



Understanding the integration of ecosystem services and natural capital in Scottish policy



Clément Claret^{a,b,*}, Marc J. Metzger^a, Marianne Kettunen^d, Patrick ten Brink^c

^a The University of Edinburgh, School of GeoSciences, Drummond Street, Edinburgh, EH8 9XP, Scotland, UK

^b Sciences Po, Centre d'études européennes et de politique comparée (CEE), CNRS, 27 rue Saint-Guillaume, 75337, Paris Cedex 07, France¹

^c European Environmental Bureau, 34 Boulevard de Waterloo, B-1000, Brussels, Belgium

^d Institute for European Environmental Policy (IEEP), 11 Belgrave Road, London, SW1V 1RB, UK

ARTICLE INFO

Keywords:

Environmental policy
Ecosystem services
Policy review
European Union
Scotland

ABSTRACT

Despite the growing body of evidence highlighting how human activity both depends on and keeps deteriorating natural resources, traditional development models have failed to bring about conservation solutions to this contradiction. The twin concepts of ecosystem services and natural capital (ES/NC) have been coined to bridge this cognitive gap, by providing a framework to make the benefits that human societies derive from ecosystems more visible and intelligible for policy- and decision-making. As part as a global effort, European Union institutions have been promoting these notions over the last decade. The effective take-up of the ES/NC framework is therefore crucial to the success or failure of this attempted cognitive shift in influencing public decision outcomes. This article presents an assessment of the integration of ES/NC in Scottish policy, conceptually and operationally. Forestry is used as an exemplar policy sector to illustrate integration dynamics and limitations, but eight other policy areas were analysed: the environment, split up between its air, soil and water components, a broad category including agriculture, rural development and land use, fisheries and coastal matters, climate change, and bioenergy. The analysis of 224 policy documents, strategies and other policy-relevant documents demonstrates how Scotland has become an 'ES/NC-literate' polity through a proactive stance regarding global and European norms and requirements for nature conservation and the sustainable use of resources. The ultimate outcome of these policies requires further analysis given the substantial implementation challenges.

1. Introduction

Despite growing awareness of humanity's dependence on nature, attempts to halt its anthropogenic degradation and destruction have so far failed to reverse global trends. The apparent inability to solve this contradiction highlights the inadequacy of development models that have allowed the pursuit of ultimately self-damaging activities, notably by overlooking or completely dismissing nature's contribution to human well-being (Schumacher, 1973: 12–13; *The Economics of Ecosystems and Biodiversity*, 2009: 4, 7; Gómez-Baggethun et al., 2010: 1211–1212). Fully acknowledging human-ecosystem interdependencies calls for a dilution of the somewhat artificial nature/culture divide (Latour, 2004). From an anthropocentric perspective, such an approach requires cognitive and practical tools capable of correcting the “fundamental asymmetry at the heart of [our] economic systems” between short-term decision-making and long-term stewardship of the natural environment (Guerry et al., 2015: 7348).

The concepts of ecosystem services (ES) and natural capital (NC) bridge the environment/economy gap by phrasing nature's value to society in economic terms to make it more explicit. ES are the benefits people obtain from ecosystems, usually classified along functional lines, using categories of provisioning, regulating, cultural, and supporting services (de Groot et al., 2002: 404; *Millennium Ecosystem Assessment*, 2003: 53–60). NC consists in the imperfectly substitutable and limited stocks of living and abiotic resources from which ES flows originate (Schumacher, loc. cit.; Wackernagel and Rees, 1997: 3–4; *Millennium Ecosystem Assessment*, 2003: 28–29; *The Economics of Ecosystems and Biodiversity*, 2010: 33). Since the publication of the Millennium Ecosystem Assessment (*Millennium Ecosystem Assessment*, 2003), the ES/NC framework has been included in international agreements, such as the Strategic Plan 2011–2020 adopted by UN Convention of Biological Diversity and the so-called “Aichi Targets” it has set out (UNEP/CBD/COP/11/35). International recognition has in turn led to integration of ES/NC into concrete policies across the different sectors of

* Corresponding author at: Sciences Po, Centre d'études européennes et de politique comparée (CEE), CNRS, 27 rue Saint-Guillaume, 75337, Paris Cedex 07, France.

E-mail address: clement.claret@sciencespo.fr (C. Claret).

¹ Sciences Po is a member of USPC.

governmental action (Guerry et al., 2015: 7351–7354; Geijzendorfer et al., 2017).

The European Union (EU) assumed a leading role in promoting ES/NC as a conceptual framework with practical implications for policy-making. In 2007, the German Ministry of the Environment and the European Commission jointly initiated further research with a stronger focus on potential applications, leading to *The Economics of Ecosystems and Biodiversity* (The Economics of Ecosystems and Biodiversity, 2010). TEEB provided the case for a better integration of ecosystem science into economic decision making, and then formulated policy recommendations for the actual implementation of a coherent policy framework capable of addressing ES/NC (Daily et al., 2009). The EU also took a proactive stance on the “Aichi targets”. Targets 14 to 16 enshrine “enhance[ing] the benefits to all from biodiversity and ecosystem services” as one of five strategic goals (UNEP/CBD/COP/11/35: 103–104). The EU biodiversity strategy has adopted the 2020 deadline to “[halt] [...] the degradation of ecosystem services [...], and restor[e] them in so far as feasible”, leading to an effort to improve knowledge of ecosystems and their services in the EU through the Mapping and Assessment of Ecosystem Services by Member States (“MAES”, COM (2011) 244: 2.1, 4.1, Action 5 in Annex; Biodiversity Information System for Europe, online).

The EU’s subsidiarity principle implies that European institutions cannot directly implement their statements of intent regarding ES/NC. At the European level, fleshing out an effective ES/NC policy consists in integrating these notions into frameworks for decision-making in policy sectors where the EU has some authority over Member States. As such, the overall coherence of ES/NC integration and the extent to which policy is actually implemented both need to be assessed. The term “integration” is often used to describe policy harmonisation between EU Member States (as in Jordan, 2002), and in this study it refers specifically to the effective take-up of the ES/NC framework to address environmental concerns and formulate solutions in a given policy area (cf Fisher et al., 2008). This is similar to “policy transfer” of a cognitive framework and associated ideas and norms associated (Stone, 1999; Dolowitz and Marsh, 2000: 5). Although the ultimate goal of thinking in terms of ES/NC is to have environmental considerations informing decision-making in all policy sectors, it is only one potential and partial route towards what some authors have dubbed environmental policy integration (EPI; Lafferty and Hovden, 2003). EPI is much broader than our objective, which is to focus on the ES/NC framework.

A previous review evaluating the extent to which EU policy framework demonstrates a comprehensive and effective understanding of ES/NC concepts has revealed important discrepancies between different policy areas, including several opportunities for improved integration and policy coherence (Kettunen et al., 2014). Furthermore, the translation of these EU policy directions into national and regional policies has been identified as requiring further investigation at different implementation scales. (*ibid.*: 11–12, 45). This paper seeks to address this research gap, by evaluating ES/NC policy integration in Scotland and comparing results with those obtained at the EU level, potentially pointing at “inappropriate” transfers (Stone, 1999: 54). Since environmental policy is a devolved matter, the analysis will reveal ‘local’ specificities in the way ES/NC are understood and articulated, and the extent to which Scottish policy has been influenced by European requirements and opportunities. The latter is especially interesting now that the UK has decided to leave the EU. The specific research questions addressed in this paper are therefore:

- (1) How explicit and comprehensive are Scottish policy documents in their use of the ES/NC framework, to formulate issues, needs and potential solutions?
- (2) How does Scottish policy echo corresponding European texts?

The analysis encompassed eight policy sectors for which the EU has clearly started promoting policies based on the ES/NC framework: the

environment, split up between its air, soil and water components, a broad category including agriculture, rural development and land use, forestry, fisheries and coastal matters, climate change, and finally bioenergy. Unsurprisingly, these policies areas relate to either conservation or economic activities deriving products directly from ecosystem functions. By looking at them separately, the present analysis seeks to offer a “process-based account”, in which the distinctive histories, routines and actors of individual governmental departments are expected to result in different paces and patterns of integration (Jordan, 2002: 51–61; Stone, 2004: 550–552). Policy transfer can take different guises as notions travel from one context to another and hybridise with “native” conceptions (Dolowitz and Marsh, 1996: 351). Following a description of the analytical framework we present detailed findings for the forestry sector. Findings for the seven other sectors are provided as Supplementary Material, but used to answer the research questions and draw conclusions about the uptake of the EU-promoted ES/NC framework by Scottish authorities.

2. Analytical framework

The evaluation of ES/NC integration in Scottish policy is based on a deductive qualitative content analysis of 212 policy documents, using specific criteria to identify four categories of policy integration. A purposively-selected sample of texts has been analysed using pre-established categories to make sense of its content with regards to the research question (Elo and Kyngäs, 2008: 109–112). The texts for each policy sector are listed in the Supplementary material.

Following Kettunen et al., a first distinction is made between conceptual and operational integration. Conceptual integration exists when the ES/NC framework is used to identify and address environmental challenges and opportunities in a given policy area. Operational integration exists when dedicated policy instruments are in place to protect or restore ES/NC. Note that the significance or effectiveness of the policy instruments proposed is not considered. As an analytical concept, operational integration accounts for the articulation of policy instruments towards the specific goal of addressing issues made visible by conceptual integration.

These two aspects of ES/NC integration have then been assessed in terms of explicitness and comprehensiveness, in a continuum ranging from to ‘comprehensive and explicit’ to ‘no specific integration’ (see Table 1). As a criterion, comprehensiveness points at the extent to which a policy area has drawn on available ES/NC research. Documents can display explicit reference to the ES/NC framework, yet overlook relevant natural resources and ecosystem. Implicitness indicates a lower level of integration, where environmental protection is not presented without considering human wellbeing. In some policy sectors, texts might resort to precursor concepts such as “nature valuation”, yet without necessarily allowing for the holistic vision linking NC and ecosystem functions to the full range of human benefits they underpin.

Documents were reviewed using the categorisation matrix described in Table 1. For each policy sector, a brief review of the existing ES/NC research literature was conducted to evaluate comprehensiveness – if possible using articles and reports referring to Scotland. Explicitness was assessed based primarily on lexicon. However, a context-sensitive, inductive approach was required when looking for implicit references and operational integration. For some particularities of the corpus a vocabulary of more or less loosely connected terminology to ES/NC was developed.

3. Results

The following section first presents the specific findings for Scottish forestry policy. This sector was chosen to illustrate the sectoral policy analyses because it provides a snapshot of serval dynamics at play across the different policy areas reviewed. (which are included as Supplementary Material). Subsequently, a summary overview of all

Download English Version:

<https://daneshyari.com/en/article/7465747>

Download Persian Version:

<https://daneshyari.com/article/7465747>

[Daneshyari.com](https://daneshyari.com)