

# The Domestic Nexus: interrogating the interlinked practices of water, energy and food consumption

Final report for the Nexus Network, January 2016

## Purpose

This partnership project set out to explore how the framing of 'the nexus' makes a difference to understanding practices of resource consumption in the home; and in turn to consider what difference understandings of home consumption practices can make to tackling the nexus. Our motivation sprang from recognition that most engagement with the nexus to date has focused on the supply side of water, energy and food. We contended that:

- The dynamics of consumption are fundamental to a holistic understanding of the nexus, as the systems of supply and distribution through which resource flows are ultimately rooted in demand for services and products
- The nexus of food, water and energy are as apparent at the domestic scale as anywhere else, being where systems of provision are brought together in the accomplishment of practices such as cooking or showering
- There exists abundant existing knowledge around the consumption of water, food and energy in relation to the dynamics of practices and their consequences for resource demand.

These rationales led us to present a series of three workshops over the autumn of 2015. The workshops were co-organised by the project team – Matt Watson (lead), Peter Jackson and Liz Sharp at University of Sheffield, and Dale Southerton, Alan Warde, Alison Browne and David Evans at University of Manchester. The project so brought together two leading groups of researchers working on consumption practices and sustainability.

## The Workshop Series

The series comprised three workshops designed to address key questions in pursuing the above agenda, as well as building a network across academic disciplines and beyond the academy.

The first workshop, at Sheffield in October, drew together contemporary understanding of domestic practices in relation to resource consumption across each specific domain. It did so with a thematic focus on transition (life course transitions) but also in terms of more socially shared cultural and technological changes. Zoe Sofoulis (University of West Sydney), Rebecca O'Connell (UCL Institute of Education) and Kate



fig 1

Burningham (University of Surrey) got things rolling with short presentations, sparking critical thinking around themes of home and transition. Elizabeth Shove (Lancaster University, Director of the DEMAND Centre) was unable to attend due to ill health but sent notes for us all with some incisive critical engagement with concepts including that of the nexus. After lunch, Will Medd facilitated an engaging and pressured process of collaborative analysis of a set of case studies of transition moments (fig 1). We did so with the imperative to use 'the nexus' as constructively as possible. Overall, the workshop was really satisfying as a serious go at working through the utility and challenges of engaging 'the nexus' with the profound complexity of inter-relations that characterises the kind of

understandings of domestic practices represented in the room. The day generated the core of reflections on both the nexus and the home discussed below.

The second workshop, in Manchester in November, explored the increasing range of newer and novel methodologies and analytical approaches being employed for understanding domestic practices, and in the afternoon went on to consider challenges of intervention into those practices. Ben Anderson (University of Southampton) and Jen Whillans (University of Manchester) each tackled quantitative approaches and the use of large data sets in a field traditionally addressed through qualitative methods. Bente Halkier (Roskilde University) took a critical approach to the challenges and potential of combining methods, while Lenneke Kuijer (TU Delft) brought design research approaches to bear on social science questions of practice change. Andrew Karvonen (University of Manchester) discussed a range of living and urban labs approaches in relation to tackling the nexus at home. Frank Boons (also Manchester) critically engaged our practice approach in relation to others including systems approaches and actor-network theory. Russell Hitchings (UCL) carried on the experimental theme with a project on disruption to routine cleanliness practices at festivals, before Dan Welch (Manchester) got us more deeply theoretically engaged with fundamental concepts of practice theory. In a day dense with presentations, Margit Keller (University of Tartu) set us a welcome workshop task (fig 2) part of the toolkit for intervention in her recent book. In the last session of the day, Tse-Hui Teh (UCL) addressed the relations between water infrastructures, variations and changes within practices, before Simon Marvin (University of Sheffield) demonstrated the power of autobiographical methods for interrogating change at once across personal, city and societal scales. The day generated a multiplicity of ideas and insights - particularly the range of methodological approaches and spheres of existing knowledge - that shed critical light on concepts and processes of change that are core to the Domestic Nexus project's central conventions.

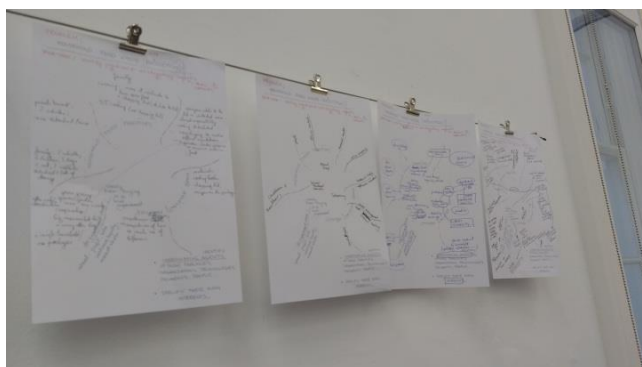


fig 2

The final workshop, in London in December, sought to push forward recurrent themes from earlier workshops in terms of engaging from a practice approach to the Domestic Nexus with policy and intervention. After an initial warmup activity (fig 3), members of the project team presented outcomes from the previous workshops as well as experience and thinking in relation to policy engagement. This was followed by consultant Andrew Darnton, drawing on his extensive experience of policy engagement with different social theory approaches, including the challenges and opportunities of implementing practice theory within policy. After lunch, Will Medd once again facilitated some creative engagement. We worked in groups comprising different disciplines



fig 3

and from within and beyond academia, to first come up ideas about how things could be different in relation to domestic resource consumption, then to consider the policy routes that would be needed to realise those ideas.

The workshops were recorded with summaries, slides and images at [nexusathome.wordpress.com](http://nexusathome.wordpress.com). The series also had a presence on twitter with the hashtag #nexusathome.

Each of the workshops was oversubscribed, with several external people attending more than one. Altogether 68 people participated in the workshops with 20 different Universities represented Roskilde, Aalborg, Bonn, Tartu and University of West Sydney, representing the international reach of the project. As discussed below, it was much easier to recruit academics to the workshops than people from beyond the academy, but over the series we had attendance from DECC, DEFRA, Food Standards Agency, Global Action Plan and Brook Lyndhurst, as well as the ESRC. The quality of the engagements with organisations outside of the academy built through the workshops provided the basis for the development of in-depth stakeholder engagement with the follow on research proposal, as detailed below.

## Key outcomes from the series

### 1. Status and value of 'the nexus'

On the status and value of the nexus, our first workshop set up lines of debate that recurred and developed over the workshops, and the processes of reflection and discussion between them.

On the one hand there were points of **deep scepticism about 'The Nexus'**, including that:

- The nexus is not a concept, an idea, or a distinctive way of thinking. Rather it is an observation of the fairly obvious fact that a certain bunch of fundamental resources are interlinked and interdependent, interlinkages that are often ignored within certain spheres of research and policy. Such observations of interdependencies are not 'new' from the perspective of critical social sciences – particularly those disciplines that address complexity and interdependence, assemblages, collectivises etc.
- The nexus is a new label for the old bottle of sustainability. This critique centres on what the concept of the Nexus restricts – that is while it highlights interdependencies in a way that appeals to technocratic management approaches – such a framing of environmental and resource interdependencies moves the debates quite far away from the social. That is, there a risk is that when applied as a conceptual framework 'The Nexus' potentially moves debate of environmental sustainability still further away from issues of power and politics, class and gender, and so on.
- The nexus may have some valence in the social sciences only because it was recognised as a potential pragmatic vehicle for demonstrating relevance - and accessing bits of funding streams - for better resources spheres of the physical and environmental sciences.

Beyond these obvious critiques, there were also a number of **positive evaluations**:

- The emphasis on interdependencies in the nexus should be seen as complementary to the emphases in social theory on complexity, heterogeneity, interdependencies and interconnections. Such complementarity potentially makes research and policy on the nexus a vehicle both for new ideas and new routes of engagement with different debates across the environmental and social sciences, and related policy areas.
- A lot of research in terms of practices and everyday home resource consumption is domain specific. Within the social sciences more generally, a nexus framing enables different insights to emerge beyond these existing domains of research, for example potentially enabling more joined up studies across the WEF domains.
- As our analytic working in workshop 1 demonstrated – and as also shown by the range of debates we had through the workshops overall – 'the nexus' is generative in pushing analysis in different directions (by searching for particular forms of inter-relation for example); and in bringing ideas and debates together in new ways.

- Acknowledging 'The Nexus' has the potential to thicken and deepen social scientific analysis, and to potentially enable a deeper engagement of critical social theory with broader debates related to sustainability and resource use
- It opens and maintains spaces for conversation and collaboration across academic disciplines and beyond academia

In terms of affinities between the nexus and social theory, we were particularly well placed to consider this in relation to practice theory. First, The Nexus and social theory have affinities in terms of emphasis upon relations and interdependencies – highlighted in for example the influential definition of a practice as a 'nexus of doings and sayings' (Schatzki). More tangibly, looking for the nexus of energy food and water in terms of domestic consumption helped to push forwards understandings of how domestic practices are in part constituted by the systems of resource supply on which they depend. We are confident that there is considerably more distance that can be gone in exploring this theme of how everyday practices link to linked ecologies of infrastructure and resource supply, in ways which will help to make clear how resource demand is constituted and how it can be challenged.

## **2. Reflections on 'the domestic'**

A subordinate but significant theme in the workshops, given their framing, was the status of the home, of households and of the domestic. This was a theme for critique right from the beginning, when Zoe Soufoulis' presentation critically opened up the home as multiple and porous. Repeatedly stressed over the workshops were themes such as: the distinction of households from simply the sum of individuals comprising it; the importance on intra-household dynamics, between people but also with nonhuman parts of the home; the significance of issues of power and gender in understanding dynamics of domestic practices.

## **3. Challenges and opportunities of interdisciplinarity in this field**

Recruiting from across disciplines within academia was not at all problematic. Participants in the workshops ranged from cultural studies, communication and media studies, design (urban, product), through sociology, geography, architecture and planning, urban studies, to innovation studies and engineering. Many participants, particularly those from more engineering oriented approaches, were already relatively experienced in interdisciplinary working, able to appreciate and communicate with social science and social scientists. A few participants did however find engaging with the broad intellectual agenda of the workshop series challenging. For workshops like this, with around 30 participants at a time and an ambitious agenda, it is inevitable that there is too little space to overcome the difficulties of communication that can arise for disciplinary divisions.

Overall, the interdisciplinarity of the workshops was very much generative, with perspectives particularly from engineering perspectives and design research, challenging and extending understandings of what how our core approaches could engage with the domestic nexus. For example, researchers within the practice theory field learned WEF research from other perspectives and about methods and forms of data which are not so far core to the approach. We are happy that, apart from retrospective reservations about the detail of the third workshop detailed below, our means of engagement was very successful at engendering interdisciplinary exchange at the same time as engaging a large number and diversity of participants.

## **4. Potential for practice approach to 'the domestic nexus' to engage with policy**

The partnership project brought together an impressive range of knowledge and direct experience of engagement with policy actors. This included both the core project team, who were able to share experience in meetings as well as in the workshops; but also many of the participants in the workshop, including academics, consultants and researchers within policy institutions. This is indicative of the small but growing interest in practice research from policy organisations, as they look for approaches additional to the

orthodoxy of individualistic behaviouralist understandings to address the scale of social and infrastructural sustainability challenges facing societies and cities. Awareness of practice theory and/or of key names in the field (including members of the team and their close colleagues) were significant in the recruitment of several workshop participants from policy organisations.

Despite this valence of our approach, it was challenging to recruit participants from beyond the academy. But the difficulty of getting policy actors to attend meant that even the final, policy oriented workshop had a large majority of academics amongst the participants. A number of issues are at stake here:

- People working in ministries or national regulatory bodies are time pressured and held to account for how they spend their time. While we sought to draw out the policy relevance of our work, the necessarily exploratory and collaboration based approach of the workshops meant they were what might be considered 'risky' as a time commitment, as the output is not clear from the start.
- The Nexus concept has limited impact in policy spheres. Many of the policy people in our workshops had not come across the concept of the WEF Nexus before receiving our invitation. Moreover, there was some suggestion of resistance to tackling the scale of interdependency signalled by the nexus when there is enough difficulty integrating policy adequately without that framing.
- More specifically, however, in retrospect details of the workshops, including the last, could have been improved. The workshop activities were perhaps too 'blue skies' in orientation and could have been better designed to enable genuine exchange between academics and policy actors. We also perhaps overestimated policy professionals' familiarity with the idea of the nexus. More focused discussions which at least started more clearly from where the policy professionals currently find themselves – in terms of issues, framings, levers for change and so on – could have enabled a more productive engagement.

However, several of the policy organisation participants have been keen to continue to engage with us. Since the final workshop, three attendees have organised meetings with members of the project team:

- DECC – Adam Roberts, Research & Insight, attended the third workshop. He subsequently organised a meeting at DECC, with Matt Watson and Peter Jackson meeting with Siobhan Campbell (Head of Evaluation and Joint Head of the Social Research Profession); Andy Charlesworth, researcher in the Smart Meters & Systems team; Mike Gentry, researcher in the Home Energy team; Sundas Ali, Danae Marshall and Eliette Riera, all in the Energy Strategy, Networks & Markets team. Collectively, we identified a range of topics of potential mutual interest in the course of discussing collaboration in the phase II project.
- DEFRA – Zoe Donkin, Food Policy Social Research, participated in our workshop series. She subsequently organised a meeting at Defra, sharing information about existing relevant work, including the current SLRG *Policy Dialogue* project, and suggested that in future collaboration it would be appropriate for us to work with Defra's Social Science Group, and its Social Science Advisory Committee.
- Food Standards Agency (FSA) - Helen Atkinson, Senior Research Officer also participated in the third workshop. Subsequently she organised a meeting with Matt Watson and Peter Jackson, and with her colleagues including: FSA Chief Scientific Advisor, Guy Poppy; Penny Bramwell, Director of Science Evidence and Research; Vanna Aldin, Head of Analytics; Sarah Hardy, Head of Chemical Contaminants and Residues Branch; and Dr James Ridsdale, Team Leader for Meat Hygiene Policy Team. We discussed various topics and there was particular enthusiasm here for inter-agency collaboration through the research we propose doing.

The workshop series also provided the basis for engaging with a fourth partner organisation:

- Waterwise - Jacob Tomkins, Managing Director met with Liz Sharp, and discussed topics of mutual interest, including identifying how water efficiency and fats, oils and grease in sewers are both of considerable concern not only to the UK water companies (funders of Waterwise) but also to the regulator, OFWAT.

So, while a relatively small number of policy professionals were reached by the workshops, the series was a success in engendering positive ongoing engagement with key organisations, around our intellectual agenda and research proposal development focused on the potential of a practice approach to the nexus at home.

## **How the workshop series led to development of the follow on proposal**

The workshop series demonstrated a number of points salient to the design of our follow on project:

1. It confirmed our initial contention that there is abundant existing knowledge on domestic practices and resource consumption. The range of approaches and studies that were represented in presentations and discussions did more than confirm this, introducing both different understandings and different approaches for the team.
2. It enabled critical interrogation of how this knowledge articulates with the nexus agenda. As detailed above, while grounds for cynicism were aired, overall there are good grounds for recognising affinities, and potential, for bringing practice theory together with a nexus approach to interrogate domestic practices and resource consumption.
3. It demonstrated the existing traction and potential of a practice approach as a basis for engagement with policy as it relates to governing domestic consumption. This was through the experience and knowledge of a wide range of existing engagements through the workshop series. However, it revealed the lack of evidence for a practice approach having noticeable effect in the formulation of policy problems or solutions.

In conceiving a proposal to meet the specification of for phase II of the partnership funding programme, there seemed little point in conducting a project based on fresh empirical work on household practices, as the scale of the project could make little impact in the face of existing knowledge and evidence. It was also clear that the difficulties of practice theory actively engaging policy is not a matter of presenting evidence from practice theory to policy makers, as that has been done already to a significant extent. We therefore identified a project aim of working collaboratively with a small number of policy partners around mutually defined topics of interest to marshal existing knowledge and evidence around those topics. This will become a basis for critically engaging with existing policy framings of those issues, and for seeking a more effective translation of the existing body of practice research in this field such that it can have useful effect in policy. The readiness of significant partners - DECC, DEFRA, FSA and Waterwise – indicates that the engagement process of the workshop series and subsequent meetings has enabled the project proposal and research agenda that is meaningful to both the academic team and policy actors.