

Strategic Environmental Assessment of the National Strategy for Integrated Coastal Zone Management in Portugal

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ABSTRACT

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Strategic Environmental Assessment (SEA) was used to assist the preparation of the Portuguese Strategy for Integrated Coastal Zone Management (ICZM). SEA is not legally mandatory for application at policy level under the Portuguese legislation, which, like the European Directive 2001/42, only requires that an environmental assessment be conducted for plans and programmes. However the National Water Institute (INAG), the Portuguese authority mandated by the Portuguese Government to develop this integrated coastal management strategy, understanding the merits and the added-value that SEA can bring to strategic decision-making, decided that an SEA would be a useful instrument to use at this occasion.

This paper reveals the development of the SEA, particularly the process, the methodology and the results. Even though previous drafts and contributes for a strategy for ICZM existed in Portugal for a few years already, the last quarter of 2008 was the key period during which a final strategy emerged. The SEA was closely developed with the strategy, each under the responsibility of a different team that, together with INAG, have managed to succeed in achieving a quite integrated outcome. The SEA proved to act as a facilitator for the integration of environmental and sustainability issues into the design and the concept of the strategy, enabled the consideration of key strategic options to fine tune the strategy, and highlighted risks and opportunities associated with the strategy, proving, in the end, to have strongly influenced the ICZM strategy.

ADDITIONAL INDEX WORDS: *Critical Factors for Decision-making, Strategic options, Policy SEA*

INTRODUCTION

Strategic Environmental Assessment (SEA) was used in Portugal at the policy level for the first time in the last quarter of 2008, to assist the drafting and discussion around the preparation of the Portuguese Strategy for Integrated Coastal Zone Management (ENGIZC – *Estratégia Nacional de Gestão Integrada da Zona Costeira*) (INAG, 2008). SEA is widely recognized as an approach to assist strategic decision-making, and was used in this particular case to enable environmental and sustainable integrated decision-making. Many types and approaches to SEA exist around the world, and several methodological approaches have evolved. The methodology used to assist the ENGIZC process throughout was tailor-made to fit the ENGIZC needs and to assist the multiple decisions involved in conceiving the Strategy. The leading motivation for SEA was the key contribution it could make to a more sustainable development of the Portuguese coastal zone.

This paper tells the story about the SEA process, methodology and results achieved with the first policy SEA developed on a Portuguese Strategy for Integrated Coastal Zone Management. The ENGIZC is a national policy instrument and the National Water Institute (INAG - Instituto da Água, I.P.) is the national

authority commissioned by the Portuguese Government to develop the ENGIZC. Vested with such responsibility, the INAG considered that SEA could perform a key role in following through and supporting the preparation and implementation of the Strategy to ensure, in a strategic context, the strengthening and consolidation of environmental and sustainability issues in the ENGIZC.

BACKGROUND

The ENGIZC was developed following the Recommendation 2002/413/CE of the European Parliament and the Council, and the established general principles and options for an European Integrated Coastal Zone Management Strategy. A couple of versions for a national coastal strategy were developed in Portugal before the Government commissioned the INAG in the last quarter of 2008, to undertake the preparation of a third and final version of the ENGIZC, taking into account the work previously developed.

In the absence of specific legislation concerning the SEA of policies in Portugal or at the European level, this case reveals a voluntary initiative of the INAG to undertake a strategic assessment of a national policy concerning coastal zone management. The SEA thus undertaken has enabled INAG to be

informed on the risks and opportunities of following certain policy options, decide on changing options in face of environmental and sustainability risks and benefits, and share such information with the wider public and institutions through the reporting altogether of the SEA and the ENGIZC, as companion processes and reports.

The SEA of the ENGIZC makes up a good show case of good governance at policy level, revealing how SEA can be used as an enabler and facilitator of integrated and sustainable policy decisions, and how SEA and policy-making process can be jointly carried out with mutual benefits regarding shared information and team collaboration, jointly motivated by the similar purpose of enhancing a strategic, sustainability integrated policy instrument.

SEA PROCESS AND METHODOLOGICAL APPROACH

For several years the concept of SEA is being debated, ranging from understandings that are close to project's EIA, to more strategic approaches to the integration of environmental and sustainability issues in policy and planning. PARTIDÁRIO (2007) has suggested alternative ways of considering SEA in a strategic sense. This means adopting SEA to address the strategic dimension in decision processes, irrespective of the appropriate decision scale. Increasingly this strategic understanding of SEA is being advocated in the literature of SEA (PARTIDÁRIO, 2000; KORNOV and THISSEN, 2000; WALLINGTON, 2002; BINA, 2003; NOOTEBOOM, 2006; CHERP *et al*, 2007; WALLINGTON, BINA and THISSEN, 2007), who suggest multiple and diversified ways of approaching SEA under different theoretical paradigms.

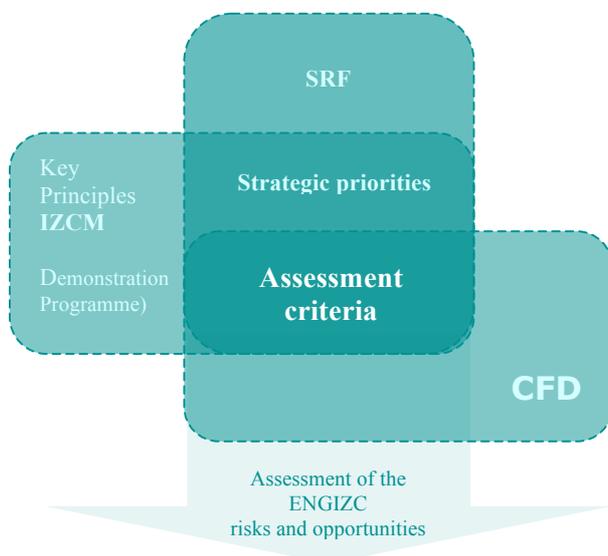


Figure 1. Strategic Assessment framework

In the particular case of the ENGIZC, SEA was used strategically. The leading motivation was not a legal requirement, like in many SEA cases virtually all over Europe, but the genuine need to ensure that the coastal management policy would integrate environmental issues and sustainability drivers. SEA was brought up to the policy arena as a strategic facilitator to assist policy-

making, its role being to assess the policy concept, the main policy options and the strategic development priorities, respective measures and actions. Through sequential and inter-related stages SEA would illustrate what could be consequences of following certain options, and what could be alternative ways of getting to the same objectives while following different, more sustainable, options. In this way SEA performed the role of an enabler of environmental and sustainability integration in support of strategic development (PARTIDÁRIO, 2000).

The methodology was based on PARTIDÁRIO (2007a), starting off with an initial focus on a short number of strategic themes which were recognized as being crucial for integrated and sustainable coastal management in a strategic context. Such themes establish a direct link to possible sustainable follow-up, in other words, if things go wrong with respect to those themes, the sustainability of the coastal management policy will be at risk. This means therefore that these themes are crucial not only for a policy formation phase, but also for policy implementation phase and monitoring processes. Such crucial themes are named Critical Factors for Decision-Making (CFD) and are established in relation to the context of the coastal management policy. To establish this context it was fundamental to set up a Strategic Reference Framework (SRF) that collects and interprets all major macro-policies for coastal management in Portugal and at the European and international level.

The key principles developed in the context of the Demonstration Programme, that supported the Recommendation of the European Parliament and the Council concerning the ICZM in Europe (2002/413/CE), were considered in the SRF of the SEA as principles of good practice. The SRF was then interpreted in light of these key coastal management principles. This enabled a sistematization of the strategic priorities for ICZM in Portugal, defining the strategic referential upon which the assessment metric of SEA was established.

The CFD established the thematic structure of the strategic assessment. For each CFD assessment criteria were identified and developed to meet the strategic reference policy priorities indicated in the SRF, including the ICZM key principles presented in the Demonstration Programme above mentioned. The assessment criteria establish the specific scope of assessment and determine the strategic assessment framework for the SEA of the ENGIZC (Figure 1). The risks and opportunities of the evolving ENGIZC could be assessed against this strategic assessment framework.

With the strategic assessment framework thus established, the assessment of the ENGIZC could be carried out in multiple stages with the purpose of assisting key decision moments throughout the policy formation process. Two key assessment moments in the process have justified the issuing of documented reporting with the SEA findings thus far. In a first report the outcomes of the assessment of strategic options for the ENGIZC was documented, contributing to establish the strategic concept for coastal management in Portugal, identifying risks and opportunities of different options. The options considered are illustrated in Figure 2. A second assessment moment considered the strategic objectives and underlying strategies of the ENGIZC, following the preferred strategic options. The strategies were assessed considering the actions or measures foreseen to implement the strategies. Risks and opportunities were identified and assessed. Based on the results of the assessment guidelines for follow-up were identified. The guidelines were structured in planning, management and monitoring guidelines, and are expected to

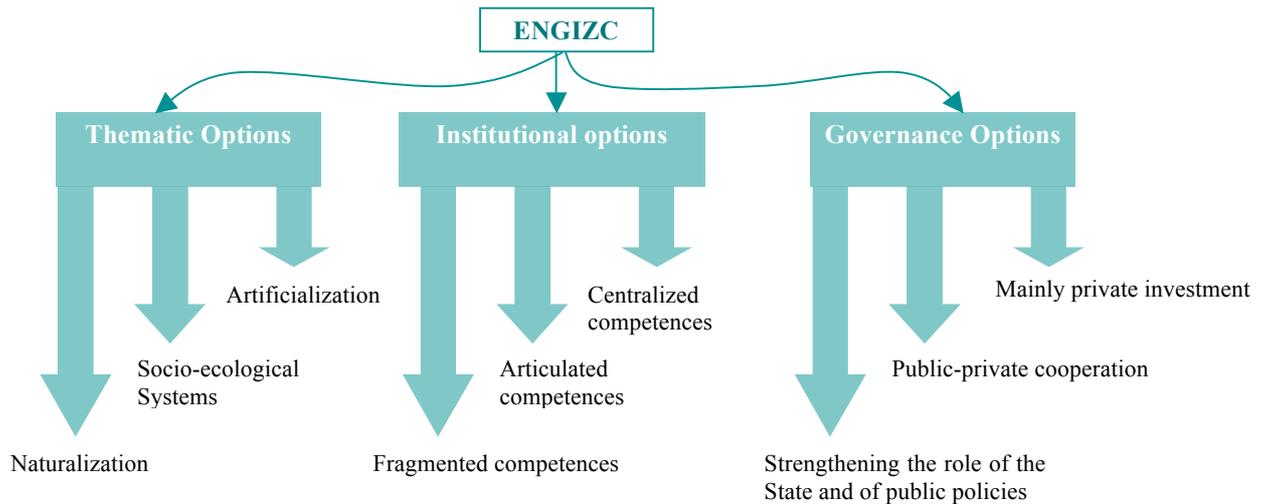


Figure 2. Strategic options for NSICZM

follow the strategy throughout its implementation period, up to the next policy formation cycle, when the strategic objectives, options and strategies of the ENGIZC will be assessed again.

STRATEGIC OPTIONS

One of the fundamental underlying assumptions in strategic approaches in SEA is that alternative strategic options be the key object of strategic assessment. In the beginning of the process of the formation of the ENGIZC no alternative options were put forward for coastal management in Portugal. The SEA identified as a first function and input to the policy-making process to assist the policy-making process with the formulation of the strategic options. These options were therefore one of the first and key outcomes of the collaborative team work between the SEA and the development of the strategy by INAG. In order to identify what could be these options, three main analytical dimensions were identified: 1) thematic; 2) institutional; and 3) model of governance. Figure 2 present the alternative strategic options in a schematic form, which were subsequently adopted and incorporated in the ENGIZC report.

The alternative strategic options became the first object of assessment in the SEA of the ENGIZC. Table 1 describes the main purpose and drivers in each alternative option, for each of the three dimensions considered. These options proved to be crucial for the subsequent strategic assessment, for the outcomes of the SEA, and for the ENGIZC itself.

CFD AND ASSESSMENT RESULTS

The Critical Factors for Decision-Making (CFD) reflect the integration effort of three different components: the strategic drivers of the ENGIZC, the macro-policies strategic framework (the SRF referred above), and the environmental and sustainability dimensions. Having been established collectively by the INAG, planning team and SEA team, and following a workshop discussion, and comments, by interested authorities and NGOs,

the CFD were adopted as relatively sound structural themes for the strategic assessment. The CFD can be said to be the fundamental strategic themes that are considered focal points in the decision process, or success factors for decision-making. The CFD thus far have influenced the conceptualization and discussion of strategic options in the ENGIZC, as well as the subsequent strategies, actions and measures for the ENGIZC. The CFD incorporate, and reflect, the current coastal development and management trends both in Portugal and internationally.

Table 2 presents the adopted CFD and the respective assessment criteria. For each assessment criteria indicators were subsequently developed and used in the assessment.

The final results of the SEA stand upon the identification of risks and opportunities per CFD. These are taken as alert signs of possible negative aspects or trends that should be avoided, as well positive aspects or trends that are worth being explored and that can add-value to the coastal zones. This information is crucial for priority setting concerning coastal planning and management. This shows that SEA is a side companion of the ENGIZC, offering a complementary interpretation and implementation to the ENGIZC itself.

In face of the strategic risks and opportunities identified, follow-up guidelines were prepared for each CFD to support the implementation process of the ENGIZC. The identification of the follow-up guidelines results from the cross-analysis of the SRF and the risks and opportunities identified, and were structured in three main categories:

- Planning and management guidelines: to be integrated in planning actions subsequent to the approval of the ENGIZC, or in the pursue of the coastal zone management models;
- Monitoring guidelines: to be implemented in the context of the ENGIZC monitoring and implementation system;
- Governance guidelines: refer to the institutional responsibility conditions to ensure a good performance of the ENGIZC in face of the sustainability risks and opportunities identified.

The risks and opportunities, as well as the guidelines that are identified in the SEA are naturally rather subjective. First of all because these derive from the interpretation that is made by the

Table 1: Strategic options for the ENGIZC.

Strategic options		Description
Thematic	Naturalization	Strategic priority to natural coastal management systems, with the purpose of improving the natural dynamic processes and prevent urban occupation particularly in vulnerable zones
	Socio-ecological systems	Articulate socio-economic and ecological dynamics in relation to the use of resources and in the management of risks (ecosystems approach)
	Artificialization	Strategic priority to infra-structures with the purpose of promoting the intensive use and productivity of coastal zones and replace or compensate the hydrodynamic natural processes
Institutional	Fragmented competences	Break-down of institutional competences in coastal zone management, favouring the dispersion of responsibilities and competences
	Articulated competences	Articulation of different competences with respect to coastal zone management, supported by institutional co-responsibility, but centred around a national coordinating authority
	Centralized competences	All coastal management competences and responsibilities centralized in one single major national management authority
Model of governance	Strengthening the role of the State and public policies	The national government assumes the largest share for control, investment and management responsibilities in coastal zones
	Publi-private cooperation	Coastal management is carried out dominantly by multiple interested stakeholders, organized around network of interested parties, including associations of users, that assume the co-sharing of risks responsibilities.
	Mainly private investment	Management based on private concessions whereby public and private companies assume the control, investment and management of castal zones

diverse actors involved, their contexts and experiences with respect to coastal management, coastal development, environmental issues or sustainability perspectives. But also because there is a huge uncertainty associated to the macro-strategic nature of the ENGIZC. It turns out therefore that for SEA, and strategic decision-making, to be effective the strategic life cycle need to be short, in other words, the strategy needs to be revised frequently, in short cycles of a couple of years that allow strategic processes to be up-dated to meet evolving circumstances and changing contexts. In the case of the ENGIZC the review cycle of two years, out-looking the next 20 years provides the strategic decision-making process with a time scale likely to enhance the capacity of SEA to perform as a strategic approach. Given the dynamics of the coastal natural and development processes, generating complex situations, such a short review cycle is very important to allow the frequent re-evaluation of adopted measures designed to respond to previous strategies, which, in the meantime, may have become irrelevant, inadequate or needing adjustment. Such a short review cycle also enables the on-going articulation of the SEA with the policy-making or planning cycle.

The following paragraphs summarize the main outcomes of the SEA on the design phase of the ENGIZC:

The ENGIZC is well developed in relation to the prevention and management of natural and technological risks, particularly in highly vulnerable zones. This aspect is particularly relevant given current threats determined by climate change and the possible occurrence of extreme events in coastal areas, also a major current priority in any ICZM. The model of governance adopted by the ENGIZC – based on public-private partnerships and institutional coordination – is expected to provide a strategic framework that is consistent with priorities related to adaptative measures to climate change.

Table 2: Critical Factor for Decision-Making and respective assessment criteria.

CFD	Assessment criteria
Ecological systems and coastal landscapes	Ecosystem approach
	Safeguard and valuation of natural and cultural heritage and biodiversity
Coastal resource and uses	Economy of the sea
	Integrated management of coastal and marine resources
	Territorial and maritime conectivity
	Local communities
Natural and technological risks	Environmental quality, health and safety
	Vulnerability to climate change
	Limits of acceptable change
Management and governance	Integrated policy for coastal zone planning and management
	Interdisciplinary knowledge, monitoring and information management
	Education, training and professional capacity-building
	Adaptive management
	Institutional cooperation and stakeholders engagement

The land-use planning model in the ENGIZC is rather less clear. The discussion around the strategic options clearly outlined the valuation of socio-ecological systems as the priority strategic

option to be followed in relation to the thematic dimension. This option is based upon the enhancement of the specificity of traditional uses and activities that enable the compatibility of the socio-economic and the ecosystem dynamics. The ENGIZC is however driven by an anthropogenic and technological view of the prevention and management of natural and technological risks. While this approach is undoubtedly important, the ENGIZC is however missing to incorporate in its strategy a clear adaptive measure to make it adjusted to the local specificities, and how these need to influence the land-use planning solutions for different types of coastal zones.

The technical and scientific approach in the ENGIZC is quite perceptible through various statements concerning the scientific knowledge, whereby it is said that "Only scientific knowledge can provide the data to support the decision process, enabling a better integrated coastal management". In other words, it fails to recognize the importance of traditional knowledge for sustainable coastal resources management, placing it out of the strategic picture and hence of any actions and measures that could lead to the valuation of socio-ecological systems.

The process of policy formation, and of the respective SEA, were far from ideal with respect to participated processes and sectoral stakeholders engagement, including the private sector, public institutions at national, regional and local levels, and local communities. The reason was very much due to the short time available to prepare the latest version of the ENGIZC and the SEA. However, a strategy has to be shared by different points of view to enable recognition of multiple perspectives and coordinated actions. That will strengthen the acceptability of the strategy, and will increase the chances of success. Therefore one of the final recommendations of the SEA, which was fully adopted by INAG, was that the results of both the ENGIZC and the SEA would be the object of wide-open communication and discussion, through a participated process, that would lead to the cross-relation and matching of different points of view and, consequently, to the improvement and enrichment of the ENGIZC, and respective SEA. Such a discussion period is expected to be simultaneous with the first cycle of implementation of the ENGIZC to ensure that, in the following cycle, two years from now, the main results of such a participated process might be available to influence the design of the next version of the ENGIZC. This will enable a continuous process defined by a standard of strategic participation, and more community-based, evolving process of the ENGIZC.

CONCLUSIONS

The development of a national strategy for integrated coastal zones management (ENGIZC) is in itself an important initiative. The ENGIZC provides the main drivers and priorities that may accommodate different interests and enable sharing the coastal zone in a coherent and compatible way by different sectors and stakeholders, taking into account the existing values and the various objectives for future development.

An important aspect to be underlined was the initiative of the INAG to voluntarily conduct the SEA process with the purpose of informing the strategy formation process, and alerting for possible relevant environmental and sustainability aspects of strategic

nature that could justify different priority-setting in the development of the ENGIZC. The SEA-ENGIZC combined process thus far conducted is able to demonstrate the relevance of the role played by SEA in influencing and adjusting the strategic approach in the ENGIZC.

The assessment of risks and opportunities, and the guidelines there-off, must be interpreted in a constructive and positive way, in the framework of a constantly and highly dynamic process that requires constant adaptation and flexibility.

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