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Does the planning system in England deliver a sustainable and resilient built environment? A study of the experience of town planners.

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Abstract

The case has been made in the reports of the Intergovernmental Panel on Climate Changes for the crucial role of the built environment in mitigating the worst excesses of a warming global climate and in protecting people through adaptation. Town planners are essential actors in delivering sustainable and resilient urbanism. Given that legislation is implemented by people, the study aimed to examine how town planners experienced and thought about the changing legislation and how they understood the concepts of 'sustainability' and 'resilience' in the built environment. Semi-structured interviews were conducted with 19 planners working in England who had at least seven years' experience. In the analysis, we explored meanings of sustainability and of resilience, and how these concepts were seen as incorporated in legislation. Sustainability was seen by the participants as embedded in regulations but its realisation varied substantially. Tensions were evident between the three pillars of environment, society and economy. 'Resilience' as a concept was poorly understood and legislative support was patchy at best: while flooding features extensively in local plans, wider issues of climate impact such as overheating are not comprehensively addressed. The conclusions are that planners are often frustrated in their attempts to develop a more sustainable built environment and that the current planning system is inadequate to deliver consistently sustainable and resilient outcomes. However, alignment between sustainability goals and professional identity were also noted, offering avenues to explore beyond the institutional constraints of legislation.

1. INTRODUCTION

The latest report of the IPCC, detailing the difference between a global mean surface temperature rise of 1.5˚C versus 2˚C above pre-industrial levels, carries stark evidence for a

world changed dramatically by global warming (IPCC, 2018). The term 'climate breakdown' has been suggested as an appropriate description of the degree of change underway. The level of risk depends, in part, on the extent of mitigation and adaptation that are pursued and both mitigation and adaptation are crucial. Even if global commitments to greenhouse gas emission reductions made as part of COP21 are achieved, global warming is still likely to surpass a 2˚C threshold (Rogelj et al., 2016). In the UK, risks have been identified from flooding, higher temperatures and extreme weather to people, business, infrastructure and buildings (DEFRA, 2017). A more resilient built environment has a key role to play in reducing vulnerability to risk and increasing capacity to recover in these domains (Lucon et al., 2014). Amongst the range of professionals involved in the delivery of the built environment, town (urban) planners are key (Jabareen, 2013). We examined the experience of planners in England in their role of delivering a sustainable and resilient built environment.

Defining what is meant by sustainability remains a challenge (Johnston et al., 2007). Within the built environment, assessment systems such as BREEAM recognise differences between infrastructure and buildings, new build and refurbishment, and include requirements in aspects including energy, materials, waste, pollution and well-being. Resilience has been seen as an aspect of sustainability, in that a sustainable system will also be resilient (Quigley, Blair, & Davison, 2018). The two terms however have taken somewhat different paths in academic and policy discourse (ibid.). Definitions of resilience of the built environment are still evolving. Earlier conceptualisations referred to capacity of an urban system to maintain its functions under disturbance (Gunderson & Holling, 2001). More recently, Quigley et al. (2018) suggest that definitions to date can be viewed as dichotomous. Definitions with what they term as an engineering focus define urban resilience in terms of robustness, ability to predict and plan, capacity to withstand disturbance and to return to the status quo in an efficient manner. In contrast, socio-ecological approaches to resilience emphasise capacity to adapt, to maintain function after disturbance while evolving through feedback and learning. Of importance in this and other recent papers is the notion of resilience as an approach which recognises the essential interconnectedness of social and ecological systems, and of urban places as non-linear, dynamic, complex systems (Porter & Davoudi, 2013). While resilience is seen as a useful concept for climate change adaptation by scholars, there is evidence that implementation of resilience thinking is not yet happening in practice (Funfgeld & McEvoy, 2013; Poku-Boansi & Cobbinah, 2018). While a number of studies have explored practical advances in Ghana, other African cities, Asian countries and the Netherlands, there is little current empirical work on progress in the UK.

In England, local authorities are responsible for determining what development may take place. In compliance with national policy, planners employed by local authorities gather evidence to develop local policy and manage its introduction, offer guidance on compliance, and provide judgement on applications for development. While they have 'delegated powers' to decide on typically small developments, their work is set within a wider context of local planning committees comprised of elected officials and a planning inspectorate which oversees appeals against planning judgements.

As the professionals who enact the planning regime, through application of national policy, formulation of local policy and judgements on development, planners have the

potential to be critical mediators of sustainability and resilience and to influence the extent to which these concepts are enacted in daily decision-making in the planning system. We sought to explore the experience of planners in England in relation to the goals of a sustainable and resilient built environment. The research questions were: To what extent does the planning system in England deliver a sustainable and resilient built environment, and what is the role of the town planners in its delivery?

2. METHOD

Experienced urban planners were recruited through communications with alumni of accredited programmes in planning at the authors' institutions, and through authors' professional networks. The recruitment advertisement sought planners with more than seven years' experience working in England. Semi-structured interviews were conducted during 2018 with a total of 19 planners. Their experience ranged from 7 to 19 years. All but one worked in local authorities and eight were women. Job titles encompassed Senior Planning Officer or equivalent (4), Principal (5) and Manager (5) as well as employer-specific titles. Four participants worked primarily in development management (control), seven worked in policy and six combined both (this categorisation was not applicable for two participants). Interviews lasted approximately 1 hour, were audio recorded and transcribed verbatim, and had prior ethical approval. The interview schedule included sections on meanings of professionalism and of sustainability and resilience, which are analysed here. Using NVivo, thematic analysis was conducted (Braun & Clarke, 2006). The accounts were read and re-read, and phrases, sentence or short sections relating to sustainability and resilience were coded. The codes were clustered into more general themes and the most relevant of these to the research question are outlined below. All names are pseudonyms to protect confidentiality.

3. FINDINGS

In this section, the theme of meaning of sustainability is presented, followed by responses to the concept of resilience.

3.1 Meanings of sustainability

The participants in general understood sustainability to encompass environment, social and economic aspects and described the challenges in seeking outcomes that satisfied all three dimensions.

> *It's the economic, the social and the environment, and making sure it's all balanced. The trouble is, one will often not be in balance with the other one, but our job is to try and make sure it's all balanced.* [Heidi]

However there was recognition that balance may be an ideal and in reality, there may be pressure to achieve housing, economic or political targets:

I suppose you've always got- the political angle as well is that something might not be in the best location, say, environmentally. But if it brings a lot of jobs then… You know, it's a tricky one. [Anne]

Examples were given of sustainability in the realm of transport, local economy and biodiversity. However, half of the participants questioned the usefulness of the term that has come to be seen as "*a form of tokenism…a buzzword*" [Gail]:

It's so elastic that it can mean anything to anyone… I would never do this, but you could almost write a committee report, or delegate a report sheet or whatever you were doing, and find and replace 'sustainable' with 'good', and it wouldn't actually make much difference, because that's how watered down the definition of sustainable has become [Kevin].

This lack of detail and precision in the term was linked to the participants' view of the core national policy document (National Planning Policy Framework, NPPF) as not useful, despite its stated objective of placing sustainable development as a core construct. The vagueness of critical concepts meant "*it's a lawyer's dream, because there's just so much you can interpret and fight the meaning of*" [Fliss]. Within a planning regime in which planners' decisions which are unacceptable to a stakeholder can be challenged in court, this implies that the policy is ultimately ineffective because "*it lacks teeth, and it means that, I would say, most planners are too scared to really rely on it as something they can resist [a scheme] on*" [Gail].

For the participants who described the NPPF in more positive terms, reference was made to local plans and it appeared that they used the NPPF to ensure compliance but relied more heavily on the local plan. Although one participant felt the NPPF was important and impactful in how it signalled a focus on sustainability, another pointed to an example where governmental policy direction was incompatible with climate change targets (support for gas extraction). In the absence of clear and strong national policy, "*it is just down to the planners, at the end of the day, to weigh everything up*" [Gail].

Several noted difficulties in implementation, including the contested definition and weak policy noted above, and one described the complexity of attempting to apply a high-level concept in practice on small projects: "*I think climate change is a really difficult thing to consider for an individual planning application*" [Charlotte].

Despite their dependence on inadequate policy, many of the participants saw planners as jointly responsible for the achievement of sustainable development. Planners were not seen as solely responsible: when asked who they viewed as responsible for delivering a sustainable built environment, the interviewees referred not only to central government but also to local government, council partners and specialist advisers such as Highways England. A few argued that everyone involved in the built environment shared responsibility, from citizens submitting a request for planning, to developers to advisers. The responses indicated a role for planners in sustainable development, alongside other stakeholders in the system.

The view that planners had an important role in achieving sustainability was echoed in a sense from many of the participants of a personal commitment to protecting the environment. For some, it was an overarching objective:

> *I'd like to think, as I go through my career, everything I do, every local plan I get through, every policy I help develop, every decision I input into will help me develop my ability to act as an advocate, really, for a sustainable built environment, for a resilient built environment, and natural environment*. [Gail]

The evidence was clear that most (though not all) of the participants pursued elements of a sustainability agenda from a sense of professional or personal commitment. They described fighting for greater biodiversity and protection of the green belt, water efficiency, more sustainable homes, fewer cars and eco-towns. This was evident in responses ranging from strong views on the need to reduce reliance on private cars to a more general aim to defend the natural environment where possible. In sum, "*you have to do your professional job in terms of you're trying to create sustainable places*" [Heidi]. For some, it was a goal linked to their professional identity: "*Because that's what I came into the profession to do. I wanted to make a difference*." [Fliss]. This is consistent with theoretical understanding of internalised motivation being linked to self-identity (Ryan & Deci, 2000) and points to close alignment between professional identity as a planner and commitment to sustainability goals.

3.3 Responses to resilience

When asked about the applicability of resilience in their work, there was no initial recognition of the concept by almost half of the participants and in a few cases, there was acknowledgement of lack of knowledge on the topic:

> *Researcher: I was wondering is resilience something that you do talk about and what it might mean for the built environment.*

> *Participant: Not really. As a word we don't really use that, so I'm not sure how I would apply it to planning. Yes, it's not a word that appears in any of our policies, that I know of, and it's not something that really crops up* [Ella]

However, more than half of the participants went on to provide some associations with the concept. Some confounded it with climate change mitigation and others referred to a wide range of factors including accessibility of homes, an ageing population, economic outcomes and biodiversity. Just over half connected the concept with a response to climate change, referring to planning for flooding, water stress and heatwaves. One talked about emergency planning and a number interpreted the concept in terms of future proofing, coping with adverse conditions and an ability to adapt: *"The ability for our developments to be able to mitigate, and adapt to, some of the issues is going to become more important."* [Debbie]. Of note here is positioning the issues around resilience in the future tense ("is going to become"), in the same way as [Kevin] says: *"we don't yet know what it means properly…But it's early days."* Understanding of resilience was markedly different to knowledge of sustainability, which all participants readily discussed and could explain how it was embedded in policy.

A small number of participants saw resilience as a concept with a broader meaning than preparing for climate breakdown, and incorporating flexibility to deal with change in market conditions and political contexts. One had attended the Royal Town Planning Institute (RTPI; the professional body of planners) information sessions on resilient cities and another saw it as a goal:

> *Coming back to resilience, it's a big part of what we're trying to achieve and it's a very useful way to view some of those issues and a way to group things together and get people thinking about that longer term* [Jack].

With the exception of this participant [Jack], there was little evidence of activity relating to resilience in planning work currently. Participants noted the absence of national policy and the corresponding gaps in local plans. Some also pointed to the challenge in development management of applying the overarching aims of resilience on a single development: *"We think very development specific, and the short term, in terms of from the point of receiving an application to granting consent, that's one of our thought processes really"* [Beth]. Where they offered a view on where responsibility lay for increasing resilience in the built environment, participants considered that planners had a role to play but that responsibility extended to all stakeholders:

> *I think it's a shared responsibility. I don't think that it resides in planners, though we have it. I don't think it's just a political thing though certainly politicians have a responsibility. I don't think there's anybody who's not touched by the issues of resilience.* [Jack]

4. DISCUSSION

In the current study, 19 planners in England were interviewed, each with at least seven years' experience, exploring the themes of sustainability, resilience and the planner's role.

The participants' accounts showed universal awareness of the ubiquitous definition of sustainability as requiring a balance between the 'triple bottom line' of environmental, social and economic sustainability (Elkington, 1997). However, there was acknowledgement of the challenges of delivering this balance in practice. These included political pressures such as the current focus on housing, the difficulty in applying the high-level concept of sustainability on specific planning applications, the vagueness of the term 'sustainability' and its amenability to differing interpretations, and the consequent ineffectiveness of national policy. Nonetheless, many of the participants positioned planners as sharing joint responsibility for delivery of a more sustainable built environment. A number of participants demonstrated strong personal commitment to the goals of sustainability and most, although not all, viewed delivery of a sustainable built environment as part of their professional identity. Identity theorists have argued that social structures, such as a profession, shape identities and that an individual identity represents subjective processes or responses to such external institutions (Burke & Stryker 2016). Thus to identify as a particular type of professional is to act in a manner consistent with that identity.

In contrast to sustainability however, the notion of resilience was not familiar to nearly half of participants, echoing recent work with planners in Ghana (Poku-Boansi & Cobbinah, 2018). When invited to consider the concept in interview, most could make some associations, more or less tenuously related to the term. Noticeably, the level of familiarity was markedly different from that of sustainability. There was little evidence of understanding of underlying principles of complex, non-linear, dynamic urban systems and of the relationship between social and ecological systems. The approach of 'resilience thinking', heralded as having the potential for a paradigm shift in planning (Shaw, 2013), was not evident. In a small number of cases, participants used the future tense, positioning resilience as something that will have to be addressed in the future. With strong current evidence for weather patterns affected by anthropogenic influence (Duffy & al., 2019) and the long-term impact of planners' decisions, as referenced by the participants themselves, this is a worrying finding. If planners today are not developing local policy and making judgements based on enhancing resilience, the impacts of the changing climate will have greater adverse impact into the future than could be the case.

In the UK, there has historically been a wide separation between town planning and health and emergency/disaster preparedness, with national policy being focused on civil emergencies (whether arising from accidents, natural hazards or human threats). Although the Planning and Compulsory Purchase Act of 2004 was meant to re-integrate health and wider concerns back into a new spatial planning approach, it would appear from the evidence here that this has had limited effect. It is possible that planning for climate change resilience may be being conducted within other functions of local authorities such as environmental health or emergency planning, and that there is greater knowledge and understanding in such areas. However, such an approach would indicate an engineering approach to resilience, that is, a reactive approach, planning to protect against change and aimed at returning a system to its original state with greatest efficiency. The potential benefits of an evolutionary approach, of developing learning, robustness, innovation and flexibility, are seemingly not being pursued. Resilient thinking, of necessity, should involve town planners, given the necessarily future-orientation of local development plans, which typically look 20-25 years ahead.

With few exceptions, there was little evidence of reference to urban resilience in national or local planning policies. However, the participants considered responsibility for sustainable and resilient environment to be shared, and to include planners, government and other stakeholders in the built environment. Although the evidence demonstrated lack of detailed knowledge and action, the theoretical framing of professional identity showed an underlying motivation is there.

5. CONCLUSION

The conclusion from the analysis is that while planners' professional identity drives a strong purpose of delivering social good, there are many challenges within the planning system to delivery of sustainability. On climate resilience, there is too little knowledge and awareness

for the concept to inform day-to-day planning policy and decisions. This holds important implications for the profession, its professional body and policy makers.

Current national legislation is by and large unhelpful to planners in delivering sustainability. The legislation should address directly the difficulties of definition and the inherent tensions in aiming for environmental, economic and social sustainability. Consistency in policy is needed which transparently meets national commitments including to COP21 targets, the Climate Change Act (2008) and the UN Sustainable Development Goals.

Development of the built environment is guided by planners' expertise and long-term view. If planners nationally are unaware of the predicted impacts of climate breakdown on urban and other development, then the built environment now and into the future is not being prepared for future risks. Led by the professional body (RTPI), and drawing on experts within relevant economic sectors and from academe, it is imperative that the predicted risks to the built environment from climate breakdown and principles around urban resilience are disseminated. Resilience thinking must become embedded in day-to-day work of planners.

National planning policy requires urgent updating to address climate resilience but policy changes are not only top-down. Without a bottom-up drive from planners and their representatives, national policy will not develop in the direction needed.

With adequate legislation, and knowledge of principles and approaches to resilience, the evidence from this study suggests that planners have the motivation, through their professional identity to serve the public good, to deliver a sustainable and resilient built environment.

Further questions to consider include: given the political context of planning, are professional knowledge and motivation alone sufficient to ensure that best practice is pursued and implemented? Is the current structure of planning departments and processes in itself part of the problem? What would a planning system look like, which consistently delivered sustainable and resilient development?

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