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Tools for integrating environmental objectives into policy and practice: What works where?

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ABSTRACT

An abundance of approaches, strategies, and instruments – in short: tools – have been developed that intend to stimulate or facilitate the integration of a variety of environmental objectives into development planning, national or regional sectoral policies, international agreements, business strategies, etc. These tools include legally mandatory procedures, such as Environmental Impact Assessment and Strategic Environmental Assessment; more voluntary tools such as environmental indicators developed by scientists and planning tools; green budgeting, etc. A relatively underexplored question is what integration tool fits what particular purposes and contexts, in short: "what works where?". This paper intends to contribute to answering this question, by first providing conceptual clarity about what integration entails, by suggesting and illustrating a classification of integration tools, and finally by summarising some of the lessons learned about how and why integration tools are (not) used and with what outcomes, particularly in terms of promoting the integration of environmental objectives.

1. Introduction

'Integration' has long been advocated as a way to promote more sustainable policies and planning. By including sustainability objectives into sectoral policies and planning, inconsistencies between these and sectoral objectives that often result from institutional 'compartmentalisation' can be avoided and synergies be achieved (Lafferty and Hovden, 2003; Runhaar et al., 2014). Moreover, in sectoral policies and plans, the driving forces of environmental pressure can be targeted (think of urbanisation or agricultural intensification; Adelle and Russel, 2013).

Policy integration, and its synonym 'mainstreaming', are most often associated with environmental objectives (Lafferty and Hovden, 2003; Jordan and Lenschow, 2010; Runhaar et al., 2014), and, in the last decade with a growing emphasis on climate policy integration (CPI) within the international policy literature on climate change (Huq and Reid, 2004; Adelle and Russel, 2013; Uittenbroek et al., 2014). But the principle is also used in relation to disaster risk reduction (Wamsler, 2006; Fischer, 2014), gender equality (Pollack and Hafner-Burton, 2000), health (Fischer et al., 2010; Carmichael et al., 2012) and, more broadly, sustainability (Rival, 2012; Rietig, 2013; Velázquez Gomar, 2014). Concepts such as 'integrated coastal zone management' (Shipman and Stojanovic, 2007), 'integrated pest management' (Kogan, 1998), and 'integrated water resources management' (Biswas, 2004) are specific operationalisations of policy integration that already have a long history.

In this paper the focus will be on *environmental* policy integration rather than on the integration of sustainability objectives. In order to support the integration of environmental and sustainability-related objectives into sectoral policies and plans, a wide variety of approaches, strategies, and instruments – in short: tools – have been developed. Examples are environmental indicators that facilitate monitoring and policy evaluation; Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA); Poverty Social Impact Analysis; valuation of ecosystem services; sustainability appraisal etc. (Baker and Wong, 2006; Gillingham, 2008; Obst et al., 2015). These tools have an analytical starting point and aim to steer towards integration by the provision of information. Other tools are more procedural in nature, and focus more on mobilising actors and stimulating the creation of support for achieving some sort of policy integration, such as area-based participatory planning tools (Runhaar and Driessen, 2011). Institutional tools focus on reform of e.g. state departments such as of the establishment of environmental units within sectoral departments (Jordan and Lenschow, 2008). And then there are what policy analysts call 'policy instruments' that are more regulatory of nature: environmental taxes, licences, green budgeting, payments for ecosystem services, etc. (Runhaar et al., 2014). Although these tools are rather different in terms of target actors and strategies, their aim is the same: ensure that environmental or sustainability objectives are incorporated in sectoral policies and plans.

The abundance of integration tools available can assist planners and policy-makers who aim for more policy integration in whatever sense, but also may raise the question of what tools to use, in what situation, and for what purpose. In other words: what works where? This question is far too ambitious to answer in one paper but nevertheless provides clear direction and inspiration for future research (Bressers,

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2004; Lafferty and Ruud, 2008; Runhaar et al., 2014). In this paper I aim to make a modest contribution towards an answer to the above question by providing some conceptual clarity about the concept of integration (Section 2), by suggesting and illustrating a classification of integration tools (Section 3), and by drawing lessons from studies about the use, non-use and sometimes abuse of integration tools (Section 4). The paper concludes with some conclusions and reflections (Section 5).

2. 'Integration' defined and operationalised

Integration refers to bringing things together, linking them, making them part of a larger system (Runhaar et al., 2009). Comparable concepts are 'holistic' (planning etc.) or 'mainstreaming' (Uittenbroek et al., 2013). Jordan and Schout (2006: 66, in Jordan and Lenschow, 2008: 11) define environmental policy integration (EPI) as "*a process through which "non" environmental sectors consider the overall environmental consequences of their policies, and take active and early steps to incorporate an understanding of them into policy making at all relevant levels of governance*". There is however no generally accepted definition of policy integration, or EPI, in particular (Lafferty and Hovden, 2003; Jordan and Lenschow, 2008; Runhaar et al., 2009). Some conceptual clarity is needed in order to assist planners or policy-makers who aim for integrated policies or plans. Moreover, the development of indicators for measuring the nature and degree of integration may facilitate the (ex ante) assessment of the 'success' of integration efforts, and may also help structuring a debate about what integration to strive after. Below I will discuss three basic questions that are related to defining and operationalising 'integration'.

2.1. What should be integrated and into what?

In Section 1 I indicated that many environmental objectives – environmental, risk, health, etc. – can be sought to be integrated into a wide variety of sectoral plans and policies. *What* is to be integrated can be determined from the top-down – e.g., Sustainable Development Goals (which include environmental objectives) to which states have committed themselves, CO_2 reduction targets, etc. But integration can also originate from the bottom-up within sectors; think for instance of eco-labels such as the Marine Stewardship Council and pressure from consumers and NGOs on companies to reduce particular environmental pressures (Runhaar et al., 2014; Wolf, 2014).

There is some evidence that the degree to which integration takes place depends on what is to be integrated – and how it is framed. For instance, regarding the integration of climate change in urban planning, Wejs et al. (2014) and den Exter et al. (2015) found that mitigation objectives were integrated to a larger extent than adaptation objectives. The framing of what needs to be integrated could explain such differences. Runhaar et al. (2014), Wejs (2014) and Wejs and Cashmore (2014) suggest that a careful framing of the integration objective in such a way that synergies with sectoral objectives are made clear could help to create support for integration (as well as political will - an important factor determining integration ambition levels, as Lafferty and Hovden (2003) suggest). Uittenbroek et al. (2014) suggest that the issue to be integrated can be framed as a solution to another problem, "*For example, climate adaptation can be considered as a problem that requires investments or can be framed as an opportunity for sustaining an attractive and safe city*" (ibid., p. 1046).

The *subject* of integration is often public policy, however, if a broader conceptualisation of integration is adopted, then also environmental measures as part of Corporate Social Responsibility (CSR) policies of companies could be considered as forms of integration (Berger et al., 2007; Knudsen, 2013). The basic idea is the same: incorporating environmental or other objectives into policies or plans in which they normally are not integrated (or at least not beyond what is required by licences or laws), although scope is limited to the company at issue and perhaps its suppliers or customers. More ambitious (perhaps *too* ambitious) concepts are those of 'sustainable supply chains' and 'green economy' (Faisal, 2010; Brand, 2012; Vermeulen, 2015). The scale at which integration takes place hence can differ from an individual organisation (public agency or company) to a particular sector or domain such as development planning, agriculture, transport, or energy (Runhaar et al., 2014).

The extent to which environmental objectives are (or can be) integrated seems to differ across policy sectors. For instance, (Persson et al., 2016) found that in Sweden, in the energy sector a higher degree of environmental policy integration was observed than in the agricultural sector.

2.2. When?

Integration can take place at different moments in the planning process: during the decision-making stage, its implementation, the evaluation or the re-design of policies and plans (Kivimaa and Mickwitz, 2006; Moser and Ekstrom, 2010; Uittenbroek et al., 2013). From several studies it appears that policy integration at the decision-making stage is often (but not always) easier than during the implementation of 'integrated' policies and plans (e.g. Alahuhta et al., 2010; Jordan and

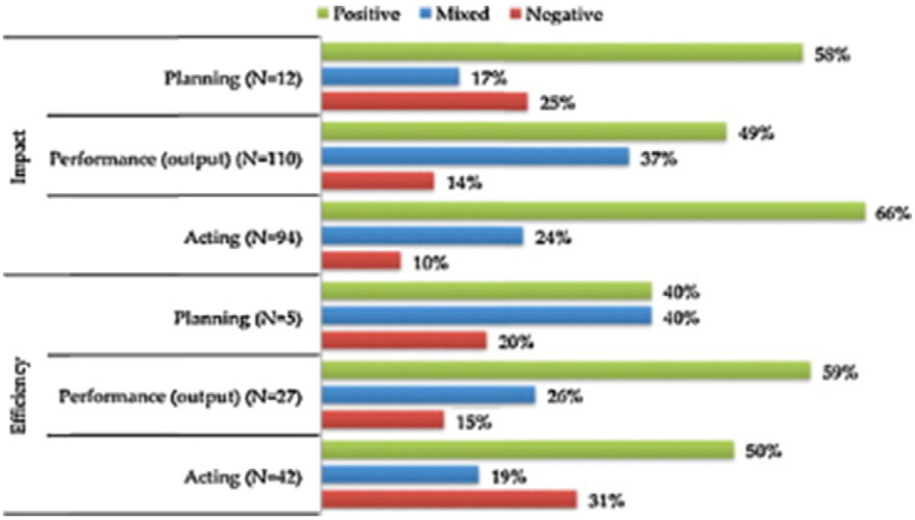

Fig. 1. Impact and efficiency evaluations of low-carbon policies according to the targeted stage.