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Environmental Impact Assessment Review

journal homepage: www.elsevier.com/locate/eiar



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Advancing practice relating to SEA alternatives

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ARTICLE INFO

Article history:
Received 16 December 2014
Received in revised form 8 April 2015
Accepted 10 April 2015
Available online 18 April 2015

Reywords: Strategic Environmental Assessment (SEA) Alternatives Effectiveness Good practice

ABSTRACT

Developing and assessing alternatives is a key and central stage to Strategic Environmental Assessment (SEA). However, research has repeatedly reported this stage as one of the most poorly undertaken aspects of the SEA process. Current practice limitations include belated consideration of reasonable alternatives, narrow scope of alternatives that often include unrealistic or retrofitted options, limited stakeholder and public involvement in their identification, assessment and selection, lack of systematic approaches to their assessment and comparison, and inadequate reporting of the 'storyline' on how they were identified, what the potential impacts are and why the preferred alternative was selected. These issues have resulted in objections and judicial reviews.

On the positive side, a number of good practice case studies enable extraction of key lessons and formulation of a set of general recommendations to advance practice in SEA alternatives. In this paper, practical guidance on the identification and development of alternatives, their assessment and comparison, selection of the preferred option, and documentation of the process and the reasons for selection is provided and discussed to frame good practice approaches.

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1. Introduction

Consideration of alternatives has been central to Environmental Impact Assessment (EIA) procedures since the US National Environmental Policy Act of 1969. Alternatives subsequently became a core feature during the development of Strategic Environmental Assessment (SEA), and are a requirement under European and international law and agreements - e.g., Directive 2001/42/EC (CEC, 2001) and the Kiev Protocol on SEA (UNECE, 2003). SEA's main purpose is to contribute to informed decision-making by providing information on the environmental implications of implementing a proposed plan/programme (referred to as plan from here on) and its alternatives. It is argued that where SEA is undertaken in parallel and iteratively with the planmaking process, it facilitates the incorporation of environmental and sustainability considerations and thereby influences the development and selection of environmentally-sound alternatives during the early stages of decision-making (Fundingsland and Hanusch, 2012; Sadler and Verheem, 1996; Thérivel and Minas, 2002). Timely consideration of alternatives in SEA provides the opportunity to identify and explore ways to deliver a plan's objectives while addressing environmental

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issues identified during scoping. In other words, evaluating alternatives provides opportunities to identify development scenarios that entail minimal significant environmental impacts.

Despite the acknowledged benefits of evaluating meaningful alternatives in SEA (and, indeed, EIA) they remain a challenge in practice. There are diverse interpretations and approaches to the identification, assessment and selection of alternatives across jurisdictions and sectors. In general, they are judged to have been poorly considered across the range of impact assessment processes, such as SEA, EIA or Sustainability Assessment (Bond and Pope, 2012: Steinemann, 2001: Thérivel, 2012). Highlighted shortcomings, including failure to generate reasonable alternatives (West et al., 2011) and poor documentation of the reasons for choosing a particular alternative (CLG, 2009), have also been observed in recent SEA theory and practice reviews (e.g., Fischer and Onyango, 2012; Fundingsland and Hanusch, 2012). These and other shortcomings have also been captured in a number of European and national current practice reviews (e.g., EC, 2009; SEPA, 2011; EPA, 2012 — see also Section 5 on SEA Effectiveness Reviews and Guidance), suggesting that alternatives are one of the most poorly completed aspects of SEA. In practice, poor consideration of alternatives has resulted in a number of legal challenges, which further hinder the effectiveness of this SEA stage. One judgement relating to two plans in Northern Ireland deduced non-compliance with legal requirements of the EU Directive because the Environmental Reports (ERs) did not outline the reasons for selecting the preferred alternatives (NIQB 62, 2007). Similarly, challenges to four plans and programmes in England

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have been upheld for discrete failures to comply with EU SEA requirements to a) assess potential impacts of new alternatives brought in late in the planning process; b) assess all considered alternatives in equal detail; c) provide reasons for rejecting any alternatives and ensuring that those reasons were still valid if there had been any change to proposals in the draft plan (or any other material change of circumstances); and d) provide reasons for the selection of reasonable alternative/s (EWHC, 1280, 2009; EWHC 344, 2012; EWHC 481, 2013; EWHC 606, 2011).

In the quest to advance practice and address current practice limitations, guidance on developing and assessing alternatives in SEA has been prepared in the Republic of Ireland (EPA, in press). Although specific to the Irish context, this revealed common critical shortcomings, as well as identifying good practice and recommendations transferable to other jurisdictions. The context within which impact assessment takes place is important and, as such, adherence to global recommendations or standards has been argued to be counterproductive (Bond and Pope, 2012; Fischer and Gazzola, 2006). Nevertheless, an examination of existing limitations and identification of national good practice recommendations to further identification, assessment and selection of alternatives is considered of interest and applicability to the wider SEA community in the context of knowledge exchange and shared learning. Despite deficiencies in relation to SEA alternatives being identified in various national reviews and discussed in international literature, little research has been published on SEA alternatives alone - although relevant publications can be found on EIA (e.g., Steinemann, 2001). Therefore, this paper provides a more comprehensive examination of the current issues outlined above, with the overall aim of addressing questions around SEA good practice and effectiveness. More precisely, the paper seeks to:

- Identify existing limitations in current SEA alternatives practice by undertaking a thorough review of published SEA effectiveness reviews and guidance documents (e.g., CLG, 2009; EC, 2009; EPA, 2012; SEPA, 2011);
- Explore published good practice recommendations on SEA alternatives (e.g., Collingwood et al., 2006; ODPM, 2005; PAS, 2008; SEPA, 2011);
- Complement literature review findings with practitioners' opinion and appraisal of selected case studies;
- Identify aspects that set a benchmark for sound, efficient and improved practice in the development, assessment and selection of alternatives;
- Bridge the gap between identified shortcomings and good practice through the formulation of recommendations to support a better development, assessment, selection and reporting of alternatives in Ireland; and
- Stimulate a more focused debate on the topic of alternatives in order to advance practice and research in the area.

2. Framing practice on SEA alternatives

Alternatives represents a central stage in the SEA process, following after screening, scoping and clarifying the baseline environment, and followed by impact assessment, mitigation and monitoring. By its very timing, addressing alternatives takes stock of the issues identified during scoping and establishing the baseline environment, and enables their examination in light of anticipated changes resulting from plan implementation — thereby facilitating the identification of more robust solutions or mitigation measures to address any potential significant adverse effects. Although alternatives is referred to as a single stage in the overall SEA process, Thérivel (2010) observed that consideration of alternatives broadly follows a three-step process. This sub-division has been highlighted in the recent Irish guidance with the recognition of three critical phases (Fig. 1) that help better understand the iterations

with other SEA stages as well as with the planning process: 1) identification and development; 2) assessment and comparison; and 3) selection and documentation of alternatives. These steps or sub-phases are intrinsic elements that have implications in terms of scope and, particularly, timing and timeframes.

Identification and development of meaningful alternatives should occur early in the SEA process, ideally immediately after scoping and before drafting the plan. Their assessment and comparison, (i.e., the impact assessment stage of the SEA process) should be undertaken on a par with plan-making, with the aim of identifying potential significant adverse effects in order to inform the drafting of the plan and devise mitigation measures that should result in more refined and sustainable alternatives. The selection of alternatives and their documentation should be done at the end of the SEA process, but before plan completion — the aim being to identify the most sustainable alternative that satisfies the area or sector's development objectives. Clear and well documented reporting on the assessment and choice of the preferred alternative in the SEA ER contributes to transparent decision-making.

3. Methodology

The preparation of Irish guidance on developing and assessing alternatives in SEA (EPA, in press) included an international literature review, incorporating a background review of available European SEA effectiveness reviews and guidance, and 40 ERs. Current practice limitations were mainly identified by reviewing published SEA effectiveness reviews and gathering expert opinion. Good practice recommendations were extracted from published guidance and literature, as well as from selected case studies.

The 40 ERs were selected on the basis of a) previously established effectiveness (20 having been included in peer-reviewed national SEA effectiveness review - EPA, 2012); b) their representativeness of the various planning hierarchies (e.g., local, county, regional, national – 10, 16, 7 and 7 out of 40 respectively) and sectors (e.g., land-use, water, energy, waste, and transport -20 of which related to land-use planning, mainly given the fact that approximately 80% of SEAs prepared to date in Ireland are associated to this sector); their representativeness across the EU (10 being recommended by interviewed stakeholders and questionnaire respondents – see below); and c) from the authors' own experience on reviewing SEA ERs and identifying good practice (10). The review of ERs was based on a combination of the methodology and criteria presented in the Irish Environmental Protection Agency's SEA Checklist (EPA, 2008) and SEA effectiveness review (EPA, 2012), and on good practice identified during the study relating to i) timely and efficient stakeholder consultation; ii) clarity in the description of alternatives (including their mapped representation); iii) relative assessment detail compared to other SEAs in the sector or in general; and iv) justification of alternative selection through validated information sources and evidence-base and/or expert opinion.

A more detailed case study review was also undertaken, encompassing a subset of the 40 ERs reviewed, selected on the basis of excelling in one or more identified good practice criteria, thus enabling the extraction of key lessons to further current practice on SEA alternatives. Given the scope of the project, the majority of those reviewed relate to Ireland, and all to the EU. The case studies are advocated (EPA, in press) as discretionary examples of good practice in one or more components of the SEA alternatives process (e.g., identification, assessment or selection) — their selection does not necessarily imply that the associated plans or the full SEA process or ER represent good overall practice.

The review of SEA ERs was complemented with an international online survey, openly circulated to SEA and planning experts through the International Association for Impact Assessment Newsletter, with over 3000 members representing 120 countries, and the Irish Planning Institute mailing list that includes approximately 680 members (Table 1). These professional institutions were selected on the basis that they provide easy access to an international and national cohort

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