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ISSC 'Transformations to Sustainability' Programme Concept Note

## **Transformations to Sustainable Food Systems in Brighton and Hove: Towards a Shared Research Agenda**

Based on discussions at a co-design workshop on 21<sup>st</sup> January, 2015

### **Introduction**

The STEPS Centre (Social, Technological and Environmental Pathways to Sustainability) is a global research and policy engagement centre based at the University of Sussex, bringing together development studies and science & technology studies. STEPS is currently developing an international consortium with partners from Africa, Latin America, East and South Asia, Europe and North America that will build upon its 'pathways' approach (Leach et al 2010) in research and action across these different settings. As part of this strategy, STEPS has received a small amount of funding from the International Social Science Council (ISSC) to develop a 'Transformative Knowledge Network' proposal. This will be submitted by the end of March to the ISSC's 'Transformations to Sustainability' programme, with the possibility of supporting aspects of the STEPS consortium's work for the coming two-three years.

The proposed 'Constructing Pathways to Sustainability' Transformative Knowledge Network focusses on both understanding and responding to sustainability challenges across three areas: water and waste in sustainable cities; low carbon energy transitions for the poor; and sustainable agricultural and food systems for healthy livelihoods. It draws on cutting-edge social science from around the world, bringing together researchers and knowledge partners from across each region to learn across regions and disciplines in the broader search for transformations to sustainability.

This document outlines initial thoughts regarding a possible associated research project on transformations to sustainable food systems in Brighton and Hove, based on discussions at a co-design workshop held in Brighton on 21<sup>st</sup> January 2015. As well as members from the STEPS Centre and Stockholm Resilience Centre, both members of the ISSC seed-funded 'Constructing Pathways to Sustainability' network, the event brought together stakeholders from local, national and international levels. These included academic networks associated with the ARTS project (Accelerating and Rescaling Transitions towards Sustainability)<sup>1</sup>, SLRG (the Sustainable Lifestyles Research Group)<sup>2</sup>, BSUFN (Brighton and Sussex Universities Food Network)<sup>3</sup> and researchers at the two institutions at the University of Sussex that make up STEPS (SPRU – Science Policy Research Unit<sup>4</sup> and the Institute of Development Studies)<sup>5</sup>. It also included representatives of local firms, growers (both independent and from community groups) and civil society organisations such as

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<sup>1</sup> <http://acceleratingtransitions.eu/>

<sup>2</sup> <http://www.sustainablelifestyles.ac.uk/>

<sup>3</sup> <https://bsufn.wordpress.com/>

<sup>4</sup> <http://www.sussex.ac.uk/spru/>

<sup>5</sup> <http://www.ids.ac.uk/>

Brighton & Hove Food Partnership<sup>6</sup>, Brighton Permaculture Trust<sup>7</sup> and the Landworkers Alliance (LWA)<sup>8</sup>, a UK farming organisation affiliated to *Via Campesina* (an international network representing 200 million smallholders around the world). Researchers from the Centre for Research on Transformation (CENIT) in Argentina will be working in partnership with the STEPS global consortium (including through the proposed ISSC network) and joined part of the meeting by Skype.

### **Sustainability Challenges for Brighton and Hove's Food System**

The discussions at the workshop first asked the question "does it make sense to talk about a food system in Brighton and Hove?" Pointing towards the interconnectedness with food systems at larger scales, a number of participants pointed to increasing flows of food into the city from other areas. These links between national and international systems (including policies) and the constraints that they had on sustainability decisions locally were identified as an important component of any potential research project. At the same time, it was felt that Brighton and Hove, due to its relative dynamism in this arena and a range of specific conditions, provided a sensible focus for future research.

Previous research has highlighted the sustainability challenges associated with the city's food system. Among other issues related to food waste, nutrition and diet, Brighton and Hove Food Partnership's 2012 strategy 'Spade to Spoon: Digging Deeper' (BHFP 2012) stated:

- "26% of the city's ecological footprint (the amount of land and resources we use) relates to food (also known as the city's 'foodprint')"
- "To produce enough food to feed the population of Brighton & Hove we need approximately 70,000 hectares of productive agricultural land. Each year the food produced on that land requires approximately 750,000 barrels of oil and almost 625 million tonnes of fresh water. In all, this generates an estimated half-a million tonnes of greenhouse gases."
- "We have about half the number of recommended allotment plots. The total number of plots at the beginning of 2011 was 2,795, which is 10.9 per 1,000 people. There are 1,6124 residents on the waiting list."
- "The infrastructure supporting the local food supply chain is not as advanced as in some regions which have developed local distribution centres, established cooperative wholesalers and invested in local processing (e.g. mills or abattoirs)."
- "Over recent years, the number of Brighton & Hove residents employed in agriculture has fallen by 40% (the average UK drop is closer to 20%)."

A broad range of organisations are working to address these challenges in the city itself. Brighton and Hove City Council are the major body responsible for planning, food safety and registration of food businesses and are committed to a 'One Planet' approach ([oneplanetliving.org](http://oneplanetliving.org)), which includes local and sustainable food. Civil society is also playing a more active role than in many cities in the UK. Working with partners including community organisations, statutory agencies, local businesses and individual residents, Brighton and Hove Food Partnership aims sets out a vision for a food system that is healthy, sustainable and fair.

The city itself is surrounded by a productive marine environment to the South and endangered chalk downland habitats to the North. Two recent events have led to increased attention to biodiversity conservation and wider sustainability issues in the area (including agricultural land). In April 2011, the South Downs National Park became operational (South Downs National Park Authority 2012), bringing a shift in responsibility for planning to the wider area. About 40% of Brighton and Hove is in the boundaries of the national park. In June 2014, Brighton and Lewes Downs (including the city of

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<sup>6</sup> <http://bhfood.org.uk/>

<sup>7</sup> <https://brightonpermaculture.org.uk/>

<sup>8</sup> <http://landworkersalliance.org.uk/>

Brighton and Hove and the county town of Lewes) became the first completely new World Biosphere site established in the UK for almost 40 years. Both Brighton and Sussex Universities (as well as Brighton and Hove Food Partnership and the South Downs National Park Authority) are members of the Brighton and Lewes Downs Biosphere Partnership. Research undertaken as part of these initiatives provides data that serve to inform the proposed study.

### **The food system in Brighton and Hove in historical perspective**

Understanding and constructing potential pathways to a sustainable food system in Brighton and Hove requires an appreciation of the historical context in which they are emerging. At the same time, the current configuration of food production and distribution has come about over a number of decades (or centuries), and further developments are constrained by existing infrastructures, knowledge and power relations. As one participant at the workshop put it “we are where we are – we need to start from here and make changes from the base of understanding the system”.

Over the centuries, agricultural practices around Sussex have produced valuable habitats including chalk downland and lowland heath. Land tenure has also played a role in determining current patterns of land use, with five large estates owning 13.9% of the National Park area and shaping the landscape and the local economy to the present day. 40% of farmland in the National Park is currently rented. At a national level, one third of the UK’s farm ‘holders’ are now over 65 years of age and new farmers often inherit land. If the next generation choose alternative professions, it is often the case that holdings are purchased and ‘consolidated’ into large farms, or alternatively (in the South-East in particular) turned over to what one participant called “horsiculture”.

Policies at the national and local levels have also played a role in driving certain pathways of change and constraining others. At the national level, post-war policies (such as the 1947 and subsequent Agriculture Acts) focussed on maintaining farm incomes and security of food supplies through price guarantees of subsidies. Locally, water conservation and food security concerns in the same period contributed to shaping current regulation and planning policies, including the stewardship role played by tenant farmers. Aside from the ecosystem services and landscape benefits provided by these farms, arable production in the area surrounding Brighton and Hove is not insignificant. The percentage area of the South Downs National Park area sown to crops and fallow increased from 24 per cent in 1940 to 44 per cent in 2010 (South Downs National Park Authority 2012). Defra’s Agricultural Census data report (June 2010) suggests that sixty-four per cent of the cropped area is down to cereals, while other arable crops – mainly oil seed rape – account for a further 30 per cent of the cropped area, along with other crops such as brassicas, field beans, peas and maize (South Downs National Park Authority 2012). Livestock numbers changed little between 2009 and 2012, when there were 126,333 sheep, 45,356 cattle and 17,080 pigs in the park (although no abattoirs or major livestock markets)(South Downs National Park Authority 2012).

### **Interacting pathways of change: actors and framings**

The STEPS Centre’s pathways approach tries to understand the directions in which interacting social, technological and environmental systems are moving, to identify previously under-appreciated alternative pathways and to make those more visible. A dominant ‘pathway’ that continues to exacerbate the sustainability challenges described above is represented by the market-driven consolidation of both production and supply chains leading to ever larger-scale (and less local) production and serving national (or international) supermarket chains. This process is relatively well-researched and understood at the national scale. Partly as a result of such consolidation, 41,000 (around 14%) of the UK’s farms are larger than 100 hectares and account for over 65% of the agricultural area (UK Food Group 2010). This trend is being driven not only by the structure of the agri-food industry (favouring economies of scale and highly regulated supplies) but also diminishing skills amongst the younger generation and high land prices that inhibit the establishment of small

and medium-sized farm enterprises (especially significant in the South East and the area surrounding Brighton and Hove). Concentration of ownership of land is mirrored by concentration of ownership and appropriation of natural resources more broadly, with the privatisation of genetic resources in the seed sector a prominent illustration of this (and one that forms a focus of the proposed work in Argentina). Participants mentioned the threat to genetic diversity and heritage seeds posed by the potential developments in European seeds regulations.

The second relatively well-studied 'pathway' in Brighton and Hove is that around small-scale communal growing initiatives, supported not only by the market but by a range of grants and policies from local or national sources. These initiatives (of which Whitehawk Community Food Project would be an example) highlight the multifunctional nature of growing and represent more sustainable alternatives. They provide benefits not only in terms of production, but also serve educational and therapeutic goals, benefitting the community at the health/food nexus. In October 2012 Whitehawk Community Food project were awarded an 'Outstanding' rating from OFSTED for a weekly gardening session provided for autistic young adults. Brighton and Hove Food Partnership currently lists over 70 community gardens and orchards across the city. The diversity existing within these 'grassroots innovation niches' and the synergies between them, as well as the role of intermediaries in translating short term shocks to longer-term stresses, have been found to be important in sustaining such alternative pathways (White and Stirling 2013). At the same time, due to insufficient access to land and a range of other constraints and disincentives, the contribution that this pathway can make to serving the city's food supply is limited.

The proposed study will build on our understanding of how these pathways interact, but focus on what we term the "missing middle" – the role of slightly larger, commercial scale farms that can potentially serve the local area in significant volumes and can act as sites for experimentation and innovation towards sustainable food systems (not only in production techniques but in supply chain experimentation such as farmdrop or box schemes). Studies of the history of organic farming in the UK (Smith 2006) suggest that niches are more likely to influence mainstream change when they show a degree of compatibility with the incumbent regime. 65% of holdings in the South Downs National Park are less than 100Ha in size (South Downs National Park Authority 2012), but the extent to which these serve Brighton and Hove, and the sustainability of their operations, is unclear. Examples of good practice, integrating sustainable production methods with local medium-sized supply chains (e.g. serving small, specialist wholefood supermarkets in Brighton and Hove) might point to lessons for other parts of the country. At the same time, these farms often provide a repository of local knowledge and practice built over many generations but at risk of decline. They contribute to diversity in the local food system and may have a role in building socio-ecological resilience for food security and sustainable development. The proposed research could conduct an initial survey into the role of medium-sized producers, their agricultural and supply practices, links with supply chains into the city (and elsewhere) and their potential contribution to 'Transformations to Sustainable Food Systems in Brighton and Hove'. Their contribution (as a niche) to sustainable agricultural practices could be compared with the situation in Brighton with other cities in the UK such as Bristol (Bristol Food Network), or London (Capital Growth, initiated by SUSTAIN), and investigated alongside other studies that have looked at the role of experimental niches in European transitions to sustainable food and agricultural systems (Sutherland et al 2015).

### **Policy levers at different scales**

Power and politics at local, national and international scales play important roles in determining which of these pathways flourish, and which decline. The commercial and other interests influencing policy decisions and the "rules of the game" can have a significant effect on the viability of small and middle-sized producers. The relevant policy frameworks (some of which are represented in the table overleaf) interact and serve to constrain or support decision-making at the level of Brighton and Hove. As one participant put it "if Monsanto writes the rules so what can you do?"

The breadth of relevant frameworks (far from exhaustive) illustrates the cross-cutting nature of food and the multi-functionality of agriculture (IAASTD 2009). Despite the multiplicity of relevant goals, the ways in which sustainability objectives are *framed* (the scale at which the system is viewed and bounded, whether sustainability is based on narrow biophysical metrics, or including wider social justice components) are subject to a 'politics of knowledge'. Situated knowledge is built on experience of growing and interacting with other actors within the community, and practices serve many objectives, but the policy system often boxes people in so they are viewed as "farmers", with a function framed primarily around productivity.

Figure 1. Relevant policy frameworks interacting at multiple levels

Scale	Agriculture	Sustainable Development	Business/ Trade
Local (Brighton and Hove and surrounding area)	South Downs National Parks Authority	Numerous interacting Brighton and Hove City Council initiatives, County Councils	Brighton and Hove City Council
National (United Kingdom government departments)	Department for Environment, Food and Rural Affairs (Defra)	Work under Defra and Department for International Development	Department for Business, Innovation and Skills
International (EU/ UN frameworks)	Common Agricultural Policy, UN Food and Agriculture Organisation	United Nations Sustainable Development Goals	European Union, World Trade Organisation

A second component of the study will be to map the interactions between these policy frameworks (or a subset of them) in an attempt to identify policy levers where changes might enable and support sustainability within the pathway in question. This multi-scalar approach builds on previous work within the STEPS Centre looking at policy interactions at local, national and international scales (Van Zwanenberg et al 2011) that investigated regulatory framings and the ways in which they aligned and diverged. Within the same ISSC network proposal, the Centre for Research on Transformation (CENIT) in Buenos Aires is focussing on the same theme of sustainable agricultural and food systems for healthy livelihoods. Dr Anabel Marin and Dr Patrick Van Zwanenberg contributed to the co-design meeting by outlining their proposed research on 'The Future of Seeds and Agriculture in Latin America', in which they are also working with international civil society groups like GRAIN and Acción de Plaguicidas de América Latina (Pesticide Action Network Latin America). Co-ordination between the European and Latin American efforts under the STEPS global consortium provides opportunities for comparative lesson-learning and multi-sited findings that can contribute to wider international debates.

A focus on civil society builds on STEPS Centre work on the role of grassroots innovation in contributing to green transformations (Smith and Ely 2015), as well as other work at SPRU (White and Stirling 2014, Durrant 2014). The role that civil society intermediaries can play in influencing such policies and facilitating their implementation is also a component of the ARTS project, in which individuals at SPRU are involved. As a third component, the ISSC proposal offers opportunities to expand this work to understand linkages between civil society action at local, national and international levels.

## **Trans-national engagement with policy processes and civil society**

The 'Constructing Pathways to Sustainability' network as a whole will adopt co-design, co-production and joint dissemination as core aspects of its work. The co-design workshop in Brighton provided a brief opportunity to develop a shared research agenda that responds to some of the questions identified jointly by researchers and stakeholders present. We are keen to take forward these ideas working alongside our colleagues at Sussex University, including those involved in BSUFN, the ARTS project and the Carrasso Foundation – funded project on Transitions to agro-ecological food systems: pathways to sustainability', led from IDS in partnership with the LWA.

At the same time, the Transformative Knowledge Network aims to bridge regional studies led by groups in Nairobi (Kenya), Delhi (India), Beijing (China), Arizona (USA) and Buenos Aires (Argentina). A key strength and opportunity of this kind of networked research is the opportunity to draw on trans-national comparisons and synergies when engaging with higher-level policy processes. In many cases these engagements are further facilitated by trans-national civil society networks (e.g. LWA's link with Via Campesina).

As the international community moves towards agreement on a set of 'Sustainable Development Goals' (SDGs) in September 2015, it is worth considering the role that the proposed project might play (as part of the wider Transformative Knowledge Network) in informing implementation at national and international levels.

The UK government is currently formulating its strategy for implementing the SDGs at a national level. The STEPS Centre has fed into this process through contributions to a number of parliamentary inquiries, emphasising the role that the UK can play in fostering more sustainable patterns of development (including consumption) domestically:

- Environment Audit Committee Inquiry on Sustainable Development Goals (2014)
- International Development Committee Inquiry – Post-2015 Development Goals (2012)

The STEPS Centre also contributed to the 'World We Want' Civil Society Dialogue with the High-level Panel on the Post-2015 Development Agenda' in 2013, which led to the High-Level Panel's initial suggestions for an indicative set of goals. This was subsequently taken forward by the Open Working Group on Sustainable Development Goals, which proposed 17 goals in June 2014. Of particular relevance to the proposal in question is proposed goal 1 "End hunger, achieve food security and adequate nutrition for all, and promote sustainable agriculture." The focus on consumption has been taken up in various ways, including through proposed goal 12 "Promote sustainable consumption and production patterns." The STEPS Centre will continue to engage with these policy debates at national and international levels (see <http://steps-centre.org/engagement/beyond2015/>), working alongside other efforts associated with the Future Earth platform (<http://www.futureearth.org/>), under which the ISSC 'Transformations to Sustainability' programme falls.

At a more local level, the STEPS Centre hopes to work with knowledge partners and stakeholders at various stages in conducting and communicating the proposed research, and in drawing out its links to higher-level policy processes. This concept note is a step towards laying out a shared agenda for doing so, and – as well as providing inputs to the STEPS submission to ISSC – could play a role in identifying shared questions that could be addressed by other proposals for joint research and engagement by the Universities and local and national groups working on food and agriculture.

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## References

BHFP (2012) Spade to Spoon: Digging Deeper, A food strategy and action plan for Brighton and Hove, Brighton and Hove Food Partnership

Brighton and Lewes Downs Biosphere (2014) <http://biospherehere.org.uk/>

Defra (2012) Agricultural and Horticultural Survey 2009 and 2010, Department of Environment, Food and Rural Affairs

Durrant, R. (2014) Civil Society in Sustainability Transitions of Food Systems, DPhil Thesis, University of Sussex

IAASTD (2009) *Towards Multifunctional Agriculture for Social, Environmental and Economic Sustainability*, International Assessment of Agricultural Knowledge, Science and Technology for Development

Leach, M., I. Scoones, and A. Stirling (2010) *Dynamic sustainabilities*, London, EarthScan

Olsson, P., C. Folke, V. Galaz, T. Hahn, and L. Schultz (2007) Enhancing the fit through adaptive co-management: creating and maintaining bridging functions for matching scales in the Kristianstads Vattenrike Biosphere Reserve Sweden. *Ecology and Society* 12(1): 28. [online] URL: <http://www.ecologyandsociety.org/vol12/iss1/art28/>

Scoones, I., Newell, P. & Leach, M. (eds)(2015) *The Politics of Green Transformations*, Routledge

Smith, A. (2006) "Green niches in sustainable development: the case of organic food in the United Kingdom" *Environment and Planning C: Government and Policy* 24: 439-458

Smith, A. and A. Ely (2015) "Green Transformations from Below? The Politics of Grassroots Innovation", Chapter 7 in Scoones, Newell and Leach (Eds) *The Politics of Green Transformations*, Abingdon, Routledge

South Downs National Park Authority (2012) State of the National Park 2012, accessed from <http://www.southdowns.gov.uk/about-us/state-of-the-national-park-report-2012>, 23<sup>rd</sup> January 2015

Sutherland, Lee-Ann, Ika Darnhofer, Geoff Wilson, Lukas Zagata (Eds)(2015) *Transition Pathways towards Sustainability in Agriculture: Case Studies from Europe*, CABI, Wallingford

UK Food Group (2010) "CAP's impact on productive structures and family-based agriculture in Europe: UK Case Study", EuropAfrica Project

Van Zwanenberg, P., A. Ely, and A. Smith (2011) *Regulating Technology: International Harmonisation and Local Realities*. London, Earthscan

White, R. and A. Stirling (2013) "Sustaining trajectories towards Sustainability: Dynamics and diversity in UK communal growing activities" *Global Environmental Change* 23(5): 838–846