

Climate Policy Integration: a Case of Déjà Vu?

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ABSTRACT

Climate change is a complex cross-cutting problem that necessitates a high level of policy coordination. One proposed strategy for dealing with such issues is policy integration or mainstreaming. Environmental Policy Integration (EPI) was heralded as one of the key features of sustainable development. However, in recent years Climate Policy Integration (CPI) has come to the fore. This article argues that CPI is an emerging concept that has received insufficient attention in the literature, despite gathering increasing prominence in policy circles. In particular, the precise nature of the relationship between EPI and CPI is still unclear. This article compares CPI with EPI in order to systemically unpack what CPI means both conceptually and in practice. The article finds that CPI is less about ambitious and expansive integration across all policy sectors and more about engaging a narrower set of sectors to work together in particular ways to meet specific goals. Copyright © 2013 John Wiley & Sons, Ltd and ERP Environment.

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Introduction

CLIMATE CHANGE IS A 'WICKED ISSUE' THAT IS INHERENTLY DIFFICULT TO SOLVE (RAYNER AND OKEREKE, 2007). MITIGATING climate change points to, amongst other things, a complex combination of changing behaviours, improving energy efficiency and switching to less carbon-intensive energy sources. Moreover, the root causes of climate change are embedded across a number of sectors (e.g. energy, transport, industry, housing and agriculture) each of which has differing priorities and distinct sets of actors with varying interests. Moving beyond mitigation adds further complexity by necessitating the development of strategies to adapt to climate change, including building flood defences, changing farming practices and improving water resource efficiency. Given the complex cross-sector nature of the climate problem, there is a compelling case for climate policy to be coordinated with other policy areas to produce a coherent approach.

One strategy for a more coordinated approach to complex cross-cutting issues is policy integration. *Environmental Policy Integration* (EPI) was heralded as 'one of the key defining features of sustainable development' (Lafferty and Hovden, 2003, p. 1), and strategies to implement EPI have been formulated (albeit with limited success) in the EU and more widely (Jordan and Lenschow, 2008; Jordan *et al.*, 2008; Wilkinson, 1997; Lenschow, 2002a). Moreover,

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in response to heightened concern about climate change, the concept of *Climate Policy Integration* (CPI) has come to the fore in the last decade.

This article argues that CPI is an emerging concept that has received insufficient attention in the literature, despite its increased prominence in policy circles; see for example the debate on the post-2013 EU budget (Medarova-Bergstrom *et al.*, 2011). The emerging literature often conceptualizes CPI as a component of EPI or as a related concept (e.g. Jordan and Lenschow, 2010; Nilsson and Nilsson, 2005; Ahmad, 2009; Mickwitz *et al.*, 2009). However, few authors have examined this relationship systematically or in detail. For example, Jordan and Lenschow (2010, p. 149) suggested that CPI is ‘yet another take on the integration problematique’, but did not elaborate on the relationship further. Others have noted that EPI is based on a richer conceptual background than CPI, stemming from its longer history and more substantial body of literature and experience (Ahmad, 2009). Yet attempts at implementing EPI at the EU level have been far from impressive, while policy developments such as the agreement of the ‘Climate and Energy Package’ in 2008 indicate that CPI may be gaining some traction on the ground. From the current literature, therefore, it is not clear what the precise relationship between EPI and CPI is. This leads to some, as yet, unanswered questions. For instance, do EPI and CPI represent different challenges and approaches? Is the more narrowly defined CPI more tangible to conceptualize or implement than EPI? If so, what are the academic and practical implications? Such lingering questions make it difficult, even for experts in the field, to establish a clear picture of what CPI is, ‘let alone how it can be made operational, supported, and strengthened’ (Olhoff and Schaer, 2010, p. 7).

By unpacking the various components of CPI in relation to the more established concept and practice of EPI, this article aims to improve the understanding of CPI. Our comparison is based both on the established EPI literature and the smaller but emerging research on CPI. In this article we adopt a broad interpretation of the ‘CPI literature’ to include not only texts explicitly addressing CPI but also those discussing ‘climate mainstreaming’, ‘climate proofing’ and the ‘integration’ of climate objectives into non-climate policy areas. Furthermore, it is often hard to distinguish between climate policy *integration* and climate policy *per se*, an issue that also confronts EPI. In this article we therefore draw on the approach of the European Environment Agency (EEA, 2005) and take traditional environmental/climate policy to include ‘command and control’ type regulation and environmental/climate policy integration to consist of ‘softer’ modes of governance such as strategies, policy appraisal, budgetary tools and voluntary instruments. From this point of view, legal instruments are an important ‘ingredient in the “policy mix”’, but the value added of an integration perspective is to ensure the *appropriate* mix of instruments is being used to ‘push’ integration of the issue in hand (EEA, 2005, p. 39).

This article examines EPI and CPI both conceptually (i.e. how they are understood as ideas) and in practice (i.e. how they are implemented). This two pronged approach is important because it is one thing to write about normative conceptions of policy integration in the academic literature or to make ambitious policy pronouncements on paper about how integration might be pursued or evaluated, but this conceptual perspective can differ widely from what integration actually adds up to in operational terms in its day-to-day practice. In this regard, the article draws on real world insights from the practice of EPI and CPI at the EU level. The EU has been at the forefront of the pursuit of EPI (Jordan and Lenschow, 2008; Lafferty and Hovden, 2003; von Homeyer *et al.*, 2010) as well as an international leader in climate change policy (Oberthür and Kelly, 2008). Moreover, the EU itself has recently begun to recognize the imperative to integrate climate change objectives into its other policies (European Commission, 2007a, 2007b).

To compare the concept and practice of EPI and CPI this paper uses the three categories of analysis set out by Jordan and Lenschow (2010) in a state of the art review of the EPI literature published in this journal. These categories form the structure of this article: first, ‘the different interpretations’ of EPI and CPI discussed in the literature are scrutinized; second, the literatures on EPI and CPI are considered as ‘a process of governing’ in day-to-day policy making by examining the approaches, strategies and policy instruments employed to pursue CPI and EPI; third, EPI and CPI are examined as ‘a policy outcome or output’, i.e. in terms of what end state they have produced. Finally, in the concluding section, we reflect on some of the most salient points of comparison between these two concepts and then consider their academic and practical implications.

EPI and CPI: as Different Interpretations

Concept

A focus of substantial debate in the EPI literature has been whether EPI is interpreted as a political aspiration or a procedural principle (Lenschow, 2002a, p. 5), or if it has autonomous meaning (i.e. a standard to observe) (Nollkaemper, 2002, pp. 25–29). Building on the work of Underdal (1980) and Peters (1998) on policy integration, Lafferty and Hovden (2003) argue that the crucial issue in defining EPI is the relative importance of sectoral and environmental objectives. Affording ‘principled priority’ to environmental objectives vis-à-vis other policy areas rather than merely ‘balancing’ the various objectives is justified by the ‘the increasing acceptance that we are facing potentially irreversible damage to life-support systems’ (Lafferty and Hovden, 2003, p. 10). While ‘weaker’ interpretations certainly exist in the EPI literature, in which the possibility of trade-offs between environmental and other priorities are considered (e.g. Liberatore, 1997, p. 119; EEA, 2005, p. 12; Hertin and Berkhout, 2003, p. 40), Jordan and Lenschow (2010, p. 148) argue that Lafferty and his colleagues have done ‘the most to pin down its meaning’. Specifically, Lafferty and Hovden (2003, p. 9) state that EPI entails giving the environment ‘principled priority’ in the policy making process.

It is not surprising then that it is the definition of EPI by Lafferty and Hovden (2003, p. 9) to which some authors in the CPI literature turn in seeking their own conceptual clarity. For example, many authors (e.g. Nilsson and Nilsson, 2005; Ahmad, 2009; Mickwitz *et al.*, 2009; Mickwitz and Kivimaa, 2007) suggest that by substituting the word ‘environmental’ with ‘climate’ it is possible to clearly define CPI as a process giving principled priority to climate objectives over those of other policies. This approach would make EPI and CPI conceptually comparable. The strongly normative aspect of this definition, however, is not explicitly supported in other parts of the CPI literature. This strand of literature sidesteps the issue of how to handle possible trade-offs between climate, social and economic goals by placing emphasis on pursuing synergies (e.g. Kok and de Coninck, 2007) and co-benefits (e.g. Kok *et al.*, 2008) between these – at times competing – objectives. Mickwitz and Kivimaa (2007, p. 71) go further, questioning whether the argument for principled priority for environmental objectives is unique. They suggest that similar ethical arguments could be made for other cross-cutting integration problems such as gender or equity. Furthermore, much of the CPI literature has its roots in international development studies and takes a ‘development first’ approach giving development issues priority over other objectives, including climate change (Kok *et al.*, 2008).

This implicit conceptualization of CPI therefore appears more aligned with the weaker interpretations of EPI than the principled priority for climate integration. It also chimes with organizational or rational motives for policy integration which has been explicitly raised in the CPI literature (e.g. Mickwitz *et al.*, 2009). Organizational motives are based on increasing the effectiveness and efficiency of policy making processes through better policy coordination (Peters, 1998). While these organizational motives are not seen as contradictory to the normative motives in the EPI literature, they could be seen as ‘superfluous since it amounts to nothing more than a general principle for good decision making’ (Nilsson and Persson, 2003, p. 335). In other words, we arrive back at the more general principle of ‘policy integration’ (Underdal, 1980), where the environment or climate change is just one of a set of values to be considered in a more coordinated – or rational – approach to policy making.

As touched upon earlier, the CPI literature uses a range of terminology, which to some extent differs in its conceptualization of the issue in hand. While the term EPI is well established, the term CPI has only recently and sporadically been adopted in the literature, often with reference to EPI (e.g. Ahmad, 2009; Urwin and Jordan, 2008; Mickwitz *et al.*, 2009; Nilsson and Nilsson, 2005). In other strands of the ‘CPI’ literature, the terms ‘mainstreaming’ and ‘proofing’ are used (sometimes interchangeably) instead or alongside ‘integration’ (e.g. Yamin, 2005; Klein *et al.*, 2007; Kok *et al.*, 2008). While there have been some attempts to tease out a conceptual distinction between the terms ‘integration’ and ‘mainstreaming’, these appear to be rather artificial (see, e.g., Gupta, 2010). Yamin (2005), on the other hand, argues that it is the context that matters. He states that the term ‘mainstreaming’ is mainly used in a development context in much the same way as ‘integration’ is used in an environmental context. The term mainstreaming may simply have more resonance in a development context, as ‘Gender Mainstreaming’ has been *en vogue* since the UN Fourth World Conference on Women in Beijing in 1995 (Beijing Declaration, in Gupta, 2010, p. 74). Perhaps not surprisingly, however, given its international development context, mainstreaming

is commonly used to refer to the pursuit of climate adaptation rather than, or less commonly in addition to, climate mitigation (see, e.g., Yamin, 2005; Klein *et al.*, 2007). These dual dimensions of CPI go beyond the one dimensional conceptualization of EPI that only seeks to integrate consideration of environmental policy *objectives* and not actual environmental *impacts* into other policies.

The term ‘climate proofing’ has appeared most notably in EU climate and budgetary policy debates (e.g. European Commission, 2007b; Medarova-Bergstrom *et al.*, 2011) but also in the academic literature. For example, Urwin and Jordan (2008, p. 188) define climate proofing in terms of a way to reduce ‘obvious spillover effects on cognate sectors’. Whether climate proofing is thought of as an entirely comparable concept to CPI or alternatively as a sub-set of CPI takes us back to which definition of EPI/CPI is adopted. According to the definition by Lafferty and Hovden (2003, p. 9), ‘a commitment to minimise contradictions between environmental [climate] and sectoral policies by giving principled priority to the former over the latter’ is an essential part of EPI/CPI but so too is ‘the incorporation of environmental [climate] objectives into *all stages* of policy making in non-environmental [climate] policy sectors’. Perhaps it is then not surprising that there is at times a certain sense of retro-fitting ‘climate proofing’ measures onto existing policies and sectors (see, e.g., Fankhauser and Schmidt-Traub, 2011; Eichhorst *et al.*, 2011), which contrasts with a strong normative interpretation of placing climate at the heart of the decision making process.

Finally, the EPI literature reflects on how this strategy differs from traditional ‘end-of pipe’ environmental policy. According to Lenschow (2002b, p. 23), ‘EPI is more than a reminder of legal obligations in the environmental *acquis* of the EU; it is about the introduction of structures and procedures that facilitate a dialogue across policy sectors and governmental levels to reconcile conflicting interests’. The CPI literature in comparison does not infer a particular governance structure or approach which differentiates it from climate policy *per se* – hence the difficulty in differentiating between CPI and climate policy. In fact, as Ahmad (2009) warns us, the CPI literature is remarkably quiet about the process and instruments that should be employed to operationalize it. This is something we turn to in the next section.

Practice

Turning towards more positive meanings of EPI and CPI (i.e. what it means in practice), the article now reflects on implementation experiences in the EU. Jordan and Lenschow (2010) show us that far weaker interpretations of EPI can be seen in its day-to-day operation than those espoused in the academic literature. While the EU attempted to enshrine EPI in its Treaties (i.e. Article 6),¹ this did not lead to the legal clarity or enforceability hoped for by environmentalists. EPI instruments designed to implement this quasi-constitutional commitment failed to resolve long standing tensions between economic and environmental objectives in the EU, which began to resurface when the prospect of hard trade-offs were faced (Jordan and Lenschow, 2010). This was in part due to the relationship of EPI with the ‘mother principle’ of sustainable development. Linking EPI to the rhetorically powerful paradigm of sustainable development contributed to its political acceptance, but it has done less to facilitate adoption on the operational level (Lenschow, 2002a, p. 2). Sustainable development diverted attention from EPI, creating confusion about what should be integrated into the sectors – environmental objectives or sustainable development (Pallemaerts, 2006). This confusion was captured in the European Council’s request that sectoral council formations should ‘establish their own strategies for giving effect to environmental integration *and sustainable development* within their respective areas’ in the so-called Cardiff Process (European Council, 1998, paragraph 56, emphasis added). This ‘partnership for integration’ was launched in 1998 after the insertion of the integration clause (i.e. Article 6) in the Amsterdam Treaty.

Jordan and Lenschow (2010) report that distinctly different positive meanings of EPI have also been observed at the sectoral level. Such ‘sector-specific niches’ of EPI have emerged due to perceived problem pressures. Thus EPI seems to ‘take on a “positive” meaning that is situational (i.e. different across jurisdictions, sectors and points in time)’ (Jordan and Lenschow, 2010, p. 156). In this light, CPI can be seen as one such sector-specific niche of EPI in response to the particular and immediate issue of climate change. Mickwitz *et al.* (2009) claim that this

¹EPI was first introduced by Article 6 of the Single European Act and then made a core principle by the Treaty of Amsterdam. It was renumbered as Article 11 by the Lisbon Treaty.

specificity of CPI contrasts with the vague and abstract concept of sustainable development and EPI. Furthermore, Ahmad (2009, p. 13) argues that CPI often focuses on a single sector or a particular mitigation option rather than ‘considering systems of policy making as a whole-of-government activity’ (but see Medarova-Bergstrom *et al.*, 2011). Thus the positive meaning of EPI has been narrowed down not only in terms of what is to be integrated (i.e. climate policy objectives) but also in terms of what it should be integrated into (i.e. the energy sector). The practice of CPI has therefore become particularly associated with certain sectors, such as transport (see, e.g., Eichhorst *et al.*, 2011), development cooperation (see, e.g., Gupta, 2010), energy (see, e.g., Knudsen, 2012; Dupont and Primova, 2011), and most recently water policy (Brouwer *et al.*,).

EPI and CPI: as a Process of Governing

Concept

While EPI and CPI can be seen from a normative perspective, it is also possible to view them as a process of day-to-day policy making by which policy integration is achieved (Kooiman, 2000). As cross-cutting issues, neither the environment nor climate change ‘fit the ministerial boxes into which governments and policy analysts tend to place policies’ (Peters, 1998, p. 296). Spanning multiple sectors and levels of governance, both EPI and CPI are challenging to any political system. However, they are particularly fraught in the context of the EU, which is traditionally argued to suffer from institutional fragmentation and sectorization (Kassim, 2003; Peters and Wright, 2001). Overcoming the resulting policy ‘silos’ requires organizational structures and procedures capable of reconnecting the various parts of government (and increasingly beyond) (Jordan and Lenschow, 2008).

A significant section of the EPI literature is devoted to characterizing such organizational structures and procedures. One such typology, originating from the public policy field, is employed by Jordan and Schout (2006) to examine the EU’s EPI mechanisms, namely the following: hierarchical instruments; bureaucratic rules and standard operating procedures; staff training; specification of outputs and/or tasks; horizontal instruments; and mission statements. Alternatively, the EEA (2005) has produced a checklist of essential EPI elements, including the following: trends in drivers and pressures; political commitments; administrative cultures and practices; assessment and consultation; use of policy instruments; and monitoring and learning. Such typologies, to varying extents, have been used to evaluate progress towards EPI (see below).

Despite similar institutional coordination challenges facing both EPI and CPI, there is relatively little written on how to undertake CPI, and even less from the perspective of the public policy and administration literature. There is some discussion of ‘mitigation capacity’ outlining specific factors needed to achieve effective integration (see, e.g., Swart and Raes, 2007; Storbjörk and Hedrén, 2011). However, this mainly focuses on criteria commonly used in the context of international development, such as social and human capital (Swart and Raes, 2007). In addition, an emerging literature on the evaluation of CPI also offers criteria for ‘successful’ integration. However, these few frameworks contrast with those in the EPI literature in the fact that they focus far less on the process of integration through administrative mechanisms and structures (but see Kivimaa and Mickwitz, 2009, p. 63) and much more on outputs and outcomes (see, e.g., Mickwitz and Kivimaa, 2007). This is something we shall turn to in the next section.

An alternative approach to focusing on integration mechanisms is to see integration as a process of policy learning (see, e.g., Lenschow, 2002b; Hertin and Berkhout, 2003; Nilsson and Persson, 2003). Nilsson and Persson (2003, p. 337) argue that ‘[w]ith this perspective, EPI can be thought of as learning between actors in the policy network leading to changes in sector policy-making processes and outputs as a result of new mandates of environmental concerns and knowledge about environmental consequences’. A distinction is often made between *single-loop* learning, where learning ‘feeds into existing beliefs, norms and patterns of understanding [i.e. frames], permitting the system to achieve its present objectives’, and *double-loop* learning, concerned with changes to these frames by challenging world views (Nilsson and Persson, 2003, p. 340). Both EPI and CPI arguably have been conceived as requiring the latter, more complex, form of learning, which leads to a change in the hierarchy of the

goals themselves (i.e. a reframing process) (Lehtonen, 2007; Nilsson and Nilsson, 2005). However, change within frames, or incrementalism, is more common (Nilsson and Persson, 2003). The dilemma with integration is that devolving responsibility to the sectors can increase 'ownership' of the process within these sectors and so improve the chances of double-loop learning (as was intended in the EU's Cardiff Process). However, integration within sectors (i.e. vertical integration) can reduce the communication across sectors (i.e. horizontal coordination) due to the rise of diverging or even incompatible strategies (Hertin and Berkhout, 2003). It can also increase the likelihood of incremental changes (i.e. learning within frames) rather than fundamental ones (Lehtonen, 2007) as well as risking environmental issues being forgotten in the face of traditional sectoral policy objectives. Moreover, framing can act as a cognitive barrier to integration (Lenschow, 2002c). If the issue that is to be integrated does not 'fit' the prevailing sectoral frame, a large 'leap' in values and beliefs is needed to change the hierarchical order of priorities.

The extent to which the integration issue fits or corresponds to the dominant frame is therefore significant. The framing of CPI has often been tied to technological innovation, for example in wind and solar energy. This win-win framing of economic growth and environmental protection fits the narrative of ecological modernization (Mickwitz *et al.*, 2009), which the EU had adopted in practice while maintaining a symbolic commitment to the broader concept of sustainable development (Baker, 2007). Thus the process of CPI has increasingly been conceptualized as an opportunity for innovation, new markets and enterprise (Mickwitz *et al.*, 2009). Actions essential to EPI such as protecting biodiversity are not so attractive to this agenda, as they do not have the same technical challenges and thus economic opportunities.

Practice

The EPI literature devotes a significant amount of text to analysing the various mechanisms and policy mixes employed at the EU level (e.g. EEA, 2005; Jordan and Schout, 2006; Jordan *et al.*, 2008; Lenschow, 2002b; Wilkinson, 1997). This literature reveals that the EU has struggled to implement EPI in practice. The Cardiff Process, in particular, was singled out for its unrealized potential to lead to policy learning for EPI. Rather than a *process*, the resulting Cardiff Strategies were regarded as *ad hoc* policy statements by the Council formations concerned and resulted in little follow-up (Adelle *et al.*, 2012). By 2005 and 2006 official reference to the process had all but ceased, and by 2008 Jordan *et al.* (p. 169) declared it 'dead in the water'.

The lack of momentum achieved by the Cardiff Process (including by the Energy Council), as well as these other high level strategies (e.g. the EU Sustainable Development Strategy), stands in contrast to the relative success of the European Climate Change Programme (ECCP) – arguably a comparable CPI mechanism (Adelle *et al.*, 2009). This high level strategy was launched by the European Commission in 2000 to implement the Kyoto Protocol, an international climate change commitment, rather than any ambitious horizontal EPI mechanism such as the Cardiff Process. Nevertheless, the ECCP is currently in its fifth iteration, which in itself contrasts with the one-off Cardiff Strategies, and it has been reported to have been an 'important force' in EU policy making and promoted horizontal integration of climate policy across the Commission (Nilsson and Nilsson, 2005, p. 367).

Furthermore, rather than mainly using the softer (and arguably more expansive and ambitious) mechanisms employed for its pursuit of EPI (e.g. the Cardiff Process), the EU appears to have relied on more traditional 'hard' regulatory instruments (i.e. climate policy) to pursue its climate objectives (Adelle *et al.*, 2012). In fact, not only has there been a proliferation of these types of policy instrument but there has also been a shift towards tougher and more binding targets and provisions (Jordan *et al.*, 2012). There are, however, a number of notable exceptions which contribute to a broader policy mix more in line with an integration perspective. For example, the EU Emissions Trading Scheme (ETS), although seldom discussed in terms of CPI *per se*, is an example of a softer market-based policy mechanism which aims to 'get the prices' right and give a positive incentive to internalize damaging external environmental costs. More explicitly covered in the CPI literature, however, is analysis of how the EU budget could be better harnessed to deliver the EU's climate objectives (see, e.g., Medarova-Bergstrom *et al.*, 2011).

Another key difference between the process of EPI and CPI emerging from EU experience is the level of political will exhibited. The EPI literature identifies political will as one of the important underlying factors in the realization (or otherwise) of EPI (Jordan and Lenschow, 2010). An inconsistent level of political commitment has been blamed for the fluctuating progress of EPI and in particular the floundering of the Cardiff Process (Jordan and Schout,

2006; Pallemmaerts *et al.*, 2006) as well as the EU Sustainable Development Strategy (Pallemmaerts *et al.*, 2007). This diagnosis stands in contrast to the high level of political support observed for CPI, which Mickwitz *et al.* (2009, p. 10) argued is 'no longer delegated to just one minister, one ministry or a few institutions. It has become a matter for prime ministers, whole cabinets and entire administrations'. However, this support is by no means guaranteed, especially now that the European sovereign debt crisis is dominating the EU agenda.

A number of specific drivers and characteristics of the climate problem have helped make CPI more compelling to politicians and other policy makers, pushing it up the political agenda: the EU has made increasing efforts to underpin its international leadership role in climate diplomacy (e.g. in the United Nations Framework Convention to Combat Climate Change) with domestic measures (Oberthür, 2009); climate change became a useful 'raison d'être' for the EU struggling with a legitimacy crisis in the wake of the rejection of the constitutional treaty (Jordan *et al.*, 2010; Oberthür and Pallemmaerts, 2010); the perceived threat of a climate crisis made the imperative to act on CPI more urgent than the steady accumulation of bad news on the environment; there has been widespread public support for EU level action on climate change (see, e.g., European Commission, 2008); the EU has been able to frame the climate problem as an opportunity for Europe to become a leader in low-carbon technologies in accordance with the Lisbon Strategy for Growth and Jobs (see above). Finally, oil prices have risen and become volatile, EU dependence on imported energy supplies has increased and there have been political disruptions of supplies (such as between Russia and the Ukraine in 2006) (Pallemmaerts, 2008). Therefore, CPI appears to be tied to political responses to a particular set of circumstances.

EPI and CPI: as a Policy Outcome and Output

Concept

As Jordan and Lenschow (2010, p. 154) note, for many environmentalists 'principles are only principles, and process is only process; Policy outcomes (that is, the influence of any EPI related activity on the state of the environment) are what really matter'. However, measuring the effectiveness of integration processes in terms of outcomes is extremely difficult (Mickwitz, 2012) – hence the paucity of literature on EPI outcomes. Indeed, measuring the state of the environment is highly complex since it is affected by a myriad of factors (Jordan and Lenschow, 2010). Many different EPI policy structures and instruments will have been applied under different background conditions, such as availability of resources, technological innovations and governance contexts (e.g. democratic styles and regulatory cultures), as well as varying levels of public support. Furthermore, much of the time, data is lacking. Consequently, rather than conceiving EPI as a measurable environmental *outcome*, EPI has mainly been evaluated in terms of whether the relevant administrative structures are in place and if the prevailing political and economic conditions are favourable (see, e.g., EEA, 2005; but see Nilsson and Persson, 2003). Likewise, EPI has also been evaluated in terms of the effectiveness of its individual implementing mechanisms and instruments such as policy appraisal, green budgeting and Sustainable Development Strategies (Jordan and Lenschow, 2008; Steurer, 2008).

By contrast, CPI is much more commonly conceived of as an outcome. Like Jordan and Lenschow (2010), Mickwitz and Kivimaa (2007, p. 74) argue that 'the basic idea of integration is not only to change bureaucracies but to actually change the real world'. Directly comparing their approach to that of Lafferty and Hovden (2003), who focus primarily on 'process and policy' rather than 'actual consequences and effects', Mickwitz and Kivimaa (2007, p. 74) argue that 'an evaluation of policy integration should ultimately include as many stages of outcomes as possible'. They do, however, acknowledge the aforementioned difficulties of measuring outcomes, especially over longer time scales. Despite this, measuring CPI as an outcome (e.g. in terms of greenhouse gas emissions or level of technological development and diffusion) is arguably much easier to achieve than measuring the wider state of the environment. Perhaps unsurprisingly, therefore, evaluating CPI outcomes is included more readily in evaluation frameworks (e.g. Mickwitz and Kivimaa, 2007, Mickwitz *et al.*, 2009) alongside monitoring and reviewing mechanisms and processes. In addition, the evaluation of policy outputs is common in the CPI literature. Inspired by a policy stages approach in which policy strategies are fairly linearly transferred into inputs, outputs and

eventually outcomes, this perspective tends to treat policy instruments more as end stage policy documents (i.e. policy outputs) than bureaucratic procedures (i.e. policy processes) compared with the EPI literature (e.g. Brouwer *et al.*, 2008; Mickwitz and Kivimaa, 2007).

Practice

Despite claims by the European Commission that it has ‘successfully mainstreamed [the] sustainability dimension into many policy fields’ (European Commission, 2009, p. 4), the EU’s EPI record as a whole has rarely been formally evaluated in practice beyond the academic literature. One notable exception, however, is the EEA’s (2005, p. 8) evaluation, which found that, although the EU had made a firm commitment to EPI with some progress made towards breaking down ‘administrative walls’, the EU’s implementation of EPI could be improved. A number of academic authors have also charted the EU’s faltering progress on EPI more generally (e.g. Lenschow, 2002a) or using the frameworks discussed above (e.g. Jordan and Schout, 2006). Many more studies have evaluated the effectiveness of particular EPI policy mechanisms and instruments. In addition to the Cardiff Process, a number of other ‘soft mechanisms’, such as the EU’s Sustainable Development Strategy, the Thematic Strategies, and the European Commission’s policy level Impact Assessment procedure, have been criticized for their inability to effectively lead to greater EPI (Pallemmaerts *et al.*, 2007; Wilkinson, 2007; Wilkinson *et al.*, 2004).

The evaluation of the EU’s CPI record is even sparser. One of the most significant CPI evaluations, published by the PEER (Partnership for European Environmental Research) Group (Mickwitz *et al.*, 2009), covered a number of EU member states but not the EU itself. Several studies, however, have focused on evaluating progress on integrating climate change considerations into particular EU policy sectors. For example, Nilsson and Nilsson (2005) focus on three sectors, namely energy, transport and agriculture, while a number of other studies have analysed the (insufficient) integration of the EU’s climate objectives in the energy sector (Dupont and Primova, 2011; Knudsen, 2012), development policy (Hulme *et al.*, 2009) and land use planning (Hulme *et al.*, 2009). Relatively few studies explicitly evaluate a particular policy mechanism or instrument (but see Wende *et al.*, 2012). Although there is a wealth of critiques of climate policy instruments that contribute to the EU’s pursuit of CPI, such as the EU ETS, these do not explicitly make reference to CPI, or its namesakes, and are thus not considered in this article.

It is, however, in the EU’s monitoring and review of CPI that the ease with which it can be conceived of (and measured) as an outcome comes to the fore. For example, the EU’s Eurostat Sustainable Development Indicators include two headline indicators for CPI (‘greenhouse gas emissions’ and ‘share of renewables in gross final energy consumption’). There is only one (lower level) operational target (‘share of environmental and labour taxes in total tax revenues’) that could arguably measure EPI (Council of the European Union, 2006). Similarly, the three environmental indicators included in the short list of 14 structural indicators for the annual review of the Lisbon Strategy for Growth and Jobs were all climate related (‘greenhouse gas emission’, ‘energy intensity of the economy’ and ‘volume of freight transport relative to GDP’). Even more significantly, however, each member state is *legally mandated* to monitor its greenhouse gas emissions as part of the EU’s responsibilities under the Kyoto Protocol. Thus, while there has been limited appetite (and resources) for evaluating the implementation of EPI, monitoring CPI as an outcome has effectively been in place since the early 1990s, in part due to international climate commitments.

Conclusions

This paper compares the concept and practice in the EU of EPI and CPI across three different dimensions, namely, as different interpretations, as a process of governing and as a policy outcome and output. Through this comparison this article helps better pinpoint the precise nature of the relationship between these two related concepts. In so doing, it aims to clarify more distinctly what CPI actually is; a useful step in developing strategies and approaches on how CPI can be operationalized, supported and strengthened. In the introduction three questions were raised in this regard. First, do EPI and CPI entail different challenges and approaches? Second, is the more narrowly defined

CPI more tangible to conceptualize or implement than EPI? Third, if so, what are the academic and practical implications? In this concluding section, as we reflect on our comparison of EPI and CPI, we attempt to answer these key questions before turning to consider the consequences for EPI.

In respect to the how EPI and CPI are *interpreted*, the analysis finds that CPI definitions build up 'declared' normative conceptions commonly associated with EPI. However, unlike many definitions of EPI, the principled priority of climate change objectives is often side-stepped in favour of discussions on international development, synergies and co-benefits as well as an explicit emphasis on rational motivations for policy integration. In this sense the implicit interpretation of CPI adopted in the literature appears to be even weaker than that of EPI. One of the implications of this weak definition of CPI is that without an (at least) equal weighting of sector and climate objectives there is a risk of dilution rather than integration (see Liberatore, 1997). In the everyday practices CPI has been characterized as a situational and sector specific meaning of EPI that is narrower and more tangible than the vague and abstract concept of EPI. Thus, while CPI is often interpreted as a weaker concept than EPI, it is at the same time something that can potentially be more readily grasped by policy makers. This does not, however, necessarily guarantee that it is and will be implemented consistently, or indeed sufficiently, to meet climate change targets.

Turning to EPI and CPI as a *process of governing*, the problem that CPI seeks to address results from the same fundamental institutional challenge faced by EPI of managing a cross-cutting issue in public administrations, which are often sectorized and fragmented. However, in the main, CPI literature pays far less attention to how to undertake CPI. By contrast EPI draws strongly on the disciplines of public policy and administration to identify and evaluate potential integration mechanisms and instruments. This public policy perspective is particularly important to integration challenges if the relevant issues are to be integrated into *all* stages of policy making, especially the early stages, where policy is arguably more malleable and adjustments are easier to make (Schout and Jordan, 2008, p. 51). In practice the EU has used very different strategies to pursue EPI and CPI. By contrast to the high level and often very ambitious softer horizontal EPI mechanisms (e.g. the Cardiff Process; Article 6), the EU has in general chosen to pursue its climate change objectives through 'harder' policy instruments with quantitative legally binding targets (e.g. regulation). Furthermore, where CPI is taking place it appears to be less about expansive integration across all policy sectors and more about engaging a narrower set of sectors to work together in particular ways to meet specific goals. CPI has also gathered considerably more supporting political will than EPI, due among other things to a set of 'favourable' contextual circumstances as well as a positive framing of its potential solutions.

Finally, in the third dimension examined in this article, namely integration as a *policy outcome*, the narrower (i.e. less complex) nature of the CPI problem is also significant, as it allows CPI to be conceived as more measurable as an outcome (e.g. as greenhouse gas emissions or diffusion of green technology). Indeed, monitoring CPI outcomes is legally mandated for EU member states. By contrast, EPI is usually confined to being thought of as a process, and evaluated (if at all) through the analysis of individual policy mechanisms and instruments. Thus CPI outputs are more easily measured and communicated in a media friendly way than the less appealing administrative processes associated with EPI. This arguably makes CPI a clearer concept for actors to grasp and gives the impression (accurately or not) that it is much simpler to achieve than EPI.

As a final point, we note the apparent rise of sector-specific environmental policy coordination strategies, such as CPI, as EPI fades from political (if not also academic) view. Interestingly, this narrower approach is not confined to CPI; other sectoral forms of EPI, such as biodiversity integration (Primmer, 2011), are also springing up. In practice, EPI may be evolving into a number of discrete narrower exercises, each of which seeks to integrate narrow environment-related policy objectives into other non-environmental sectors in isolation from each other. This situation might suggest that following narrower integration strategies may be a more fruitful way in practice of pursuing environmental policy coordination than the broader concept of EPI.

There is a danger, however, that such a development misses the point that environments are integrated, hence the promotion of EPI in the first place. In other words, is it appropriate to isolate the climate change problematique from other related and important environmental issues (e.g. biodiversity loss, chemical pollution)? Is such a situation likely to lead to more fragmentation than integration? Moreover, policy makers increasingly have many cross-cutting issues competing for their attention alongside sector-specific goals. Since policy coordination has associated opportunity and transaction costs and governments have limited resources, policy makers will be forced

to decide with which cross-sectoral issues they engage. Equally important environmental issues that are not climate related may be all too easily crowded out of the policy arena (also see Russel and Jordan, 2007).

Further research is now needed to understand how the concept of CPI can be coherently turned into governance processes within the context of broader and related initiatives such as EPI and sustainable development. In this way, more coherent approaches for CPI can be developed to help mitigate (but not necessarily eliminate) the danger of policy reversal, which the EPI literature warns us about once the initial political attention wanes (e.g. Jordan and Lenschow, 2010). Moreover, such work would help further clarify CPI's relationship with not only EPI but also the broader 'mother' concept of sustainable development. Currently, there is a danger of a duplication of tasks by separate EPI and CPI strategies or competition between the initiatives. In other words, such an approach risks less rather than more coordination.

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