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PHA - Escola Politécnica - USP

2º semestre 2020

PHA 3520

Avaliação Ambiental

Estratégica

Agenda da aula de hoje - aula 11

11	29/10	<p>Avaliação Ambiental Estratégica: efetividade da AAE na tomada de decisão e aplicação da AAE em PPPs.</p> <p>Objetivo: discutir a efetividade da AAE para a tomada de decisão.</p>	<p>- Seminário: cada grupo irá apresentar em ppt um artigo (até 15 slides) e duas questões referentes ao artigo.</p> <p>Grupo 13 - Malvestio, A. C., & Montaña, M. (2019). From medicine to poison: how flexible strategic environmental assessment may be? Lessons from a non-regulated SEA system. Impact Assessment and Project Appraisal, 1-15. https://www.tandfonline.com/doi/full/10.1080/14615517.2019.1574390?casa_token=ZFZ3xQThDh4AAAAA%3Ag3s2Sh7ybVv5KNKYJs8pGFJGfuCyf6AJXnlGEkaXmHiqspG0HgH5rBsa9yE3SdhGitp-fQ1ulT43nQ</p> <p>Grupo 14: Malvestio, A. C., Fischer, T. B., & Montaña, M. (2018). The consideration of environmental and social issues in transport policy, plan and programme making in Brazil: a systems analysis. Journal of cleaner production, 179, 674-689. https://www.sciencedirect.com/science/article/pii/S0959652617328251?casa_token=L1cbeX5p1rMAAAAAA:8nZocHzFHYj_4ENb5ykMoXSEv26ZXNE7xx0S1Q_69os_KpzPk1rGfPG9Pk6z8tIXGtNJc0jQpvQ</p> <p>- atividade em sala discussão dos 2 textos entre os alunos, moderada pela professora.</p>
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Objetivo da aula

- Discutir os diferentes tipos de efetividade
- Discutir efetividade da AAE brasileira (seminários)

Efetividade em avaliação de impacto

- Base para avaliação dos processos de avaliação de impacto que incluem:
 - AAE - Avaliação Ambiental Estratégica
 - AIA - Avaliação de Impacto Ambiental
 - AIS - Avaliação de Impacto Social
 - AIS - Avaliação de impacto na Saúde
- Histórico:
 - Estudo Internacional da Efetividade da Avaliação Ambiental liderado pela Agência Canadense de Avaliação Ambiental (CEAA) em colaboração com a Associação Internacional para Avaliação de Impacto (IAIA) (1993-1994)
 - "Evaluating practice to improve performance"

Mudança de foco

- Desenvolvimento de:

- Legislações



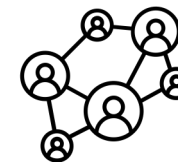
- Guias



- Metodologias



- Aumento de efetividade

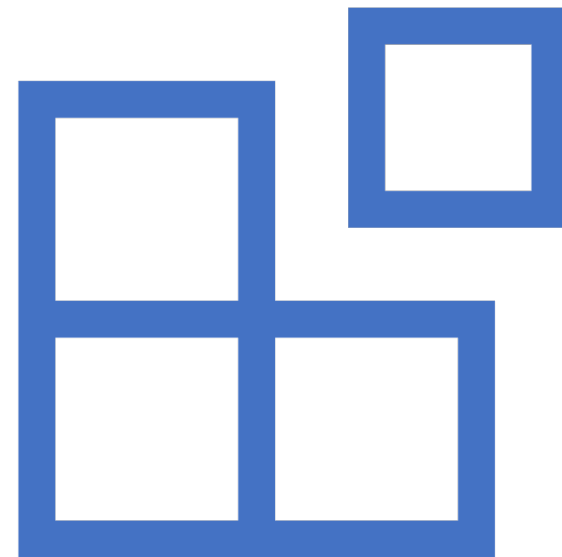


Algumas definições

- “O termo efetividade refere-se a algo que funciona como pretendido e atende ao propósito para o qual foi projetado” (Sadler, 1996)
- “No caso de AI, a avaliação geral da performance tem como referência as funções políticas e institucionais a que deve servir” (Sadler, 1996)

Qualidade ≠ Efetividade

A qualidade pode e deve fazer parte da
análise de efetividade



Definições para efetividade de AAE

- “Em função da medida em que influencia e agrega valor à tomada de decisão” (Partidário, 2000, p.647).
- O impacto da AAE é “a extensão a qual as recomendações da AAE estão em linha com os valores e interesses dos principais tomadores de decisão” (Runhaar e Driessen, 2007, p.12).
- “A contribuição da AAE para a seleção da opção de planejamento mais sustentável e ecologicamente correta” (Van Buuren e Nooteboom, 2009, p.146).
- “Uma função de planejamento, procedimento, conteúdo, bem como transação, influenciada por questões políticas” (Theophilou et al., 2010, p.136).

Dimensões de efetividade

- Para Sadler (1996)
 - Procedimental - O processo de AI está em conformidade com as disposições e princípios estabelecidos?
 - Substantiva - O processo de AI atinge os objetivos definidos, por exemplo, suporte à tomada de decisão bem informada, e resulta em proteção ambiental?
 - Transativa - O processo de AI entrega esses resultados pelo menor custo e tempo possível, ou seja, é eficaz e eficiente?
- Para Backer e McLelland (2003)
 - Normativa - Extensão a qual a política (AI) atinge objetivos normativos, que são representados pelos seus propósitos

Por que avaliar?

- “Os estudos voltados para a análise de efetividade de AIA contribuem para que os resultados obtidos sejam continuamente verificados, proporcionando oportunidades de aprendizagem para os envolvidos no processo e fomentando o aprimoramento contínuo no uso do instrumento” (Almeida e Montaña, 2017).



Avaliação cíclica

- Adiciona pluralismo, conhecimento e aprendizagem ao processo de avaliação comparativa (contínua) da sustentabilidade ambiental

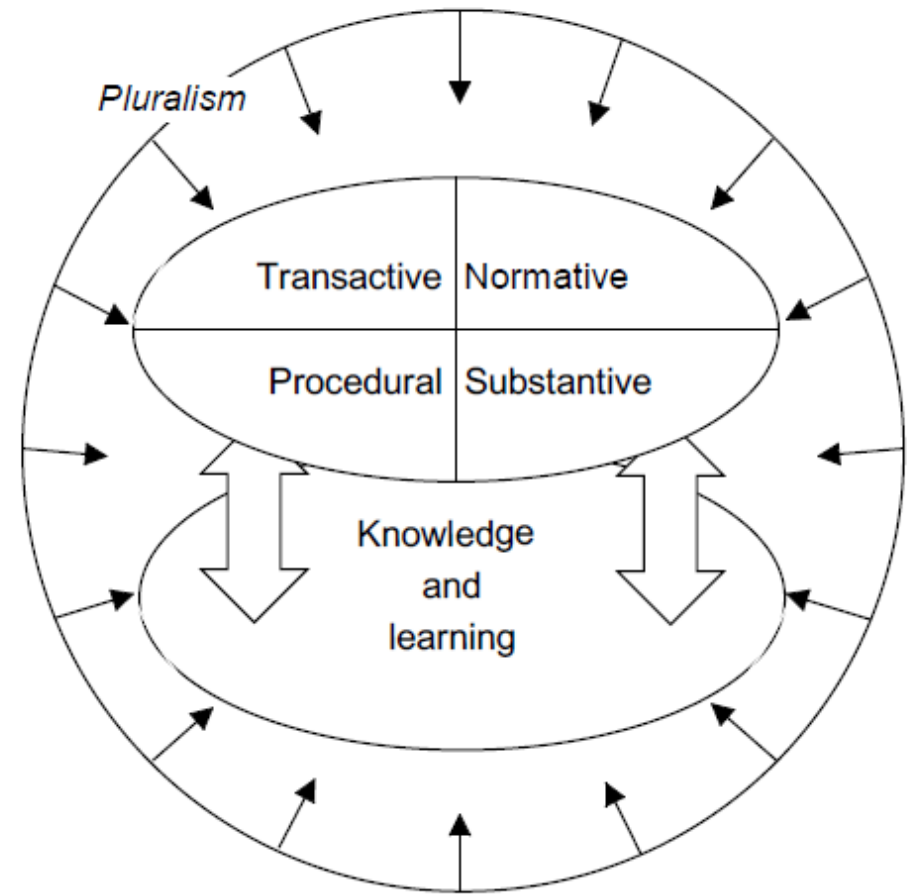


Figure 8.1 Typology of effectiveness

Fonte: Bond et al. (2013)

Efetividade do ponto de vista da sustentabilidade

Table 8.4 Framework for comparison of sustainability assessment processes

Framework Criterion	Question asked
Procedural effectiveness	<i>Have appropriate processes been followed that reflect institutional and professional standards and procedures?</i>
Substantive effectiveness	<i>In what ways, and to what extent does sustainability assessment lead to changes in process, actions, or outcomes?</i>
Transactive effectiveness	<i>To what extent, and by whom is the outcome of conducting sustainability assessment considered to be worth the time and cost involved?</i>
Normative effectiveness	<i>In what ways, and to what extent does the sustainability assessment satisfy the following imperatives³:</i> <ul style="list-style-type: none">• <i>reverse prevailing (unsustainable) trends?</i>• <i>integrate all the key intertwined factors affecting sustainability?</i>• <i>seek mutually reinforcing gains</i>• <i>minimise trade-offs?</i>• <i>respect contexts in which sustainability assessment takes place?</i>• <i>is open and broadly engaging?</i>
Pluralism	<i>How, and to what extent are affected and concerned parties accommodated into and satisfied by the sustainability assessment process?</i>
Knowledge and learning	<i>How, and to what extent does the sustainability assessment process facilitate instrumental and conceptual learning?</i>

Fonte: Bond et al. (2013)

Como avaliar?

- A efetividade é difícil de medir por causa dos diversos e divergentes pontos de referência contra os quais pode ser avaliada (Bond et al, 2013).
- Algumas formas de avaliar:
 - Lista de boas práticas com critérios mínimos a serem preenchidos
 - Pesquisa documental
 - Análise de processo
 - Revisão bibliográfica
 - Conferência das bases legais
 - Entrevistas e análise da percepção dos atores dos processos
 - Desenvolvimento de indicadores

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A Method for Evaluating Environmental Assessment Systems

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- (1) Realizar uma revisão da literatura e identificar boas práticas de AI;
- (2) Validar as boas práticas por meio de uma pesquisa com especialistas em AI e revisar conforme necessário;
- (3) Descrever os principais recursos do sistema de AI a serem avaliados;
- (4) Usar as boas práticas para avaliar o sistema de AI por meio de uma revisão da documentação relevante e uma pesquisa de especialistas e partes interessadas envolvidas no sistema de AI; e
- (5) Recomendar mudanças para corrigir as deficiências.

Table 1 – Criteria for evaluating current appraisal systems for biomass crops.

Criteria (effectiveness category)	Description	Source
1. Legal basis (procedural)	Clear legal mandate for conducting environmental assessment at strategic and project levels	[28, 30, 31]
2. Guidance (procedural)	Does guidance exist which sets out how to conduct appraisal of biomass crop planting?	[28, 30]
3. Level of assessment (procedural)	Is the level/scale of assessment appropriate for the biomass crop planting?	[28, 32]
4. Sustainable Development (normative)	Is the concept of sustainable development integral to the assessment process(es)?	[30, 32, 33]
5. Socio-ecological system integrity (normative)	Does the assessment consider the integrity of the socio-biophysical system?	[34]
6. Consultation and public participation (substantive)	Does consultation and public participation take place within the assessment system leading to action?	[28, 30-33]
7. Intergenerational equity (normative)	Does the assessment consider future generations and act in their interests?	[34]
8. Decision-making (substantive)	Does the assessment have any discernible effect on the decisions taken?	[28, 30, 31]
9. Timeliness (transactive)	Information is available in a timely manner (so assessment is <i>ex ante</i> and not <i>post hoc</i>)	[27, 28, 32, 33]
10. Credibility (substantive)	Robustness and consistency of assessments (reducing bias)	[33]

Fonte: Gallardo e Bond (2011)

Table 5 – Evaluation of environmental assessment of ethanol expansion in São Paulo and energy crop expansion in England.

Criteria	São Paulo	England
Legal basis	Partially. Legal mandate for conducting assessment only at the project level.	There is no legal mandate for conducting assessment at different levels except where previously uncultivated land would be planted. Appropriate Assessment would be required under the EU Habitats Directive if planting was proposed which might affect a Natura 2000 site.
Guidance	Partially. There is formal guidance on conducting assessment at the project level. In order to tackle cumulative impacts related only to environmental aspects Agri-environmental Zoning was developed in 2008.	Guidance exists only for the case of planting on uncultivated land or for conducting an Appropriate Assessment.
Level of assessment	The level of assessment focuses only on particular projects. Agri-environmental Zoning could overcome part of this weakness for new undertakings related to their environmental aspects.	There is partial assessment at the project level in some specific cases outlined above only.
Sustainable Development	In theory the assessments should cover all issues, but in practice there is a lack of consideration of social and economic aspects (see [26]).	Appropriate Assessments and EIAs conducted for uncultivated areas would have a primarily environmental focus. Most planting would not be formally considered for sustainability implications.
Socio-ecological system integrity	Partially. Some social aspects are not well integrated with biophysical aspects in the EIS and PER. A mismatch has been identified between the predominantly environmental issues investigated by EIAs and PERs, and the full range of implications of planting identified by the literature [26].	There is no commitment to socio-economic integrity.
Consultation and public participation	Partially. In general public participation and consultation takes place in the process after the EIS is presented to the environmental department for analysis. However there is a legal guarantee that results from public hearings and Consema analysis have to be considered in the decision-making process.	Where EIA or Appropriate Assessment were undertaken, public participation would feature. However, in all other cases, there would be no consultation or public participation (other than that associated with a new power plant should one be built).
Intergenerational equity	No. Intergenerational equity is not an explicit objective of the EIA process in practice, although it may be an implicit outcome.	There is currently limited evidence of the extent to which this would be covered in EIAs for uncultivated land; the assumption for Appropriate Assessment is that the Natura 2000 site should remain in place for future generations.
Decision-making	Partially and only for project level. For some cases with regard to specific environmental aspects the assessment can contribute to improving the decision. For others the influence of the EIA process on decision-making can be very limited. No research has yet been conducted to try and measure specific influence on decisions of the EIAs.	In the absence of SEA and EIA, decision making is not normally influenced. For Appropriate Assessment, there is considerable influence on decisions and the assessments can stop development. For EIAs on uncultivated land, research from the spatial planning sector suggests influence would exist but would be limited [75].
Timeliness	Partially. In the majority of cases the information is available after the EIS is completed, which precedes consultation and public participation, but comes after the main project	In the absence of SEA and EIA, the assessment is not timely. Appropriate Assessment, if needed, would be timely. EIA of

Table 5 – Evaluation of environmental assessment of ethanol expansion in São Paulo and energy crop expansion in England.

Criteria	São Paulo	England
1. Legal basis	Partially. Legal mandate for conducting assessment only at the project level.	There is no legal mandate for conducting assessment at different levels except where previously uncultivated land would be planted. Appropriate Assessment would be required under the EU Habitats Directive if planting was proposed which might affect a Natura 2000 site.
2. Guidance	Partially. There is formal guidance on conducting assessment at the project level. In order to tackle cumulative impacts related only to environmental aspects Agri-environmental Zoning was developed in 2008.	Guidance exists only for the case of planting on uncultivated land or for conducting an Appropriate Assessment.
3. Level of assessment	The level of assessment focuses only on particular projects. Agri-environmental Zoning could overcome part of this weakness for new undertakings related to their environmental aspects.	There is partial assessment at the project level in some specific cases outlined above only.
4. Sustainable Development	In theory the assessments should cover all issues, but in practice there is a lack of consideration of social and economic aspects (see [26]).	Appropriate Assessments and EIAs conducted for uncultivated areas would have a primarily environmental focus. Most planting would not be formally considered for sustainability implications.
5. Socio-ecological system integrity	Partially. Some social aspects are not well integrated with biophysical aspects in the EIS and PER. A mismatch has been identified between the predominantly environmental issues investigated by EIAs and PERs, and the full range of implications of planting identified by the literature [26].	There is no commitment to socio-economic integrity.
6. Consultation and public participation	Partially. In general public participation and consultation takes place in the process after the EIS is presented to the environmental department for analysis. However there is a legal guarantee that results from public hearings and Conseta analysis have to be considered in the decision-making process.	Where EIA or Appropriate Assessment were undertaken, public participation would feature. However, in all other cases, there would be no consultation or public participation (other than that associated with a new power plant should one be built).
7. Intergenerational equity	No. Intergenerational equity is not an explicit objective of the EIA process in practice, although it may be an implicit outcome.	There is currently limited evidence of the extent to which this would be covered in EIAs for uncultivated land; the assumption for Appropriate Assessment is that the Natura 2000 site should remain in place for future generations.
8. Decision-making	Partially and only for project level. For some cases with regard to specific environmental aspects the assessment can contribute to improving the decision. For others the influence of the EIA process on decision-making can be very limited. No research has yet been conducted to try and measure specific influence on decisions of the EIAs.	In the absence of SEA and EIA, decision making is not normally influenced. For Appropriate Assessment, there is considerable influence on decisions and the assessments can stop development. For EIAs on uncultivated land, research from the spatial planning sector suggests influence would exist but would be limited [75].
9. Timeliness	Partially. In the majority of cases the information is available after the EIS is completed, which precedes consultation and public participation, but comes after the main project aspects have been decided.	In the absence of SEA and EIA, the assessment is not timely. Appropriate Assessment, if needed, would be timely. EIA of uncultivated land would, in practice, be expected to respond to proposals already made rather than help to influence the proposals.
10. Credibility	Partially. The EIA process is often criticized because the consultation and decision stages occur late in the decision-making process and consultation and public participation occur generally after EIS or PER are completed. The São Paulo Secretariat for the Environment provides technical expertise to analyse the EIS or PER that in theory assures independency and credibility. The EIS or PER is prepared by the proponent that pays a predefined tax.	This is not applicable where there is no assessment. For Appropriate Assessment and EIA for uncultivated land, credibility is ensured, to an extent, by the involvement of statutory consultees with an environmental remit in the assessment, such as Natural England. Irrespective of this, the proponent pays for the assessment and some bias can be introduced.



Comparative SWOT analysis of strategic environmental assessment systems in the Middle East and North Africa region

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Table 1
Performance areas with corresponding criteria, indicators and scores for comparative performance assessment.

Performance area	Criterion	Indicator	Scoring range			
Institutionalization of SEA	Legal Framework	<ul style="list-style-type: none"> Enabling legislation for SEA exists Specific SEA legislation for SEA exists SEA guidelines exist 	No legislation ← 0	Only enabling legislation 1	Enabling & SEA draft legislation 2	Enabling & SEA specific legislation → 3
	Administrative Framework	Competent Authority(ies) specified for : <ul style="list-style-type: none"> SEA Overseeing SEA Preparation SEA Review 	No competent authority (CA) ← 0	CA same as EIA 1	CA specified in legislation 2	Party to prepare SEA & CA specified → 3
SEA implementation process and application	SEA type and application Level	<ul style="list-style-type: none"> SEA is applied to plans and/or programs and/or policies SEA conducted is sectoral and/or programmatic and/or cumulative and/or regional 				
	Procedural Framework	<ul style="list-style-type: none"> Steps included in the SEA process: screening; scoping; impacts; alternatives; impact mitigation; public participation Review process procedures exist 	No specified procedures ← 0	Procedures specified or undertaken but incomplete 1	Procedures specified & complete but no details of review process 2	Procedures specified & complete with specified review process → 3
SEA Influence on decision making	SEA mainstreaming	<ul style="list-style-type: none"> Number of SEAs undertaken 	No SEAs undertaken ← 0	On-going/ planned SEA studies 1	1 – 2 SEA studies or pilot studies 2	More than 2 SEA studies → 3
		<ul style="list-style-type: none"> Political will for SEA implementation 	No political will ← 0 Political will → 3			
	SEA impact	<ul style="list-style-type: none"> SEA results are adopted in decision making process 	SEA not related to decision making ← 0	SEA included in decision making but no impact 1	SEA induced changes in decision making to an extent 2	SEA results influence decision making → 3

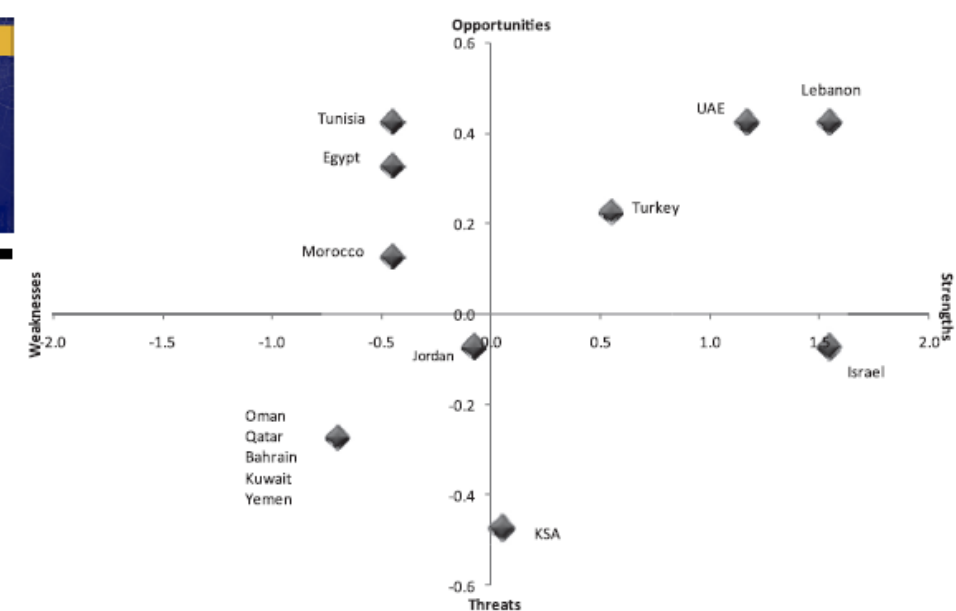


Fig. 2. SWOT matrix of MENA countries' performance towards mainstreaming SEA systems.

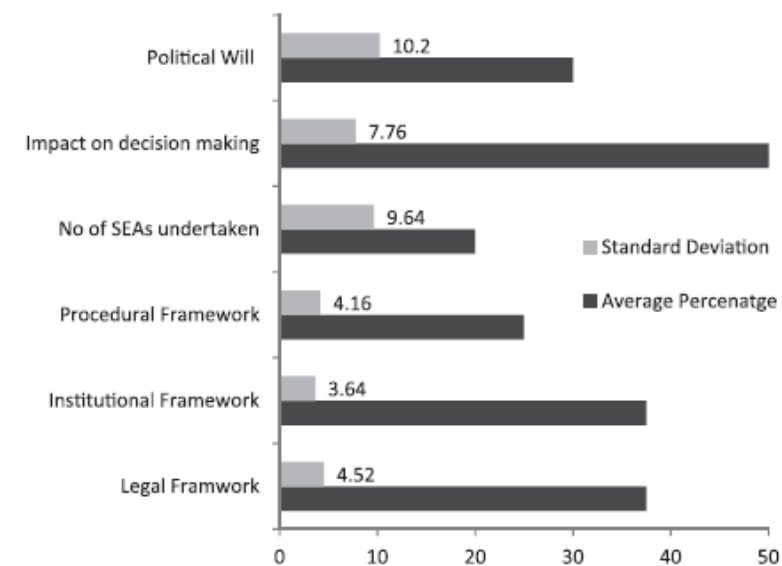


Fig. 1. Average importance and standard deviation of internal and external factors as weighed by respondents.

Energy related Strategic Environmental Assessment applied by Multilateral Development Agencies – An analysis based on good practice criteria

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The effectiveness of environmental assessment in Flanders: An analysis of practitioner perspectives

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^e Tractebel Sustainable Urban Development, Van Immerseelsstraat 66, 2018 Antwerp, Belgium

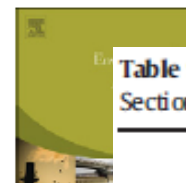
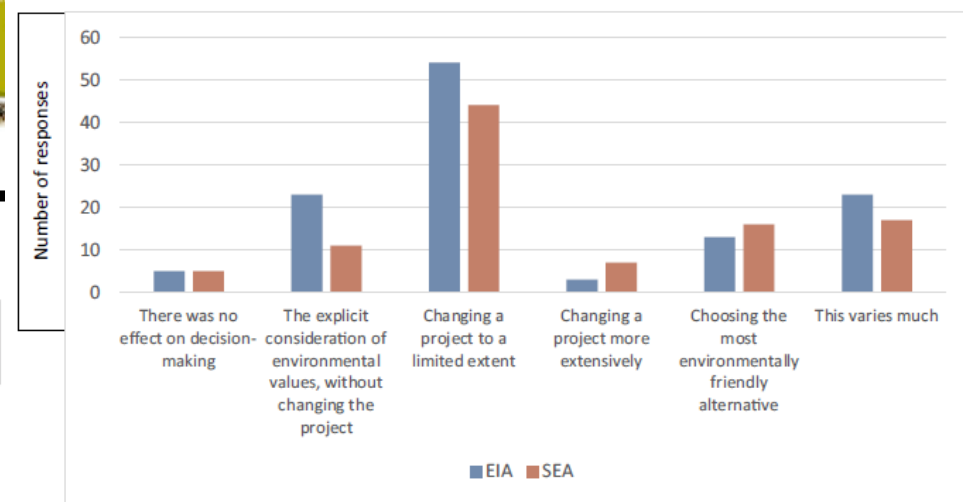
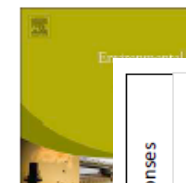


Table 9

Sections and overall scores.

	Manantali	Kribi	Power Development	Kabeli "A"	Nam Theun 2	Rampur
SEA objectives	E	D	D	D	E	D
Scoping	D	E	F	E	E	D
Baseline	E	A	G	B	G	B
Links to other PPPs	C	A	E	D	A	D
Alternatives	C	E	F	F	F	G
Impact analysis	B	F	G	D	C	A
Mitigation and monitoring	A	E	F	G	G	D
Consultation	E	B	F	D	F	E
Communication	B	B	C	B	A	A
Overall grade	C	D	F	E	F	D



Tractebel and KENTER, 2018: 32.

Ex post effects of EA

Fig. 3. Perceived ex post effectiveness of EA (n = 103 for EIA and 125 for SEA). (Tractebel and KENTER, 2018: 32.)

Efetividade no Brasil

- Alguns exemplos

- Gallardo e Bond (2011)
 - Efetividade dos sistemas de avaliação de impacto ambiental da bioenergia da biomassa de São Paulo e da Inglaterra
- Almeida e Montaña (2017)
 - Efetividade dos sistemas de avaliação de impacto ambiental nos estados de São Paulo e Minas Gerais
- Veronez (2018)
 - Efetividade da avaliação de impacto ambiental de projetos no estado do Espírito Santo

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Efetividade da AAE



- Dúvidas?
- Vamos aos seminários!

Vamos discutir a efetividade da AAE? Apresentação dos seminários

Grupo 13 - Malvestio, A. C., & Montaña, M. (2019). From medicine to poison: how flexible strategic environmental assessment may be? Lessons from a non-regulated SEA system. Impact Assessment and Project Appraisal, 1-15.
https://www.tandfonline.com/doi/full/10.1080/14615517.2019.1574390?casa_token=ZFZ3xQThDh4AAAAA%3Ag3s2Sh7ybVv5KNKYJs8pGFJGfuCyf6AJXnlGEkaXmHiqspG0HgH5rBsa9yE3SdhGitp-fQ1ulT43nQ

Grupo 14 - Malvestio, A. C., Fischer, T. B., & Montaña, M. (2018). The consideration of environmental and social issues in transport policy, plan and programme making in Brazil: a systems analysis. Journal of cleaner production, 179, 674-689.
https://www.sciencedirect.com/science/article/pii/S0959652617328251?casa_token=L1cbeX5p1rMAAAAAA:8nZocHzFHYj_4ENb5ykMoXSEv26ZXNE7xx0S1Q_69os_KpzPk1rGfPG9Pk6z8tIXGtNJc0jQpvQ