Transition and the wider environment: Co-learning for community resilience

Stewart Barr

Outline

- Vulnerabilities and uncertainties;
- Conventional approaches for promoting behavioural change;
- Science, risk and resilience in the post-modern age;
- Transition as a response;
- Beyond ‘Expert and lay’? Pragmatic pedagogies of climate change, risk and uncertainty through co-learning.

1. Vulnerabilities and Uncertainties

In the UK

2020s	2030s	2040s	2050s	2060s	2070s	2080s

Severe risks to national infrastructure: coastal defences, sewage system, rail

Modest increase in agriculture yields

Floods like those of 2007 will be frequent

Several UK species struggle to adapt.

Heat wave of 2003 will be 'normal' by the 2050s

By 2080, 4°C rise in average summer temperatures

Temperature of the hottest summer days up by possibly 10°C

Up to 40% reduction in summer rainfall

Source: Intergovernmental Panel on Climate Change Fourth Assessment Report (2007), UK Climate Projections (2009), Stott et al Human contribution to the European heat wave of 2003, Nature (2004)

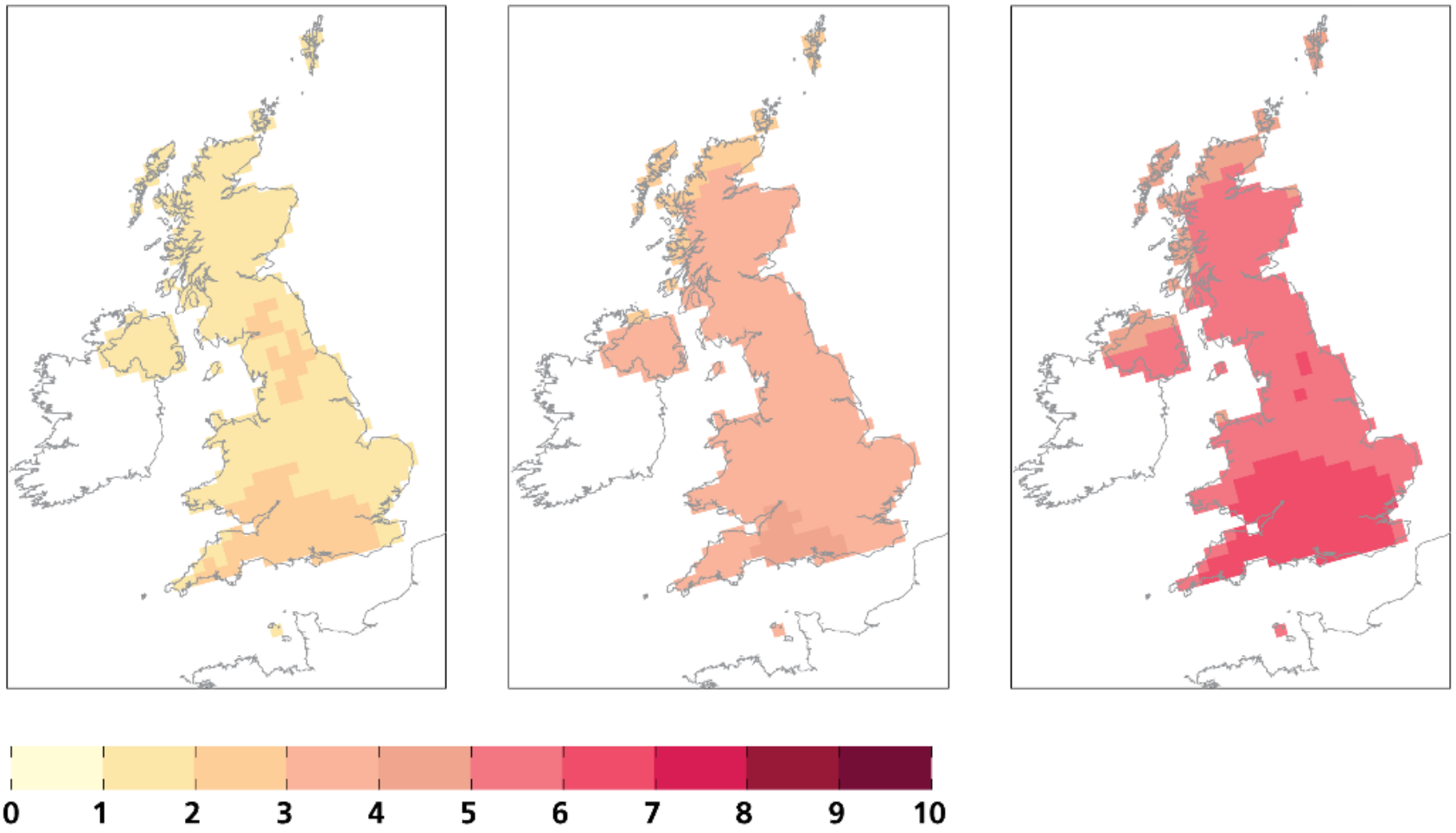
UK CLIMATE PROJECTIONS

10% probability level
Very unlikely to be less than

50% probability level
Central estimate

90% probability level
Very unlikely to be greater than

Summer



Change in summer mean temperature (°C) for the 2080s, Medium emissions scenario

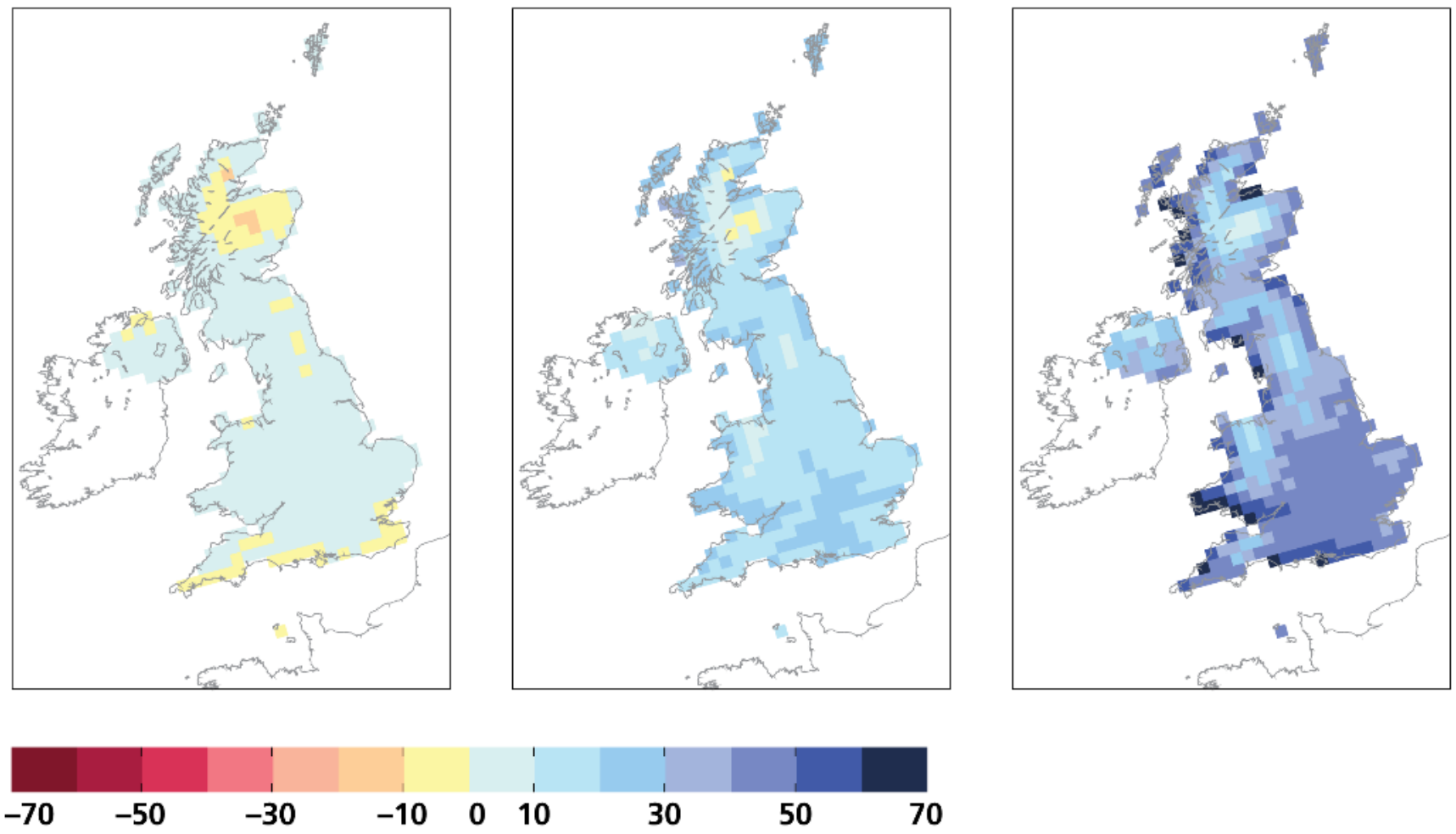
UK CLIMATE PROJECTIONS

Winter

10% probability level
Very unlikely to be less than

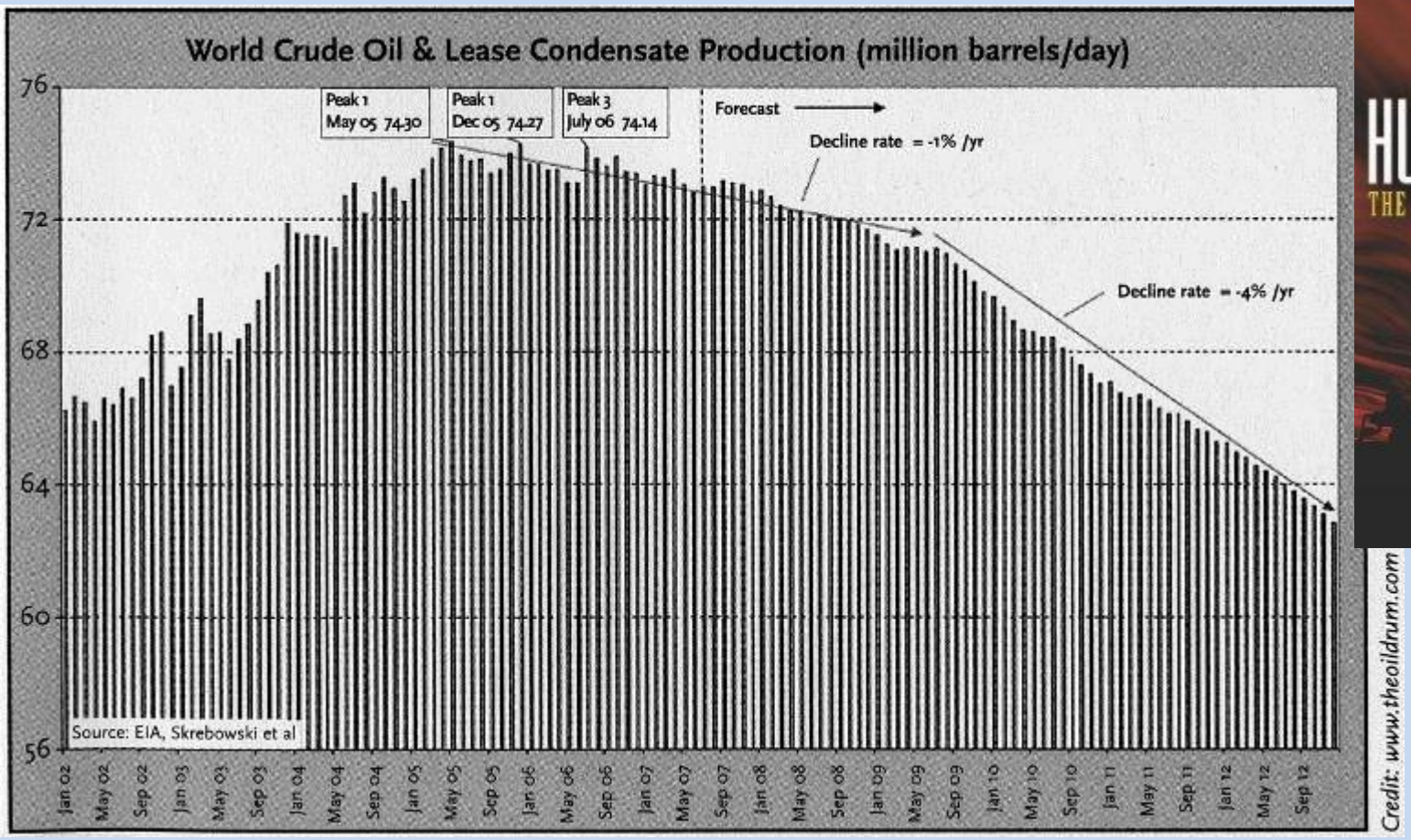
50% probability level
Central estimate

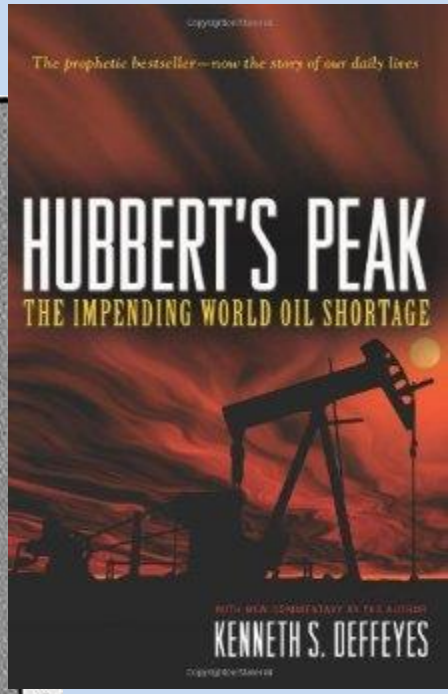
90% probability level
Very unlikely to be greater than



Change in winter mean precipitation (%) for the 2080s, Medium emissions scenario

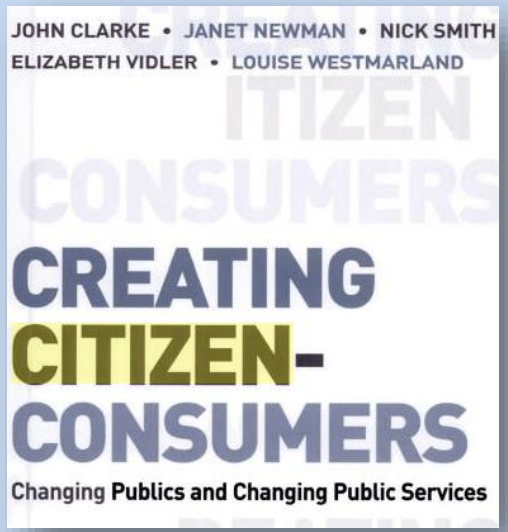
Vulnerabilities and Uncertainties





2. Consumption, Citizenship and Sustainability

"The act of consumption is becoming increasingly suffused with citizenship characteristics and considerations. Citizenship is not dead, or dying, but found in new places, in life-politics" (Scammell, 2000, p. 351)



Cabinet Office
Behavioural Insights Team

"We all – governments, businesses, families and communities, the public sector, voluntary and community organisations – need to make different choices if we are to achieve the vision of sustainable development"
(DEFRA, 2005, p. 25)

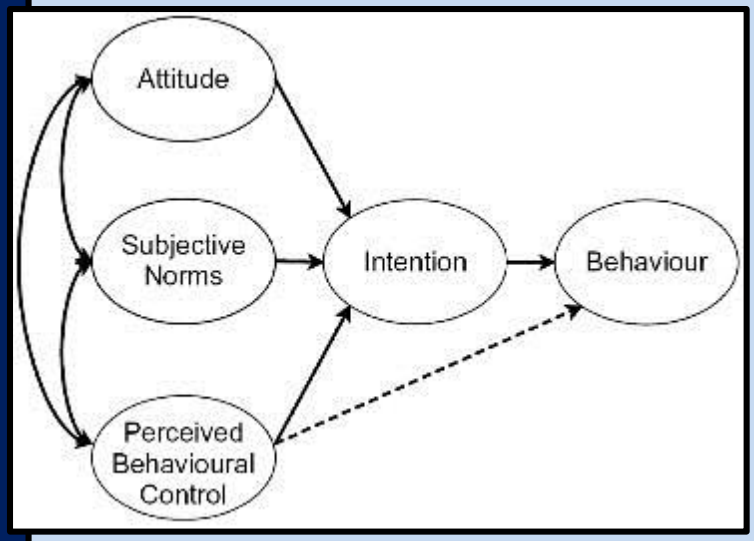
Conventional approaches to behavioural change

Psychological:

- Focus on the individual;
- Draws on traditional ‘scientific method’;
- Quantitative methods;
- Objectification.

3. Rationality, expertisation and logical positivism

Owens (2000, p. 1141) characterises ‘deficit’ approaches thus:
“lay people are ignorant of environmental science and irrational in their response to risks: the public must be engaged in order to be better informed and converted to a ‘more objective’ view.”

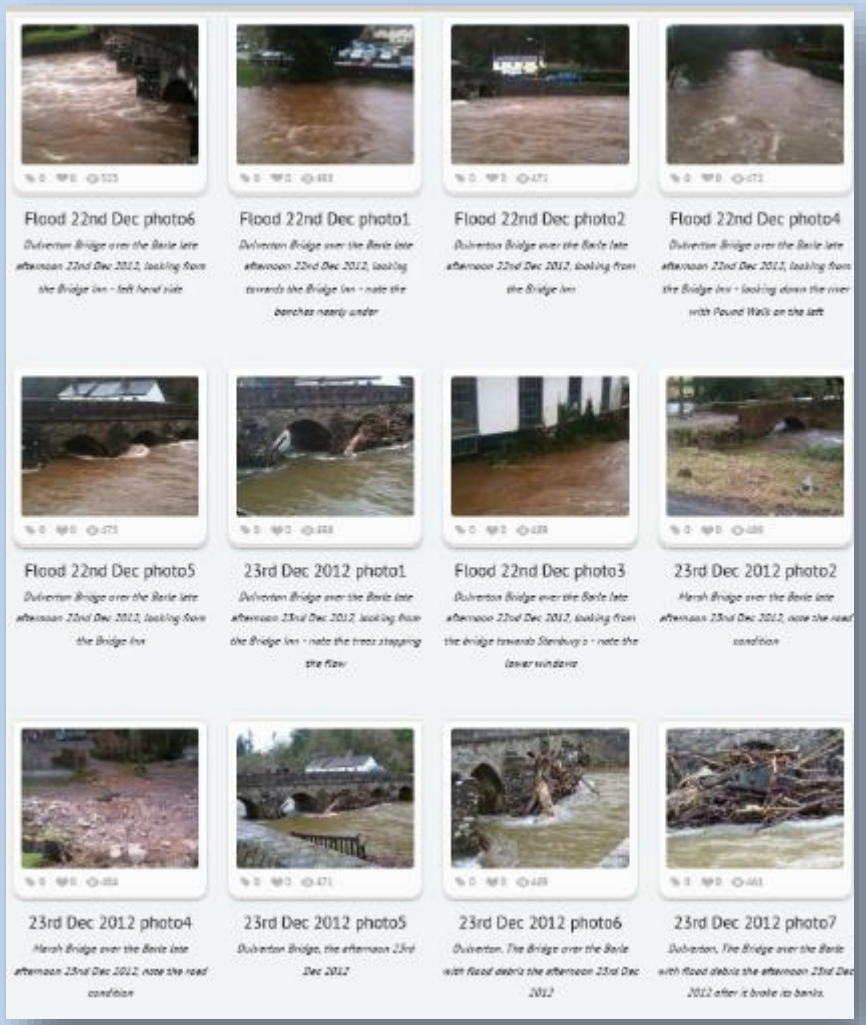


A de-politicised Sustainable Development

"The concern here is that sustainable development is seen as reformist, but it mostly avoids questions of power, exploitation, even redistribution. The need for more fundamental social and political change is simply ignored. Instead, critics argue, proponents of sustainable development offer an incrementalist agenda that does not challenge any existing entrenched powers or privileges" (Robinson, 2004, 376).

Science: the unquestionable orthodoxy?

"...the answer to the question of what makes public science a more effective public good resides not in its subservience to governmental or commercial agendas ...[We need to] place the onus on **diversifying the publics with whom scientists collaborate on matters that concern them**, and on the terms on which they do so. It should also...involve **redistributions of environmental expertise**" (Whatmore, 2009, p. 596).



Science Controversies and ‘claim making’

Western Morning News

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SOMERSET FLOODING: To dredge or not to dredge - battle lines drawn over floodings on The Levels

By WMNPBowern | Posted: January 20, 2014

The flooded Somerset Levels

theguardian

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Dredging rivers won't stop floods. It will make them worse

David Cameron pledges to pursue a policy in the Somerset Levels that will only lead to more dangerous rivers. But it keeps the farmers happy

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The Guardian, Thursday 30 January 2014 14.30 GMT
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'You can increase the flow of a river by dredging, but that is likely to cause faster and more dangerous floods downstream.' Photograph: Ben Stansall/AFP/Getty Images

4. From Global Sustainability to Local Resilience

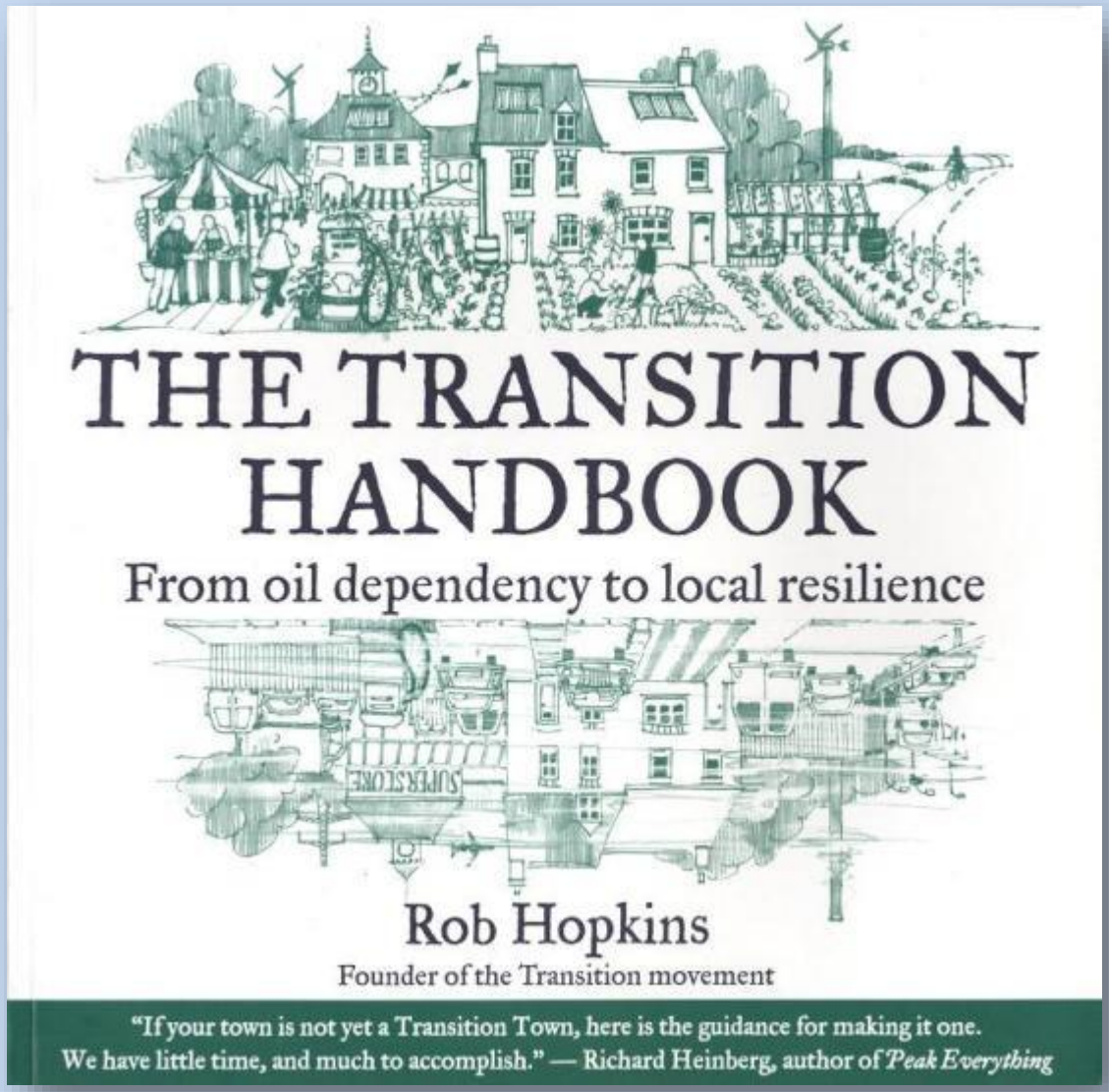
- From considering distant and globalised concerns to local threats;
- From deploying reactionism to promoting activism and situated pragmatism;
- From ‘governing’ sustainability to place-based decision-making;
- Ideas of local resilience…

Building local ‘resilience’ for the future

“In this way it may involve measures aimed at mitigation (prevention) and adaptation (one form of reactionism), but resilience is also **an active, community-based, internally-driven and holistic approach that should, in theory, provide greater protection against external shocks**” (Barr and Devine-Wright, in press, presenter’s emphasis).

“By shifting focus away from an ultimate end goal of sustainability, to an ongoing process of enhancing resilience, **managers, planners, council members, and residents can examine the community in its entirety, the interrelations among the various elements within a community**, and how these elements collectively enhance community resilience and ultimately move a community toward sustainability” (Callaghan and Colton, 2008, pp. 932-933, presenter’s emphasis).

Transition communities and the challenges of a post ‘Peak Oil’ world



Key attributes of Transition

- Sustained and tangible social transformation;
- Place-based communities:

"Have a desire to advance ecological sustainability, community self-reliance, and social well-being in Vancouver? To grow more food? To connect with others in your community to create positive local responses to things like climate disruption, depletion of natural resources, and economic instability?"

- A re-connection with nature and natural systems;
- A non-political framework for governing;
- Inner Transition:

"in many instances the greatest resilience for the community is, it is argued, to be found in an inner changing of the self that becomes open to change and alive to the possibilities of new ways of living in a post-Transition world" (Barr and Devine-Wright, 2012).

Transition Priorities

- Energy descent planning;
- Local food growing and community supported agriculture;
- Reduced consumption and a reliance on local procurement;
- Environmentally sustainable mobility;
- Active discussion of Transition through regular community meetings and open space events...

Challenges for Transition

- Working within or outside the Neo-liberal economic framework: the challenge of consumption;
- Being part of everyday political, social and economic realities in localities;
- Presenting a united message through consensus decision-making;
- Focusing on the controversies of ‘environment’... and the ‘opportunities’ of economic crisis;
- Vision(s): governance, scale, power, democracy, boundaries of the future.

5. Knowledge frameworks and community resilience in an age of anthropogenic climate change

Climate change is NOT main cause of floods, say experts: Building on plains and cutting down trees are among the true reasons

- **Eminent scientists claim over-development is making flooding much worse**
- **They say the link between global warming and flooding is less certain**
- **It comes after David Cameron claimed climate change had caused the recent floods in the UK**

By BEN SPENCER

PUBLISHED: 00:26, 22 January 2014 | **UPDATED:** 08:24, 22 January 2014

The debate about climate change is distracting us from the true causes of flooding, a group of eminent scientists warned yesterday.

Concreting over flood plains, cutting down trees and expanding cities is making flooding much worse – and we need to act on that knowledge, they said.

The exact link between global warming and flooding is much less certain, and those who keep pursuing the topic are taking attention away from the true problem of over-development, they said in a research paper.

Over-development: Building on flood plains, cutting down trees and the expansion of cities are to blame for flooding, eminent scientists have claimed

Engaging Publics and co-producing knowledges

New agendas in the social sciences emerging from STS (Whatmore, 2009):

- Tackling epistemic hegemony;
- Exploring and challenging knowledge hierarchies;
- Challenging conventional scientific methods;
- Understanding publics.

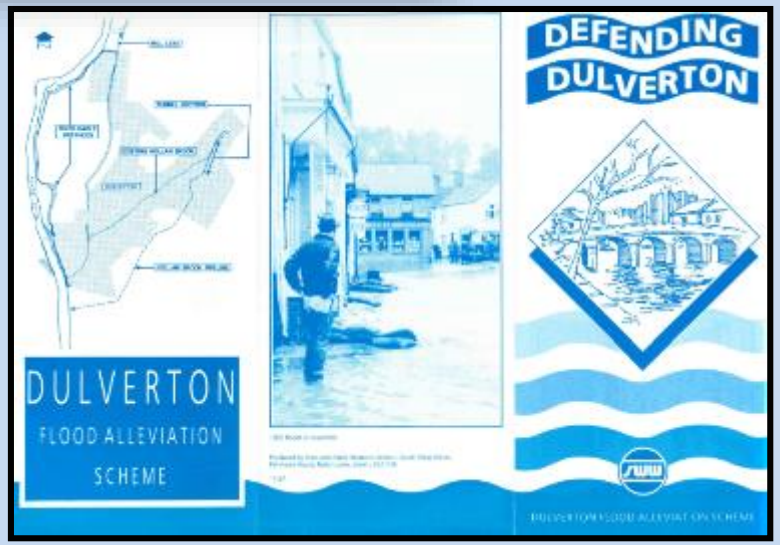
Leads to forms of:

- Citizen science;
- Social learning;
- Knowledge co-production;
- Radical scientific method

(Blewitt, 2006; Lane *et al*., 2011; Ross *et al*., 2012)

Co-producing flood knowledges : the River Barle Project

- The problem;
- The approach;
- The workshop.



Co-producing flood knowledges : the River Barle Project

- Key experiences and challenges:
  - Flood warning times and system;
  - Land management:
    - Woodland management;
    - Grassland management;
    - Recreation and compaction.
  - ‘Education’;
  - Engagement;
  - Planning and development;
  - Contested assets, e.g. Dulverton Bridge;
  - Community resilience, in advance of and after a flood.

- Priorities:
  - Hearing from those who’ve experienced flooding;
  - A strategy for engaging landowners;
  - Understanding the history of flooding;
  - Uplifting and embedding the local flood resilience plan.

Summary

- Recognising:
  - The political economy of current approaches;
  - The value-laden nature of science and ‘expertisation’;
  - The limitations of information-deficit models;
  - The opportunities and limitations of Transition.
- Exploring:
  - New forms of engagement;
  - New forms of local politics and democracy;
  - Place-based approaches to knowledge co-production.