Environmental Impact Assessment Review 57 (2016) 18–30

Contents lists available at ScienceDirect

Environmental Impact Assessment Review

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

Strategic Environmental Assessment practices in European small islands: Insights from Azores and Orkney islands

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ARTICLE INFO

Article history:
Received 9 August 2015
Received in revised form 6 November 2015
Accepted 9 November 2015
Available online xxxx

Keywords:
Strategic Environmental Assessment
Sustainability
Context
Small islands
Azores
Portugal
Orkney
Scotland

ABSTRACT

The literature concerning Strategic Environmental Assessment (SEA) often refers to the importance of context-specific approaches. However, there is a lack of systematised and consistent studies that enhance tailor-made SEA practices and procedures. Small islands are bounded units of study which may help explore SEA theory and practice in special territories. Small islands present particular features and unique values, such as, small size and population, geographic isolation, limited resources and vulnerable ecosystems. Hence, the main goal of this research was to profile SEA practices and procedures in European small islands and provide a background for future research aiming to improve context-specific SEA applications. To achieve this goal, an exploratory case study was developed using Azores (Portugal) and Orkney (Scotland) archipelagos. An analysis of the corresponding mainland was also carried out to contextualise both case studies. The data collection was achieved through a qualitative content analysis of 43 Environmental Reports. The research found that there is *not* an SEA context-specific approach used within these European small islands, including guidelines, assessment topics, assessment techniques, follow-up and stakeholders engagement. The debate concerning specific approaches to small islands must be re-focused on the enhancement of SEA capacity-building amongst different stakeholders (including decision-makers), on the development and implementation of collaborative approaches, and on the exchange of knowledge and experiences between small islands networks.

1. Introduction

Several authors stress that Strategic Environmental Assessment (SEA) should be context-specific (e.g., Fischer and Gazzola, 2006; Gunn and Noble, 2009; Hildén et al., 2004). However, this argument has led to SEA approaches which can be vague and confusing (Noble et al., 2012). To counteract this, SEA has had to evolve and there are new approaches emerging in its practice. This includes: the integration of ecosystems services in SEA (Baker et al., 2013); resilience thinking linked with SEA (Slootweg and Jones, 2011); and more recently, evolutionary resilience (Bond et al., 2015). These approaches require a context-specific consideration and may provide a valuable framework for SEA practices in a particular type of decision-making process. Hence, territories with specific features and characteristics have needs that must be reflected in the SEA (Gunn and Noble, 2009; Polido et al., 2014).

Small Islands are vulnerable and unique territories (Bass and Dalal-Clayton, 1995; Douglas, 2006). Due to characteristics such as relatively small size, geographic isolation, a narrow economic base, limited resources, ecosystems vulnerable to other external ecological influences, and relatively small populations with a narrow skills base (McIntyre, 2005; Ramjeawon and Beedassy, 2004), small islands become the target of international attention (UNCED, 1992; United Nations, 1994). In particular, the international community understands the urgent need for sustainability-led approaches in the islands' decision-making system (Bass and Dalal-Clayton, 1995; Deschenes and Chertow, 2004). Several authors still discuss how this can be done, since sustainability may be paradoxical in these territories and demand different approaches (Bass and Dalal-Clayton, 1995; Kerr, 2005; Zubair et al., 2011). As shown by Polido et al. (2014), SEA has the potential to fill this gap since it links the three key arguments found to enhance sustainability in small islands: (a) change in decision-making paradigm, (b) good governance and community empowerment, and (c) resilience.

Additionally, small islands are living laboratories for the planet, since they are a closed and bounded system, and thus manageable units of study (Nagarajan, 2006) which can influence future discussion on SEA and sustainability. They therefore deserve increased attention from the

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http://dx.doi.org/10.1016/j.eiar.2015.11.003
0195-9255/

academic community as well as from the international institutions (Bass and Dalal-Clayton, 1995; Crossley and Sprague, 2014). Even though literature and studies mainly focus on Small Islands Developing States (SIDS), as reviewed by Polido et al. (2014); Adrianto and Matsuda (2002) argue that small islands in general have common economic and environmental characteristics. Newitt (1992), also states that small islands share the same characteristics to different extents, stressing that there are three different categories of islands: (i) independent islands States, such as SIDS, (ii) islands that are an autonomous region of a mainland state, as is the case of the Azores, and (iii) islands under the rule of the mainland state, such as the Scottish islands (e.g., Orkney).

As noted by Montaño et al. (2014) the number of studies assessing SEA systems is increasing, allowing inferences about the importance of the context in SEA. The common items between the different approaches are (i) legal basis for SEA application and guidance tools; (ii) existing process and procedural framework (including stages of the SEA (e.g., screening, scoping, environmental assessment, public participation, follow-up) and assessment methodologies and components (assessment techniques and issues)); (iii) SEA review and influence to the decision-making (Chaker et al., 2006; Rachid and El Fadel, 2013; Therivel, 1993; Zhou and Sheate, 2009). These items reflect issues required by good SEA practices and depend on the type of analysis planned (Zhou and Sheate, 2009). Even though there is literature reflecting overall good practice on SEA (e.g., Abaza et al., 2004; Fischer, 2002), methodological approaches and assessment techniques (e.g., Fischer, 2007; Noble et al., 2012; OECD, 2006; Therivel, 2004; UNEP, 2009), there is also literature providing focus on specific components of the assessment, for instance, on follow-up (e.g., Fischer, 2007; Morrison-Saunders et al., 2014; Nilsson et al., 2009; Partidário and Fischer, 2004), and stakeholder engagement (e.g., van Doren et al., 2013; Gauthier et al., 2011; IAIA, 2002; Ren and Shang, 2005).

Despite the above research exploring the importance of context on SEA approaches or discussing sustainability related approaches, there is a dearth of research on initiatives that offer a coherent integrated analysis of SEA and sustainability assessment in small islands (Polido et al., 2014). To help fill this research gap, the aim of this analysis was to evaluate the state of integration of the SEA practices and procedures in small islands and understand what might be improved in the SEA of these islands.

To achieve the research aim, the Azores and Orkney archipelagos were used as an exploratory case study, following the research approaches by Yin (2009). A comparative assessment with the Portuguese and Scottish mainland was carried out in order to understand the SEA national context of the archipelagos. The data collection was achieved through a qualitative content analysis, following the research approaches by Bardin (1977); Krippendorff (2003), and Mayring (2000), of 43 Environmental Reports (ER) (viz. 7 from Azores, 14 from the Portuguese mainland, 5 from Orkney and 17 from the Scottish mainland). The qualitative content analysis criteria were developed taking into account the literature on comparative assessment of SEA systems, their practices and procedures.

The paper starts by characterising the Portuguese and Scottish SEA system, to establish the background of the research (Section 2). It then explains and justifies the research design, including the choice of the case studies (Azores and Orkney) and the development of the qualitative content analysis criteria for the data collection and analysis (Section 3). Following this, the paper presents the relevant results and findings from the empirical studies (Section 4), and a cross-case analysis adding a comprehensive integrative examination of both cases (Section 5). The final section concludes by showing possible ways to develop research and practice of SEA in small islands.

2. The Portuguese and Scottish SEA system

The Portuguese and Scottish SEA systems both need to comply with the EU SEA Directive.[1] However, contrary to what would be expected, there are structural differences between them. In Portugal, the transposition of the EU Directive was concluded only in 2007 (three years after the implementation deadline established by the Directive) through the Decree-Law 232/2007 (national legislation) and is similar to the SEA Directive. Due to the special administrative status of the Portuguese autonomous regions of Azores and Madeira, the Decree-Law allows its adaptation through specific regional legislative procedures by the regional authorities. In 2010, the Azores adapted it through the Regional Decree-Law 30/2010/A (see Polido and Ramos, 2015).

There are two main differences between the national and regional regulations in Portugal. The Regional Decree-Law defines that a small area, in the context of Article 3 (3) of the Directive has 25 ha (0.25 km^2), and introduces the need to climate proof the plan or programme (assessment and internalisation of mitigation and adaptation strategies needed due to the potential impacts of global climate change, and its effects at local and regional level, on the plan or programme).

To help with the implementation of the Regulations, the Portuguese Environmental Agency (APA) and the Portuguese Directorate-General for Spatial Planning and Urban Development (DGOTDU) developed guideline manuals outlining the SEA practice in Portugal. The APA guideline manual (Partidário, 2007) has a wide scope and was recently updated (see Partidário, 2012) and the DGOTDU guideline manual (DGOTDU, 2008) is specifically for the SEA of Local Spatial Plans (e.g., master plans; urban plans). The Azorean Regional Directorate for the Environment adopted the guidance published by APA as their SEA guidelines, indicative of the influence from outside agencies rather than the regional and local ones (Ramos et al., 2009), in these territories.

The case of Scotland is very different. Here the Government published the first SEA regulation in 2004 (Jackson and Illsley, 2007) in order to implement the Directive on time. However, the "*Scottish Ministers want*[*ed*] *Scotland to be a world leader in* [*SEA*]" (SEEG, 2004, p. 1), and so several consultations and workshops took place to deliver a broader version of the SEA (2004) regulation (McLauchlan and João, 2012). In 2006, the Environmental Assessment (Scotland) Act 2005 (SEA Act (2005)) became mandatory for all the Scottish territory without specific adaptations for different regions/islands.

By covering not only Plans and Programmes as stated in the Directive, but addressing also *Strategies*, the SEA Act (2005) goes beyond the scope of the Directive and covers almost all aspects of policy formulation in Scotland (Jackson and Dixon, 2006; Kelly et al., 2012). Also, as identified by McLauchlan and João (2012), SEA in Scotland presents a unique SEA stage—the pre-screening—where the responsible authority needs to register their intention not to do an SEA that they identify as having "no" or "minimal" effect on the environment (SEA Act (2005), Part 1, 7(1)).

To provide practitioners with the tools to develop SEA, the Scottish Executive issued an SEA toolkit (Scottish Executive, 2006) with detailed guidance where the SEA process is organised and structured (Kelly et al., 2012; Noble et al., 2012; SEPA, 2011). In 2013 the SEA Toolkit was replaced by the "Strategic Environmental Assessment Guidance" (Scottish Government, 2013).

Comparing the guidelines from both SEA system process and procedural frameworks (i.e., Partidário, 2012; Partidário, 2007; Scottish Executive, 2006; Scottish Government, 2013) it is clear that there are also differences between the two countries. For instance, the Portuguese guidance uses an integrated environmental issue type as assessment

[1] The nomenclature "EU SEA Directive" or simply "SEA Directive" in this research paper referrers to the Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment. This Directive has been transposed by all member states of the European Union to domestic legislation (Polido et al., 2014).