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Theory versus practice in Strategic Environmental Assessment (SEA)

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ABSTRACT

Could the theory of Strategic Environmental Assessment (SEA) be ahead of its time and decoupled from its practice? This paper evolved in search for this leading research question. Over the years the discourse on SEA experienced a gradual shift from the technocratic and rationalist thinking that supported its origin to more strategic approaches and integrated concepts, suggested since the mid 1990's. In this paper we share the results of our analysis of international thinking and practical experience with SEA. Results reveal that SEA practice changes very slowly when compared to advanced thinking supporting the noted shift. Current SEA practice shows to be still predominantly rooted in the logic of projects' environmental impact assessment (EIA). It is strongly bound to legal and regulatory requirements, and the motivation for its application persists being the delivery of environmental (or final) reports to meet legal obligations. Even though advanced SEA theoretical thinking claim its potential to help decisions to look forward, change mind-sets and the rationale of decision-making to meet sustainability challenges and enhance societal values, we note a weak relationship between the theoretical development of SEA and its practice. Why is this happening? Which factors explain this apparent inertia, resistance to change, in the SEA practice? Results appear to demonstrate the influence of assumptions, understandings, concepts, and beliefs in the use of SEA, which in turn suggest the political sensitivity of the instrument.

Introduction

Strategic Environmental Assessment (SEA) has evolved significantly over the past 25 years. SEA started by extending the concepts and practice of project's Environmental Impact Assessment (EIA) to similarly address higher levels of decision-making (Lee and Walsh, 1992; Lee and Wood, 1978; Thérivel et al., 1992; Wood and Dejeddour, 1992), following what Lynton Caldwell called "the anatomy of rational policy-making: analysis-assessment-decision" (Caldwell, 1991).

Progressively, as SEA evolved, it was recognized that there was a need for more proactive and strategic approaches (Bina, 2007; Nilsson and Dalkmann, 2001). Earlier advocates (Boothroyd, 1995; Clark, 2000; Partidário, 1996, 1999) argued on the need for SEA to address the policy and institutional framework, serve sustainability drivers, and integrate societal values in decision processes, suggesting that SEA must act directly upon the process of formulation and development of policies, plans, and programmes (PPP), in order to increase the capacity of influencing decision priorities and facilitate environmental and sustainability integration in decision-making (Caratti et al., 2004; Kørnøv and Thissen, 2000; Partidário, 2004; Sheate et al., 2001). Such evolution in the SEA discourse was paralleled by the expansion of multiple SEA interpretations, well captured by Silva et al. (2014), multiplying the apparent spectrum of SEA approaches (OECD-DAC, 2006). Those multiple SEA approaches created new challenges, some claiming the need for new practices of SEA beyond the simple analysis and reporting of information on the environmental consequences of decisions being made.

Despite this growing effort towards a distinct conceptual approach in understanding and applying SEA, evidence available suggests that SEA is still largely practised according to a projects' EIA philosophy (Dalal-Clayton and Sadler, 2005; Sadler et al., 2011). Tetlow and Hanusch (2012) quote Verheem and Dusik (2011) to say that "SEA is still practised as a largely 'EIA based' tool" (Tetlow and Hanusch, 2012: 17), and elaborate on the schools of thought that have influence the development of SEA: the modernist, rational planning traditions, dominated by positivism, and the post-modern, post-positivist and collaborative planning theory, that recognize the need for decision-making processes to adapt to environmental, social, economic, cultural and political contextual factors. These schools had been previously recognized in Partidário (2000).

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In this paper we postulate that perhaps the theory of SEA seems to follow a different direction relative to its practice, also as suggested in Partidário and Cashmore (in press)! While it is not unusual that theory is ahead of practice, it seems that, in this case, an unusual gap exists. So we ask: Could the theory of SEA be ahead of its time and decoupled from its practice? This paper is structured in three research goals. The first goal is to empirically recognize that a gap exists and the second goal is to explore why there is a gap. What factors can justify that SEA practice keeps on the track of EIA? Is there a problem of communication, of institutional resistance to change, or of inertia in the adoption of new concepts in the practice of SEA? What may be the prevailing factors in the application of SEA that impede its practice from becoming more adjusted to its theory? Finally a third research goal is to question whether it will be possible to revert the situation, and to bridge this gap. This paper shares the results of an investigation exploring these questions and aims to contribute empirically based reasons to address why there is a gap between the practice of SEA and its theoretical development. Finally the paper suggests forms that may help to bridge the gap.

Table 1
SEA cases analysed by country.

Country	Number of cases analysed
Africa	
Ghana	1
Mauritius	1
Namibia	4
Sierra Leone	1
South Africa	8
Zambia	1
Asia	
Bangladesh	1
China	2
Vietnam	4
Europe	
Austria	2
Bulgaria	1
Cyprus	1
England	10
Georgia	2
Gibraltar	1
Greece	1
Hungary	3
Ireland	6
Maltese Islands	1
Montenegro	2
North Ireland	2
Poland	1
Portugal	6
Romania	1
Scotland	5
Slovenia	2
Spain	4
United Kingdom	3
Latin America	
Bolivia	3
Brazil	4
Chile	1
Colombia	2
Costa Rica	1
El Salvador	2
Dominican Rep.	1
North America	
Canada	5
Oceania	
Australia	4

Table 2
Number of cases analysed by development sector and decision level.

Sectors	Policy/ strategy	Planning	Programme	Total
Energy	12	5	9	26
Spatial planning	2	18	0	20
Transport	1	6	2	9
Cross-border cooperation	0	4	1	5
Natural resources management	1	2	1	4
Watershed management	0	4	0	4
Mining	2	1	0	3
Fisheries	1	2	0	3
Coastal planning	1	2	0	3
Waste management	2	1	0	3
Water treatment and drainage	1	1	1	3
Management of natural areas	0	2	0	2
Agriculture	0	1	1	2
Socio-economy	1	0	1	2
Forest	1	0	1	2
Tourism	1	1	0	2
Climate change adaptation	0	1	0	1
Competitiveness	0	0	1	1
Housing	1	0	0	1
Management of ecological resources	1	0	0	1
Public health	1	0	0	1
Rural development	0	0	1	1
Multisectoral	1	0	0	1
Total	30	51	19	100

Research methodology

The research methodology is structured around three main analytical components:

I. *Analysis of development trends in SEA*, including the evolving discourse and the role given to SEA in decision processes. This analysis supports the founding premise that a gap exists. A comprehensive and systematic review of scientific articles and other materials published in the last 15 years was conducted for that purpose.

II. *Empirical analysis of recent SEA practice*, reviewing 100 SEA cases conducted between 2007 and 2012, including cases in Europe (54), Africa (16), Latin America (14), Asia (7), North America (5), and Oceania (4) (Table 1). The purpose with this selection of cases was to ensure practices from across the world were sampled, and not to obtain representative reviews from different regions. In addition we wanted to cover a wide range of decision levels and development sectors in which SEA has been applied (Table 2). The material analysed consisted mainly of environmental reports (available online), in addition to articles published in conference proceedings of the International Association for Impact Assessment (IAIA). Every case was analysed according to a framework of analysis modified from the approach developed by Partidário et al. (2009). A framework of ten assessment criteria, summarized in Table 3, was used in this empirical review to help validate the founding premise that a gap exists.

III. *Analysis of perceptions of SEA* through the eyes of 73 professionals (specifically consultants (24), decision-makers (21), and environmental technical officers (28)) that participated in a survey conducted between 2010 and 2012. A short questionnaire was sent out including open and closed questions, designed to address five key aspects to help understand how SEA is applied, namely: 1) the purpose and role of SEA, 2) the direct contribution of SEA to PPP formation, 3) the object of assessment[1] in SEA, 4) the scope of assessment in

[1] By "object of assessment" we refer to what Partidário (2003) defined as what SEA is expected to assess, what SEA activities focus on, and that SEA is intended to directly and indirectly influence.