

Resilience and Change in the Aftermath of Floods: The case of Somerset

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Introduction

- Major UK floods; 1947; 1952/3; 1973; 1998; 2000; 2004; 2007; 2012; 2013/14
- At risk: 5.2 million homes
- Cost: £1.1 billion / €1.54 billion annually in flood damages
£2.34 billion/ €3.26 billion 2011 – 2015 on flood and coastal defense
- UK climate projections - increased flood events



2013/14 Winter Floods and Change

- Previous research has theorised that events offer opportunity for change (Kingdon, 1995; Baumgartner and Jones, 1993) as assemblages of publics, knowledge and politics are brought into view
- Flood events have been identified as catalysts for the transformation of environmental policy and human behaviour (Johnson et al. 2004; 2005; Spence et al. 2011)
- How do the dynamic processes of reframing that occur in the *immediate aftermath of flood events* determine the extent of change **and** continuity in public policy and FRM practice? And what are the implications over the longer-term?

Resilience and Adaptive Capacity

“The concept of adaptive capacity remains contested, but can be broadly defined as the ability of individuals, communities, organizations, nations and other actors to adapt to the current and likely future effects of changes in the global climate” (Williams et al. 2015)

Resilience, Adaptation and Justice

- Publics are deeply implicated in the development and deployment of adaptation strategies – citizens/voting; regulation; private scale adaptations (Adger, 2008; Klinsky et al. 2012)
- Evidence of existing public conflict around proposed adaptation strategies (e.g. Butler and Pidgeon, 2011)
- Vital to engage with publics on adaptation as they ‘may bring novel information or perspectives into the discussion’ (Klinsky et al., 2012: 863 - Wynne, 1992; Leach et al. 2005).
- Importance of engagement with a wider set of framings for delivering adaptation outcomes that are ‘just’ (Adger et al. 2011; Leach et al. 2011)



Photo: Matilda Temperley

In-depth longitudinal research – Somerset case study

Semi-structured interviews with flood affected public (n=36 x 2),
flood professionals (n=28 x 2), August 2014 - May 2015

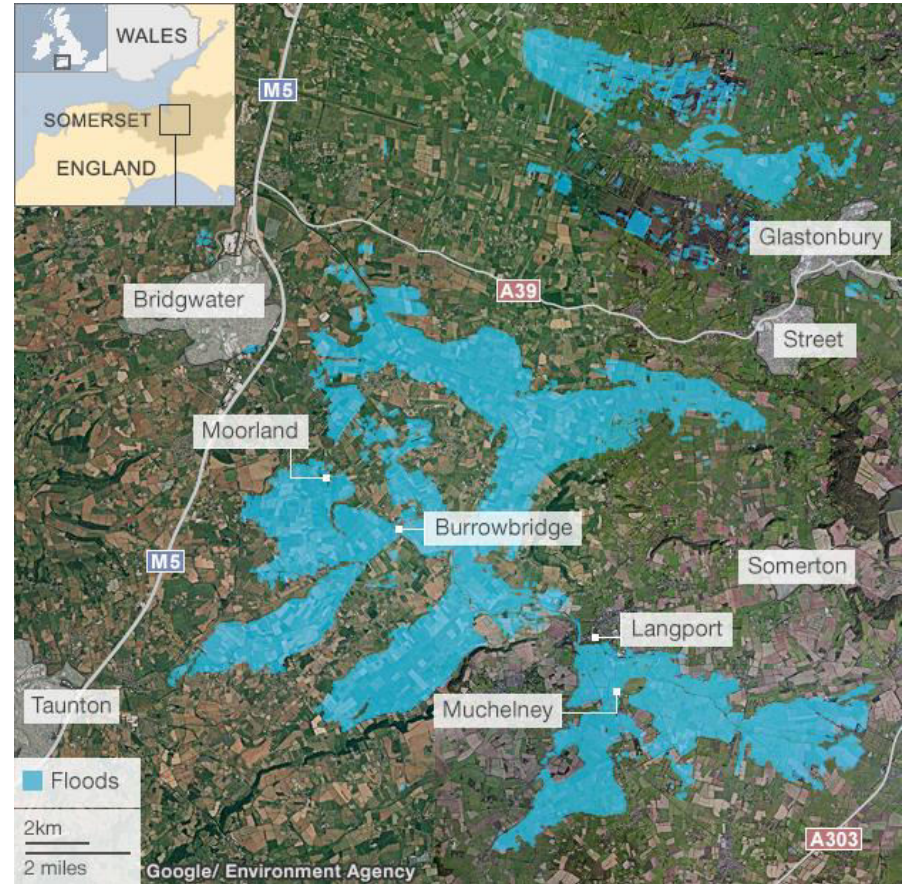
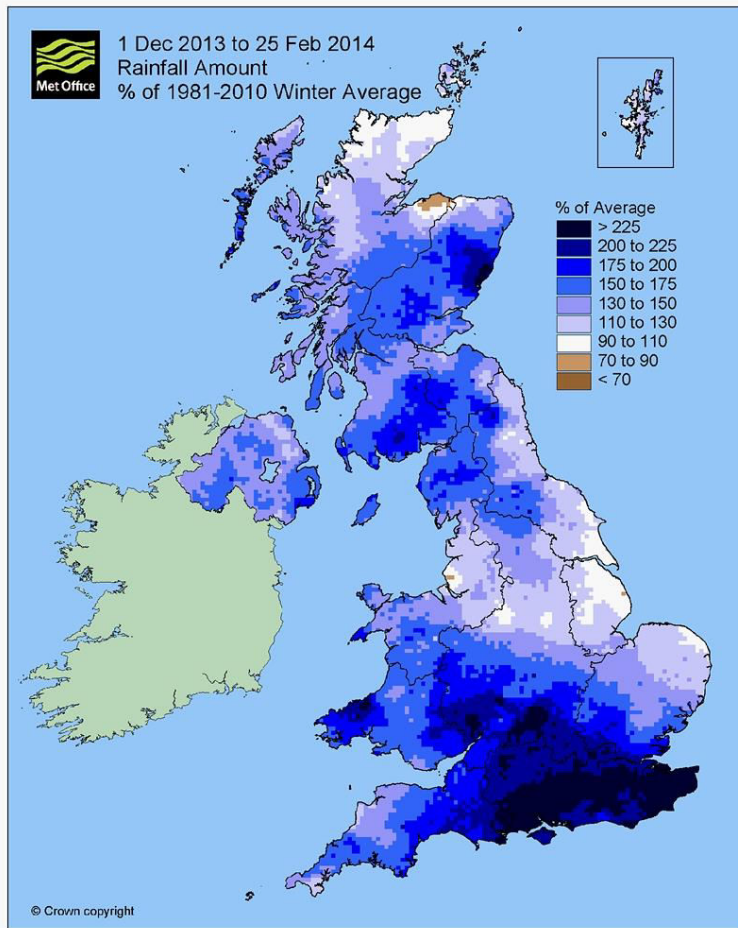
Survey of flooded areas – Somerset and Boston
(June 2015)

Somerset

Land of the Summer People



Winter Floods 2013/14



Flood Responsibility

Strategic Overview



Department
for Environment
Food & Rural Affairs



Environment
Agency



HM Treasury

Operational – Flood Risk Management



Environment
Agency

Sedgemoor
IN SOMERSET



**SOMERSET
DRAINAGE
BOARDS
CONSORTIUM**
INCORPORATING THE AXE BRUE AND PARRETT DRAINAGE BOARDS



**HIGHWAYS
AGENCY**



**Southern
Water**

UNIVERSITY OF
EXETER

Institutional Problem Framings

“So if you’re looking for the causes of the floods, **the cause of the flood was that it rained a lot.** Simply that.”

SH1 Conservation Organisation

That area **floods every year** anyway, it’s just that it flooded to a greater extent because there was **more rain.** “

SH2 Engineering Consultancy

“.. **really high rainfall event** like we had this winter, the rivers, there’s no way they can take that volume of water”

SH3 National Government

Public Problem Framings

“So this time of year ... you would see **large tractors and dredging machines cleaning** all the rhyne system out, which meant **the water could get away** to at least the pumping station ... That **ceased about 15 years ago** and most of the **ditches are overgrown** and not really cleaned out very much, and the Department of Environment just kind of crossed them off their list, I think.” P1

“This land has been **managed since Roman times**, and since the founding the inauguration or whatever it is of the Environment Agency, **it's just stopped**. Nobody voted for it being stopped, it was **very undemocratic**.” P5

Public Problem Framing

“Farming has changed and I think there is a cry that with the **change from grass**, which is a **binding nature for the soil**, to crops, then when the rain comes, **the earth will flow off much quicker** and much easier and therefore **more management** will be needed.” P2

It was **a lot of rain**, it did feel like **it rained the whole of winter**, it was particularly wet” P3

Social Divisions

The Somerset Levels and Moors has been a **bit of a battleground between environmentalists and the landowning and draining community** – and peat extraction as well – so it's been one of the most difficult areas in the country.”

SH1 Conservation Organisation

“I became quite fascinated by the **different polls of opinion** between say like the **scientists who'd done river flow assessments**, compared with **local people whose the land had been in the family for generations** and people saying, “this house has never flooded in 100 years and now it's flooded”, you **think surely that has to say something**, even if people are using the land badly or if things are in wrong in how people are using the land, **it still tells you something if it hasn't flooded for 100 years and now it's flooded'** P5

Social and Political Action



STOP THE FLOODING
DREDGE THE RIVERS!



Social and Political Action

“But I have to say, I mustn’t forget, the EA and the IDB have been down here putting a bund in, **absolutely fantastic job**. I went down there and there was a feeling welling up, “**Yes, this is going to work.**” P6

“I think it’s good now that they’ve brought back the idea of the kind of inland water management group and engaging more with people here in the community as well as those agencies because I think local knowledge is really important.” P7

Governance Processes

“[the Environment Agency] with **the community** and probably with **the council and other partners**, would draw up a plan for how that flooding would be tackled or how that defence would be built and it would be done kind of **as a partnership** of those people”

SH5 Government Body

Final Thoughts

- Informal and formal processes of civic engagement and resource allocation
 - Potential for perpetuation of existing structural inequality
- Flood events provide opening for civic engagement but can obscure more nuanced debate.
- Social contracts and underlying expectations (Rawls, 1971; O'Brien et al. 2009; Adger et al. 2012)



Thank you



Photo: Matilda Temperley