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Conclusion: Drawing lessons for Environmental Policy Integration and prospects for future research

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1. Introduction

Environmental Policy Integration (EPI) refers to the incorporation of environmental objectives in non-environmental policy sectors, such as agriculture and transport, rather than pursuing environmental protection through specialised environmental policies and legislation and by environmental institutions. In this way, EPI aims to target the underlying driving forces, rather than symptoms, of environmental degradation, and complements specialised environmental policies (Persson et al., 2018). The nine papers in this special issue analysed empirical manifestations of EPI in a variety of policy sectors and geographical contexts. The overall aim of the special issue was to understand the performance of attempts to promote EPI in terms of their (potential) contribution to environmental protection, and to identify the critical factors that explain this performance both during the stages of the policy process and in different contexts. However, the nine papers also contributed to EPI literature in other ways, namely by analysing the role of actors other than 'the usual suspects' (e.g. citizens, civil society, transnational corporations and farmers; Mullally et al., 2018; Karlsson-Vinkhuyzen et al., 2018; Van Oosten et al., 2018), by enriching EPI literature through drawing from other bodies of literature, resulting in novel strategies for promoting EPI (e.g. Van Oosten et al., 2018), the use of quantitative analysis of EPI performance (Tosun and Peters, 2018; Schmidt and Fleig, 2018) and applying EPI insights to a new global framework for integrated policy-making, the UN Sustainable Development Goals (SDGs) (Nilsson and Persson, 2017).

In this concluding paper, we take stock of the main lessons learned regarding 'what works'. In Section 2 we reflect on what the authors of the nine papers report, explicitly or implicitly, about the performance of EPI practices they analysed. In this Section we also identify some of the key contextual factors (sector, level of governance, geographical context) that affect the degree to which EPI practices contribute to environmental protection. In Section 3 we identify and analyse explanatory factors from the perspective of the policy process, exploring whether or not distinct factors play a role during the development, decision-making on and/or implementation of policies. In Section 4 we wrap up our main conclusions and formulate some suggestions for future research.

2. A reflection on the performance of EPI practices in this special issue

'Performance' is a multi-faceted concept that is easily interpreted differently. As explained in the Editorial to our special issue, we conceptualise EPI performance along two dimensions (Persson et al., 2018):

- Procedural: EPI in terms of *process* (re-arranging policy processes so as to integrate environmental objectives), *outputs* (formal decisions such as environmental objectives or concrete plans in non-environmental policies) and *policy outcomes* (impacts on behaviour and eventually in environmental conditions).
- Substantive: the relative weight of environmental objectives in sectoral policies, ranging from avoiding conflicts ('coordination') and striving for synergies ('harmonisation') up to favouring environmental objectives ('prioritisation').

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Table 1
Overview of the performance of EPI practices in the eight empirical papers of the special issue.

Authors	Sector(s)	Policy level(s)	Geographical context	Form of integration
Tosun and Peters (2018)	Multiple sectors	International	Global	Mainly no integration, some harmonisation
Schmidt and Fleig (2018)	Multiple sectors	National	Global	Harmonisation
Mullally et al. (2018)	Energy	National	Ireland	All three forms, but mainly prioritisation
Russel et al. (2018)	Coastal and marine management	EU	Europe	Limited or early-stage integration
Widmer (2018)	Multiple sectors	National	Switzerland	Coordination/harmonisation
Karlsson-Vinkhuyzen et al. (2018)	Agriculture, forestry, coastal management	International to local (incl. non-state actors)	Global	Coordination/harmonisation
De Roeck et al. (2018)	Development co-operation	EU to national	Europe; developing country partners	Harmonisation
Van Oosten et al. (2018)	Agriculture and forestry	Landscape	Rwanda	Coordination/harmonisation

Table 1 below provides an impression of the performance of EPI as reported in eight of the nine papers that contain empirical analyses of EPI practices.

Our set of papers do not allow for a strict comparative analysis with controlled variables, but still illustrates a spectrum of EPI practices across different sectors and levels of government. In most of the papers, harmonisation and/or coordination between environmental and sectoral objectives were observed. This suggests that the EPI principle broadly has taken hold, across widely different policy and governance contexts. Specifically, Schmidt and Fleig's (2018) study shows a strong increase of climate policy integration (CPI; a specific form of EPI) globally, as measured by national climate legislation targeting different sectors. Integration in the form of prioritisation of environmental objectives seems unusual, though, and was only identified in the case examined by Mullally et al. (2018). Prioritisation of environmental objectives is furthermore politically hard to justify in light of the UN Sustainable Development Goals (SDGs) (Nilsson and Persson, 2017), which can be expected to increasingly drive policy integration. More comparative and longitudinal research, with a rigorous case selection strategy, is needed in order to establish whether the prevalence of harmonisation and coordination approaches means that EPI has been institutionalised in organisations and normalised among actors, and is less dependent on (temporary) political will (cf. Jordan and Lenschow, 2010; Persson et al., 2015).

However, the papers also point to some important exceptions to this trend. At the international level, it could be expected that most intergovernmental organisations (IGOs) would commit to EPI, considering they are typically not heavily engaged in policy implementation and therefore would not have to bear the 'cost' of any trade-offs with existing sectoral objectives that might not materialise until the implementation stage. However, a majority of economic and multi-issue IGOs were found to still not have EPI commitments in their primary law, which suggests that EPI is not perceived as important or that commitments made are not encoded into primary law documents (Tosun and Peters, 2018).

Limited EPI was also found in the case of mainstreaming climate change adaptation into EU coastal and marine policy (Russel et al., 2018). This raises the question of whether the nature of the issue or objective to be integrated matters. Among the three papers looking specifically at climate change adaptation as an issue, Russel et al. indeed find that there was low demand for adaptation vis-à-vis other environmental objectives among environmental interest groups. De Roeck et al. (2018) further noted that cognitive barriers, in the sense of low recognition of the relevance of climate adaptation in the given sector context, contributed to weak integration. However, Widmer (2018) does not suggest any such adaptation-specific barriers. A similar question raised is if integrating various environmental objectives with each other (e.g. integrating biodiversity objectives into climate mitigation or adaptation policies) is harder to achieve than integrating environmental objectives into non-environmental policy sectors, considering the results of Tosun and Peters (2018).

No clear pattern regarding sectoral or geographical contexts is indicated by the nine papers, except the finding that EU member states, as well as IGOs that are focused on Europe, tend to be faster in adopting or promoting CPI (Schmidt and Fleig, 2018) and EPI (Tosun and Peters, 2018) respectively. The papers looking at the EU level confirm that EU institutions have formalised and operationalised EPI commitments to a large extent (including EPI-conditional funding streams), but that the outcome is largely dependent on matching interest from member states given the subsidiarity principle (Russel et al., 2018) and on resources and priorities of EU officials implementing policy on the ground (De Roeck et al., 2018).

Further, the papers that analysed the policy implementation stage in detail found that this is indeed the critical stage for EPI performance, where the delivery of high-level commitments is compromised by a 'messy' environment of multiple policy goals and priorities, multiple actors, and often scarce resources. This can result in different outcomes, either that EPI fails to be implemented as intended (De Roeck et al., 2018; see also Runhaar et al., 2013) or that creative strategies are developed to navigate around institutional and political constraints (van Oosten et al., 2018). Deficits in implementing integrated environmental objectives were also reported in a recent systematic review of empirical research on climate adaptation mainstreaming – a specific form of EPI (Runhaar et al., 2018). Including environmental objectives in sectoral policies is easier in the policy development stage, than later translating them into concrete measures. We assume this is because implementing EPI requires i) specificity and precision in terms of objectives to be integrated and ii) explicit weighing against sectoral objectives, as opposed to more generic and less committal references to EPI broadly.

3. Identifying the key factors that affect the performance of EPI practices in this special issue

Previous studies on EPI have identified a variety of factors that contribute to, or impede, EPI (for a recent overview: see Runhaar et al., 2018). Rather than producing a new list here, we aim to contribute to further theory development on EPI by organising the factors according to the stage in the policy cycle where EPI practices take place. In this way we hope to identify challenges and opportunities for EPI along the policy process. This is a relatively novel approach (but which actually was also applied by De Roeck et al., 2018) aimed at getter a better understanding of 'what works' in EPI by moving beyond mere lists of barriers and other factors (cf. Biesbroek et al., 2015).

Table 2 summarises the factors that were mentioned, explicitly or more implicitly, in the nine papers that form this special issue (the policy note by Nilsson and Persson was also included because it also contained factors that were derived from other studies). We acknowledge that the policy stages model is a simplification and is not necessarily unidirectional. Yet the basic stages of the policy process are common for most policy processes and therefore provide an organising