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Department of Land Economy

# Exploring alternative rationales for policy interventions in ecosystem processes: efficiency versus resilience

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# Rationales for policy intervention

- Current focus in rural policy debate exclusively on ‘public goods’, ‘market failure’ and ‘economic growth’
- Goal of efficiency offers apparent clarity and methodology
- But many limitations, especially for social-ecological systems
- Contrasts with arguments for goal of resilience
- Does this clarify or undermine public debate?
- Other sectors based on qualitative arguments (e.g. commissioning research, defence procurement)



# Example: A Green Future: Our 25 Year Plan to Improve the Environment

- Priority for economic valuation
  - *“At present we cannot robustly value everything we wish to in economic terms; wildlife being a particular challenge.” (p.135)*
- Public goods: correcting market failure
  - *“A new environmental land management system will use public money to deliver public goods through simple and effective administration” (p.144)*
- Objective of economic growth
  - *“We know carefully-planned investments in natural capital assets can deliver significant value for money and generate economic returns that rank favourably with those generated by more traditional infrastructure investments.*
  - *NCC ... found that the benefit:cost ratios ranged from 3:1 to 9:1 (p.141)*



# Treasury rules

The Treasury Green Book (HM Treasury, updated 2011, p. 51) rationale for government “essentially twofold”:

- “The achievement of economic objectives by addressing inefficiencies in the operation of markets and institutions; and,
- The achievement of an equity objective, such as local or regional regeneration.”



# Pursuit of a 'perfect market'

- Correcting 'market failure' implies ideal of 'perfect market'
- But:
  - Problem of 2<sup>nd</sup> best
  - Undermines case for investment in unvalued outcomes (biodiversity, institutional and social capital)?
  - Doesn't ensure sustainability
  - 'Efficiency' drives out redundancy and increases vulnerability to unexpected shocks
  - Crowding out
  - Downgrades democratic processes in policy decisions
- *"The standard metaphor of market failure is an impediment to the crafting of environmental policy" (Bromley 2007, p.676)*



# Policy dissonance?

## Ambition in 25 Year Plan

- *We will work with all parts of society and all sectors of the economy as we implement the 25 Year Environment Plan to leave the environment in a better state than we found it. (p.22)*
- *We will achieve a growing and resilient network of land, water and sea that is richer in plants and wildlife (p.26)*
- *UN Sustainable Development Goal 15, which calls on us to ‘recover sustainable use of terrestrial ecosystems, halt and reverse land degradation and halt biodiversity loss. (p.57)*
- What is the framework or methodology that leads to and delivers this?



# The particular challenge of ecosystem management

- Complex and dynamic
- Interconnected systems
- Ignorance about underpinning processes and supporting services
- Unpredictability
- Vulnerability to shocks



# The limits of evaluation in complex systems?

- If ecological processes and outcomes are incompletely understood
- The counterfactual is unknown
- We cannot know the additionality caused by an intervention
- We cannot value the intervention





# The potential for resilience

- An ecosystems approach
  - Processes are complex and incompletely understood
- Social-ecological systems
  - Similarly with humans actors
- Decision making under ignorance
  - Recognise limits of valuation and planning
- Resilience as an objective
  - “the capacity of a system to absorb disturbance and re-organize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks” (Folke, 2006)



# Architecture of governance for resilience: enhancing the Demos

- Re-emphasising collective decision-making
  - Developing relevant institutions
- Devolved decisions to those most affected
  - Local Environmental Governance Organisations
- Adaptive governance
  - Experimenting, learning and adapting
- Programme funding
  - Building relationships between funders and fundees



# Local Environmental Governance Organisations (LEGOs)

- Responsibility for ecosystem sustainability and ES delivery at local level
- Administers local procurement fund
- Social residual claimant
  - Acts as trustee for local community
  - Represents local values and ecosystem demands
  - Fills in gaps from national policy



# Adaptive governance of a social-ecological system

- Multiple stakeholders: private, voluntary, commercial, local government, government agencies
- Bringing different skills, resources, expectations
- Reliance on trust (as well as formal / commercial contracts)
- Takes time to build shared vision, social capital
- Adaptive approach to institution building

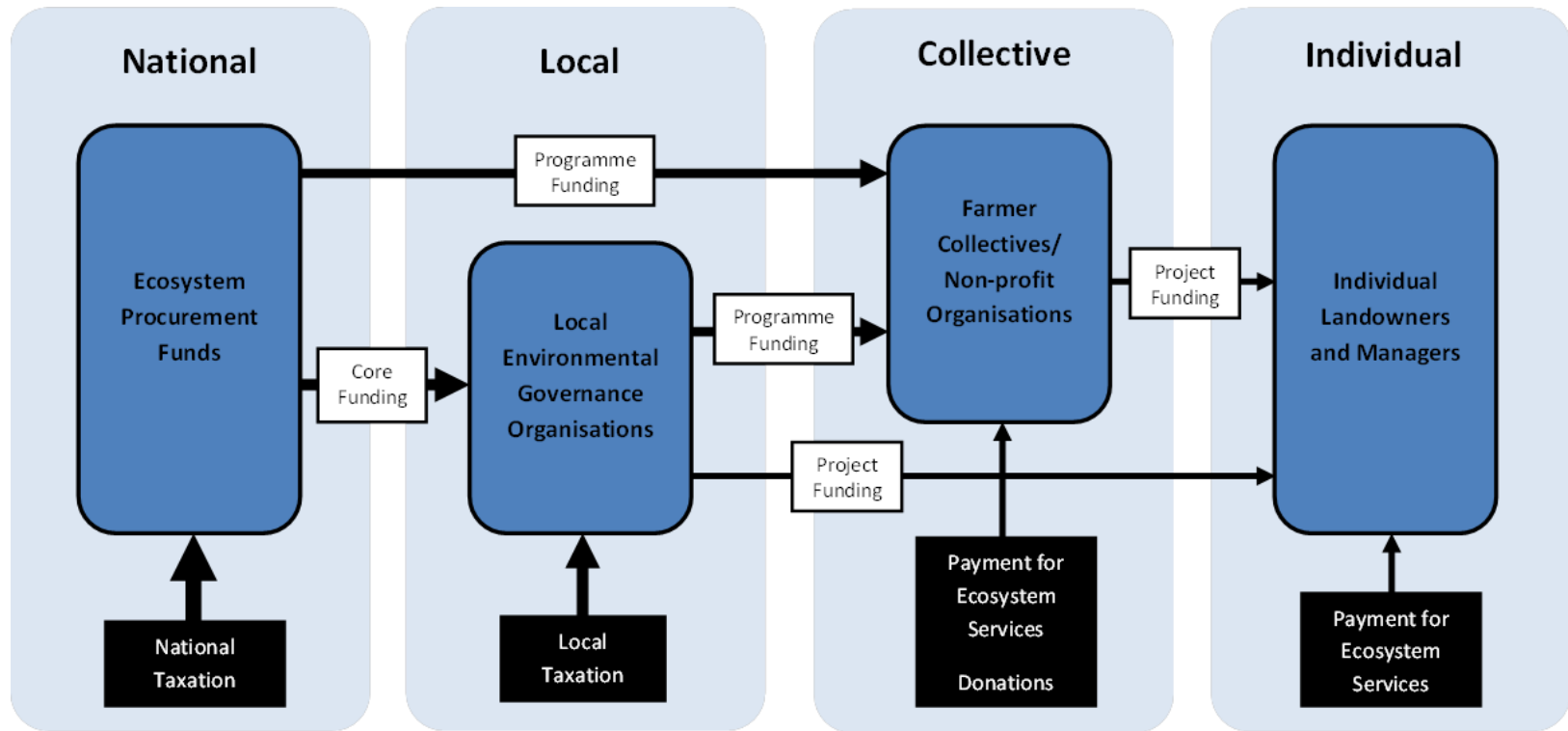


# Longer term programme funding

- Problems of short-term, competitive projects, e.g.
  - Need to create (new, artificial) targets (ex ante)
  - Success judged against those targets (ex post)
  - Transactions costs of regular competitive application
- Building longer-term relationships and trust between
  - Freedom to allow ecological and social systems to develop
  - Time and opportunity to experiment, learn and respond
- Qualitative reviews of progress for accountability



# Architecture of ecosystem governance



# Some elements in the 25 Year Plan

- *At present many organisations and partnerships pursue their own plans, across different areas and boundaries. (p.139)*
- *At a local level we want environmental effort to be guided by the goals we have outlined but also to reflect local needs and priorities as well as being more integrated and efficient. (p. 139)*
- *... common geography of 14 areas. Each now has its own Area Integrated Plan ... that we propose to develop into natural capital plans. (p.140)*
- *Ultimately, we want to move towards an approach in which the 14 local areas are mapped and managed more as a system (p.140)*
- Common principles and methods? Sources of values? Decision-making authority? Implementation across different sectors? Funding? Accountability?



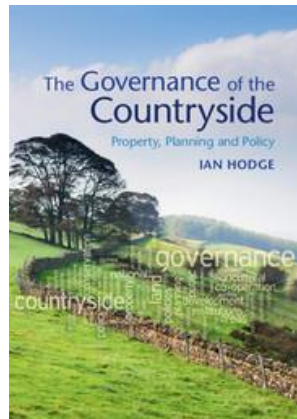
# Implications

- Accept limits to precision: greater emphasis on governance structures to form and reveal values and implement plans
- Longer term funding programmes in support of natural and social capitals
- Judge performance by qualitative judgement rather than cost-effective metrics
- More research and development on governance approaches





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## Envisioning a British Ecosystem Services Policy

### Policy Brief on an alternative approach to rural land policy after Brexit

David Gawith and Ian Hodge  
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University of Cambridge

May 2017

#### Key Points

- Brexit creates a unique opportunity to improve agricultural policy. Policy must have a clear vision of a new direction from the outset.
- An ecosystem approach to rural land policy can address many of the problems the CAP and demonstrate substantial public benefits.
- The fundamental objective of a British Ecosystem Services Policy (BESP) would be to secure the long term social value delivered from ecosystems in the UK.
- Under a BESP, subsidies to farmers would be selectively reduced, and environmental goods and services would be purchased directly from those best placed to provide them.
- At a national level, a BESP would provide a strategic approach and oversight for the procurement of ecosystem services.
- A BESP would encourage the establishment of Payment for Ecosystem Services (PES) schemes.
- A BESP would establish national procurement funds to purchase ecosystem services that are not amenable to PES schemes.
- At a local level, a BESP would create governance structures to support local priorities and co-ordinate the delivery of ecosystem services.
- Funding would be allocated on a competitive basis and available to a wide range of stakeholders.
- Development of a BESP would require considerable political, technical, and bureaucratic resources, however the benefits of a BESP would likely substantially outweigh its costs over time.
- Some farmers would lose from the removal of direct subsidies, however a BESP would also provide opportunities for diversification and ease entry into the sector.

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Policy brief: “Envisioning a  
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