## ANALYSIS OF THE DRAFT OF SEA REGULATIONS IN BRAZIL

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Abstract: Strategic Environmental Assessment (SEA) is legally required as an environmental policy tool in many countries. In Brazil, the process of legal regulation of SEA is in its beginning and it has been conducted by the creation of preliminary draft laws. This paper aims to evaluate the guidelines formulated by these drafts taking the last document launched by the government, "Diretrizes para a Avaliação Ambiental Estratégica nas decisões do Governo Federal" - Guidelines for the SEA in the decisions of the Federal Government (version of 23 September 2010), and comparing its guidelines to the "best practice" in SEA. The analysis was accomplished based on the criteria proposed by Fischer (2007) due to its applicability to the case. The results revealed the document's weak and strong points. As strong points, there are the clear definition of Brazilian SEA goals, the adequate consideration of SEA in planning processes, the consideration of public participation and the well-formulated orientation for SEA's scoping and assessment steps. As weakness, were found the unclear attribution of institutional responsibility, the lack of some aspects, such as control mechanisms, incentives to the process' conduction, guidelines to the consideration of alternatives, integration of SEA results in the decision making, adequate follow-up, realisation of screening and SEA report steps. Thus, the results revealed that the process of SEA institutionalization in Brazil should be more based on technical criteria than political ones and that the analyzed draft must be improved in its weak points to guarantee more effectiveness to SEA and its institutionalization in Brazil.

# Introduction

Strategic Environmental Assessment (SEA) is a process that considers environmental and sustainability issues within the strategic decision-making process (Therivel, 2004), overtaking the practical limitations of the Environmental Impact Assessment – EIA (Egler, 2001). The first experiences in SEA were conducted by developed countries in the late 1980's and worldwide in the early 2000. In developing countries, discussions involving SEA are more recent (Dalal-Clayton; Sadler, 2005).

Two moments regarding the SEA experience in Brazil must be highlighted. In the first (1994-1998), initiatives were isolated, voluntary and driven by foreign exigencies and they were unattached to a SEA national system (Tachard; Pellin; Souza, 2007). The second (1999 until nowadays) is associated with governmental attempts to discuss and define the elements necessary to build a Brazilian SEA system (Teixeira, 2008), considering the lack of legal regulation of SEA in Brazil.

Nowadays, there is no a Brazilian SEA system and there are no regulations or laws for SEA. Because this, the Brazilian practical experience is incipient, with predominance of on studies that focus big projects' synergetic and cumulative impacts. Thus, to legally institutionalize SEA it would be important to legitimate and conduct the SEA in the path of both institutional articulation and

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promotion of public participation, enabling the allocation of financial and human resources for its implementation (Silva, 2010).

Aiming at this regulation, in October 2010, the Brazilian *Ministério do Meio Ambiente* opened a public consultation to discuss the document "*Diretrizes para a Avaliação Ambiental Estratégica* (*AAE*) nas decisões do Governo Federal" – Guidelines for the SEA in the decisions of the Federal Government. It contained the SEA's goals, application, principles, general criteria, institutional responsibilities and execution means. Despite the draft nature of the document, it is the major guideline for the institutionalization of SEA in Brazil.

In this context, this paper investigates if the proposed guidelines respect a minimal set of factors capable of providing effectiveness to a future Brazilian SEA system.

#### Methodology

In recent years, factors to assess the performance of SEA system have received considerable attention in the international academic literature. A set of criteria commonly used are the principles proposed by IAIA (2002), being applied by Fischer (2002), Noble (2003), Retief (2007) and Silva-Sanchez and Sanchez (2008).

However, given the context of this paper where there is no a Brazilian SEA system, but a proposal for regulation, the choice of criteria for evaluation was no easy. Then, we choose the factors proposed by Fischer (2007) because its applicability to this case.

Fischer (2007) shows how to asses each factor and what issues must be considered. As the Fischer's factors are applied to evaluate systems already implemented, we adapted them to our study case and it was necessary to think about the applicability of each criterion.

#### Analysis of results and discussion

Fischer's (2007) methodology focuses on institutionalized SEA systems. Therefore, it was necessary to verify each factor's applicability to evaluate a system in course of implementation. It was understood that 1.1, 1.2, 1.6 and 4.1 factors are not be applied. Table 1 contains the results of the analysis. Each factor is classified in to the following categories: adequately contemplated, partially contemplated and no contemplated or inadequately contemplated.

According to section 1 of Table 1, the draft attributes competences and responsibilities in a wide way, without naming the actors involved in the process. The evaluation by third parts or any other external control mechanisms that could evaluate the studies and provide impartiality to the process are not mentioned. To Fischer (2007) the absence of these points may reduce the SEA effectiveness. Besides, while sections 1, 2 and 4 of Table 1 show that the draft orientates SEA practice towards its integration with policies, plans and programs (PPPs), the evaluation of PPPs' goals and their relationship with SEA are not mentioned.

The analysis allowed observing the draft clearly establishes major goals to SEA practice (Table 1 section 2). Nevertheless, section 3 shows that the draft does not comprise the arrangement of resources (monetary, time and technical support) to accomplish these goals. Other negative points are: no mention of public support in the process, lack of guidelines to guarantee process' transparency and cooperation (section 4), lack of focus on the evaluation of PPPs (section 5) and no recognition of uncertainties (section 6). Fischer (2007) understands that a clear focus and the recognition of uncertainties are aspects that reduce SEA costs, making it economically more feasible and, therefore, better accepted among decision makers and planners.

A positive point expressed in section 5 is the tiering linking SEA and projects' EIA.

Table 1: Analysis of the draft based				
	Evaluation	Comment		
CONTEXT FACTORS				
1) Formal requirements and clear pro	visions to con			
1.1. Are there requirements, based on legislation, regulations or directive?	n.a	Currently, there are no legal requirements, regulations or policy of the SEA in Brazil.		
1.2. Is there any specific or general SEA guidance available?	n.a	Currently, there is no specific or general SEA guidance available in Brazil.		
1.3. Are competences/responsibilities clear?	±	The competences/responsibilities are not clear. The assignment is broad and general, with no specification, outlines and drawings.		
1.4. Is there enforcement through an agency, legal threats or independent review?	X	The process occurs within governmental institutions. There are no third parties involved or control of impartiality, quality and incorporation of SEA in the planning of PPPs.		
1.5. Is SEA actually considered in PPP making?	0	There are general guidelines and consideration of the integration of SEA in the planning process and implementation of PPPs.		
1.6. Is there compliance with SEA requirements?	n.a	Currently, there are no legal requirements, regulations or policy of the SEA in Brazil.		
2) Clear goals for assessment:				
2.1. Are there clear and compatible goals for assessment in place?	0	The draft presents clear and consistent goals for evaluation.		
2.2. Is SEA succeeding in changing established thinking?	Ο	The draft directs for interaction and integration of SEA in the planning and implementation of PPPs, pointing to possible changes in established thinking.		
3) Appropriate funding, time and support:				
3.1. Is appropriate funding, time and support being made available?	X	Overall, the draft does not indicate the need and importance of issues seen as availability of funding, time and support.		
4) Achieving a willingness to cooperate – considering and influencing traditional decision-making approaches:				
4.1. Is there a developed environmental consciousness in the population and among stakeholders in the system within which SEA is applied?	n.a	It is not up to the draft relate to this theme.		
4.2. Do SEA results get considered in other PPPs and projects?	0	The draft shows and guides for the results of the SEA are considered in other PPPs and projects.		
4.3. Is there a sound public, legal, administrative and political support base?	X	The draft does not guide the need for training as a base of public support, legal, administrative and political.		
4.4. Is there a tradition of transparency and cooperation?	X	The draft does not set guidelines for the process to be transparent and cooperative.		
5) Setting clear boundaries – addressi	ng the right is	sues at the right time/defining roles of assessors:		
5.1. Is there a clear, effectively tiered planning hierarchy in place?	±	Powers and responsibilities are broadly allocated. The relationships are not clear and sound, including in relation hierarchies and structure planning of the Government itself. The effectiveness of the hierarchy established by the draft can not be accurately evaluated.		
5.2. Is there a clear focus of assessment?	X	The draft directs the evaluation of PPPs. However, it does not mention these objective PPPs.		
5.3. Are the roles of assessors clearly defined?	±	Functions are partially defined.		
5.4. Is there an effective project EIA system in place?	0	The draft assumes the existence of an effective EIA system, directing interactions between SEA and EIA.		
6) Acknowledging and dealing with uncertainties:				
6.1. Are uncertainties acknowledged and dealt with?	X	The draft makes no reference to the recognition and uncertainty analysis.		
Legend: n.a.: not applicable; O: sufficiently addresses; ±: partially covers; X: does not include or contemplates				

Table 1: Analysis of the draft based on criteria by Fischer (2007). (continue)

Legend: **n.a.:** not applicable; **O:** sufficiently addresses; **±:** partially covers; **X:** does not include or contemplates it inappropriately.

	Evaluation	Comment		
PROCEDURAL FACTORS				
7) A systematic SEA process:				
7.1. Steps:				
a) Screening	±	Screening done through a positive list, not including the possibility of case by case analysis, rather than explaining its application to areas such as agriculture, energy, industry, transport, waste management, water management, tourism, town and country planning.		
b) Scoping	0	The draft makes clearly the dimensions of the scope to be established.		
c) Analisys	0	The draft provides guidelines for carrying out the analysis		
d) Report preparation	X	There are no guidelines on the report, including as to its content.		
e) Review	X	It has no guidelines regarding the review.		
f) Decision-making and approval:	±	While contemplating the interaction between SEA and decision-making, issues such as transparency and justification of decisions are not properly treated.		
g) Preparation of a clear summary	Х	It has no guidelines on the preparation of a summary of the SEA process.		
h) Monitoring	ŧ	There is recognition of the importance of monitoring, but only general guidelines are placed.		
i) Integration with underlying PPP process	0	There are general guidelines on the integration and consideration of SEA with the process of PPPs.		
8) Adequate consultation and participation:				
8.1. Is consultation with experts and other administrations conducted?	±	The importance of a participatory process is recognized. However, the actors are not specified and the conduct of consultations.		
8.2. Is there public participation?	0	The draft recognizes the importance of the participation in the processes.		
WIDER METHODOLOGICAL FACTORS				
9) Adequate impact prediction and con	nsideration of			
9.1 Are appropriate alternatives considered?	±	The draft provides consideration of alternatives. However, there are no guidelines for their preparation and consideration.		
9.2. Does assessment come with clear predictions, whenever possible quantitatively?	±	There are general guidelines on the assessment. Unable to ponder clear predictions (and quantitative) based on the submitted draft.		
9.3. Does assessment consider measures for avoiding, minimizing, mitigating or compensating impacts?	X	The draft mentions only "avoiding impacts" and no minimization, mitigation or compensation of impacts.		

Table 1: Analysis of the draft based on criteria by Fischer (2007).

Legend: n.a.: not applicable; O: sufficiently addresses; ±: partially covers; X: does not include or contemplates it inappropriately.

The steps previewed to SEA process are presented in section 7. The draft does not present all the steps comprehended by SEA process; it lacks the elaboration of the SEA report, its analysis and a summary of the process. Other important steps, such as screening, decision making and follow-up are only cited and no information on how they would be put into practice is provided.

In section 8, the mention of public participation is positive (although it lacks details on how to conduct participation within the process).

Finally, section 9 indicates that the prevention elements that support the SEA practice were partially considered. Yet, there is no mention of how will be taken impacts mitigation or compensation. According to Fischer (2007) and other authors, prevention mechanisms are crucial and their absence can be considered a synonym of ineffectiveness.

The evaluation of the draft made it possible to evaluate its weak and strong points. Among the latter are the clearness with which the SEA goals were presented and the possibility of public participation. Based on this experience, the system to be employed in Brazil is expected to resemble Australia's and New Zealand's systems' goals and the public participation in the systems of California, Australia, South Africa, Netherlands, New Zealand and Finland (Fischer, 2007). Considering that the participation in the SEA process is pointed as problematic in countries like China (Xiuzhen; Jincheng; Jinhu, 2002; Zhu; Ru, 2008), Canada, United Kingdom and Germany (Fischer, 2007), care must be taken if the expectation is to guarantee an effective public participation in the Brazilian SEA system.

Among the main fragilities, are the consideration of alternatives and the follow-up. Together with the flaws concerning participation, these steps are usually pointed as fragile in the worldwide SEA experience (Noble, 2004; Fischer, 2007; Liou; Yu, 2004).

Xiuzhen, Jincheng and Jinhu (2002) assert that deficiencies of both Chinese SEA and projects EIA may be the same. This is possible to occur also in Brazil, once the flaws of considering alternatives, participation and follow-up are the most relevant problems found in the projects' EIA Brazilian practice, as pointed out by Ministério Público Federal (MPF, 2004) and Tribunal de Contas da União (Lima; Magrini, 2010).

As a final note, it must be highlighted that SEA has been applied in Brazil and its practice has evolved, even in the absence of its legal regulation. It is a welcome practice that brings contribute innovations to the decision making process (Sánchez; Silva-Sánchez, 2008).

### Conclusions

Although the draft presents clear goals for the future SEA practice in Brazil, it must advance in several points to become a document that comprises the necessary elements to effectively apply the instrument: competences/responsibilities assignment, third parties involvement, SEA's impartiality and quality control, funding, time and support indications, and guidelines for a transparent and cooperative process. Regarding the SEA steps, increase the scope of screening including important areas, report guidelines, review and monitoring. Besides, the analysis conducted in this paper was a way to integrate the science behind SEA with its political side. The results can minimize the weak points found and guide the formulation of new versions of the draft towards the consideration of forgotten aspects.

#### References

- Dalal-Clayton B, Sadler B. Strategic environmental assessment: a sourcebook and reference guide to international experience. London: Earthscan; 2005.
- Egler P C G. Perspectivas de uso no Brasil do processo de Avaliação Ambiental Estratégica. **Revista Parcerias Estratégicas** 2001;11:175-190.
- Fischer T B. Strategic environmental assessment performance criteria: the same requirement for every assessment? Journal of Environmental Assessment Policy and Management 2002;4:83-99, 2002.
- Fischer T B. The theory and practice of strategic environmental assessment: towards a more systematic approach. UK/USA: Earthscan; 2007.
- Iaia Internacional Association for Impact Assessment. Avaliação Ambiental Estratégica: Critérios de desempenho. (IAIA); 2002. http://www.iaia.org/publicdocuments/specialpublications/sp1 pt.pdf, last accessed 11 November 2011.
- Lima L H, Magrini A. The Brazilian Audit Tribunal's role in improving the federal environmental licensing process. **Environmental Impact Assessment Review** 2010;30:108-115.

- Liou M, YU Y. Development and implementation of Strategic Environmental Assessment in Taiwan. Environmental Impact Assessment Review 2004;24:337-350.
- MPF Ministério Público Federal. Deficiências em Estudos de Impacto Ambiental: síntese de uma experiência. Brasília: 4ª Câmara de Coordenação e Revisão, Escola Superior do Ministério Público da União; 2004.
- Noble B F. Auditing strategic environmental assessment practice in Canada. Journal of Environmental Assessment Policy and Management 2003;5:127-47.
- Noble B F. A state-of-practice survey of policy, plan, and program assessment in Canadian provinces. **Environmental Impact Assessment Review** 2004;24:351-361.
- Retief F A performance evaluation of strategic environmental assessment processes within the South African context. **Environmental Impact Assessment Review** 2007;27:84-100.
- Sánchez L E, Silva-Sánchez S S. Tiering strategic environmental assessment and project environmental impact assessment in highway planning in São Paulo, Brazil. Environmental Impact Assessment Review 2008;28:515-522.
- Silva F R. Avaliação Ambiental Estratégica como instrumento de Promoção do desenvolvimento sustentável. **Revista Direitos Fundamentais & Democracia** 2010;8:301-329.
- Tachard A L, Pellin A, Souza M P. **O papel do Banco Mundial na inserção da avaliação ambiental** estratégica no Brasil. In: Saneamento ambiental: compromisso ou discurso? Anais... Associação Brasileira de Engenharia Sanitária e Ambiental. Belo Horizonte, 2007.
- Teixeira I M V. O uso da Avaliação Ambiental Estratégica no planejamento da oferta de blocos para exploração e produção de petróleo e gás natural no Brasil: uma proposta. Tese (Doutorado em Ciências do Planejamento Energético) – Universidade Federal do Rio de Janeiro, Rio de Janeiro, 2008.
- Therivel R. Strategic Environmental Assessment in Action. London: Earthscan; 2004.
- Xiuzhen C, Jincheng S, Jinhu W. Strategic Environmental Assessment and its development in China. Environmental Impact Assessment Review 2002;22:101-109.
- Zhu D, Ru J. Strategic environmental assessment in China: motivations, politics, and effectiveness. Journal of Environmental Management 2008;88:614-626.