



The ecosystem services concept in EU policies: A review of regulatory frameworks

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Introduction

- Increasing relevance and use of ecosystem services (ES) and natural capital (NC) in science **and** in (EU) policy making
 - **Partly explicit:** Biodiversity 2020 Strategy, Green Infrastructure Strategy, Blueprint to Safeguard Europe's Water Resources, ...
 - **Partly implicit, or emerging policies:** Water Framework Directive, Common Agricultural Policy (reform), Cohesion Policy
 - Increasing uptake **in national or regional policies**, too
- **OpenNESS project:**
 - **Conceptual and empirical work** to make the concepts of ecosystem services and natural capital **operational**
 - Develop ways of **applying them** in land, water, & urban management
 - Identify **how, where and when the concepts can most effectively be applied** to solve problems using **real-world case studies**

Objectives of this Research

- **Systematic review and analysis of EU policies and regulations** which (will) have the greatest (direct or indirect) impact on ES/NC
 - Identifying actual or potential synergies and conflicts/trade-offs (e.g., Biodiversity Strategy vs. Common Agricultural Policy)
- **Investigate the implications of mainstreaming the concepts of ES and NC in EU regulatory frameworks**
 - Assess how current regulatory frameworks and other institutional factors at EU (and national levels) enable or constrain consideration of ES/NC
 - Analyse the knowledge that is needed to apply both concepts in the relevant EU legal, administrative, and political contexts

Research Process

- Identifying **relevant EU regulatory frameworks** (desk-based research)
 - **Criteria:** ES/NC explicitly addressed; affecting ES/NC in EU Member States (and beyond); focusing land, water, and urban systems, ...
- Prioritising **EU key regulatory frameworks** from the perspective of
 - (25+) real-world case studies (questionnaire) and
 - EU policy makers (stakeholder workshop/focus group in Brussels)
- **Develop and test analytical framework(s) for policy analysis** at EU level and for 'selected' case studies
- Derive **recommendations for EU (and national/regional) level policy makers**

Key EU Regulatory Frameworks – Preliminary Results (I)

| Policy fields | Regulations, directives, strategies (EU) |
|---|--|
| <i>Nature & Biodiversity</i> | Biodiversity Strategy |
| | Green Infrastructure Strategy |
| | Birds Directive |
| | Habitat Directive |
| <i>Air</i> | Ambient Air Quality directive |
| | National Emissions Ceilings Directive |
| <i>Agriculture, including Rural Development and Fishery</i> | Common Agriculture Policy |
| | Cross-compliance Regulation |
| | Nitrates Directive |
| | Biocides Directive |
| | Plant Protection Products Regulation |
| | Common Fishery Policy (CFP) |
| | Rural Development Policy (2007-2013) |
| | Cohesion policy (2014-2020) |

Bold: EU-policies which were categorized as ‘key regulatory frameworks’ **by the case studies**, too

Key Regulatory Frameworks – Preliminary Results (II)

| Policy fields | Regulations, directives, strategies (EU) |
|--|---|
| <i>Water</i> | Water Framework Directive (WFD) |
| | Marine Strategy Framework Directive (MSFD) |
| | Blueprint to Safeguard Europe's Water Resources |
| | EU Floods Directive |
| <i>Energy</i> | Renewable Energy Directive |
| | Strategy for Biofuels |
| <i>Forest</i> | Forest Action Plan (2007-2011) |
| | Forest Strategy |
| <i>(Other) Land-use, incl. Urban</i> | Directive for a framework for maritime spatial planning and integrated coastal management |
| | Thematic Strategy on the Urban Environment |
| | Environmental Impact Assessment |
| | Strategic Environmental Assessment |
| <i>Climate</i> | EU Adaption Strategy |
| <i>Soil</i> | Soil Thematic Strategy |
| | Soil Framework Directive (proposal) |
| <i>Efficiency</i> | Thematic Strategy on the Sust. Use of Natural Resources |
| <i>Others</i> | Environmental Liability Directive |
| | Environment Action Programme |
| | Public Health – Investing in Health |

Bold: EU-policies which were categorized as 'key regulatory frameworks' by the case studies, too

Main Categories for Policy Analysis (I): *Habitats Directive in Germany and the UK (I)*

Responsibilities (what, how) and assigned actor(s) (who) at all relevant levels (EU, National, ... Local)

- Lead responsibility
 - **EU:** DG Environment
 - **Germany:** Federal Ministry for the Environment with Federal Agency for Nature Conservation
 - **UK:** Department for Environment, Food & Rural Affairs

- Reporting (formal)
 - **EU:** Member States for national reports; EU Commission for common report; provides guidelines for all Member States
 - **Germany:** Federal Agency for Nature Conservation
 - **UK:** Joint Nature Conservation Committee (JNCC)

Main Categories for Policy Analysis (II): *Habitats Directive in Germany and the UK (II)*

- Policy and/or measure design
- Evaluation
- Monitoring and/or sanctioning
 - **EU:** Member States monitor conservation status within and outside Natura 2000-sites; EU Commission initiates legal action against Member States for failing to comply with their obligations
 - **Germany:** *Länder* monitor Natura-2000 sites, except North Sea and Baltic Sea Exclusive Economic Zone (National Government)
 - **UK:** JNCC, alongside appropriate Statutory Agencies in the UK. i.e. Natural England, Scottish Natural Heritage; Natural Resources Wales; Northern Ireland Environment Agency,
- Financing

Main Categories for Policy Analysis (III)

Other categories

- **Targeted actors** / regulatees (by policy and/or measure) vs. **'real' beneficiaries**; actors affected negatively
- **Actors involved** in design of policy and/or measure – processes, interests, power relations, political economy
- **Targeted and affected ecosystems and ecosystem services**, but also **institutional context**
- **Predecessor policies** (if applicable) / History of regulatory framework(s)
- **Normative criteria for evaluating the frameworks** (e.g., effectiveness, adaptiveness, information use, coherence)

Analytical Challenges: EU Level

- **Broad range of policy types**
(Framework Directives, Strategies, Regulations, ...)
- **Different sectors, partly cross-sectoral**
- **Different stages of policy development & implementation**
(e.g., Habitat Directive vs. Proposal Soil Framework Directive)
- **Analysing policies (and/or measures)**
 - Policy/measure **effective to induce changes** in behaviour of actors and/or to protect or foster ES/NC **as intended?**
 - **Actual effects** of policies/measures on ES/NC **very context specific, difficult to measure** and to disentangle from other policies, institutions, and drivers
 - Focus on objectives and structural issues?

Analytical Challenges: Case Study Level

- **Two main strands:**

- Policy / institutional analysis as **tool for case studies** to identify actual or potential impediments for finding, agreeing on, and (effectively) implementing solutions/policies
- Policy / institutional analysis **to identify obstacles for mainstreaming ES/NC in national and regional policies** and relevant processes

- **Assessing the existing institutional environment**

- For example, distribution of property rights on relevant natural resources, formal/informal rules for decision-making, mechanisms/ 'cultures' for monitoring/sanctioning

- **Assessing roles, interests, power relations, and action resources of actors** involved in design, implementation, monitoring/ sanctioning of concrete measures



**Thank you very much
for your attention!**

