



## The promotion of environmental enhancement in Strategic Environmental Assessment

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### ABSTRACT

This paper evaluates how the *enhancement* of positive environmental impacts has been considered and developed in Strategic Environmental Assessment (SEA) reports since the SEA Act in Scotland was introduced in 2005. Fifteen Environmental Reports on strategic actions prepared between 2006 and 2009 were scrutinized for this study, one of which pertained to national policy and the rest to responsible authority programmes, plans or strategies throughout Scotland. A four point scale was developed to evaluate the extent to which environmental enhancement promotion or measures were considered in the Environmental Reports: Thorough, Fair, Minimal and Absent. Results found that nine out of the 15 Environmental Reports studied were graded as 'minimal' or 'absent'. The paper concludes that in order for SEA to achieve its full potential, in addition to considering mitigation measures for negative environmental impacts, SEA practitioners and decision makers must begin to realize and exploit potential enhancement opportunities.

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### 1. Introduction

This paper analyzes how environmental enhancement promotion is being integrated into the Strategic Environmental Assessment (SEA) process in Scotland and, by extension, the role SEA plays in ensuring that environmental enhancement measures are being identified for incorporation into strategic actions. Environmental enhancement of positive impacts, particularly in the context of biodiversity and habitat loss, represents one of the main objectives of sustainable development (see for example CBD, 2002), and SEA is recognized as a potential instrument for promoting its delivery through public body policies, plans and programmes (strategic actions) (Fuller 2004; ODPM, 2005; Therivel 2004).

However, SEAs have been found to focus mainly on *mitigation* and frequently ignore the opportunity offered by *enhancement* measures. For example, an SEA of a Scottish Local Plan carried out in September 2005 categorized all proposals into three categories: A – likely to have

a significant environmental effect; B – may have a significant environmental effect, and C – unlikely to have a significant environmental effect. The Environmental Report then stated that proposals falling under category C, the category that included sites where environmental effects were likely to be positive, would *not* be considered further in SEA (João and McLauchlan 2005). This issue has also been raised by Ng and Obbard (2005, p. 483):

...the application of SEA in Hong Kong continues to have notable limitations. SEA needs to evolve beyond its current sectoral application to examine ways in which development decisions can not only pre-empt and prevent environmental damage, but also positively enhance and restore existing natural resources. Current land use plans and transportation strategies still largely determine the pattern of development in the near future without adequate longer-term environmental cost-benefit analysis.

This paper explores the extent to which potential environmental enhancement measures have been developed and positive environmental impacts relating to strategic actions have been identified, enhanced and promoted through the SEA process in Scotland. Scotland transposed the European SEA Directive 2001/42/EC into Scottish Law first as The Environmental Assessment of Plans and Programme (Scotland) Regulations 2004, and then as the Environmental Assessment

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(Scotland) Act (2005) (hereafter referred to as the SEA Act), with the number of strategic actions being subject to SEA rising from 25 in 2005 to 111 in 2008 (Scottish Government 2009a).

Scotland represents an interesting national case study as the Scottish Government committed, through the SEA Act, to extend the requirement of the SEA Directive – which only requires that *certain* plans and programmes be exposed to the SEA process – to include *all* plans, programmes and strategies being taken forward by the public sector or responsible authorities preparing strategic actions with a public character (with a few exemptions such as budgets). This decision was in accordance with the Scottish Government's commitment to integrating the principles of sustainable development into Scottish policy (Scottish Government 2005) and its ambition to become a “world leader” in SEA (SEEG, Scottish Executive Environment Group 2004).

In order to introduce the context of the analysis of this paper, some examples of how SEA can contribute to environmental enhancement and how it relates to sustainable development are introduced. The method used to select and evaluate the 15 Environmental Reports with regard to environmental enhancement is thereafter presented and the results and analysis are then discussed in the context of the SEA Act and guidance on SEA for practitioners. The paper concludes by offering some recommendations for SEA policy and practice, as well as some suggestions for future research.

## 2. Sustainable development, SEA and environmental enhancement

The agricultural, industrial and technological revolutions have heralded important reforms in education, health, working conditions and standards of living for many modern developed societies. However, increasing recognition of the associated environmental costs of certain kinds of development, including natural resource exploitation, pollution and habitat/biodiversity loss as well as global climate change, has led to the development of the concept of sustainable development, which broadly aims to “enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations” (SDC, 2010).

One of the four shared priorities of the United Kingdom Sustainable Development Strategy is “Natural Resource Protection and Environmental Enhancement”, with the need for a more integrated policy framework being put forward as a requirement to deliver it (DEFRA 2005 p.96). Accordingly, the Scottish Government (2009b) recognizes that a main objective of sustainable development is to reduce, mitigate or reverse any environmental degradation associated with development – e.g. in transport, planning or waste management – through the deployment of policy instruments such as SEA. SEA is a policy instrument which has been developed since the 1980s as a means to influence strategic decision making in policies, plans or programmes (PPS or strategic actions) of public bodies (Bina 2007) or responsible authorities undertaking PPS of a public character – although it can also be argued that SEA (like EIA) started with NEPA (National Environmental Policy Act) in 1969 in the USA (Partidário 1999).

The principal aims of the SEA process are as follows: to help decision makers integrate environmental and sustainability considerations into strategic actions; to enhance environmental protection; to promote public participation in the decision-making process; and to increase government and local authority transparency (Nilsson and Dalkmann 2001; Partidário 1999; Therivel 2004). In addition to these aims, one of the functions of the SEA process is to identify positive environmental impacts of a strategic action and enhance them (Fuller 2004; ODP, 2005; Therivel 2004), which may refer to enhancing for example biodiversity, ecosystems (as well as soils, water or air), landscape character, green spaces and cultural or historical heritage.

Early critics on the effectiveness of SEA argued that it could be used as a tool for offsetting (or compensating) environmental degradation with enhancement measures and that it only serves to displace and

defer the conflict between economic development and the environment (Horton and Memon 1997). In contrast, one of the generally agreed upon principles of SEA is that it should be a tool for improving a strategic action through providing viable strategic alternatives, mitigation of negative impacts or enhancement of positive impacts (see for example Hales 2000 p. 99–121; João 2005 p. 3–14; Therivel 2004 p. 7–9). This notion highlights the importance of environmental enhancement opportunities being brought to the decision-makers' attention as a result of the SEA process. This should be in addition to the consideration of options or alternatives to mitigate negative consequences of development. Also, Therivel (2004), one of the leading advisors on the SEA process in the UK, argues that after the impact prediction and evaluation stages of the SEA process, the impact mitigation stage should include a list of measures aimed at optimizing positive impacts and enhancing sustainability within the assessed and other strategic actions, and/or set a context for future projects (p. 167).

In spite of these principles, the Scottish SEA Act fails to stipulate any obligation to consider or include environmental enhancement or improvement and only states that the report must list ‘the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme’ (Environmental Assessment (Scotland) Act (2005), schedule 3, par. 7). There is some provision for enhancement in the UK Environment Act 1995, which states that it should be the principal aim of the [Scottish Environment Protection] Agency (SEPA) to protect or enhance the environment in the discharging of its duties (Environment Act 1995 (c. 25); The Environment Agency and the Scottish Environment Protection Agency, ch.1, s.4); and to “further the conservation and enhancement of natural beauty and the conservation of flora, fauna and geological or physiographical features of special interest” as per regulation 7. In this sense, SEPA is obliged as statutory consultees in the SEA process to encourage environmental enhancement.

Following the introduction of the SEA Act, in 2006 the Scottish Government published a toolkit including guidance to assist local authorities in the application of the SEA process and to comply with the Act (Scottish Government 2006a). In accordance, the guidelines state that only ‘measures envisaged for the prevention, reduction and offsetting of significant adverse effects’ be listed in the Environmental Report (Scottish Government, 2006a p. 21). Although the SEA template provided by the Scottish Government (2006b) includes a method for recording positive environmental effects, no reference is made in the accompanying guidelines as to how the SEA practitioner should process these effects. As such, the SEA Act only requires environmental enhancement to occur as an offsetting measure and that it need not necessarily be implemented to such a degree as to be regarded as inversely equivalent to that of the negative environmental impact occurring as a result of the strategic action. However, the guidelines do suggest that ‘it may be useful [to indicate] how positive environmental effects may be enhanced’ in the Environmental Report (Scottish Government 2006b p. 21).

The SEA Act and the respective SEA guidelines may therefore be regarded as failing to exploit the opportunity to enhance the environment or reverse environmental degradation in line with the Scottish Government's ambition to become an ‘exemplar of sustainable development’ (Scottish Government 2005). This view supports the findings of McLauchlan and João (2005), who argue that a system to monitor and audit the quality of environmental reporting and implementation of SEA is required to support the Scottish Government's ambition to become a ‘world leader in SEA’, proposing that a central access point be developed where guidance and templates on SEA practice can be obtained by practitioners as well as examples of good practice.

Other guidance that is specific to particular development sectors or sustainability issues is available along with case studies and examples of good practice from various sources (see for example TRL, 2004, SEA-info.net 2009, English Heritage 2010). In terms of biodiversity enhancement, the Royal Society for the Protection of Birds (RSPB) published SEA

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