TOPIC GUIDE:

Strategic Environmental Assessment in Practice: Capturing Lessons Learned over the Past 10 Years

Gil Yaron and Peter Nelson

March 2014

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DOI: http://dx.doi.org/10.12774/eod_tg.sea.march2014.yaronnelson

First published March 2014

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Report summary

Strategic Environmental Assessment (SEA) is a **process** rather than a specific tool and should be regarded as:

"… a framework to assess the environmental, and often social, implications of development policies, plans and programmes. It is increasingly recognised that SEA is a process which helps to make policies, plans and programmes more sustainable." (OECD, 2012)

This report provides a synthesis of findings from eight international studies of SEAs, primarily written over the past decade. These studies are themselves based on reviews of a large number of SEAs (well over 100). Typically, they are literature reviews, although OECD (ibid), World Bank et al (2010), Penrose and Risse (2010) and SEPA (2011) incorporate stakeholder views on SEAs with enough elapsed time to assess the impacts in broad terms. This has allowed a limited discussion of cost effectiveness, although no rigorous assessment of *ex post* impact has been undertaken. In addition, a small number of Strategic Environmental Assessment Terms of Reference (SEA ToR) and related SEA reports, as well as other SEA reports and synthesis studies, were provided by DFID and development partners working with the OECD-DAC task team on SEA. These were analysed to assess the extent to which SEA reports were responding to those ToR and whether issues of particular concern to DFID reviewers were being addressed (summarised in Annex 1). In response to our request to the OECD-DAC task team, follow-up interviews were undertaken with three specialists involved in commissioning SEA studies to discuss the findings.

Based on the literature, we have constructed an outline Theory of Change for SEA and have used this conceptual framework to broadly structure key findings. In summary these are as follows:

The context is critical
Hirji and Davis (2009) capture a general theme that runs through the literature when they highlight the importance of understanding contextual factors as the 'drivers' that either enable or constrain SEA to influence outcomes. The critical role of contextual factors (influencing environment) is relevant for many development interventions, not simply SEA. For example, when undertaking a survey of mainstreaming tools, Dalal-Clayton and Bass (2009) found that: "The main lesson from the country survey work was that respondents were more exercised on issues of context – the mainstream drivers of change, the constraints to influencing them and the associated political and institutional challenges – than the technical pros and cons of individual tools". It follows that the team commissioning and implementing a SEA needs to design the SEA and policy-influencing process based on a good understanding of the political and institutional context.

Technical and institutional capacity is important at various levels, but fewer and more focused SEAs would make better use of available capacity
This applies to those commissioning, implementing and acting on the SEA. Even where public sector capacity was high, SEPA (2011) found that fewer SEAs, focused on the most significant issues, would make better use of it. Where capacity to use SEA findings is limited, SEAs should be tailored to reflect this constraint, otherwise conventional single-issue SEAs risk failure (OECD, 2012). For large-scale donor-funded SEAs, teams need a sufficient range and depth of capacity and need to use appropriate tools, particularly where the spatial scale of the SEA is large (Hirji & Davis, 2009). As developing countries increasingly take on responsibilities for undertaking SEAs, e.g. regional planning in Vietnam, there will be an

increasing need for light, carefully focused and affordable SEAs (GIZ, 2011; Olearius & Nikov, 2013).

Ownership and incentives for change are vital
Sufficient incentive and momentum for change is required for SEA findings to produce changes in policies, plans and programmes (PPPs). The reviews illustrate that, in some cases, there is sufficient 'supply-side' pressure from sections of government to drive this, but often benefits have to be sold and 'demand-side' pressure from civil society and development partners can help to build a necessary constituency for change. Maintaining this pressure over a number of years is often necessary and requires local ownership. Support from the Ministry of Environment alone may not be sufficient. and engagement from the Ministry of Finance or Prime Minister's/President's Office is often required. In some instances, entrenched interests will make it impossible to implement SEA recommendations.

SEAs should, therefore, develop theories of change early on that recognise the role of incentives for change. This makes it easier to evaluate whether critical assumptions or programme results for SEA success are actually in place.

Longer-run support with additional inputs is often required
Moving from outputs to outcomes, let alone to impact, typically requires support from parts of government, local institutions or development partners beyond those involved in the SEA. Sustained and coordinated support from development partners is frequently required. Consequently, the impact of PPP change following a SEA is likely to reflect support from various sources over an extended period of time; impact evaluation needs to take this into account.

SEAs should be 'plan shapers' not 'fine tuners'
While this wording is taken from SEPA (2011), other sources make similar points about the need for SEAs to follow a good process to secure significant influence. Two issues highlighted are, firstly, the need for SEAs to be undertaken early in the policy cycle and, secondly, to engage partner governments early on.

The SEA process itself can create valuable coalitions
It is important to recognise that a good process for bringing stakeholders together is valuable for sustainable development and not simply SEA, and that SEAs only sometimes succeed in doing this. Nonetheless, SEAs, when done well, are good at bringing together groups that should, but often do not, talk to each other – as OECD (2012) put this, "…bringing together ministries within governments, but also marginalised sections of society and civil society groups." Additionally, the SEA process can strengthen existing institutional relationships – World Bank et al (2010) found that pilot policy SEAs opened up participation in sector reform dialogue to weakly organised stakeholders.

Good practice design improves outcomes, but must reflect local conditions
Reviews of a large number of case study SEAs, including some qualitative *ex post* evaluation, suggest that investing in good design makes a difference to outcomes. The discussion above has captured this, for example, in terms of building ownership, improving incentives for uptake more generally, focusing on major issues, and coordinating SEA timing with the policy cycle. However, the reviews also stress the importance of avoiding overly rigid process requirements and tailoring SEAs to local capacity, although this is articulated most strongly in OECD (2012). Penrose and Risse (2010) highlight the need for SEA ToR to require prioritised, costed recommendations and set out who will deliver them and when. Focusing on the major issues *and* providing affordable, cost-effective recommendations would make SEAs more useful.

SEAs can be cost-effective, but, in general, the evidence is weak

Little systematic cost-effectiveness analysis and no cost-benefit analysis are available. The approach taken by EC (1997) and Hirji and Davis (2009) is to compare the magnitude of SEA costs with the cost of the intervention that had led to the SEA. Hirji and Davis, for example, identify the 'most effective' SEAs that cost less than US$100,000, but had a high level of influence on much larger PPP spending (ibid). This is a useful way of helping to identify SEAs that are likely to secure a good deal of influence for a given spend as part of an investigation of good practice. However, it does *not* tell us whether this impact was actually realised and, if it was, through which channels. The SEPA (2011) review identifies SEA practices that have and some that have not produced PPPs that address the adverse environmental impacts identified by the SEA. Cost-effective SEAs are plan shapers, not fine tuners. This study looks further along the path towards impact and, given that SEAs in Scotland have similar contextual issues, provides useful evidence on when SEAs are likely to be cost effective. However, even here, we lack evidence on *how* cost effective these SEAs are.

More generally, the assessment of a 'good' SEA is limited by a failure to systematically identify the pathway from SEA design through to impact, and to rigorously evaluate the changes that have come about as a result. In order to address this, we recommend that every SEA develops a Theory of Change and a counterfactual scenario (what would happen without implementation of the SEA).

SECTION 1

What do we mean by Strategic Environmental Assessment (SEA)?

In 2004-2005 the OECD-DAC SEA Task Team spent many hours debating what constitutes Strategic Environmental Assessment (SEA). It proved impossible to come up with a single all-embracing definition but it was agreed that SEA is a **process** rather than a specific tool. In keeping with this approach, OECD (2012) defines SEA as:

"… a framework to assess the environmental, and often social, implications of development policies, plans and programmes. It is increasingly recognised that SEA is a process which helps to make policies, plans and programmes more sustainable."

Other SEA literature referenced in this report[1] is consistent with this broad definition, but it is possible to characterise SEAs in various ways – the most obvious being:

1. Level of decision taking (policy, plan and programme – PPP);
2. Sector of focus (e.g. energy, water, etc.);
3. Coverage of social and economic, as well as environmental, issues (as we move from traditional SEA through to Policy SEA);
4. SEA tools used for analysis and stakeholder engagement.

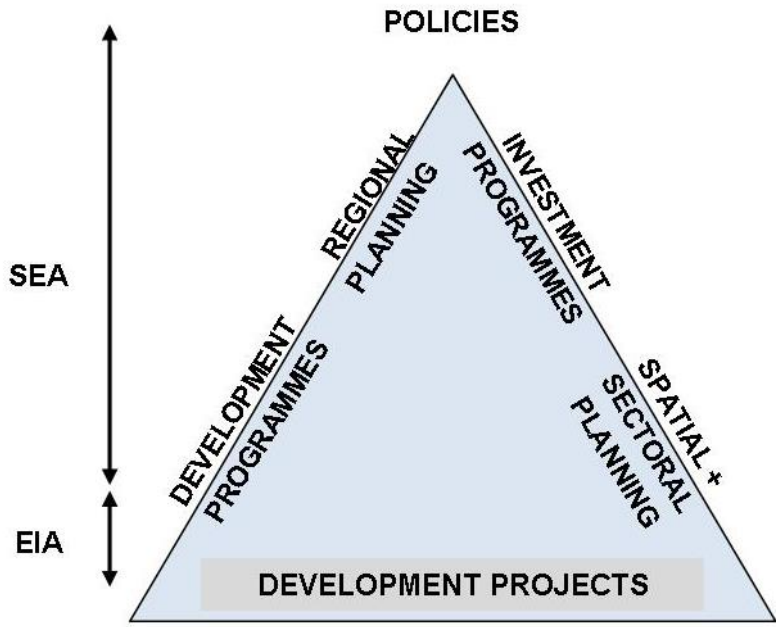
Logically, it is possible to combine a number (or even all) of the four categories above. In theory, using more categories allows us to be more precise when reviewing evidence on SEA. This matters if lessons from one type of SEA are very specific and do not carry over. However, using more categories requires significantly more evidence. For example, if there were three dimensions within each category above, 81 case studies would be needed simply to provide one example for each category and associated dimension. For this reason, reviews of SEAs have typically used much higher levels of aggregation – looking across different sectors and PPP levels.

SEA reviews have traditionally defined the boundary for SEA in terms of the switch to the use of environmental impact assessment (EIA) for projects that fall below the PPP level.[2] This is illustrated by Partidário (2003) in her guidance for the International Association for Impact Assessment (IAIA), and by Kjörven and Lindhjem (2002) (see **Figure 1**).

More recently, SEA approaches have influenced audit tools for Climate Funds,[3] and tools for integrating climate change considerations within institutional programmes.[4] While there are certainly useful lessons to be drawn from studies, they are not considered as SEAs for the purpose of this review. In the case of audit tools, this is because the process and contextual issues we identify as critical for SEAs do not usually apply. As for mainstreaming climate change, this can be seen as an example of a broader mainstreaming literature rather than a type of SEA. While mainstreaming and SEA share many lessons on process and context, there are also specific institutional and policy issues involved. Readers interested in

1 See Table 1
2 For example, Kjörven & Lindhjem (2002); EC (1997).
3 Horberry & Whittle (2008); CTF (2010)
4 SPC & GTZ (2010); Nelson (2013).

environmental and climate change adaptation mainstreaming are directed to comprehensive reviews by Dalal-Clayton and Bass (2009) and SPC and GTZ (2010).



(Source: Adapted from *Partidário, 2003*)

Figure 1. SEA typologies

Level of government	Land-use plans (SEA)	Sectoral and multisectoral action			
		Policies (SEA)	Plans (SEA)	Programmes (SEA)	Projects (EIA)
International	Transboundary agreement on resource management	Multi country policy framework		Multi-country investment programme	Transboundary projects
National / Federal	National Land-use plan	National Sector (e.g. transport) policy	Long-term sector (e.g. national roads) plan	5 year sector (e.g. road building) programme	Construction project (e.g. motorway section)
		National economic policy			
Regional / State	Regional Land-use plan		Regional strategic plan		
Subregional	Subregional Land-use plan			Subregional Investment Programme	
Local	Local Land-use plan				Local infrastructure project

(Source: Adapted from *Kjörven & Lindhjem, 2002*)

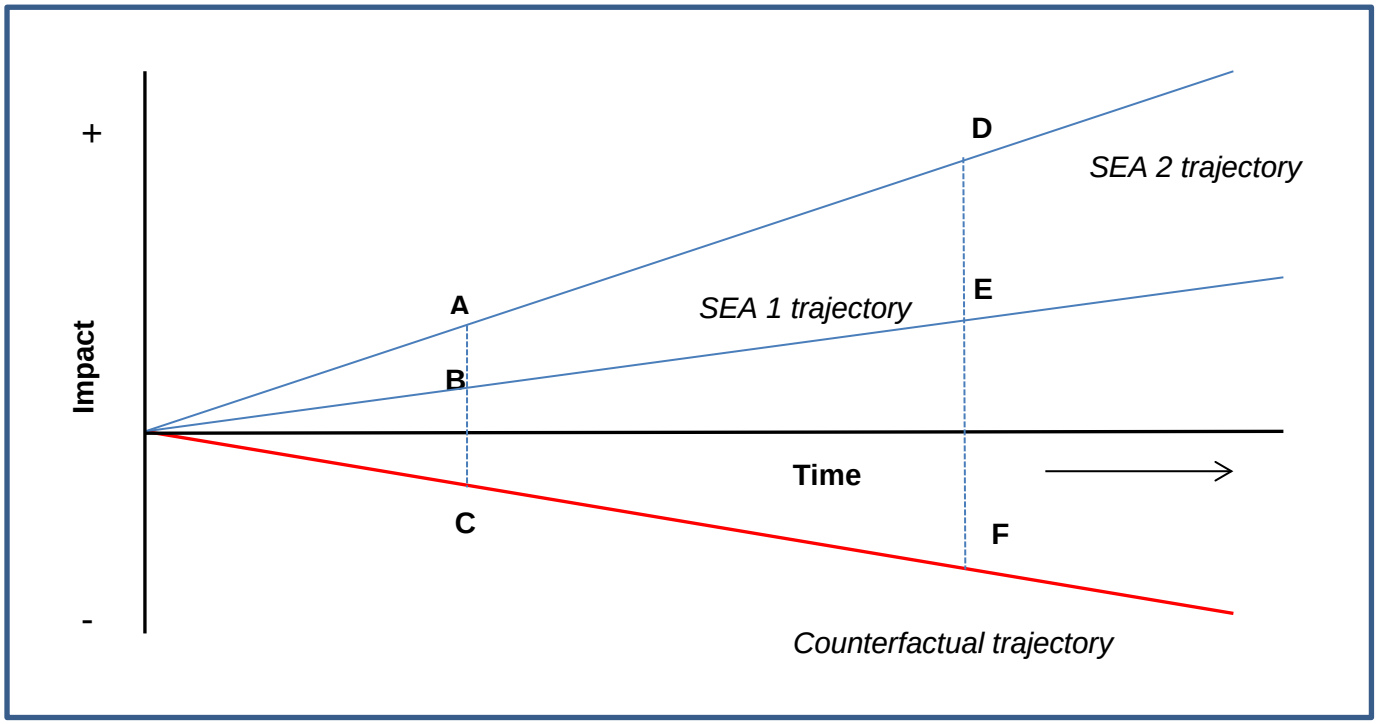
SECTION 2

So what does 'good' SEA mean?

Before we move on to look at the evidence on SEA in practice, we briefly need to consider what 'good' SEA means. Various success criteria are used in the literature but we have not seen this rigorously defined in a way that allows comparison across studies.

Theoretically, any SEA intervention should lead to an outcome that improves *policies, plans and programmes* (PPP) relative to the counterfactual scenario, i.e. how things would be without the SEA. However, documenting the change that results depends on a number of factors illustrated (see Figure 2).

Figure 2 Challenges in identifying SEA impact



It should be immediately apparent that it makes a difference *when* we evaluate the impact of a SEA. In the Figure above, an assessment after the SEA results are presented might identify the difference **A-C** whereas *ex post* evaluation several years later might identify the difference **D-F**.

In order to understand how a SEA contributes to changing PPP in a complex environment in which many other influences are at work, evaluators will need to look at the logical process through which the SEA aims to deliver impact over time. DFID, of course, has the logical framework to provide a snapshot of this process and supports the use of Theory of Change (ToC) for impact evaluation.[5] ToC allows the assumptions and processes through which the

[5] See Vogel (2012).

SEA proposes to change PPP to be tested. As a starting point, we suggest an outline ToC, based on a meta-analysis of the SEA reviews in Table 1 below.

It is important to stress that **every SEA should develop its own ToC**. However, the conceptual framework in Figure 3 attempts to synthesise the approaches to SEA in the review literature and should, therefore, be useful in discussing the findings. Most importantly, it illustrates the type of issues that need to be considered in a SEA ToC and the critical role of the 'influencing environment' in moving from output to outcome and impact.

If every SEA produced a Theory of Change early on with planned outputs, intended outcomes and how these would feed into broader impact – along with the critical assumptions and contextual issues – it would be much easier both to evaluate SEAs and to compare evaluation results.

A second point to note on comparing the effect of SEAs at different times (and stages along their ToC) is that the ultimate impact is very likely to depend on decision makers, organisations and institutions beyond the control of those commissioning the SEA. The 'influencing environment' is very important. One implication is that SEA design should take account of this complexity; we discuss the role of context in the next section of the report. Another implication is that, when it comes to identifying the outcomes and impact of a SEA, we need to distinguish the role of the SEA in the bigger picture. This is where the technique of *contribution analysis* is potentially very useful.[6] This tends to make use of the ToC to identify where factors other than the intervention are needed to achieve impact, for example, additional development partner support or mobilising the Ministry of Finance as a champion.

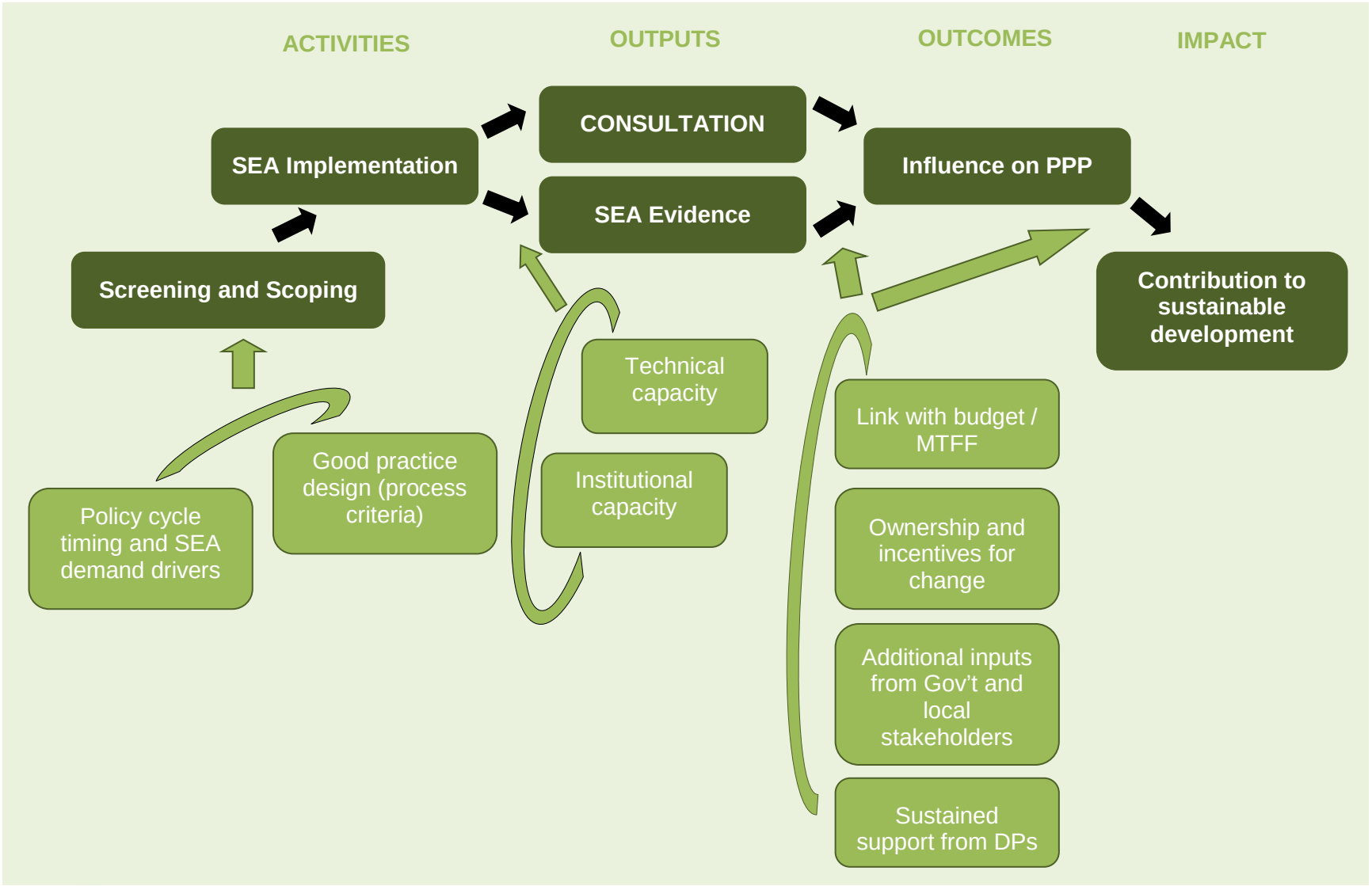
There is a related conceptual issue at stake, as the end result of a SEA is sometimes seen as producing evidence for stakeholders and decision makers, whereas other practitioners will define policy or programme change as the objective. This has broad implications for development aid, but in terms of evaluation itself it is essential to compare 'apples with apples' rather than 'apples with pears'. Many SEA reviews are based on published SEAs, rely primarily on literature reviews and are, therefore, focused on the relatively early stage of producing evidence, as well as the SEA process (discussed further below). However, evidence on outcomes and impact is best served by reviews that also consider subsequent uptake of findings. As we shall see, the evidence supports taking a longer time horizon and looking for interventions that secure policy or programme change.

A third issue that we need to take into account when evaluating SEA impact is the kind of evidence available:

Quantitative economic evidence used in cost-benefit or cost-effectiveness analyses provides a powerful method of comparing the cost of an intervention with outcomes expressed in monetary terms. This does not imply that 'weak sustainability' is the correct approach or that we even have the tools to quantify the necessary ecosystem services. However, if we do not use monetary values we still need to rigorously compare the costs of a SEA with expected and achieved benefits. This has generally not been done by SEAs and makes impact evaluation more difficult.

[6] See Eirich & Morrison (2009). Other theory-based approaches to evaluation can also be used.

Figure 3 An outline SEA Theory of Change



The fourth issue illustrated by Figure 2 is the role of the counterfactual scenario, i.e. what happens if the SEA is not undertaken and there is no consequent change in policy or programme. There will always be some uncertainty around this, but the SEA itself should provide the counterfactual scenario as one of the alternatives to the proposed PPP change. The difference that a SEA makes depends on identifying the result of 'business as usual', as well as the changes from adopting SEA recommendations. This difference will be specific to each SEA, but if more rigorous SEA impact-evaluation techniques are piloted across sectors it would be possible to produce guidance that is broadly applicable.

Specifying the counterfactual scenario for SEA is, typically, significantly more difficult than that for Poverty and Social Impact Assessment (PSIA) (World Bank, 2003), for example, where the current winners and losers from subsidised energy supply can typically be identified using household survey data and focus groups. It is quite possible that a SEA will need to present scenarios of the implications of business as usual to stakeholders (as part of the ToC exercise) to establish a counterfactual scenario, or most likely multiple scenarios. The counterfactual impact includes environmental, social and economic dimensions, and these need to be captured systematically and rigorously if we are to distinguish, for example, A-C from B-C in Figure 2. Tomonori (2013) also highlights that the timescale to capture the impact of the SEA on an entire sector, such as transport, may be many decades; therefore, there may be significant practical challenges in providing an *ex post* evaluation of sector-wide SEA impact.

A final point to note when trying to identify SEA impact is that the SEA *process* is a key determinant of subsequent impact. In terms of Figure 2, following good or poor SEA design and implementation practice could produce the difference between SEA 1 and SEA 2 trajectories. Although reviews of SEA practice have not articulated the issue in this way, it is almost certainly one of the reasons why so much effort has been devoted to identifying good process rather than quantifying good outcomes.[7] There is also an implicit argument that drawing on experience is a very low-cost way of avoiding expensive mistakes in future. The evidence for this is so widespread that it does not need to be justified. However, we would argue that:

- A conceptual framework for comparing similar SEAs should be used so that those synthesising evidence from one type of SEAs (e.g. in the water sector) have to explain why lessons will apply to other SEAs (e.g. in the energy sector).
- SEA practitioners should be allowed to deviate from recognised good practice if it can be shown why an alternative (potentially innovative) approach makes more sense.
- While SEA process evaluation is still valuable, the biggest gap is in impact evaluation.

[7] Other reasons include the fact that process evaluation can be done at the same time as the SEA and does not have to contend with the difficulty of quantifying impact.

SECTION 3

Evidence on SEA in practice

Sources of evidence

The major sources of evidence on which we draw are summarised in Table 1 . Each is numbered and this number is referenced as a source of evidence against each key finding from the literature below.

We have focused on reviews in the past decade; however, please note important earlier SEA reviews by EC (1997) and Kjörven and Lindhjem (2002), as these are frequently referenced in subsequent studies.

The studies referenced in Table 1 have reviewed a large number of SEAs (well over 100). These reviews are largely based on literature reviews, although OECD (2012), World Bank et al (2010), Penrose and Risse (2010), and SEPA (2011) incorporate stakeholder views on SEAs with enough elapsed time to assess impacts in broad terms. This has allowed a limited discussion of cost effectiveness; however, no rigorous assessment of *ex post* impact has been undertaken.

In addition, a small number of SEA ToR and related SEA reports, as well as other SEA reports and synthesis studies, were provided by DFID and development partners working with the OECD-DAC task team on SEA. These were analysed to assess the extent to which SEA reports were responding to those ToR and whether issues of particular concern to DFID reviewers were being addressed (summarised in Annex 1). Follow-up interviews were undertaken with three specialists involved in commissioning SEA studies (in response to our request to the OECD-DAC task team) to discuss findings. This evidence has informed the findings reported in the following section. More generally, in presenting a synthesis of the evidence from all the sources in Table 1 we broadly follow the determinants of SEA impact set out in Figure 3 above.

Source	SEA review overview	SEA areas
1. European Commission (EC) (1997)	18 case studies from Belgium, Denmark, Finland, France, Ireland, Italy, Netherlands, Portugal, Sweden, Slovenia	Sector, spatial and investment plans
2. Kjörven & Lindhjem (2002)	Synthesis of lessons from Sadler (1996), Sadler & Verheem (1996) – case studies mainly from OECD countries – and EC (1997), plus literature reviews of World Bank SEAs to 2001 and practitioner workshops	Few policy, mainly sector, spatial and investment plans plus programmes
3. Hirji & Davis (2009)	10 case studies (literature review against IAIA good-practice criteria and practitioner interviews) of SEAs in the water sector (including seven World Bank-funded projects and three non-Bank-funded cases), four national and state water policies and an in-depth pilot case study of water reform in Tanzania. Focus on understanding institutional drivers and subjective assessment of *ex post* influence	Policy and water sector
4. World Bank, University of	Evaluation (literature review, stakeholder interviews and practitioner workshop with a focus on process outcomes)	Policies, plans and 'institution-centred'

Source	SEA review overview	SEA areas
Gothenburg, Swedish EIA Centre and Netherlands Commission for Environmental Assessment (2010)	of six pilot case studies: i. Strategic Environmental Assessment of the Kenya Forests Act 2005; ii. Sierra Leone Mining Sector Reform Strategic Environmental and Social Assessment (SESA); iii. Dhaka Metropolitan Development Plan Strategic Environmental Assessment; iv. Strategic Environmental Assessment for the Hubei Road Network Plan (2002-2020); v. West Africa Minerals Sector Strategic Assessment (WAMSSA); vi. Rapid Integrated Strategic Environmental and Social Assessment (SESA) of Malawi Mineral Sector Reform	
5. SEPA (2011)	Review of SEA use in Scotland: survey of and workshops with practitioners and stakeholders, literature review of 32 case studies looking back up to 10 years	Policy, plans and programmes across a number of sectors
6. OECD (2012)	SEA case studies from Benin, Bhutan, Ghana, Honduras, Mauritius, Montenegro, Namibia, Sierra Leone and Vietnam. Literature review and monitoring of subsequent impact (based mainly on assessment by practitioners)	Mining sector to poverty reduction strategies, national and regional land use and spatial planning
7. Nelson (2013)	Review of GTZ mainstreaming processes for climate change adaptation, review of DFID private sector investment and personal reflection on transboundary and Malawi river basin case studies	Spatial plans, policies and programmes
8. Penrose & Risse (2010)	Review of eight EC aid-related SEAs: sugar sector reforms (Jamaica, Mauritius, Tanzania, Trinidad and Tobago, and Zambia); infrastructure proposals (Ghana, Mali and Guyana)	Policy, plans and programmes for two sectors
9. Research by Authors in 2013	Review of five SEA reports (Namibia), German Society for International Cooperation (GIZ) SEA country factsheets (Benin, Vietnam, Mauritania, Namibia, Morocco, and Honduras) and interviews with specialists at GIZ and Japanese International Cooperation Agency	Natural resource use in Namibia

Table 1 Major SEA reviews and primary research

Overall findings

The context is critical

Evidence sources for this conclusion (listed in Table 1) are 3, 4, 6, 7 and 8

Hirji and Davis (2009) capture a general theme that runs through the literature when they highlight the importance of understanding contextual factors as the 'drivers' that either enable or constrain a SEA to influence outcomes. The critical role of contextual factors (influencing environment) is relevant for many development interventions, not simply SEA. For example, when undertaking a survey of mainstreaming tools, Dalal-Clayton and Bass (2009, p10, cited in Hirji & Davis, 2009) found that: "The main lesson from the country survey

work was that respondents were more exercised on issues of context – the mainstream drivers of change, the constraints to influencing them, and the associated political and institutional challenges – than the technical pros and cons of individual tools".

It follows that the team commissioning and implementing a SEA needs to design the SEA and policy-influencing process based on a good understanding of the political and institutional context.

Technical and institutional capacity is important at various levels, but fewer and more focused SEAs would make better use of available capacity

Evidence sources for this conclusion (listed in Table 1) are 3, 5, 6 and 9

This applies to those commissioning (e.g. writing ToR), implementing and acting on the SEA. Even where public sector capacity was high, SEPA (2011) found that fewer SEAs, focused on the most significant issues, would make better use of it. Where capacity to use SEA findings is limited, SEAs should be tailored to reflect this constraint, otherwise conventional single-issue SEAs risk failure (OECD, 2012). For large-scale donor-funded SEAs, teams need a sufficient range and depth of capacity,[8] and need to use appropriate tools, particularly where the spatial scale of the SEA is large (Hirji & Davis, 2009). As developing countries increasingly take on responsibilities for undertaking SEAs, e.g. regional planning in Vietnam, there will be an increasing need for light, carefully focused and affordable SEAs (GIZ, 2011).

Ownership and incentives for change are vital

Evidence sources for this conclusion (listed in Table 1) are 3, 4, 5, 6, 8 and 9

Sufficient incentive and momentum for change are required for SEA findings to produce changes in PPPs. The reviews illustrate that, in some cases, there is sufficient 'supply-side' pressure from sections of government to drive this, but often benefits have to be sold and 'demand-side' pressure from civil society and development partners can help to build a necessary constituency for change. Maintaining this pressure over a number of years is often necessary and requires local ownership. Support from the Ministry of Environment alone may not be sufficient, and engagement from the Ministry of Finance or Prime Minister's/President's Office is often required. In some instances, entrenched interests will make it impossible to implement SEA recommendations.

SEAs should therefore develop theories of change early on that reflect the importance of producing sufficient incentives for change.

Longer-run support with additional inputs is often required

Evidence sources for this conclusion (listed in Table 1) are 3, 4, 6 and 9

Moving from outputs to outcomes, let alone impact, typically requires support from parts of government, local institutions or development partners beyond those involved in the SEA. Sustained and coordinated support from development partners is often required. Consequently, the impact of PPP change following a SEA is likely to reflect support from various sources over an extended period of time; impact evaluation needs to take this into account.

[8] NCEA (2014) provides an interesting model for systematically assessing SEA capacity based on six functions that are required for a SEA to be effective.

SEAs should be 'plan shapers' not 'fine tuners'

Evidence sources for this conclusion (listed in Table 1) are 3, 5, 6 and 7

While this wording is taken from SEPA (2011), the other sources make similar points about the need for SEAs to follow good process to secure significant influence. Two issues that are highlighted are, firstly, the need for SEAs to be undertaken early in the policy cycle; secondly, the need for SEAs to engage partner governments early on.

The SEA process itself can create valuable coalitions

Evidence sources for this conclusion (listed in Table 1) are 3, 4, 6, 8 and 9

It is important to recognise that a good process for bringing stakeholders together is valuable for sustainable development and not simply a SEA, and that SEAs only sometimes succeed in doing this. Nonetheless, SEAs, when done well, are good at bringing together groups that should, but often do not, talk to each other – as OECD (2012) states: "…bringing together ministries within governments, but also marginalised sections of society and civil society groups". Second, the SEA process can strengthen existing institutional relationships – World Bank et al (2010) found that pilot policy SEAs opened up participation in sector reform dialogue to weakly organised stakeholders.

Good practice design improves outcomes, but must reflect local conditions

Evidence sources for this conclusion (listed in Table 1) are 3, 5, 6 and 8

Reviews of a large number of case study SEAs, including some qualitative *ex post* evaluation, suggests that investing in good design makes a difference to outcomes. The discussion above has captured this, for example, in terms of building ownership, improving incentives for uptake more generally, focusing on major issues, and coordinating SEA timing with the policy cycle. However, the reviews also stress the importance of avoiding overly rigid process requirements and tailoring SEAs to local capacity, although this is articulated most strongly in OECD (2012). Penrose and Risse (2010) highlight the need for SEA ToR to require prioritised, costed recommendations, and set out who will deliver them and when. Focusing on the major issues *and* providing affordable, cost-effective recommendations would make SEAs more useful.

SEAs can be cost-effective, but, in general, the evidence is weak

Evidence sources for this conclusion (listed in Table 1) are 1, 3, 5 and 9

This is an area where the evidence is weak. Little systematic cost-effectiveness and no cost-benefit analysis are available. The approach taken by EC (1997) and Hirji and Davis (2009) is to compare the magnitude of SEA costs with the cost of the intervention that had led to the SEA. Hirji and Davis, for example, identify the 'most effective' SEAs that cost less than US$100,000, but had a high level of influence on much larger PPP spending (ibid). This is a useful way of helping to identify SEAs that are likely to secure a good deal of influence for a given spend as part of an investigation of good practice. However, it does *not* tell us whether this impact was actually realised and through which channels. The SEPA (2011) review identifies SEA practice that has, or has not, produced PPPs that address the adverse environmental impacts identified by the SEA. They find cost-effective SEAs are plan shapers not fine tuners. This study looks further along the path towards impact and, given that SEAs in Scotland have similar contextual issues, provides useful evidence on when SEAs are likely to be cost effective. However, even here, we lack evidence on *how* cost-effective these SEAs are.

Summaries from SEA reviews

In this section we present a summary of each of the SEA reviews noted in Table 1 and used to derive the overall findings in the section above.

SEA in Ghana, the policy context, and development partners

The mainstreaming of SEA in Ghana primarily illustrates contextual factors. Nelson (2013) notes that SEA is both now legally required and widely used in Ghana; there are examples of local authorities budgeting to implement SEA findings in Medium-term Municipal Development Plans (MTDP) (see Box 1).

So how did this happen when observers, such as the World Bank (2006, p1), recognised that entrenched interests were far stronger than the domestic environment lobby? This led the World Bank 2006 Country Environmental Analysis to conclude that "Ghana's natural resources, upon which so much of the country's economic activity and the population's livelihood depend, are being depleted at an alarming rate." The key factors appear to be:

- Unusually strong development partner leverage because of the heavily indebted poor countries completion point and a willingness to press for environmental issues to be incorporated into the 2006 Poverty Reduction Strategy (GPRS II);
- Local stakeholders (sections of government and civil society) had an interest in environmental issues. Additionally, the SEA of the 2002 Poverty Reduction Strategy (GPRS I) provided a means for articulating local demand for incorporating environmental issues into GPRS II. The GPRS II itself had strong ownership from the Ministry of Finance and Economic Planning, which had not seen environment as a key issue;
- The window of opportunity provided by policy cycle timing. The development of GPRS II provided a way of linking environment and natural resource spending to the budget, and hence provided an opportunity for SEA;
- Sustained and coordinated development partner support for the environment and natural resource sector from 2004 onwards;
- Decentralisation, with associated district-level planning and capacity building, gave the SEA a chance at the district level. District medium-term development plans include a budget for mitigation measures. Nonetheless, this process has taken time. The Ho Municipality example below was written some eight years after SEA was first introduced nationally.

Box 1 Ho Municipal Assembly SEA Plan (2010-2013)

Ho Municipal Assembly is one of the 18 municipalities and the regional capital of the Volta Region of Ghana. The Municipality covers a land area of 2,660km^2 with an estimated population of 200,000 (in 2000) which is projected to reach 235,000 by 2013. The Municipal Assembly is mandated by law to prepare a Medium-term Development Plan (MTDP) to guide development in the Municipality. The preparation of the plans over the years has paid little attention to environmental issues, making development unsustainable.

The Strategic Environmental Assessment (SEA) tool is used as a more integrated system that incorporates environmental and sustainable criteria in development planning. It allows the integration of environmental considerations alongside social and economic aspects into strategic decision making at all stages and tiers of development. The Ho Municipality was one of the selected districts in the country trained in the use of this tool. The team that benefited from the training was tasked to prepare a Strategic Environmental Assessment Plan of their MTDP to enable them apply the knowledge and skill acquired and prepare them adequately to use the tool in the preparation of

subsequent development plans. The Plan Preparation Team identified 14 environmental concerns in the Municipality under (five) main thematic areas.	
Natural resources *1. High incidence of bushfires* *2. Pollution of water bodies* *3. Land degradation* ***Socio-cultural*** *1. Exclusion of the vulnerable* *2. Low enrollment of girls at the basic level of education* *3. Poor participation of women in decision making*	***Economic*** *1. Low internal revenue generation* *2. Low agricultural productivity* *3. Low access to credit* ***Institutional*** *1. Non-functioning sub-districts* *2. Poor education infrastructure* *3. Poor health infrastructure* ***Climate change*** *1. Increase in greenhouse gas (GHG) emissions* *2. Increase in logging activities*

Ho Municipality SEA budget 2010-2013

Mitigation measure	Time-frame	Impacts	Budget (GHS)
1. Enactment of by-laws on child labour	2010-2011	50% reduction in involvement of children in mines and quarries 5% increase in enrollment; especially girls	20,000
2. Training of farmers in non-tillage farming	2010-2013	Reduction in CO_2 emissions by 0.05%	20,000
3. Construction of engineered landfill site	2010-2013	1% increase in job creation 20 acres of reclaimed land	3,000,000
4. Water and air quality testing	2010-2013	Regular determination of water and air quality	20,000
5. Enactment of by-laws on mining and EIA	2011	Controlled mining activities	5,000
6. Public education on causes and effects of climate change	2011-2013	70% of population aware of effects of climate change 20% reduction in charcoal and firewood production	10,000
7. Tree planting in communities and schools	2011-2013	200 acres of trees planted	50,000
8. Monitoring	2011-2013	90% implementation of mitigation measures achieved	30,000
Total			4,500,000

(Source: *Nelson, 2013*)

Water sector SEA: substantive determinants of success

Hirji and Davis (2009) used a structured approach to analyse 10 diverse case studies of SEAs in the water sector (including seven World Bank-funded projects and three non-Bank-funded cases, four national and state water policies, and an in-depth pilot case study of water reform in Tanzania). Some major findings are summarised in Box 2, with further details provided in Annex 3.

Box 2 Key messages from water sector SEAs (Hirji & Davis, 2009)

Case Study	Duration	Cost	Extent of Consultation*	Level of Influence
Water Supply/Sanitation SEA, Colombia	3 months	$28,000	Moderate	High
RWRA, Tanzania	15 months	$50,000	Limited	High
SEA of Main River Basins, Czech Republic	18 months	$26,000	Limited	Low`
Power Development SecEA, Kingdom of Nepal	14 months	$1,200,000	Extensive	Moderate
Water Resources Sector Adjustment Loan SEA, Indonesia	4 months	$70,000	Extensive	Moderate
Pioneer Catchment Study, Australia	N/A	N/A	None	Moderate
SEA of Mhlathuze Catchment, South Africa	24 months	$280,000	Moderate	Low
SEA of Usutu-Mhlathuze WMA. South Africa	36 months	$700,000	Moderate	Low
Polar Basin SEA, India	12 months	$20,000	Moderate	High
Nam Theun II Power, Republic of Laos	N/A	N/A	Limited	Moderate
Lake Victoria TDA/SAP, NELSAP Region	30 months	$1,000,000	Extensive	Moderate

**Limited* means primarily confined to government ministries; 'Moderate' means selected public consultations as well as ministries; 'Extensive' means widespread public consultations, sometimes involving multiple rounds

(Source: *World Bank, 2010*)

Hirji and Davis (2009) assessed a number of water sector SEAs against IAIA process and substantive criteria. The process criteria (see Box 3) are remarkably similar to those derived for good practice in Scottish SEAs discussed above.

By applying these to water sector case studies and undertaking interviews with practitioners involved in some of the SEAs, they identified some further useful SEA process success criteria:[9]

> *The Terms of Reference must be clear and well formulated for the SEA to be influential. Second, the SEA team composition needs to be balanced between the sectors contributing to the study, and the team leader needs to have a breadth of understanding of the inter-connections between economic, social, and environmental factors. Third, the assessment methods need to be suited to the characteristics of the issues.*
>
> *Consultation is essential, but does not always need to be widespread. However, it is important to include the stakeholders who will be affected by the decision. The consultation and participation process should be planned to ensure that participants are well briefed and are involved at the appropriate stages of the process.*
>
> *The spatial scale of the SEA matters. If the area is large, appropriate tools need to be used to conceptualize problems and to engage all stakeholders.*
>
> *SEAs can span strategic scales. Institution-centred SEAs typically examine the capacities of institutions, the relevance and consistency of policies and legislation, mechanisms to involve vulnerable groups, and political economy factors that affect the implementation of plans and programs that trigger the SEAs* (ibid, pxiv).

[9] Criteria that relate to contextual determinants of success (which they refer to as 'institutional drivers' and 'substantive factors') are discussed above.

Box 3 IAIA process criteria for good SEA

Accountable

- Clarifies which are the leading agencies for the strategic decisions to be taken
- Carried out with professionalism, rigour, fairness, impartiality and balance
- Subject to independent checks and verification
- Documents and justifies how sustainability issues were taken into account in decision making

Participative

- Informs and involves interested and affected public and government bodies throughout the process
- Explicitly addresses their inputs and concerns in documentation and decision making
- Features clear easily understood information requirements and ensures sufficient access to all relevant information

Iterative

- Ensures availability of the assessment results early enough to influence the decision-making process and guide future planning
- Provides sufficient information on the actual impacts of implementing a strategic decision, to judge whether this decision should be amended and to provide a basis for future decisions

(Source: *IAIA, 2002, adapted by Hirji & Davis, 2009*)

Four key substantive lessons (relating both to process and policy context in the outline ToC) were identified by the authors:

1. The process of interacting with different stakeholders, examining causative influences and longer-term consequences, and integrating environmental, social and economic considerations is as worthwhile as the findings. This process should commence early in the preparation of the PPP and continue after the study has been completed.

2. The most effective SEAs established fundamental changes in national policies, laws and institutions; they were undertaken at opportune times when there was political receptivity to change. In some cases, economic arguments played a key role, but these changes usually took many years, which meant that development partners and governments had to stay committed over an extended period.

3. SEAs need not be generated by environmental concerns. Some effective SEAs were primarily driven by factors other than the environment, although environmental sustainability played an important role. Successful SEAs contributed to water policy reforms and full implementation of water-related programmes such as the establishment of river basin institutions.

4. Perhaps the most significant finding was that the SEAs often cost less than US$100,000, a small price to pay for a tool that can lead to profound long-term changes in water resource management. Some of the most effective SEAs were completed in fewer than 12 to 15 months and cost less than US$100,000 – a fraction of the cost of the strategy/programme/plan they were supporting.

This assessment of cost effectiveness was made by the authors on the basis of observed changes in PPP following the SEA and the relative magnitude of the SEA to intervention

cost. In terms of our outline ToC in Figure 3, this is a broad-brush cost-effectiveness assessment of SEA outcomes. While it is certainly useful, it does not tell us what the counterfactual scenario is or how much credit the SEA can take in producing the observed PPP changes.

Findings on process: a review of SEA use in Scotland over 10 years

SEPA (2011) notes that the Scottish Parliament passed the Environmental Assessment (Scotland) Act in 2005 which extended the application of SEA beyond the requirements of the 2001 EU Environment Directive to cover all public plans, programmes and strategies (PPS) where they are likely to lead to significant environmental effects.

Although Scotland is obviously not a developing country there are valuable lessons – primarily on process – to be drawn from this review of 32 SEAs over a 10-year period. This review systematically assesses whether the significant adverse environmental effects identified by a SEA are addressed in subsequent PPS. As contextual factors are broadly constant for the sample of SEAs, success depends mainly on process factors. These include:

- Ensuring SEA is done early in the policy cycle;
- Identifying the truly significant issues for SEA and focusing on these (fewer and better);
- Improving the understanding of and buy-in to SEA among policy makers and senior decision makers;
- Providing continuity of support for SEA follow-up to get changes into policy.

Box 4 When SEA is worth doing (or not) in Scotland

Making a difference: SEA as a plan shaper
Where a SEA is undertaken well, and particularly where there is good integration between the assessor, the plan maker and senior decision makers, this review has found that the SEA demonstrates a significant influence on the plan-preparation process and the level of environmental consideration within PPS. In this context, SEA is working as a plan shaper.

Greening the edges: SEA as a fine tuner
However, where SEA is undertaken as a separate process and/or after substantive policy decisions have been taken, it has a much more limited influence. In this context, a SEA works as a fine tuner at best. In these cases, it is difficult to view SEA as proportionate, as the outcomes are often outweighed by the inputs required by the process.

(Source: *SEPA, 2011*)

World Bank pilot institutional SEAs

One of the most comprehensive and carefully researched studies of the effectiveness of policy SEAs was undertaken by the World Bank between 2005 and 2010. It involved setting up eight pilot SEAs linked to World Bank activities, of which six were subsequently completed and independently evaluated by a team consisting of the World Bank Environment Department, Environmental Economics Unit at the University of Gothenburg, Swedish EIA Centre, and Netherlands Commission for Environmental Assessment (World Bank et al, 2010).

A summary of the achievements and limitations of each of the six evaluated pilots is given in Box 5.

Box 5 A summary of six pilot institutional SEAs

Pilot SEA name/description and objectives	Outputs	Outcomes
Sierra Leone Mining Sector Reform (SESA) initiated under a policy development loan. To assist long-term development by integrating environmental and social considerations in mining reform	Recommendations endorsed through stakeholder workshops at the provincial and national level	**Limitations** • Programme was initially disrupted by change of government and a two-year delay • Very short institutional memory. SEA ignored after three years **Achievements** • SESA expanded and deepened dialogue on mining sector reform and development of World Bank-funded technical support programme (MTAP) • Stimulated 'Justice for the Poor' initiative in Sierra Leone • Stimulated inclusion of policy SEA process in other World Bank projects
SEA Hubei Road Network Plan (2002-2020). Retrospective application of SEA in 2007 to the highways plan (approved 2003) for Hubei Province, China, covering 5,000km of expressways and 2,000km of highways between major cities	Recommendations for improved policy and design based on EIA and SEA principles	**Limitations** • Data held by government agencies is treated as 'privately' owned, which poses severe constraints on SEA review • Proposals for institutional strengthening and new working arrangements were 'not met with enthusiasm' • Conflicts arose over laws on EIA and SEA • SEA was not formally concluded, and had areas of disagreement over its recommendations **Achievements** • Increased awareness of environmental and social issues among senior road managers • New circular published
West Africa Minerals Sector Strategic Assessment. SEA designed as a policy dialogue to support a US$300 million adaptable programme loan focused on good governance, information systems and investment promotion in the mining sector with extensive consultation across three countries in the Mano River Union	SEA involved focus group meetings in three national capitals, community surveys in 10 mining communities, national workshops to rank social and environmental priorities and a regional validation workshop. Provided a report in support of the wider minerals programme and regional harmonisation of mineral policy	**Limitations** • Elite stakeholders rejected the findings because they were not perceived to be in their interest • Artisanal mining was not given the same attention as large- and small-scale mining • Large-scale mining companies did not engage. They prefer to enter into bilateral arrangements with individual governments **Achievements** • Strong ownership of the policy dialogue process among civil society organisations • Contributed to improved dialogue • Created a 'sophisticated', ongoing multi-stakeholder framework which increased accountability on mining decisions • Increased stakeholder confidence that critical decisions would be taken away from mining companies and governments working in secret • Improved learning about policy formulation
Dhaka Metropolitan Development Plan SEA. One of the world's ten mega cities with a population forecast of 15 million by 2015. The SEA was designed to provide strategic direction and	The SEA findings addressed two main themes: • The weakness in overarching plans and the organisational setup for the strategic level planning	**Limitations** • Because of a local lack of ownership the Dhaka SEA did not achieve expected policy SEA outcomes • Many stakeholders when interviewed in 2009 had no recollection of their participation in 2007. Those who did recall it said that insufficient information was provided at workshops, that the purposes of consultation exercises were not adequately explained, and that workshops were not interactive and were too short • Political economy issues and historical aspects of urban

Pilot SEA name/description and objectives	Outputs	Outcomes
incorporate environmental considerations into Detailed Area Plans, as well as informing the preparation of the World Bank Integrated Environment and Water Resources Management Programme	framework; • Problems at the implementati-on level	development were addressed inadequately and ignored the driving forces between rural to urban migration and growth of informal settlements • The output of a policy note had not been adopted by government at the time of review • Vulnerability and health aspects were not considered in analytical ranking and identified environmental priorities were not included in changes to the plans **Achievements** • Raising limited awareness of the need for environmental assessment in order to achieve a more holistic approach to planning and urban development
Kenya Forest Act SEA. The role of the SEA carried out between 2006 and 2007 was to highlight areas where the reform process should concentrate its activities in order to bring real and lasting social and environmental benefits, and to feed into the World Bank Natural Resource Management Project	A report setting out recommendations for giving effect to the Forest Act, accompanied by a Policy Action Matrix clearly indicating timetables, milestones, stakeholders , expected outcomes, status of progress and responsibilities for action	**Limitations** • The timing took advantage of a window of opportunity, but the SEA would have been more effective if it could have been undertaken during preparation of the Act itself • Despite efforts to engage government, ownership of the SEA remained firmly with the World Bank and many stakeholders considered that the World Bank had not fulfilled expectations generated by the SEA process by giving greater priority to forest sector reform and greater follow-up on the Policy Action Matrix • Dismantling of the Forest Reform Committee and Secretariat just after the SEA was completed led to changes of staff and loss of SEA champions • Subsequent implementation has been severely hampered by limited human and financial resources **Achievements** • The SEA was influential in spreading knowledge about the Forest Act and its intentions from planners to a broader audience • It consolidated knowledge scattered across many agencies and opened the way for civil society advocacy • It helped in the formation of community forest associations and preparation of a manual on forest management plans • The SEA contributed to an understanding of the complexities, challenges and opportunities embodied in the new Forest Act • It emphasised the need to rethink forest management in Kenya and highlighted new innovative tools for sustainable forest management
Rapid Integrated SESA of Malawi Mineral Sector Reform. The primary objective was to include environmental and social issues in the initial dialogue between the Government of Malawi and the World Bank on mining sector reform. The rapid assessment was undertaken by one policy SEA specialist in 29 days	The SEA was to produce an outline report to be followed by a full SESA as part of the World Bank programme. This SESA is in the final stages of the tendering process and will be undertaken in the period 2013 to 2014	**Limitations** • Stakeholders did not share a common view of the relevance of, magnitude of and risks associated with the different environmental priorities related to mining • More thorough approaches are needed in order to substantially strengthen institutions and governance capacity • The SESA formed part of a wider Minerals Sector Review, thus environmental and social concerns formed part of the overall assessment of key mining sector reform priorities. Arguably this integrated approach lessened the risk of marginalising the findings of the environmental assessment. However, the Ministry of Natural Resources, Energy and Environment is in charge of both mineral development and environmental protection. There is, therefore, a risk that during the ongoing reform process it will favour activities promoting

Pilot SEA name/description and objectives	Outputs	Outcomes
		mineral sector growth and will disregard SESA recommendations for strengthening environmental and social practices **Achievements** • Against a background of deep mistrust, efforts to collect and share information on key environmental and social concerns in the rapid SESA played an important role in improving accountability • The SEA has contributed to learning although it is difficult to distinguish the individual role of the SESA from other processes

The conclusions of the review team (highlighting policy context) were that:

Policy SEA can, under suitable conditions, contribute to improved formulation and implementation of sector reform. This stems from the ability of the pilots to raise attention on existing priority environmental and social issues affecting stakeholders. The evaluation also confirmed the importance of strengthening constituencies, as the pilots opened up participation in sector reform dialogue to previously sidelined or weakly organised stakeholders.

Ownership, capacity and trust are necessary conditions for effective environmental mainstreaming at the policy level. Country ownership can be through national agencies mandated to control reform, but also accountable to civil society for results. The authors note, however, that when weak sector ministries take ownership of policy SEA, there is a risk of regulatory capture and associated rent seeking. The West Africa Minerals Sector Strategic Assessment (WAMSSA) pilot showed that institutions such as multi-stakeholder frameworks can guard against this eventuality.

Another important finding emanating from the evaluation is the need for long-term constituency building. "Policy SEA is but a small and bounded intervention in the continuous process flow of policy making, and so positive outcomes from the pilots could be short-lived. To sustain outcomes over the longer term, it is necessary to build constituencies that can sustain policy influence and institutional changes which take a long time to realise" (ibid, p11).

These conclusions seem to apply far more widely than SEA, firstly in terms of securing policy uptake in general (and not just SEA). Indeed, the authors subsequently argue that: "First and foremost, a policy SEA must be understood as a strategic decision support process that will enable governments to put in motion better policy making, and not [be seen] merely as an environmental safeguard" (ibid, p12). Secondly, the conclusions suggest a need for longer-term support to build trust in systems put in place for stakeholder and policy-maker engagement as part of a policy SEA. Again, this seems to apply to sustainable development rather than simply SEA. Nonetheless, the first implications we take away from this for SEA are that a short project or programme time horizon is unlikely to be appropriate; the second are that support from partners beyond those narrowly involved in a SEA is likely to be required over the longer term.

Contextual factors are of overriding importance in hindering or facilitating the attainment of the main benefits of policy SEA. As we have seen from other reviews, this applies to SEAs of strategies, plans and programmes, as well as policies. World Bank et al (2010) find that, in some cases, contextual factors may be aligned in such a way that

pursuing a policy SEA is not meaningful. This happened in the case of the Sierra Leone pilot, when a newly elected government decided to postpone reform processes initiated by a previous administration. In all cases, however, preparation and planning must be sure to adapt and adjust the SEA process in view of these factors.

Within the contextual factors of the outline ToC in Figure 3, the authors highlight the need to produce what we term 'incentives for change', by constituency building and articulating the potential benefits of policy SEA. They argue that: "Developers of policy SEA must recognise that incumbent actors have certain interests when engaging in SEA activities. Their participation will be driven by the benefits from engaging being greater than the risks and costs" (ibid, p11).

OECD review of SEAs in development practice

This 2012 review includes nine SEA case studies that began in 2006, as well as an overview of recent SEAs in developing countries.

Vietnam:	Quang Nam Hydropower Plan
Bhutan:	Environmental Mainstreaming
Namibia:	Millennium Challenge Account Programme
Mauritius:	Multi-annual Adaptation Strategy for the Sugar Cane Sector
Benin:	Poverty Reduction Strategy
Ghana:	Environmental Mainstreaming
Sierra Leone:	Mining Sector
Honduras:	Municipal Planning
Montenegro:	National Spatial Plan

The key conclusions of the report illustrate a number of process and context factors highlighted in the SEA ToC in Figure 3. In summary, these are:

The SEA process contributes to development effectiveness and harmonisation. It brings together ministries within governments, but also marginalises sections of society and civil society groups.

Avoid overly rigid process requirements and avoid being over ambitious where capacity is limited. Cases from Namibia, Montenegro and Honduras illustrated that a certain degree of flexibility can help make SEAs a success and, in both Honduras and Vietnam, the case studies concluded that pilot SEAs should be carried out and should avoid being too ambitious.

SEA implementation depends on technical skills and institutional capacity. Cases from Namibia, Honduras and Vietnam noted the importance of skills and technical capacities of developing country partners. In general, conventional single-issue SEAs are likely to fail in circumstances where a country has no institutional memory or capacity, and is subject to frequent changes in government or administrative structure.

Long-term planning and engagement is important to secure changes in PPP, rather than a one-shot attempt to implement a SEA. For example, the Mauritius study notes that a follow-up to the SEA is essential to maintain momentum, illustrating the need for sustained support by development partners to government beyond the original SEA.

SEAs should be linked with coordinated multi-donor budget support. Some cases identified the need for and the benefit of coordinated efforts by donor agencies.

Engage partner governments early, build ownership and encourage public participation.

Recognise what we term '**incentives for change' when undertaking a SEA**. In Honduras, the SEA and planning processes revealed how access to natural resources is distributed among members of the municipality, exposing significant inequalities. However, in Mauritius, the sugar industry was concerned about the potential costs of implementing mitigation measures and that the implementation of SEA recommendations could slow the transfer of funds. Key economic benefits were made explicit by the SEA report and this swayed the industrialists.

A review of SEA in EC development programmes (EuropeAid)

Penrose and Risse (2010) reviewed eight SEAs:

- Five related to sugar sector reforms (Jamaica, Mauritius, Tanzania, Trinidad and Tobago and Zambia);
- Three related to infrastructure programmes: transport (Ghana, and Mali) and sea defences (Guyana).

The authors undertook a desktop review and analysis of the SEA reports, sent questionnaires to EU Delegation officials involved in the SEAs, and undertook telephone interviews with key stakeholders. A summary of the Guyana SEA is reproduced below.

Box 6 Guyana: SEA of the Sea Defences Sector Policy

Background

- Development of the Sea Defences Policy of 2008 was funded under EDF 8 to provide a framework for works to tackle under-investment in Guyana's sea defences. Lead Government Institution: Ministry of Public Works.

Key Review Findings

Strengths

- Good overview of key direct and negative environmental impacts of sea defences using pressure-state-response approach.
- Made linkages between the sea defences policy and other key PPPs eg the National Mangrove Management Plan.

Weaknesses

- Recommendations considered insufficiently detailed to encourage follow up by the Ministry of Public Works.
- Limited government ownership has led to little interest in follow up.
- Less attention given to climate change and the risks this presents to sea defences than would have been expected.

Influence & Outcome

- SEA generated debate about environment and climate change in the context of sea defences, providing a more formal acknowledgement of the need for these issues to be addressed.
- EU Delegation is funding a €4 million mangrove restoration project commencing 2010.
- In the final Sea Defence Policy little from the SEA was integrated other than recognition of a need to consider natural sea defences.

Examples of Good Practice

- Use of risk management approaches to analyse environmenal impacts (SEA report section 4 & 8).

Key findings across the eight SEAs were as follows:

SEAs have delivered positive outcomes for EC programmes. These outcomes include the integration of key environmental issues into EC programming documents and financing agreements between governments and the EC to implement SEA recommendations. For example, in Mauritius, the sugar sector SEA identified the need to tackle atmospheric pollution from sugar cane burning and produced targets for reducing cane burning and switching to green cane harvesting. The SEA also identified competition for scarce water resources as a threat; recommendations of financial support for water recycling in selected sugar mills were subsequently implemented.

Climate change was well integrated into some, but by no means all, SEAs.

The SEA process produced increased awareness and debate about environmental and climate issues. The best SEAs (according to the stakeholders interviewed) were those where the SEA promoted real dialogue and conversation in which environment and climate issues were actively debated and which drew in a diverse range of stakeholders.

Achieving government ownership is critical. One of the biggest challenges to SEA processes is ensuring that there is sufficient government ownership. This includes ensuring government engagement in the SEA process and in the implementation of its findings and recommendations.

SEAs that use environmental interventions to help deliver wider socio-economic goals can demonstrate 'added value' and garner government support. For instance, the Jamaica sugar sector SEA led to the EC and Government of Jamaica agreeing to establish a funding line to finance environmental technologies, such as measures to reduce water consumption in irrigation and in rum production, which will mitigate environmental impacts upon groundwater. It will also increase economic competitiveness of the sugar cane industry.

SEAs need to focus on prioritised, costed recommendations, and set out who will deliver them and when. This would support SEAs to deliver more focused outputs with a higher chance of influencing PPP and delivering impact.

Contextual and institutional factors have a major impact on SEA implementation and SEAs need to place more emphasis on contextual and institutional analysis.

References

CTF. (2010) *Strategic Environment, Social and Gender Assessment of the Climate Investment Funds, CTF/TFC.6/Inf.3*. Washington, D. C. Available at: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF%20Inf%203%20Env%20Soc%20Gender%20Assessment%20nov%202010.pdf

Dalal-Clayton, B. & Bass, S. (2009) *The challenges of environmental mainstreaming: Experience of integrating environment into development institutions and decisions. Environmental Governance No. 3*. London: International Institute for Environment and Development. Available at: http://pubs.iied.org/pdfs/17504IIED.pdf

EC. (1997) *Case Studies on Strategic Environmental Assessment. Volume 1. Comparative Analysis of Case Study Findings, Conclusions and Recommendations. Volume 2. Case Studies*. Brussels. Available at: http://ec.europa.eu/environment/eia/sea-studies-and-reports/sea-case-studies.htm

Eirich, F. & Morrison, A. (2009) *Contribution Analysis: Social Science Methods Series Guide 6*. UK: Bond. Available at: http://www.bond.org.uk/data/files/Effectiveness_Programme/meetings/VfM/Contribution_Analysis_Paper.pdf

GIZ. (2011) *Strategic Environmental Assessment – a governance tool for sustainable development: lessons learnt from applying strategic environmental assessment within development cooperation focusing on aid effectiveness*. Eschborn. Available at: http://www.giz.de/expertise/downloads/giz2011-en-environmental-assessment.pdf

Hirji, R. & Davis, R. (2009) *Water Sector Board Discussion Paper 12 Strategic Environmental Assessment: Improving Water Resources Governance and Decision Making*. World Bank. Available at: http://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/244351-1244554843321/dp12_ImprovingWaterResources.pdf

Horberry, J. & Whittle, J. (2008) *Desk Review of DFID's Private Sector Infrastructure Investment Facilities: Strategic Environmental Assessment; Evaluation Report EV 685*. DFID. Available at: http://webarchive.nationalarchives.gov.uk/+/dfid.gov.uk/documents/publications/evaluation/ev685.pdf

IAIA. (2002) *Strategic Environmental Assessment: performance Criteria. IAIA Special publication no. 1*. Fargo: International Association for Impact Assessment. Available at: www.iaia.org/publicdocuments/special-publications/sp1.pdf

Kjörven, O. & Lindhjem, H. (2002) Strategic Environmental Assessment in World Bank Operations: Experience to Date — Future Potential, ECON Centre for Economic Analysis. Oslo/Washington, D. C. Available at: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/0,,contentMDK:20687529~pagePK:210058~piPK:210062~theSitePK:244381,00.html

NCEA. (2014) *A Systems Approach to SEA Effectiveness*. Netherlands Commission for Environmental Assessment.

Nelson, P. (2013) *Do SEAs make a difference?* DFID/Evidence on Demand.

OECD. (2012) *Strategic Environmental Assessment in Development Practice: A review of Recent Experience*. OECD Publishing. Available at: http://www.environmental-mainstreaming.org/documents/SEA%20Progress%20Report%20-%20published%20document%204311271e.pdf

Olearius, A. & Nikov, K. (2013) GIZ SEA specialists interviewed by Yaron, G., 2nd December 2013.

Partidário, R. (2003) *Strategic Environmental Assessment (SEA) Current Practices, Future Demands and Capacity-Building Needs*. International Association for Impact Assessment.

Penrose, J. P. & Risse, N. (2010) *Review of Strategic Environmental Assessments in EC Development Cooperation*. EuropeAid.

Sadler, B. (1996) *International Study of the Effectiveness of Environmental Assessment. Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance*. Canadian Environmental Assessment Agency (CEAD), and International Association for Impact Assessment (IAIA). Available at: http://www.ceaa-acee.gc.ca/Content/2/B/7/2B7834CA-7D9A-410B-A4ED-FF78AB625BDB/iaia8_e.pdf

Sadler, B. & Verheem, R. (1996) *Strategic Environmental Assessment: Status, Challenges and Future Directions*. Ministry of Housing, Spatial Planning and the Environment: The Netherlands.

SEPA. (2011) *The Scottish Strategic Environmental Assessment Review: A Summary, SEPA with Historic Scotland and Scottish National Heritage*. SEPA. Available at: http://www.sepa.org.uk/planning/sea/scottish_sea_review.aspx

Tomonori, S. (2013) JICA SEA specialist interviewed by Yaron, G., 12th December 2013.

Vogel, I. (2012) *Review of the use of 'Theory of Change' in international development*. DFID. Available at: http://r4d.dfid.gov.uk/pdf/outputs/mis_spc/DFID_ToC_Review_VogelV7.pdf

World Bank. (2003) *World Bank User's Guide to PSIA*. Washington, D. C. Available at: http://go.worldbank.org/IR9SLBWTQ0

World Bank. (2006) *Ghana Country Environmental Analysis, Report No: 36985-GH.* Washington, D. C. Available at: http://siteresources.worldbank.org/INTRANETENVIRONMENT/3635842-1175696087492/21919456/Ghana_CEA.pdf

World Bank. (2010) *Strategic Environmental Assessment: Improving Water Resources Governance and Decision Making, Water P-Notes, Issue 48*. World Bank. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/11695/552800BRI0PN481SEA0Box349443B001PUBLIC1.pdf?sequence=1

World Bank, University of Gothenburg, Swedish EIA Centre, and Netherlands Commission for Environmental Assessment. (2010) *Policy SEA: Conceptual Model and Operational Guidance for Applying Strategic Environmental Assessment in Sector Reform*. World Bank. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/2866/553280REPLACEM1EA1Final0Report12010.pdf?sequence=1

Suggested further reading

ARD. (2008a) *Millennium Challenge Account Namibia Compact: Phase 1 Social Environmental Assessment to Inform Project Design. Namibia Strategic Environmental Assessment*. MCC Washington and MCA Namibia.

ARD. (2008b) *Millennium Challenge Account Namibia Compact: Volume 1. Phase II Strategic Environmental Assessment – Namibian Strategic Environmental Assessment*. MCC Washington and MCA Namibia.

GCS Water and Environmental Engineering and Stubenrauch Planning Consultants (2011), Strategic Environmental Assessment (SEA) Windhoek and Windhoek Townlands (Final Draft), City of Windhoek, Namibia

Koch, M., Pallett, J., Tarr, P. & Wetzel, G. (2011) *Strategic Environmental Assessment (SEA) for the Karas Integrated Land Use Plan (KILUP). Final Report to Republic of Namibia Ministry of Lands and Resettlement and Ministry of Environment and Tourism*. Windhoek. Available at: http://www.the-eis.com/data/literature/KIRLUP_SEA_final_report_2011-02-25.pdf

Southern African Institute for Environmental Assessment & Colin Christian and Associates. (2009) *National Planning Commission Secretariat – Rural Poverty Reduction Programme 9 ACP NAM 12: Strategic Environmental Assessment for Project Combating Bush Encroachment for Namibia's Development (CBEND)*. Windhoek.

SPC & GTZ. (2010) *Mainstreaming processes for climate change adaptation: collection of best practices*. Secretariat of the Pacific Community and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ). Available at: http://www.spc.int/lrd

Annex 1 Strategic Environmental Assessment – lessons from design

By

Marcelin Tonye Mahop and Gil Yaron

November 2013

Introduction

This brief report relates to a broader exercise of developing a Topic Guide (TG) on Strategic Environmental Assessment (SEA), which was commissioned by the DFID Evidence on Demand team in 2013. The development of this TG highlighted a number of gaps in the availability of strong evidence concerning the robustness of the SEA's design in guiding decision making in relation to programmes, projects and policies. In order to fill these gaps, a number of SEA reports and Terms of Reference (ToR) were examined to try and depict whether SEA reports respond to the ToR, and to explore whether a possible 'failure or success' of SEAs may be seen as directly deriving from the design of the ToR. The critical issues against which the robustness of SEAs and ToR are assessed are:

- Climate change;
- Institutional capacity;
- Relationship to the programme or policy in question;
- Link to the cost of the delivery of SEA recommendations.

Based on the examination of five SEA reports and two associated summaries of ToR, this report attempts to assess whether the SEAs and ToR examined, included the critical issues indicated above.

Methodological approach

The approach included an initial introduction by the Evidence on Demand helpdesk to six members of the OECD-DAC task team on 6th November 2013. Following this, Dr Gil Yaron and his research assistant Dr Marcelin Tonye Mahop contacted the OECD-DAC team with a specific request for SEA reports and Terms of Reference (ToR) which they would be willing to share. As a result, the consultants were provided with five SEA reports, two featuring summaries of ToR. The materials received all related to one country: Namibia. However, as the SEAs covered different programmes and organisations, they provided a reasonable amount of diversity. In addition, one member of the OECD task team provided fact sheets on six countries' approaches to SEAs and three reports, which provided a broader analysis of SEA processes in several developing countries. Of all the materials received, only the SEA reports and the two summaries could be used to assess the coverage of the critical issues. The extent to which the critical issues are covered is summarised in the analytical table in Annex 2.

Analysing the coverage of the SEAs and ToR of the critical issues based on the table below

This is a brief summary of the principal observations arising from the table in Annex 2, emphasising the coverage of the key issues earmarked in the ToR for this study. It must be stressed that this study has focused strictly on investigating the robustness of SEA design in guiding decision making for policy or project/programme design and implementation. To learn any lessons from the design of SEAs, there was a need to investigate a sample of ToR for SEA studies and the ensuing SEA reports, focusing on coverage of the issues outlined in the table in Annex 2. Through contacts with DFID and development partners working with

the OECD task team, several reports discussing the fundamental processes for conducting SEA in many developing countries, as well as five SEA reports, were sourced from the development partners (see Annex 2). Unfortunately, no detailed ToR were provided for any of the reports analysed here; however, two SEA reports included summaries of their ToR, notably Phase 1 of the Millennium Challenge Account Namibia Compact in 2008 and the 2009 project Combating Bush Encroachment for Namibia's Development (CBEND).

Turning to the coverage in the SEA reports, and, where possible, the summary ToR of the four critical issues earmarked for this investigation, climate change is covered in two of the five reports investigated. The SEA report of March 2009 of CBEND covers climate change when it stresses the environmental benefit of producing 'greener' electricity under the CBEND scheme. However, the summary of the ToR for this project does not specifically require consideration of climate change. The 2011 final report for the Karas Integrated Regional Land Use Plan (KILUP) refers to climate change in the proposals as the most limiting factor for the development of the region through sustainable land use. Climate change is addressed in the report as a cross cutting issue, affecting all the sectors that underpin the development the Karas region. The ToR for the study of the KILUP were not provided, leaving us with no basis to assess whether climate change would have been contemplated in the design of this SEA. The remaining reports investigated did not refer to climate change as a key consideration.

Critical issue	*Coverage*
Climate change analysis required by ToR	1 out of 2
Climate change analysis within SEAs provided	2 out of 5

The second critical issue investigated in this study is the coverage of institutional capacity. The analytical table below shows that only the CBEND report and the summary ToR have covered this issue. Indeed, one of the specific objectives identified for the SEA study in the summary ToR is to "…summarise the institutional and financial implications of possible programmatic and policy interventions by the Namibian government to support bush-to-electricity initiatives." The establishment of power plants for the production of electricity under the CBEND project is planned to be rolled out across rural areas in Namibia, provided that the pilot phase delivers positive results. It is in the context of this prospective roll-out that the SEA report touches upon the capacities of existing agencies in Namibia, such as the Department of Forestry and NamPower, to accommodate the additional burden of roll-out into their regular day-to-day operations. To fill the institutional capacity gap, the SEA report proposes the establishment of the Namibian Woodlands Management Council to administer any prospective roll out of CBEND across the country. The remaining SEA reports failed to specifically address the issue of institutional capacity.

Critical issue	*Coverage*
Institutional capacity analysis required by the ToR	1 out of 2
Institutional capacity analysis within SEAs provided	1 out of 5

The third critical issue investigated in this study is how the design of SEA studies relates to the programme or policy in which SEA outcomes should influence decision making. For the two SEA reports which included ToR summaries, the outcomes of the reports did indeed relate to the programmes in question. One case is the Millennium Challenge Account Namibia Compact: Phase 1 Social and Environmental Assessments to Inform Project Design – Namibia SEA. The specific tasks earmarked in the summary ToR include a detailed description of the current dynamics of livestock herding in the northern part of Namibia. The descriptions to be produced in the SEA report cover, among other targets, the determination of the extent to which current and future investment projects in the livestock industry in northern Namibia provide water sources and/or veterinary centres in southern Angola in a

manner that meets the needs of the population in (northern) Namibia. Responding to the ToR, the 2008 SEA report of the Phase 1 SEA tasks describes some important elements of livestock grazing in northern Namibia, such as the current situation of water availability, the existence of veterinary centres, land allocation for individual herding, and the situation of the foot and mouth disease in the northern region of Namibia on the border with southern Angola. For its part, the SEA report for the development of the City of Windhoek and Windhoek Townlands proposes a decision-making support system, which takes into account environmental sensitivity zones and environmental control zones in Windhoek, the sustainability principles of the city's vision statement, and some key legislations and policies affecting the management of the biophysical and socio-economic environment of the city.

Critical issue	*Coverage*
ToR relationship to final report	2 out of 2

The study's fourth and final critical issue is the analysis of costs associated with the delivery of the SEA's recommendations. In general, the SEA reports examined in this study did not cover the issue of the cost associated with the delivery of their recommendations. The summary of the ToR for the CBEND project provides one specific objective, which is for the SEA to summarise the financial implications of possible programmatic and policy interventions by the Namibian government to support bush-to-electricity initiatives, but does not mention the cost of delivery of recommendations in general. However, one of the conclusions of the SEA report deals with the high cost associated with the construction of the CBEND power plants. To address this, the report contemplates a government subsidy as one possibility. It must be stressed that the report addresses the high cost of construction of CBEND power plants as an issue of which stakeholders involved in the scheme should be aware, not as a recommendation. Although the cost of undertaking the SEA itself is identified as an important factor for KILUP (which suggests that the SEA study process should be cost and time effective, focusing on key development issues for the Karas region) the report does not discuss the cost associated with the delivery of its recommendations.

Critical issue	*Coverage*
Cost of recommendation analysis required by ToR	1 out of 2 (if generous)
Cost of recommendation analysis within SEAs provided	1 out of 5

Concluding remarks

The two summary ToR and the SEA reports evaluated in this investigatory study have shown only limited inclusion of the four critical issues in the design of SEA studies. It must be stressed that the ideal scenario for this investigatory study would have been an investigation of detailed ToR. In their absence, these conclusions are merely a reflection of the SEA reports that were acquired.

Annex 2 Analysis of the SEA and/or Terms of Reference received

			Parameters/issues investigated			
SEAs + ToR	**Country**	**Programme/project/ policy in question**	**Climate change**	**Institutional capacity**	**Relationship to programme or policy in question**	**Cost of the delivery of the SEA recommendations**
SEA Report, March 2011	Namibia, City of Windhoek	Strategic Environmental Assessment (SEA) – Windhoek and Windhoek Townlands (Final Draft): SEA undertaken by the City of Windhoek in order to provide input and guide future spatial development and planning for the city	One of the objectives of this SEA was to identify the potential cumulative environmental impacts of both current and future development trends on environmental integrity and the achievement of sustainable development. No specific mention of climate change as an environmental concern within the framework of the city development planning	This SEA report on the development of the City of Windhoek and the Windhoek Townlands has not addressed the question of institutional capacity in the delivery of the development proposals of the areas earmarked	This SEA has proposed a decision-making support system process which takes into account environmental sensitivity zones and environmental control zones in the City of Windhoek, the sustainability principles of the City of Windhoek's vision statement, and some key legislations and policies affecting the management of the biophysical and socio-economic environment of the City of Windhoek. Arguably, then, this SEA report can be said to respond to its key objective which is to guide decisions for future spatial development of the city	The SEA identifies challenges associated with the development of various areas of the City of Windhoek including, but not limited to, the northern area, the industrial area, etc. Some of these challenges is the growing population, which is going to increase pressure on utilities such as water, social housing, etc. In broader terms, the SEA recommends that the development of these areas should include financial, legal and institutional measures to be considered by the City of Windhoek. However, the SEA does not typically provide in its recommendations, the real cost associated with the delivery of the development plans
SEA report, June 2008	Namibia	Millennium Challenge Account Namibia Compact: Phase 1 Social and Environmental Assessments to Inform Project Design – Namibia Strategic Environmental Assessment	While events, such as rainfall that can trigger or delay the departure or return of animals to Angola, are examined in the SEA report, this examination is not carried out from the perspective of climate change	The SEA report for Phase 1 delivering on the ToR fails to analyse the specifics of institutional capacity in the realisation of the tasks of the proposed project	Responding to the ToR, the SEA report of the Phase 1 SEA tasks describes some important elements of livestock grazing in northern Namibia. These include the current situation of water availability, the existence of veterinary centres, land allocation for individual herding, and the situation of the foot and mouth disease in the northern region of Namibia at the border with	The SEA Phase 1 report indicates that it may take about five years for an enabling environment to be established that can maximise the benefits of a veterinary cordon fence (VCF). This environment will, among other things, ensure an effective regulatory framework is in place, addressing such issues as the management of rangeland resources in the VCF area, etc. Without such an enabling environment, the SEA report contends that funding the VCF by

SEAs + ToR	Country	Programme/project/ policy in question	Parameters/issues investigated			
			Climate change	Institutional capacity	Relationship to programme or policy in question	Cost of the delivery of the SEA recommendations
					southern Angola	the MCC will be at high risk. However, the report does not largely quantify the cost related to the delivery of that key recommendation
ToR for Phase 1 of the SEA by the Millennium Challenge Corporation (MCC) and the Millennium Challenge Account (MCA) Namibia Compact	Namibia	Millennium Challenge Account Namibia Compact: Phase 1 Social and Environmental Assessments to Inform Project Design – Namibia Strategic Environmental Assessment	The ToR for the SEA do not specifically address climate change among the key considerations to be taken into account in the design of the project to erect a veterinary cordon fence (VCF), which will establish a foot and mouth free zone for livestock herding in the northern part of Namibia, at the border with Angola	The ToR do not specifically address the issue of institutional capacity with respect to the realisation of the VCF project in the event that MCC funding is secured for investment in improving the livestock sector in Namibia	The specific tasks earmarked in the ToR include a detailed description of the current dynamics of livestock herding in the northern part of Namibia. The descriptions to be produced in the SEA report cover are, among other issues, the determination of the extent to which current and future investment projects in the livestock industry in northern Namibia provide water sources and/or veterinary centres in southern Angola in a manner that meets the needs of the populations in Namibia	The ToR have not specifically provided for a detailed description of the cost that will be involved in the delivery of the SEA recommendations
SEA Report for MCC and MCA Namibia Compact, November 2008	Namibia	Millennium Challenge Account Namibia Compact: Volume 1: Phase II Strategic Environmental Assessment – Namibia Strategic Environmental Assessment	Climate as an issue has not been specifically discussed in this SEA report regarding its potential impacts on the investment in projects targeting education, agriculture, tourism, and indigenous resources, the funds	While addressing the challenges Compact projects are likely to face under the various thematic areas of education, agriculture, tourism and indigenous resources, the SEA does not typically link the prospective realisation	The ToR for this SEA report have not been accessed. However, the SEA report has examined the current situations of the education, tourism, indigenous resources and agricultural sectors in Namibia for the purpose of framing Compact projects for funding by the Millennium Challenge	None of the recommendations provided by this SEA report for any of the prospective Compact projects has addressed the critical issue of cost of delivery of the said recommendations

			Parameters/issues investigated			
SEAs + ToR	**Country**	**Programme/project/ policy in question**	**Climate change**	**Institutional capacity**	**Relationship to programme or policy in question**	**Cost of the delivery of the SEA recommendations**
			for which may be sourced from the Millennium Challenge Corporation	of Compact projects to some sort of institutional capacity. Not even the measures recommended to enhance the benefits and sustainability of the proposed Compact projects address institutional capacity	Corporation. Specific SEA sector recommendations and the broader recommendations for measures to enhance benefits and sustainability are aimed at the development priority areas identified by the government of Namibia	
SEA Final Report, February 2011	Namibia	Strategic Environmental Assessment (SEA) for the Karas Integrated Regional Land Use Plan (KILUP) to develop sustainable options, identify the potential of the region's natural resources and to achieve the land uses that best fit that potential	Climate change projections for the Karas region have been discussed as the most limiting factor in the proposals for the development of the region through sustainable land use. Climate change is addressed in the report as a cross cutting issue, affecting all the sectors that underpin the development the Karas region	Institutional capacity for the implementation of the conclusions of the SEA report is not discussed in the SEA report. This issue is not even earmarked in the objectives of the SEA	The SEA report has described sector-by-sector (mining, agriculture, tourism and conservation, indigenous resources, fisheries, etc.) development proposals for the Karas region and their potential impacts on land, water, biodiversity as well as conflicts with other sectors	The SEA report has not typically discussed the cost associated with the delivery of the main conclusions/ideas it proposes for achieving the integrated land use planning and sustainable development of the Karas region proposed. The cost issue in the report is largely associated with making the SEA itself cost and time effective by focusing the SEA on key issues
SEA Report, March 2009	Namibia	Strategic Environmental Assessment under the Rural Poverty Reduction Poverty Programme: Project	Climate change is discussed in the SEA report in relation to the fact that electricity production under the CBEND concept	The SEA report contemplates that CBEND could be replicated in many parts of Namibia for electricity production if	The CBEND project seeks to address rural Namibia's primary concerns including the prevalence of invader bush, the country's energy deficit and insecurity of	One of the main conclusions of the SEA report relates to the high capital cost of the equipment required for the establishment of the CBEND power plant. The SEA envisages that this capital cost

			Parameters/issues investigated			
SEAs + ToR	**Country**	**Programme/project/ policy in question**	**Climate change**	**Institutional capacity**	**Relationship to programme or policy in question**	**Cost of the delivery of the SEA recommendations**
		Combating Bush Encroachment for Namibia's Development (CBEND), a proof-of-concept project which will procure and install one 0.25 MW bush-to-electricity power-generating plant in a densely bush encroached area of rural Namibia	offers a greener alternative to current electricity production, largely based on coal, which contributes to climate greenhouse gas production	the pilot project is successful. It is in relation to such a prospect of replication that the SEA report warns about the institutional capacity of some agencies in Namibia, such as the Department of Forestry and NamPower, to handle roll-out. The SEA proposes the establishment of the Namibian Woodlands Management Council to administer any prospective roll-out of CBEND across the country	supply, and the high unemployment rate, primarily among young Namibians. The SEA report sought to address the positive and negative impacts of the CBEND project and its possible roll-out across the country	can be solved through a government subsidy
Summary ToR for SEA, March 2009	Namibia	Project: Combating Bush Encroachment for Namibia's Development (CBEND)	Without specifically stressing climate change challenges and considerations, the summary the ToR has broadly identified environmental challenges and considerations to be addressed in the SEA study	One of the specific objectives of the SEA study, as per the ToR, is to summarise the institutional and financial implications of possible programmatic and policy interventions by the Namibian government to support bush-to-electricity Initiatives	The summary ToR provides the general objectives of the SEA study and includes sustainability appraisal, socio-economic appraisal, environmental appraisal and sector assessments within the framework of CBEND	While the summary ToR provides one specific objective to include a summary of financial implications of possible programmatic and policy interventions by the Namibian government to support bush-to-electricity initiatives, it does not specifically target the cost of delivery of its recommendations in its specific objectives

Annex 3 Water sector SEA case studies (Hirji & Davis, 2009)

Hirji and Davis considered ten case studies of Water SEAs from around the world, listed below.

Water sector SEAs reviewed by the World Bank team	
1	Water and sanitation sector SEA – Columbia
2	Rapid water resource assessment – Tanzania
3	SEA of plan for main river basins – Czech Republic
4	SecEA of hydropower development programme – Nepal
5	SEA of water resources sector adjustment loan – Indonesia
6	Environmental flows assessment, water allocation plan, pioneer catchment – Australia
7	SEA of Mhlathuze catchment – South Africa
8	SEA of polar basin – India
9	Social impact analysis/assessment (SIA) and cumulative environmental assessment (CEA) of Nam Theun II hydropower project – Laos
10	Transboundary diagnostic/strategic action programme, Lake Victoria Basin – East Africa

The major outcomes from these SEAs are summarised in below.

Major outcomes from the ten water-related SEAs reviewed by the World Bank Team	
Water and sanitation sector (WSS) SEA – Columbia	• New water sector legislation • Updated environmental regulations • Capacity building for regulators and WSS operators • Upgrades to WSS
Rapid water resource assessment – Tanzania	• New water policy and bill • Institutional reforms • Improved stakeholder involvement • Investments in three priority basins as second phase • Investments (including river and lake basin plans) in all nine basins in the third phase (ongoing 2009)
SEA of plan for main river basins – Czech Republic	• Relocation of wastewater treatment plants • Minimising ecological impacts from flood protection measures
SecEA of hydropower development programme – Nepal	• Prioritised list of hydropower developments • Widespread acceptance of the hydropower programme • Improved attractiveness for private sector investment
SEA of water resources sector adjustment loan – Indonesia	• Widespread stakeholder acceptance of reforms • Greater pressure for future consultation • Better targeted and accepted development projects
Environmental flows assessment, water allocation plan, pioneer catchment –	• Credible environmental flows input to Water Allocation Plan • Improved water allocation rules for catchment

Major outcomes from the ten water-related SEAs reviewed by the World Bank Team	
Australia	
SEA of Mhlathuze catchment – South Africa	• Helped change attitudes to integrated water resource management within national department of water affairs and forestry • Provided evidence of over-allocation in stressed catchment
SEA of polar basin – India	• Framework for managing water resources and integrating environmental considerations • Transfer of experience to other river basins in Tamil Nadu State
SIA and CEA of Nam Theun II hydropower project – Laos	• Assessment of regional and cumulative impacts of hydropower and other development
Transboundary diagnostic/strategic action programme, Lake Victoria Basin – East Africa	• Agreed set of regional priorities for basin countries • Supported environmental management components of the Lake Victoria Environmental Management (LVEMP) Phase II project • Provided strategic issues for the Lake Victoria Basin Commission