

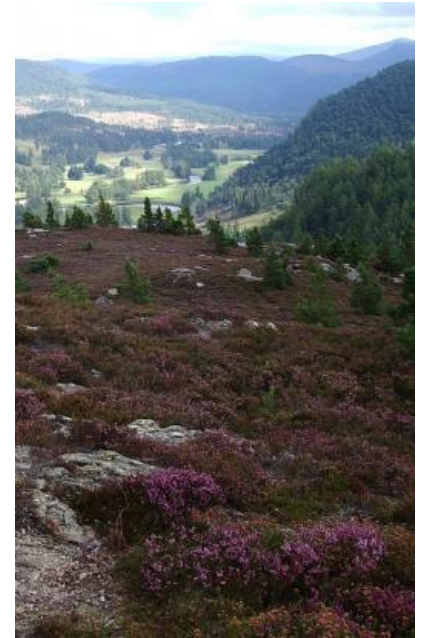


Policy instruments shaping water, soil & biodiversity: analyzing their interactions

RD1.4.2.b i

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

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Rationale

- Policy increasingly emphasises the need to maintain and improve natural assets and natural capital
- To be sustainable, management must take into account multiple goals & issues, and deliver multiple benefits (from ESS)
 - Scottish Government's Economic Strategy
 - National Performance Framework indicators
 - Land Use Strategy etc
- This is not always achieved at present...





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State of Environment [source SEWEB]					
Coastal Waters		State: Good - high agreement, high evidence Trend: Stable/declining - medium agreement, medium evidence	Estuaries		State: Good - high agreement, medium evidence Trend: Improving - high agreement, medium evidence
Freshwater lochs		State: Good - high agreement, high evidence Trend: Stable/improving - medium agreement, high evidence	Rivers and Canals		State: Moderate - medium agreement, high evidence Trend: Stable/improving - high agreement, high evidence
Wetlands		State: Poor - high agreement, medium evidence Trend: Stable/declining - high agreement, low evidence	Wildlife rivers and lochs		State: Good - high agreement, high evidence Trend: Improving/stable - high agreement, high evidence
Soils		State: Good - medium agreement, low evidence Trend: Insufficient data to determine trend	Farmland wildlife		State: Moderate - high agreement, medium evidence Trend: Stable/declining - high agreement, medium evidence
Mountain and upland wildlife		State: Moderate - high agreement, low evidence Trend: Stable/declining - high agreement, low evidence	Woodlands and forests wildlife		State: Moderate - high agreement, high evidence Trend: Stable/declining - low agreement, medium evidence



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Rationale

- Policies affect how natural assets are managed
 - Many environmental policies were created to tackle specific problems, e.g. protecting endangered species
 - These tend to have their own ‘instruments’ (regulations, incentives and/or guidance)
 - We also have strategies that encourage integration and delivery of multiple benefits (especially the LUS & SBS)
 - But these don’t have their own ‘instruments’
- Do these policy instruments take into account each other, and the delivery of multiple benefits?
- Is there need for policy integration? (Policy 3 of LUS)? Could we adjust current policy instruments, to balance multiple goals?



Insights from elsewhere

- What does literature say about policy integration?
 - Lots of calls for more integration, systemic approaches in a wide range of literatures
 - But not much on *how* to do integration
nor much the empirical results of an integrated approach
 - EPI (Env Policy Integration) gives useful ideas but treats environment as a single goal in high-level processes
 - Governance literature discusses needs & principles
 - Ostromian literature IDs principles for institutions managing socio-eco systems
- Combine ideas → criteria for our in-depth study



Focus of our analysis

- ‘Policy’ has multiple levels:
 - Parent legislation and transposed/amended legislation
 - Steering strategies and guidance
 - **Instruments** (specific regulations, incentive schemes, guidance)
 - Projects or programmes trialling instruments
- Focus on instruments designed to manage natural resources as these are intended to achieve vision and goals set by policies
- What is their degree of integration, conflict and/or gaps?



Messy world of instruments pt.1



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- Looking 'just' for
 - SG policy instruments
 - directly aimed at managing aspect of soil, biodiversity or water
- Long list of 52 (+)



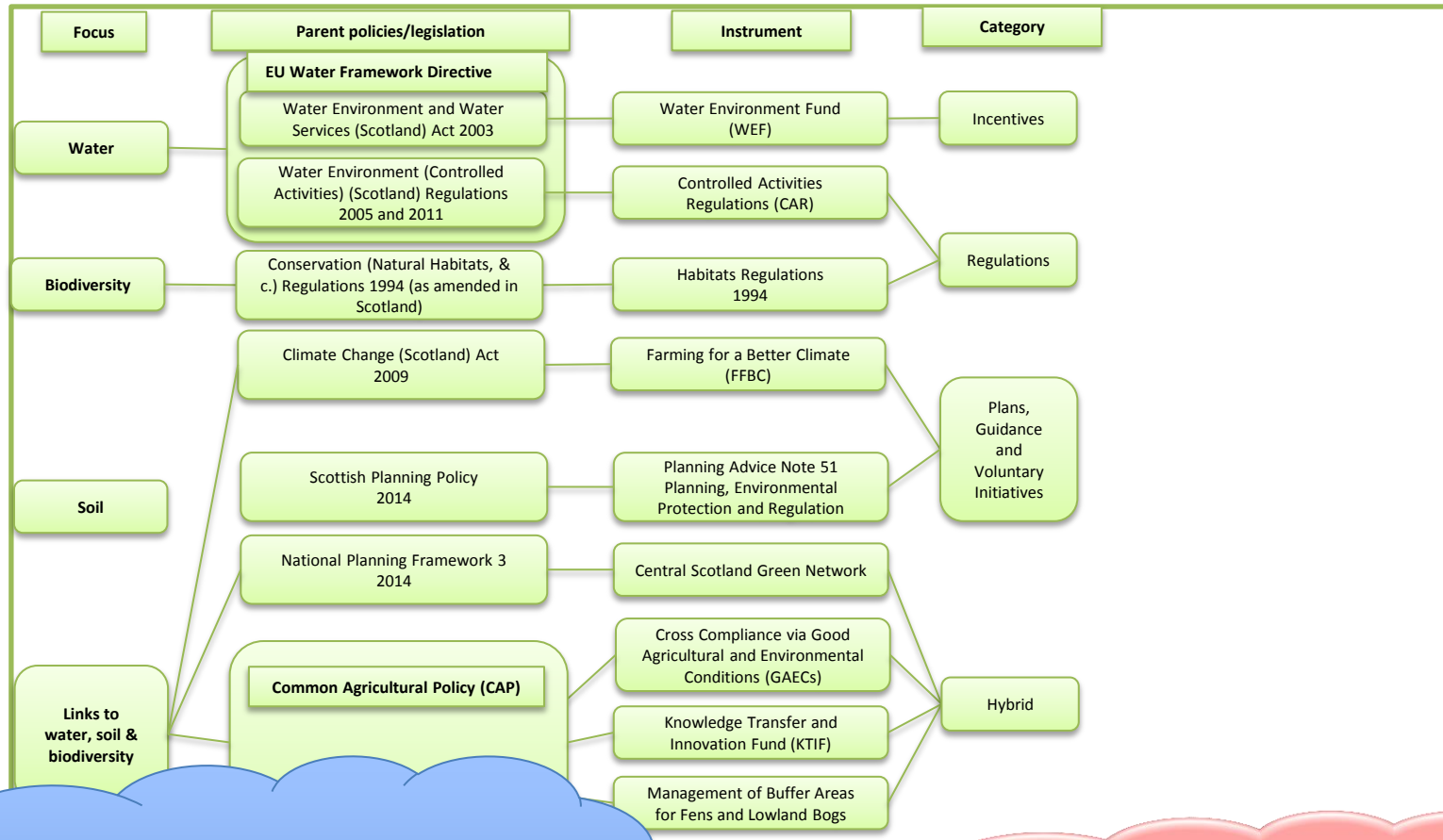
Policies to protect Natural Assets	
Parent Directive/Legislation	Delivery Mechanism
(Scottish) Environmental Impact Assessment Regulations (2002)	
Scottish Rural Development Programme 2014-2020	Agri-Env Climate Scheme
(ditto)	Env Coop Action Scheme
Wildlife and Natural Environment (Scotland) Act 2011	The Muirburn Code (-> The Muirburn Code has been updated to reflect legislative changes to the Hill Farming Act 1946 which came into effect on 1 August 2011.)
?	Prevention of Environmental Pollution from Agricultural Activity (PEPFAA) Code
?	4 Point Plan
?	Farm Soils Plan
?	Forests and Soils Guidelines
Water Framework Directive: The Water Environment and Water Services (Scotland) Act 2003;	Water Environment (Controlled Activities) (Scotland) Regulations 2005 (CAR); General Binding Rules; The Water Environment (Diffuse Pollution (Scotland) Regulations (2008) (have amended CAR)
(ditto)	River Basin Management Plan Programme of Measures (list)
(ditto)	Morphological Restoration Fund
Drinking Water Directive	
Sewage Sludge Directive (86/278/EEC):	Sludge (Use in Agriculture) Regulations (1989) (as amended in 1980)
	Code of Practice for Agricultural Use of Sewage Sludge (1996)
Contaminated Land Regime (Part IIA) of the Environmental Protection Act 1990; see also Pollution Prevention and Control (PPC) - The Pollution Prevention and Control (Scotland) Regulations 2000	Licensed activities (SEPA)
Nature Conservation (Scotland) Act 2004	
European Biodiversity Strategy	Scottish Biodiversity Strategy (what does it ask for?)
Scottish Rural Development Programme 2014-2000	Agri-environment-climate (art 28)
	Forest environmental and climate services and forest conservation (art 34)
Scottish Soil Framework	
Policies that influence management of Natural Assets	
Parent Directive/Legislation	Delivery Mechanism
Common Agricultural Policy	Statutory Management Requirements
	Good Agricultural and Environmental Conditions
	Cross Compliance (should be covered elsewhere?)
Scottish Rural Development Programme 2014-2000	Payments to areas facing natural or other specific constraints (art 31)
	M08 - Investments in forest area development and improvement of the viability of forests (art 21-26) (pays for SFS)
	Organic farming (art 29)
	Co-operation (art 35)
	Excluded as not direct focus on natural assets?: Knowledge transfer and information actions (art 14); Advisory services, farm management and farm relief services (art 15); Quality schemes for agricultural products and foodstuffs (art 16); Investments in physical assets (art 17); Farm and business development (art 19); Basic services and village renewal in rural areas (art 20); Animal welfare (art 33); Support for LEADER local development (CLLD - community-led local development) (art 35 Regulation (EU) No 1303/2013)
Nitrates Directive	The Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008 [check if still active or under CAR now?]
EU Forestry Strategy/Scottish Forestry Strategy (2006)	UK Forestry Standard,
	Forest Plans.
Scottish Land Use Strategy (LUS): 'Getting the best from our land' A land use strategy for Scotland' :2016-2021	9 policies and 5 proposals (List the relevant ones?)
Scottish National Planning Framework	Strategic development plans; local development plans
	Statutory Planning Guidance
	Flood risk management Plans
(what are their parent legislation)	Conservation designations: National Scenic Areas, Sites of Special Scientific Interest, National Nature Reserves, Biosphere Reserves and Natura 2000, Ramsar and World Heritage Sites.
National Emission Ceilings Directive (NECD, 2001/81/EC) and the Protocols under the United Nations Economic Commission for Europe (UNECE) Convention on Long Range Trans-boundary Air Pollution; Air Quality Strategy for Scotland	
Scottish Historic Environment Policy (SHEP), published by Historic Scotland	
The Scottish Government's rationale for woodland expansion [update to a policy]	
Land Reform (Scotland) Act 2000	Scottish Outdoor Access Code



Messy world of instruments pt.2



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When is an instrument an instrument? Can they nest?

What if instruments have 'hybrid' characters?



Study of 10 instruments

1. Natural Heritage Regulations
2. FFBC – Farming for a Better Climate
3. KTIF – Knowledge Transfer for Innovation Fund
4. CAR – Controlled Activities Regulations
5. WEF – Water Environment Fund
6. PAN51 – Planning Advisory Note “Planning, Environmental Protection and Regulation”
7. GAECs – Good Agricultural & Environmental Conditions
8. SRDP option - Management of Buffer Areas for Fens and Lowland Bogs
9. CSGN – Central Scotland Green Network
10. LFASS - Less Favoured Area Support Schemes*



Study of 10 instruments

Summary of criteria used

- Objectives, problem description, rationale for using
- Spatial and temporal coverage, actors involved/targeted
- Initiator, owner and implementer(s)
- Mandate, capacity and resources for delivery
- Participation, collaboration, knowledge management
- Awareness, uptake and attitudes to instrument
- Context: ecological, economic, social
- Effects: ecological, economic, social, transaction costs
- References to other instruments or policies





Implications & Ideas pt.1

- **Different ‘resources’ <-> different mixes of instruments**
 - unbalanced or potential gaps between instruments?
 - Soil – incentives and guidance
 - Water – mainly regulations, some incentives
 - Biodiversity – mainly regulations for sites, some incentives
- **Some overlaps** – e.g. instruments giving advice to farmers
- **No active consideration of integration**
 - No integrated instruments – is this okay?
 - Instruments make only tokenistic nods to each other
 - Often lack information about
 - influences on non-target assets
 - conflicts



Implications & Ideas pt.2

- **World is more messy** than the literature suggests
 - Blurred lines between instruments, legislation & policies
 - Why the proliferation of strategies and projects in Scotland?
 - Need to recognise and understand hybrid instruments, not just hybrid governance
 - What does this tell us for post-Brexit landscape?
- **Problem imprecisely defined**, aim for integration is vague.
 - How do we know when we have ‘good’ integration or what ‘good’ delivery of multiple benefits looks like?
 - What problem(s) is integration trying to solve?





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Next Steps

- Interviews to understand
 - Experiences of supporting or implementing instruments
 - Views on key issues for integration
- Journal paper due m24 (Mar 2018)
- By year 3 (Apr 2018+), moving into how to resolve challenges and tackle gaps /overlaps between instruments



Points of clarification or additional detail?

Thanks to the RESAS Strategic Research Programme 2016-21

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