Mapping a developing governance space: *managing drought in the UK*

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The research field

What?

Water scarcity and drought in the UK?

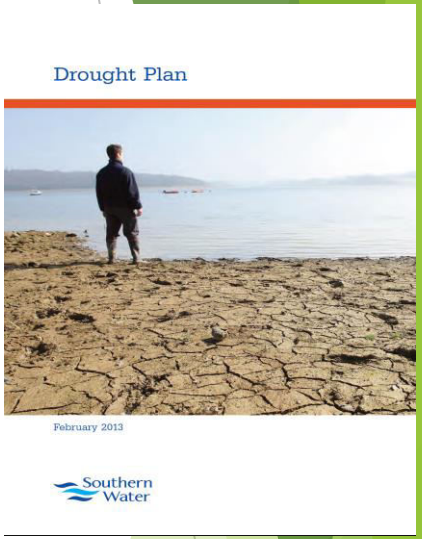
The socio-legal research project

- **Key research question**:
- How do environmental science and economics knowledges inform the mobilization of key regulatory tools for preventing and managing drought in the UK?

  Objective: Mapping a governance space
- **Why?**

  - not much known about how these knowledges are used in practice in legal decision-making

  - exploring a tension in state law between its its own legal capacity to steer (e.g. by virtue of sanctions) and its dependence on scientific and economic reasoning for legitimate steering



Regulatory tools for preventing and managing drought in the UK

2 caveats:

- Have to be understood in the context of wider legal powers for *Water Resource Management*

  Some variation across the four nations in the UK

- **Drought planning:** **hybrid strategic/operational**

- **Drought orders/permits:** **as a last resort, during drought**

- **Variation and revocation of abstraction licences:** **more strategic, long-term, potentially preventative**
- **Institutional framework: Restoring Sustainable Abstraction Program:**

Knowledge Practices

particular, formalized bodies of knowledge that represent environmental and economic impacts of drought and regulatory tools for preventing and managing drought

Environmental science knowledge practices

Water Framework Directive (WFD) Assessments: link between drought regulatory tools and water quality not always clear

Strategic Environmental Assessments
- limited significance

Habitats Regulation Assessments

Environmental Assessment Reports and Environmental Monitoring

- **Economics knowledge practices**

'willingness to pay' surveys among water company customers inform 'levels of service'

regulatory impact assessments, economic impact analysis in relation to contested drought order applications

various impacts considered:

- direct and indirect costs
  adaptive costs
  costs incurred through environmental impacts

Experiential knowledge practices

- local water company and environmental regulator staff knowledge about a catchment, accumulated over time

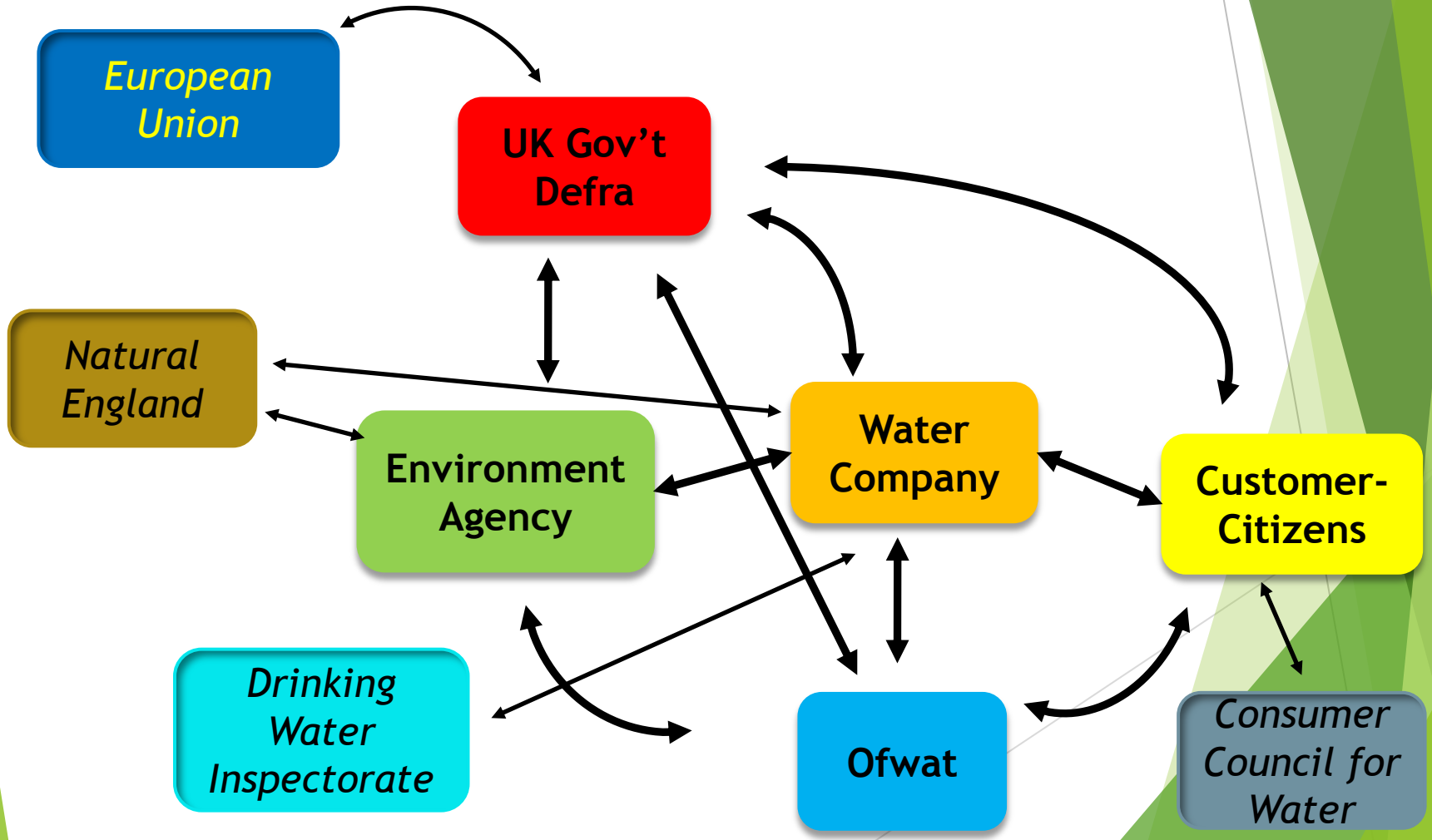
- Experience of water savings generated, e.g. by demand side restrictions

  temporary use restrictions for domestic water use (e.g. domestic garden watering): 3-10% reduction in demand for water

- **non-essential use restrictions for commercial purposes**, e.g. car washers: 14-20% reduction in demand.

Source: Anglian Water Company Drought Plan (2014), Appendix 2, p. 2.

Drought Planning Governance Space in England



Farmoor Reservoir, Oxfordshire, UK

Supply side measures get more water into the system

Demand side measures conserve and increase efficiency

Environmental Knowledge Practices for Drought Planning

- Drought planning embedded in water resources management planning
- WFD features minimally in drought planning

‘drought plans are a temporary deterioration… [Article 4.6 of the WFD] allows that temporary deterioration; so [it’s] a get-out clause for WFD…’

- Strategic Environmental Assessments

‘there is some uncertainty in the water industry over whether a Strategic Environmental Assessment (SEA) is strictly required on an operational plan such as the Drought Plan’

Context affects chosen drought management options

- Geology/geography (groundwater, surface water, coast location)
- Customer base (domestic v. commercial)
- Meter penetration
- Past experience with drought
- Grid/network of water company
- Social discourse: UK public's expectation of water services

Conclusion: so what?

Contribution of the project:

advancing analysis of key regulatory tools and related knowledge practices by understanding them as part of a wider **governance space**

Objective: to understand how regulatory tools and related knowledge practices shape interactions between key institutional actors in the governance space

Relevance for regulatory reform: to identify opportunities for greater integration of environmental science and economics knowledges - resilience

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