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ORIGINAL PAPER

International regimes and environmental policy integration: introducing the special issue

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Abstract Pressure is mounting for states to become better at integrating its environmental policies into sector policy, a challenge often referred to as environmental policy integration (EPI). Policy research on EPI has grown to become a distinct and substantial field of study at the national and EU levels, where political commitment and interest in the topic have been large. In the study of international regimes, EPI analytical concepts have so far not been applied although the EPI quest is at least as important and critical at this level. This special issue addresses this gap, by combining these two sets of literature and examining various aspects of EPI in international regimes, its manifestations and its challenges. This introductory paper introduces key conceptual discussions underlying the development of this special issue, distils and discusses some of the key findings and messages from the four ensuing research articles and presents directions for future research. It finds that many EPI challenges and institutional barriers are strongly accentuated at international levels of governance, but also that similarities with the national level suggest that closer interactions between the two fields of study are warranted. At both levels, the EPI "game" is full of inherent tensions and goal conflicts, institutional constraints abound, and cognitive interactions and learning processes appear as key mechanisms to advance EPI. Suggestions for how to enhance EPI in international regimes are still tentative, and analysis beyond international relations and regime theory is needed to capture potential institutional innovations for advancing EPI.

Keywords EPI · Regimes · International relations · Governance · Multilevel

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1 Introduction

Public policy-making at different levels is facing evermore complex challenges of coordination and integration. For decades, it has been widely recognised that social, economic and environmental issues cut simultaneously into almost every conceivable sector and that a more sustainable development requires not only distinct environmental protection policies but better and more integrated decision-making across all sectors of society. At the same time, the specialisation and sectorisation of policy remain very strong in governmental ministries as well as in international organisations and regimes. As a result, pressure has been mounting for the state to become better at integrating different policy areas, and in particular to learn how to integrate environmental issues into economic sectors. While various attempts and institutional innovations have occurred, those concerned with public management have faced serious problems when it comes to resolving this problem, also referred to as environmental policy integration (EPI). Research on EPI has grown to become an important domain of environmental social sciences.

Much of this research work has been undertaken at the EU and the national levels, where explicit political commitments to EPI were made during the late 1980s and 1990s. However, the concept has a distinct global governance origin: environmental policy integration was firmly brought to the attention of policy makers around the world in the Brundtland Commission's report "Our Common Future" (WCED 1987). It argued that: '*Those responsible for managing natural resources and protecting the environment are institutionally separated from those responsible for managing the economy. The real world of interlocked economic and ecological systems will not change; the policies and institutions must.*' (p. 9). Countries like Sweden and Netherlands were quick to adopt this agenda, as did the European Union. In Europe, EPI now has a constitutional backing not only in many national jurisdictions but also in the EU Treaties. A provision of EPI was first introduced into the EEC Treaty by the Single European Act in 1987. In 1992, the Maastricht Treaty strengthened the wording of this provision. Five years later, the Amsterdam Treaty gave the principle of EPI a more prominent place in the EC Treaty. Article 6 of this Treaty now reads: 'Environmental protection requirements must be integrated into the definition and implementation of the Community policies […] in particular with a view to promoting sustainable development'.

The underlying motivation for EPI is a simple and intuitive one: that a truly sustainable development cannot be achieved if the environment continues to be treated mainly as its own sector in policy-making—with its own actors, organisations and institutions. Instead, environmental perspectives must become a natural part of the goals, strategies and decision-making procedures of all major parts of public policy, such as energy, agriculture and transport, as well as within central bodies of the governments, such as the finance ministries, where many of the most important policy decisions are taken. As political leaders started to make pledges about EPI, albeit under different guises and institutional forms such as "integrated assessments" or "the Cardiff process" (in the EU), "joined-up government" (in the UK) and "sector responsibility" (in Sweden), this has raised the interests of policy analysts and political scientists. One strand of analysis has been concerned with tracing the progress towards EPI and through what institutional measures it can be best achieved (EEA 2005). The applied work of the OECD on policy approaches towards sustainable development has contributed to EPI at the international level. In addition to policy advice and guidance for sustainable development, the Public Management Service of the OECD has provided advice on policy coherence and integration in general (OECD 1996). In parallel, a more academic scholarship has also developed, trying to dissect in more detail

what EPI really means and what are its determining causal relations (Lafferty and Hovden 2003; Nilsson and Persson 2003). In later years, more in-depth studies have been possible to perform, since the EPI agenda now has been running for up to 20 years, and there is an opportunity to draw lessons that go beyond mere fluctuations in environmental political agendas (Jordan and Lenschsow 2008; Nilsson and Eckerberg 2007).

So far, EPI analytical concepts (that we will return to below) have not been used in the scholarly literature addressing environmental governance and policy-making at the international levels. This is a real gap since the international level offers many interesting conceptual and empirical puzzles that would both enrich the EPI literature and, we would argue, could benefit from some of the analytical frameworks developed within EPI research at lower levels. True, there is plenty of relevant study undertaken in, for instance, the newly emerging scholarship on global environmental governance (Biermann and Pattberg 2008), studies of the success or failure of various global environmental institutions (DeSombre 2006), the institutional dimensions of global change (Young 2002), and international regime effectiveness (Miles et al. 2001). One body of both academic and practitioner literatures has looked at how international organisations such as the WTO, the World Bank and the UN perform in terms of mainstreaming of environmental issues (Neumayer 2004; World Bank 2001). Such organisational studies could benefit substantially from linking up with EPI frameworks.

Several important variables are similar when examining international regimes and EPI, such as the role of organisational structures, coordination procedures and compliance mechanisms, but also problem structure. Several of the challenges and concerns about fragmentation and segmentation of different systems vertically as well as horizontally have been documented in both EPI and international regimes literatures. These challenges are qualitatively similar but appear likely to be accentuated at the international level. The international level also offers an interesting and complex arena for the EPI scholarship because many of the formal and informal institutions around policy-making are also quite different. For instance, there is a more limited scope for top-down legislative processes; there are often relatively weaker implementation structures, and the policy outcome can often be understood as a bargaining outcome of participant nation states and their interests, interactions and relative powers (Keohane 1984; Milner and Moravcsik 2009). Such framework conditions, we may hypothesise on the basis of existing literature, make the EPI "game" a quite different one when compared to the national or EU level. Taking the first tentative step to understand this game better, this special issue examines aspects and processes of environmental policy integration in international policy processes and governance systems. We hope to shed light on in particular:

– The organisational and institutional manifestations of EPI within international governance. Do governance frameworks and conditions lead to particular EPI mechanisms at the international levels? What are the similarities and what are the disparities compared with national-level EPI?

– The multilevel interactions and cross-scale effects associated with EPI. Does EPI in one level affect EPI in another, either in terms of institutions or in terms of interactions between institutions?

Earlier versions of the papers for this special issue were presented and discussed at the 3rd "EPIGOV" conference on "Environmental Policy Integration at the Global Level and Multilevel Governance" held in Stockholm, 12–13 June 2008.[1]

[1] EPIGOV, a research network on "Environmental Policy Integration and Multi-Level Governance", brought together nineteen environmental policy research centres from across the EU to coordinate and

In the next section, we introduce the core analytical concepts and issues in somewhat more detail. In Sect. 3, we introduce the articles and their relation to the topic of EPI and international regimes. In Sect. 4, we distil and discuss key findings and messages emerging across the papers, and in Sect. 5, we conclude with identifying some research needs and directions for the future.

2 Some central concepts and debates

2.1 EPI

EPI is normally understood in two different ways: either in terms of the different institutional arrangements set up to achieve integration (the "how to" aspects of EPI) or in terms of what the very integration process itself is about. The institutional arrangements are frequently discussed in terms of their procedural, organisational and normative dimensions (Persson 2004). The normative dimension has to do with the political commitment and overarching framework for pursuing EPI, as established in policy framework documents including constitutions, but also lower-level strategy documents such as sustainable development strategies. The procedural dimension is about procedures put in place to advance the coordination between departments with a particular view to advancing the environmental agenda in sectors and includes things like impact assessment, strategic environmental assessment, interservice consultations, green budgeting and the like. The organisational dimension involves organisational arrangements such as amalgamation of ministries, green cabinets, interservice working groups, secretariats and other organisational structures set up to promote EPI. As will be shown in Biermann et al. (2009), these organisational and procedural issues are also central to the debates about international environmental regimes.

Most commonly, the topic of environmental policy integration stops there—inventories of measures to advance EPI and discussions concerning how well they have progressed are the mainstream of EPI literature. More rarely, one sees analysis concerned with the integration itself, either in terms of how trade-offs and relative weightings of different policy objectives are made (Lafferty and Hovden 2003) or in terms of the conceptualisation of the integration process as for instance a learning process that leads to a reframing of sectoral policy-making (Lenschow and Zito 1998; Nilsson 2005). Lafferty and Hovden (2003) make a distinct normative political interpretation, whereby EPI in its essence can only be separated from policy coordination, in general, by way of giving the environmental objective a "principled priority" over other policy objectives. Taking a less normative viewpoint of political decision-making Nilsson (2005) suggests that EPI must be considered, in its essence, a question of sectors changing their perspectives and understanding of the world, in other words a type of in-depth social learning. Accordingly, EPI is defined as a "policy learning process whereby actors in a policy sector reframe their goals, strategies, and activities towards sustainable development". As we will discuss more later, this learning process is conceptually close to the cognitive and normative interaction between

Footnote 1 continued
compare research on EPI at different levels of governance, from the local to the global. EPIGOV was supported by the European Commission's 6th Research Framework from 2006 to 2009. For more information about EPIGOV, see http://ecologic.eu/projekte/epigov/.

institutions discussed by Oberthür (2009) or the more unilateral cognitive and normative influence of international regimes as discussed by Biermann et al. (2009).

The conceptual confusion surrounding EPI may not be that surprising, as it has emerged as a political concept rather than an analytical one. The variety in interpretation constitutes a difficulty in communication within and across disciplines and policy audiences, but as will be shown in this issue, it also provides ample opportunities to connect. Thus, different contributions to this special issue of *INEA* are approaching different aspects of the basic EPI frameworks.

2.2 International regimes

International regimes seek to realise specific policy ends in an international community, which lacks centralised institutional authority, through the establishment of mechanisms of coordination and cooperation and the elaboration of internationally agreed normative prescriptions, which can guide the behaviour of relevant state and non-state actors with a view to optimising collective outcomes. This governance process involves both institutional and substantive elements, which, together, constitute what international relations theorists refer to as international regimes governing specific issue-areas. The study of international *environmental* regimes has been a prolific field of academic enquiry in recent years, especially from the angle of international relations theory. Regime theorists have shown a strong interest in international environmental governance as an area of international relations in which a functional perception of shared needs and interdependent interests by states, as autonomous, rational utility-maximisers has brought about more or less permanent cooperative arrangements based on common norms and institutions. They have mainly studied the structural conditions under which obstacles to coordination and joint action between sovereign states can be overcome and opportunities for mutually beneficial cooperation arise, focusing on the political processes for the creation and transformation of international regimes, and the shaping of common normative expectations in the international community rather than on the actual substantive normative content of the individual regimes themselves.

As sovereign states still constitute the primary actors and norm-addressees in the international community, as well as crucial intermediaries in influencing the behaviour of non-state actors subject to their territorially fragmented rule-making and enforcement authority, international law is inevitably regarded by policy-makers as an indispensable instrument of international environmental governance. It serves as the medium both for the formalisation of the necessary institutional and procedural arrangements at the intergovernmental or supranational level and for the establishment, through consensual mechanisms, of substantive constraints on the conduct of states in the exercise of their domestic legislative authority. Thus, the development of international environmental cooperation, both within and outside the framework of intergovernmental organisations, has coincided with the steady expansion of an ever-growing body of international legal instruments aimed at the protection of the environment. In parallel with the political science literature on international environmental regimes, the development of international environmental law has itself become the focus of a considerable volume of legal scholarship. This literature tends to be more positivistic, focusing on the substance and legal effect of various norms of international environmental law, distinguishing regime norms according to their legal or non-legal character, and also addressing issues of implementation, enforcement and settlement of disputes, but generally disregarding the political dynamics of regime formation and evolution.

Neither of the two main strands of literature on international environmental governance has tended to address EPI as a specific research topic although EPI does appear as a prominent principle, for instance in the UNCED report, Agenda 21 (see above). This may primarily be explained by the peculiar nature of the international community as a decentralised political system in which the emergence of any form of governance mechanism per se is the basic subject of inquiry, rather than issues of coordination or policy coherence within an established system of governance or administration whose existence is taken for granted. Yet the functional, ad hoc nature of international regimes and the incremental mode of their development make international governance particularly prone to fragmentation and lack of coherence. At the same time, the absence of central steering and hierarchy within governance structures makes coordination and integration problems especially difficult to solve. To the extent that integration has emerged as a theme of policy debate and academic inquiry, it has largely been approached as an issue of coordination between different environmental regimes and fragmentation of international environmental governance structures rather than as an issue of integration of environmental concerns in other sectoral regimes (see Biermann et al. 2009). However, within the conceptual framework of the broader debate on globalisation and sustainable development, the question of the integration and "mutual supportiveness" of global environmental, social and economic governance has been raised. With the possible exception of the relationship between the rules of the multilateral trading system and international environmental and social standards, there is as yet little empirical research on this question.

2.3 Multilevel governance

International governance is never operating at one level only. Instead, it is subject to cross-level interactions both in the preparation of instruments and in their execution. To capture this, multilevel governance has become an increasingly important analytical concept. Although most EPI literature has paid relatively little explicit attention to multilevel challenges (Homeyer 2009; Steurer 2008), it is still a recurring theme in empirical EPI work on the institutional dimensions of EPI.

Multilevel governance (MLG) is an analytical concept, which seeks to capture the increasing interdependence of policy-making at different political levels of governance—from the global to the national and subnational levels. Put differently, the concept assumes that policy-making at one level of governance can only be understood and explained if other levels of governance are taken into account in the analysis (Hooghe and Marks 2003). In a way, this is a well-known concept for scholars of international and global politics, and in particular of international regimes. After all, international regimes are typically conceived of as institutions enabling cooperation among nation-states and national interests are of critical importance in explaining the origin and functioning of international regimes (Keohane 1984). Consequently, international regimes cannot be properly understood without also looking at the national level. For example, there is a significant body of literature on "two-level" games, where actors who are involved in decision-making at national and international levels react to incentives and constraints at both levels (Putnam 1988). In his book about his experiences in sustainable development diplomacy, Kjellen (2008) also identifies the national "enabling conditions" as keys to understanding advances in international environmental governance.

However, despite these similarities, MLG shifts the traditional focus of regime analysis on the interaction between international institutions and national interests towards a much stronger emphasis on the role of expert and non-state actors. In traditional regime analysis,

these actors merely have an indirect influence on international institutions, which stems from their influence on relevant national foreign policy-makers. In contrast, MLG assumes that national-level expert and non-state actors may under certain conditions bypass the national foreign policy apparatus to become relatively autonomous actors in their own right at the international and global level. Conversely, the MLG concept also allows for international institutions and organisations to have direct effects at lower levels of governance that are not national governments (Marks 1992).

Another difference between traditional regime theory and MLG is that the latter is more open to analysing more than two levels of governance, including the possiblity that intermediate levels of governance may be bypassed. For example, MLG would allow for analysing the direct influence on international institutions of both the EU and its individual Member States as two partly independent actors.

With respect to studying EPI at the international and global level, MLG is an interesting concept for at least two reasons: First, certain types of EPI operate on the assumption of "sector responsibility" or horizontal EPI. In these cases, it is largely the sectoral policy experts themselves who pursue EPI with only relatively broad guidance by the central government. If international regimes have a significant impact on sectoral governance, this logic of sector responsibility would require their integration into the system of sectoral governance at other levels. This, in turn, would imply at least partially sidelining the central government/foreign policy apparatus as envisaged in the MLG model. Second, the EU plays an important role in promoting EPI. However, EU Member States also have an important role and their individual positions do not always coincide with the EU position. Again, MLG offers an analytical model, which is capable of capturing these dynamics of influencing policy-making at the international level across several levels and in multiple fora of policy-making.

2.4 EPI and modes of governance

As noted, although the debate about environmental governance at the international level often uses labels, which differ from those used for analysing environmental governance at the national level, key concepts and ideas often appears to be broadly similar. For instance, the distinction between "new" and "old" governance as tools for EPI is frequently used in research focussing at the national level. "New" governance usually refers to mechanisms of non-hierarchical steering through functional networks involving state and non-state actors, whereas "old governance" is understood as centralised top-down political decision-making strongly relying on legislation (Börzel 2009). These concepts are broadly similar to positions in the debate about the future of international environmental governance. More specifically, there are various proposals to introduce stronger elements of centralisation into the system of international environmental governance, for example, by creating a World Environment Organisation (WEO) or by strengthening the United Nations Environment Programme (UNEP) (cf. Biermann et al. 2009). If these proposals were adopted, this could be interpreted broadly as a move of the system of international governance towards "old governance"—albeit starting from (by comparison with nation-states) a very low level of centralisation and legal institutionalisation. Similarly, proposals to increase capacities for self-coordination among international environmental regimes (Oberthur and Gehring 2006) and with non-environmental regimes seem to correspond broadly with "new governance".

From an EPI perspective, analysing international governance in terms of modes of governance poses a number of interesting questions. For example, particular environmental

and non-environmental regimes may be characterised by different modes of governance. The international trade regime with the WTO and its dispute settlement and sanctioning mechanisms at its centre comes to mind as a regime with relatively strong traditional governance features—at least when compared to other international regimes or the remnants of what used to be described as the anarchical structure of the international system (Bull 1977). In comparison to the international trade regime, various environmental regimes, such as the Biodiversity Convention, appear to build more on "new governance" mechanisms such as information sharing, benchmarking and normative interactions. From an EPI perspective, this raises a number of questions. What do these differences in terms of modes of governance imply for EPI? Under which conditions do they work against or in favour of EPI? Would EPI benefit from a centralisation and legal institutionalisation of environmental governance along the lines of, or similar to, the international trade regime? Or would rather an opening up of the trade regime towards other international regimes provide for better EPI?

To some extent, the answers to these questions depend on how the different modes of governance associated with the various regimes interact and can be employed to implement EPI (Homeyer 2009). For example, stronger centralisation of environmental governance might improve coordination among environmental regimes and might strengthen their role vis-à-vis other non-environmental regimes. However, it might also further increase sectoralisation as actors engaged in non-environmental regimes might make additional efforts to insulate their spheres of influence and/or it might provide these actors with a central entrance point to increase their influence on environmental regimes. Analysing these options through the lens of modes of governance will provide more insights into these different scenarios not least because it enables comparison with experience with similar modes of governance at other levels of governance.[2]

3 Introducing the papers

The first three research papers presented in this special issue shed light on different aspects of the EPI challenge in the context of international regimes, organisational, institutional and multilevel interactions. The fourth one takes a more comprehensive EPI view and applies it to a specific regime: that of international development cooperation policy.

Organisational aspects of EPI at the global level are at the centre of attention in the contribution by Biermann et al. (2009). They elaborate on the application of the EPI concept to global environmental governance, with a focus on the various propositions made concerning a reform of the UN Environment Programme ranging from upgrading of UNEP, through clustering of existing organisations and institutions, and to developing organisations with enforcement powers (what they call "hierarchisation"). The authors connect the EPI discourse to the standard literatures on international environmental governance. Drawing on theoretical work on intergovernmental institutional influence that may work through either cognitive, normative or executive mechanisms (or a combination of these), Biermann et al. (2009) suggest that EPI may enhance these mechanisms and compare the proposals in light of their expected performance on them. The authors argue that institutional and organisational fragmentation within the environmental domain poses a particular challenge for EPI at the global level.

[2] The EPIGOV project (Fn. 1) analysed EPI at various levels of governance drawing on a modes of governance perspective (Homeyer 2009).

Integration *mechanisms and procedures* at the international level are examined theoretically in Oberthür's (2009) contribution. Using the concepts of institutional interaction and interplay management, he sets out to examine the mechanisms and conditions for advancing EPI between different international institutions. Oberthür describes four different levels of interplay; the highest being "overarching institutional frameworks, the second "joint interplay management", the third "unilateral management by institutions", fourth and last, "autonomous management". Oberthür's levelisation of coordination and integration mechanisms resembles the notion used in national public administration about different levels of integration between departments from basic consultations, through joint-decision procedures and to fully integrated policy agendas of different departments. Oberthür takes an interest in different modes of management, including cognitive, regulatory and capacitating. The particular focus on cognitive interactions and the promotion of interinstitutional learning are also analogous to the policy-learning conception of EPI at the national level.

Multilevel interactions and cross-scale effects are addressed in Wettestad's (2009) contribution. He offers an empirical account of positive and negative processes of interaction including learning effects, across levels in the international governance systems, namely between processes at the European and the global levels. Focusing his analysis on European Emissions Trading system (ETS) in detail (by many considered Europe's key EPI instrument as it engages industrial actors across sectors to consider climate change mitigation), Wettestad examines the coevolution and two-way interactions between the ETS and the global climate regime (the Kyoto Protocol), seeking to entangle the natures and depths of these interactions.

Integration in development cooperation is the focus of Persson's (2009) contribution. Being one of the special issue contributors with a more pronounced background in EPI analysis, Persson takes a comprehensive state-of-the-art EPI perspective on a particular integration problem at the global level, climate policy integration into development cooperation, and contrasts the setting with the "traditional" EPI setting of national policy. She highlights the differences in negotiation rules and political context and finds that a wider span of solutions and problem framings open up for a much wider array of EPI framings. Of particular interest here is the move of ownership and process in aid through the Paris Declaration, setting a new context and arena for EPI, which to some extent mirrors some of the emerging EPI challenges at national-level governance, where the competency and control over sectors in many cases have shifted from the state to other actors in society (see above).

Together, thus, the set of papers in this special issue covers a wide palette of nuances and issues in the intersection between EPI research and international governance research. In the next section, we attempt to pull together what key discussions have emerged and what messages can be drawn from these four contributions.

4 Discussion and key messages

This special issue has not been concerned with evaluating in any systematic way EPI outcomes at the international level. Such studies are of course perfectly viable either as case studies of particular regimes such as the WTO or the World Bank or through large N-studies tracing particular EPI indicators of more quantitative nature. We are, therefore, not evaluating the quality of EPI at the international regime level. Instead, contributions have focused on a number of intricate and complex institutional and organisational

mechanisms that appear crucial to advancing EPI within and across international regimes at European and national levels as well as at more global levels. Overall, results show that there is a range of mechanisms and conditions at the international level that mirrors those at the national level, but also that at the international level, the institutional barriers and opportunities look very different. Because these similarities and differences have not been explored from an EPI perspective before, the contributions to this special issue have significantly advanced the research agenda about how to advance more integrated policy-making. The following are some of the important lessons and findings.

EPI practices in international regimes are, just like at the national level, not meeting the principled commitments made by the political leadership. In many ways, both the principal stand taken by political leaders and the challenges in terms of institutional barriers are more pronounced at the international level, widening the gap between intention and reality compared with national-level EPI.

International environmental governance is in itself highly fragmented, with literally hundreds of regimes in place to date. Therefore, the coordination between environmental regimes and institutions is a much more pronounced problematic although admittedly one that also exists in national systems, where internal environmental goal conflicts augment difficulties to coordinate (Engström et al. 2008). At the international level, integration of environmental concerns in the sector policies of intergovernmental organisations and into international agreements concerned with other policy areas constitute the two main domains of traditional EPI. The added "internal" EPI issue concerns integration of policies of international environmental agreements; their secretariats; and other intergovernmental environmental institutions (Biermann et al. 2009).

Overarching frameworks for governance in general and EPI in particular are necessarily weaker in current international regimes than at the national level, with the implication that there is more limited potential for hierarchical steering of EPI than at the national level (Oberthür 2009). The absence of hierarchical overarching rules and institutional frameworks in terms of either a global organisation or a rule system in international public law emerges as a major barrier to EPI at the international level. Many times, the international regimes are developed and managed through political will in national systems. Furthermore, the organisational complexities that characterise the international level, such as rule frameworks, secretariats and delegations of member states (Persson 2009), make attempts at enhancing EPI very partial in scope, and the degree of institutionalisation tends to be low.

Another complicating factor at the international level, which to some extent is linked to the organisational complexity, is that there appears to be much more limited collaboration between organisations, bureaucracies and other actors in the first place. At the national level, there are at least some forms of coordination between ministries and between the environment and the line ministries. Within international regimes, each agency typically has its own environmental programme. There is an almost complete lack of coordination among them and with UNEP (Biermann et al. 2009).

Those that are concerned with advancing EPI at different levels, be it a regional political forum, a national policy arena or the European Union, always somehow find themselves in a multilevel governance frame. This is evermore pronounced as we move onto the level of international regimes, where cross-scale interactions and multilevel governance issues are more pronounced as a context for EPI. Because of the relative weakness of the global institutions—and because they are constituted by national members, and largely driven by the politics and polity of national systems, this multilevel game is multifaceted and complex. As argued above, this poses particular challenges, which have not been subject to

much systematic research to date. The linkages between the EU and the global regimes appear to be particularly under-researched.

Still, at the heart of it, the quest for EPI amounts to basically the same thing. An interesting similarity between levels is the learning-oriented conceptualisation of EPI (Hertin and Berkhout 2001; Nilsson 2005), which appears to be particularly pronounced in the international institutional interaction, where cognitive interactions strongly resemble the types of policy-oriented learning processes that have been observed in integrated policy-making at the national level. The concept of institutional interaction (Oberthür 2009), i.e. that international institutions affect each other's development and performance, of course goes to the heart of the EPI issue, as defined by WCED (1987, p. 1): "Those that are concerned with advancing environmental objectives are strongly dependent on the ability and willingness of other sectors to cooperated and coordinate their work." Oberthür recommends the deliberate pursuit of interplay management, to shape and govern institutional interaction. Environmental policy integration becomes, in Oberthür's analysis, the objective of interplay management—aiming for "cognitive interaction" and learning across institutions. However, as Wettestad (2009) argues, learning is much more likely to appear at one level, as learning at multiple levels may be complicated by increasing actor complexity.

Another similarity to the national level is how divergent objectives and commitments cause disruption and constitute the key barrier to integration—and strategies to shape joint objectives and commitments become key strategies to advance EPI (Oberthür 2009). Divergent objectives and commitments cause disruption and constitute the key barrier (similar to national level), but the precise design of these activities will be very different and much more difficult to get right. And as Wettestad argues, disruption may be more pronounced in international governance due to the multilevel nature, as the disruptive types of interactions are more likely to occur across levels (such as between EU-ETS and WTO) than horizontally (e.g. between UNFCCC and WTO).

Much like in the national-level EPI puzzle, the question in the interaction between institutions with conflicting goals is not whether, but how, the balance between competing objectives should be struck. Biermann et al. (2009) give voice to a very well-known debate in EPI: the risk of "dilution" of environmental issues if they become mainstreamed into development agencies. According to Oberthür, the EPI notion implies that "…this balance should clearly reflect environmental protection requirements…", which is of course a milder interpretation than the strong definition of EPI entailing "principled priority" of environmental objectives over other policy objectives (Lafferty and Hovden 2003). It appears equally, if not more, difficult to apply such a strong EPI concept at the international level.

Governance shifts within international regimes such as development assistance are conceptually linked to the governance shift from environmental policy as a sector to environmentally-integrated policy-making in different sectors. The guiding governance principles like alignment of agendas, ownership and information sharing are fully analogous. Persson (2009) analysis of macro-, meso- and micro-level implementation of development assistance policy appears a useful conceptualisation that might well be fruitfully applied at national levels as well, from the relative weight given to environmental considerations in the overall policy priorities, through to procedures and tools in sector strategies and policies and through to EPI processes in specific projects and local levels, leading to modified designs and selection criteria for what gets funded by public means. Furthermore, as Persson suggests, analysts of international regimes and national policy alike are well advised to employ frameworks of analysis that cover not only process (e.g. organisation, institutions and procedures) but also output (e.g. the instruments and decisions) and environmental outcomes.

5 Conclusions and future research needs

This special issue of International Environmental Agreements ventures into a difficult enterprise; to bring together the two distinctly separate fields of environmental governance studies dealing with EPI and with international regimes. The reasons for this have not been primarily academic although the contributions generate plenty of stuff for academic debate.

The main reason is much more practical (and critical): we see that the widely acknowledged principle that environmental concerns need to be strongly integrated at all levels of society has been poorly addressed at the international level—at least when compared to experiences in the EU and its member states and, one suspects, several other developed countries. A stronger integration capacity at the international level could also have catalysing effects nationally, through diffusion of environmental policy integration across regions and states around the world. Given the increasing importance of such multilevel governance processes, we need to know much more about what can be done to advance environmental integration at the level of international regimes if we are to have any meaningful chance to address sustainability challenges that we know are pivotal to our survival, such as climate change, ecosystems degradation and natural resource depletion.

What this issue shows, in a nutshell, is (1) that EPI challenges and institutional barriers are strongly accentuated at these levels, (2) that the suggestions for how to enhance EPI remain very speculative and (3) that the EPI "game" is full of inherent tensions and goal conflicts. Much more work is needed that goes beyond international relations and regime theory to capture fully potential institutional innovations that may contribute to EPI. Therefore, we would like to conclude with a note, admittedly not an original one, about what we need more research on.

First, we need to understand much more about multilevel governance aspect of international EPI, and in particular such little-explored themes as lower to higher scale interactions between institutions, in particular understanding the unidirectional influences from national/regional environmental policy to different global regimes—and the role of national politics and polity therein.

Second, we need to understand the role of issue characteristics as a determinant of EPI strategies and mechanisms—in the global scene as well as at national political levels. Here, advancement made in earlier research on regime effectiveness can be further developed.

Third, learning or cognitive interaction (or whatever one chooses to call it) is the key EPI mechanism at national and international levels alike, but there is a poor understanding how learning processes within organisations and organisational fields at national or regional levels differ or resemble the cognitive and normative interactions that can be said to frame EPI-oriented processes between international regimes.

Fourth, and finally, economists (and maybe even philosophers) need to be brought in to help us to better understand the net costs of establishing the overarching frameworks necessary to advance EPI at the international level. That is—what kind of effort is required to put this in place and what is the cost we are facing if we do not act?

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