



# How might Scottish environmental policy instruments enable transformative change in a Post-Brexit Britain?

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# Why might we need transformative change?

- Natural resources in Scotland in poor condition or at risk of degradation
  - E.g. Biodiversity loss, water quality, soil erosion

## Why focus on policy instruments?

- Critiques of sectoral approach natural resource management
- Perception of inefficient and even conflicting policies

# Focus of the research

- Adjusting policy instruments could be a leverage point
- Policy instruments = regulations, incentives, advice and support mechanisms used to deliver policy

## Our questions

- How do policy instruments interact?
- What isn't working?
- What changes are needed?
- What are the implications for Brexit?

### Places to Intervene in a System (in increasing order of effectiveness)

12. Constants, parameters, numbers (such as subsidies, taxes, standards)
11. The sizes of buffers and other stabilizing stocks, relative to their flows.
10. The structure of material stocks and flows (such as transport networks, population age structures)
9. The lengths of delays, relative to the rate of system change
8. The strength of negative feedback loops, relative to the impacts they are trying to correct against
7. The gain around driving positive feedback loops
6. The structure of information flows (who does and does not have access to what kinds of information)
5. The rules of the system (such as incentives, punishments, constraints)
4. The power to add, change, evolve, or self-organize system structure
3. The goals of the system
2. The mindset or paradigm out of which the system—its goals, structure, rules, delays, parameters—arises
1. The power to transcend paradigms

# Potential for change in Scotland post-Brexit

- The EU has shaped how natural resources are managed
  - By setting minimum standards
  - Through other policies. E.g. CAP
- With Brexit, the UK must decide its approach to environmental management
  - UK's Agriculture Bill to pay farmers and land managers for provision of public goods (instead of CAP's Direct Payments)
- Environmental and agricultural policies are devolved matters
  - Scotland has powers to govern these
- Scotland has committed to maintain and improve EU standards





# Methods

- Focus on a subset of 10 policy instruments (see next slide)
- Deductive analysis of documentation based on Institutional Analysis and Development framework
- 17 interviews with those who designed or implement the instruments
- Inductive-deductive thematic analysis
  - Are policy instruments delivering multiple benefits?
  - Are there gaps?
  - Are policy instruments aligned?
  - Are there conflicts between instruments?



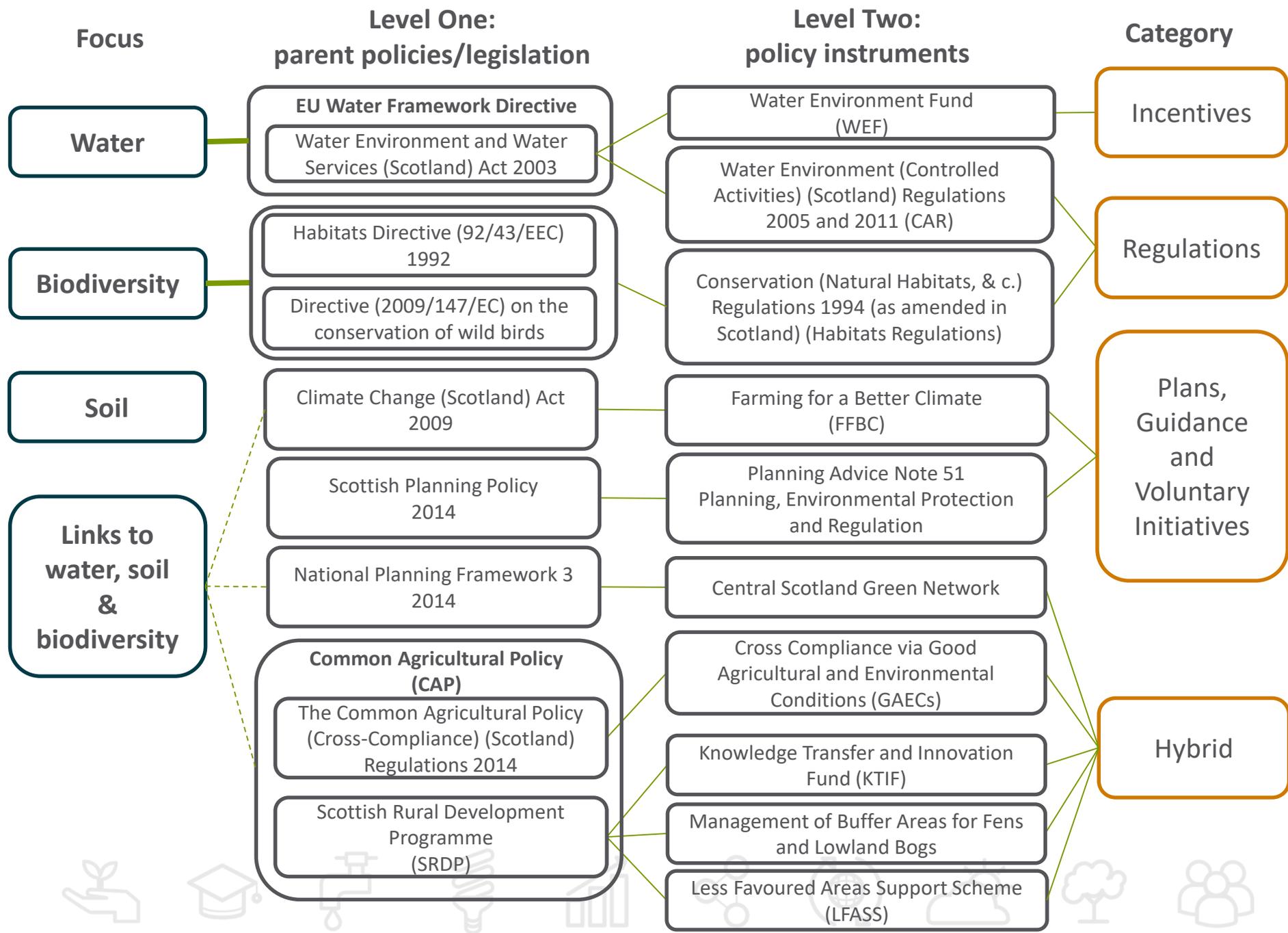




Image: Deb Roberts



Image: Ruth Wilson

# How do policy instruments interact?



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- Instruments affect multiple natural assets, even when designed to affect a single asset.
  - E.g. Habitats Regulations protect soil and water as well as biodiversity
- No evidence of conflict between instruments
  - Considerable efforts to avoid duplication and conflict (often these efforts are invisible)

But there is space for improvement...

# What isn't working?

- All assets are not well covered by the mix of instruments
  - Few instruments designed to manage soil, air, biodiversity and climate change
  - Biodiversity protected mostly through regulatory instruments that apply only to designated areas (Habitats Regulations)
  - Regulations do not cover all assets. E.g. lack of soil protection





# What changes are needed?

- Reconsider the mix of policy instruments
  - More incentives for biodiversity conservation
  - More regulation for soil protection
- Expand instruments' objectives
  - E.g. cross-compliance via GAECs could do more for soil protection
- More formal connections between instruments
  - E.g. between CAR and the PEPFAA code
- Not enough to adjust policy instruments - Need to reform the policy mix





# What are the implications of Brexit?

- New Agricultural Policy (UK)
  - Shift from CAP's direct payments (per area farmed) to payments for good environmental practices
  
- Need for regulation as well as incentives
  
- May be more appropriate to manage the environment through policies that focus on environmental protection
  - E.g. soil policy



# Leverage points

- Can changing the policy landscape lead to transformative change?
  - Do the goals of the system need to change first?
  - Do mindsets need to be changed first? Can changing the rules of the system help change mindsets?
- Can the leverage points framework help select the right mix of instruments?

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## Thank you

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<http://www.hutton.ac.uk/research/projects/analysing-how-policy-instruments-shape-soil-water-and-biodiversity>



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