

Environmental Policy Integration: Towards an Analytical Framework

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Environmental policy integration (EPI) is a key defining feature of sustainable development. Despite the fact that EPI has been the subject of much debate both in academic and policy-making circles, conceptual issues relating to EPI have received relatively little treatment. The conceptual work that has been completed on EPI generally fails to place the concept in an appropriate environmental policy context, and this in turn appears to betray the fact that the concept clearly implies a relatively strong revision of the traditional hierarchy of policy objectives. In this article the authors discuss the origins of the concept and provide conceptual clarification regarding its definition and context. Further, the article derives a simple analytical framework consisting of vertical and horizontal dimensions of EPI, which can serve as a useful point of departure for further empirical work on the implementation of EPI.

Introduction

One of the key defining features of 'sustainable development' is the emphasis on the integration of environmental objectives into non-environmental policy-sectors. This entails a fundamental recognition that the environmental sector alone will not be able to secure environmental objectives, and that each sector must therefore take on board environmental policy objectives if these are to be achieved. This is perhaps the most important general environmental policy axiom of the 1980s and 1990s, and a central element of the concept of 'sustainable development'.

The integration of environmental concerns into other policy areas has been referred to as 'environmental integration', 'environmental policy integration', 'sectoral integration', or simply 'integrating the environment

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into ... ', etc. In this article we will, for the sake of simplicity, follow Lenschow [1997, 1999] and use the term 'environmental policy integration' 'EPI'. The way in which EPI differs from the other terms depends on how each is defined and understood. For the purposes of the present article, we take EPI generally to encompass the other integration-related concepts.

One disadvantage with EPI is that it may be taken to signify an environmental policy objective that is not clearly connected to broader sustainable development objectives. However, it is quite clear that successful EPI is an essential and indispensable part of the concept of sustainable development. Therefore, although EPI does not in itself constitute sustainable development, it is semantically inconsistent to conceive of sustainable development without successful EPI.

Naturally, EPI has been the subject of much debate both in academic and policy-making circles. Conceptual issues have, however, received relatively little treatment. This is quite conspicuous given the central place of EPI in environmental policy-making debates in the 1990s. Further, the conceptual work that has been completed on EPI generally fails, in our view, to place the concept in an appropriate environmental policy context. This in turn appears to betray the fact that the concept clearly implies a relatively strong revision of the traditional hierarchy of policy objectives, where environmental goals and values historically have tended to be at the lower end of the scale. A major result of this is a 'blurring' of the extent to which the concept forms part of a broader political process; a process that provides for a revision of the traditional hierarchy of policy objectives, with the portrayal of environmental objectives as central, if not principal. A conceptual clarification of this point emerges as a central prerequisite for further empirical work.

Finally, we will briefly discuss various strategies for the implementation of EPI as a natural extension of our treatment of the concept. The aim of the article is therefore, first, to provide a more precise and comprehensive understanding of the *concept* of EPI; and, secondly, to discuss the implications of this understanding for realising EPI in high-consumption societies. To introduce the discussion, we look first at the history of the idea of EPI, showing how the notion has evolved over the years, providing thereby an understanding of why different interpretations are found in the contemporary policy-discourse.

Clarifying the Concept of 'Environmental Policy Integration'

Environmental Policy Integration: A Brief History

Searching for a conceptual origin, we have not found the term

'environmental policy integration' used before the 1980s, though the idea as such was clearly expressed much earlier. One of the first systematic attempts to enunciate the idea of a more comprehensive environmental policy that penetrated policy-areas not connected with environmental concern can be found within the European Community. The first Environmental Action Plan, adopted in 1973, contained a number of innovative principles, including a version of the 'polluter-pays principle' and an early form of the 'precautionary principle'.¹ It also stated that:

The environment cannot be considered as external surroundings by which man is harassed and assailed; it must be considered an *essential factor* in the organisation and promotion of human progress. It is therefore necessary to evaluate the effects on the quality of life and on the natural environment of *any measure that is adopted or contemplated at national or Community level* and which is liable to affect these factors [CEC, 1973: 6; emphasis added].

This clearly introduces a more holistic approach to environmental problems, where non-environmental policy-areas need to consider environmental effects. This holistic approach is the basis for EPI, and it is restated and developed in subsequent action plans [CEC, 1977; 1983; 1993]. The Maastricht Treaty of 1993 further established that environmental considerations 'must' be integrated into other policies, and in the Amsterdam Treaty of 1997 the principle is brought to the fore by being assigned its own article (Article 6) in the Consolidated Version of the Treaty Establishing the European Community, hence providing a constitutional basis for EPI in the European Union.² It thus seems reasonable to conclude that the EU has been, and still is, a major driving force for EPI, at least with respect to political commitment.

The World Conservation Strategy (WCS) in 1980 coined the term 'sustainable development', but is perhaps less well known for its treatment of 'environmental policy integration'. A central strategic principle for the WCS is:

Integrate: The separation of conservation from development together with narrow sectoral approaches to living resource management are at the root of current resource problems. Many of the priority requirements demand a cross-sectoral, interdisciplinary approach [IUCN, 1980: Ch.8.6].

This is followed up with a more detailed discussion of 'cross-sectoral conservation policy', where emphasis is placed on integration across thematic sectors and across levels of governance [IUCN, 1980: Ch.9].

It was not, however, until the publication of the Brundtland report in 1987 and the UNCED-process that followed that EPI was given a central role in international environmental policy-making. Although 'sustainable development' is a strongly contested term [e.g., *Lafferty and Langhelle, 1999; Lafferty and Meadowcroft, 2000; Lele, 1991; Redclift, 1993*], the UNCED-process has certainly made EPI a central component of the development vision espoused. The UNCED-process firmly rejected the 'zero-sum game' of the 1970s environmental protection paradigm, and presented environmental and developmental concerns as two sides of an interdependent process: 'environmental protection shall constitute *an integral part of the development process*' [*United Nations, 1993: Rio Declaration, Principle 4*].

While the Brundtland Report effectively limits EPI to the integration of environmental concerns in economic decision-making, the *Rio Declaration* and *Agenda 21* discuss integration of environmental concerns across a broader spectrum of sectors. An *ad hoc* approach is viewed as insufficient, and there is a clear admonition to accept environmental premises as important to all policy areas [*United Nations, 1993: Agenda 21, Ch.8.3, passim*].

In a European context the most recent development with respect to EPI is the so-called 'Cardiff process', arguably one of the most ambitious projects ever launched for EPI, guided by the EU's 'constitutional' commitment to EPI in the afore-mentioned Article 6 of the Treaty establishing the European Community. While it is perhaps debatable whether anything substantial has emerged from the process thus far, it has certainly helped to place EPI high on the European political agenda, especially through the Commission's Sustainable Development Strategy document and the Sixth Environmental Action Plan [*CEC, 2001; CEC, 2002*].

Hence, within both the UNCED process and the overall development of the European Union, EPI has emerged as a key principle of the environment and development discourse. As we will see below, the OECD has recently focused on the principle in their work on indicators for sustainable development and, more specifically, as a crucial governing mechanism for achieving 'decoupling'.³

Tracing the general history of EPI as a guiding principle does not, however, provide sufficient analytical precision to evaluate specific efforts to achieve greater integration in practice. Indeed, the principle takes on different meanings in different policy-documents and academic texts, and there is a clear trend in both international and European discourses in the direction of sectoral and policy 'cohesion' and 'balance', rather than the original goal of reconciling economic and social priorities with respect to standards of resource depletion and environmental degradation. Further,

while other readings of OECD work place more emphasis on EPI as primarily a question of achieving mutual benefits [Collier, 1997: 34], the EU appears to stress a need for all sectors to comply with the principle of integrating environmental concerns *into* other policies [e.g., CEC, 2002: Article 3.3]. It is quite clear, therefore, that EPI remains a relatively 'fuzzy' concept with a wide variety of interpretations.

Identifying the Problem

What features characterise policy-making that qualifies *as* EPI as opposed to other 'non-EPI' modes of policy-making? This task of defining the concept must be distinguished from a discussion of implementation; that is, a focus on the various strategies that can lead to a more effective realisation of EPI. It is also important to keep in mind that EPI refers to both a state of affairs which is the aim of policy-making, and the process necessary for achieving change. Although we touch on the latter at the conclusion of the discussion, we are primarily interested in clarifying – and establishing benchmarks for – the former. Furthermore, we want to emphasise that we are primarily concerned with issues that clarify EPI in an applied context, that is those aspects of the idea which give it 'value-added' potential in relation to more effective policy implementation.

Despite the fact that EPI has gained recognition as a central principle of environmental policy-making, among academics and policy-makers alike, there is relatively little literature on EPI in general, and *very* little literature on EPI as a concept. For example, Lenschow [1999] discusses EPI briefly in an introductory section to her work on the EU's common agricultural policy (CAP) and structural funds, outlining (with reference to Hey [1996]) different strategies for EPI. Yet these strategies are linked to differing conceptions (understandings) of the principle of EPI. Some are linked to versions of EPI that are so weak that they hardly qualify as anything more than traditional, 'first generation', environmental policies (for example, the assessment of environmental impacts and side effects [Lenschow, 1999: 92]). Hence, a discussion of strategy masks an unresolved differentiation of concepts, leaving us with little more than a stipulation of the idea of EPI itself.

At a much earlier date, Underdal [1980] discussed policy integration in general, but had relatively little to say on *environmental* policy. We will argue below, however, that his analysis is vital to the further clarification of the environmental aspect of the concept. Collier's work on EPI is more extensive, but ultimately lacks perspective on the historical roots of the idea, and is quite derivative of other definitions [Collier, 1997]. Liberatore [1997] has provided what is probably the most frequently cited text on EPI, but in our view 'integration' is here used to cover a number of features of

environmental policy-making which are less useful in delineating the type of 'value-added' definition referred to above. She discusses, for example, integration with respect to issues, sectors, organisation, space and time, distributive elements and instruments. In our view, however, it is 'issues and sectors' which is the primary focus of the concept, and it is difficult to see what is gained by viewing the other issues as aspects of 'integration' *per se*. Integration across space and time, for example, relates to matters of intergenerational justice and international co-operation that are surely best viewed as such, and not as variations of EPI.

To illustrate how conceptual imprecision can lead analysts astray in discussions of EPI, one can point to the European Environmental Bureau's position paper on 'Ten Benchmarks for Environmental Policy Integration' [EEB, 1999]. Here the EEB clearly sets out to establish indicators for EPI, yet the results produced are labelled, for example, 'targets for sustainable development' and 'green benchmarks'. The relationship between a 'target', 'indicator' and 'benchmark' is not elaborated upon. Further, one reasons that these targets/benchmarks should be applied in each sector, yet it is unclear what this implies for an analysis of *degrees* of EPI. It creates the possibility for confusion between indicators for environmental policy and indicators for EPI. A sector may score very well with respect to the EEB's targets/benchmarks, yet this may not tell us very much about EPI. We might assume that EPI should be relatively strong in a sector that scores well with targets or benchmarks, but this would only be an assumption since the application of the targets/benchmarks only says something about the sector's environmental performance, nothing direct as to the degree of actual integration.⁴ Unfortunately, the EEB is hardly unique in this type of conceptual 'blurring', so that there is, in our view, a clear need for greater precision and analytical rigour as a basis for more effective evaluation and implementation.

Defining EPI

Ute Collier's work serves as a valuable point of departure for redefining EPI since she is one of the very few who have distinguished attempts to define the concept from other features of its application (such as strategies and indicators). She offers a three-point definition of the objective of EPI [Collier, 1997: 36]: it should: (a) achieve sustainable development and prevent environmental damage; (b) remove contradictions between policies as well as within policies; and (c) realise mutual benefits and the goal of making policies mutually supportive. Let us look more closely at each one of these goals.

To achieve sustainable development and prevent environmental degradation: This point demonstrates that the objective of EPI actually is

twofold. The first is the very general overarching aim of achieving the objectives of environmental policy. For Collier, this is EPI as part of a strategy of sustainable development and the prevention of environmental degradation. This serves to place EPI in an intellectual context, but offers little in the way of a definition. The objectives of the 'polluter-pays principle' or the 'precautionary principle' are, for example, both ultimately the realisation of a set of broad environmental objectives (such as sustainable development). But this does not tell us much about what these principles entail, especially in terms of policy implications. It may therefore be useful to view the objective of EPI in slightly more narrow terms; to provide for a particular type of environmental policy-making which is believed more effectively to facilitate the attainment of a given environmental goal. A definition of this objective needs to say something about the specific characteristics of EPI and the features a policy should have at the point where we can say that EPI is being applied. Collier's first goal says little about this issue.

To remove contradictions between policies as well as internal contradictions within environmental policy: This point is effectively a question of policy co-ordination, which is valuable, but again hardly indicates a unique feature of EPI. As Collier herself point out, *all* good policy-making would involve a high level of policy co-ordination. Yet, she does not elaborate on the consequences of this; namely that if we are trying to say something about the essence of the principle of EPI (that is, what enable us to pick it out from other modes of environmental policy-making), then policy-co-ordination or the removal of contradictions between policies as such is not very helpful. EPI is, of course, about policy co-ordination in that it entails an adjustment of non-environmental policy so as better to achieve environmental objectives, but it is a very specific type of policy co-ordination which must be operationalised in demonstrable intra-sectoral terms.

To realise mutual benefits and make policies mutually supportive: This point is perhaps the most problematic in Collier's definition. Two points should be noted.

First, we should assume that anyone seeking to pursue *any* policy objective would seek to point out benefits not only for the 'home' sector, but also for other sectors, as this would be a central element of a successful policy. In other words, what is being described is once again a feature of any good policy-making strategy. While this may be a useful aspect of EPI as well, it does not distinguish the defining objectives of EPI.

Second, while there are many 'win-win' cases where mutual benefits can be realised, it is also clear that the assumption that this is the dominant feature of environmental policy-making is highly contestable. Collier recognises this explicitly, but does not go on to explore the implications. The difficulties encountered with the operationalisation of sustainable development in, for example, Western Europe, could be the result of policymakers' inability to see and realise mutual benefits, but it could also reflect the fact that there are numerous very real conflicts of interests with respect to many environmental issues.⁵ To identify mutual benefits as a key aspect of the definition of EPI serves, in our view, to underplay numerous vital challenges inherent in the integration objective.

Hence, while Collier's definition places the principle of EPI in a fruitful intellectual context and provides a number of possible indications as to what it might entail, the approach falls short of a more precise and applicable conception. The question must be asked therefore: What *is* EPI? What does it entail? How will we recognise it when we see it?

In addressing these questions, we return to the early work of Underdal [1980] which is generally cited as the first academic treatment of the term 'policy integration'. Crucially, Underdal seeks to stipulate what distinguishes an integrated policy from other forms of policy-making.

For a policy to be 'integrated', three criteria need to be satisfied: comprehensiveness, aggregation, and consistency [Underdal, 1980: 159]. 'Comprehensiveness' refers to time, space, actors and issues; 'aggregation' to the evaluation of policy from an 'overall' perspective, (that is, *not* merely from the perspective of a particular actor or issue area); and 'consistency' implies that the different components of an integrated (that is, aggregated and comprehensive) policy are in accord with each other. The latter requirement applies across different departments and different levels of governance.

On this basis, Underdal defines an integrated policy as one where: '... all significant consequences of policy decisions are recognised as decision premises, where policy options are evaluated on the basis of their effects on some aggregate measure of utility, and where the different policy elements are in accord with each other' [Underdal, 1980: 162].

Although this is a well-developed and precise definition of policy integration, it can in principle be used for *any* type of policy integration, and is not specifically tied to environmental policy. What we lack is a value-hierarchy to guide the actual integration in question. Our contention is therefore that EPI – as mandated within UNCED and the EU – is inconsequential without a clear emphasis on, and bias towards, environmental objectives. Using Underdal's more general definition as a 'bridge' to environmental policy-making, we thus arrive at the following definition of EPI:

- the incorporation of environmental objectives into all stages of policy-making in non-environmental policy sectors, with a specific recognition of this goal as a guiding principle for the planning and execution of policy;
- accompanied by an attempt to aggregate presumed environmental consequences into an overall evaluation of policy, and a commitment to minimise contradictions between environmental and sectoral policies by giving principled priority to the former over the latter.

As indicated, the definition has two dimensions. The first is the actual definition of the integration principle. It incorporates a combination of the general statement put forth by Collier [1997] with the more specific definition found in Underdal [1980]. It refers to the general category of 'environmental objectives', which could be sustainable development or any other desired environmental policy discourse (although sustainable development of course explicitly calls for EPI). Further, it specifies what the integration principle actually implies in terms of policy-making; namely that the environmental objectives need to be part of the fundamental premises for policy-making at all stages. The definition specifies, thereby, initial criteria for claiming that a specific policy is environmentally integrated.

The second part of the definition may at first sight appear superfluous, since the initial integration principle should be quite clear. It is here, however, that we face a crucial issue in defining EPI: the relative importance of sectoral and environmental objectives. Most discussions of EPI assume either that the environmental and non-environmental objectives should be 'balanced', or that any conflicts between the objectives can be resolved to the satisfaction of all affected interests ('coherence'). Yet looking at the broader context and history of the integration discussion, it is quite clear that this assumption cannot be maintained. We would argue that the whole point of EPI is, at the very least, to avoid situations where environmental degradation becomes subsidiary; and, in the context of sustainable development, to ensure that the long-term carrying capacity of nature becomes a principal or overarching societal objective. This is arguably *the* essential difference between 'environmental policy integration' and 'policy integration' conceived more generally. Given the key importance of this point, let us look at it in more detail.

Should Environmental Objectives be Given Principled Priority?

The question of 'principled priority' is a crucial aspect of the integration issue. First, the entire shift in environmental policy discourse over the last couple of decades concerns the prioritisation of environmental policy vis-à-

vis other policy sectors. The fundamental premise of keynote documents such as the Brundtland report, *Agenda 21*, the successive EAP's and strategy documents of the EU, is that environmental policy for too long has been treated as a peripheral concern for policy-makers in general, and in particular for those sectors with no obvious and explicit responsibility for environmental issues.

Second, this shift is not just a matter of bringing environmental objectives into the policy-making process in non-environmental sectors, and balancing the various objectives if and when they are in conflict. The increasing recognition and acceptance of the fact that we are facing potentially irreversible damage to life-support systems clearly implies that, as far as some environmental objectives are concerned, these cannot simply be 'balanced' with the objectives of other policy sectors. In short, an understanding of the historical discursive context of the EPI idea clearly indicates that environmental objectives related to the protection and preservation of the carrying capacity of nature must – as a general rule – be seen as principal.

Given another major premise of the discourse, however – that policy priorities must be decided 'democratically' – this should not be taken to mean that environmental objectives should, in every case, override other developmental goals and priorities. The caveat 'principled priority' is stipulated in the definition to allow for the very real possibility that other policy objectives will, at times, be deemed more important than environmental concerns. In the words of the Brundtland Report: 'every ecosystem everywhere cannot be preserved intact' [WCED, 1987: 44]. We must be careful, therefore, not to define such quandaries out of the issue. The ultimate 'trade-off' attaching to EPI is that between existing democratic norms and procedures on the one hand, and the goals and operational necessities of sustainable development on the other. A 'strong presupposition' in favour of environmental concerns vis-à-vis other sectoral concerns cannot be converted to an 'extra-democratic' mandate. This does not mean, however, that the 'mandate' for sustainable development cannot be considerably strengthened within the policy realm of existing sectoral interests – an issue we will return to below.

To illustrate the type of prioritisation in question, let us consider the most important current policy priority of Western democracies: economic policy. The objectives of economic policy (for example, balance of payments, providing for growth, checking inflation, keeping down interest rates, ensuring full employment and so on) are implicitly or explicitly infused in virtually every other policy sector. This clearly illustrates how the objectives of a given policy sector can be assigned 'principled priority' across all sectors and, in this sense, we can say that 'economic policy integration' is the existing competing mode to environmental policy

integration in all OECD countries. However, even though economic policy has a commanding position among a variety of societal objectives, it does not mean that considerations of economic policy always prevail. Economic policy concerns may, and occasionally are, overridden by other societal objectives (for example, the need for a new national opera house). While competing societal objectives are continually 'balanced' against each other, some objectives are clearly 'more equal' than others.

One possible objection to treating environmental policy objectives in this manner concerns the conflicting conceptions of sustainable development that are currently employed by individuals, governments and organisations alike. Not all of these would necessarily entail a principled prioritisation of environmental policy objectives. Our position is not based, however, on a (probably) unrealisable consensus on the meaning of 'sustainable development', but specifically anchored in the goals and intentions of the UNCED process. Although the process, through its documents, strategies and action plans, provides limited explicit guidance as to how conflicts of interests are to be handled, the idea of a principled prioritisation of environmental policy objectives is defensible with reference to the UNCED emphasis on the minimum requirement of physical sustainability, as well as to the welfare of the 'world's poor' and 'future generations'. The fundamental premise for the Brundtland report is that current development patterns erode the very basis for satisfying the 'essential needs' of these two 'target groups', with specific reference to natural resources and life-support systems. To argue that sustainable development merely implies that these concerns should be 'balanced' with a myriad of other societal goals misses, in our view, the fundamental normative premise of the Brundtland Report and its follow-up within UNCED.

Another way to view this position is in terms of the 'precautionary principle', widely acknowledged to be integral to the pursuit of sustainable development. A key purpose of the principle is to take the burden of proof off the shoulders of those promoting environmental protection and place it elsewhere, thereby shifting the balance of responsibility to other interests, actors and objectives. This does not mean that any claim to provide for environmental protection automatically disqualifies and de-legitimises alternative objectives, but it does mean that non-environmental objectives are faced with a 'bias' in favour of life-support systems that is built into the very system of decision-making.⁶ This 'bias' can be overcome, but only at the price of specifically discounting in open forum the potential environmental damage in question. EPI in this mode would thus introduce a much stronger and more visible standard of 'environmental prudence' into key decision-making processes.

While several of the myriad of academic interpretations of sustainable development might take exception to this interpretation, we feel that the politically sanctioned texts and documents of the UNCED-process support it. We also feel that the treatment of EPI within the EU 'constitution' reflects this interpretation by stating in treaty form that environmental concerns must be integrated into other Community policies. While this clearly does not mean that the EU consistently places environmental concerns above the concerns of the single market (for example) in practice, it does provide a clear expression of 'constitutional' intent.

Having established both a baseline definition and normative understanding of EPI – an understanding that we feel expresses the essence of the idea within the textual-political context indicated – we turn next to the task of moving the idea from basic concept to applicable conception.

Dimensions of Environmental Policy Integration

Horizontal and Vertical EPI

In what follows, we will develop the idea of environmental policy integration along two dimensions, one horizontal and one vertical. The implicit 'landscape' for the dimensions should primarily be understood as governmental. By this we mean that we have national 'cabinets' (governments) and their composite departments and ministries in mind, and are thinking mainly of policy integration as strategies, plans, instruments or other initiatives which are designed to promote change in the direction of ecologically sustainable development. We mention this at the outset since the term 'sectoral integration' is used in the literature to denote both political-administrative sectors of government, and the actual sectors of society governments are trying to affect. Our emphasis is on the integration of policy-making as a feature of governmental steering according to differentiated sectoral responsibility. We are, in other words, focusing primarily on process and policy; not on the actual consequences and effects of governmental initiatives (products or outcomes).

Vertical environmental policy integration (VEPI) indicates the extent to which a particular governmental sector has adopted and sought to implement environmental objectives as central in the portfolio of objectives that the governmental body continuously pursues. VEPI involves the degree to which sectoral governance has been 'greened'; the extent to which it has merged environmental objectives with its characteristic sectoral objectives to form an environmentally prudent decision-making premise in its work. This 'greening' does not require an overarching primacy for environmental goals at the cabinet level. Each sector is left free to develop its own

understanding of the concept and its implications. The dimension only looks at the degree of EPI within the steering domain of the individual department or ministry. This may lead to significant EPI in a given sector, dependent on the level of ministerial commitment and the ability of sectoral officials to balance internally derived environmental priorities with external demands for 'normal' sectoral policy outputs.

Indicators for VEPI will have to give qualitative and quantitative indications of how a given governmental sector aims to integrate environmental concerns in its activities. The following will be a starting point, but more detailed indicators could of course be developed:

- an initial mapping and specification of the major environmental challenges (issues, actors) relevant to the sector;
- formulation of a sectoral environmental action plan (SEAP);
- consistent and regular employment of both Environmental Impact Assessment and Strategic Environmental Assessment for all sectoral policy-decisions;
- timetables and quantitative, indicator-based targets stipulated in the SEAP (or elsewhere);
- regular reporting of the state of environmentally relevant policies within the sector.

These initiatives should be viewed as baseline measures for VEPI, with the expectation that each can be operationalised in terms of more detailed indicators. They serve to identify minimalist standards for assessing whether a given sector has taken on the challenge of environmental integration. The key initiative is the existence of a strategic environmental action plan. As indicated, however, the plan itself will be of limited importance if it fails properly to assess and identify the key environmental challenges for the sector, or if it fails to stipulate realistic targets, benchmarks and measures for objective assessment of implementation results. The possibility of pursuing change without the formal structure of a strategic plan is, of course, possible, but such *ad hoc* approaches are notoriously 'fragile' in the daily workings of sectoral departments where they must compete on an ongoing basis with the dominant interests of more traditional sectoral policy-making.

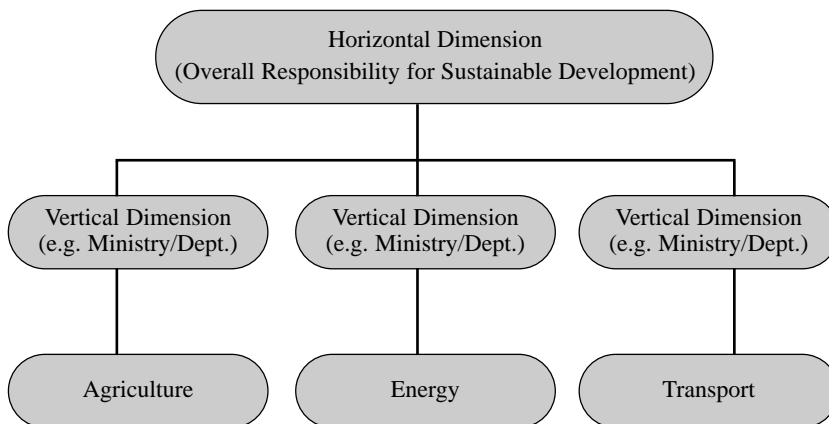
It is important to stress here that the term 'vertical' is used in a functional sense, and not in the sense of a vertical constitutional division of powers. The vertical axis of VEPI signifies administrative responsibility 'up and down' within the arena of ministerial sectoral responsibility. The imagery is one of public authorities influencing and interacting with sector-specific actors, both individual citizens and collective ('corporate') actors of

differing intent and purpose (see Figure 1). We stress this because, as previously mentioned, there exist other perspectives on environmental policy integration where EPI refers to the integration of environmental concerns into the work of local and regional authorities [e.g. *OECD, 2002b: 19–21*]. We prefer to treat the latter problematic within the discourse on ‘subsidiarity’, rather than to confuse policy integration with different levels of policy responsibility.

The advantage of this differentiation becomes clearer when we consider the second dimension of EPI: horizontal environmental policy integration (HEPI). This is the extent to which a central authority has developed a comprehensive cross-sectoral strategy for EPI. This ‘central authority’ can be the government (cabinet) itself; or it could be a particular body or commission which has been entrusted with an overarching responsibility for sustainable development; or an inter-ministerial body assigned to handle what is considered important overarching issues (such as the EU Commission’s ‘Prodi-Group’ for sustainable development strategy).

In its most essentialist form, horizontal EPI involves the question of the relative authority to be associated with environmental concerns in determining the overall policy-making goals and procedures of the responsible political-administrative unit. If ‘Who gets what, where, when and how?’ is the essence of a political system, the relevant understanding for HEPI is to substitute ‘environmental interests’ for ‘who’, and to insist on at least equal treatment for the environment as for other competing interests.

FIGURE 1
ENVIRONMENTAL POLICY INTEGRATION
HORIZONTAL AND VERTICAL DIMENSIONS



This entails, of course, the negotiation of conflicts between environmental objectives and other societal objectives; between different sectors pursuing alternative environmental objectives; as well as between the alternative possible consequences of specific environmental initiatives (that is, environmental 'dilemmas', where the consequences of one 'solution' create new and different environmental problems in another direction).

Also forming part of the horizontal dimension is the central authority's communication to the sectors of a more detailed understanding of what the central authority aims to achieve by EPI, and the implications this should have for sectoral policy. Assigning the 'limits of nature' a status of 'principled priority' at the sectoral policy table can be communicated through a wide diversity of legal-administrative instruments, and the effects on the actual degree of HEPI, both within and across sectors, will vary considerably according to the measures chosen. The 'medium' will, in many cases, be the 'message' – even though the message (on face value) indicates environmental privilege. Assessing the degree of HEPI is thus a question of assessing both the basic mandate for environmental privilege, as well as the detailed specifics for realising the mandate in and through the workings of public administration.

An initial list of appropriate indicators for the horizontal dimension of EPI would include:

- the existence of a long-term sustainable development strategy (SDS);
- the existence of a central authority specifically entrusted with the supervision, coordination and implementation of the integration process;
- relatively clear designations as to sectoral responsibility for overarching goals;
- timetables and targets for environmental policy (included in the SDS or elsewhere);
- periodic reporting of progress with respect to targets at both the central and sectoral levels;
- an active and monitored usage of EIA and SEA for all governmental policies.

As with the vertical indicators, these are, again, 'baseline' requirements for a HEPI assessment. The national sustainable development strategy is extremely important as its existence indicates a political commitment to the crucial role that the UNCED process has assigned EPI in the national policy-making context. Thus the existence of an SDS gives a strong indication of how a government relates to EPI in the overall decision-making context. Further, an SDS is bound to discuss matters related to economic and social development, as these are integral aspects of

sustainable development. While this is not in itself crucial for EPI, it does increase the likelihood that a deliberate and purposive process of weighing various societal objectives up against each other will be carried out.

A judicial balancing of environmental objectives against other societal and environmental objectives is a crucial aspect of the horizontal dimension of environmental policy integration. It entails an open acknowledgement of the strong potential for conflicts of interest if the demanding goals of sustainable development are to be taken seriously; at the same time that it provides a central platform and arena for attempts to transcend such conflicts. As the Swedish experience with integration efforts has shown [SEPA, 1999], there are numerous examples of conflicting environmental objectives. The vital question for EPI, however, is whether or not such conflicts have a political forum and policy-making process where conflicting interests and demands can be weighed against democratically derived guidelines and principles.

Equally important is the existence of a specific central authority, an identifiable and responsible institution, to oversee and administer the process of strategic integration. This is a basic *realpolitik* aspect of the horizontal dimension, in that a separate sectoral environmental body will rarely, if ever, have the authority necessary to impose environmental objectives into the decision-making premises of other sectoral authorities. This is why, we would argue, the logic of decision-making in a sustainable development value frame requires that the responsibility for promoting and overseeing environmental objectives be anchored in an overarching authority structure. This could be directly integrated into or placed under the responsibility of the chief executive (as was originally intended in Norway after the Brundtland Report); or placed in an appropriately authorised planning agency (as in Holland under NEPP IV); or located within the domain of the legislature (as with the Commissioner for Sustainable Development in Canada); or placed outside the political process in the form of a last-resort judicial organ.

The two-dimensional model of EPI described here is broadly in line with what Lafferty and Meadowcroft [2000: 433–4] refer to as ‘intra-ministerial integration’ and ‘sectoral integration’. Whereas the latter entails that each ministry is separately responsible for relating sector interests to environmental objectives, the former involves a lateral extension of responsibility to cover ‘the interdependency between sector-specific dispositions and the norms of sustainable development’ [2000: 434], thereby ensuring a horizontal application of sustainable development principles.

Peter Knoepfel is one of the very few analysts who has addressed this issue directly. His work on institutional arrangements for environmental protection alludes to the same dimensions presented here [Knoepfel, 1995].

Some of the institutional scenarios that he discusses – for example, the ‘satellite model’ – imply an increase in the application of cross-sectoral environmental authority, while others – such as ‘ecological self-determination’ – rely on the sectors themselves to develop and strengthen their environmental performance. This latter example would broadly correspond to VEPI, and his cross-sectoral approach to HEPI. Knoepfel’s work is, however, not designed as an analytical framework for EPI, but as a more general perspective on various strategies for institutional change for the strengthening of environmental protection.

Lenschow [2001] implicitly acknowledges the importance of the relationship between the horizontal and vertical dimensions of EPI. She points out in no uncertain terms that while EPI depends on the ‘political commitments of the sectoral policy makers’, it is nevertheless crucial that the process be complemented by horizontal coordination at the highest level; what we designate as horizontal EPI since it entails much more than policy-coordination. The analytical implications of this, however, do not appear to have been developed further in the Lenschow volume.

Lafferty and Meadowcroft point out that it is extremely rare to see both dimensions of EPI operationalised at the same time (within the sample of OECD countries studied). Broadly speaking, vertical integration (VEPI) is clearly the dimension that is most actively pursued and, in selected instances, achieved. Consequential examples of HEPI are much more difficult to document. This is hardly surprising given the fact that VEPI clearly involves less inter-departmental conflict, and decidedly less change in the overall allocation of sectoral winners and losers. The issue raised by the two-dimensional approach, however, is whether vertical integration is sufficient in itself to achieve the general ambitions of policy integration within the sustainable development discourse. We obviously think not. Unless the central government provides an appropriate national framework for EPI, the efforts for VEPI will only have limited effectiveness. We will illustrate the crucial difference in question by briefly looking at attempts at policy integration in two countries, Germany and Canada. We hasten to stress that our use of these cases is only meant to demonstrate the general relevance of the approach and how the different dimensions can be identified in the policy-making process, not to carry out a systematic EPI analysis.

Dimensions of EPI: Two Illustrative Examples

We base our examples on earlier material from Lafferty and Meadowcroft [2000], supplemented by more recent OECD [2002b] studies.

Germany provides evidence of a relatively early emphasis on instruments and governing mechanisms for strengthening vertical policy

integration. There are strong pieces of legislation which combine benchmark indicators, target groups, specific policy instruments and monitoring procedures for key sectoral challenges (such as the innovative 'Renewable Energy Act'). There is also a procedure for using 'Green Books', which outline all of the relevant international obligations for each sector of ministerial responsibility, as well as an ambitious 'German Environmental Index' (the DUX),⁷ which is based on a relative scoring system that constantly indicates how far (or 'short') sectors have come in contributing to overall goal achievement [*OECD, 2002b: 141*]. Perhaps most importantly for VEPI, each of the environmentally crucial sectors of transport, energy and agriculture have developed sectoral strategies for sustainable development [*ibid.: 126*]. Finally, there is the Conference of Environment Ministers (UMK), which is designed to coordinate strategy and policy within the environmental 'sector' across the different levels of federal governance, and which clearly contributes to heightened VEPI awareness at the federal level.

With respect to HEPI, it is worth noting that Germany as far back as 1971 had instituted the German Environment Programme, which can be seen as a forerunner for a National Strategy for Sustainable Development (NSSD). Even more notably, however, was the 1972 establishment of the Cabinet Committee for Environment and Health and the 1976 formal definition of environmental policy as 'cross-sectoral' [*OECD, 2002b: 116–21*].

Several of these initiatives appeared to lose their momentum in the late 1970s and 1980s, however, and the UNCED-process clearly received less attention in Germany than one would have expected [*Beuermann, 2000*]. The work on a national strategy has been slow, and it is only now that substantial potential for HEPI is being uncovered. There is a 'Green Ministers' initiative evolving, consisting of ten Secretaries of State and chaired by the Head of the Chancellor's Office, which is to work in close conjunction with a new Council for Sustainable Development [*ibid.*]. Though these initiatives are only in the start-up phase, the potential for strong and substantive HEPI is in place and could, in conjunction with the existing VEPI institutions, move Germany to the forefront in this area.

In Canada there is an impressive record of developing institutions and procedures which point towards a strong combination of both VEPI and HEPI. As far as VEPI goes, the most notable feature is that 28 governmental units (ministries, agencies and other bodies) have already prepared second-generational sectoral action plans for sustainable development. The interesting aspect of these plans is not their quality – like most other strategies and action plans they appear quite general and contain few concrete targets – but rather the institutional follow-up and review process

to which they are subjected. Canada is still the only country in the world with a Commissioner for the Environment and Sustainable Development (CESD), whose responsibility it is, among other things, to monitor and review the sectoral strategies [*OECD, 2002b: 49–50*].

The Canadian case thus provides a clear distinction between the VEPI and HEPI dimensions. As a VEPI measure, the sectoral plans are made more potent by the independent monitor-and-review function of the CESD – a horizontal measure. In addition to the CESD, there are a number of other institutions that have evolved in recent years, adding to the strong HEPI dimension in Canada [*OECD, 2002b: 46–58*]. The most important are the long-standing National Round Table on the Environment and the Economy (NRTEE), the Treasury Board Secretariat (with key functions in regard to sectoral strategies for SD), and the Canadian Environmental Assessment Agency (CEAA).

These institutions interact through a system of coordinated functional diversity, in which the CESD plays an increasingly crucial role. Their operations are mostly statutory based, which is of crucial importance for their legitimacy and functionality. The CESD has, for the past six years, handled a large number of ‘petitions’ from private citizens and groups on problems and conflicts arising from sustainable-development implementation, all covered by legal prescription and subject to judicial process [*ibid.: 68–69*]. In addition – and parallel to these processes – the NRTEE has mobilised key economic and environmental actors to provide continuous input to governance in the form of specific projects and tasks, and these have been increasingly taken into consideration in planning and budgetary procedures.

All these institutional mechanisms and procedures indicate that both the horizontal and vertical dimensions of EPI are being pursued. While the actual results of these combined efforts are not yet fully assessed, the institutional structure alone is enough to place Canada at the leading edge of initiatives to realise EPI as a fundamental aspect of ‘governance for sustainable development’.

The German and Canadian examples illustrate how the two dimensions of EPI can be identified in a particular policy context. More detailed studies employing indicators as suggested here should reveal the extent to which each dimension has been realised in each case. At present it appears that the generally less developed horizontal dimension acts as a ‘limiting condition’ on the vertical dimension. While several VEPI initiatives have been implemented, it is the horizontal dimension which ultimately provides the political, legal and budgetary framework for an effective VEPI. This situation has recently been more clearly documented in Norway, where an evaluation of the transport and energy sectors indicates that a lack of

horizontal steering and follow-up clearly limits the potential impact of sectoral action plans [Torjussen, 2001].

Conclusion

Environmental policy integration is perhaps the most important feature of the political and institutional aspects of the UNCED process, and clear priority of the OECD. However, EPI suffers from conceptual diffuseness in the policy-integration literature. This applies to its general definition, as well as the political context within which the concept must be understood. This article has mapped the development of the concept and sought to provide it with greater clarification. Further, we have made an initial attempt at an analytic framework which offers a better operational point of departure for a more effective understanding of the concept and its empirical manifestations. We have identified two dimensions of EPI through which the concept may be understood and studied more effectively.

The vertical dimension (VEPI) concerns the extent to which a particular governmental sector has taken on board and implemented environmental objectives as central in the portfolio of objectives that the sector continuously pursues. The horizontal dimension (HEPI) lies 'above' this, and concerns the extent to which a central authority has developed a comprehensive cross-sectoral strategy for integration which entails substantive coordination and a willingness to prioritise among sectors. These two dimensions are strongly affected by the existing governance structures of modern states, with proclivities often pointing in one or the other direction, but very seldom along both dimensions simultaneously. As a general conclusion, however, it is clear that efforts at vertical integration are more common, and more influential, than efforts at horizontal integration.

Further research along the lines suggested here should be able to cast significant light on both the normative and empirical aspects of the concept and its realisation. This would involve not only the environmental aspect of sustainable development (focused here in terms of the limits of natural life-support systems), but also the total integrative challenge attaching to both the economic and social aspects. This could help to identify crucial variables and decision points in governance for sustainable development. As we interpret the case studies of even the most advanced countries in this respect, no OECD member state appears yet to have found the institutional and procedural 'key' to effecting a significant break with 'business as usual'. A key premise of the present study is that, if such a break *is* to be achieved – in line with the aims and aspirations of the Brundtland Commission, Rio and Johannesburg – it will have to involve a break with 'politics as usual' in the direction of a more principled and consequential integration of environmental concerns in all sectoral activities.

NOTES

1. See also MacNeill [1991: 41]; WCED [1987: 233, note 30]; and Pearce [1989: 156].
2. Article 6 states that 'Environmental protection requirements must be integrated into the definition and implementation of other Community policies.'
3. On 'decoupling' and sectoral integration within an OECD context, see OECD [2001a, 2001b, 2002a].
4. A similar point is made by Nollkaemper [2001: 25], who argues that an understanding of EPI merely as effective environmental policy implies that the concept has no distinct meaning.
5. As the Brundtland report recognises: 'The search for common interests would be less difficult if all development and environment problems had solutions that would leave everyone better off. This is seldom the case, and there are usually winners and losers' [WCED, 1987: 48]. See also SEPA [1999: 41-8] for an interesting discussion of EPI and conflicting sectoral objectives.
6. Bodansky's [1991] discussion of the precautionary principle illustrates this well.
7. The DUX is described as a mechanism for horizontal integration by the OECD. However, it is better described as a vertical integration mechanism as it provides a common method by which environmental performance can be measured, a method which is used by individual sectors in their work. It does not have the integrative and cross-sectorial function that we assign to a horizontal measure.

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