power shape access to, and the distribution and control over, land and other resources. Drawing from Robbins (2012), and Zimmerer and Bassett (2003), we conceptualise power as 'relational',

and mediated through processes in which resources are defined, accessed and contested (Ahlborg and Nightingale, 2018; Allen, 2014). We take power then, as the *ability* to control productive resources, such as land, water and biological materials. The power to control land, and more broadly, the means of production, is derived through *ability* (social and economic capital), rather than *rights* acquired through traditional practices. By approaching power as relational, we are able to understand its multiple effects; including empowering some, while engendering new forms of domination and control over others (Bryant, 1998).

Within the social context of Ghana – the focus of this study – local elites are able to assert power over lower classes of society by force, including via the uneven distribution of resources in society. Local elites are able to wield power on the basis of the privileges they derive from existing social institutions. Class differentiation is in turn embedded in these political and social relations of agrarian production, with outcomes that often disadvantage already marginal groups – including smallholder and migrant farmers, and Indigenous peoples (Nyantakyi-Frimpong and Bezner-Kerr, 2017). We now turn to introduce the case study that comprises the focus of our paper.

THE CASE OF CASHEW NUT PRODUCTION IN THE BRONG AHAFO REGION

Our study was conducted in Brong Ahafo, the second largest region – in terms of landmass – in Ghana. The region has tremendous agricultural endowments, including favourable agro-ecological and climatic conditions for agricultural production (Amanor, 2009; Amanor and Pabi, 2007). The region has also been the centre of both historical and contemporary export tree crop production, alongside land grabbing and enclosures (see Boamah, 2014; Amanor, 2009). Fieldwork was conducted in four communities across two municipalities engaged in cashew production in the region; Wenchi and Kintampo North Municipalities.

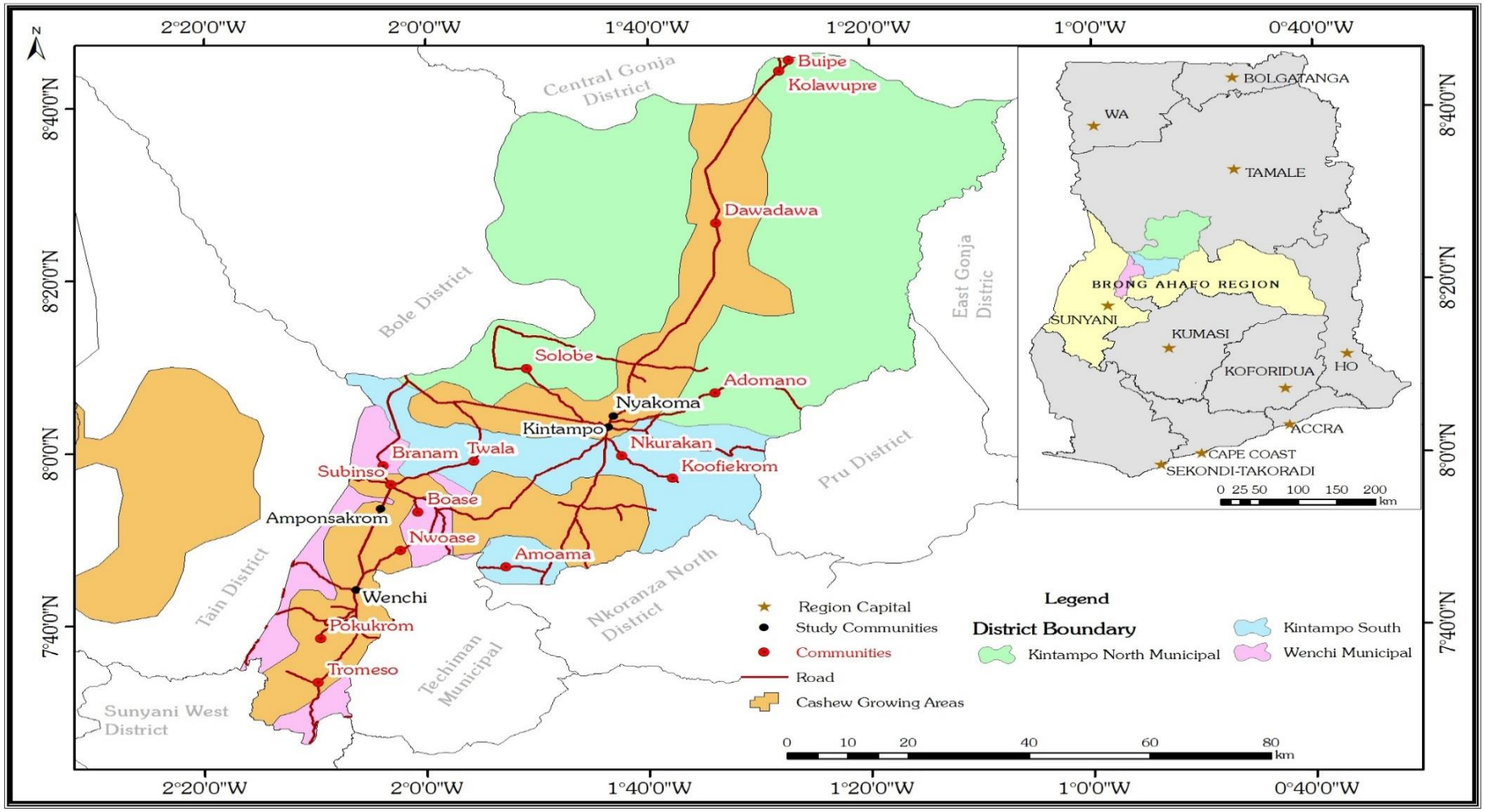
The Wenchi Municipality is located in the western part of the region, and covers close to 100 agrarian villages. The Municipality has about 493,215 hectares of cultivable land that is suitable for both food crops and cashew nuts (Cashew Development Project, 2004). There are two distinct agro-ecological zones; a moist semi-deciduous zone that in the south-west, and a Guinea savannah woodland zone in the north (Cashew Development Project, 2004). There are two wet seasons that allow for two farming seasons in a year. The major farming season begins from March to July, followed by a minor season from August to December. The Municipality is inhabited by Bonos, Dagaabas, Badu, Banda, Mos, Sisalas and other migrant ethnic groups, however, the Bonos are the traditional owners of the land. Fieldwork was conducted in Wenchi and Amponsahkrom. While Wenchi is relatively endowed with socio-economic services, alongside several emerging commercial activities, Amponsahkrom is classified as one of the poorest communities in the Municipality, and its inhabitants are mostly migrant/landless farmers (Dagaabas) (WMAMTDP, 2014-2017).

Meanwhile, Kintampo North Municipality is located in the northern part of the Brong Ahafo region, and covers a surface area of 5,108km^2 (Kintampo Municipal Assembly, 2014). The Municipality comprises interior wooded savannah, however the area comprises a transitional zone, and therefore does not exhibit typical savannah characteristics. With its strategic location in the centre of Ghana, it serves as a transit point between the northern and southern sectors of the country, as well as a key market for agricultural products, including, maize, yam and cassava. The ethnic composition of the Municipality is heterogeneous, with the Mos and Nkoranzas as the

Indigenous peoples of the land. Fieldwork was conducted in Kintampo and Nyakoma. Inhabitants of Nyakoma are migrant farmers from northern Ghana.

Production of tree crops such as cashew requires secure access to land. In Brong Ahafo, including the two Municipalities included in this study, land is communally owned and used. Securing long-term access to land for cashew production therefore sometimes requires alienation – or eviction – of other communal users (Amanor, 2009). The dispossession of other communal users from land – including land previously relied upon for livelihood activities – often produces struggle and differentiation between landowners, local elites and migrant farmers. Indeed, these social dynamics are now part and parcel of the 'differentiated character of contemporary agrarian change' and local politics of production (Nyantakyi-Frimpong and Bezner-Kerr, 2017, 425).

Figure 1: A Map Showing cashew growing are in Ghana's Brong Ahafo Region, including the research communities



Source: Modified from Center for Remote Sensing and Geographic Information Service (CERGIS), University of Ghana (*n. d.*)

RESEARCH METHODS

Our paper sets out to examine the impacts of expanding cashew production for local food production, land tenure and labour relations across the four selected communities in the Brong Ahafo region (introduced above). To do this, we adopted a qualitative case study approach (Yin, 2003), enabling us to generate insights into emerging land use changes and their impacts across these four selected communities. Given the central role of the Brong Ahafo region for national food provisioning, this case generates findings that can inform policy and planning related to domestic and export agriculture in Ghana.

As part of this case study, the first author conducted interviews and focus groups with farmers, government officials and local leaders over six-months, between June and November 2016. In total, in-depth interviews were conducted with 39 women and men farmers (within an age range of 27 to 72 years) across the four cashew growing communities. Participants were sought from diverse ethnic groups. In the Wenchi Municipality, most participants belonged to the Bono ethnic group (indigenes of the Wenchi area) and Dagaabas (migrant farmers from the Upper West region of Ghana). Meanwhile in the Kintampo Municipality, participants consisted of Mos (one group of indigenes of the area) and Konkombas (migrant farmers from Northern region of Ghana). While cashew farms varied in size from one acre to more than 100 acres, the majority of our participants were smallholders with an average cashew farm size of two acres. Migrant farmers who participated in this research do not have long-term land tenure security and depend on sharecropping or land rental arrangements to access farmland from locals (indigenes). The locals (indigenes) have a relatively better tenure security on the basis that they could access land through inheritance or existing customary tenure relations. Large-scale cashew farmers were not included in the study; as they were difficult to identify, with most wealthy local landowners living in cities and therefore distanced from the study sites. Moreover, the research was unable to collect data on the total area of land under cashew production. This is because cashew production is an emerging sector in Ghana, and on this basis it has attracted research only recently, the result of which results in limited data available.

Interviews were conducted with key informants at the village, district and national levels. This included interviews with nine representatives of District Agriculture Offices, seven traditional/assembly members, and one representative from the Ministry of Food and Agriculture.

Two focus groups comprising both women and men were also conducted in Amponsahkrom and Nyakoma. This enabled in-depth discussion of themes that emerged from the interviews. Five farms that belonged to cashew farmers were also visited to observe – and learn firsthand – about recent changes in land use and agronomic practices. All interviews and focus group discussions

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were conducted in Akan; the dominant language spoken in much of Brong Ahafo, and the first language of the first author.

While the findings presented here are limited to the selected four communities included in this study, and therefore should not be regarded as representative of the entire Brong Ahafo region, they provide important insights into emerging trends occurring across the region. We turn now to present these findings, starting first with details of how conversion of land to cashew cultivation is associated with social and cultural struggles, and with outcomes that are driving changes in land tenure.

CASHEW PRODUCTION ASSOCIATED WITH CHANGES IN LAND TENURE

In many societies in Ghana, including the four communities included in this study, land represents a cultural, social, economic, productive and intergenerational asset upon which social identity, power, livelihoods and inheritance are predicated. Customarily, land is divided into stool,[2] communal, family and individual land. Although each of these categories of land is designated under the guidance of the chieftaincy institution, chiefs directly administer stool land. The majority of farmers included in this study farm on family and communal lands. The Bonos of Wenchi predominantly practice the family land tenure system, meanwhile the Mos of Kintampo practice the communal land tenure system. We describe each of these in turn, including how contestation related to expanding cashew nut production is driving pressure within families and across communities.

First, Wenchi is largely comprised of the Bono ethnic group, a sub-grouping of the Akans[3], an ethnic group who make up 48% of Ghana's population (Kutsoati and Morck, 2012). The Akans practice matrilineal inheritance and, among them, family land is inherited from one's maternal lineage. One interviewee – a family head and chief in the Wenchi Traditional Council – explained that family land was established when settlers first started farming on a portion of uncultivated land. On this basis, wherever a member of the family started to farm, this would eventually become part of the family land. The family/clan head, earning their position on the basis of genealogical seniority, is the custodian of family land. The allodium, however, is vested in the paramount chief, who is the custodian of all land and mediator in any disputes. The family head is responsible for allocating a portion of this land to family members for subsistence farming. This process of allocation of family land has its origins in a tradition in which food was considered as a basic need, and as a result, each member of the family was ensured access to land to produce food to meet basic subsistence needs. In short, each family member was ensured usufruct rights to the family land, irrespective of their gender, social status or age (except for very young people).

This Bono tradition of land inheritance prohibits the individualisation of family land, with the tenet that land belongs to every member of the family, including past and future generations. On the basis of this land tenure system, no one is able to acquire exclusive possession. In the case where tree crops (including cashew nut trees) are planted, while the farmer may have exclusive rights to the produce, he or she cannot transfer their land use right to their descendants under any circumstances. This was confirmed by one chief, who explained that both food and cash (tree) crops could be grown on family land, but the farm would return to the family when the farmer died. Passing family land, or a plantation on family land, onto one's children as property is also prohibited. While this tradition has been observed from generation to generation, increasing

[2] Stool refers to community land held in trust by Chiefs for the community.
[3] The Akans are the largest ethnic grouping in Ghana.

pressure to convert land to cashew production was described by some as transforming these land tenure traditions, as we detail further below.

Second, in Kintampo – especially among the Mo ethnic group – farmland belongs to specific families. Every member of the Mo ethnic group is allowed to use any portion of their family land once it is free. There is no family inheritance of land – except the families that own the land – given everybody belonging to this ethnic group can use the land. This pattern of land use among the Mos reflects a dictum of communal living and togetherness, arguably more so than other ethnicities in Ghana. However, the introduction of cashew production is associated with the Mos planting cashew on communal land. This may drive long-term individual ownership of communal land so as to enable harvest of cashew nuts.

These divergent land tenure arrangements related to the Bonos in Wenchi and the Mos in Kintampo appear to shape local level land tenure related impacts arising from cashew cultivation.

In Wenchi (Bono), for example, once a male head of household establishes cashew on their family land, other members of the family commonly described the land as property that could be inherited. This was not always the case, however, with some family members disagreeing with this new tenure arrangement, arguing instead the cashew farm remains the property of the entire family.

In an attempt to avoid disagreement and dispute, some male heads of households described resorting to the court system to secure tenure on the family land. This is undertaken in two ways. First, after a cashew farm has been established on the family land, they may instigate the preparation of a lease through the court to formally recognise the owner of the cashew farm as the owner of the land on which the cashew farm is established. Second, a Will may be prepared that allocates portions of the cashew farm to both the extended family and wife and/or children. Each of these processes was described as intending to secure tenure over portions of family land on which cashew is established. In cases where a cashew farmer dies without a Will, or without determining proof of land ownership, the family – led by the family head – is able to take over the entire cashew plantation. This outcome, however, can drive tensions between the wife and/or children, and extended family of the deceased. As one participant in Wenchi testified:

> For me my cashew farm will go to my children; but if I had not planted cashew on the land, the land will go to my extended/maternal family when I pass on.

Similarly, in Kintampo, members of the Mos ethnic group who farm on communal land described purchasing a portion of the land on which cashew was established from the chief, or owners of the land. For these farmers, they described their cashew farms would go to their children before they passed on, even though the farms were established on communal land. These farmers explained that obtaining exclusive rights for cashew production on communal land via transferring cashew farms to their children was changing intra and (inter) generational land tenure traditions. Demonstrating this, one farmer asserted:

> I agree that cashew will change the land tenure system because all of us will make sure all our cashew farms go to our children before we pass on [……] So I agree that cashew farming will change our land tenure systems and inheritance.

Another farmer similarly explained:

> The tradition is already changing, because if we continue to plant cashew on communal land, a greater part of the land will go to our children.

Evidence from the field indicates that family members from both Wenchi and Kintampo, especially those from middle and older generations, are individualising family and communal land through cashew production. These findings concur with those of Evans et al. (2015), who similarly found that increasing conversion of family land into cashew production was individualising family land in Seketia, also in the Brong Ahafo region. As an outcome of this changing land tenure arrangement, cashew production is driving land concentration, including amongst middle-aged and older generations. At the same time, younger generations are increasingly denied usufruct rights to family or communal land. Even if the younger generation were to inherit family land in the future, this land will likely be tied to cashew production.

LOCAL ELITES AND "BURGERS" LOCK UP COMMON LAND FOR CASHEW PRODUCTION

In addition to the tensions associated with changing land tenure arrangements – including patterns in our findings that demonstrate the concentration of land ownership and exclusion of younger farmers – members of cashew growing communities also described the expansion of cashew production as driving the capture of land by local elites. Demonstrating this, and on the basis of growing recognition of cashew nuts as an income earning opportunity, local elites with the financial capacity to acquire land and labour required for cashew production have begun to secure land for cashew growing. Local elites here refer to wealthy Ghanaian locals in the cashew growing areas, often living somewhere else in Ghana, while "Burger" is a local slang used to describe "transcontinental migrants who have achieved middle-class status in Ghana by doing working-class jobs in Western Europe or North America" (Nieswand, 2014, p.403). In particular, "Burgers" were described as able to acquire land through relatives who were living in cashew growing communities, alongside other social relations – including informal and formal relationships with local elite business and government representatives – that may also assist in mediating the land acquisition process.

Many farmers described the introduction of cashew nut exporting as corresponding with an increase in land acquisition in the region. Some local elites, including those who did not previously own land, were described as buying and registering common land (stool and family land), so as to obtain secure tenure. This often occurred on land that was occupied by either migrant farmers or Indigenes of the area. Of significance, across all four communities, the largest cashew farms were those owned by wealthy farmers, or these local elites (see also Amanor, 2009). Demonstrating this, a local Chairperson of cashew farmers in Wenchi explained the average cashew farm size in the Wenchi Municipality was two acres (which included over 4000 cashew farms). Yet despite this average, he explained that some farms were up to 40, 50 and 100 acres. In explaining the growing number of large farms in the municipality, he explained:

> Many people have come here to acquire land for cashew production. These are business people, even Parliamentarians. There is a Member of Parliament from [….], he has about 200 acres of cashew farm around [……] District.

Land acquisition by elites for large-scale cashew production is displacing migrant farmers, who describe increasingly struggling to maintain secure access to land. As detailed above, Amponsahkrom (in the Wenchi area) and Nyakoma (in the Kintampo area) are comprised of migrant communities that include about 90% of their inhabitants from the northern part of Ghana. In Amponsahkrom, most of the migrants farmed on lands belonging to indigenes of the area

(family land) and Wenchi Traditional Council (Stool land), and were enabled via contractual arrangements, such as sharecropping or land rental. In some cases, migrants who farmed on stool land described paying annual land levies to the Traditional Council. Such arrangements, however, leave migrant farmers without secured tenure over land they farm, circumstances that enabled them to be evicted when a portion of the land was leased out or sold to local elites, or "Burgers". Many migrant farmers described land as increasingly leased out to local elites and "Burgers", who they identified as coming to increasingly dominate the cashew industry. Increasing land acquisition by local elites for cashew production was described as increasingly threatening the livelihoods of migrant farmers, with some migrant farmers reporting they had already been displaced by large-scale land acquisition from "Burgers" and local elites. The Odikro[4] of Amponsahkrom similarly explained:

> The "Omanhene" [Paramount chief] has leased out the stool land to "Burgers". For instance, there is a village here called Wiafe, there were many "Dagaabas" in that village but the "Omanhene" has leased out the land to "Burgers", so the "Dagaabas" do not have any place to farm food crops. Some of them have relocated to other villages to search for land. Some of the "Burgers" gave the land to them to intercrop cashew with food crops and when the cashew grows, they leave. The land issues are very complex now.

These land acquisitions do not only affect migrant farmers, but also indigenes of the area who live in Amponsahkrom. Demonstrating this, in one focus group discussion a Bono woman described her concerns related to the increasing acquisition of land by "Burgers":

> Because the "Burgers" are buying land, land is scarce here. Currently, even if you own a piece of land here, but you are not careful, someone who is wealthy would take over your land from you.

This increasing acquisition of land for cashew production by local elites and "Burgers" is reinforcing existing social differentiation, alongside continuing to marginalise the landless class, mostly comprising migrant farmers. While cashew production is promoted by government and donors as a livelihood diversification strategy, and therefore a pathway out of poverty, the rising acquisition and concentration of land amongst local elites and privileged rural individuals raises serious questions about the potential for cashew production to deliver poverty alleviation. The emergence of cashew production appears to consolidate the position and power of those landowners and local elites who can afford to buy land for cashew production, alongside driving the commodification and commercialisation of land (also see Amanor, 2008; 2009). A similar pattern was evidence related to the plantation cocoa industry in Ghana. In that case, world demand for cocoa from the 1890s to the 1920s drove significant changes in the land tenure system, as well as impacting socio-economic patterns in Ghana (see Austin, 2007). The commodification of land via expanding cocoa production during the colonial days consolidated the powers of chiefs, family heads and local elites. These have historically remained key actors in land transactions in the export crop sector in Ghana (Amanor, 1999; 2009; Yaro et al., 2017).

[4] A traditional leader of the community who represents the paramount chief.

CHANGING LABOUR RELATIONS, RESISTANCE AND CLASS STRUGGLE

The scramble for land for cashew production, as described above, is commercialising land tenure in the communities included in this research. Historically, migrant and landless farmers in many Akan communities of the forest south, including cashew growing areas, accessed land for farming through sharecropping arrangements (Austin, 1987; Pogucki, 1955). Migrant farmers in Amponsahkrom, for example, described conditions prior to the introduction of cashew production, where sharecropping and land rental were the main arrangements through which they accessed land. However, since the introduction of cashew, they explained that sharecropping arrangements have more frequently evolved into "Taungya",[5] a system of land use whereby land is released to migrant farmers for food crops, while landowners planted cashew on the farm. As part of this arrangement, migrant farmers described not being required to share the food they produced with the landowners or pay land rent, however they were required to provide labour to support the maintenance of the cashew trees for three years, including when intercropping was no longer possible on the basis that the canopy and rooting system of the cashew trees constrained mixed species plantings.

Some of the local elites and "Burgers" who have acquired land for cashew production often entered into "Taungya" arrangement with migrant farmers who, in some instances, were already farming on the land. One migrant farmer in Amponsahkrom explained:

> The "Burgers", after buying the land, will allow you to work on the farm or take care of the cashew plantation for them by intercropping food crops with cashew trees and when the cashew trees grow, you have to leave the land. Some of the "Burgers" too would sack you from the land immediately after they buy it.

This emerging "Taungya" system was, in some cases, driving tension between migrant farmers and landowners in the cashew growing communities we undertook this research. Such tension was emerging in the context of the "Taungya" system, which does not give migrant farmers continuous access to land, thereby limiting migrant farmers to just three years of intercropping food crops between cashew trees. In addition, this new system was described by many migrant farmers as exploitative, on the basis they did not receive any compensation for their loss of access to land. This form of labour exploitation was enabled via the condition that required migrant farmers to maintain the cashew farms – without any additional labour input from the landowners. This is an arrangement migrant farmers described increasingly resisting.

Such resistance was observed most notably in Nyakoma (in the Kintampo area), where migrant farmers were engaged in cropping on land belonging to the Mo ethnic group. These migrant farmers, while describing the land as not belonging to them, were protesting what they described as labour exploitation. Such tension and struggle between migrant farmers and landowners is not unique to cashew production; and reflects broader agrarian tensions and class struggles in Africa (Yaro et al., 2017; Bernstein, 1979).

Based on our findings, we argue the promotion of cashew production – despite its championing as a pathway out of poverty for poor farmers – is driving impoverishment and dispossession through land accumulation and labour exploitation by landowners, local elites and "Burgers". These processes of land accumulation and labour exploitation are, however, not without resistance,

[5] *Taungya* is a forestry system where land is released to farmers to inter-plant trees with food crops to serve the farmers need for arable land and reforestation (FAO, 1984).

the outcome of which is manifest in class-based struggles. The emerging land capture and labour exploitation is critical to understand both historical and contemporary outcomes of agrarian change in Ghana. The seizure of land from migrant farmers, who mostly produce food as a source of livelihood, and its increasing conversion into cashew production, raises concerns for food production. With this as background, we now turn to discuss how cashew production is driving food insecurity concerns.

CASHEW PRODUCTION DRIVES FOOD INSECURITY CONCERNS

The Brong Ahafo region has historically been the 'breadbasket' of Ghana, with the region noted for maize, yam and cassava production, including for both local (regional) and national consumption (Amanor and Pabi, 2007). The region leads in the production of these food crops, which are major staples in Ghana. The concentration of food production in this region is supported by favorable agro-climatic conditions that are suitable for the cultivation of a variety of local food crops. The region supplies most of Ghana's staple foods that are consumed nationwide, particularly in the urban south. Indeed, production of these staple crops has been a major livelihood activity of migrant farmers in the region over many decades. The expansion of market-oriented crops however, including cashew nuts, poses significant challenges for ensuring regional and national food security.

Despite the possible economic benefits that might be realized via cashew production, many farmers expressed growing concerns about the impacts of expanding cashew production for local food provisioning. The majority of participants included in this study, for example, described being worried about the impacts of changes in land use, alongside the concentration of land amongst elites, including the possible impacts for meeting national food needs. Although there are currently no available figures to measure the land use trade-off and associated reduction in food production due to conversion to cashew, local agriculture officers at the District Agriculture offices similarly described cashew production as affecting food production. For example, a Crop Development officer at Wenchi Municipal Assembly stated:

> Cashew production will make the prices of food to go high, because every farmer is going into it.

Similarly, some farmers described a reduction in the production of food as driving the cost of food upwards at local markets. One woman in Amponsahkrom, for example, lamented the impacts of cashew production during a focus group:

> Cashew production will bring famine to this community. People are saying they would buy rice with income from cashew farm. What if the rice is not available to buy? What would we eat? It is maize that gives us food here and we may no longer farm maize because of cashew, so what are we going to eat? This will bring famine here, and the rest of Ghana.

Another farmer in Kintampo juxtaposed the case of cashew with cocoa production in Sefwi (a well noted area of cocoa production in Ghana):

> The tree crops are good, but it will bring famine to this place. Because some have planted cashew all over and they don't have any place left for food crops. It will be like Sefwi. The people of Sefwi use to farm plantain a lot, but because of cocoa

> there is no land for plantain again. It is good we farm cashew, but we have to limit ourselves.

While some farmers expressed support for converting their land to cashew nut production, they also reflected upon the impacts for local food production. While farmers expressed concerns about a coming famine within their own communities, they similarly expressed concerns about famine in urban areas of Ghana that depended upon food grown in the Brong Ahafo region. Demonstrating this, one older farmer, who had grown maize for much of his life, explained that if maize production in Brong Ahafo region reduced, the urban south of Ghana would experience severe famine:

> If production of maize reduces, there will be famine in the urban south of Ghana; because we supply the nation with maize, and if the production reduces, then there will be famine because the cost of maize will increase as well.

These emerging trends in Ghana's 'breadbasket' resonate with evidence elsewhere in the global South; where local food growing has been replaced by the cultivation of export commodities, driving questions and challenges for local food security (Lawrence, 2017; Rosin et al., 2012)

Given widely shared concerns related to the challenges of export cashew production for local food security, a number of farmers described reserving a small portion of their land for production of food for the household. In these cases, farmers described limiting food cropping to just those crops destined for household consumption. The remaining majority of land was designated to cashew production. If this trend continues, the Brong Ahafo region can be expected to have limited surplus food available to meet the demands of urban Ghanaians.

Some farmers described the deployment of a range of other strategies as they attempted to remain food secure alongside conversion of their farmland into cashew nut. Amongst these strategies included the practice of intercropping cashew trees with food crops, including maize, yam, groundnut and cassava. However, and as detailed above, intercropping was described as only possible during the first three years of cashew farm establishment. After this, the cashew trees form a closed canopy and a spreading rooting system, which prohibits intercropping.

Based on the results presented in this paper, the increasing production of cashew nuts in Ghana's 'breadbasket' for sale in the global market can be understood as presenting an immediate threat to local – referring to both household level and national – food security. This is particularly worrying given the Brong Ahafo region as supplier of most of Ghana's local food requirements, especially urban Ghanaians (Amanor and Pabi, 2007; Amanor, 2009). Already, farmers in cashew growing areas describe producing less food for themselves, and for sale in the local markets (see also Evans et al., 2015). This is likely to pose significant challenges for ensuring availability and accessibility of traditional food staples, both within the region and across Ghana.

DISCUSSION AND CONCLUSIONS

The paper has demonstrated that expansion of cashew production in Ghana – including in the Brong Ahafo region – is associated with extensive land use change, and alongside socio-economic impacts at the local level. Foremost amongst these is the challenge of ensuring local food security for both the region, and more broadly across Ghana. The conversion of land from local food growing to a cash crop intended for export is driving this food security challenge. Given state, private and development sector support for on-going expansion of the cashew export industry, these challenges and tensions can be expected to continue into the future.

Whilst our paper has presented new empirical insights and understandings related to the conflicts and tensions associated with Ghana's expanding cashew industry, it has also demonstrated the extension of agricultural transformation and rural restructuring that has persisted as part of colonial and so-called postcolonial agricultural development. The expansion of cashew nut production for export should be understood as the latest in a line of plantation-based and export led agricultural development projects established to integrate Ghanaian farmers into international markets. This reflects a neoliberal policy approach to agricultural development; that positions private sector actors and development agencies as key to driving agricultural change.

There are, however, a number of unique insights we wish to draw out from our findings, which assist to understand the particular dynamics associated with Brong Ahafo's emergent export cashew industry.

Firstly, our findings add to growing understandings of the conflicts and tensions associated with Ghana's rapidly expanding cashew industry. Changes in land tenure, including the individualisation and concentration of land amongst certain family members, alongside elites and/or "Burgers", has emerged as a direct outcome of cashew industry expansion. The long time required between cashew seedling planting and harvest of nuts requires secure land tenure to realize economic returns. It is this necessity that is, at least in part, driving these significant changes in land tenure, including the disruption and/or devaluing of traditional and customary land title.

The transformation of common and family land into individualised ownership has the effect of excluding family members, as well as migrant farmers and other smallholder farmers from land they once relied upon for food growing, and other vital livelihood activities. Similarly, the concentration of land ownership associated with cashew production is driving changes to labour relations between landowners and migrant farmers. The emerging labour relations were described by migrant farmers as exploitative, given they work on cashew farms as caretakers, but not beneficiaries of any proceeds derived from cashew cultivation.

Secondly, the paper adds to discussions on power relations, social differentiation and agrarian class struggle associated with cashew production. Drawing from a power analysis informed by political ecology, our findings demonstrate there are unequal power relations between landowners and local elites, and migrants, landless and smallholder farmers. While indigenes in cashew growing communities were once able to derive control of land via family and customary law, local elites have leveraged social and economic capital to buy land. This is disrupting traditional land tenure arrangements, and reinforcing inequalities between landowners, local elites and migrant farmers. Our findings are similar to Yaro et al. (2017) in regard to oil palm in the Western region and mango producing communities in the Eastern region of Ghana. In each of these locations, social differentiation was identified as emerging as a result of land accumulation by rich elites, creating a pool of wage labourers.

On the basis of these findings, our paper concludes by calling for a critical rethink of the agricultural policy and planning frameworks that are driving cashew industry expansion, especially in the Brong Ahafo region. While key plans – including the 10-year Cashew Development Plan and Planting for Export and Rural Development Plan – were designed to assist the development of Ghana's cashew sector as a pathway out of poverty for smallholder farmers, our findings demonstrate they are falling short on these goals. In the face of our findings, there is a requirement for frameworks to consider social inequalities, class exploitation and

marginalisation of livelihoods, alongside industry expansion. Such rethinking – including by widening the lens beyond export-led growth, to also consider local, regional and national food needs – may assist to circumvent the adverse impacts of cashew production on local, regional and national communities.

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In-between Anxiety and Hope: Trusting an Alternative Among 'Alternatives' in the (Post) Organic Food Market in Turkey

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Abstract.

This paper argues that in Turkey there are plural alternatives within the alternative food channels and even in the recently emerging post-organic movement, by offering comparative cases from largely ignored international literature on alternative food initiatives. It examines a growing consumer food cooperative, a popular natural food store, and a well-known organic farmers' market in Turkey, which together are considered the most prominent alternative food channels in İstanbul by varying consumer segments. It interrogates the hows and whys of what becomes a reliable alternative and for whom in this recent complexity. This research is based on thirty in-depth interviews with the consumers and producers of İpek Hanım's Farm, Feriköy Organic Farmers' Market, and Kadıköy Cooperative. It reveals that food anxiety, trust, and hope appear as crucial dynamics of alternative relationships in the organic and post-organic food market in Turkey. These affects are visibly influenced by the social, cultural, and economic capital of consumers and interlinked with the meanings consumers attribute to their food practices. These meanings are dynamically (re)constructed through certain trust-building strategies and discourses of the 'alternative' which are presented by various actors (producers, marketers, cooperatives) and the ways consumers negotiate them. This study also suggests that consumers' varying forms of food anxiety and relationship to each alternative have different repercussions in terms of social and political visions about alternative food initiatives. The major difference is derived from

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whether they prioritize their bodily health with the mentality of 'neoliberal governmentality' or share some political ambitions and hope for transforming collectively the current agri-food system.

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INTRODUCTION

We have been experiencing a food regime that has been sustained since the 1980s through reduced farm supports, privatization of public services, which has, in turn, privileged transnational corporations and agribusinesses and pressured small farmers (McMichael, 2013, p. 77). It also degrades the ecosystem via genetic modification of animals and the patenting of re-engineered plants and seeds (Bernstein, 2016, p. 627). Organic agriculture became a considerable movement in late 60s in the USA by criticizing this very rise of industrial agriculture and agribusiness. The movement was also supported by agricultural scientists who were building trust in food within the regulatory structure behind the 'organically grown' label (Goodman and Goodman, 2007, p. 26). While organic production has been rising significantly in the Global North and some developing countries such as Turkey, new forms of production and the distribution of ecological/natural food have also been emerging as a reaction to the severe socio-economic and ecological consequences of conventional agriculture as well as the supermarket sales of the industrial food. Many of these varying food channels also have risen as a reaction to the organic movement. The 'post-organic'[1] movement thus defines itself with the argument that the organic movement has been conventionalized, criticizing the movement for having a 'technologically-led vision' (Buttel, 1997, p. 355) that only considers the use of 'allowable inputs' (Goodman and Goodman, 2007, p. 24) and the production of niche products (Buck et al., 1997, p. 8), but not fair labor relations nor consumers' accessibility to food (Goodman and Goodman, 2007, p. 24). They also assert that its organic standards empower corporations —in this case, organic agribusinesses— to the detriment of small farmers, thus indicating their inevitable incorporation into mainstream capitalist accumulation (Guthman, 1998; Jordon and Shuji, 2004). Therefore, the post-organic movement argues that the organic movement is no longer a strong transformative alternative solution. Moore (2006), however, suggests analyzing these movements from a more dialectic and less binary perspective (p. 25). He sees that the post-organic movement both intersects with, and distinguishes itself from, the organic movement and indeed reconstructs itself through this very "dynamic tension in the (discursive) field, between conventionalization and movement cosmology" (p. 33). The emphasis on this dynamic tension is valuable in understanding plural alternatives in the post-organic movement.

Most of the actors in post-organic initiatives such as farmers' markets, (online) farm shops, and food cooperatives claim to empower small-scale farming and local food chains without requiring organic certification. They claim to offer alternatives through certain principles and values such as respect for ecology, small farming, sustainable agriculture, and healthy food. They mostly assert that the global commoditization of food has also led to urban/rural distancing and to our loss of both control of the land and knowledge of small farming. They challenge the production of 'food from nowhere' by claiming to provide 'a place-based form of agro-ecology' (McMichael, 2013, p. 156). Therefore, there are many scholars studying the emergence of alternative food networks (AFNs) "in the light of the 'crisis' of the conventional agri-food sector" (Sonnino and Marsden, 2005, p. 182) and as "modes of resistance to agri-industrial food systems" (Harris, 2008, p. 55).

However, the literature also suggests that AFNs are not uniform and conflict-free. There are questions of who benefits from these alternatives and who can implement alternative food production (Dupuis and Goodman, 2005, p. 364-366). It is essential to consider the relations of power present in these so-called alternative relations and the 'relational contingency' (Holloway et al., 2007) of what is presented as alternative because many alternative food channels reinforce the existing system favoring local elites and corporations but exclude many small farmers and most consumers from their 'alternative' commoditized bubbles. Many scholars debating AFNs also highlight the need for going beyond the divide between alternative and conventional, arguing that they are interlinked in many respects rather than being simply opposed to each other (Kneafsey, 2008; Sonnino and Marsden, 2005). Most producers in alternative networks also sell their products using conventional channels and many consumers in alternative channels make their decisions based on similar criteria used in conventional channels, such as the taste and the price of the food (Hinrichs, 2003). Therefore, we elaborate alternative food channels in this study not as being in an absolute dichotomy, but more as 'hybrid' (Watts et al., 2005, p. 34) entities having interlinked aspects with both each other and conventional agri-food relations.

The recent literature on alterity draws attention to some other important points that might be useful in analyses of AFNs. Mourato et al. (2018) suggests that we need to understand how alternatives evolve in interaction with mainstream systems, as well as influence and are influenced by whole processes of institutional change and social movements. We consider that this point needs to be given more attention in analyses of the evolution of AFNs. Another crucial point is made by Jones et. al (2010), suggesting that complex interrelations between ecology, food production/consumption, and capitalism need to be paid more attention in academic analyses and practices of AFNs (p. 95). We also care about the emphasis that Jones et al. (2010) places on the need for rethinking alternative food networks as socio-ecological systems in order to properly evaluate their alternativeness. Thus, we try in our research to analyze ecological dimension as well as social and economic aspects (e.g. their interplay with neoliberalism) in AFN relations, which are co-produced in 'meaningful AFNs' (p. 95-6).

TURKISH AGRI-FOOD CONTEXT AND VARYING ALTERNATIVE FOOD CHANNELS

Neoliberal policies were incrementally adopted into the Turkish agri-food system throughout the 1980s and accelerated in particular after the enactment of the Agrarian Reform Implementation Project in 2001. The reform has had various effects: enforcement of direct income support as a recent policy, adoption of the 2006 Seed Law, the privatization of state's agricultural initiatives, and de-functionalization of cooperatives. (Keyder and Yenal, 2013, p. 198-200). During this period, transnational agri-food corporations have thus increasingly dominated the food market, including the organic sector.

The organic agriculture policies in Turkey started in 2004, with the enactment of the law on organic agriculture, as part of the EU harmonization process. In the same year, the Ministry of Food, Agriculture and Livestock delegated the control and the certification processes to independent control and certification companies. Along with the state support, organic production in Turkey increased almost fivefold from 2005 to 2017, reaching nearly 1,611 million tons.[2] Despite this rising volume of organic production and the popularity of organic food in Turkey, the Turkish organic market is still export-led. The domestic per capita consumption of organic food was only 1 Euro in 2014, whereas it was 118 Euros in France, 122 Euros in the USA, and 237

Euros in Sweden in 2017.[3] Therefore, only middle and upper-class consumers can access certified organic food in Turkey and this solely to a limited extent. The export-oriented character of the Turkish organic sector requires producers to meet European organic food standards; however, small-scale organic farmers are not sufficiently knowledgeable about the conversion processes, bureaucratic and technical requirements, and marketing relations. The Turkish government does not support small farmers in this process, while European countries have policies supporting marketing and processing as well as advice and training activities (Ataseven, 2014, p. 208). Additionally, support for organic products in Turkey varies according to the amount of land owned by producers. Thus, small producers cannot benefit from this support as effectively as big scale organic producers (Keyder and Yenal, 2013). The value of this support lessens when one considers the Turkish Lira, because certification costs are imposed in Euros and the Lira has lost considerable value relative to the Euro.[4]

The organic sector in Turkey is dominated by private actors, mainly private-run farms and corporate brands. Organic farmers' markets in Turkey emerged not only as an alternative to conventional food, but also to the conventional distribution of certified organic products in supermarkets and organic stores. To widen the domestic organic market in terms of the size, quality, and variety, the Buğday Association, in collaboration with other stakeholders, started the first organic farmers' market in İstanbul in 2006[5] and was followed by Slow Food and the EÜD Association with a couple of organic farmers' markets in İstanbul. There are also a few organic farmers' markets organized by municipalities. In all these farmers' markets, only certified organic products are allowed to be sold. However, there is no strict rule for accepting small-scale farmers. In addition to the small farmers, importers and intermediaries such as distributors and farmers' representatives are also allowed.

Post-organic initiatives emerged in this very context, only a few years after organic food became popular among economically privileged consumers. It is a very recent movement[6] in Turkey and appears to have mainly two 'alternative forms.' The first form consists primarily of private farms which assert to produce natural village products without having organic certification, with their emphasis on small-scale local agriculture and the importance of trust instead of a formal certification system. They mostly sell their products to consumers in big cities, mainly İstanbul, based upon their orders via e-mail or online shopping. Some of these actors have become very popular and been transformed into middle- and upper-scale enterprises for capital accumulation rather than being in favor of small producers in the region. They enlarge their scale by opening stores in İstanbul after becoming well-known, such as in the case of İpek Hanım's Farm. Also, there are some middle-scale private farms, such as Koçulu Dairy Products in Kars, which collaborate with participatory collective food platforms by selling their ecological products at more accessible prices, but also provide food both to mainstream channels and natural food stores like İpek Hanım's Farm. There are also small-scale ecological farms, of which most are run by back-to-the-landers, which also usually function by sending their products by cargo to İstanbul and other big cities. Some of them collaborate with food communities and consumer food cooperatives, because private distribution channels either do not offer fair prices or they search for organic certification as proof. There are finally some companies which market the natural products of private farms via online sale and their own logistics.

The second form consists of participatory, civic, collective actors being alternative food initiatives. These are food communities/collectives and consumer food cooperatives (e.g. Kadıköy Cooperative, BÜKOOP) that have emerged in the last decade, without pursuing monetary gain but instead only their own sustainability. Their main aim is to provide consumers ecological products

for more affordable prices and to support small-scale ecological producers who implement subsistence-farming by using local and ancient seeds but no pesticide, herbicide, or synthetic fertilizers. They have their own trust and surveillance mechanisms with producers, and do not require certification, unlike organic farmers' markets. They do not have intermediaries in their contact with producers and sometimes visit them in their production sites. Consumers are invited not only to buy products but to engage in the functioning of these collective platforms through participatory and horizontal relationships and democratic decision-making processes. Doing so, they aim to maintain alternative production, consumption, and distribution relationships which are not present in conventional relations nor even in most certified organic food and natural food channels. Despite being few in number, they also collaborate with some organic producers in their network.

ORGANIC MARKET (Venues for Certified Organic Food)	*POST-ORGANIC MARKET (Venues for 'Natural' and 'Ecological' Food)*
1. Corporate Actors (e.g. City Farm)	1. Corporate Actors (e.g. Tazedirekt)
2.Middle-scale Commercial Enterprises	2. Online 'Natural' Food Shops of Private-Run Farms at Varying Scales (e.g. İpek Hanım's Farm, Gündönümü Farm)
3. Small-scale Subsistence Farmers	3. Natural Food Stores (e.g. İpek Hanım's Farm)
4. Organic Farmers' Markets organized by NGOs and Public Actors (e.g. Feriköy Organic Farmers' Market)	4. Civic and Collective Alternative Ecological Food Initiatives (e.g. Kadıköy Coop, BÜKOOP)

Table 1. The Ideal-Typical Categorization of the Main Actors in the Organic and Post-Organic Market in Turkey[7]

Food communities have been getting together for ten years under the banner of Yeryüzü Association, the only NGO organizing such communities. There are now less than ten food communities in Turkey, but they have been gaining popularity, especially in the last few years, as they participate in almost every meeting and with an increasing number of food cooperatives in İstanbul. Finally, there are some consumer food cooperatives and coop initiatives in this alternative form. Seven have established themselves in two years, after the establishment of Kadıköy Coop in 2016. Despite their limited number for now, they have been expanding their impact through collaborations and regular contacts with each other and others in the field of agroecology, such as farmers' unions. They all aim to build solidarity-based and direct ecological relationships with small producers and operate through volunteering, based on collective decision-making and management.

While the word 'organic' is used by certified organic food producers in the organic market, the post-organic sector uses the words 'ecological' and 'natural'. The word 'natural' is embraced by private-run farms and companies, highlighting the natural qualities of food; referring to foods grown without the use of pesticides, herbicides, synthetic fertilizers, and preservatives. The word 'natural' is embraced by private-run farms and companies, highlighting the natural qualities of food; referring to foods grown without the use of pesticides, herbicides, synthetic fertilizers, and

preservatives. The word 'ecological' is used by food communities/cooperatives to emphasize a holistic approach to ecology (e.g. respect to whole ecosystem and biodiversity) that they consider ignored in the natural production being concerned only with the natural quality of food. Although these words are mostly used interchangeably by consumers, this distinction is made by producers and especially by activists in the post-organic food communities/cooperatives. We keep these distinctions throughout the text by following the word preferences of our participants in this research.

RESEARCH DESIGN AND METHODOLOGY

This study elaborates on plural alternatives within the alternative food channels and also in the post-organic movement. It thus provides quotidian realities and perspectives on varied 'alternative' food channels in İstanbul from both consumer and producer perspectives, to investigate the 'how's and 'why's of what becomes a reliable alternative for those in this recent but complex alternative food market. Considering the crucial role of discursive strategies in the production of meanings given to each alternative, it examines the discursive strategies of varying actors (producers, marketers, cooperatives) and the ways they are negotiated and sometimes reproduced by consumers. It asks: How and why does each alternative initiative gain the trust of certain consumers as the most reliable alternative food channel, but not others? What are the social and political implications of consumers' food anxiety and their respective relationship to each alternative?

This study investigates three different food channels in İstanbul, namely Feriköy Organic Farmers' Market, a popular natural food shop called İpek Hanım's Farm, and Kadıköy Consumer Food Cooperative. We examine these cases as visible instances of varying food channels to provide a comprehensive and comparative sociological analysis. We have chosen İstanbul as the location of our fieldwork for two main reasons. First, the consumers in İstanbul share significant food anxiety because İstanbul is the most industrialized city of Turkey "where social relations are much more removed from the interaction of the agricultural production of food than in the countryside or smaller cities, or even in other large cities (…) which still have an ongoing relationship with their rural hinterland" (Soysal Al, 2017, p. 68). This leads especially its larger middle and upper middle-class consumers to shop using these alternative channels. Second, it is a city where the number of alternative food channels and food activism are more diverse compared to the other cities of Turkey.

One of the cases studied in this research is *Feriköy Organic Farmers' Market* organized by the Buğday Association which is a pioneer NGO in ecological living. This case was chosen because it is the first and the most known of four different organic farmers' markets in İstanbul supervised by this NGO (4).[8] For cases of post-organic channels, we selected two different alternatives; İpek Hanım's Farm and Kadıköy Cooperative. *İpek Hanım's Farm* is a private-run farm which sells natural food both in its stores in İstanbul (3) and via email (2). It was selected as our case because it is a prominent example of these so-called alternative food channels in terms of its production capacity, product range, and the number of workers employed in the natural food production. Also, being the first online natural food shopping site in Turkey makes it popular to urban consumers. The other post-organic case we study is *Kadıköy Cooperative* as a civic and collective alternative food initiative (4). We selected this cooperative as one of our cases because it is the first consumer coop that is at the neighborhood-scale, and which aims to collectively transform the production, consumption, and distribution relations of food in favor of ecology, consumers, and small producers. It is an important case not only for getting the increasing attention of consumers, but

also because its one-year long experience motivated some other groups to start their cooperative initiatives in different neighborhoods of İstanbul with very similar models, principles, and functions.

This research is based on thirty interviews with the producers and consumers of these three initiatives: 10 interviews with consumers (5) and producers (5) of Feriköy Organic Farmers' Market, 13 interviews with Kadıköy Coop consumers (7) and producers (6), 6 interviews with the consumers of İpek Hanım's Farm and an interview with its owner. The consumers and producers of the farmers' market and İpek Hanım's Farm were recruited in the relevant shopping venues. As this store and farmers' market also have dining areas, we had the opportunity to socialize with them in these venues during our visits and then randomly offered some of them the opportunity to participate in our research. The interviews with the producers of the organic farmers' market are conducted with those who are available at the end of the day in the market. Other interviews with producers are conducted in their production sites, in eight different locations in Turkey. The fieldwork is also based on a one-year long participant observation at Kadıköy Cooperative. As we work as volunteers in the cooperative store, we had the chance to interview some customers who accepted our request. Other interviews with Kadıköy Coop consumers have been conducted, from January 2018 to January 2019, with volunteers who wanted to participate in this research. All interviews are recorded upon the consent of each participant and transcribed afterwards.

This research draws from the concept of 'neoliberal governmentality'[9] to discuss why consumers of particular alternatives share the pessimism of commoditized and individualized solutions, contrary to others who share collective hope for transformation. We also adopt Bourdieusian perspective to understand further why consumers trust and prefer certain things, what they expect from, and relate to, a particular choice among alternatives by addressing the role of the social, cultural, and economic capital consumers dispose.

This study contributes to the relevant literature on alternative food networks by offering a case from a location where organic and post-organic markets are largely ignored. It discusses this alternative market by addressing not only the alterity between the organic and post-organic market in this context, but also discussing in detail the plural alternatives in the post-organic movement. It is also interesting to investigate these cases in a developing country setting where neoliberal vulnerabilities that the current agri-food context brings are more acute for small-scale ecological/organic farmers and consumers than in the Global North where the support for organic and/or local agriculture is significantly higher.

CONSUMER AND PRODUCER PROFILES OF THE PARTICIPANTS

Just as the alternative food channels are various, so too is the variety of consumer and producer profiles of these channels. From a Bourdieusian perspective, differences exist among the consumers of İpek Hanım's Farm, Kadıköy Cooperative, and Feriköy Organic Farmers' Market in terms of their economic, social and cultural capital. In this study, the monthly household income of the consumers of İpek Hanım's Farm varies between 15 and 25 thousand Turkish liras, while it varies between 5 and 15 thousand liras for the consumers of the organic farmers' market. The household income of the consumers of Kadıköy Cooperative is similar to those of the organic farmers' market, although its volunteers have lower household income compared to the others. However, there is still not a significant difference between the household incomes of these consumers that can place them directly into different economic classes. Therefore, we consider them to belong to middle and upper middle classes and not having significantly distinct economic capital. What differentiates them from each other is mostly their varying social and cultural capital.

Many consumers in this research have similar education levels —mostly bachelor's degrees— and they are mostly white-collar employees. Thus, rather than the education level, it is mostly their intellectual and political baggage developed through their interactions and learnings in similar ecological/political organizations which is significantly different in the consumer profiles of each channel. The political and researcher background of the cooperative volunteers helps them to position food as a political matter and to develop broader insights about the history of neoliberal transformation in Turkish agriculture. Other consumers of the cooperative also share their political concerns. For the consumers of other cases, however, it is the health and bodily concerns and the references of their friends which play a significant role in leading them to these alternatives. In other words, their food choice among plural alternatives is not only influenced by economic capital and simple cost and benefit mentality but also by their internalized dispositions and social network (Bourdieu, 1984).

On the part of the producers, the profile of Pınar Kaftancıoğlu, the owner of İpek Hanım's Farm, is visibly different from the others. She is an urban-raised, college-educated middle-class entrepreneur who has decided to try to benefit from a growing niche market. She has a social network by which she can create a demand for her products as well as the cultural capital through which she can share her confidence with her customers. The producers of organic farmers' markets and the cooperative also benefit from their social capital by making contacts with these consumer organizations. For the case of the cooperative producers, the contacts from their political engagements in other organizations such as ÇİFTÇİ-SEN (The Confederation of Farmers' Unions) are like the gatekeepers that facilitate their participation and integration in these networks. Most of them have entered the alternative food sector after retirement, to earn a side income. The producers of the organic farmers' market also differentiate from the producers of Kadıköy Cooperative, mainly in terms of their financial capacity to get organic certification.

HOW DO "ALTERNATIVES" BUILD TRUST IN AN ATMOSPHERE OF RISK AND ANXIETY?

In the 'risk society', "the unknown and unintended consequences" of the industrial production (Beck, 1992, p. 22) increase various fears such as artificial fertilizers, growth hormones, chemicals, antibiotics and technological processing. These fears are strengthened everywhere in the absence of intangible threats on which experts do not present conclusive results. Yet, the anxiety is not experienced in the same way; it has a "socially, spatially and historically specific" character (Jackson, 2010, p. 150). Food anxiety in Turkey is strongly related to post-Chernobyl fears like cancer risk, as a closely affected country. This anxiety has incrementally been shared among consumers, combined with the acute neoliberalization of agriculture and food policies in Turkey since 2000. Consumers and producers have been increasingly pressured by the sovereignty of corporations, the decrease of the state support in agriculture, and significant food insecurity in Turkey compared to many EU countries.[10] The food anxiety of consumers becomes a strong burden in this context, as they are left alone to manage their healthy food-work as neoliberal citizens with an exaggerated individual agency (Hier, 2003, p. 3-20). It is becoming harder to deal with this situation, especially for consumers in İstanbul, the biggest city of Turkey, which is sharply distanced from the agricultural relations of food production. Thus, the search for trustworthy food channels becomes a visible concern, so as to have a 'relative feeling of invulnerability' in this risk atmosphere (Hier, 2003, p. 12). At this point, the 'moral economy' and political economy of food intersect with each other (Jackson, 2010). Moral and ethical concerns,

trust, reciprocity, and obligations are closely related to market relations and quite important as economic factors (p. 149). However, there is no single, objective way for enhancing trust. While consumers seek healthy products they can trust, producers provide various reasons to convince their customers why their method of production is the most reliable. They are involved in the 'manufacturing of meaning' of their products (Jackson et al., 2009, p. 12-24). Therefore, their discursive strategies and the ways they are negotiated are crucial in understanding the hows and whys of what becomes a reliable alternative food channel for whom.

All the participants in this research emphasize that they have limited or no knowledge on the food production processes, thus need the guidance of some expert knowledge and reliable information and food channels in their healthy food choices.

> 'Even when people who make analyses of what is healthy or unsafe are medical doctors, they do these analyses under the sponsorship of some corporations. Therefore, we are now talking about an information circulation, which is extremely open to manipulation. Choosing the more reliable source of information is the hardest part for consumers because of the intensity of false knowledge around.' (Deniz, Consumer of Kadıköy Cooperative)

Kaftancıoğlu builds trust in İpek Hanım's Farm through weekly emails to her customers, where she appraises her ethical values as a producer and the uniqueness and reliability of her products by a constant emphasis on their local and natural character. She also frequently highlights the distinctive character of Nazilli, where she grows her products and other places like Kars from, which she procures geographically indicated foods.[11] This emphasis is indeed a globally adopted strategy to empower small producers in newly emerging agri-food markets. However, locality cannot be directly considered to be a counteraction against the logic of global agricultural food chains. The narrative of localness turns into a trust-building mechanism that facilitates Kaftancıoğlu's capital accumulation, rather than being a mechanism in favor of the small producers in the region. Our fieldwork indicates that despite her benefiting from local and indigenous knowledge of her local community in the production processes, the compensation increase that the marketing of localness brings is not fairly distributed between the local community and Kaftancıoğlu.

This valorization of localness is usually followed by the emphasis on nature in the discursive arena. Rural areas are promoted as places where pure nature can still exist among the remnants of industrial occupation. Following this perspective, Kaftancıoğlu and the producers of the organic farmers' market give the impression that their consumers are a small fortunate group having access to the last remnant of pristine nature. Such an impression has a direct repercussion in narrative of their consumers:

> 'I believe that there is no more a safe soil in Turkey. But Pınar, the owner of this store, pays utmost attention to the safety of her land. For this reason, I trust her. She produces food on the very last remnants of safe land.' (Aslı, Consumer of İpek Hanım's Farm)

Likewise, Kaftancıoğlu appraises the taste, smell, and quality of her food, associating them with those in 'good old days' on her web page[12]:

> 'I am not concerned with proving my products. I just follow the same way our grandparents in these mountain villages produced for centuries the most organic of all organic products.

> My production is the same with how it has been done in these lands for thousands of years by real heirloom seeds and dung.'

The emphasis on the values of the past enables consumers to chase the dream of rediscovering the taste and quality that were experienced in a particular period of past times imprinted on memories. The revitalization of the memory of childhood is a prominent theme in the narrative of both the consumers of the organic farmers' market and İpek Hanım's Farm:

> 'For example, when I first started here, I found the taste of my childhood, the taste of food has been lost because of more chemicals or overproduction. I don't know. I found the taste of my childhood for the first time here. I cannot eat outside anymore.' (Betül, Consumer of Feriköy Organic Farmers' Market).

This nostalgia is not significant among the consumers of Kadıköy Cooperative. What makes cooperatives an alternative for its consumers and producers is not based on the promise of providing the 'perfect food' of the past but on a comprehensive set of motivations. This includes the political concerns about the vulnerable position of small producers in the market, expanding ecological agriculture, eliminating intermediaries from the distributional mechanisms, and reaching healthy food more easily. In other words, instead of being stuck in the past, they rather aim to build the political alternative both in the present and the future through solidarity and struggle.

> 'The hope is here. I am fully sure of it. If some things are going to change, this will certainly be from here and through such cooperatives. Food communities, associations and unions, all of them have valuable efforts. We will all bring this change together by becoming a part of it. But I think we have this significant potential only and only if we work altogether.' (Gökçe, Volunteer of Kadıköy Cooperative)

The consumers of Kadıköy Cooperative mostly rely upon the references of the confederation of farmers' unions and the regular field trips of cooperative volunteers. They select producers according to certain criteria and principles they adopt collectively. This collective decision-making and direct communication with producers strengthen their trust in producers and their products. Most consumers in organic farmers' market and İpek Hanım's Farm trust these food channels most because they consider them as the proper way of protecting their health. Many consumers also highlight that they started to buy from these channels after a serious health problem in their family or the birth of their children. For the consumers of the organic farmers' market in Feriköy, the existence of Buğday Association in their organization is a great source of trust. For the case of İpek Hanım's Farm, the fact that Pınar Kaftancıoğlu is a mother increases the trust of mothers who shop from there for their children. They do not trust certified organic products, thus do not shop from organic farmers' markets: 'They get the organic certification for their agricultural field of 1 acre, yet promote as organic all their products as organic that are grown in 10 other acres not certified as such' (Zeynep, Consumer of İpek Hanım's Farm). The narratives of consumers and producers run parallel and the anxiety present in these discourses involves "a process of Othering where people's own anxieties are displaced on to variously-defined Others" (Jackson, 2010, p. 160). Positioning İpek Hanım's Farm as opposed to other organic food channels, Kaftancıoğlu, for instance, explains on her website why it is hard to develop trust in certified organic food:

> 'In order to get this certification, you have to apply to third party certification institutions, and it is enough to show them the land on which you implement your organic agriculture. You can produce organic agriculture on certain agricultural land, get your certification, and sell your 'awkward' products that you grow somehow along with products from other lands, hiding this reality behind your certification.' (Kaftancıoğlu, Owner of İpek Hanım's Farm)

As Jackson suggests (2010), our interviews indicate that "anxiety might then be defined as a social field that can be occupied by many different social actors" (p. 160). It seems that İpek Hanım's Farm as a natural food provider and organic farmers' markets as the marketplace for certified organic food apparently compete with each other while presenting themselves as the more reliable 'alternative'. A quote from a producer in Feriköy Organic Farmers' Market reveals this competition:

> 'There are still certain people, certain producers who destroy "organic" and play a trick on organic food to promote their food (...) A man comes up and makes news to shake the confidence of people in organics. Then people start saying 'I don't trust organic food anymore.' The producers also deal with these people' (Serhat, Producer of Feriköy Organic Farmers' Market)

The regular consumers of İpek Hanım's Farm and organic farmers' market reveal that they feel so anxious when they need to shop from somewhere else, because they automatically consider these foods potential health threats. This emphasis on the 'individualized risk of illness' is criticized by many consumers of Kadıköy Coop. Relatedly, their anxiety is strongly expressed through another 'otherizing' process which problematizes the anxieties of many natural and organic food consumers as blind to social and ecological threats in food relations. They also feel anxious but the food anxiety they feel manifests itself in a different form than that felt by the consumers of İpek Hanım's Farm and the organic farmers' market. Instead of being felt at the level of health concerns, their anxiety is mostly expressed at the level of political concerns. These concerns are related to ecological destruction as well as socio-economic injustices in the food system against small-scale producers and consumers. Jackson (2010) suggests that "anxiety is not wholly negative in its social effects" and "may provoke creative and inventive responses" (p. 154). From a similar standpoint, the consumers of Kadıköy Cooperative do not consider this alternative initiative to be another 'option' among many others. Rather, they see it as an alternative which tries to challenge and replace the existing food system.

> 'After all, the idea for such an organization emerged after the Gezi resistance. So, of course, I consider it very important. I always support such initiatives where small producers are empowered in a system where there are no intermediaries. I am always against the capital and take the side of cooperatives as they are really important for the survival of small producers.' (Ceyhan, Consumer of Kadıköy Cooperative)

In addition, the consumers of Kadıköy Cooperative do not necessarily search for organic certification as proof and believe that it is an economic and bureaucratic obstacle for small producers:

> 'Producing organically is very expensive and the government imposes some rules that small producers cannot follow (…) I do not care about the certification here. For me, what is important is the cooperative itself rather than the certification. We need to support such initiatives.' (Pınar, Consumer of Kadıköy Cooperative)

SEARCHING FOR HOPE, OR PESSIMISM OF COMMODITIZED SOLUTIONS?

The shift from welfare state towards the free market capitalism began in the 1970s is coupled with discourses on the freedom of consumer choice for individual welfare rather than the need for state regulation for citizen welfare. Rose uses the notion of 'privatization of risk management' (1996, p. 58) to explain that the citizens are today defined "as active individuals seeking to 'enterprise themselves' to maximize their quality of life through acts of choice" (p. 57). Thus, in the neoliberal era, enabling food security appears mostly as a form of 'neoliberal governmentality,' which expects consumers to be self-conscious and self-regulating (O'Malley, 2004; Doyle, 2007) regarding risks (MacKendrick, 2011). In an atmosphere marked by the rise of risk discourses and the expansion of alternative food channels, the neoliberal ideology encourages us to take the individual responsibility of choosing proper products for our health and safety. The neoliberal governmentality is not directly imposed, 'but operates through the embodied actions of free subjects—often by exercising choice in the market' (Cairns and Johnston, 2015, p. 156). Sezin's narrative exemplifies this:

> 'It is the citizens who are responsible. Everything is gone today, both animal husbandry and agriculture. So, we try to find alternative ways as individuals. After the appraisal and recommendations of my friend, I said "Ok, I will try this one too."' (Sezin, Consumer of İpek Hanım's Farm)

This 'hopeless' perspective of 'everything is already gone' is indeed very frequent among the consumers of İpek Hanım's Farm and the organic farmers' market. One of these consumers, Fatma, simply reveals the logic of neoliberal governmentality internalized by many consumers, which strengthens the neoliberal market: 'We need to decide according to our own mind. This is nobody's responsibility but ours.' (Fatma, Consumer of İpek Hanım's Farm). These consumers, including the ones who mention the state's responsibility to change its agricultural policies, do not consider themselves as agents in this change.

> 'In developed countries like in Europe, states have some responsibilities (...) Yet, it does nothing in this area like in others. So, we need to manage this (...) We can do something only by shopping from this shop. We cannot revolt to shout that 'agriculture is in a terrible situation' right?' (Elif, Consumer of Feriköy Organic Farmers' Market)

Adopting the position and practices of 'neoliberal governmentality' in their food practices, most consumers of İpek Hanım's Farm and the organic market do not get involved in a detailed discussion on the policies behind the existing state of the agriculture but tend to complain about the current functioning of agriculture and the unsafe food quality. They only emphasize visibly the role of consumers in making proper choices. Framing food practices in the private sphere, most consumers are not engaged in any political action to change existing agri-food relations, contrary to the cooperative consumers. They mostly adopt a hopeless perspective which is accompanied

with a constant emphasis on the loss of taste and smell of the foods in past, with a nostalgic state of mind. Thus, they dream for a 'back to past in the future' instead of engaging the imagination and the reconstruction of an alternative future. In this way, they try to make their nostalgia come true for them in the present by making 'proper' choices when compared to other commoditized options. We argue that their pessimism about the future of the agri-food system results significantly from the ways they relate themselves to the present and the future. Their limited interaction and agency in their preferred food channel is decisive in this way.

The consumers of Kadıköy Coop consider the state responsible for adopting policies which are in favor of small producers, consumers, and ecology. However, they are reluctant to lose hope while waiting for state to take action. Therefore, they regard both the consumer and producer food cooperatives as crucial actors to push for the state and trigger change. Also, all the volunteers of Kadıköy Cooperative consider the unfavorable state of the agri-food system to be at such a point that there is no option but the need for collective action. They prefer seeing this as ground which motivates them to finally initiate a collective and practical struggle for changing the agri-food system, and for collaborating with other actors in agroecology. In other words, they share a wishful 'anxious hope' (Ahmed, 2010, p. 183), because rather than considering their anxiety in contradiction with their hope for transformation, they consider it as something that increases the possibility and the production of hope. It is for this reason that they regard the present state of agriculture 'not at the expense of struggle but [as something that] animates a struggle' (Ahmed, 2017, p. 2).

> 'This terrible situation we have arrived at today also carries a potential to be diverted into collective action. People get together to say no to starch based sugar, to GMOs. They support Hopa Tea Cooperative in releasing producers from the constrictions created by the quotas of ÇAYKUR.[13] People come to the cooperative and say they also want to organize something like this. The number of cooperatives and food communities also have risen significantly. People have been developing more interest in local seeds. These very bad days will bring us to better ones. They have already been doing so.' (Damla, Volunteer of Kadıköy Cooperative)

Bloch makes a distinction between false hope and true hope, defining the former as daily and personal hopes and the latter as utopian and revolutionary (Bloch, 1986, p. 2). The second, in that sense, is seen as a catalyst to direct our energy towards revolution. We do not consider the hope present in Kadıköy Cooperative as having a revolutionary character as in Bloch's Marxist framing of revolution. Similarly, cooperative volunteers see their hope in the "act[ing] (…) rather than being a promise of what might come" (Ahmed, 2010, p. 191) after a revolution. Relatedly, they very often exemplify some 'success stories' in stimulating the change by 'working things through' (Ahmed, 2017, p. 2). One of these examples they constantly refer to is the cooperative buying ecological hazelnuts from a producer paying a fair price, 18 TL per kg of shelled hazelnuts in 2018 (2.7 Euros in June 2019), determined by the syndicate of hazelnut producers (FINDIK-SEN). However, in this market, producers usually have no other option to sell their products to Ferrero for only 11 TL (1.6 Euro) per kg in 2018, because of the absence of a protection mechanism provided by the state. The de-functionalization of cooperatives and unions, such as the Union of Agricultural Sales Cooperatives of Hazelnuts (FISKOBIRLIK), has put into a fragile position the producers of the Black Sea region of Turkey, which indeed has occupied an enviable position in world hazelnut production. The disadvantages are not only created for producers but also for

consumers who buy the kilogram of hazelnuts for at least 60 TL (9 Euros) because of the existence of many intermediaries. Sharing this vulnerable agricultural story for producers and consumers, the cooperative volunteers explain that the hazelnut in the cooperative is declared by FINDIK-SEN as sold for the fairest price in Turkey. They also highlight that this path to gradual change is not an easy one and what they have been 'doing' are still 'baby steps':

> 'When the wind is at our backs, we will gather masses on our side (...) There are cooperatives to which we provide a guarantee of purchase. There are other cooperatives which are encouraged by our existence (...) These have, in turn, empowered us significantly.' (Damla, Volunteer of Kadıköy Cooperative)

The producers that are part of the network of Kadıköy Coop also share the hope that it produces:

> 'Actually, this project can increase the potential of alternative agricultural relations. If there were ten cooperatives like Kadıköy Coop, I would continue this production, not give up (…) After all, the problem is that we are not a collectively organized society either in agriculture or in any other areas. When we are organized as producers and consumers, nobody can freely tread on us. Say that the number of such cooperatives became 10, 20, 30, and even 100 and that they would build a head organization like a confederation of consumer cooperatives. Just think how much this could empower us.' (Ayhan, Producer of Kadıköy Cooperative)

> 'They bring us the hope to transform current agri-food relations. We live in a world where we cannot manifest ourselves as a unified power (…) That is why I perceive every single attempt, every little task as important progress. I take the emergence of such small alternatives very seriously. We are not yet strong enough, but we are indeed more crowded than it seems. And the number of actors in collective networks is growing every day. Looking solely from the global perspective may lead to overlooking many things. It is mostly such seemingly unimportant things which carry the significant potential and power to develop the alternative future.' (Birnur, Producer of Kadıköy Cooperative)

Such civic and participatory collective alternatives are ambitious with their hope for transforming current agri-food relations for peoples' food sovereignty.[14] The scope of this paper does not allow discussing in detail whether their efforts to widen their cause into larger segments of society will help in the struggle for food sovereignty. However, it is clear that they visibly differentiate themselves from other post-organic initiatives in Turkey with this ambition, hope, and related efforts.

Alternative food initiatives need to divert anxiety into a means of collective movement by demanding equal access to safe and healthy food and advocating for sustainable ecological small farming, considering the whole ecosystem and biodiversity. It is the time to start to demand 'food sovereignty' now in AFNs, despite being 'at the bottom of the ladder'. AFNs need to distinguish this alternative vision as a 'meaningful' one (Jones et al., 2010) in this complex food system where there are lots of so-called 'alternatives' that have no or little motivation and impact for transforming social, economic, and ecological dimensions of the current agri-food system.

CONCLUSION

In Turkey, the organic food sector emerged as a response to the harmful effects of the industrial agriculture, especially after the 2000s. However, this sector has not been able to become an effective solution for small-scale producers. It rather empowers corporations and big-scale producers in Turkey because of the fees and standards imposed by the certification bodies. It is also largely inaccessible to economically unprivileged consumers. This thus led to the rise of post-organic initiatives which do not name their products as organic nor guarantee the quality of their products through the organic certification system. The local and natural character of their products are the common themes highlighted in their marketing strategy. Their critique of the industrial system and organic movement are also used as arguments to reconstruct their alternativeness. Yet, the post-organic movement is far from being a homogenized whole. There are plural alternatives even within the post-organic movement.

In this study, we investigated the complicated nature of these alternatives, namely at Feriköy Organic Farmers' Market, Kadıköy Cooperative and İpek Hanım's Farm. We address in detail how and in what ways each alternative constructs both its alternative position and the reliability of its own alternativeness among many others. We argue that the trust appears at the very center of building alternativeness because consumers desire to get rid of the sense of vulnerability by relying upon certain actors in the risk society. The social, cultural, and economic capital as well as the affective world of consumers greatly influence the preferences and the ways consumers trust and are involved in these alternatives.

Trust is constructed through distinct forms of trust-building mechanisms that derive from macro to individual motivations. The possibility of direct connection with producers and collective selection of products in the cooperative becomes a strong source of trust for them. The reliability of Feriköy Organic Market is mainly built upon the existence of the organic certification and the Buğday Association on the part of their consumers. The trust of the consumers in İpek Hanım's Farm comes mainly from Kaftancıoğlu's successful marketing strategies which appraise the local and natural qualities of her products as unique.

Furthermore, the research reveals that the anxiety is significantly shared among the consumers of each alternative yet manifests itself in distinct forms. Most consumers of İpek Hanım's Farm and the organic farmers' market are concerned with individual and health-related motivations. They thus try to deal with their food anxiety by managing their personal health as part of their strategies of neoliberal governmentality, based on their own reliable food purchases from among these alternatives. The cooperative consumers, on the other hand, do not simply associate ecological food with their bodily wellness. Purchasing from the cooperative, they try to pay attention to the crucial aspects of the agri-food relations — the fairness of labor relations and accessibility of consumers to ecological food, which they consider ignored in other so-called alternative and conventional food channels. They want particularly to be a part of the struggle that aims to change the existing relations of food production, distribution, and consumption. Unlike in the case of İpek Hanım's Farm and the organic farmers' market, hope thus appears as a strong affect shared by both the consumers and producers of Kadıköy Cooperative. This is closely related to the political meaning they attribute to this alternative in the present and for the future. Briefly, for consumers, the major difference is derived from whether they prioritize their personal health or the ambition and hope for transforming collectively the current agri-food system.

The hope in challenging existing agri-food relations has been increasing among the consumers of civic and collective alternative initiatives. It is because the number of such platforms has been rising at a significant pace in very recent years, though they are baby steps yet. We invite further

research in Turkey to study in detail the current functioning of alternative collective initiatives in terms of the transformative alternativeness they claim to offer and study their trajectory in the coming ten years.

Notes:

1. Moore introduced this term in a conference at Sligo in 2003, "to refer to farmers who appeared to be no longer following the example of earlier organic farmers but who were demonstrating their own innovative activities" and had considerable resonance (Holt and Reed, 2003, p. 285). His study on farmers' market in the UK (2006) reveals how organic farmers started to describe themselves as 'post-organic' farmers, as they directed their primary focus into the importance of direct relationship with the consumers from certification requirements.
2. T.C. Gıda Tarım ve Hayvancılık Bakanlığı, "2005 Yılı Organik Tarımsal Üretim Verileri", "2017 Yılı Organik Tarımsal Üretim Verileri. https://www.tarimorman.gov.tr/Konular/Bitkisel-Uretim/Organik-Tarim/Istatistikler
3. FIBL and IFOAM, "The World of Organic Agriculture: Statistics and Emerging Trends 2019", p. 72-3. The latest data about per capita organic consumption in Turkey is available for 2014.
4. According to the data of European Central Bank in June 2019, 1 Euro equals nearly to 6,5 TL in June 2019. It was almost 4 TL in June 2017 and 2.90 TL in 2014. http://sdw.ecb.europa.eu/quickview.do;jsessionid=782FBE71E90C841856120CF8468E08DE?SERIES_KEY=120.EXR.D.TRY.EUR.SP00.A
5. Ecological Farmers' Markets, December 2018, http. ekolojikpazarlar.org
6. Differently from many countries in the Global North, organic and post-organic movement in Turkey has recently been emerging in intersection with each other only in the last two decades. The more participatory and collective form of post-organic movement is even more recent; rising especially after the Gezi Revolt in 2013. Kadıköy Coop is one of those networks rising in this very context, with the idea of democratic and participatory cooperatives emerged in forums after Gezi.
7. Despite the intersections and sometimes collaborations among these actors which are also addressed in this study, we provide this table to help readers visualize more easily the main actors in the organic and post-organic market in Turkey for the readers.
8. See Table 1. The numbers in parentheses in this paragraph aim to explain which categories these alternative food channels belong to.
9. The concept 'governmentality' is first developed by Foucault (1991) and elaborated further by various theorists (Rose, 1996; Dean, 1997) in framework of 'neoliberal governmentality.'
10. Consumers in Turkey are constantly reading news about the return of the exported food products. These foods that do not meet the health criteria of foreign countries are consumed in the domestic market. https://yesilgazete.org/blog/2017/06/30/rusya-20-5-ton-cilegi-geri-gonderdi/
    The latest report of global food security index indicates Turkey's overall score (based on criteria of affordability, availability, and quality and safety) as 64.1 over 100. This score is visibly lower than many countries in Global North such as the United States and UK (85), Germany (82.7), France (82.9). https://foodsecurityindex.eiu.com/Downloads
11. It is also interesting to note that the producer of this Kars cheese who initiated the project of promoting local Kars cheese provides food both to mainstream channels and natural/organic stores like İpek Hanım's Farm and to consumer food cooperatives but he sells the same products at lower prices to cooperatives. This example shows that these initiatives are more like 'hybrid alternatives' (Watts et al., 2005) where alternative and conventional food relations cannot be sharply separated and are fundamentally related within an overall system (Hinrichs, 2003, p. 35).
12. The website of İpek Hanım's Farm, December 30, 2018, http://www.ipekhanim.com/İpek_hanim_ciftligi/sorular_%26_yanitlar.html
13. The General Directorate of Tea Enterprises (Çaykur) was established as a state-owned enterprise to support tea agriculture with generous support purchases. It became an establishment of Turkish Ministry of Agriculture in 2002 and has recently been handed over Turkish Wealth Fund. It continues its purchases but only to a certain extent with daily quotas, in line with the neoliberal policies in Turkey. http://caykurtr.com/NewPage/100/1/History.aspx

14. See the declaration of La Via Campesina, the progenitor of food sovereignty. Via Campesina. 1996. "The right to produce and access to land." http://www.acordinternational.org/silo/files/decfoodsov1996.pdf. Also see the critical literature on food sovereignty, especially the special issues of the *Globalizations* and the *Journal of Peasant Studies.*

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