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THE POLITICAL ECONOMY OF FOOD

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Transforming Food Systems: The Potential of Engaged Political Economy*†

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Abstract A food systems approach is critical to understanding and facilitating food system transformation, yet gaps in analysis are impeding changes towards greater equity, sustainability, and emancipation. Gaps include analyses of interdependencies among food system activities, of narrative politics, and of the behaviour of food system components using dynamic methodologies. Other problems include inappropriate boundaries to the system, insufficient learning across scales, lack of integration of social and ecological drivers and trends, and inadequate attention to the intersectional impacts of marginalisation. Both interdisciplinary and transdisciplinary work is necessary to overcome these problems, and, fundamentally, to understand power in food systems. Transdisciplinarity allows an engaged political economy in which social actors, including those who have not benefited from adequate food, livelihoods, and other services that food systems provide, are involved along with academics in co-creating the knowledge necessary for transformation. This engagement requires humility and respect, especially by academics, and explicit power-sharing.

Keywords: engaged political economy, transdisciplinarity, food systems, transformation, system analysis.

1 Introduction

Power dynamics affect every food system activity, and political economy approaches such as those included in this *IDS Bulletin* are useful for revealing how they function and how they might be changed to the advantage of people living in poverty and marginalisation. Sustainability, equity, and wellbeing for all require fundamental shifts in power relations between people and populations, beginning with recognition of the ways that food systems provide for or withhold benefits from certain people. The most basic function of food systems is to provide nourishment for people, yet power dynamics exclude at least 821 million people from regular access to enough food to meet their most basic caloric needs, by the most conservative metrics (FAO *et al*. 2018).

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Dominant trends in food production are also damaging ecological and earth system processes, contributing up to half of greenhouse gas emissions, decimating biodiversity, degrading topsoil, and throwing nutrient cycles out of balance – in short, making massive contributions to overshooting planetary boundaries (Steffen *et al.* 2015). At the same time, dominant food production processes are keeping workers and farmers in a state of powerlessness and poverty, and violating human rights. Trends in food consumption are likewise negative in many respects, resulting in surging prevalences of overweight and obesity in almost every country (WHO 2018), while some countries have regressed since 2014 in their prevalence of undernutrition (FAO *et al.* 2018). Current global food system configurations are thus undermining many of the Sustainable Development Goals (Oliver *et al.* 2018). In this context, it is difficult to overstate the urgency of food system changes.

Existing power relations lock food systems into negative patterns, so the far-reaching changes needed in production, consumption, waste disposal, and other activities require radical shifts in power rather than incremental changes. While academics and policy agencies alike are now calling for food system transitions (e.g. European Environment Agency 2017), too often the focus is on technical changes and tweaks to parts of the system, neglecting the deeper power dynamics that create and perpetuate inequity and unsustainability. Rather than (technical) transitions, the need is for deeper transformations, as is increasingly recognised both for global food systems (Oliver *et al.* 2018) and for sustainability and equity more broadly (Leach *et al.* 2018; Scoones *et al.* 2018; Scoones, Leach and Newell 2015). Transformation is inevitably profoundly political, requiring power and political economy to be addressed head-on.

Yet as we argue in this article, how 'food systems', 'power', and 'political economy' are understood and addressed can take many forms. These choices have consequences for whether and how research, policy, and actions are able to stimulate and enable transformative changes towards greater sustainability, equity, and wellbeing or whether they reinforce existing power relations. We reflect on the challenges and opportunities for research and its mobilisation into policy and practice, and argue that engaged, transdisciplinary research among groups acting as equal partners is essential for changing power dynamics and can be a lever for transformative change. Furthermore, policies and actions that emerge from research, or that are informed by research, must be carefully integrated in an iterative cycle of co-learning and evaluation, with particular attention to learning from people who have been marginalised in and by the dominant food system.

In the IDS–IPES-Food workshop, we were not seeking a single political economy approach but rather insights from different approaches. An agreed-upon point of departure was the intellectual poverty of a neoliberal framing of food and agriculture, which has held ideas and possible government interventions to improve sustainability and

equity in an ideological and political straitjacket. We see little potential that neoliberalism, in all its many guises, will lead to solutions to the problems it has largely been responsible for creating – a point also underlined by Bonanno and Busch in the introduction to their edited *Handbook of the International Political Economy of Agriculture and Food* (2015). In focusing on power, our participants stressed the importance of material political economy approaches, but also the need to go beyond these to theories of knowledge, politics of knowledge, and how knowledge is embodied (well presented in feminist analysis). We identified a host of new research questions as well as coming back to familiar yet not thoroughly resolved conundrums such as the tension between sustainability and affordability; that is, whether food prices must increase to allow sustainable production, and if so, how everyone will be able to access healthy, sustainable foods.

2 Understanding food systems

We begin from the concept of the food system, which encompasses all food system activities; the interrelationships of components and actors, and the institutions that regulate those activities, components, and actors. While the most common depiction of the food system is static, the interrelationships of components can be seen more fruitfully as dynamic flows of materials, money, nutrients, or power itself. In the workshop, Hans Herren demonstrated food systems models that the Millennium Institute has created to show how the food system affects the majority of the Sustainable Development Goals; trying to achieve these goals without reforming the food system is futile, but approaching them through food system reforms will have synergistic effects. Modelling is a useful tool to create scenarios of inaction as well as alternative actions in food systems, where impacts are non-linear and system behaviour is complex, resulting in counter-intuitive results of interventions. Modelling must be based on transparent assumptions which can be tested, however; it is a powerful tool, but does not provide useful answers without accurate data.

In the workshop, Molly Anderson showed how power is generated and maintained in the neoliberal food system through influences on purchasing, voting, and the actions of elected representatives. Given the strength of dominant institutions and food businesses within neoliberal political and economic societies, the simple advice to 'vote with your fork' only goes a little way; preferential (wealthy) consumer selection of healthy, organic, or otherwise quality-labelled food is quickly overpowered by advertising, lobbying, and campaign financing by food businesses that are operating to maximise profits in the short term and roll these back into their businesses. She showed how systems analysis can help to understand trade-offs among system components.

Key advantages of a food systems analysis are that it brings production and consumption (as well as other food system activities) into the same framework and clarifies trade-offs and paradoxes in policy and interventions. Food system activities cannot be studied as if they have

no impacts on each other; creating and implementing transformational practices and policy requires an understanding of this interdependence of activities and how power affects each. Mainstream development work has often ignored these interdependencies, focusing for instance on agricultural practices, markets, or consumption in isolation. Yet unintended blowback from interventions may actually push a society backwards; for example, when women producers of household subsistence crops are bypassed and their household power decreased because development agencies focus on male producers of cash crops. Similarly, the decisions of the CGIAR (formerly, the Consultative Group on International Agricultural Research) to put the majority of nutrition funding into biofortification has had opportunity costs, marginalising and disempowering research and dissemination on food system-based nutritional improvements, such as polycultures in agroecology.

Food systems can be conceptualised at scales from the local to the international. Often an apparent dilemma, such as ensuring affordable food for people on low incomes while simultaneously ensuring decent incomes for producers, is created by focusing on the wrong scale for solving the problem. If this particular issue is viewed from the national level, many possible solutions are apparent. These range from subsidies for low-income people to be able to purchase healthy food, to mandated state procurement from low-income producers, to removal of policies which allow an excessive concentration of buyers and the externalisation of environmental and social costs, erasing fair marketplace competition that might reward small-scale agroecological producers in markets if market access were not predetermined by size.

As these scale examples suggest, food systems and food system change can be viewed from different perspectives. The character of 'the system', and whether its states and processes are positive or negative, desirable or undesirable, depend on who one is, and the interests and values one holds. Different producers and consumers, government, and business actors may hold very different perspectives. As work by the STEPS Centre has argued, systems should thus be conceived not as singular, but as heuristics, open to diverse framings and narratives (Leach, Scoones and Stirling 2010). Indeed, as Molly Anderson argued in the workshop, exploring diverse narratives about food systems in a participatory manner can itself be a useful exercise that lays bare and facilitates interrogation of different interests and knowledge politics. Work on the 'narrative politics' of food systems is a gap that warrants more attention.

Several further gaps in food systems analysis are impeding transformational research, activities, and policy. The first gap is the adoption of a dynamic methodology that can address behaviour over time of the different components of the food system. This might involve modelling, but needs to begin with a clear conceptual understanding of the interrelationships within the system, and must also appreciate complexity. Models are simplifications, but they must retain the critical

components and flows to be useful. The second gap is related to the choice of components to include: understanding where to set food system boundaries for analysis. As mentioned above, boundaries that are set too narrowly can constrain solutions or pose intransigent quandaries. But boundaries that are set too broadly, to encompass elements of the food system that are related only indirectly to the stocks and flows under consideration, will muddy the analysis.

Appropriate boundary-setting is made more difficult by the enmeshing of food systems in energy, finance, health, and other systems. For example, while diet-related diseases are rising in significance in all industrialised and many poor countries, the drivers and solutions to this massive problem lie outside food systems in the factors that lead to inequitable wealth and access to resources. When the boundaries of the system are unclear, there is a tendency to individualise problems and ignore their root causes.

The third gap is learning across scales, and understanding the extent to which specific solutions can be 'scaled up' or 'scaled out'. While many people are understandably eager to see promising solutions replicated or augmented, the social, historical, and cultural context of each place must be taken into consideration. Agroecologists such as Steve Gliessman in his workshop presentation warn us to pay attention to context: to implement a viable agroecological system requires understanding local constraints and assets. Agroecological solutions can all adhere to shared principles, such as the ten elements of agroecology developed in regional workshops held by the Food and Agriculture Organization of the United Nations (FAO 2018), but it is not possible to reduce them to a checklist of activities that can be followed by anyone anywhere. One size cannot fit all, and more iterative approaches of 'adaptive scaling' attuned to social and ecological specificities often will be required. The contextual nature of agroecology brings up a point to which we will return later: local knowledge and participation are essential in creating durable solutions.

A fourth gap in food systems research is full integration of social and ecological drivers and trends. These have too often been analysed, and methodologies developed to study them, by siloed researchers who may know that other kinds of data are important but who do not have the tools to collect or work with those data. Food systems are the epitome of socioecological systems and have always included both social and ecological/biophysical inputs and dynamics, yet analytical tools and concepts of socioecological systems that truly integrate social and ecological science perspectives are not yet mature.

The realisation that food systems are sites for socioecological analysis has come late to ecologists. For example, the Ecological Society of America only recently added a section on agroecology and still has no clear 'home' for food systems. The British Ecological Society has a Special Interest group on Agricultural Ecology, but again nothing on

food systems. Oliver *et al.* (2018) nevertheless highlight the important lessons to be learned from socioecological analyses to understanding and addressing what they term 'undesirable resilience' in global food systems. Meanwhile, rich analyses of socioecological systems and resilience in other fields have often been dominated by ecological science concepts, and are slower to fully incorporate social science analytics around equity and power. Leach *et al.* (2018) seek to overcome this gap in offering a more fully integrated approach to equity in the Anthropocene, with potential applicability to food systems issues.

A fifth gap in food systems research is the analysis of influences associated with gender, socioeconomic status, ethnicity, and other forms of difference and discrimination. While the powerful role of gender and discrimination of various kinds has been recognised, populations are too often still treated homogeneously as if the same drivers affect everyone in the same ways. Data on food security, resource ownership, and access are not necessarily disaggregated by the factors that lead to disempowerment; and people who are marginalised seldom have a role in creating the tools for data collection or actually collecting and interpreting the data. Gender and other sources of marginalisation must be taken into account when analysing not just food production but also the effects of trends in food preparation, consumption, labour relations, and care. Such differences and factors are also essential to understand broader dynamics such as those associated with migration, displacement, and land grabbing – and why amidst these, some people cannot fight back to hold onto their territories.

IDS and IPES-Food have worked in various ways to fill these gaps, thereby helping to understand how food systems operate, how and for whom, and how change in food systems happens. We describe some of the directions pursued by the two groups in the next section. Food systems are the essential framework for analysis used by both groups, but political economy is not equivalent to systems analysis. Systems analysis at its best advances our transactional understanding of how political influence works, how decisions are made, and who benefits or loses from those decisions. These factors help illuminate whether and how change happens, and whether it is incremental or transformational. However, a fuller understanding of change can come from deeper attention to questions of power.

3 Transforming food systems: emerging interdisciplinary approaches

Soon after its formation, IPES-Food articulated a 'new science of food systems' as one of its first actions (IPES-Food 2015). This emphasised the need for systemic approaches, and including analyses of power in any study of food system change. Since then, the group has identified and analysed various lock-ins that prevent societies from transforming food systems, despite their negative consequences to health, quality of life, and ecological integrity (IPES-Food 2016). Concentration of all food system activities (sometimes by the same actors working across activities in vertical integration) is in the middle of these lock-ins and

contributes to each. The workshop provided an opportunity to build on and extend these analyses and approaches.

In the IDS–IPES-Food workshop and in complementary literature, we see a diversity of approaches to food system power and transformation. The plurality of approaches provides multifaceted lenses for examining social and political change, identifying different entry points for change, and understanding resistance to change. Thus how we understand and address power in food systems shapes the visions we can bring to food system transformation.

The relationship between power and innovation offers one valuable lens. For example, the presentations by John Thompson and Dominic Glover from IDS examined the role of innovation as a social choice that can be fuelled by diversity, pointing towards integrated seed sector development (in Thompson's case) and to changing how innovations are designed (in Glover's case) to better serve their agents. Emile Frison's presentation addressed innovation as arising from different ways of knowing, pointing to better integration of traditional and scientific knowledge. Subsequent discussion reflected the three 'D's of diversity, direction, and distribution of change identified in the STEPS Pathways approach (Leach *et al.* 2010; Stirling 2009), emphasising how innovation (in food systems as in other areas) can proceed in different directions with distributional implications for who gains or loses, whether according to gender, ethnicity, place, or other aspects of difference. Fostering diversity in plural innovation pathways can be a strategy to confront and undermine incumbent power and lock-ins to single, dominant systems.

A further conceptual lens focuses directly on the analysis of power. Here, workshop discussions drew usefully from the concept of the power cube[3] as presented by John Gaventa. This highlights how different forms (visible, invisible, and hidden) and spaces (closed, invited, and claimed) of power work together to facilitate or obstruct transformations. Foundations for an interdisciplinary political economy approach have deep intellectual roots, going back to the work of Karl Polanyi, Karl Marx, Antonio Gramsci, and other scholars who in different ways critiqued capitalism as a political/economic system during the early stages of industrialisation. Within recognised disciplines such as economics, sociology, anthropology, and political science, many people have grappled with the prerequisites and processes of social transformation, as introduced in a broad-brush survey within Anderson *et al.*'s article in this *IDS Bulletin*.

But only in the last few decades have cross-disciplinary groups come together to analyse transformation as a subject in its own right. Here, diverse approaches have emerged, aligned with different theories of change. A recent review by the STEPS Centre (Scoones *et al.* 2018) distinguishes between 'systemic', 'structural', and 'enabling' approaches in transformations to sustainability; a categorisation with relevance to our discussion of food system transformations.

Systemic approaches identify particular features of 'systems' (like 'levels' or 'actors') as targets for focused instrumental change, usually initiated by policy. One of the most influential concepts here comes from the field of sociotechnical system transitions. The 'Multi-Level Perspective' (MLP, first introduced in Geels 2006) depicts niches of innovation moving into the dominant sociotechnical regime and changing its culture and science, influenced by the exogenous sociotechnical landscape. While the MLP has generated a large number of applications, it is not a very satisfactory explanation of the political economy of food systems. It fails to explicate why some niches succeed and others fail, and how the existing power dynamics of the landscape can repel transformation. More recent applications have extended the approach to focus more on the social and political dimensions of change (Geels 2014), as well as tackling how change is resisted. But a focus on particular system categories – like 'actors' and 'levels' – is retained, as is a commitment to policy change through incentives, investments, and policy initiatives.

Structural approaches focus on deeper changes in the perceived underlying foundations of politics, economy, and society. Included here are classical political economy analyses such as those of Marx and Gramsci, both of whom emphasised the overturning of established structures through revolutionary change. Structural-historical approaches emphasise the importance of history; Polanyi begins with this in his analyses, highlighting how key moments, or conjunctures, are important in generating crises and tensions, but also new inspirations and movements for change. History is also fundamental to food regimes analysis. In contrast, the MLP pays little attention to history, and thus to the unique contextual configurations of niches and landscapes. Historical analyses of transformations have a common concern with wider structural change, occurring through radical, sometimes revolutionary, shifts in power and control at key moments.

In contrast again, 'enabling' approaches refer to those emphasising diverse forms of agency (the deliberate exercise of will) in choosing directions for and bringing about transformative change (Scoones *et al.* 2018; O'Brien 2015). Here, opportunities are recognised for transformations that originate in smaller actions, including by excluded and marginalised people. Plural forms of power may be exercised in diverse spaces, including through individual and collective action. Much work in both IPES-Food and IDS has taken such approaches to explore how transformations can emerge 'from below', including through social movements such as those around food sovereignty. In the workshop, for example, Yan Hairong provided an example of a community cooperative leading change in China, fostering women's empowerment, renewed social and economic roles for youth in the countryside, and the decommodification of food. This kind of transformation will inevitably take different forms in different settings, and is often characterised less by control, than by an unruly and often adversarial politics of citizen mobilisation.

These different approaches might be seen to suit different aspects of food system transformation, and different contexts. For instance, our workshop discussions considered whether a single transformation theory applies well to food systems in both the global North and South. Our participants hypothesised that the MLP fits transitions in the global North better, where there is usually a powerful incumbent regime. Politics in the global South are seen more as connecting or mobilising agonistic politics, leading to strategies for mobilisation. Managerial-style transition theories do not fit these more polycentric politics or dispersed rural settings, where there is a need to go beyond formal governance to understand and address diverse, informal social and political institutions. Yet, we also acknowledged that such distinctions may be overblown – as we see citizen mobilisation emerging in all settings, albeit taking different forms. We may also find that the global North/South distinction is less useful for the political economy of food systems as consumption patterns converge around the world, with the expansion of supermarkets and the networks of feedlots, global supply chains, and globalised food manufacturers that turn raw ingredients into foodstuffs. Yet despite this convergence, stark contrasts remain: for example, the demand for nutrition-based foods results in nutriceuticals and fitness foods in wealthy countries, and Plumpy'Nut or other ready-to-use therapeutic foods for famine victims in poor and conflict-ridden countries.

Across these different approaches, we can point to important cross-cutting distinctions in understandings of power and transformation; more will become apparent over time. Whether change is initiated from the bottom or the top makes a big difference in who is ultimately enabled (or emancipated) or further controlled and limited in their options. Sources of, and diverse politics of, knowledge also figure as cross-cutting distinctions, posing questions around whose knowledge counts and who benefits from that knowledge. At the extreme, for instance, the transformative power of indigenous cosmologies rooted in the deep interdependence of humans with their surroundings contrasts powerfully with big-data-driven assumptions of the World Economic Forum or futuristic visions of technological innovation such as lab-grown meat and robots working in fields. Arguably, the latter will only exacerbate the existing rift in our two-tiered food system, in which wealthy people have access to the best and most sustainable food options, while poor people make do with unhealthy food that is produced in environmentally and socially destructive ways.

We suggest cross-cutting principles to guide this interdisciplinary approach to food system transformation. There will always be plural pathways within the broad parameters of sustainability, equity, and justice, reflecting the diversity of contexts and histories, and retaining this plurality is essential. Yet those parameters must be set conscientiously to avoid a kind of 'political economy relativism' that accepts different approaches too readily. The ends of transformation must be determined in a participatory way, with the voices of people who are systematically disempowered within the current dominant food system elevated and

amplified. The indicators of success that we choose must reflect those ends, and not be used merely because they are relatively easy to measure or have been used before. We must be wary of the self-reinforcing nature of trajectories of change that limit the array of alternatives and allocate power to incumbents, and keep questioning the boundaries set on what is possible. And finally, in analysis as well as in interventions, respectful collaboration is needed to ensure that different perspectives are aired and assumptions are constantly tested.

4 Engaged political economy – opportunities and challenges

Both IDS and IPES-Food have been adamant about the need not just for interdisciplinary approaches to the political economy of food systems – those that integrate social and ecological science, for instance – but also for transdisciplinary approaches that directly involve people from affected communities in figuring out how to make change. For IPES-Food, this means that a substantial proportion of panellists must come from non-governmental organisations or work directly with social movements; and all panellists must recognise the unique added value of incorporating social movement perspectives in choosing which issues to address, analysing those issues, and developing recommendations for how to deal with them.

Social movements often comprise or represent the people who are most affected by the negative consequences of food systems, whether these are hunger, rights violations of workers, pollution from industrial livestock facilities, or dispossession of land through government- or corporate-sponsored land grabs. Therefore, they bring especially important perspectives to problem identification and analysis, and the search for and implementation of solutions. For IDS, transdisciplinary work aligns with the Institute's distinctive 'engaged excellence' approach to development studies, applied across all the issues it works on (Leach, Gaventa and Oswald 2017). In this, the high quality of work (excellence) depends on it linking to and involving those who are at the heart of desirable change, whether citizens, civil society actors, or enlightened businesses and government agencies. Participatory action research approaches, Transformation Labs, and research approaches co-designed and delivered with marginalised people are amongst examples of such approaches in action.

Building on and illustrating these commitments, in this *IDS Bulletin* and through the workshop we co-sponsored, we see the seeds of an 'engaged political economy' approach to food system transformation. Engagement immediately brings up questions about advocacy versus objectivity: since both IPES-Food and IDS are interested in directional change and clear that they see specific changes as desirable, are they compromising their ability to be dispassionate observers of transformation and clear-headed analysts? Our response is that knowledge is always socially constructed, which means that no scholarship is truly 'objective' – or to put it another way, a more robust approach to 'objectivity' lies in acknowledging and making explicit

one's partiality; this is a route to what feminist critics of science such as Harding (1995) term 'strong objectivity'. Furthermore, scholars can also be activists without diminishing their ability to conduct useful and insightful analysis. Many participants in IPES-Food and IDS identify themselves as activists or practitioners; they see the richness of experience gained from direct interaction with activists improving their scholarship, rather than detracting from it.

Just as interdisciplinary work allows new insights into social transformation, in comparison with work from single disciplines, so transdisciplinary work permits scholars to apprehend transformation from much closer to the perspectives of social actors, be they farmers, members of civil society, consumers, business owners, or policymakers. It is in co-construction of knowledge that we can most clearly see pathways to lasting social and political change.

Characteristics of an engaged political economy include alliances between researchers and activists or blended identities of scholars and activists; strong contributions from practitioners; recognition of different yet equally valid ways of knowing, and active seeking-out of knowledge based on different cosmologies or locales. This requires a blurring of boundaries set by professional societies and institutions, which commonly overvalue 'scientific' knowledge and research published in certain journals at the expense of local, indigenous, and interdisciplinary knowledge. And although we are convinced of the added value of transdisciplinarity and participatory action research, it is important to note that many institutions of research and higher education do not provide supportive environments for this work, nor recognise in promotions or other institutional reward structures the added time that it requires. This form of work requires respect for researchers and practitioners with diverse backgrounds and styles of work. It also requires humility, reflexivity, and the capacity to hear and respond to challenges to one's cherished assumptions. That is, to confront power in the food system, one must also confront the assumptions and hierarchies that divide researchers from different disciplines and divide researchers from practitioners.

Some of the most pervasive and pernicious assumptions that must be confronted are those underlying neoliberal economic and political systems, such as the beliefs that people make rational choices and that allowing self-interest to dominate will result in the greatest good for society. Acceptance of unlimited wealth by individuals as tolerable – or even laudable – and failure to impose curbs through social policy on personal aggrandisement have resulted in the vast inequities that are now apparent in the food system. We are not saying that power always and necessarily corrupts, but that failure to be reflexive about one's own power as an analyst, to recognise abuses of power, and to rein these in have led to unsustainable and inequitable operations that continue to favour the few.

There are many implications of an engaged political economy for how research can be done. We are not alone in looking for ways that food systems research should change, of course: Levkoe, Brem-Wilson and Anderson (2018) recently examined how a commitment to food sovereignty pushed their research to focus more on people, equalising power relations, and orienting towards transformation. Scholars within the Agroecology Research-Action Collective and others working on food sovereignty, such as the Centre on Agroecology, Water, and Resilience at Coventry University, have recognised that the kinds of research and dissemination that dominate institutions of higher education do not suffice to enable food system transformation. This recognition inspired Maywa Montenegro de Wit and Alastair Iles to explore how to legitimise agroecology research (2016). Participatory research is at the forefront of changing research approaches through mutually beneficial collaboration which changes the researcher as much as the conditions under which the research takes place and the ensuing results. But this orientation to research is still not mainstream, even though the challenges that food systems face are seldom amenable to being solved through other research approaches and certainly not to a search for a single correct solution.

Because of the socioecological nature of food systems, their complexity, and differences across regions and populations, we need new tools and heuristics that can help with analysis. The power cube, as an early approach to analysing power and figuring out appropriate ways to disrupt it, has been widely adopted; other tools will help to pry open other facets of power in the food system.

Engaged political economy deals with resistance to incumbent power as well as analysis. At present, the middle of the food chain (consisting largely of big, vertically and horizontally integrated corporations that control processing, manufacture, distribution/trading, and retailing) drives the future of farmers through controlling price and quality specifications, and the options available to consumers through controlling what is displayed on supermarket shelves. Political economy must interrogate that power, beginning with questions about who should be considered as part of the 'private sector'. Should this include commercial farms, small-scale businesses, social innovators, and co-operatives? In fact, there is a great deal of diversity among private entrepreneurs in values, how they operate, and their impacts. Yet the largest corporations have undue power to control the terms of debate and sit in the forums where food system futures are debated. They have cosy relationships with many governments, which act to support private interests rather than their citizens.

There are many options available for tackling power imbalances, including confrontation, negotiation, leading by example, waiting for new forms of power to emerge and supporting them, empowering communities with food democracy, exploring invisible power such as digital public spaces, and building new narratives that value social innovation. Existing

food system power must be distributed more equitably, but how that will happen most effectively has little agreement. Evidence can be a useful tool for political advocacy, but will not shift policy processes on its own. Framing, and discourse to get the framing right, are therefore important in driving change towards sustainability and equity.

Engaged political economy is also needed in the realm of food system governance. Although ensuring health and healthy food systems is a governmental responsibility, many governments have abdicated from that role. In many societies, a breach of trust in government is driving the creation of alternative food systems. The breach of trust is due most often to governmental negligence in reining in corporate power and political influence, such as by failing to implement anti-trust law that should have prevented the rapid consolidation of agribusinesses that has occurred over the last couple of decades. Increasing the power of civil society in governance provides a counterbalance to excessive corporate influence (Andrée *et al.* 2019) and can be a watchdog when government is failing to prioritise the public good. Businesses are also trying to respond to the demand for healthier food systems, but do not generally see health as their primary responsibility. Good governance is critical for ensuring accountability: if nobody owns or stewards the system and its ends, nobody is accountable. While state-led entrepreneurship can be critical to lay down the infrastructure needed for new food systems, co-governance that includes civil society is needed to ensure that innovation and transformation serve their intended purposes.

5 Gaps and future challenges

Wide literatures are emerging which are relevant to the political economy of food systems. They address some of the issues covered in this *IDS Bulletin* and many more. What we heard at this workshop was broad and insightful, but was largely a function of the people we invited. They gave generously of their time and thoughts, but we are sure that bringing a different group together would have generated a different set of insights.

The presentations and discussion at the workshop and in this *IDS Bulletin* highlight many issues and areas of evidence, but also many gaps, questions, and challenges for the future. For instance, more work is clearly needed to track how systemic, structural, and enabling approaches to transformation might be applied to food systems, and combined in different settings. Innovation is also an important future focus. We hope that the study of innovation will broaden to encompass more social innovation, which we see as a promising step towards sustainability, justice, and equity. The role of technological innovation is perhaps more contentious: mobile phones in the hands of African farmers may deliver much-needed market or weather information, but at what cost? And what are the opportunity costs of investment in sophisticated technology for farmers rather than social innovation? Can technological innovation be open, such that it does not make users dependent on their devices or the creators of those devices for updates and input? Can it spur people to be more creative rather than

passive recipients of technology? At the least, it is clear that we need frameworks to assess technological innovation before wide adoption, by figuring out its potential for positive transformation and discerning the side-effects of such adoption.

Some of the other next steps that we envision for engaged political economy are more experimental spaces such as Transformation Labs, building on those set up by the STEPS Centre; an interactive platform to document transition and transformation initiatives; critical examination of funding flows for agricultural and food systems research; and the emergence of new transdisciplinary thinktanks that study food system transformation opportunities from the ground up and where top-down and bottom-up initiatives connect. Other next steps look comparatively across sectors: thus we need to understand better how and why policies resulting in positive changes for health, nutrition, gender equity, environmental stewardship, and other aspects of sustainability have worked, how, and for whom, and to bring these insights back to food systems. And still further steps are institutional: to prepare more scholars for engaged political economy, we need institutions of higher education that can create space in their curricula for training, mentoring, and field experience. The steps we envision build on each other and must be implemented in integrated ways to get the most possible benefit from them.

More broadly, there is a need to bring together approaches to political economy and power analysis, systems models, and transdiciplinarity as discussed in previous sections. While there is growing recognition of the opportunities (and challenges) associated with each of these, too often they are discussed separately. Food system transformation brings both an imperative and a lens to integrate them.

This work is difficult but necessary. The options ahead are stark: on the one hand, a continuation of dysfunctional systems of nourishing ourselves at the expense of wellbeing and the environment, and on the other hand, food systems that can serve as wedges into more equitable, harmonious, and sustainable societies. We hope that this *IDS Bulletin* will encourage other scholars and activists to take up this vital work, to enrich it, and carry it further.

Notes

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† This *IDS Bulletin* represents a collaboration between IDS and IPES-Food. Both organisations are committed to holistic, sustainable, democratic approaches to improving food systems, and to applying excellent research and political economy approaches in working towards these goals. We hope this *IDS Bulletin* represents the breadth of debate at the 2018 workshop we co-sponsored, on 'Political Economies of Sustainable Food Systems: Critical Approaches,

Agendas and Challenges', and that it contributes to the sharing of knowledge in the name of sustainable and equitable food systems.

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References

Andrée, P.; Clark, J.K.; Levkoe, C.Z. and Lowitt, K. (2019) *Civil Society and Social Movements in Food System Governance*, Abingdon: Routledge

Bonanno, A. and Busch, L. (eds) (2015) 'The International Political Economy of Agriculture and Food: An Introduction', in *Handbook of the International Political Economy of Agriculture and Food*, Cheltenham: Edward Elgar Publishing

European Environment Agency (2017) *Food in a Green Light: A Systems Approach to Sustainable Food*, EEA Report 16/2017, www.eea.europa.eu/publications/food-in-a-green-light (accessed 17 April 2019)

FAO (2018) *The 10 Elements of Agroecology: Guiding the Transition to Sustainable Food and Agricultural Systems*, Rome: Food and Agriculture Organization of the United Nations, www.fao.org/3/I9037EN/i9037en.pdf (accessed 17 April 2019)

FAO, IFAD, UNICEF, WFP and WHO (2018) *The State of Food Security and Nutrition in the World 2018: Building Climate Resilience for Food Security and Nutrition*, Rome: Food and Agriculture Organization of the United Nations

Geels, F.W. (2014) 'Regime Resistance against Low Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective', *Theory, Culture and Society* 31.5: 21–40

Geels, F.W. (2006) 'Major System Change through Stepwise Reconfiguration: A Multi-Level Analysis of the Transformation of American Factory Production (1850–1930)', *Technology in Society* 28.4: 445–76

Harding, S. (1995) 'Strong Objectivity: A Response to the New Objectivity Question', *Synthese* 104.3: 331–49

IPES-Food (2016) *From Uniformity to Diversity: A Paradigm Shift from Industrial Agriculture to Diversified Agroecological Systems*, Louvain-la-Neuve: International Panel of Experts on Sustainable Food Systems, www.ipes-food.org/_img/upload/files/UniformityToDiversity_FULL.pdf (accessed 17 April 2019)

IPES-Food (2015) *The New Science of Sustainable Food Systems: Overcoming Barriers to Food Systems Reform*, Louvain-la-Neuve: International Panel of Experts on Sustainable Food Systems, www.ipes-food.org/_img/upload/files/NewScienceofSusFood.pdf (accessed 17 April 2019)

Leach, M. *et al.* (2018) 'Equity and Sustainability in the Anthropocene: A Social-Ecological Systems Perspective on their Intertwined Futures', *Global Sustainability* 1.e13: 1–13

Leach, M.; Gaventa, J. and Oswald, K. (eds) (2017) 'Engaged Excellence', *IDS Bulletin* 47.6, http://dx.doi.org/10.19088/1968-2016.194 (accessed 17 April 2019)

Leach, M.; Scoones, I. and Stirling, A. (2010) *Dynamic Sustainabilities: Technology, Environment, Social Justice*, Abingdon: Earthscan

Levkoe, C.Z.; Brem-Wilson, J. and Anderson, C.R. (2018) 'People, Power, Change: Three Pillars of a Food Sovereignty Research Praxis', *Journal of Peasant Studies*: 1–24

Montenegro de Wit, M. and Iles, A. (2016) 'Toward Thick Legitimacy: Creating a Web of Legitimacy for Agroecology', *Elementa: The Science of the Anthropocene* 4: 000115

O'Brien, K. (2015) 'Political Agency: The Key to Tackling Climate Change', *Science* 350.6265: 1170–71

Oliver, T.H. *et al.* (2018) 'Overcoming Undesirable Resilience in the Global Food System', *Global Sustainability* 1.e9: 1–9, https://doi.org/10.1017/sus.2018.9 (accessed 17 April 2019)

Scoones, I. *et al.* (2018) *Transformations to Sustainability*, STEPS Working Paper 104, Brighton: STEPS Centre

Scoones, I.; Leach, M. and Newell, P. (eds) (2015) *The Politics of Green Transformations*, Abingdon: Routledge

Steffen, W. *et al.* (2015) 'Planetary Boundaries: Guiding Human Development on a Changing Planet', *Science* 347.6223: 736–47

Stirling, A. (2009) *Direction, Distribution and Diversity! Pluralising Progress in Innovation, Sustainability and Development*, STEPS Working Paper 32, Brighton: STEPS Centre

WHO (2018) *Obesity and Overweight*, Fact Sheet, World Health Organization, www.who.int/news-room/fact-sheets/detail/obesity-and-overweight (accessed 17 April 2019)