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Does SEA Change Outcomes?

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1. INTRODUCTION

Strategic Environmental Assessment (SEA) is going through times of turbulence. Initially introduced to help improve the environmental performance in development decision-making, and overcome the inability of EIA to deal with complex contextual decision frameworks that support development projects, it has subsequently been interpreted in multiple ways, now translating into various forms and applications.

The current diverse understandings around SEA is possibly related to three important aspects relevant to this paper: a) the political attitude in relation to forms of environmental interference in the decision processes; b) the emergence of a strategic decision-making culture, its meaning and positioning in the decision-making spectrum, that anticipates and differentiates from a project decision-making culture; c) the ownership of SEA by different disciplinary fields that have molded SEA as a function of their professional backgrounds.

Some authors consider this diversity to be enlightening of the potential of SEA, and one of its major features that can be encouraged. A few still see this multiplicity as a diversion away from SEA key purpose of extending EIA to other levels of decision-making. A third group sees this as part of SEA growing pains, where accumulated knowledge and experience will lead SEA to evolve to a matured, full-fledged and effective instrument with clear and coherent functions and forms.

For a number of years, the author has discussed these understandings of SEA and has argued that there is no point on re-inventing EIA in the shape of SEA. The need to consider SEA in a strategic sense has been suggested in a number of occasions (Partidário, 1999, 2000, 2005a and b, 2006, 2007, 2008). This means that SEA should not be a subsequent form of EIA that develops studies to assess the impacts of policies, plans and programs. Instead, SEA must be an instrument that performs a fundamental new attitude in strategic development processes, establishing a relationship with the decision-making process, with a fresh and constructive look, centred in the strategic dimensions of the decisions to be taken. Increasingly this strategic understanding of SEA is also being advocated by several colleagues (Kornov and Thissen, 2000; Wallington, 2002; Bina, 2003; Nooteboom, 2006; Cherp *et al*, 2007; Wallington, Bina and Thissen, 2007), each of them arguing within their own professional and valuable reasons, suggesting ways of approaching SEA under different theoretical paradigms.

This paper addresses the advocacy role that SEA can strategically play towards more sustainable and environmental decision-making and how this can be achieved. It discusses the required conditions for this performance and also the frustrations of SEA when such conditions are absent or insufficient. The paper shares the experience with the case of an SEA on the strategic decision on the location of the new international airport in Lisbon, particularly with respect to how SEA made a difference to infrastructure development decisions and the conditions that were met to make it possible.

2. SEA – AN ADVOCACY ROLE FOR BETTER ENVIRONMENTAL AND SUSTAINABLE DECISION-MAKING

SEA is a decision support instrument that was found necessary, in early days, to upstream environmental and social issues into higher levels of decision-making, improving the policy and planning decision contexts for the development of project's EIA. It seems clear that SEA advocacy role for better environmental and sustainable decision-making has been at the genesis of the instrument. But advocacy is played in different forms, depending on society priorities, political and organizational cultures, on developed knowledge and applied advocacy methods. This has led to different interpretations on how SEA should shape and deliver its expected role.

Over the years, many forms of SEA have been founded mostly on project's EIA based approaches, others on policy science and decision-making systems or on spatial planning approaches (Dalal-Clayton and Sadler, 2005). For those familiar with the various methods and approaches to policy-making and planning around the world, it is easy to understand how differently SEA correspondently shapes if it gets molded to the respective system to which it will apply.

The European Directive 2001/42/EC, commonly known as the SEA Directive and frequently assumed as a world standard approach to SEA, particularly when seconded by the China EIA law section on Plan SEA, but also because it was one of the first legal frameworks established in the world, represents however only one of the several interpretations of SEA. By and large, it stands as a rather limited form of SEA if we expect SEA to deliver as a strategic-based instrument. The European Directive priority target are plans and programs that set the framework for future development consent of projects that require an EIA (art.3, n.2, (a)), which determines a project decision culture. In practice, the fulfillment of the directive requirements is mostly being interpreted as an enlarged EIA.

Other more strategic interpretations of SEA have been evolving, looking at an SEA that proactively assists the shaping and the design of strategies. This requires a mutual molding process of SEA and strategies formation, working through problem perception and policy design to flexibly respond to problems, with SEA assisting policy and planning to formulate and discuss strategic alternative options, and then to help decision in choosing and implementing those strategies that better recognize environmental and sustainability priorities.

While a strategic approach to SEA looks into the capacity of SEA to influence decisional contexts and the formulation of strategic initiatives, whether policies, plans or programs, there is still a quite strong line of SEA approaches based on a rationalistic attitude that tends to design SEA to perform as a standard sequence of activities, inspired in the EIA process and centred on the preparation of an SEA report that culminates in the key purpose of informing and validating a final decision.

The concept of environment has also been the reason for advancing alternative instruments that eventually compete with SEA. Because of the often limited understanding of the term "environment", when associated only to earth issues, integrated impact assessment (UNEP, 2005 and 2009) as well as sustainability assessments (Pope *et al.*, 2004; Gibson *et al.*, 2005) have evolved as instruments that aim to ensure the inter-linkages between the social, physical-ecological

and economic systems. Integrated or sustainability assessments however are currently used at any scale, from projects to the policy range of decisions.

Institutional approaches to SEA have also been recently advanced (Ahmed and Sanchez-Triana, 2008) which are very much supported by institutional and organizational learning principles and practices, directed by capacity-building priorities, ranging from project-based logics to more strategic logics of assessment.

What is argued here, and has been argued in previous occasions, is that in order to be effective and responsive to decision needs, SEA must offer flexibility and cannot be formatted as a streamlined sequence of standard activities such as EIA. The concept of framework of activities that enable SEA to become flexible, diversified and tailor-made to the decision-making processes has been suggested before (Partidário, 2005b). SEA has the potential to help decision-makers to identify options that meet sustainability aims, looking for risks and opportunities of proposed strategic actions, also providing for an early warning of cumulative, synergetic and indirect effects, and large-scale impacts. In order to do this, however, SEA must understand and address the complexity of strategic processes and be able to provide advice in a timely and pragmatic fashion.

Increasingly SEA major key role can be argued to be that of facilitating decision-making by involving key actors, enabling dialogues towards mutual understanding, ensuring a long-term and large scale perspectives when considering development options. When addressing the complex nature of strategic decision-making, SEA cannot be limited to a technical assessment, and consequent advice on proposed options, but it must be well embedded in the strategic decision-making context to be able to influence decision-making performance (Partidário, 2005a). SEA should not be about controlling decisions. SEA should be about demonstrating the competing advantage of taking into account big-picture environmental issues to enable sustainable decision-making.

3. WHAT IS NEEDED FOR SEA TO ACT STRATEGICALLY?

A strategic-based model for SEA was proposed in Partidário (2006). It was later adapted to Guidance for SEA, with the purpose of meeting European Directive requirements, and was published by the Portuguese Environment Agency (Partidário, 2007a). Since then the methodology laid out in the guidance has been generally followed in Portugal, although often not fully meeting its principles and conditions for success.

The proposed approach of strategic-based SEA is conceived as a decision-centred instrument, that is driven by the dynamics of the decision process and which is focused on assessing strategic processes, rather than plans or programs. It aims at integrating environmental issues in a sustainability context, taking SEA as a strategic facilitator of sustainability processes. A decision-centred SEA means that SEA is flexible and tailor-made to each decision process, conceived as a framework of key elements that need to be strategically positioned to enable SEA to play its decision support role and to ensure the added-value of SEA to decision-making (Partidário, 2000).

This concept and its supportive methodology represent an innovative approach in relation to traditional practices of SEA. Key drivers in the strategic-based model to SEA (Partidário, 2008) include:

- Follow strategic thinking, as opposed to project thinking
- Work with processes, not with outcomes.
- Allow and promote early engagement, community participatory planning, use and enhance communication skills.
- Use dialogue, persuasion and negotiation as techniques throughout the entire process.
- Focus on long-term objectives and the strategy to achieve them.
- Ensure a long term view, but taking short-term action following few priority objectives.
- Be strategic but not descriptive – use clusters of themes (the Critical Factors for Decision-making (CFD)), and perform a quick and sharp diagnosis.
- Apply integrative holism – CFD are integrated dimensions.
- Adopt a large picture, sustainability approach.
- Be very focused and pragmatic about the assessment.
- Rather than predicting impacts, help to think about future pathways for sustainability.
- Be a facilitator of decision-making – enable flexibility and continuity, follow the decision cycle.
- Change terminology to adopt a strategic oriented terminology.

In this model, the purpose of SEA is to help understand and appropriately address a problem, and to find environmentally, and sustainable, viable options to achieve objectives. It is based on policy processes, generation of knowledge, networks of actors, inter-sectoral cooperation and governance. The adopted approach recognizes three main functions in SEA:

1. *Integration* of environmental and sustainability issues in strategic processes;
2. *Assessment* of opportunities and risks of strategic options;
3. *Validation* of the assessment of strategic processes and outcomes.

And suggests a general format to enable a strategic performance:

- Establish a framework of institutional governance and participation, and recognise different perspectives.
- Build a strategic reference framework (SRF) - working for a sustainable future and development objectives and creating an assessment benchmark.
- Identify Critical Factors for Decision-Making (CFD) – priorities setting exercise, generating clusters based on the fundamental strategic issues (SI) for development, the relevant environmental factors (EF) and the macropolicy framework defined by the SRF.
- Analyse trends, not moments. The strategic context is identified, based on an analysis of trends. What matters is a dynamic analysis, not a static analysis.
- Conduct sectoral studies that perform an analysis of the CFD, and the assessment, to provide information to the decision-maker.
- Analyse strategies and assess strategic options for different future scenarios.
- Prioritise and explore plausible options that enable choice, foreseeing and avoiding risks and exploring opportunities.

- Produce as many issues notes, comments and short reports as necessary, depending on the opportunities created by decision windows.
- Propose guidelines that drive possible pathways, avoid the mitigation paradigm.
- Strongly support the strategy life-cycle with a follow-up process that ensures: design, assessment, monitoring – integrating in the strategic process of decision-making.

A new lexicon for SEA was suggested in (Partidário, 2007) to help enhance a strategic culture in impact assessment.

Table 1 – Proposed new lexicon to create strategic thinking in SEA	
In SEA strategic model use:	In traditional terminology
Critical factors (Clusters)	Scoping
Decision windows (in strategic process)	Planning phases
Strategic issues Drivers of change Context data	Baseline
Strategic Options	Alternatives
Opportunities and risks	Impacts
Guidelines (planning, management)	Mitigation measures

So what should be expected from SEA as a strategic approach? What may be required to ensure a strategic performance of SEA?

The point that has been made here is that for SEA to perform more strategically it must fulfill a set of functions and assume a consequent form. Emphasis is on the strategic role of SEA in influencing decision-making through the integration of relevant “big picture” environmental issues at the core of strategic decisions to help identify pathways for sustainability. Which means that SEA need to act strategically in relation to why doing, who to engage, what to consider and when to influence decision-making.

4. WHEN SEA BECOMES IRRELEVANT – NEGATIVE EXPERIENCES ON GOVERNANCE AND THE DECISION-MAKING PROCESS

In order to be relevant to decision-making, SEA needs to target decision concerns and priorities and bring an added-value. Decision-making has to recognize SEA as an ally, an approach that can bring benefits and not just a waste of time. The advocacy role of SEA in mainstreaming environmental and social issues in decision-making has been discussed above, recognizing that it can be done in many different ways. Three approach categories can be identified:

A marginal approach is when SEA becomes an end in itself, in other words, SEA is conducted to be a perfect exercise of baseline studies that perform analysis and diagnosis of environmental and

social issues and assess the effects of proposals, following a standard streamline of formal activities, and culminating in a fat formal report. The purpose is normally the preparation of comprehensive studies that can provide the best image of the situation that contextualizes the decision in environmental and social terms. Often the outcome of such SEA becomes irrelevant to decision-making because a lot of work is done, much effort and resources are used, it is quite time-consuming but it is not focused into what decision-making actually needs to know.

A *compliance approach* is when SEA is mainly a mechanism of control of compliance with the existing legislation and policy requirements. In this approach, what is laid out in the legislation is taken as the road map for SEA. The priority is to fulfill each item identified in legal terms, and it even happens that adjectives or other sentence connecting expressions used in the legislation become formal names for types of SEA. For example, in the UK Appropriate Assessments became a formal type of SEA, to specifically address the Habitats Directive requirements, only because the legislation says that “...the assessment should be appropriate...”, and guidance has been issued. One could wonder if other types of SEA do not need to be appropriate!

Finally a *constructive approach* is when what is relevant for decision-making becomes central in SEA, so that SEA single purpose is to help drive strategies towards better environmental and sustainability integration in a constructive way. The priority here is to understand and analyze decision needs and priorities and design the SEA to respond to decision-making. In this approach SEA must be shapeless, so that it can be molded to each decision case. It needs to be highly flexible, agile, focused on the issues that bring an added-value to decision-making, that will help decision to be taken in a more environmental and sustainable way. SEA develops to identify few but highly relevant themes for decision-making, works with alternative strategic options that can show alternative pathways for sustainability. The outcomes of the SEA are embedded in the decision process, several inputs are made throughout the decision cycle at key moments when such input can actually be used and make a difference to decision-making.

These three categories are not just virtual, they are defined based on existing experience with SEA. A systematic review of the SEA experience worldwide would show that the Marginal and Compliance approach are, by and large, the most common SEA approaches. Recent experiences point towards the constructive approach, but fewer cases can be identified. Often there will be combinations of these different approaches, particularly when we want to use SEA to make the best possible decision case – the constructive approach -, but at the same time we need to comply with legal requirements, such as those imposed by the European Directive and subsequent national legislation – the compliance approach.

Consequences of the wider use of the marginal and compliance approaches are often responsible for frustrations with the application of SEA, in view of the constructive approach. One of the major frustrations is that SEA is still very much seen as an EIA applied at upper levels of decision-making, such as policies, plans and programs, carrying all the burdens and limitations created around the practice of EIA over its 40 years lifetime. This is when SEA is increasingly reactive to decision intentions, is dominated by extensive baseline descriptions, it provides very little analysis and even less advice to decision-making, it offers short-term view of effects, is report-driven and is becoming a necessary “industry” process to reach permits. All these are the opposite of what SEA should do. Other frustrations include:

Concerning governance

- limited participation and diversity of view points – institutional or mono-oriented assessments, often with public environmental institutions playing the drivers role where SEA is legally enforced.
- limited influence in the decision-making process, originating parallel, non convergent, decision and SEA processes and mutual tensions that eventually bring limited benefits to the environment and to the society.
- in Europe, the legal requirements focus on effects assessment, mitigation measures and deliver of environmental report determine a strong EIA proxies, and consequent project culture in the assessment, which ultimately influence strongly the expectations of authorities as to the structure and detail resulting from SEA.

Concerning the decision process

- at strategic decision levels SEA is seen as the environment weak link – policies, plans and programs will carry on their initial purposes and intentions and will “staple” the environmental report for purposes of legal compliance.

- legal requirements for the demonstration of effects towards mitigation measures hinder the capacity of SEA to be more constructive, innovative and tailor-made.

- the practice shows that SEA is often centred in the production and delivery of an environmental report. This limits the decision flexibility to work with several short SEA reports that rather than bringing a demonstration of impacts should be bringing useful inputs to decision-making, to think about strategic pathways that would avoid future problems. SEA should act as the walking stick, that helps decisions to be made, rather than as a barrier that steps across the decision way.

5. A SHORT SUCCESS STORY ABOUT SEA CAPACITY TO CHANGE DECISIONS

The story of the decision process on the Lisbon new international airport provides a good example of the capacity of SEA to strategically influence decision-making. After 40 years of multiple attempts and struggled debate around alternative location sites, decision on its final location was made. Yet, once decision was made, it was suddenly changed because of a strategic insight into other relevant, long-term, strategic issues that were not considered before in a systematic and transparent way. A better option, that had never been considered before, was found and eventually politically chosen. SEA played a role that changed a 40 years decision, in less than one year.

The Lisbon airport has been operating in its current location, at Portela-Lisbon, since 1942. At the time built on the city outskirts, the airport was surrounded by urban expansion in the following two decades. The relocation of this infrastructure was on the table for the first time in 1969. At that time five alternative sites were identified, all located in the south bank of the Tagus River. An initial study was completed in 1971, selecting an area of over 6 500 hectares in Rio Frio, about 40 kilometres south of Lisbon, where a four parallel runway airport would be constructed. The economic and political context in Portugal, however, changed significantly in the 1970s, following

the first oil crisis and the Portuguese political process. The airport was not a national priority anymore and this all process was put on hold.

The issue was re-opened in 1982 and a comprehensive study analysed 12 alternative locations. The study concluded on a new better location at Ota, 40 kilometres North of Lisbon, on the right bank of the Tagus river and opposite to Rio Frio, earlier identified and located on the left side of the river. Again the process was slowed down for political reasons, but it was reopened in 1990 after the integration of Portugal in the European Community.

During the following eight years, several studies were developed for these two sites concerning the economical and operational feasibility. Finally, in 1998-99 environmental impact assessment studies looked separately at Ota and Rio Frio site locations, with a pure project perspective. Again Ota was selected as the site for the construction of the new airport of Lisbon, a site that appeared to meet both environmental and economic objectives. Government decision arguments were based on the natural sensitivity of the Rio Frio site, which would involve the destruction of more than 50 000 cork trees, a protected species and habitat in Portugal, and the fact that Rio Frio occupies an ecological corridor that spans between the Tagus and Sado rivers.

However, the issues were not closed here. A national debate started then mainly because of the high costs of construction at Ota due to environmental problems, partly derived from the hydrological and topographical complexity of the site. At the same time increasing tourism and urban development pressures in the southern bank of the river were challenging the ecological sensitivity of the area that was saved from the location of the airport at Rio Frio. Lisbon surroundings within a 50-kilometre perimeter were definitely changing, and ecological concerns were increasingly intense. Despite all the debate, decision was maintained and in 2005 the government took the final decision to build the airport at Ota. The detailed project design continued and the EIA was started.

Some people and organizations, however, were uneasy about this decision, in particular the business sector. In the first semester of 2007, when the EIA process was half way through, a study sponsored by the Confederation of the Portuguese Industry (CIP) (IDAD, 2007) screened the surrounding area up to 50 kilometres, centred in Lisbon, for possible strategic locations. Rather than first identifying sites and then checking on their adequacy for the purpose, this study searched strategically for the best locations that would support the airport from various view points: international connections, regional development of Lisbon metropolitan area, relevance for tourism and industrial development, ecological sensitivity, physical features and infrastructures, population and mobility.

The objective of the CIP study was to show that it was possible to identify new feasible sites, applying the same assumptions with new technological tools and recent environmental data, and did not pretend to discuss if the previous decision was right or wrong (Coutinho and Partidário, 2008). It was the first time such open territorial search was undertaken. With the support of GIS, the CIP study identified a new site – Campo de Tiro de Alcochete (CTA), a shooting range, a military facility that had never been considered in previous studies. This site would avoid, based on a three months fast-track study, many of the problems pointed out for Ota, particularly those that represented a higher economic burden and which could undermine the long-term feasibility of the investment.

Once the study was completed, it was presented to the government and access was opened to the public through the internet a week later, right after the government announced that the previous

decision was suspended. During the development of the study a high degree of confidentiality was established (Coutinho and Partidário, 2008) to avoid leakage to the press and preventing additional political pressures. Yet, once finished transparency of results was ensured. The report was focused on the few decision factors that supported the previous decision. The language used was accessible and the methodology used avoided complex models, based on simple technical approaches. This allowed a rapid understanding of the outcomes of the study by the general public.

A week after the CIP study was delivered, the Minister of Public Works (MOPTC) announced in Parliament the suspension of the Ota decision and that a strategic comparative study between Ota and CTA would be commissioned. During this process, negotiations occurred at the top level which included the President of Republic, Prime-Minister and the Portuguese Air Force. New strategic issues had been brought up to the negotiation table, the previous decision had been challenged with a new strategic logic.

The government commissioned the National Laboratory of Civil Engineering (LNEC) to develop a strategic comparative assessment between Ota and CTA (Figure 1). A team of over 50 experts was put together, nearly 40 of them under the coordination of the President of LNEC, with a double mandate: first to check on the technical (physical and engineering) feasibility of CTA to support the construction of an international airport. Secondly to conduct a comparative assessment of Ota and CTA alternative locations, driven by strategic objectives concerning the role of the international airport for the sustainable development of the Lisbon region, and of Portugal at a global level.

The LNEC adopted a strategic assessment methodology (LNEC, 2007) which were constrained by the following facts: 1) the government had commissioned the study to deliver results within a six months period; 2) there were many details on the project design for Ota site, and on the Ota location as well, but no project design details for the second location at CTA, or any site studies; 3) the intention of the government was only to get the necessary information that could support a decision on the best strategic location for the new airport, based on two alternative locations. Such study should provide the arguments that would support the justification on the need to change, or not, the previously taken decision.

The author was contracted as a consultant to LNEC to lead the methodological approach. The whole methodology was designed to perform strategically and provide answers in a short period. Not much time could be allocated to baseline studies. We only had six months to deliver an advice to government. A highly pragmatic and focused approach to SEA was adopted. Following a strategic-based SEA methodology developed by Partidário (2007a), an assessment framework was developed around seven critical factors for decision-making (CFD):

1. Safety for air navigation and transportation,
2. Natural resources and risks,
3. Biodiversity and Nature Conservation,
4. Accessibility,
5. Spatial Planning,
6. Social and Economic Competitiveness, and
7. Financial Feasibility.

Each of these CFD adopted environmental, social and economic assessment criteria and indicators that ensured the consideration of the key decision factors. The study also included a cost-

benefit analysis, that shared some indicators with the SEA, but which ultimately concluded on the equivalence of both locations from an economic standpoint. Multiple meetings were convened involving the whole team as one group, as well as in thematic groups. Much interaction was enabled across the team through these meetings and the final result was reasonably integrated.

Eventually, this study identified CTA as the preferred location and the advice was forwarded to the government that the location at CTA offered comparative advantages to that of Ota. This advice was adopted by the government leading to a radical change in decision. Final decision was made at the end of the second semester in 2007.

Later, during subsequent debates, the government would choose the first critical factor: Safety for air navigation and transportation, as the determinant factor for decision. This was rather paradoxical since that had been one of the major criticisms to the Ota location, but it had never been considered or put on the decision table before!

How is that SEA made a difference to this process? How did it change the outcomes? Firstly, the whole assessment was narrowed down to a few key decision factors and experts involved were constantly asked to be focused and to keep the essential aspects that would enable the comparative assessment. Seven critical factors for decision-making have driven the whole assessment. The outcomes were presented according to that framework, which was very easy to perceive and to communicate.

Secondly, the entry point for SEA was an important issue. The CIP initiative to screen out for a better location, indicating that a new site for the construction of the airport had been identified at CTA, created a political opportunity to use SEA strategically. CTA study outcomes alerted the government attention to a possible way out to a public conflict that the government was faced with, and which kept the government under a tremendous public pressure.

Thirdly, the outcomes of both CIP and LNEC studies pointed to a similar conclusion, while there was total independency between these two studies and institutions. CIP is a private NGO and represented the vested interests of the private sector. LNEC is a public research institution and was commissioned by the government to develop robust technical assessments. There were no pressures or influence on the LNEC study to try to meet the CIP study outcomes. Much on the contrary, the media and other public forces made all sorts of speculative comments that included both possibilities: that the LNEC study would want to meet the CIP study results, as well as that the LNEC study would want to maintain the government previous decisions.

Fourthly, the SEA was conducted with a sustainable development orientation. All aspects, from physical to ecological, social and cultural, as well as economic, institutional and political, were brought together aiming at a conciliation of interests to the possible extent. Guidelines for follow-up emerged as pathways to be followed. Many impact assessment principles were met (IAIA,1999): transparent, scientific rigorous, systematic, useful, practical. The SEA good practice criteria (IAIA, 2002) were also almost all met: integration, sustainability-led, focused, accountable.

The methodological approach was based on the following premises:

1. The object of assessment was clearly defined: it was not the airport infrastructure that was being assessed but its strategic location regarding national and regional overall development.

2. The assessment was pragmatically conducted around the seven mentioned critical factors for decision-making. The team was asked not to undertake long dissertations on their area of expertise but to concentrate on explanatory indicators that could reveal the critical aspects. And to be as robust as possible with the available data, within the time frame.
3. A strong interdisciplinary context was ensured across the team. The achievements of each team were closely followed and cross-sectoral interactions were frequent.
4. The long-term perspective was ensured in various ways, the development of scenarios playing a crucial role. These have determined the strategic discussions that influenced many choices made throughout the process concerning the purpose and plausibility of the airport.
5. Guidelines were prepared to orient future actions, rather than mitigation measures that would assume that nothing else could be done except introducing additional measures to minimize physical, or political, unavoidable effects.
6. Even though many pages were written (close to 1 000 in total) and complex methods were used (in many different themes involving modelling and complex calculations), the final report was written in a simple form, albeit longer than desired, but easy to understand. The final outcomes, presented through the seven critical factors for decision-making, were very easy to perceive by the government and very easy to communicate to the general public to support the government change of decision.
7. Indicators used in the assessment were given different weights by the experts while doing the assessment, but the critical factors for decision-making were all equally weighted. This has raised some criticism amongst the public when the results were known: the business sector wanted the economic competitiveness to be more important, the environmental NGOs wanted to have biodiversity to be more important and the municipalities wanted the spatial planning to be more weighted. It was good that no weighting was introduced, it would have been impossible to satisfy all vested interests.

It was indeed a political opportunity to use SEA and to show how useful it can be to assist strategic decision-making. The government got a sound advice at the end of six months, it was clear and the change of decision was easy to justify. Even the Prime Minister would talk about the critical factors for decision-making in his speeches:

The **PM spoke today**...the decision ...for the *Campo de Tiro de Alcochete* (CTA) is supported in "**four of seven critical factors for decision-making**" indicated in the LNEC report: safety, efficiency and capacity of air traffic operations; sustainability of natural resources; economic development compatibility and financial assessment. He underlined "**the report was very clear**" and that its conclusions expose that both sites were viable and sustainable, but **the choice** for CTA is the one that the government favors for safety and operational reasons...it is also safe from an environmental perspective"
(Público, **10.01.2008** - <http://economia.publico.clix.pt/noticia.aspx?id=1316214>)

Yet, there were obviously drawbacks. While well integrated and quite robust in its conclusions, it dealt with multiple scales and a wide range of perspectives. It engaged strategic-based studies as well as site specific studies, which mixed up the long-term and short-term views, the large and the site-specific scales. This generated much confusion as to the expected outcomes since some aspects of the study pointed towards a more EIA based analysis. While the study was insufficient regarding

the consideration of certain aspects that required broader scales, it added too much information on detailed aspects that were not essential.

These multiple scales and details, however, generated another problem – the different expectations and misunderstanding amongst the public and institutions as to what was really the scale and scope of the analysis. The pressure created by the media exacerbated the public reactions and generated a number of expectations, stories and false alarms that created a vicious perception against the robustness of the study and the legitimacy of its conclusions. Ultimately, it created the idea that this was no more than a social and political construction and diversion created by the government, which is entirely absurd, particularly considering the earlier resistance of the government to accept a new location for the airport.

The whole decision process was weakened by the tensions created over the years, particularly over the last 10 to 20 years. This has led to the need to develop complex studies in a short period of time, which also generated tensions within the teams. The existing and exacerbated tensions required greater confidentiality around the Study, which determined weak public and institutional engagement throughout the process and less iterations than desired.

The fact is, however, that after the first shock wave determined by the sudden change, there was a general feeling of acceptance amongst the public. There were angry reactions from municipalities at Ota area of influence, and from other members of the public, such as environmentalist groups who did not want the airport anyway. Nevertheless, despite the whole conflicting debate that was created, the majority of the public, based on the public consultation results, considered the new location to be better, namely due to the safety aspects, one of the critical factors considered in the study. Not surprisingly, and as mentioned above, safety was also the factor used by the Minister of Public Works as the key argument to justify the government decision.

6. FINAL REMARKS

The question that I was asked to address in this paper was: Does SEA change outcomes? My answer is simple: yes it can! But for that to happen, SEA needs to avoid the hard way that we know of EIA experience: a sequence of difficulties, time and resource consuming, a barrier to efficiency, an industry imposed by over-watchful environmental powers. For SEA to be able to change outcomes, it needs to cut links with EIA practice and develop a full-fledged capacity to act as a strategic instrument to facilitate decision-making.

As argued above and in other occasions, SEA needs to be a decision-making support instrument in its own right, it needs to be wished by decision-makers. SEA must find the right way that will enable reaching the core of decision-making and deliver inputs that are useful and practical, efficient and cost-effective.

The case that was presented on the SEA of the new international airport of Lisbon stands as a significant case-study of the success of strategic approaches in environmental assessment. It did change the outcomes. And that happened because:

1. SEA was highly focused on the decision that was needed to be made. The decision that was offered to SEA was not about whether or not to do a new airport, but it was about where and how to do the airport. Many criticisms have been made to this SEA, namely by environmental NGOs, because it did not question the need for the airport. However, two things have to be made clear. Firstly, the decision was about the best strategic location for the airport, not if an airport was needed. Secondly, part of the arguments developed to strategically discuss the most plausible location, as well as many consultations carried out with stakeholders, demonstrated that the airport was needed.

2. SEA was highly focused on the critical factors that could make a difference to decision-making. Seven critical factors for decision-making were identified and acknowledged as important by the decision-makers and other stakeholders involved. This allowed a much more structured development of studies that contributed to the SEA. Outcomes were clear and to the point. We had only six months to do the study, we could not afford to spend time with marginal issues. The bulk of the material collected went into appendices, the main report only kept the cream of the assessment. It made it easier for decision-making to justify the decision.

3. The methodology adopted to look for a location, and which was developed by the CIP study, was a strategic screen out of the potential territory surrounding Lisbon within 50 kilometres. Several criteria were followed in this first exercise, including economic, infrastructural, social, ecological, combining several policy and physical drivers. Never, in the previous 40 years, had this been done this way.

4. Finally, another reason to make this a success story is that the outcomes of SEA met general public concerns and responded to many questions people had been raising over the years. These concerns were exactly related to the critical factors for decision-making that were identified. Of course, SEA did not resolve all the problems and there are still different views concerning even the reason for a new airport. However, tensions have decreased significantly and if it were not because of the global economic crisis, this decision could be said to have reached a consolidated and generally accepted stage.

The robustness of strategic studies findings, engaging stakeholders, ensured a mix of evidence support with societal acceptance. Yet, above all, SEA success lies upon the importance of adopting communicative capacities closer to the politicians, being less concerned with the analytical and technocratic forms of environmental assessment. It is by adjusting the speech and forwarding the right messages in a short period, in a very precise and consistent way that one increases the success in hitting the core of decision-making.

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