LAW AND POLICY OPTIONS FOR STRATEGIC ENVIRONMENTAL ASSESSMENT IN CANADA

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1 The origins and purpose of this paper

This research paper has been produced for the Canadian Environmental Assessment Agency on behalf of the sub-committee on Strategic Environmental Assessment (the SEA sub-committee) which is in turn mandated by the Minister of the Environment's Regulatory Advisory Committee (RAC). The immediate need for the report is a request from RAC to the SEA sub-committee to research and report on law and policy options for improving the conduct of Strategic Environmental Assessment (SEA) in Canada, with a focus on the federal level.

The purpose of the paper is to provide an impartial, research-based assessment of the best approaches to designing and implementing a more effective federal SEA regime for Canada, recognizing the diversity of contexts and conditions under which SEA is needed in this country, the frequently overlapping nature of federal, provincial and other government responsibility, and the challenges evident from SEA experience in Canada to date.

A draft version of the paper was reviewed by the SEA sub-committee, including at a meeting on October 27, 2008. It was also reviewed and discussed by participants in a workshop held in Waterloo on November 13-14, 2008. The workshop participants included SEA experts from Australia as well as Canada, senior private sector consultants, academics and regional government authorities currently engaged in multi-jurisdictional SEA work. While the authors have attempted to address the concerns and incorporate the suggestions raised during these reviews, the results are no doubt imperfect and many important matters of SEA regime design have yet to be examined in detail.

The intent here is not to specify regime design, but to evaluate the main approaches. We have done that and have at the end sketched out some key aspects of how the apparently most desirable approach might work. These elaborations are, however, provided only for illustrative purposes and we recognize the need for more careful thinking about the specifics.

2 Reasons for strengthening SEA in Canada

Especially in recent years, applications of SEA have been expanding in many jurisdictions around the world. Particular forms have varied widely, and both theory and practice have evolved to address new problems and incorporate new understandings. The essential purpose of SEA, however, has been quite consistent. It is to ensure, or at least encourage and facilitate, effective integration of environmental considerations in the conception, planning/design, approval and implementation of policies, plans, programmes (PPPs) and other strategic undertakings. In many cases, SEA is also intended to enhance the openness and credibility of strategic level decision making. At the same time, SEA is often expected to foster more timely attention to strategic issues, to provide clearer and more reliable guidance for subsequent undertakings, and to improve the efficiency as well as quality of decision making.

Strategic undertakings come in a wide variety of forms and an impressive diversity of them can have important implications for the ecological and socio-economic environment and for sustainability. Increasing awareness of, and concern about, some of these effects has encouraged greater use of SEA, both to ensure better attention to environmental and sustainability considerations in the development of PPPs and to address environmental and sustainability issues through new strategic initiatives at a sectoral or regional scale. SEA can also be applied usefully in reviews of past experience including the effects of existing or past PPPs. Indeed such retroactive work should often be part of SEAs of new PPP undertakings, many of which address persistent if now deepening concerns.

Expanding use of SEA is in part a response to the limitations of environmental assessment processes focused at the project level. While project level assessment processes have led to more environmentally informed and generally more transparent and participative decision making on many particular undertakings, they have typically not been able to deal well with larger or underlying concerns – about cumulative effects, broad objectives and alternatives, underlying policy conflicts and longer term options. Because project assessment processes often provide the only significant public opportunity for open deliberations on these larger matters, project level assessments are often expected to accommodate attention to these concerns. The results have often been useful; sometimes they have been groundbreaking. But project assessments are usually too narrowly mandated and come too late in decision making to be generally effective vehicles for examining strategic concerns and options. Where strategic concerns have emerged in project assessments, it has rarely been possible to address them adequacy or efficiently. Too often the experience has been frustrating to all concerned.

An effective SEA regime is therefore attractive as a means of dealing directly with strategic issues in a way that has the advantages of strong project level assessment processes (firm obligations, commitment to the integration of environmental considerations, transparency and participative process, etc.) but also has the necessary scope and mandate for effective influence in strategic level decisions and happens at a time and level that can provide authoritative guidance to subsequent project planning.

Accordingly, two main overall benefits are expected from effective SEA:
- better informed, more credible and more broadly beneficial strategic initiatives, and

• clearer, firmer and more timely guidance for subsequent undertakings.

These qualities can lead to gains for all of the major stakeholders. For federal government agencies that are PPP proponents, SEAs can improve the quality as well as profile and defensibility of PPPs, broaden the range of benefits from PPPs, reduce the risk of unanticipated adverse effects, demonstrate competence and enhance public credibility. For federal authorities with responsibilities at the project level PPP/SEAs can clarify expectations, and facilitate more timely and efficient decision making on project assessments and approval applications. For private sector project proponents, SEA can establish a more certain context for project planning, guide selection among investment options, clarify and simplify assessment requirements, and speed project level assessment review and approval processes. For other jurisdictions, more open strategic deliberations at the federal level can provide openings for early awareness, consultation and possible collaboration. For the broader public, including those who may be affected by specific PPPs and subsequent projects, good SEA brings more transparent and potentially responsive strategic planning and decision making, and the promise of more broadly positive and sustainable outcomes, due to more effective attention to cumulative effects, better integration of ecological and socio-economic considerations, and a longer term perspective. And for everyone, SEA can play a major role in reversing the overall direction of current practices, which taken together are placing ever greater pressures on ecological goods and services, allowing deeper inequities and undermining the legacy for future generations.

SEA is, however, not automatically effective and beneficial. The Canadian federal government has had some form of policy-based requirement for SEA for well over two decades. Assessment of strategic undertakings was loosely included in the 1984 Environmental Assessment and Review Process *Guidelines Order,* and the expectations were reiterated and gradually specified in a 1990 Cabinet announcement on EA reform, a 1993 clarification of the requirements, and formal updates or reinforcements of the *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals* (Cabinet Directive) in 1999 and 2004. The process established under the Cabinet Directive has not been transparent enough to permit close evaluation by outside observers, and the currently commissioned consultants' review of the Directive's effectiveness is still underway. The main publicly available reviews are from the Commissioner of Environment and Sustainable Development, who reported on audits of Cabinet Directive implementation in 1998, 2000, 2004 and 2008. While the Commissioner's reports include evidence of gradual improvement, the 2008 audit still found uneven application of the Directive, weak accountability and widespread non-compliance with transparency requirements (CESD, 2008).

The House of Commons Standing Committee on Environment and Sustainable Development found in 2003 that implementation of the Directive suffered from insufficient commitment and recommended development of a legislated base for SEA (SCESD, 2003). The government's response did not make a commitment to legislated SEA, but accepted the goal of stronger assessment at the strategic level, and promised to seek guidance from RAC on how to improve federal SEA (Government of Canada, 2003).

3 International expertise and experience with strategic environmental assessment

The research for this paper included an investigation of the international literature on SEA, with attention both to theory and to works assessing experience with the conduct of SEA. The full review findings are provided in Appendix 1 at the end of this report. In addition, a draft of this paper was reviewed and discussed by participants in a workshop held in Waterloo on November 13-14, 2008. The workshop participants included SEA expertise from Australia as well as Canada, senior private sector consultants, academics and regional government authorities currently engaged in multi-jurisdictional SEA work.

In summary, the investigation revealed broad international agreement on major components of, and requirements for, design of an effective SEA regime. The key findings are as follows:

- The regime must be applied early and proactively to ensure that attention to environmental and sustainability considerations begins at the outset of deliberations on strategic initiatives.

- The assessment must integrate biophysical (or narrowly "environmental"), social and economic aspects, and their interactions, and the assessment work must be effectively integrated into the core of the larger planning and decision-making process(es) for strategic undertakings. While special attention to ecological concerns is desirable, this is not helpful unless the interactions among ecological, social and economic factors are recognized and unless consideration of the full suite of sustainability factors is integrated effectively into PPP development. The regime cannot work if its requirements are structured and viewed as an additional hurdle to get over.

- The assessment regime must take into account multiple, mutually influential tiers of strategic decision making (decision making on policies, plans and programmes at various levels) and be designed to provide clear implications for assessment and decision making at the project level. Proper design for dealing with the multiple tiers of assessment must recognize the importance of learning and guidance both from higher to lower tier decision making and from lower to higher tier decision making in the interests of improving assessment quality as well as efficiency.

- In particular, the regime must be designed so that strategic level assessments provide clear and timely guidance to the project level; where appropriate, such guidance should be authoritative and application of the guidance in relevant lower tier planning and decision making should be mandatory unless there is evidence that the guidance is obsolete or unsuitable for the particular circumstances.

- The process must be guided by regulatory, policy and/or other forms of direction that establish a standard of assessment to be met, enhance consistency and facilitate improvement through ongoing strengthening and clarification of the guidance.

- The process must be flexible and adaptable to different kinds of and contexts for strategic decision making.

- The process must be transparent.

- The process must include opportunities for public involvement throughout, subject to due recognition of legitimate needs for Cabinet confidentiality.

- Effective incentives or sources of motivation must be in place in order to ensure the process is applied with care and commitment.

- The assessment must be followed by monitoring and enforcement addressing actual performance, as well as actual effects compared with predictions, and encouraging lesson learning to improve future PPPs as well as the assessment process itself.

- Effective SEA requires broad engagement of all the relevant players who may be affected by or otherwise concerned about strategic level issues and effects, and who have an interest in ensuring that they are addressed well in PPPs.

Please refer to Appendix 1 for the detailed discussion of the findings of the literature review.

4 The Canadian context and experience

Canadian experience with strategic assessments, and with similar exercises that share key characteristics of strategic assessments, is long and diverse. It includes in addition to the largely invisible strategic level assessment experience under the current policy-based federal SEA process, SEAs and SEA-like initiatives under the old policy-based federal assessment process, under legislated provincial environmental assessment regimes, under formal resource management and land use planning laws and processes (again often under provincial jurisdiction), and under a wide variety of arrangements for inquiries and reviews addressing particular emerging or continuing concerns (though royal commissions, public inquiries, expert panel reviews, special collaborative processes, etc.). This experience generally supports and reinforces the international observations outlined above.

The Canadian context also poses particular challenges. Perhaps chief among these is the multi-jurisdictional fact of the Canadian federal system, with provincial and territorial governments having jurisdictional responsibility for matters that complement, intersect, and often overlap with, federal responsibility. Various Aboriginal land claims agreements include recognition of special authority for conducting environmental assessments. Many regional and municipal governments also have their own assessment requirements. Also a wide range of strategic initiatives are undertaken internationally under the authority or with the support of Canadian government agencies and require Canadian decision making by statute or by international law. Any potentially effective strategic assessment regime needs to take into account these layers, intersections and overlaps of responsibility.

Another significant feature of the Canadian context is constitutionally entrenched Aboriginal rights. Gradually expanding recognition of Aboriginal rights in recent years has clarified obligations of federal and other decision makers – especially the duty to consult meaningfully with Aboriginal people and to accommodate their concerns where anticipated actions could have adverse effects on practices, customs and traditions. Practical applications of the duty to consult have received more attention at the project level than at the strategic level so far. But because development of PPPs typically offers broader and earlier opportunities for consultation, PPP/SEAs may be increasingly attractive as means for more comprehensive and timely deliberations, with fewer options foreclosed, more time for clarification of concerns and possible responses, and less risk of surprise, conflict and delay at the project stage.

As noted above, the Canadian context also includes the established use of existing, though often *ad hoc* planning, assessment and decision-making processes that have at least some of the characteristics of SEA. These provide useful examples of how to conduct assessments. Moreover, they demonstrate that some of the needs of strategic assessment can be met by these other approaches, and suggest that the design of a strengthened Canadian SEA regime should incorporate recognition and, where appropriate, use of the range of other existing mechanisms. Past examples include the Mackenzie Valley Pipeline Inquiry conducted by Mr. Justice Thomas Berger pursuant to the federal *Inquiries Act*, in the late 1970s. The expertise and high regard in which members of the Royal Society of Canada are generally held, lent confidence to the report of the Royal Society Expert Panel review on the regulation of food biotechnology (2001) – essentially a strategic assessment of options for responsible control of an expanded food biotechnology sector in the context of scientific uncertainties. There have also been special sectoral arrangements, such as the review of the Georges Bank hydrocarbon drilling moratorium; reviews of trade agreements conducted pursuant to the Cabinet Directive by Foreign Affairs and International Trade Canada; the conceptual review of the deep disposal of high-level nuclear waste by an environmental assessment panel established under the Federal Environmental Assessment Review Process Guidelines Order; the Ontario Energy Board's current review of the Ontario Power Authority's Integrated Power System Plan (2007); and other cases reviewed in Noble and Bronson (2007).

Other challenges include the need for SEA processes to be properly integrated into the particular nature of federal and multi-jurisdictional decision making in Canada. Responsibility for environmental and sustainability issues is shared under the Canadian Constitution and in established practice, not just between federal and provincial authorities, but also in arrangements involving Aboriginal authorities, municipal and regional governments, multi-government and multi-stakeholders bodies. Overlaps are especially common where matters of federal and national concern intersect with provincial responsibility for lands and resources.

Additional complexities are raised in cases with international implications, including development assistance programmes and other Canadian initiatives that are meant to be undertaken outside Canada. While Canadian rules and expectations apply, these cases invariably also involve other sovereign jurisdictions (recipient countries and other donors) and in some circumstances capacity-building objectives suggest preference for use of indigenous assessment processes. Although there have been many *ad hoc* efforts to share expertise, link approaches and harmonize procedures between and among jurisdictions, in Canada and beyond, the results remain fragmentary and fragile. Moreover, they are often narrowly focused on a few limited

objectives and considerations rather than the full suite of sustainability issues that need attention in SEA.

Ideally, a strengthened strategic assessment regime in Canada would facilitate active (and where possible cooperative) engagement of the multiplicity of potentially relevant authorities and stakeholders, help to integrate and make suitable use of the range of existing decision-making processes, and spread the practice of early attention to sustainability considerations throughout decision making on strategic initiatives within and beyond the federal realm. The desired result is better planning and decisions that avoid social, ecological and economic damage, deliver multiple, mutually-reinforcing benefits, and generally enhance progress to greater overall sustainability, not just at the federal level, but at all levels of decision making.

The many and diverse SEA and SEA-like initiatives so far in Canada, along with lessons from international experience, give us a reasonable basis for identifying the key requirements for a stronger federal regime. But there remain uncertainties about what specific approaches and provisions will be most effective. The following discussion recognizes the importance of being as clear as possible about SEA expectations and requirements. At the same time, however, some flexibility and discretion will be needed, not just to accommodate special cases but also to allow room for further learning and adjustment. A key consideration, inevitably, will be how to ensure that the flexibility and discretion are used in the service of more effective SEA, and that the relevant authority is vested in bodies least likely to be distracted by narrower objectives.

5 Alternative mechanisms for SEA

This report examines the three basic alternative mechanisms for a strategic assessment regime in light of the lessons from international and Canadian experience discussed above and the design requirements discussed below. The three mechanisms are a legal instrument, a (non-legislated) policy instrument, and a combination of the two. The three options, with brief elaborations on their implications, are as follows:

Legal instruments

The legal instrument would set out the requirements for federal strategic assessment in legislation. It could be in the form of a new law. It could involve the enactment of new provisions in the *Canadian Environmental Assessment Act* (CEAA). Or it could involve an expansion in scope or other adjustment of other existing legislation, such as the federal *Inquiries Act*.[1] Combinations of these approaches are also possible.

Legal instruments offer more certainty about the rules and expectations. They also have the advantage of independent enforceability, which can provide an effective motivation for

[1] R.S.C., c. I-13.

implementation. This is most likely to be effective in combination with transparency provisions that facilitate public accountability and mobilize associated public pressures for capable performance. Legislated requirements are generally less flexible and adjustable than policy-based approaches. This can be a strength where clear and firm obligations are needed, but a disadvantage where circumstances are diverse and fluid. Clearly any SEA law would need to be designed to accommodate a wide variety of applications and allow for exceptions and adaptations that respect the fundamental SEA principles.

Application of legal obligations to government bodies can be more difficult than conventional application of law to actors outside government. This may necessitate efforts to enhance other motivations for compliance (e.g. in performance reviews). It may also demand more emphases on establishing effective and respected means of, and responsibilities for, resolution of conflicts over matters of authority and interpretation.

Policy instruments

The current (2004) *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals* is a non-legislated policy instrument with application dependent on political and administrative commitment, rather than legal obligation. The current Directive could be strengthened to address some of the deficiencies identified in past reviews of the Directive, and some of the lessons from experience noted above. The Directive could, for example, be revised to enhance transparency and public accountability. Alternatively, a different policy instrument containing these improvements could be developed and implemented, replacing the current Directive.

Policy instruments are usually more flexible and adjustable than legislated requirements, but depend on a less reliable base of motivation for effective implementation.

Law and policy combinations

The challenges of pure law and pure policy instrument approaches identified above may suggest that combinations of the two may provide the best all-around solution. While legislative obligations may succeed in forcing actors to meet procedural obligations, they may not anticipate all needs for SEA application or provide sufficient flexibility for all applications. At the same time, policy instruments relying on Cabinet commitment and enforcement may not ensure that carefully rigorous sustainability-focused strategic assessment is conducted consistently or well, and consequently may suffer from poor implementation that undermines the credibility of the process and its products. Moreover, the policy-based approach may not provide sufficiently authoritative guidance for subsequent legally specified project level assessments. It may be that the best outcome will arise from a combination of measures that provide multiple tools and motivations and help foster an overall cultural change in strategic level decision making.

In a combined law and policy regime, the core process and substantive requirements of federal strategic assessment could be set out in legislation, with more flexible additional requirements and expectations, as well as supporting guidance material, provided through one or more policy instruments.

The relative merits of these three basic alternatives, and considerations relevant to choosing among them, are considered in greater detail below as part of the discussion of the design requirements.

6 Generic regime and process design requirements for strategic assessment in Canada

The following interrelated regime and design requirements for effective strategic assessment both emerge from and are reinforced by the international and Canadian experience (see Appendix). They provide a foundation for the selection, evaluation and design of options for strengthening Canadian strategic assessment. While the requirements are chiefly intended for application at the federal level, they also recognize the need to consider implications and applications beyond or overlapping with federal jurisdiction. Consequently, the requirements address wherever possible the considerations for the conduct of assessments meeting the needs of assessments in other jurisdictions. While they are intended mostly for overall SEA and SEA-like regimes, they may also apply to individual SEA cases.

The list is based on four main sources:

- the findings of the international literature review summarized above;
- application of performance criteria developed by members of the International Association of Impact Assessment (IAIA, 2002);
- the principles for designing sustainability assessment regimes set out in Gibson et al, (2005, chapter 7); and
- the criteria for strategic environmental assessment in Canada set out in Noble and Bronson's study of Canadian cases (2007, p. 8).

Also, particular attention is paid to relevance for Canadian application, considering for example federal reality, overlapping mandates of different levels and kinds of government authorities, and the significant rights and interests of Aboriginal groups (in some cases entrenched in authoritative assessment bodies). While the requirements are to be applied here to strengthening federal SEA, they anticipate federal participation in multi-jurisdictional SEAs and are meant to be applicable nationally to SEAs in all Canadian jurisdictions.

The requirements can be summarized in the following 18 points:

1. clear statement of process purposes, centred on commitment to sustainable development or the equivalent, with appropriate evaluation and decision criteria. (N.B. where a component of

the process focuses on the biophysical environment, means of integrating this with the full range of sustainability considerations and interactive effects must be clear and reliable).

2. Application provisions and rules designed to ensure that all significant cases are covered, that PPP development deliberations and final decisions are informed by environmental and sustainability-focused assessments, and that assessments are initiated early enough to address initial purposes and alternatives (or, in a review of an existing PPP, early enough to guide the initial conception of the review).

3. defined linkages between PPP/SEAs and the development, review and approval of related lower-tier strategic or project initiatives, with clear delineation of whether the PPP can give authoritative direction to subsequent undertakings or merely discretionary guidance.

4. sufficient variety and flexibility of process streams (or allowable substitutions of equivalent processes) to cover different sorts of strategic assessment needs (broadly influential policies and programmes, multi-tier PPPs, regional and sectoral undertakings, etc.).

5. means of ensuring particular applications of the process learn from, and/or are coordinated or consolidated with, related strategic work, including that of other jurisdictions.

6. critical evaluation of the purposes of the anticipated PPP and comparative evaluation of potentially reasonable alternatives for serving these purposes (including broadly different approaches as well as alternative means/methods of carrying out particular broad options) in light of sustainability criteria with the aim of identifying/developing the best option (most positive mutually reinforcing benefits, least risk of significant adverse effects).

7. attention to cumulative effects, lifecycle issues and intergenerational implications.

8. matching of assessment effort to the significance of the case (use of more and less onerous streams of assessment, focusing assessment on most crucial issues, etc.).

9. clear delineation of assessment roles and responsibilities, with evident mechanisms to ensure credible independence of assessment review.

10. openings for collaboration and/or consolidation with other processes with equivalent objectives and approaches, including those in other jurisdictions.

11. opportunities for meaningful participation in open deliberations.

12. transparent and accountable decision making.

13. authoritative decisions within the process or other clear means of ensuring that (and showing how) the process guides SEA decision making, the integration of SEA findings in PPP decisions, and implementation of PPP/SEA results.

14. opportunity for appeal where SEA principles or prescribed requirements seem not to have been satisfied.

15. procedures for monitoring, review, iterative learning and identification of needs for corrective action and implementation.

16. impartial administration.

17. adequate resources and motivations.

18. links to broader strategic context (e.g., overall objective setting, indicator development, etc.).

The considerations relevant to the application of the above criteria to the design options (legal instrument, policy instrument, or both) are considered in the next section.

7 Evaluation of SEA process design options and requirements in light of the process design criteria

This section takes the three basic SEA implementation mechanisms – legal instruments, policy instruments and a combination of the two – and examines their potential application in light of the 18 requirements for an effective SEA regime set out above.

1. Clear statement of process purposes, centred on commitment to sustainable development or the equivalent, with appropriate evaluation and decision criteria established in order to ensure that PPPs meet the criteria.

The process must incorporate and consistently reflect a statement of purposes that clarifies the essential expectations. Given current conditions and commitments, a sustainability-centred purpose is well justified. Beyond the encouragements to recognize long-term as well as short-term effects and to address the interrelations among socio-economic and biophysical factors, the contribution to sustainability purpose confirms application of a "positive contribution to sustainability" test (requiring the proposed PPP to be selected and designed to provide clearly positive overall lasting effects, without entailing or raising risks of serious lasting damages. This demands careful assessment of beneficial as well as negative effects, provides a positive basis for comparison of PPP options, and demands careful attention to trade-offs.

The statement of purposes must be included in the legal or policy instrument, or a combination. The positive contribution to sustainability test should also be set out explicitly in the operative sections of the instrument(s).

To accommodate this purpose, the regime must apply a broad definition of "environment" and "effects" (including biophysical, social, cultural and economic factors and their interrelations) and an accordingly suitable basic scope (including in each strategic assessment, critical examination of the purposes and comparative evaluation of the alternatives).

Because "sustainable development" or "sustainability" is typically defined only very generally (e.g. in the new *Federal Sustainable Development Act*) the chosen instrument(s) must provide guidance on generic sustainability-centred criteria for application in SEA evaluations and decision making (see Gibson et al., 2005, for one consolidation of established understandings of sustainability requirements) and on how these may be elaborated and specified for application in particular cases and contexts.

As noted, the regime must require that attention be paid to positive as well as negative effects, and to cumulative as well as immediate effects. It must also require explicit justification of trade-offs, an explicit commitment to precaution, and to adaptive design as well as adaptive management.

Finally, the process design must be especially careful to ensure that specific attention is paid to biophysical and ecological effects as concerns to be integrated into the sustainability-centred analyses and evaluations. This does not imply any diminution of emphasis on biophysical and ecological concerns, or specific environmental effects research. On the contrary, the idea is to ensure that these matters are drawn into the centre of deliberations. The sustainability-centred approach is favoured because of the need for effective and transparent integration, which is generally lacking where biophysical assessments are done separately from economic, technical and socio-political evaluation and planning. A key function of SEA has always been to emphasize attention to ecological and biophysical factors that have been too often neglected in the development of strategic initiatives. Sustainability-centred SEA must therefore retain emphasis on ecological and biophysical factors, as well as other considerations that have not always received due attention in conventional decision making.

2. *Application provisions and rules are designed to ensure that*

   - *all significant cases are covered,*

   - *PPP development deliberations and final decisions are informed by environmental and sustainability-focused assessments, and*

   - *assessments are initiated early enough to address initial purposes and alternatives (or, in a review of an existing PPP, early enough to guide the initial conception of the review).*

To ensure that these three objectives are satisfied, a key feature of good SEA process design is a set of application rules that place greatest emphasis on the most influential PPPs and ensure that the potential proponents of strategic undertakings know from the outset of their deliberations whether and what SEA requirements apply. The current Cabinet Directive trigger – need for Ministerial and Cabinet approval and potential for important environmental effects – is a useful starting place. In this approach, the effective requirement is that all PPPs that may require Ministerial or Cabinet approval need to be assessed, at least to determine the potential for important effects.

Being more specific about PPPs needing SEA, and the assignment of individual SEA to more and less demanding streams, is not simple, in part because the nature and potential implications of

new PPPs often cannot be anticipated, Experience suggests that judgements about "importance" or "significance" vary and are not always best left to proponents. Lists of categories of undertakings that automatically require SEA, especially SEA in a relatively demanding stream, can be useful. So can published criteria for evaluating SEA needs.

A good basic principle in application decision making is an initial bias in favour of inclusion (all in unless exempted out, rather than all out unless designated in). But it will also be useful at least to identify the categories, fields and characteristics of PPPs for which SEAs are automatically required and to provide a transparent and impartial exemption process. This would apply both to new PPPs and to the backlog of on-going PPPs due for review with SEA. In addition it would be desirable to provide for a variety of approaches to identifying PPP/SEA needs, focusing on strategic areas governing the most unsustainable prevailing practices. Relevant mechanisms could include requests from non-government bodies, proposals from other governments (e.g. provinces proposing collaborative PPP/SEAs), and referrals from panels in project level assessments where larger PPP issues have emerged. Some possibilities are sketched out below in this section and in the illustrative structure presented in Figure 1 and the accompanying discussion.

The second point under this requirement, that PPP development deliberations and final PPP decisions should be informed by environmental and sustainability-focused assessments, suggests that SEA should be deeply integrated into the development of PPPs. The logical advantages of such integration have been confirmed by SEA experience. As Noble (2009) has reported, "where SEA has demonstrated at least some success it [has] unfolded as an integrated process with PPP development". Effective integration into decision making has, however, not been a characteristic of Canadian EA practice so far. Noble (2009) states that "in Canadian practice … environmental assessment has long been an add-on process or yardstick against which the acceptability of proposals is measured, rather than an integrated decision support tool to develop better ones."

A critical prerequisite for effective substantive integration is the third point, about early initiation: in order for complete integration to be possible, the strategic assessment must begin in the very first stages of deliberations when the PPP is first being considered and developed. This applies as well to review and renewal of existing PPPs and even to retroactive SEAs that examine lessons from PPP experience. The key here is recognition that for all new PPPs or renewals of existing ones, SEA should be an integral organizing feature from the outset.

Ensuring early initiation of well integrated SEA depends heavily on how and when the process identifies which PPP initiatives are subject to SEA requirements. Early initiation and integration are clearly impossible if the decision to require SEA is made only after a PPP is developed and proposed. The best approach centres on the approach suggested above – pre-identification of all categories of PPPs that are likely to merit SEA – and inclusive application to all such PPPs, using an "all in unless expressly exempted" rule.

This inclusive application of SEA requirements to pre-identified categories of PPP will need to be supplemented by provisions to deal with less easily predictable SEA needs. Several additional mechanisms could be desirable (see also illustrative Figure 1 and the related discussion below in section 8).

The first would address SEA needs that emerge in the course of project assessments. One of the major motivations for SEA is the frustration of project proponents and project level assessment participants who find significant strategic level issues (e.g. concerning cumulative effects, broad policy implications, needs for new or updated programmes or plans) arising in project assessment processes that are not adequately mandated or otherwise equipped to deal with strategic level concerns. In such cases, some parties have recommended an "off ramp" mechanism, which would move the contentious strategic matters up to a properly assigned SEA process. Careful design would be needed to ensure suitable authority, timeliness and appropriate links between the SEA work and the originating project assessment. This would include attention to whether and how to proceed with the project assessment while the larger issues are being addressed at the strategic level. Nonetheless, it seems clear that such a mechanism could play an important role in enhancing both project and strategic level decision making.

A second supplementary SEA application mechanism would provide for PPP/SEA requests for other jurisdictions, including provincial, territorial, Aboriginal and municipal authorities. These requests would hopefully include, but not be restricted to, proposals for collaborative PPP/SEAs. Collaborative PPP/SEAs would likely involve a host of challenges but are obviously appropriate to the Canadian reality of overlapping jurisdiction and could be valuable means of building long overdue cooperation in many areas and might in the longer term help to foster some practical upward harmonization of assessment at the strategic level.

A third roughly parallel mechanism would facilitate requests from non-government bodies, including private sector interests and citizens' groups, to initiate SEAs in areas where new PPPs seem to be needed or where existing PPPs apparently need updating, reconsideration and reassessment in light of new circumstances or understanding.

It might also be desirable to establish a mechanism relying on multiple participants to identify important areas of needed PPP initiative – covering the most unsustainable current practices, emerging fields of innovation and potential concern, existing PPPs that are apparently due for reconsideration, and long standing controversies where PPP efforts are lacking or obsolete – and to require the federal government to initiate PPP/SEAs for a specified number of these each year.

A credibly independent, arms-length body would be needed to consider and rule on both off-ramp and public SEA initiation requests. Such a body could also be tasked with considering requests for exemption in cases meeting specified requirements (such as emergencies, or instances where it can be shown that a previous or concurrent assessment had already considered or will consider the PPP that is at issue). See also the discussion under requirements (ix) and (xiv).

The regime should also provide flexibility for the conduct of strategic assessments in special cases where not otherwise mandatory (for example, where prescribed thresholds for the PPP are not met). This includes situations where the PPP may be usefully subject to federal-provincial or multi-jurisdictional assessment.

Both legally specified and policy-based regimes require clear rules and processes for decisions on the application of SEA requirements. A combined law and policy regime would assign some PPPs to a SEA stream with requirements specified in law and others to a stream with

expectations set out in policy (e.g. a Cabinet directive). Choice between these options could be based on a variety of factors, including the significance of the PPP undertakings involved and the adequacy of non-legislated motivations for implementation.

A key consideration is that use of a legally specified SEA stream will be needed where the intent of the PPP is to provide authoritative direction to subsequent lower-tier decision making. This would be the case, for example, where an assessed strategic level plan is to impose direction and/or limitations on the proponents of particular projects in the plan area. Where the PPP under assessment is unlikely to be connected to a project downstream, then it may be appropriate for the strategic assessment to be guided by a policy instrument rather than a legal instrument. But as discussed further below, where the PPP is to establish mandatory direction for lower-tier undertakings, the consistency, rigour and credibility of the legally specified SEA stream is needed.[2]

3. Defined linkages between PPP/SEAs and the development, review and approval of related lower-tier strategic or project initiatives, with clear delineation of whether the PPP can give authoritative direction to subsequent undertakings or merely discretionary guidance.

The international literature and Canadian experience both point to the need to strengthen linkages between PPP assessments and project planning and assessment, as well as among strategic levels. Part of what makes strategic assessment "strategic" is that the conclusions of a strategic assessment can provide useful foundations for lower level strategic assessments and for project-level assessments (Partidario 2007, citing Wood and Djeddour 1989).

Useful information and guidance can come from a wide variety of strategic level initiatives, even ones not tied to specific PPPs. Regional cumulative effects studies, broad scenario building and comparing exercises and retrospective evaluations of sectoral PPP experiences, for example, can all make important educational contributions, and produce valuable insights and data sets for project as well as strategic level undertakings. It is also reasonable to expect that such SEAs (or SEA support initiatives) could help to streamline some assessment tasks at the project level.

For many proponents and other participants in assessments at the project level, however, a main attraction and expectation of SEA is the prospect of properly assessed PPPs resolving larger scale issues and removing these issues, and associated conflicts and delays, from project-level EA deliberations. This is most defensible, and perhaps practically feasible only, where the SEA is designed to produce firm guidance or direction for following lower-tier and project level assessments and where the SEA process is also legally specified and has core qualities (e.g. scope, openness and rigour) that are at least equivalent to those provided for project-level assessment. Accordingly, the intent to provide authoritative direction to subsequent

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[2] In some cases where possible use of a range of policy tools is under consideration, it may not be possible to determine at the outset whether binding direction is desirable and hence whether the law-based or policy-based process is most appropriate. It will therefore be important to retain flexibility for moving cases from one stream to another.

undertakings would be an important criterion for distinguishing PPPs that merit assessment in a legally specified stream from PPPs suitably assessed under the policy-guided stream. Where the PPP is to direct planning and assessment of undertakings subject to project-level assessment under CEAA, the PPP/SEA must use a legally specified SEA process stream. Here, the principle underlying the relationship between SEA and project EA is "law to law".

At the same time, limits must be placed on the authority of strategic level decisions to rule over lower-tier assessments and decisions. PPP/SEA guidance to lower-tier decision making must recognize that circumstances change over time and that flexibility is needed to respect the specific realities of different project contexts. Where there are important uncertainties, highly diverse applications, fluid conditions, conflicting priorities, rapidly evolving understandings or rising technological possibilities, firm strategic direction to lower tiers is likely to be inappropriate. In any event, directions from strategic assessments should be time-limited. They should be open to earlier review if new information or changed factors emerge. And the application of strategic guidance to downstream initiatives including projects should be tempered by provisions for adjustments to accommodate particular circumstances not anticipated in the SEA.

As noted above (section 2), upward learning and guidance should also be facilitated. This could be done, for example, through provision of the "off-ramp" mechanism discussed earlier, where a project assessment raises significant new concerns and considerations that merit strategic-level review. Another complementary possibility would be general encouragement of project level assessment participants to identify important needs for new or updated PPP initiatives (to address policy gaps, emerging cumulative assessment questions, new developments that change the context for old PPPs, etc.)

Project level assessments may not be well suited to address strategic level considerations, but they have been among our most important means of identifying strategic issues that need to be addressed, recognizing inadequacies in existing PPPs, and promoting attention to strategic alternatives. It will be important for project level assessments to retain those roles, even in a new SEA regime with provisions for firm direction from the strategic level.

4. Sufficient variety and flexibility of process streams (or allowable substitutions of equivalent processes) to cover different sorts of strategic assessment needs (broadly influential policies and programmes, multi-tier PPPs, regional and sectoral undertakings, etc.).

The chosen regime must be designed to ensure and permit a wide variety of strategic undertakings to be assessed. One of the major challenges of SEA is the great range of strategic-level concerns that merit attention and the diversity of strategic initiatives that have been or could be undertaken. This has implications for the design of rules for application of SEA requirements (discussed above) and for the provision of suitable process streams for SEAs of greater and lesser scope, authority and potential effects on progress towards sustainability.

Project level assessment processes typically have multiple process streams, including rapid screening for minor undertakings, standardized procedures and conditions for categories or classes of common small projects, more comprehensive study and review requirements for major

undertakings, and provisions for mediation and hearings in more significant and difficult cases. Processes for moving particular undertakings from one stream to another are also common, though often problematic in application. For each of these, the regime must specify criteria, processes and authorities for allocating undertakings generally to the various streams and for dealing with the exceptional cases. A sound SEA regime will need a roughly similar set of streams and adjustment mechanisms, and will need to incorporate means of overcoming the evident challenges of implementation.

Not all of the options here involve new processes. A few kinds of PPPs are already subject to established procedures for open development, review and approval. In such cases, the more effective and efficient course may be to consolidate SEA and existing requirements and processes (e.g. by providing for joint processes and/or expanding current processes to incorporate SEA obligations) and, eventually, to permit process substitution.

In the near term, while a foundation of SEA experience it built and normal expectations are established, strategic assessments should probably be centred in the SEA process itself and in consolidated joint processes. Once the necessary fundamentals are clear and widely accepted, process substitutions may be feasible and attractive. Substitutions could include referral to federal inquiries (whose members are appointed for a particular inquiry), to processes conducted by other administrative tribunals such as the National Energy Board (if their capacities as well as mandates are expanded to deal capably with the scope of sustainability-based assessments), to multi-stakeholder mechanisms that otherwise meet the requirements of the regime, and to relevant planning and/or assessment regimes that already have multiple tiers built in, such as the plan-programme-project tiers where the Canadian International Development Agency (CIDA) plans its activities in a country, or the development of National Park Management Plans that must comply with the rules and standards established by the *Canada National Parks Act*. In all these cases of existing processes, however, adjustments would be required to ensure that the core substantive requirements of sustainability-focused SEA (application of comprehensive sustainability criteria, comparative evaluation of alternatives, attention to trade-offs, process transparency, opportunities for public/stakeholder engagement, etc.) are met.

Other examples of potentially permissible substitution are referrals by the appropriate authority (for example, Cabinet in the case of federal inquiries or Royal Commissions) to credible, arms-length bodies independent of the executive branch, such as expert panels of the Royal Society of Canada (as has been done in the case of the Expert Panel on the Future of Food Biotechnology, and the Expert Panel on Science Issues Related to Oil and Gas, Offshore British Columbia).

Consolidations and substitutions could be written into the regime by reference, for example, to circumstances where the federal *Inquiries Act* is engaged by the federal Cabinet. The regime should require that an inquiry or commission or other process meet the requirements of an assessment conducted directly under a legislated SEA regime. Where the regime requires particular methods of public involvement (see requirement xii below) at various stages of the assessment, for example, the substituted process must meet that standard both procedurally and substantively.

In order to ensure comprehensiveness and consistency, basic standards should include generic requirements concerning purpose, scope, early and ongoing public engagement, reporting and

review, rationale for decisions including acceptance of any trade-offs and follow-up monitoring and enforcement. The most significant cases should require public hearings. Other elements of public involvement (including participant funding) should be required at a level consistent with the significance of the case. (In this context, see requirement viii below dealing with proportionality generally.)

Special additional provisions will be needed to facilitate cooperative SEA work with other jurisdictions including foreign governments and international bodies as well as other authorities within Canada.

5. Means of ensuring particular applications of the process learn from, and/or are coordinated or consolidated with, related strategic work, including that of other jurisdictions.

One of the biggest challenges in a federation such as Canada, particularly one that has several jurisdictional layers and levels, is ensuring that a federal regime can be integrated with the processes and other requirements of the other jurisdictions. The relevant parties include the provincial, territorial, Aboriginal and municipal authorities.

A key principle is that cooperative and integrated SEA must not compromise any of the core requirements of the federal SEA regime and must not compromise federal responsibilities and jurisdiction. Protecting the integrity of federal jurisdiction is likely to be most effective with a legal instrument rather than merely a policy. But with that in place, there should be wide scope for, and considerable effort to facilitate, collaborations on a host of strategic matters that involve shared jurisdiction, interest and need. To be effective, the chosen regime must allow for mutual guidance and cooperation between and among different types of strategic assessments, such as regional programme and plan assessments and sectoral policy assessments of activities with regional effects. The process must be sufficiently flexible to allow for this type of cooperation and integration.

6. Critical evaluation of the purposes of the anticipated PPP and comparative evaluation of potentially reasonable alternatives for serving these purposes (including broadly different approaches as well as alternative means/methods of carrying out particular broad options) in light of sustainability criteria with the aim of identifying/developing the best option (most positive mutually reinforcing benefits, least risk of significant adverse effects).

The fundamental aim of the desired regime is to foster strategic decision making approaches and results that move us towards sustainability. This is a government-wide aim, broader than the mandates of individual authorities, and SEA with this aim is a vehicle for ensuring that authorities developing strategic undertakings do so with the broader agenda firmly in mind. To ensure SEA effectiveness, the most crucial components of the SEA regime include the requirements concerning purposes, alternatives and criteria for evaluations and decisions.

The purposes of a PPP set the grounds for identifying the options to be considered as potential approaches to meeting the strategic objectives. If the purposes are defined in an unduly narrow

way to constrain options tightly, the potential for innovation is lost. The SEA regime must therefore ensure that purposes are framed broadly enough to facilitate identification of options that might serve sustainability objectives more effectively than conventional practice. This is more likely to be successful if the defining of purposes is open to participation by interested parties and subject to critical review.

For similar reasons, the SEA regime should include mandatory consideration of both alternative fundamental approaches and alternative means of delivering the purposes of the undertaking.

In the review of proposed purposes and in the comparative evaluation of alternatives, application of the mandatory "positive contribution to sustainability" test plays a central role. For alternatives, the objective is not merely to find an acceptable option, but to identify the best option – the one that is most likely to deliver sustainability-enhancing benefits, preferably multiple, mutually reinforcing and lasting benefits, while avoiding risk of significant adverse effects, especially persistent ones that will be a damaging legacy to future generations.

Requirements for critical review of purposes and for comparative assessment of alternatives in light of sustainability criteria can and should be incorporated in policy and law based processes. Experience with legislated and non-legislated obligations at the project level, however, suggests that a legislated obligation is likely to be taken more seriously.

As noted above in the discussion of purposes and criteria, it will be important to set out the basic sustainability-based evaluation and decision criteria to be applied in all SEAs, and to provide for context specific elaborations in individual cases. While the fundamentals can and probably should be set in law, further policy guidance on criteria elaboration and application is likely to be valuable for all SEAs.

7. Attention to cumulative effects, lifecycle issues and intergenerational implications

As at the project level, all strategic assessments need to consider cumulative and indirect effects of PPPs as well as their immediate and direct effects. In all assessments, commitment to sustainability clearly entails attention to intergenerational implications. Although immediate and direct effects are typically easier to identify in strategic as well as project assessments, the larger overall effects are in the end what is most important.

One of the strengths of the *Canadian Environmental Assessment Act* is that it requires consideration of cumulative effects in project assessments. The project level is, however, a far from ideal venue for assessing cumulative effects and is even less well suited for identifying and mobilizing appropriate responses, in part because only one contributing project and proponent is typically involved (see, for example, Duinker and Greig, 2006; Davey et al, 2002; Kennett, 1999; Kennett, 2000). Attention to lifecycle effects at the project level is similarly useful but also constrained by the limited scope and agenda of project assessments.

Because of increased concern about sustainability effects, consideration of intergenerational implications, including the legacy effects of mines and other limited term projects, has been given more emphasis in project assessments. This would be appropriate and could be more

influential at the strategic level where there is more scope for identification, evaluation and pursuit of different future scenarios and other broad alternatives.

Strategic level assessments have the advantage of being at the scale needed for effective consideration of cumulative effects, lifecycle issues and other large concerns. More importantly, PPPs are at the scale needed for identification and evaluation of potentially effective responses to these concerns. Cumulative effects, technology lifecycles, alternative regional futures, and similar broad impact issues are likely to be the direct subjects of some PPP/ SEA initiatives. Cumulative effects, lifecycle analysis and attention to intergenerational implications should, however, be required elements of all SEAs, regardless of assessment stream or application through policy or law.

8. Matching of assessment effort to the significance of the case (use of more and less onerous streams of assessment, focusing assessment on most crucial issues, etc.).

For obvious reasons of efficiency in resource allocation, the effort made in the assessment should be proportional to the significance of the case. This is the principle underlying provisions for various more and less demanding streams of assessment (discussed above in section iv). Similarly, a legal instrument is probably most suited for the most significant cases, and a policy instrument for the less significant cases, although proportionality of effort could be built into the applications of both instruments.

As noted above, sufficient flexibility should exist in order to allow particular cases to be moved from one stream to another, including being bumped down to a less demanding process or bumped up to a more demanding one. Requests for such moves would need to be considered by an arms-length, independent body having the resources, capacity and jurisdiction to decide the matter. This too seems likely to be a matter of efficiency as well as impartiality, given what we know about the prospects for delay when such decisions are made by authorities that are more vulnerable to political and administrative sensitivities.

9. Clear delineation of assessment roles and responsibilities, with evident mechanisms to ensure credible independence of assessment review.

The law and/or policy instrument needs to set out the respective roles and responsibilities of the various parties involved in assessments, including identifying the person or body having overall responsibility.

Ultimate accountability for the process to the public is important, and can be achieved in a number of ways. One must consider the degree of special knowledge that must be vested in the body that administers the overall process. It must be given sufficient resources to oversee convincingly the tasks delegated to it under the chosen regime, and it must have the necessary credibility in order to inspire and earn confidence.

An existing agency such as the Canadian Environmental Assessment Agency might seem an obvious choice, although it would need considerably more clout than it has had to date in order to command the respect of proponents and other government departments and agencies that would be subject to its authority. Additional authority (and additional credibility as a consequence if the authority is wielded capably) would be likely to arise from the agency's being given the power to compel information, and other powers.

A division of the agency could be created to adjudicate on disputes and appeals (as also discussed in points 2 above and 14 below), or a separate tribunal could be created. Whichever model was chosen, the tribunal would need to be sufficiently insulated from day-to-day operations of the agency, while at the same time able to benefit from the latter's expertise and resources without duplicating effort unnecessarily. Federal models that could be considered for this division of responsibilities include the federal and provincial human rights commissions and their respective tribunals, and the federal Competition Bureau and the Competition Tribunal.

The assessment body or agency would have sufficient independence from the partisan leadership of the day, and from the line departments participating in assessments and promoting the policy, plan or programme being assessed, to inspire confidence in its decisions, which could range from adjudication of disputes generally (such as disputes about the application of the process), on bump-up requests, and on challenges to the application of strategic level guidance to a lower (plan, programme or project) level.

The body or agency having overall, everyday responsibility would report to the public through a body having sufficiently direct accountability to the people of Canada. Parliament is perhaps an obvious first choice, although it could be argued that Parliament alone does not have the sufficient expertise or ability to focus on the agency's performance. Alternatively, the body could report to one of the "central agencies" of government. (Over time, the agency responsible for strategic assessment might grow in profile and capacity so that it would itself be considered a "central agency" to which other departments routinely report, as is the case at present with Treasury Board or Privy Council Office for fiscal and cross-cutting policy matters.)

This aspect of the regime would require the use of a legislative instrument, by way of either amendment of the CEAA, or by the enactment of new legislation.

10. Openings for collaboration and/or consolidation with other processes with equivalent objectives and approaches, including those in other jurisdictions.

Either a legal or policy instrument, or both, would specify the criteria for processes that qualified for joint processes or, in more limited cases, for substitution of the process established in the instrument(s). The criteria for collaboration or consolidation would need to address the circumstances allowing cooperation; ensure equivalency of scope, objectives, evaluation criteria, fairness (including participant funding) and authority; and guide decision making on particular joint or substituted steps, such as joint or substituted public reviews and/or hearings, and the processes to be followed.

See item 4 above for discussion of different process streams.

11. Opportunities for meaningful participation in open deliberations.

A role for the public as well as particular stakeholders in the process is essential in order to achieve public confidence and to ensure that it is democratically sound. Regardless of whether a law or policy instrument is used, mandatory public notice of each strategic-level initiative potentially requiring assessment is required at the very earliest feasible opportunity. The notice should include information on the purposes of the anticipated undertaking, the options initially identified for consideration, the key issues and the expected participation opportunities. Such early notice is well established and demonstrably valuable in many advanced strategic processes for regional and urban land use planning and for forest and other resource management. Ontario's Environmental Registry is an example of a public notice vehicle currently used to provide early open notice of proposals for new strategic initiatives or changes to existing ones, including laws and regulations (Government of Ontario, 2008). The US Federal Register, which among other roles provides "advanced notification of proposed rule making," is another rough model (GPO, 2008).

More significant initiatives require a greater degree of public involvement, both overall and in terms of specific requirements. All cases, however, merit steps to ensure transparency and opportunity for public/stakeholder engagement (see for example the Regulatory Advisory Committee subcommittee report on "Public Participation in Screenings" at the project level (RAC, 2007).

Among the suggested specific requirements are notice and opportunity to comment on an initial statement of proposed purposes of and alternatives to be considered in identifying a proposed initiative, and notice and an opportunity to review a draft assessment document, all with sufficient time allowed for review. Similar provisions may be required for other significant stages in the assessment, in order to keep all participants equally informed throughout.

As noted above, open processes also are needed for a host of other key deliberations. These include determining which categories of cases are to be subject to particular SEA streams, which individual cases should be moved from one stream to another, which strategic issues identified in project assessments should be put on the off-ramp for strategic initiatives, and which cases should involve public hearings. Provisions and requirements for the necessary participative openings must be included in any legal and/or policy instrument.

Intervenor funding should be available for public interest participants in the process, including all stages described in the above paragraphs including but not limited to public hearings. The fund should be maintained at a level that is appropriate to ensuring that the interested public can participate effectively. Decisions about allocating intervenor funding ought to be made by a panel (either the panel reviewing the assessment itself, or a separate panel), whose members are independent and at arms-length from all interested parties including governments.

In addition to public involvement in individual assessments, the public should be involved in establishing and resolving the broader administrative, policy and regulatory issues facing the regime. A mechanism such as the Regulatory Advisory Committee, which currently reports to the federal Minister of the Environment through the Canadian Environmental Assessment Agency,

could be used for this purpose. As noted above with regard to overall process administration, reporting to Parliament or a central authority may be more suitable than reporting to the Minister of the Environment.

Regular monitoring of the strategic assessment regime by the Auditor General and the Commissioner of the Environment and Sustainable Development (each in areas relevant to their particular responsibilities and expertise), and reporting on the results, should be required in order to open further debate on and allow for improvement of the regime. The *Auditor General Act* and relevant schedules of the *Financial Administration Act* may need to be amended in order to clarify this added responsibility for the Commissioner.

12. Transparent and accountable decision making.

As is noted in the literature, accountability, public trust, good governance and other benefits are the likely results of an open regime that allows good public involvement. Openness in individual assessments begins with mandatory notice that the PPP is under consideration, of the availability of documents, and at other key stages.

In keeping with administrative law standards of fairness and natural justice, key decisions should require that explicit reasons for decisions be given, including justification for the statement of purposes, the selection among alternatives and the acceptance of any significant trade-offs.

Administrative law principles also require transparency, unbiased decision makers, expertise of decision makers, giving adequate reasons for decisions, the right to appeal decisions, and accountability for decisions made, among others.

Some thought should be given to whether explicit generic criteria for comparative evaluation of alternatives and for deciding on the acceptability of trade-offs should be written directly into the legal and/or policy instruments, or presented in guidance material, or left to the independent body charged with making the ultimate recommendation or decision in the assessment process. Clarity about the criteria to be applied is likely to be valuable for all participants. However, generic criteria will have to be expanded and elaborated for application to particular cases and contexts. In any event, justification of decisions in light of explicit sustainability-focused criteria and trade-off rules should be required.

13. Authoritative decisions within the process or other clear means of ensuring that (and showing how) the process guides SEA decision making, the integration of SEA findings in PPP decisions, and implementation of PPP/SEA results.

There are two main issues here: the firmness of SEA requirements generally, and the authority of PPP decisions in the development of lower-tier PPPs and the planning and approval of specific projects.

Concerning the first issue, the legal instrument offers at least the potential for effective enforceability and consequently promises to be a more powerful vehicle for motivating compliance with SEA obligations. Canada's many years of experience with the policy-based approach to SEA have demonstrated very weak motivations for implementation, despite the mobilization of soft compliance oversight by the Auditor General and Commissioner of the Environment.

The legally specified approach also promises greater firmness in guidance for lower-tier PPP and project level decision making. Under the legal instrument option, the process could provide for a final decision document that specifies directions for the conduct of lower-tier strategic undertakings and/or projects. Any mandatory components would need to be enforceable. The result would be binding direction[3] for the development of lower tier PPP and project level undertakings, reducing the burdens and delays resulting from policy uncertainties. How the federal PPP directions would be effectively complemented by firm provincial PPP directions in cases of overlapping jurisdiction and joint SEA application would depend in part on the existence and nature of legally specified provincial SEAs or SEA equivalents. Additional process design needs would include means of ensuring the PPP directions are time limited and/or updated regularly and means of dealing with exceptional circumstances.

If some or all of the regime were set out in a policy instrument only, the supremacy of the policy instrument relative to the federal government's other key policy guidance, and its enforceability in the federal family, would be less clear. While completed PPPs could provide guidance for lower-tier PPPs and even for legally specified project assessments, the guidance would lack authority and the associated issues would remain open to debate in project level deliberations and decision making.

14. Opportunity for appeal where SEA principles or prescribed requirements seem not to have been satisfied.

In order to ensure the soundness of the regime and decisions made under it, a number of decision points in the regime would be open to review and/or appeal.

Key questions that could be subject to review/appeal include the following:

- whether assessment result meets "positive contribution to sustainability" test;
- whether purpose of the initiative, alternatives to it, alternative means of carrying it out, and/or other requirements of the regime were properly considered and applied;
- whether an anticipated new PPP, or an existing one that has not been assessed or that is due for renewal or replacement, ought to be subject to SEA requirements;

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[3] "Binding" direction could involve a range of possibilities from highly specific obligations and conditions, to broad requirements to comply or be consistent with stated principles.

- whether authoritative guidance from an SEA-based PPP decision was applied appropriately to a lower-tier strategic assessment or to a project assessment;

- whether or not a request for transfer of an SEA from a policy-guided stream to a legally specified stream should be approved; and

- whether a PPP/SEA decision reflects due process as set out in the SEA requirements.

Depending on the circumstance, an appeal or request for review could be, at least initially, to an independent, quasi-judicial arms-length body established under the strategic assessment legislation, and/or (at first instance, or in the case of further appeal or judicial review application) to the Federal Court.

15. Procedures for monitoring, review, iterative learning and identification of needs for corrective action and implementation.

As noted by Partidario (2000), an assessment process needs to be designed in such a way that allows for lessons learned through experience to be incorporated in improvements. Regular, independent monitoring, by the federal Commissioner of the Environment and Sustainable Development and by other, third-party reviewers, as well as review by participants (in the RAC-type forum discussed above), and public reporting on the results, must be regular, open and robust.

Provisions for regular public review of the regime as a whole are becoming more common in new laws and policies. In a legal SEA instrument, a regular review every five to seven years as in existing federal environmental legislation (*Canadian Environmental Assessment Act*; *Canadian Environmental Protection Act, 1999*; *Species at Risk Act*) is suggested. A policy-based regime, or regime component, could include a similar review provision (and/or the scope of the review in the CEAA could include review of the policy-based regime). In a mixed law and policy regime, the reviews of the legal and policy instruments would occur in parallel, perhaps also in parallel with the legislative review of CEAA with necessary procedural and substantive enhancements.

Review of individual PPP decisions is also desirable. A particular focus should be on the guidance that PPPs provide for lower-tier and project level undertakings. To ensure that the guidance is responsive to changing circumstances and new understanding, PPP/SEAs should be time-limited and subject to earlier reconsideration where appropriate. Especially for more significant cases and/or those subject to a legislated regime, the development, implementation and monitoring of follow-up plans should be mandatory.

New circumstances (such as new technologies, new concerns about adverse effects, and similar considerations) should trigger review and updating of strategic approvals. The engagement of other legislation is one possible type of trigger; for example, the notification of a New Substance (pursuant to the *New Substances Notification Regulations* made under *CEPA, 1999*) or

Significant New Activity (SNAc provisions, also under CEPA, 1999) might trigger the SEA regime.

16. Impartial administration.

As indicated under requirement 9 above, an independent body or agency at arm's-length from vested interests and government departments (especially those with industry promotion or combined promotion and regulation mandates), should have overall responsibility for the strategic assessment regime.

A quasi-judicial tribunal, independent from the administrative body, would perform the review/appeal functions identified under requirement 14 above. This body would adjudicate on disputes and appeals on key issues (e.g. application of requirements, bump-up from policy-guided process stream to the legally specified process stream, challenges to application of strategic level guidance to project level or lower strategic level, etc.).

17. Adequate resources and motivations.

Resources adequate to the task of carrying out the tasks of strategic assessment, for evaluating performance of assessments at arm's-length, for providing intervenor funding, and to meeting the requirements of other functions identified here, would need to be provided through the necessary parliamentary appropriations.

The introduction of strengthened SEA should be treated as an opportunity of enhanced decision making efficiency rather than a new layer of obligation. While new obligations are certainly involved, the intent and the design should focus on integration of SEA approaches into the strategic development process. SEA should not be designed or presented as an additional side process. Moreover, the objective should be to ensure effective early attention to big issues that would otherwise become costly problems and lead to more numerous conflicts that cannot be addressed effectively or efficiently in project level processes. The overall effect of the SEA regime should be more efficient allocation of resources as well as achievement of a broader range of lasting benefits.

Anticipation of greater benefits from PPP initiatives may by itself provide some effective motivation for strengthened SEA. A legal instrument that requires strategic level assessments to be conducted and establishes the authority of properly assessed strategic initiatives would also provide valuable guidance for and efficiencies in project level assessments falling under these strategic initiatives. Additional motivation for proper conduct of the regime would be provided by means of the review/appeal provisions outlined above.

18. Links to broader strategic context (e.g., overall objective setting, indicator development, etc.)

The SEA regime, whether it is based in law or policy or some combination, will need to be clear about its sustainability objectives and the general sustainability criteria to be applied in SEA evaluations and decisions. In particular applications, these criteria will need to be specified to recognize the particulars of case and context. While these basics can be set out in SEA law and/or policy, guidance from other sources should also be sought and developed.

Other potential means of establishing suitable sustainability-focused criteria for SEAs and other applications include development of a comprehensive sustainability strategy for the federal government. Such a strategy might be help to ensure consistent overall guidance for strategic assessment decisions taken in the absence of strategic assessment legislation. Implementation of the new *National Sustainable Development Act* could be a step in this direction, especially if its focus in implementation extends beyond narrowly defined environmental indicators to adopt a comprehensive sustainability agenda.

SEA regime design and implementation must also pay attention to Canada's international commitments and obligations, including through international conventions such as the Convention on Biological Diversity.

8 General conclusions

The discussion above draws from the international literature on SEA a set of generic criteria for design of an effective approach to defining and applying SEA obligations and processes. It considers these in light of the Canadian context and Canadian experience. Finally, it applies the resulting criteria in an evaluation of the three basic mechanisms for building an SEA regime: a legal instrument, a policy instrument, and a combination of the two.

The analysis reveals that an SEA regime combining law and policy would be most likely to satisfy the core requirements, expectations and application needs for SEA at the federal level in Canada. Its chief advantages would be provision of a consistent framework for effective integration of key ecological, social and economic concerns and attention to sustainability objectives, combined with great flexibility in implementation. It would also provide considerably strengthened motivation, a foundation for binding direction for lower tier PPP and project level undertakings, and a means of enhancing credibility and transparency at the strategic level while reducing burdens at the project level.

Essentially, the combined mechanisms approach would use the legally specified approach as the core for application to the most significant strategic initiatives and for application where authoritative guidance for lower tier and project level deliberations is desired. A more flexible policy-guided stream would be used for a wide range of less ambitious applications. A new SEA law (or a new SEA component of an expanded CEAA, or some other equivalent) would be needed to establish the combined regime. It would, among other things,

- define the sustainability-centred purpose and scope of federal SEA;

• set out the mandatory aspects applying to all PPPs (initial notice, public release of the final SEA, etc.);

• provide for the policy-guided stream (which could include two or more sub-streams for undertakings requiring different levels of detail and consultation);

• set out the essentials of the legally specified stream (which would include at least two sub-streams, one roughly equivalent to comprehensive study and the other roughly equivalent to a panel-type hearing process) and provide for further specification in regulation and policy;

• clarify relations between PPP/SEAs and project-level cases (especially where binding direction can be provided by PPP/SEAs); and

• establish the relevant administrative and decision making bodies and responsibilities.

More specific regime design considerations and the reasoning behind them – concerning matters of application, scope, evaluation and decision criteria, participation, administrative and decision making responsibility, etc. – are provided above and are illustrated below in section 9. This illustration is, however, just a first step in sketching out a feasible and effective approach. Much more detailed elaboration is required for many of the key components. Some of the numerous areas needing attention are listed in section 10, below.

While more work is needed here, the analysis reveals plenty of potential for strengthened SEA to improve strategic decision making in Canada – to make it more integrated, farsighted, open, efficient, credible and defensible, and most importantly, more likely to bring consistent delivery of lasting benefits from strategic initiatives.

9 Illustrative approach to an integrated law and policy-based SEA regime

The following discussion outlines how an integrated law and policy-based SEA regime could be structured to satisfy the criteria set out above. This is provided for illustrative purposes only. Many important details are not addressed and any one of them could point to needs for structural revisions.

Six main considerations are addressed:

• how SEAs could be initiated,

• how PPPs could be assigned to streams with policy-guided requirements (directed) or legally specified requirements (mandatory),

• how the policy-guided (directed requirements) streams could be structured,

- how the legally specified (mandatory requirements) streams could be structured,
- how authority and responsibility in the process could be allocated, and
- how mandatory (legally specified) and directed (policy-guided) components could be both linked and distinguished.

These considerations are integrated and depicted in four flow chart figures focusing on

- five basic routes to initiating a strategic assessment (Figure 1),
- decision making on assigning PPPs to a policy-guided or legally specified stream (Figure 2),
- the policy-guided stream (Figure 3), and
- the legally specified stream, including comprehensive study and panel-type hearing sub-streams (Figure 4).

Possible means of initiating a strategic assessment under a combined law-policy regime

The first formal and publicly visible step in initiating an SEA would be mandatory public/stakeholder notice of the PPP/SEA initiative, setting out a proposed terms of reference identifying the purpose(s) of the undertaking, the initially identified options to be considered, and/or the range of regional or sectoral effects and related concerns to be addressed. The notice would also indicate whether or not the anticipated PPP was intended to provide authoritative direction for lower tier PPPs and/or project, and should propose the SEA stream to be used. It would seem reasonable to make such notice mandatory in SEA law, and to cover all PPPs possibly deserving SEA, though only some SEAs would proceed one of the process streams enforceable in law.

The mandatory notice would serve two purposes: to ensure that assessment actually begins at the outset of deliberations (a well recognized but not always well applied principle of effective assessment processes) and to begin the PPP development in an open and participative manner. As noted above (section 7, part 11) there are plenty of existing models demonstrating the practicality of such notice at the strategic level.

The notice would be posted in a public registry, with encouragement to proponents also to provide more direct notice to stakeholders (including relevant other jurisdictions) and particular publics.

A PPP/SEA could be initiated in any one of five basic ways:

1. A government proponent beginning work on a PPP undertaking that may have important environmental effects and that may require approval from a Cabinet minister, issues a public notice, with the contents described above. The approach to determining the need for an SEA would build upon practice under the current Cabinet Directive but with clear reference to

sustainability considerations in judging the potential importance of effects and the appropriateness of initiating an SEA.

2. One or more other Canadian jurisdiction(s) requests the initiation a joint SEA on a PPP undertaking that may have important environmental effects and that may require approval from a Cabinet minister. The relevant federal authority or authorities would be responsible for providing public notice of the proposal as outlined above. The federal authority(ies) would either indicate willingness to proceed with the PPP/SEA, at least in an exploratory way, and provide the initial terms of reference, or merely provide notice and seek public/stakeholder comment before a decision on whether to proceed.

3. One or more non-government body(ies) requests the initiation of a federal or joint inter-jurisdictional PPP undertaking that may have important environmental effects and that may require approval from a Cabinet minister. In this case, the relevant federal authority (the potential developer and official proponent of the PPP) would be responsible for providing public notice of the proposal. As with proposals from other jurisdictions, the federal authority(ies) would either indicate willingness to proceed with the PPP/SEA, at least in an exploratory way, and provide the initial terms of reference, or merely provide notice and seek broader public/stakeholder comment before a decision on whether to proceed. Alternatively the request could be submitted to a central federal SEA authority, which would post notice and refer the request to the relevant potential proponent department(s) or agency(ies).

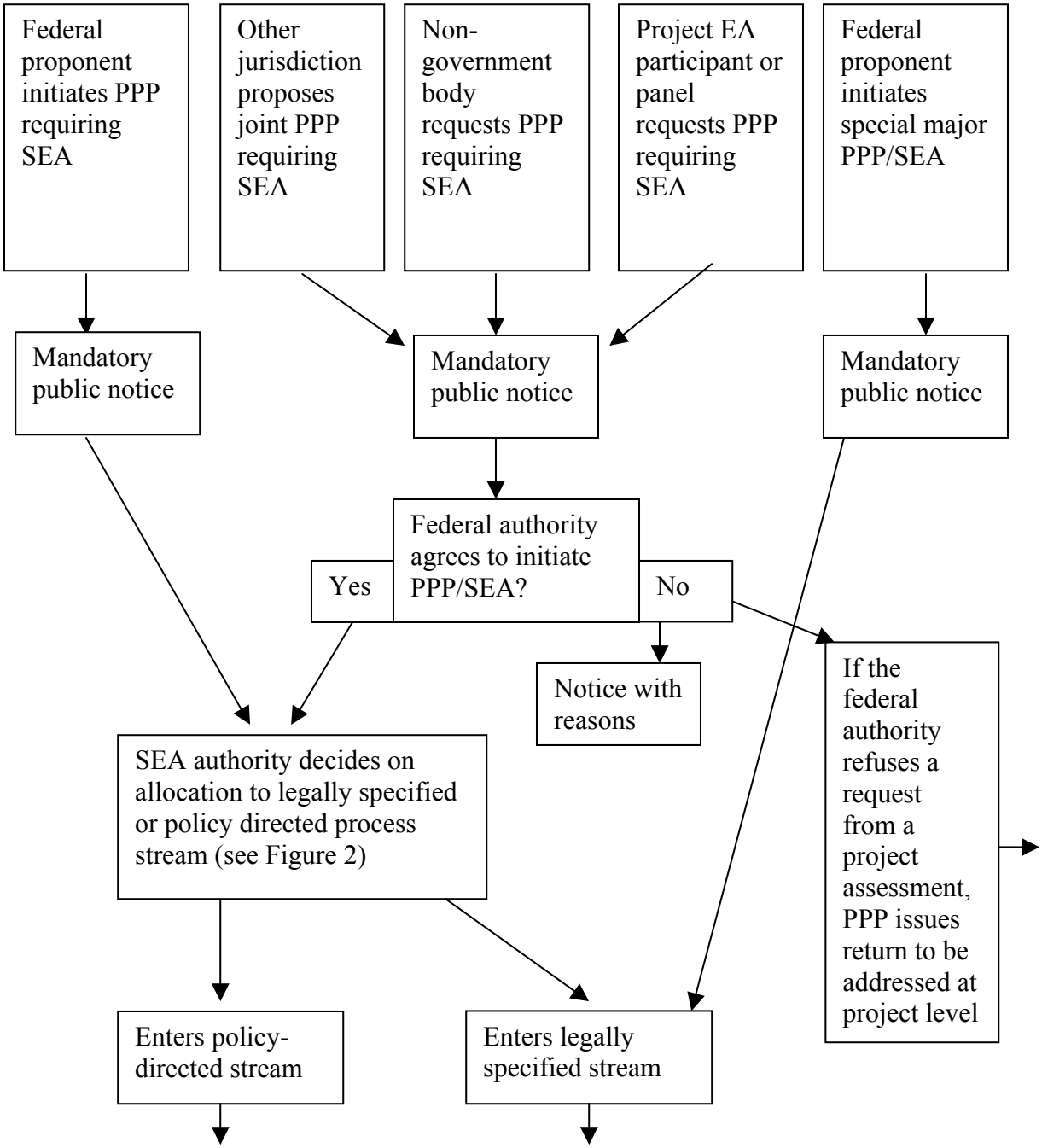
4. A participant in a project level assessment under CEAA, including a proponent or a Panel (or joint panel under CEAA and other authority) identifies one or more PPP/SEA issues in the course of a project-centred EA and requests the initiation of a federal or joint inter-jurisdictional PPP/SEA that would provide authoritative direction for the project assessment under review and/or for subsequent projects and lower tier PPP/SEAs. The requestor would be responsible for providing the relevant information on the nature, purposes and proposed scope of the proposed PPP/SEA. Public notice of the request would be published immediately, and the relevant federal authority/proponent would be responsible for providing timely public response indicating that it agrees to proceed, or providing reasons for unwillingness to proceed. Where the federal proponent is unwilling to proceed, the issue would return to project level process, and the relevant authorities or the panel would have to address the matter within the capabilities of assessment at the project level. Where a PPP/SEA is initiated in response to a request from the project level, a decision will be needed on what happens with the project assessment while the PPP/SEA is underway. It seems likely that different cases will merit different treatments. Some project assessments might be able to continue, perhaps with interim strategic guidance. Others might have to be suspended until the strategic issue is resolved. Where best to assign responsibility for the case-by-case decisions is not entirely clear. One option would be to give the task to the SEA authority.

5. The law might require the federal government to initiate each year a minimum of two (or some specified larger number) special major PPP/SEAs on matters of national importance on which federal policy, plans and/or programmes are lacking or obsolete. Processes for identifying and selecting among candidate topics should be transparent and participative. Process possibilities include a public/stakeholder call for recommendations, solicitation of proposals from provincial, territorial and aboriginal governments, and use of the Parliamentary Committee on

Environment and Sustainable Development. The chosen process might begin by developing a prioritized list of current PPPs and existing or emerging areas meriting federal attention in PPP/SEAs.

A schematic of the options is provided in Figure 1. The legitimacy and basic structure of all of these options would need to be established in the SEA law. The initial notice requirement would be mandatory (as would post-decision release of the PPP, rationale and final SEA document (see Figures 3 and 4), even though only some of the PPP/SEAs would be undertaken under the legally specified process.

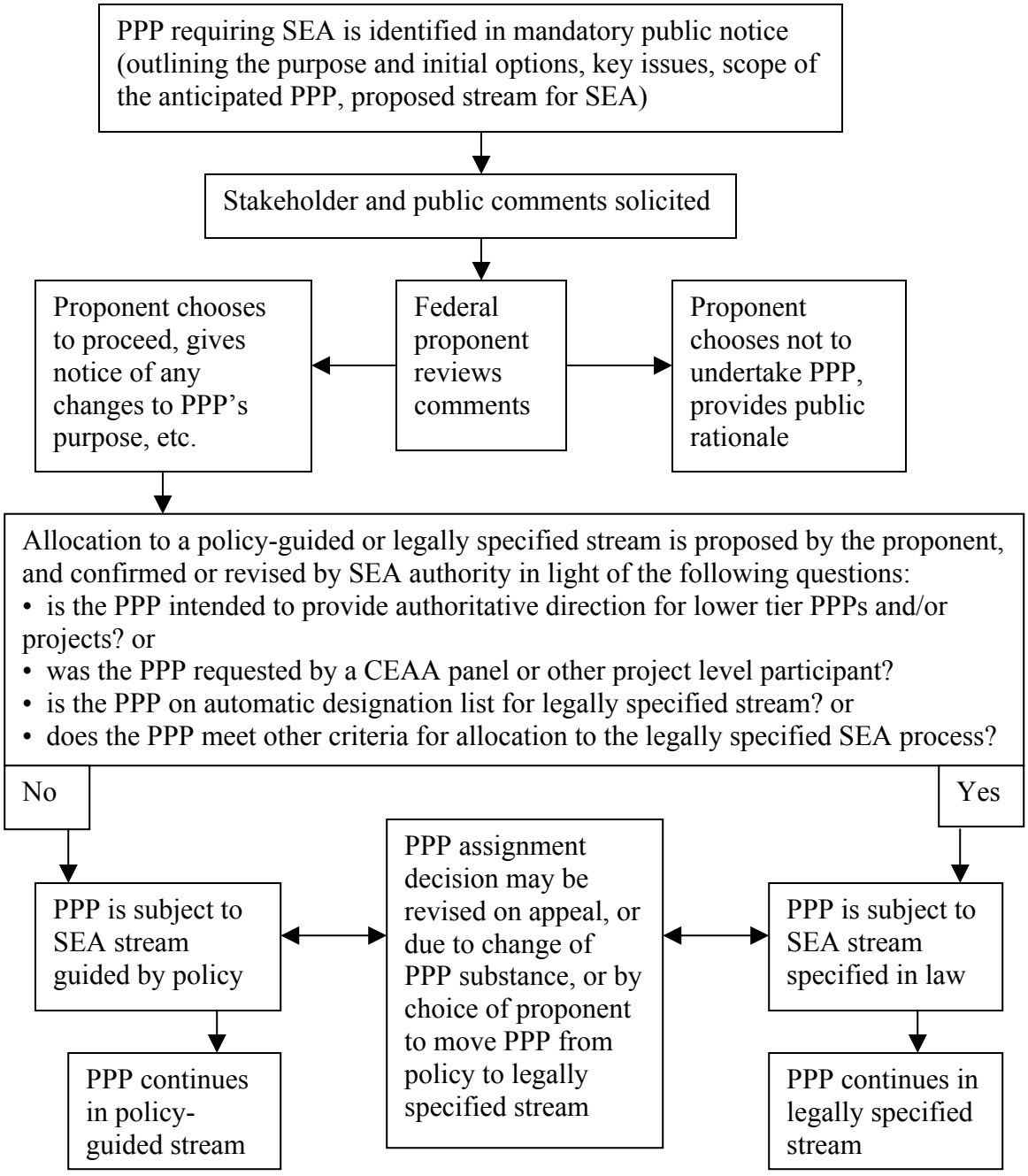
Figure 1: Routes to initiating a strategic assessment



Decision making on assigning PPP cases to the law or policy-guided route

The schematic in Figure 2 outlines a possible general approach to determining which PPP/SEAs are undertaken through the mandatory process steps set out in the SEA law and which ones are undertaken under the process guided only by policy.

Figure 2: Decision making on assigning PPPs to a policy-guided or legally specified stream



Possible means of organizing the policy-guided and legally specified streams

The essential substantive requirements for SEAs would be the same in the policy guided and legally specified streams. All PPP/SEAs would begin with the mandatory notice with standard contents as discussed above. All would involve identification of appropriate purposes and options, application of explicit sustainability criteria, consideration of trade-offs and justification of the selection of the preferred options or alternatives in light of the comparative evaluation. All would include transparency requirements and participation opportunities. The policy-guided stream, depicted in Figure 3, would leave more discretion in the hands of the proponent than the legally specified one in Figure 4. The policy-guided stream could have two sub-streams with one requiring more detailed analysis and more public/stakeholder consultation than the other.

Figure 3: The policy-guided stream

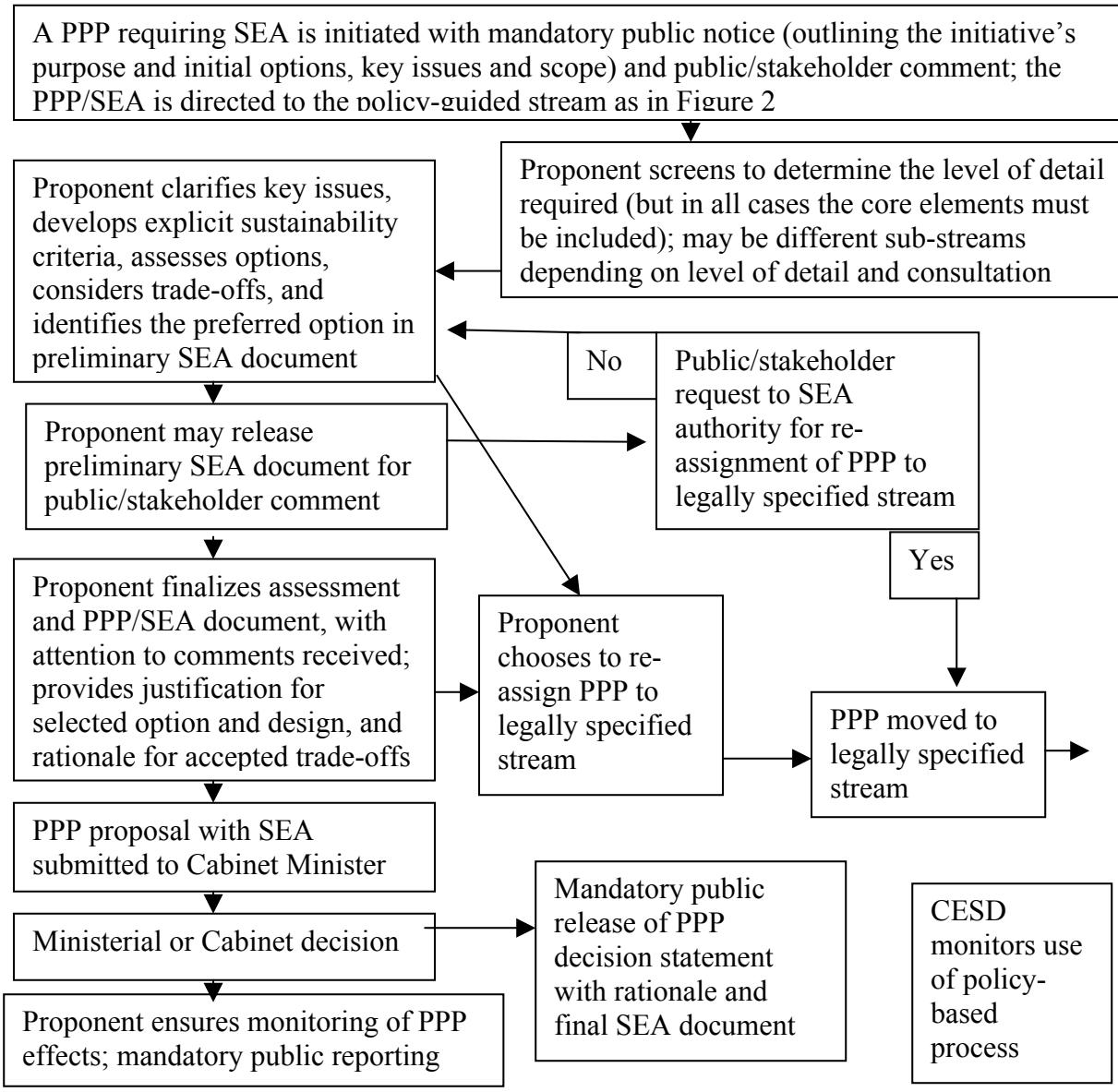
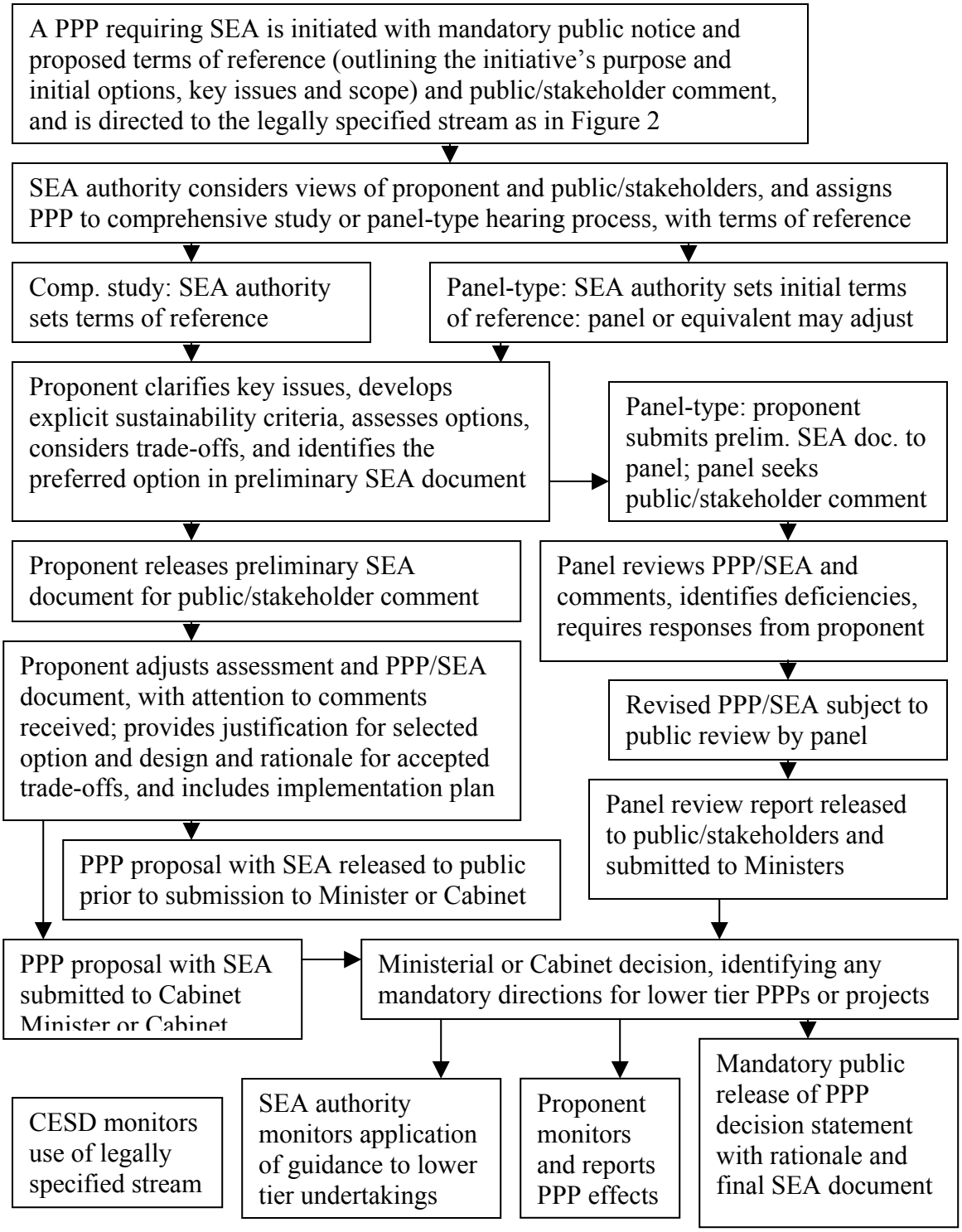


Figure 4: The legally specified stream (including comprehensive study and panel-type hearing sub-streams)



Allocation of responsibility and authority

The illustrative approach outlined here presumes that responsibility for PPP decisions rests with Ministers and/or Cabinet. That applies to decisions on PPPs that proceed through the legally specified SEA stream as well as those that proceed through the policy-guided stream.

The law would establish enforceable requirements concerning SEA obligations and process steps, especially for PPPs in the legally specified stream. Non-compliance with these requirements could lead to cases before the courts and the threat of such enforcement would be expected to play an important role in encouraging much more serious attention to SEA implementation than has been evident over the past twenty years.

Responsibility for developing PPPs would remain with the proponent departments and agencies. The proposed emphasis on pursuit of multiple, mutually reinforcing and lasting benefits could lead to more cases of PPPs developed collaboratively between and among federal proponents. Further attention to collaborative PPP/SEA opportunities would be encouraged by the provisions for PPP initiation requests from outside the federal government (see Figure 1, above), especially where other jurisdictions are the requestors. While proponency and co-proponency would be limited to government bodies, cooperative SEA work engaging private sector and civil society organizations would be possible. It may be that especially where the SEA regime facilitates federal/provincial and other interjurisdictional PPP collaboration, the result may be enhanced willingness on the part of private sector and other interests to contribute to SEA work.

Regional effects assessment is an area of particular interest and potential for collaboration between and among government jurisdictions but also involving non-government participants. Governments and others may choose to do regional cumulative effects studies outside the PPP/SEA process to develop baseline data sets or generally to foster better understanding of ecological and community capacities and vulnerabilities. Often, however, the objective of regional effects studies will be to inform the preparation or new or revised regional plans or other formal PPP guidance for anticipated projects. Where the guidance is to be authoritative the collaborative regional PPP/SEA work would need to be undertaken under the federal legally specified process stream and the provincial/territorial/Aboriginal equivalents. While extensive collaboration could be involved, responsibility for PPP development would remain with the relevant proponent departments and agencies.

Responsibility for doing the SEA – from initial conception through to effects monitoring – would also remain with the proponent(s) since the core idea is to ensure effective integration of SEA approaches and findings into the conception and development of PPPs. In this, proponents would be required (by law and/or policy depending on the case) to follow the standard general requirements on scope and criteria. In the legally specified process, the core requirements would be enforceable in law, and more participative opportunities for public/stakeholders would be assured. Also the proponents would not have the final work on the SEA terms of reference.

The proposed SEA authority would have limited but key responsibilities as a body required to be independent of any proponent department or agency, able to see across the full range of federal mandate and capacities, and maintain arm's length credibility. As outlined in the process components described above, the authority's important responsibilities would include

• allocating particular PPP/SEAs to the policy-guided or legally specified stream (see Figure 2) by applying specified criteria in reviewing proponent proposals; and
• in the legally specified stream, setting SEA terms of reference, assigning PPP/SEAs to comprehensive study or panel-type hearing process, and in the case of the panel-type route, determining what alternative bodies or mechanisms would be suitable substitutes for panels.

Just where this SEA authority should be located is open to debate. Location within a department or reporting to a minister with sectoral responsibilities would not be suitable. A position at the centre of government, such as with the Privy Council Office, would be preferable. Greater arm's length credibility would be gained if the authority were to report to Parliament, rather than to the Government, but location within the conventional public service structure would facilitate closer familiarity with the range of emerging initiatives and associated opportunities (e.g. for recognizing beneficial in terms of reference).

A variety of administrative functions would also need a home. These would include managing the public registry, supporting panel processes and certain other tasks now assigned to CEAA for project level assessments.

Finally, responsibilities for monitoring would need to be specified. Leaving most monitoring tasks in the hands of the PPP proponent would be consistent with the expectation that PPPs are often long-lasting and in need of continued review for adjustment, renewal, replacement or termination. Some effects monitoring would, however, be best done by agencies with more relevant expertise, and/or by stakeholders with suitable proximity and strong motivations to ensure positive PPP results. Overall monitoring of at last some aspects of compliance with SEA requirement would remain appropriately with the Commissioner for Environment and sustainable Development.

What is mandatory and what is guided by policy

To provide a consistent basis for the legally specified and policy-guided streams, the SEA law would need to provide the overall framework for the federal SEA regime as well as set out the particular mandatory requirements for PPP/SEAs undertaken in the legally specified stream.

The key basic framework contents for the SEA law would include the following

- the basic rules, and process to be used, for determining when some form of SEA process is to be initiated (e.g. as outlined in Figure 1);

- provisions for requests from outside government for initiation of PPPs;

- provisions for CEAA panels (or their substitutes) to request initiation of PPPs;

- requirements for public notice (outlining the anticipated PPP's purpose and initial options, key issues and scope) when a PPP/SEA process is initiated;

- provisions and criteria for the decision making process determining whether a PPP initiative is subject to the policy-guided or legally specified SEA stream (e.g. as outlined in Figure 2);

- the core purposes and generic criteria for PPP/SEAs, aiming at positive contributions to sustainability;
- the generic scope for SEAs, including attention to all sustainability considerations and trade-offs, and comparison of alternatives;

- provisions for use of broader scale federal environmental and sustainability strategic goals and indicator information in the development of case-specific PPP/SEA evaluation and decision criteria;

- establishment of an SEA authority;

- establishment of an SEA Registry;

- provisions for joint PPP/SEAs with non-federal jurisdictions and for cooperative implementation;

- provisions for monitoring of PPP effects led by the proponent, and with mandatory public reporting; and

- provisions for monitoring of process implementation by the Commissioner for Environment and Sustainable Development.

The major provisions of the SEA law setting out the legally specified stream (see Figure 4) would address the following concerns:

- mandatory application of the standard core purposes and generic criteria for PPP/SEAs, aiming at positive contributions to sustainability;

- SEA authority responsibility and rules for setting SEA terms of reference, assigning legally specified process PPPs to comprehensive study or panel-type hearing process, and in the case of the panel-type route, determining what alternative bodies or mechanisms would be suitable substitutes for panels;

- procedures for comprehensive study and panel-type processes;

- requirements for preliminary SEA document, including provision of specified sustainability-focused evaluation criteria, comparative evaluation of the alternatives in light of the criteria, justification for the selection of the preferred option and the proposed PPP design, and rationale for trade-offs to be accepted;

- specification of mandatory information release and opportunities for public comment at various stages in the comprehensive study and panel-type processes;

- provisions for participant funding;

- procedures for panel appointment and substitution of equivalent mechanisms including multi-jurisdictional joint panels and the equivalent;

- establishment of a PPP/SEA decision with contents binding on the development and review of subsequent undertakings (lower tier PPPs and projects), with limitations on the duration of the binding requirements and provisions for exceptions (e.g. due to unanticipated and changed circumstances);

- requirements for the basic contents for PPP/SEA decision documents including the rationale for PPP selection and design in light of sustainability criteria, justification for any accepted trade-offs,

- requirements for public release of the final SEA document;

- allocation of monitoring responsibilities; and

- right of appeal of key decisions (possibly including the decision whether to initiate an SEA, allocation to the law or policy-guided stream, consistency of terms of reference or public/stakeholder engagement efforts with legal requirements, adequacy of rationales provided for decisions, responses to monitoring findings, and application of mandatory directions for lower tier PPPS or projects).

More detailed policy guidance would also be needed for many aspects of the legally specified process.

The policy-guided stream (as outlined in Figure 3) would be guided by a new Cabinet Directive or an equivalent mechanism that would include the following:

- adoption of the standard core purposes and criteria for PPP/SEAs, aiming at positive contributions to sustainability;

- adoption of the standard core scoping principles (attention to all sustainability considerations, comparison of alternatives, etc.);

- expectations for the contents of the preliminary SEA document, including provision of specified sustainability-focused evaluation criteria, comparative evaluation of the alternatives in light of the criteria, justification for the selection of the preferred option and the proposed PPP design, and rationale for trade-offs to be accepted;

- general commitment to transparency and public/stakeholder participation and specific expectations for public/stakeholder engagement, for example in reviewing the preliminary SEA document;

- provisions for proponent screening to determine the level of detail required in each case;

- provisions for transfer of a PPP from the policy-guided stream to the legally specified stream;

- expectations for the contents of PPP decision statements, including the rationale for PPP selection and design in light of sustainability criteria and justification for any accepted trade-offs; and

- allocation of monitoring responsibilities.

10 Residual issues

Inevitably many significant and difficult regime design considerations have not been addressed in the discussion so far. The following list is, like the substance of the section above, neither comprehensive nor definitive. It is intended to indicate the nature of the issues that will need careful attention in the development of a stronger Canadian SEA regime:

- especially in light of the current backlog of PPPs that have not undergone credible SEA, what would be the best process or processes for identifying the priorities for new and/or revised PPPs that would merit SEA?

- what categories of PPP should be on an automatic designation list for legally specified process?

- what should be the core criteria for judgements on assignment of initiated PPPs to the policy or legally specified SEA process?

- where should the SEA authority be located and how should it be empowered to ensure that it has the best combination of recognized authority and evident impartiality?

- what arrangements can be made to facilitate joint federal-provincial SEAs in the legally specified stream where the provincial partner does not have a parallel SEA or SEA-like legal foundation?

- what criteria are crucial in determining the acceptability of process substitutions, especially in panel versions of the legally specified stream and to what extent can acceptable substitutions be pre-defined?

- how best can panels be established with sufficient case credibility and expertise, and appropriated skills in evaluation, conflict resolution and judgement drafting?

- what mechanisms should be provided in the various SEA streams to ensure meaningful consultation, mediation when that might be promising, and impartial dispute response where consensus is not achievable?

- how can the process be designed to ensure that PPP/SEAs are sufficiently detailed to justify binding direction for project level planning and approvals?

- what are the best means of ensuring that the levels of research, consultation and evaluation match the potential significance of the PPP case?

- how best can other multiple participants, including different federal and other government agencies, private sector interests and citizen organizations, be engaged in key SEA activities from baseline research to effects monitoring?

- how should anticipated private sector beneficiaries (especially proponents of projects likely to be facilitated by a PPP/SEA that provides binding directions for project assessments) be involved in PPP/SEA research and/or funding?

- what are the most desirable points and procedures for mandatory and recommended notice, opportunity to comment and other means of public/stakeholder involvement in each of the SEA process streams?

- how best can public/stakeholder consultation and more general process transparency and accountability priorities be reconciled with legitimate needs for Cabinet confidentiality?

- how best can PPP/SEAs be used to enhance early and effective consultation with Aboriginal groups and accommodation of their interests?

- how should responsibility for funding various aspects of SEAs (e.g. cumulative effects research, panel reviews, participant funding, and effects monitoring) be allocated?

- what progess adjustments are needed for application to PPPs implemented beyond Canada, including development assistant programmes prepared in cooperation with other donors (national and international) and with emphasis on building SEA capacity in recipient countries?

- what normally should be the shelf life for PPPs that provide authoritative direction to lower tiers and project assessments and what is the best process for hearing challenges to their continued application in general and in particular cases?

- aside from establishment of a legislated foundation for SEA, what are the most promising ways of enhancing the motivations of PPP proponents and other participants to adopt SEA principles and practices?

Not one of these questions is easy. But none represents a barrier to effective SEA. All are more or less familiar challenges in the development of new areas of law and policy, and for most of them there is a long record of experience (including lessons learned the hard way) from which to draw.

They are included here to provide a somewhat more complete indication of what is needed to strengthen federal SEA in Canada, and to recognize that the task involves careful attention to the details as well as adoption of the proper founding principles.

Appendix 1: Review of the International Literature

1 Lessons from International and Canadian SEA experience

SEA experience in the past 20 years has given useful insights as to what needs to be considered in order for it to be effective. Numerous authors, drawing from SEA application, describe important components of the process, and this is the main purpose of this section: to summarize the major findings in the literature about what is needed for effective SEA and what is required for best practice.

Bina (2003: 60) argues that "SEA's greatest potential lies in its ability to influence decision making." Fischer (2005) elaborates on this and suggests defining effective SEA in terms of its ability to influence: (a) the underlying PPP decision-making process and other related policies, plans, programmes, projects and their assessments; (b) the mentality and attitudes of actors involved in policy, plan, programme and project making and assessment. In practice, as argued by Thérivel (2004a: *xv*), "effective environmental assessment is about making the right comment at the right meeting to get the right person to consider something that they had not thought of before." This is a very simplistic vision of the whole process, but, to a minimum, it stresses the relevance of 'timing' for SEA and strategic decision making, especially in terms of the availability of the assessment results early enough to influence the decision-making process.

As part of an international study of the effectiveness of environmental assessment, Doyle and Sadler (1996) contend that the concept of effectiveness includes criteria that are both substantive (i.e. whether it achieves its goals and purposes) and procedural (i.e. whether it is undertaken according to established principles and provisions). From an investigation of seventeen European case studies in transport planning, Hildén et al (2004) distinct between a set of '*necessary conditions'* (political will, integration, and aspects of timing) and '*facilitating factors*' (legal provisions, tailoring the assessment, type/level of detail of the information used, and aspects of networking among actors) that contribute to the effectiveness of SEA. However, as argued by Lawrence (1997) and later by Thissen (2000), a distinction should be made between quality and effectiveness of SEA. Quality refers to inputs into the SEA process such as legal and institutional arrangements and SEA procedures and methodologies, whereas effectiveness relates to the outcomes (direct and indirect), such as the achievement of an identified goal or purpose (Jones et al, 2005).

Based on a review of the SEA international literature (e.g. Partidário, 1996; Thérivel and Partidário, 1996; Partidário, 1999; Arts et al, 2001; Glasson and Gosling, 2001; Stinchcombe and Gibson, 2001; Bina, 2003; Fischer, 2003; Partidário, 2003; Verheem, 2003; Caratti et al, 2004; Hildén et al, 2004; Morrison-Saunders and Arts, 2004a; Partidário and Fischer, 2004; Thérivel, 2004b; Ahmed et al, 2005; Arts et al, 2005; Dalal-Clayton and Sadler, 2005; Noble, 2005;

Partidário, 2005; Schmidt et al, 2005; Fischer, 2006), the following were found to be essential components for effective SEA.

1.1 Summary of essential components for effective SEA

1.1.1 Early application

SEA needs to be applied as early as possible in the planning process in order to maximize the contribution it can make to guiding the planning process (Thérivel, 2004b; El-Jourbagy and Harty, 2005; Noble, 2005). SEA must be applied early in the formulation of proposals when major alternatives and options are still open and well before decisions are made (Dusik et al, 2003). In addition, as strategic initiatives lead to projects, applying SEA during PPP formulation "offers the chance to influence the kinds of projects that are going to happen, not just the details after projects are already being considered" (Thérivel, 2004b: 14). Early application also ensures that the information generated during assessment is available in a timely manner to decision makers and affected stakeholders.

1.1.2 Integration

In current thinking about strategic assessment, the idea that 'the sum of the parts does not equal the whole' is widely accepted, meaning that if individual parts are added on in a way that can be fully described and measured, the final set is more than just the sum of the parts (Eggenberger and Partidário, 2000). As Eggenberger and Partidário (2000: 204) argue, "integrating means a new entity that is created where new relationships are established, bearing on individual entities that have specific characteristics and specific dynamics but in combination act in a different way".

From a review of the literature, it can be said that integration has been discussed in many different ways (Partidario, 1998; Scrase and Sheate, 2002; Abaza et al, 2004). One obvious one for SEA, is the integration of the interrelationships of biophysical, social and economic aspects (IAIA, 2002). How this integration is done is key. Conducting three separate assessments – one on each of these factors – is unlikely to be the best approach. Many methodological problems arise when aggregating separate findings of biophysical, social, and economic impacts (Devuyst, 2001), especially because of all the different values and perspectives involved, making it difficult to integrate the results of separate findings from each separate discipline. In addition, this separation hinders the consideration of the interconnections and interdependencies among different disciplines. These interconnections are crucial to the holistic, integrative concept of sustainability (Gibson, 2006) as the big issues dealt with in strategic assessments do not fit neatly into disciplinary boundaries.

Another view of integration in SEA can also be discussed in terms of its placement and interaction with the planning and decision-making process. Many have suggested that SEA is best conceived as an integral part of PPP formulation (i.e. integrated within the planning and decision-making process rather than as an add-on process) so that it can influence the courses of a PPP as decisions unfold (Partidário, 1999; Noble, 2005). In this context, SEA results should be

used on important “moments in the strategic decision process when critical decisions are to be taken, and which can benefit from an SEA input” (Partidário, 2007: 472), and not be just another exercise of writing a report that no one reads. Therefore, how SEA is positioned within the planning process is crucial to its effective application.

1.1.3 Tiering

One of the main benefits of SEA is to set a strategic context for project EA, consequently making project EAs more efficient, if not unnecessary (Stinchcombe and Gibson, 2001). Referred to as tiering, it is usually idealized as a hierarchical process of decision-making. Therefore, when a policy, plan or programme precedes and influences a project decision, the PPP and the project decision are said to be “tiered”. In practice, this does not just work in a strict top-down manner (i.e. from policy to plan to programme to project). Rather, lower tier SEAs and project EAs can also have a "trickle up" effect, which in turn may lead to an improved awareness of the limitations of prevailing policies, plans and programmes and thus drive improvements (see for example Hildén et al, 2004).

In a review of the literature, Arts et al (2005) assert that tiering is assumed to minimise various limitations of project EAs, including:

- Prevention of foreclosure of assessing important environmental issues;
- Better focused environmental assessments (this relates to e.g. the scope (in issues, time, geographical area), the type of alternatives and impacts assessed, the abstract level of analysis (broad brush methods, expert opinions vs. advanced quantitative and detailed methods etc.);
- Efficiency gains for [S]EA at lower levels by doing environmental assessments at higher levels (indication of major issues that need further elaboration, or not; guidelines for subsequent environmental assessments);
- Better fit with the ongoing nature of decision-making and planning processes by tiering of environmental assessments; and,
- Improvement of plans and projects developed and implemented.

A vital role of tiering in SEA is to encourage procedural guidance to lower tier assessments (Gibson, 1993; Stinchcombe and Gibson, 2001). Procedural guidance can “establish reliably defined and appropriately rigorous processes for various sorts of subsequent assessments, specifying for example, the scope and nature of necessary documentation, consultation and reviews” (Stinchcombe and Gibson, 2001: 11). Because of tiering, SEA has the potential to streamline decision making, where decisions taken at one planning level may not need to be revisited at subsequent stages of decision making (Thérivel, 2004b), potentially reducing costs, time and confusion (Ortolano and Shepherd, 1995).

1.1.4 Guidance in the application of SEA

Guidance has an important role in SEA application and its adaptation to different contexts. Lack of guidelines on SEA basic requirements hinders the framework within which the SEA process

operates, ultimately influencing the quality and effectiveness of the SEA process and its outcomes. In addressing SEA process design requirements (e.g. principles, process rationale, roles, screening and scoping procedures, tiering, responsibilities, consideration of alternatives, involvement of the public, follow-up, etc.), guidelines can assist in forming the overall foundation for an SEA process. As suggested by Jones et al (2005: 31), guidance can be "based upon regulatory requirements that are in force or upon broader, evolving, principles of SEA. It can take the form of official guidance, produced by government departments, or may be produced by practitioners, academics, agencies, etc."

1.1.5 Flexibility and adaptability

Because SEA deals with a range of mixed forces, operating on many fronts, different societal values and perspectives, and high levels of uncertainty in terms of expected outcomes (Partidário, 2000), it requires flexibility and adaptability to different types of application contexts as well as to different tiers of decision making. As Noble (2005) argues, the scope of SEA broadens as SEA moves upstream from programmes to plans to policies. This means that SEA must be designed as a sufficiently flexible and adaptable tool, built upon core elements to ensure that it is effectively responsive, while based on minimum administrative procedures adapted to the formal PPP process to which SEA applies (Partidário, 2000).

1.1.6 Open deliberations, transparency and accountability

As stated by Dalal-Clayton and Sadler (2005: 27), one of the SEA constraints is the "little interest by many government agencies in subjecting policy and planning proposals to assessment, reinforced by fear of losing control, power and influence by opening up such processes." They argue that this constraint could be overcome by designing and implementing SEA as a transparent and a participatory process that helps to realize good governance and that reinforces accountability and builds public trust and confidence. In fact, public participation is widely regarded as essential for effective SEA (Partidário, 1996; Sadler and Verheem, 1996; Thérivel, 2004b; Jones et al, 2005; Rauschmayer and Risse, 2005; Vicente and Partidário, 2006; Fischer, 2007).

By considering opinions of key stakeholders early in the planning process, the risk of deadlock during decision-making on individual projects is reduced. Properly undertaken and accountable SEA will enhance credibility of PPPs and may mobilize support of key stakeholders for their implementation (Dusik et al, 2003). In addition, by increasing the transparency and accountability of the decision-making process, the influence of non-technical political considerations is expected to diminish (Chaker et al, 2006).

Open deliberations in decision-making processes with early public involvement can also be beneficial not just in terms of providing additional information, but also in enabling social learning. Drawing from the Canadian experience with environmental assessment, Jacobs et al (1993: 24) argue that the social learning aspect of environmental assessment is one of its most important but also overlooked benefits. They state that, in Canada, "over the past two decades, developers have learned about environmental impacts, environmentalists have learned about

development [and] governments have learned about consultation…" The benefits of this multi-party social learning process therefore need to be considered as a boon rather than as an obstacle to decision making, and the views of affected groups must be taken into account. As argued by Banister (2002: 131), "many of the decisions are not matters of expertise but matters of opinion and values rather than facts". For these reasons, it is essential that governance structures foster engagement of stakeholders to work together towards sustainability, and meaningfully consider the importance of public involvement and its influence on the planning process.

A common objection to public participation in environmental assessments (both strategic and project level) is that it will take too long and it will cost too much. The costs of participation depend on various factors but, while a participatory approach may extend the time needed during the initial stages of analysis and planning, such investment is normally "returned" later in the process by avoiding or minimizing conflict (Mitchell, 2002). Conversely, the cost of not involving people can actually be higher, given that public opposition later in the process might lead to delays and potential litigation, as well as the greater likelihood of surprise or unexpected outcomes. Ensuring opportunities for early meaningful public involvement in open deliberations is therefore a crucial component of effective SEA, which contributes to transparent and accountable decision making.

1.1.7 Incentives/motivations for effective SEA implementation

The SEA process needs to have effective motivations so that decision makers meaningfully use SEA before they begin planning. In order to provide the appropriate motivation, many authors have suggested that SEA systems should be based on clear legal provisions, which could be enforced in order to ensure compliance (e.g. Partidário, 1999; von Seht, 1999). As Bregha et al (1990) put it:

> The policy maker seldom receives any rewards for avoiding environmental problems. The addition of environmental factors to the policy process is seen with considerable justification as being complex, time-consuming, subjective and a potential generator of conflicts. When political considerations dictate a quick response to an external demand, there is often little time to weigh all economic factors carefully, let alone start including environmental ones (Bregha et al, 1990: 14).

Incentives for decision makers to meet assessment obligations (e.g. legal requirements, enforcement of obligations, penalties for non-compliance) and encourage meaningful SEA application are, therefore, crucial in order to have an effective SEA process that contributes to PPP formulation.

1.1.8 Follow-up

SEA follow-up is the process of fine-tuning predictions and recommendations from the PPP formulation stage, in light of new information obtained during the implementation of the PPP (e.g. Lee and Walsh, 1992; Sadler and Verheem, 1996; Thérivel and Partidário, 1996;

DEAT/CSIR, 2000; Fischer, 2002; Noble, 2003). McCallum (1987) uses the term follow-up to mean activities taken during the post-decision stage of a proposal. Sadler (2004) asserts that follow-up is part of a larger, generic field of *ex-post* evaluation, which refers to the analysis of all aspects of project EA and SEA effectiveness and performance.

There is a considerable body of literature on project EA follow-up (e.g. McCallum, 1987; Munro et al, 1987; Lee et al, 1994; Arts and Nooteboom, 1999; Marshall and Fischer, 2005), and to a lesser extent but with increasing attention, on SEA follow-up (e.g. Partidário and Fischer, 2004; Sadler, 2004; Partidário and Arts, 2005; Persson and Nilsson, 2007). Morrison-Saunders and Arts (2004) observe that key issues in the early literature concern the accuracy of impact predictions and the quality of environmental impact statements. Later, attention was paid to plan and project implementation including mitigation and project management. More recently, however, the focus has widened to include communication issues and the role and stakes of the various parties involved as well as resources and capacity building (Morrison-Saunders and Arts, 2004b).

Morrison-Saunders and Arts (2004b: 4) define follow-up as "the monitoring and evaluation of the impacts of a project or plan (that has been subject to project EA or SEA) for management of, and communication about, the environmental performance of that project or plan". Simply put, SEA follow-up is about life after the approval of a policy, plan or programme (Partidário and Arts, 2005); it is a key mechanism for feedback, learning from experience and adaptive management (Caldwell, 2004). Although follow-up has been recognized as a fundamental element of SEA 'good practice', the issue of what happens to SEA once the related PPP is approved and implemented is still limited mainly to the identification of monitoring indicators (Partidário and Fischer, 2004).

SEA follow-up can be a rather complex exercise as compared to project-based follow-up. While project-level follow-up is based on empirical evidence, particularly the environmental effects associated with project operation, SEA follow-up deals with impacts that can range from quite vague to very concrete, and can be expected at different relevant tiers of decision making (Partidário and Fischer, 2004). Nevertheless, follow-up has an important role to play if SEA is to achieve its perceived potential benefits.

As suggested by Partidário and Arts (2005: 248), some of the difficult tasks in SEA follow-up include: identification and understanding of the potential routes of effects and their extent; identification and assignment of responsibilities for observed effects; selection of relevant indicators; collection of the relevant detail and information; and evaluation in terms of other strategic, programmatic or project decisions.

Partidário and Arts (2005) argue that because of all these complexities associated with SEA and strategic decision making, SEA follow-up cannot rely only on a form of monitoring based on indicators that measure a simple, direct causal relationship between the adopted initiative and environmental changes. In this context, Partidário and Arts (2005) contend that SEA follow-up as a form of *ex-post* evaluation of the consequences of initiatives may take various basic approaches.

SEA follow-up can provide a mechanism for checking on conformance, performance, uncertainty and dissemination, which, as suggested by Partidário and Fischer (2004), can be seen as the main goals of SEA follow-up. They explain:

> *Conformance follow-up* focuses on whether developments take place as required, complying with other overall objectives, standards and regulatory requirements. *Performance follow-up* focuses on the actual effects of strategic actions carried out and compares those with predictions, benchmarks and expected deliveries. *Uncertainty follow-up* manages unexpected and unpredicted effects, and also addresses situations of uncertainty; subsequently action plans and adaptive management are needed. *Dissemination follow-up* aims at improving practice by achieving a better understanding of cause-effect relationships and, for this, feedback to adjust the design of new PPPs is needed (Partidário and Fischer, 2004: 233).

As argued by Partidário and Fischer (2004: 231), without some form of systematic follow-up to decision making, SEA risks becoming no more than "a pro-forma exercise designed to secure a formalized process implementation rather than enhancing its intended benefits and contributing to overall sustainability".

1.1.9 Support for SEA through broad engagement of all relevant stakeholders

Support for SEA application through broad engagement of all relevant players is seen as a vital condition for the introduction of environmental assessments at strategic levels of planning and decision making. Therefore, everyone who may be affected by or are otherwise concerned about strategic level initiatives should be engaged, including decision makers and the public. A lack of awareness of the need for and the benefits that arise from SEA application has been reported in the international literature as being potentially the main reason for insufficient political will[4] and support for SEA. This might come also from a concern that SEA will increase the time frame for decision making or delay development, and a perception that SEA will add significant costs and increase the work load (Dalal-Clayton and Sadler, 2005). Although conducting SEA involves new expenditures from government agencies, research suggests that these costs are small relative to the undertaking in question (for example, Stinchcombe and Gibson, 2001; Thérivel, 2004b; Schmidt et al, 2005; Fischer, 2007) and, as argued by Thérivel (2004b: 18) much of the costs "could be recouped in easier, faster approval and implementation of the strategic action". In addition, indirect cost recovery could come through strengthening project EA and its consequent cost and time savings related to approval/licensing processes.

In gaining support for effective SEA application, one important task is to raise awareness of those who must implement and use the results of SEA. Partidário (2005: 655) observes that special

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[4] Briffett (1999: 163) contends that lack of political will is undoubtedly the biggest constraint to making project-EIA effective. Arguably, SEA as well demands political will to be effective.

attention must be given to what she calls *marketing for SEA*. Partidário points out that "it is crucial…to convince potential users, particularly high-level governmental senior officials in sectoral decision-making, of the benefits and added value that SEA can bring into decision processes…It needs to turn out as an incentive rather than an obstacle". In addition, as concluded by Hildén et al (2004), broad engagement of all affected stakeholders (e.g. politicians, decision makers, the public) from the very outset is a crucial condition for effective SEA. This is one way of ensuring the will to use assessment results. Hildén et al (2004) also provide a set of identified means of stimulating the political will to use SEAs (Box 1.1)

Box 1.1 – Means of stimulating political will for effective SEA

External factors

- Raising the awareness of politicians and the public,
- Education on environmental issues, and
- Transparency in the decision making

Key elements in environmental assessment

- Include monitoring programmes,
- Involve decision makers and other stakeholders in the assessment process,
- Understand the decision makers, their wants, objectives and involvement in the process,
- Use of best-practice benchmarking,
- Link environmental assessment with other assessments (integrated assessments),
- Address the objectives, so that integration becomes more valuable,
- Improve communication, aim at clear and simple presentation, and
- Use the findings of the public participation process to clarify public positions.

Source: (Hildén et al, 2004)

Without a supportive political culture, SEA is unlikely to progress at all (Marsden, 1998). In this respect, authors have suggested that institutional commitment to SEA application through legislation is critical to the implementation of effective SEA (Noble, 2005). Ultimately, early broad and meaningful stakeholder engagement should lead to avoiding rumours and later confrontations, and lead to increased public trust and support for strategic planning and decision making due to enhanced transparency and accountability. Ensuring broad engagement of all affected players who have an interest in ensuring that strategic level initiatives are done well is therefore an essential part of an effective SEA system, and it must be carefully addressed if SEA is to be an effective venue to move towards sustainability.

1.2 General implications for SEA process design

The components discussed above point to general recommendations as to what needs to be addressed and included in designing SEA process requirements. As concluded by Hildén et al (2004), the political will to use the information provided by SEA through integration, tiering and timing can, to a certain extent, be enhanced by procedural requirements for SEA itself,

irrespective of the characteristics of the planning situation. Early application offers the greatest potential for maximizing the contribution of SEA to planning and decision making. If SEA is carried out too late, by people who have no influence over the planning process and who see it as no more than a legally required obstacle, then it is highly unlikely that many benefits associated with SEA will be realized (Therivel and Walsh, 2006).

An integrated approach to SEA encourages stronger connections between strategic and project level assessments, and among different strands of knowledge and information. In terms of tiering, many highlight the potential advantages associated with SEA; in particular, making project EAs more efficient and even sometimes unnecessary (Stinchcombe and Gibson, 2001; Jones et al, 2005). While most of the SEA literature mentions the importance of tiering, inattention to the key role of tiering is still a big problem in the literature. SEA has the potential not only to set individual projects in the context of broader policy decisions; they can also be used, for instance, to "set the terms of reference for a resulting project EA and assist in its scoping" (Jones et al, 2005: 32). Providing this kind of guidance for subsequent assessments has positive implications in terms of reducing time and costs associated with the whole assessment process. The SEA process must therefore incorporate means of integrating the interconnections among the different disciplines during the assessment phase. In addition, it is crucial for effective SEA to ensure a tiered approach that links strategic and project level assessments.

Flexibility and adaptability are crucial components for effective SEA application given all the different context of applications, in terms of scale, tiers of decision making, sectors, etc. This means that SEA must be designed in such a way that it is capable of adapting to all these different contexts of application as well as different tiers of decision making.

It is now widely recognized that transparent and accountable decision making cannot occur without early meaningful public participation. As such, an effective SEA process must consider how public participation takes place (e.g. who participates, timing of participation, through which mediums, etc), how public input is taken into account in decision making, and how records of these are kept.

Effective motivations are needed so that decision makers meaningfully use SEA before they begin planning. Basing SEA systems on clear legal requirements that can be enforced to ensure compliance with obligations have been suggested as a means to encourage effective SEA. In addition, SEA follow-up plays an important role in making SEA effective and, as argued by Persson and Nilsson (2007), learning-oriented. In designing the SEA process, it is therefore critical to make follow-up an integral part of the SEA system.

All components addressed here are seen as fundamental to making SEA effective. In designing SEA process requirements, it is crucial to carefully consider core elements that help the establishment of SEA approaches that are sufficiently flexible to avoid conflict with the decision process itself, and that are oriented toward continuous improvement (Partidário, 2000). Issues related to political commitment, integration, how to ensure tiering, availability of clear guidance, ensuring a flexible and adaptable process that is transparent and encourages public participation, fostering effective motivations for decision makers to meaningfully use SEA in the formulation of PPPs, and including follow-up activities that adjust predictions in light of new information and

encourage learning from practice, all need to be carefully considered in designing SEA process requirements. The following section discusses criteria for SEA process design for Canada.

2 SEA process design criteria for Canada

It is now recognized that no universal best approach to SEA exists, since context will always be an important factor in SEA application (Partidário, 2003; Dalal-Clayton and Sadler, 2005). As argued by Ahmed et al (2005), a good SEA process is tailor-made to the context in which it operates and it should be designed to enable it to influence the policies, plans, or programmes that are in preparation. In this sense, SEA is meant to improve the strategic initiative (Thérivel, 2004b).

In designing the SEA process, instead of a detailed prescription of steps to be followed (as in project- EA), it seems preferable to establish a limited set of principles and criteria that allow for a variety of ways of implementing SEAs depending on context (Verheem and Tonk, 2000). In recent years, different terms have been used to define principles, criteria or elements that would serve this purpose, such as 'SEA principles', 'SEA performance criteria', 'SEA good practice elements', and more recently, 'SEA effectiveness criteria'. Put simply, the term 'effectiveness' refers to whether something works as intended and meets the purpose(s) for which it is designed. A number of broad principles have been proposed in order to enable and support effective SEA (e.g. Sadler and Verheem, 1996; Dalal-Clayton and Sadler, 1999; DEAT/CSIR, 2000; Verheem and Tonk, 2000; IAIA, 2002; Dusik et al, 2003; Thérivel, 2004b).

2.1 Generic process design criteria

From several surveys of UK planners spanning eight years, Thérivel (2004b: 187) suggests that a 'good SEA process' must: start early, involve the decision-maker; focus on key environmental/sustainability constraints, thresholds and limits; consider alternatives; apply the precautionary principle; aim to minimise negative impacts, optimise positive ones, and compensate for the loss of valuable features and benefits; and be transparent and promote public participation in decision making. The International Association for Impact Assessment (IAIA) developed a set of 'performance criteria' that are allocated to six main SEA themes, concentrating primarily on procedural aspects, and suggest that a 'good-quality SEA process' is integrated, sustainability-led, focused, accountable, participative and iterative, with a total of 17 performance criteria (Table 2.1).

Table 2.1 – Principles of effective SEA

Theme	Performance criterion
SEA is integrated	• Ensures an appropriate environmental assessment of all strategic decisions relevant for the achievement of sustainable development. • Addresses the interrelationships of biophysical, social and economic aspects. • Is tiered to policies in relevant sectors and (transboundary) regions and, where appropriate, to project EIA and decision making.
SEA is sustainability-led	• Facilitates identification of development options and alternative proposals that are more sustainable.
SEA is focused	• Provides sufficient, reliable and usable information for development planning and decision making. • Concentrates on key issues of sustainable development. • Is customized to the characteristics of the decision making process. • Is cost- and time-effective.
SEA is accountable	• Is the responsibility of the leading agencies for the strategic decision to be taken. • Is carried out with professionalism, rigor, fairness, impartiality and balance. • Is subject to independent checks and verification • Documents and justifies how sustainability issues were taken into account in decision making.
SEA is participative	• Informs and involves interested and affected public and government bodies throughout the decision making process. • Explicitly addresses their inputs and concerns in documentation and decision making. • Has clear, easily-understood information requirements and ensures sufficient access to all relevant information.
SEA is iterative	• Ensures availability of the assessment results early enough to influence the decision making process and inspire 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)

Jones et al (2005) evaluate 14 SEA systems, taking into account the distinction proposed by Thissen (2000) between quality and effectiveness, and propose three broad categories of evaluation criteria: *system criteria* (i.e. legal basis, integration, guidance, coverage, tiering, sustainability), *process criteria* (i.e. alternatives, screening, scoping, prediction/evaluation,

additional impacts, report preparation, review, monitoring, mitigation, consultation and public participation), and *outcome criteria* (i.e. decision making, costs and benefits, environmental quality and system monitoring). Noble and Bronson (2007), building on Jones et al (2005) and others (e.g. Thissen, 2000; Sheate et al, 2001; Noble, 2003; Gibson et al, 2005) develop criteria separated into *system criteria* (i.e. provisions, integration, tiering, sustainable development), *process criteria* (i.e. responsibility and accountability, purposes and objectives, scoping, alternatives, impact evaluation, cumulative effects, monitoring programme, participation and transparency), and *result criteria* (decision making, PPP and project influence, system-wide learning).

The following section describes process design requirements for SEA in Canada, based mainly on the IAIA SEA Performance criteria (IAIA, 2002); an SEA version of the principles for designing sustainability assessment regimes set out in Gibson et al (2005, Chapter 7); the criteria for strategic environmental assessment in Canada set out in Noble and Bronson (2007: 8); and paying particular attention to relevance for Canadian application, considering for example federal reality, overlapping mandates of different levels and kinds of government authorities, and the significant rights and authority of Aboriginal bodies.

2.2 Generic regime and process design requirements for SEA in Canada

The requirements listed below (Box 2.1) are intended to provide a foundation for the design and evaluation of options for strengthening SEA in Canada. The anticipated options are chiefly for application at the federal level, but recognize the need to consider implications and applications beyond or overlapping with federal jurisdiction. While the requirements are intended mostly for overall SEA and SEA-like regimes, they may also apply to individual SEA cases.

Box 2.1 - Generic process design requirements for SEA in Canada

(i) clear statement of process purposes, centred on commitment to sustainable development or the equivalent, with appropriate evaluation and decision criteria

(n.b. where a component of the process focuses on the biophysical environment, means of integrating this with the full range of sustainability considerations and interactive effects must be clear and reliable)

(ii) application initiated early enough to address initial deliberations on purposes and alternatives (or, in a review of an existing policy, plan or programme, early enough to guide the initial conception of the review)

(iii) defined linkages between the strategic assessment and development, review and approval of any anticipated lower tier strategic or project initiatives, with clear position on the authority of the guidance provided to development and review of proposed lower tier undertakings

(iv) sufficient variety and flexibility of process streams (or allowable substitutions of equivalent processes) to cover different sorts of strategic assessment needs (broadly

influential policies and programmes, multi-tier PPPs, regional and sectoral undertakings, etc.)

(v) means of ensuring particular applications of the process learn from, and/or are coordinated or consolidated with, related strategic work, including that of other jurisdictions

(vi) critical review of purposes in light of sustainability criteria, specified for the particular case and context

(vii) comparative evaluation of potentially reasonable alternatives (including broadly different approaches as well as alternative means/methods of carrying out particular broad options) in light of sustainability criteria with the aim of identifying/developing the best option (most positive mutually reinforcing benefits, least risk of significant adverse effects)

(viii) attention to cumulative effects and lifecycle issues

(ix) effort to match assessment effort with significance of the case (use of more and less onerous streams of assessment, focusing assessment on most crucial issues, etc.)

(x) clear delineation of assessment roles and responsibilities, with evident mechanisms to ensure credible independence of assessment review

(xi) openings for collaboration and/or consolidation with other processes with equivalent objectives and approaches, including those in other jurisdictions

(xii) opportunities for meaningful participation in open deliberations

(xiii) transparent and accountable decision making

(xiv) authoritative decisions within the process or clear means of ensuring that (and showing how) the process guides decision making and implementation

(xv) opportunity for appeal

(xvi) procedures for monitoring, review, iterative learning and identification of needs for corrective action and implementation

(xvii) impartial administration

(xviii) adequate resources and motivations

(xix) links to broader strategic context (e.g., overall objective setting, indicator development, etc.)

(xx) regular review of process to incorporate lessons from experience

3 General process options used internationally to date

This section provides information regarding international approaches to SEA that have been used, including a discussion of their main strengths and weaknesses. The number of countries that have shown interest in using SEA has clearly increased in the past 10 years, and this interest

has been demonstrated in different ways: some have conducted SEA case studies; others have released guidance on SEA application; and others have put formal requirements into place. At present, only a few countries have formal SEA regimes in place, but they are increasing in number. The following subsections focus on SEA experience in the European Union and non-EU countries (including seven selected individual countries) and international development agencies. Special attention is paid to the strengths and weaknesses of each different approach. We begin by describing some key related legal and policy frameworks considerations associated with SEA practice.

3.1 Main related legal and policy frameworks

3.1.1 SEA Directive

Strategic Environmental Assessment was introduced in the European Union Member States when Directive 2001/42/EC of the European Parliament went into force on June 27th, 2001. Having been under development for 11 years, the Directive had to be implemented by Member States by July 21st, 2004.

The SEA Directive contains 20 recitals, 15 articles and two annexes, and is binding upon the 25 Member States of the European Community. According to Stoeglehner and Wegerer (2006), the SEA Directive gives leeway to the Member States for implementing SEA in new legal norms, e.g., in a separate SEA law, or integrating it in existing laws, e.g., in planning laws and procedures. Stoeglehner and Wegerer contend that it is still not finally determined whether SEA is a planning tool that can be applied within the planning processes to permanently consider environmental issues, or whether SEA is an examination tool that follows the planning process. The Member States can choose between the two SEA strategies. On balance, based on their analysis favour the first interpretation of the SEA Directive as an integrated planning tool (Stoeglehner and Wegerer, 2006).

The purpose of the SEA Directive is to ensure that environmental consequences of certain plans and programmes are identified and assessed during their preparation and before their adoption (EC, 2008). The SEA approach promoted by the EU SEA Directive has been described as 'baseline-led'[5] in which a distinct environmental 'yardstick' of discrete SEA themes, objectives and/or indicators is established. This benchmark is used to describe the baseline environment and identify problems, which in turn are expected to influence the strategic action objective (Thérivel, 2004b).

In addition, the SEA Directive is closely related to the EIA Directive (Directive 85/337/EEC, amended by Directive 97/11/EC) on the assessment of the effects of certain public and private

[5] In contrast, "objectives-led" approach to SEA first develops sustainable objectives for the strategic action, then indicators which test whether various alternatives achieve the strategic action objectives (Smith and Sheate, 2001). As put by Thérivel (2004b), the baseline-led approach tries to solve today's problems, while the objectives-led approach tries to achieve tomorrow's vision.

projects on the environment. The structure of both is similar, with similar procedural requirements. Article 1 of the SEA Directive concerns the objective, which is:

> to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment (EC, 2001: 32).

Article 2 deals with definitions and Article 3 determines the scope, specifically whether particular plans or programmes attract mandatory SEA or whether discretion is given to member states. Article 3 (2) makes SEA mandatory for plans and programmes that are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use; and that establish the framework for future development consent of projects listed in Annexes I and II of the EIA Directive(EC, 2001). The interpretation of whether a plan or programme sets the framework and what is a future development consent is also likely to be subject to judicial interpretation given the absence of definition in the Directive (Marsden, 2003). Article 3(2) also makes SEA mandatory for plans and programmes which, in view of the likely effect on sites, have been determined to require an assessment under the Habitats Directive, Directive 92/43/EEC.

Article 4 sets out the general obligations of the Directive. These may be either integrated into existing procedures or incorporated into new procedures established to comply with the SEA Directive (EC, 2001: Article 4(2)). Article 5 addresses the production of an environmental report, which must identify, describe and evaluate the likely significant effects on the environment of implementing the plan or programme, and the reasonable alternatives to it, taking into account the objectives and geographical scope of the plan or programme. The information that the environmental report must cover is outlined in Annex I. Once the environmental report has been prepared, it must be made available for consultation, along with the draft plan or programme (Article 6).

The environmental report and the consultation comments from the authorities, public and other Member States where appropriate “shall be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure” (EC, 2001: Article 8). When the plan or programme is adopted, the designated authorities, identified public and any Member State consulted must be informed of the decision (Article 9). They must also be provided with copies of the plan or programme, and with a statement summarising how environmental considerations have been integrated into it, stating how the environmental report, opinions and other consultations have been taken account of, together with the reasons for selecting the PP instead of other alternatives (Marsden, 2003). According to Thérivel (2004b), Article 9 of the SEA Directive provides a real incentive to decision makers to take the SEA findings into account.

Article 10 deals with monitoring: significant environmental effects of the implementation of the plan or programme “shall be” monitored “in order, inter alia, to identify at an early stage

unforeseen adverse effects, and to be able to undertake appropriate remedial action" (EC, 2001: Article 10).

One big limitation of the Directive is that it does not apply to policies, which set the framework for plans and programmes. Nevertheless, the SEA Directive sets "a minimum baseline which all European Member States must reach and, as such, it sets up an SEA system for those countries that did not have one before" (Thérivel, 2004b: 33).

Strengths of the SEA Directive include ensuring public participation, consideration of alternatives, and monitoring of the SEA process carried out by Member States. Weaknesses include the fact that much discretion is left to Member States regarding application, and that it does not apply to policies (Marsden, 2003; Thérivel, 2004b).

3.1.2 The Espoo Convention (UNECE) and the SEA Directive

The UNECE Convention on Environmental Impact Assessment in a Transboundary Context was signed in Espoo, Finland in 1991 and entered into force in 1997. Canada ratified the convention in May 1998.

The Espoo Convention sets out the obligations of Parties to assess the environmental impact of certain proposed activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries (UNECE, 2008). The Convention also establishes more specific commitments by Member States on when the process is to be initiated, what the process should look like, and what decisions are expected at the conclusion of the process (Doelle, 2008).

Article 2(2) of the Convention establishes the trigger for a transboundary EA process, requiring Parties to carry out an EA process for "proposed projects listed in Appendix I that are likely to cause significant adverse transboundary impacts" (UNECE, 1991). Appendix I lists a range of large-scale projects. While the language is not clear, it appears that for projects in Appendix I the EA process is automatically triggered (Doelle, 2008). The document defines "Transboundary impact", but not "significant". However, for projects not listed in Appendix I, Appendix III provides some guidance on defining significance for the purposes of determining whether a transboundary impact assessment is required or not. The general criteria identified relate to the size, location and effects of the project. In case of disagreements between States on whether a project is likely to cause significant adverse impacts, the Convention provides for an inquiry commission procedure (Appendix IV) to resolve the dispute (UNECE, 1991).

Once it is clear that the EA process under the Convention is triggered, the following procedural requirements apply. There is an obligation to notify other Parties affected by providing some basic information about the proposed activity, the potential transboundary environmental impacts, the EA process, and the decision under consideration (Doelle, 2008). The Convention leaves it to individual Parties to inform its own citizens (UNECE, 1991). Amendments to the Convention (first in 2001, and again in 2004) establish more clear rights for affected Parties to participate in the EA process; a compliance review; and a revised Appendix I. The Convention

contemplates the preparation of some form of environmental impact documentation and its content, as well as consultations among affected Parties. Institutional arrangements to ensure a cooperative approach are encouraged, particularly among neighbouring Parties (Appendix VI).

The final decision remains with the Party that hosts the activity in question. However, other Parties concerned about the potential transboundary impact of the proposed activity can request the implementation of follow-up (Post-project analysis – Appendix V), which can include compliance and mitigating measures monitoring, a review of actual impacts to cope with uncertainties and verification of past predictions (UNECE, 1991). Parties agree that their respective rights and responsibilities for transboundary harm are not affected by the Convention. This leaves as a final motivation to cooperate the potential liability for transboundary harm caused in case a proposed activity is approved at the conclusion of the EA process over the objection of an affected Party (Doelle, 2008).

3.1.3 The Aarhus Convention (UNECE) and the SEA Directive

The UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters was adopted in 1998 in the Danish city of Aarhus, effectively coming into force in 2001 (Albrecht, 2005). The Aarhus Convention does not deal exclusively with public participation in EA; rather it deals more generally with public participation, access to information and access to justice, all critically important to effective EA processes (Doelle, 2008).

The overall objective of the Convention is stated as follows:

> In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of this Convention (UNECE, 1998: Article 1).

Each party "shall make" appropriate practical and/or other provisions for the public to participate during the preparation of plans and programmes relating to the environment, within a transparent and fair framework, having provided the necessary information to the public (UNECE, 1998: Article 7). Public participation procedures must include reasonable timeframes for the different phases, allowing sufficient time for informing the public and for the public to prepare and participate effectively during the environmental decision-making. Each party must provide for early public participation, when all the options are open and effective public participation can take place. Each party must also ensure that in the decision due account is taken of the outcome of the public participation (UNECE, 1998: Article 8)

The Convention also details the commitments made by Parties with respect to the right to challenge decisions before administrative tribunals and courts (Doelle, 2008). The Aarhus Convention has set a new standard internationally in terms of public access to information, access to decision makers and access to justice in the context of environmental decisions (Doelle, 2008),

and in fact, as mentioned by Albrecht (2005), the SEA Directive can be seen as one of the first relevant acts of European legislation to support the aims of the Aarhus Convention.

3.1.4 The SEA Protocol

The "Protocol on Strategic Environmental Assessment as part of the Convention on Environmental Impact Assessment in a Transboundary Context" (SEA Protocol) was elaborated by an ad hoc working group of the United Nations Economic Commission for Europe (UNECE) and adopted on May 21st, 2003, at the Fifth Ministry Conference "Environment for Europe" in Kiev, Ukraine (Stoeglehner and Wegerer, 2006). Although negotiated under the UNECE (covering Europe, the USA and Canada, the Caucasus and Central Asia), the SEA Protocol is open to all UN members (Thérivel, 2004b). The Protocol will become binding upon the parties that have signed the Protocol (these include 37 States and the European Community), once 16 parties have ratified the Protocol. So far 12 countries have ratified. Canada was not a participant in the working group and is not a signatory to the Protocol (UNECE, 2009).

In common with the link between the SEA and EIA Directives, the SEA Protocol is linked with the Espoo Convention, which shares the same Secretariat, and the Aarhus Convention, the requirements of which are largely incorporated into the SEA Protocol (Marsden and Mulder, 2005). While Espoo is concerned specifically with transboundary impacts from projects, the SEA Protocol is not limited to transboundary impacts from plans and programmes. Rather, it operates as a stand-alone instrument, and is concerned with impacts from plans and programmes within a State, with consideration of transboundary effects being a secondary concern (Marsden and Mulder, 2005).

The objective of the Protocol is to motivate States to consider more fully "environmental, including health, concerns in the preparation of policies and legislation," and to encourage public participation in strategic environmental assessments to that end (Doelle, 2008). Stoeglehner and Wegerer (2006), citing a former official of the EU-Directorate-General of the Environment note that the SEA Protocol has basic similarities to the SEA Directive, which was adopted by the EU at the beginning of the Protocol negotiations. The Protocol, however, would have the effect of extending the validity area to more UNECE Member States, enlarging the scope to policies on a voluntary basis and equating health issues with environmental issues. Both documents are procedural in nature, mandating that certain plans and programmes that are likely to have significant effects on the environment are subject to an "environmental assessment" in the case of the Directive and a "strategic environmental assessment" in the case of the Protocol (Ahmed et al, 2005). In this context, Annex I and II of the Protocol contains a list of projects that would trigger an SEA[6].

[6] Article 4, paragraph 2 of the SEA Protocol provides that a "strategic environmental assessment shall be carried out for plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry including mining, transport, regional development, waste management, water management, telecommunications, tourism, town and country planning or land use, and which set the framework for future development consent for projects listed in annex I and any other project listed in annex II that requires an environmental impact assessment under national legislation." (UNECE, 2003: 4)

In addition, any plan or programme that sets the framework for future project decisions "shall have a SEA carried out" given that the Party determines to do so after going through a screening process and determining whether the plan or programme is likely to have significant environmental, including health, effects (UNECE, 2003: Article 5). In other words, under the Protocol, the screening is a tool to make a process decision; it is not itself considered to be an environmental assessment process (Doelle, 2008). In order to determine the likely significant effects of the given plan or programme, Parties should use the criteria set out in Annex III of the Protocol.

Furthermore, the Party has to make some effort to consult and to provide opportunities for public participation in the screening process (Doelle, 2008). The decision, with reasons, has to be made available to the public in a timely manner. If the SEA process applies, the Party then has to go through the process of determining the scope of the assessment, preparing an environmental impact statement, and making a final decision on whether or not to approve the proposed policy, plan or programme (Doelle, 2008). At each stage of the process, the Party has obligations to consult with other Parties, to make efforts to engage the public, to make relevant information available, and to make the final decision with reasons publicly available (Doelle, 2008).

As argued by Thérivel (2004b), the SEA Protocol is a rather longer and more daunting document than the SEA Directive, made to cope with a more daunting implementation process. Thérivel (2004b: 34) asserts that the main differences between the Directive and the Protocol are as follows:

- The Protocol is less explicit in its definition of 'environment" but more explicit about the fact that it perceives the environment as including health, reflecting the involvement of the World Health Organization in its development;
- The Protocol is more explicitly a document for public participation than the Directive. It makes more reference to the public in its preamble and general provisions, and to the possible role of the public in scoping, and includes a requirement for public consultation arrangements to be formally determined and made public, including a complex Annex on how to do so (Annex V). This reflects its links to the Aarhus convention (see Appendix Section 3.1.3);
- Although the Protocol only requires SEA of plans and programmes, it also addresses policies and legislation; and
- The Protocol includes many more requirements about ratification, integration, implementation, modification, etc., reflecting the large number of countries with very different legal systems to which it applies.

3.1.5 Convention on Biological Diversity

The Convention on Biological Diversity (CBD) also commits States to carry out environmental impact assessments in specified circumstances (Doelle, 2008). Canada is a signatory and a Party to this Convention, so it is bound to comply with its provisions. Article 14 of the Convention requires Parties to ensure that the environmental consequences of proposed projects, policies and programmes that are likely to have significant adverse impacts on biodiversity are considered through an environmental assessment process or other suitable process (United Nations, 1993). Where appropriate, the Convention calls for consultations with other affected Parties, and for public consultations. These general obligations are supplemented with guidance material developed by the Conference of the Parties over a number of years and were recently revised in March, 2006.

The guidelines developed under the CBD are instructive in at least two ways. They provide useful guidance on how to consider the potential threat to biodiversity of various proposed human activities subjected to an EA process. In addition, the guidelines provide some indication of what are considered to be essential stages of an effective EA process internationally. It is interesting to note that, on the latter issue, the stages identified are generally reflected in most EA processes in Canada (Doelle, 2008).

The EA process is described in the guidelines as a process "of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse" (United Nations, 1993). Stages in the process are identified to include screening, scoping, assessment and evaluation, reporting, review, decision-making, and post-decision activities such as monitoring, compliance and auditing. These stages are similar to those in other international treaties and are generally reflected in the federal EA process in Canada (Doelle, 2008). The notable difference here is that the screening is considered a step in the EA process, whereas the federal CEAA screening process constitutes a complete EA, rather than merely a procedural step for determining whether an assessment is needed (Doelle, 2008).

Much of the guidance offers suggestions on how the potential impacts of a proposed activity on biodiversity should factor into the decision on whether to trigger the EA process. Not surprisingly, the potential impact of a proposed activity is considered to be an important factor in determining whether an EA process should be triggered. Different ways of incorporating biodiversity into the triggering decision are suggested, including lists of projects to be assessed, discretion to be exercised based on professional judgment, and geographical considerations (United Nations, 1993). Furthermore, if the EA process is triggered, the guidance makes recommendations on how to identify and consider biodiversity impacts in the EA process.

3.2 SEA experience in selected European Union Member States

While the UNECE Protocol and the European Directive on SEA set out the general requirements for implementing SEA within member states, the actual mode of application differs widely from one country to the other (Chaker et al, 2006).The information provided in this section derives from recent research conducted on several EU Member States, namely Partidário (2003); Dalal-

Clayton and Sadler (2005); Jones et al (2005); Schmidt et al (2005); Chaker et al (2006); Therivel and Walsh (2006); and Fischer (2007).

3.2.1 The Netherlands

The Netherlands has a two-tier SEA system, and as argued by Dalal-Clayton and Sadler (2005: 82), the two systems are "distinct in concept and approach, implemented separately and independently of each other, and both have been subject to evaluation recently with major changes made or pending." Under Dutch legislation, there has been an obligation since 1987 (based on the national EIA Act of 1987, amended in 1994, to carry out an EA for a number of spatial and sectoral plans and programmes. These include national plans on waste management, electricity production, land development and drinking water supply, and regional plans on waste management and the location of new housing and industrial areas (Verheem and Tonk, 2000). The EIA Act applies to these specified plans and programmes as well as to projects, and the same procedure is followed at both levels (Dalal-Clayton and Sadler, 2005). Under this regime, a number of strategic EIAs were conducted since 1987, following a mandatory process, including examination of alternatives, public involvement in the scoping and review phases and independent review of the quality of the information (Dalal-Clayton and Sadler, 2005).

The other SEA system in place is the environmental or E-test of laws and regulations that was introduced in 1995 (amended 2003), based on a cabinet order, which means that SEA is also applied in cabinet decision processes (Fischer, 2007). The E-test is a qualitative assessment that is based on minimum steps, incorporates limited checks and balances, and is carried out using a short questionnaire and guidance from the Ministry of Housing, Spatial Planning and the Environment (Dalal-Clayton and Sadler, 2005). On average, tens of SEAs were prepared annually in each of these systems prior to the SEA Directive coming into force (Fischer, 2007).

One of the strengths of the Dutch two-tier SEA system is the practical development of a tiering approach (see Table 3.1), whereby the various layers in the decision-making process are structurally and functionally inter-connected (Partidário, 2003; Dalal-Clayton and Sadler, 2005), with the effect of reducing the number of project EAs conducted (Fischer, 2007).

Table 3.1 - Example of tiered approach in the Dutch SEA system (electricity sector)

What is addressed	Scale	Instrument used
Why question: Why do something? *Addresses need, objectives and principles*	National Electricity Plan: • Generating capacity, strategic choice of type of fuel, spatial reserves to new power stations	E-test

What question: What to do? *Addresses methods and capacities*	Sectoral Electricity Plan: • Concrete proposals in terms of locations, fuel, capacities	SEIA
Where question: Where to do it? *Addresses Location*	Spatial Provincial Plan: • decision on the type of fuel, capacity, technology, design, specific location, mitigation, compensation	SEIA
How question: How to do it? Addresses design, minimization and compensation	Licensing the operation: • decision on the type of fuel, capacity, technology, design, specific location, mitigation, compensation	Project EIA

Source: (Partidário, 2003)

Strengths and Weaknesses: According to Fischer (2007), the EIA-based SEA system is based on enforceable legal requirements and clear guidance with a high degree of participation and cooperation as well as well-defined competences and responsibilities of the various bodies involved in the process, including assessors. In addition, Fischer contends that a well developed decision hierarchy and tiering, satisfactory funding, time and support, appropriate considerations of alternatives, and strong professional support and quality control roles played by the EIA Commission, are all important parts of the Dutch EIA-based SEA system.

On the other hand, the E-test has been applied on a pro-forma basis and has had a negligible effect on decision making (Dalal-Clayton and Sadler, 2005), attributed to the timing of its application (i.e. too late). In 2003, the E-test for draft legislation was amended, and is now implemented in two phases: a 'quick scan' used to substantiate the need for draft legislation, identify potential significant effects and propose the tests to be carried out; and a subsequent appraisal process called 'appraisal and documentation' (Dalal-Clayton and Sadler, 2005). According to Fischer (2007), monitoring, consideration of uncertainties, consultation and public participation, lack of enforcement and compliance with requirements, and insufficient funding are also weaknesses of the Dutch SEA E-test system.

3.2.2 United Kingdom

The United Kingdom had no statutory provisions for SEA prior to the SEA Directive coming into force on 21 July 2004. However, as discussed by Dalal-Clayton and Sadler (2005) and Fischer (2007), several types of SEA process had emerged during the 1990s. SEA experience in the UK includes appraisals of national policies, objectives-led "environmental appraisals" (and latterly "sustainability appraisals") of local and regional development plans, and informal SEAs (taking various shapes and forms) carried out in specific sectors, such as transport, oil and gas licensing,

wind energy generation and water (Dalal-Clayton and Sadler, 2005). While there has been appraisal guidance for central government policy making, practice in this area has been limited (Fischer, 2007), and fairly unsuccessful (Glasson et al, 1999). In contrast, SEA practice by local authorities has been rather successful, mainly based on the publication of *Planning Policy Guidance Note n^{o} 12*, which has been identified as "a real 'SEA-change' in environmental appraisal in the UK" (Glasson et al, 1999: 411).

Strengths and Weaknesses: One of the strengths of the UK's SEA system is the various published good practice guidance documents (see for example Therivel and Walsh, 2006) for both English local authorities and central government departments and local authorities. Jones et al (2005) assert that in principle, the UK has a comprehensive tiered EA system, but in reality, few central government departments have undertaken meaningful policy EA. In fact, SEA is not mandatory at the higher policy level. Fischer (2007) notes that due to a lack of requirements and no practical support by an environmental agency or ministry, enforcement has been weak and the quality of the assessments prepared has varied widely. Fischer (2007) also notes the lack of consideration of baseline data, especially in terms of how the data are subsequently used in the assessment. Consultation and public participation as well as consideration of alternatives have been inadequate pre-SEA Directive, but this, as argued by Fischer (2007), is changing due to the SEA Directive requirements. Jones et al (2005: 237) assert that UK's SEA system's "limited provisions for consultation during scoping mirror exactly those of the SEA Directive," implying that this weakness should remain post-SEA Directive implementation.

3.2.3 Finland

In Finland, before the implementation of the SEA Directive, two systems of SEA were in place. Both EIA-based SEA for public authorities' policies, plans and programmes (under the 1994 EIA Act) and SEA of government bills (cabinet SEA) have been conducted for many years (Hildén and Jalonen, 2005; Fischer, 2007). In addition, there are detailed requirements for SEA of land use plans under the Land Use and Building Act of 1999, and these requirements are linked to the procedural stages of the preparation of land use plans.

SEA practice is particularly well developed for land use plans, reflecting the detailed procedure laid down in the Building and Planning Act, and in the transport sector (Dalal-Clayton and Sadler, 2005). In Finnish regional development programmes there has been tiering within regions and links to other plans and programmes that have direct implications for an assessment (Hildén and Jalonen, 2005). In general, Fischer (2007) contends that there is a well-developed planning and decision-making hierarchy. Process integration is said to normally function well (Fischer, 2007), with SEA being conducted as a separate process that connects with plan making and other assessment processes (economic, social) at regular intervals.

Apart from general guidance there is also theme-specific guidance, for example, on biodiversity (Fischer, 2007). The Finnish guidance on SEA (Ministry of the Environment, 1998) emphasizes the importance of alternatives and, according to Hildén and Jalonen (2005), alternatives have generally been considered in Finnish SEA. However, Fischer (2007) argues that consideration of alternatives in the EIA-based SEA system have been somewhat weak.

According to the Finnish constitution, everyone has the right of access to documents and recordings produced by, or in the possession of, the public authorities (Hildén and Jalonen, 2005). For example, in the structural funds programmes, participation has been based on the concept of partnership. In practice, however, this has meant assembling a broad group of stakeholders, but not providing direct access for individual citizens (Hildén and Jalonen, 2005). Similar approaches have been used in other assessments as well, but many have also provided broader access for the public (Hildén and Jalonen, 2005).

Fischer (2007) argues that, in contrast to most other SEA systems, monitoring in Finland is well developed. The Land Use and Building Act sets requirements for keeping plans up-to-date (for regional plans, master plans and local detailed plans). Hildén and Jalonen (2005) explain that these requirements were introduced in response to problems caused by the previous legislation under which an obsolete plan could become activated or used as an argument for projects that otherwise could no longer be justified.

Strengths and Weaknesses: According to Fischer (2007), the strengths of Finland's SEA system include a good record of enforcement; clear guidance; well developed planning hierarchy; well developed monitoring; solid institutional support base; requirements for cabinet SEA; extensive public involvement and transparency in decision making due to constitutional requirements; and a high level of environmental consciousness in society. Weaknesses include late timing of assessment in the EIA-based SEA system, weak consideration of alternatives, and inadequate impact mitigation and compensation measures.

3.3 SEA experience in selected non-EU Member States

3.3.1 States of America: the federal level

In the USA, the requirement to prepare SEAs, known as Programmatic Environmental Impact Statements (PEISs) under the National Environmental Policy Act (NEPA) of 1970, pre-dated similar mandates in other parts of the world (Bass, 2005). According to Glasson et al (1999), hundreds of PEISs have been prepared by government agencies, primarily as an extension of project EA to the programme and plan level. NEPA, however, only addresses federal actions, leaving major actions by state agencies to be governed at the discretion of state legislatures (El-Jourbagy and Harty, 2005). The NEPA process is triggered at the proposal stage for any "legislation and other major Federal actions significantly affecting the quality of the human environment" (NEPA, 1969). Section 102 of NEPA contains procedural requirements[7], including the provision for a detailed statement to accompany these initiatives. One of the architects of NEPA stated that this provision was to be an "action-forcing" measure, intended to "reform and redirect federal policymaking" (Caldwell, 2000). However, this intention to produce changes in the decision-making processes of the federal agencies encountered some limitations. In practice,

[7] For a more detailed analysis of the NEPA procedural process see, for example El-Jourbagy and Harty (2005).

policy and other strategic decisions were excluded from review, other than for programmatic activities that could be grouped together (Dalal-Clayton and Sadler, 2005).

As El-Jourbagy and Harty (2005) assert, unlike the European Member States, where all plans and programmes with potential transboundary impacts trigger environmental assessment and consultation with other Member States, in the US, state-level initiatives that impact several states do not trigger NEPA, and in fact, can only be addressed through other environmental legislation such as the Clean Water Act or the Clean Air Act. Under NEPA, every environmental report requires a discussion on "environmental impacts of the proposed action, unavoidable adverse environmental effects, alternatives to the proposed action, relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented" (NEPA, 1969). In contrast to the EU SEA Directive (Annex I and II), however, NEPA's guidelines do not list specific areas of applicability, and in fact, there is in the USA a large body of case law relating to the scope and application of the process (Dalal-Clayton and Sadler, 2005).

On the positive side, PEISs provide "a framework for any further EIA of individual projects, and subsequent requirements for analysis can be tiered to the results of the PEIS. This is acknowledged to save time and resources, particularly where there is a multi-stage sequencing of activities" (Dalal-Clayton and Sadler, 2005: 106).

Strengths and Weaknesses: A strong legal framework is in place. While tiering is a well-established practice, it is misunderstood and sometimes misused by, for example, using out-of-date documents (Bass, 2005). Sometimes the NEPA process is triggered too late, jeopardizing its effectiveness (CEQ, 1997). Training for agency officials is often inadequate (El-Jourbagy and Harty, 2005) and there is no standardized guidance for preparing PEIS (Bass, 2005). Some agencies have "learned" how to avoid a "larger plan causing significant environmental impacts" by breaking down the action into several pieces. Although consultation and participation are integral to the use of PEISs (Bass, 2005), agencies have been criticized for their failure to adequately respond and integrate the public's comments (El-Jourbagy and Harty, 2005). In addition, there are no legal provisions to require follow-up activities.

3.3.1.1 US State-level SEA: California

The US federal system has a national government and 50 separate state governments. Subject to certain restrictions in the US Constitution, states are free to adopt their own legislation regulating the environment, leading to different approaches (Bass, 2005). Only a few states have some requirement for the EA of PPPs. Of these, the SEA system established by the California Environmental Quality Act of 1986 is the most well developed (Glasson et al, 1999). In contrast to the NEPA-based federal system, private plans and programmes with significant environmental effects also require SEA (Fischer, 2007). California's SEA system (called the Programmatic Environmental Impact Report) takes an EIA-based approach to SEA and is applied in a very similar manner for different sectors. Like project EIAs, a PEIR must include a description of the action, a section on the baseline environment, an evaluation of the action's impacts, a reference to alternatives, an indication of why some impacts were not evaluated, the actors consulted, the

responses of these actors to the EA, and the agency's response to the responses (Glasson et al, 1999).

Strengths and Weaknesses: According to Fischer (2007) the strengths of the Californian SEA system are clear legislative requirements; strong enforcement through the courts; private plans and programmes with significant environmental effects also require SEA; structured and clear EIA-based process; highly developed culture of participation; and a well-developed planning hierarchy. Major weaknesses are related to its reactive nature, the fact that SEA is not applied to policies, and weak follow-up activities.

3.3.2 New Zealand

In contrast to the USA, where SEA has clearly evolved from EIA provisions, in New Zealand it is seen as a tool for achieving sustainability as part of an integrated planning and assessment process (Glasson et al, 1999). SEA elements are reflected in the integrated approach to land use and resource planning, based on the Resource Management Act (RMA) of 1991, which requires all PPPs at national, regional, and district levels to be evaluated in order to determine the likely costs and benefits of alternative means of achieving the PPPs (Glasson et al, 1999). The RMA was not intended to provide a general mandate for SEA (Dalal-Clayton and Sadler, 2005), and in fact there is no reference to SEA (or EIA) in the Act. But this potential has been perceived and promoted since its implementation (Dixon, 2002). Dalal-Clayton and Sadler (2005) claim that, under the RMA, SEA practice is more diffuse and ad hoc as compared to many other countries, but it displays environmental and sustainability dimensions that are of interest. In this context, the RMA has three defining cornerstones (Sadler, 2001):

- A single purpose of promoting sustainable resource management and a supporting objective of safeguarding the capacity of critical life support systems;
- A tiered hierarchy of policies and plans that incorporates an effects-based approach – this corresponds to and includes elements of SEA, and sets a framework for EIA of actions and approval of resource consent; and
- Specific requirements that are analogous to the SEA approaches in other countries.

In practice, as suggested by Dalal-Clayton and Sadler (2005) the RMA, as a strategic framework for sustainable resource management, remains incomplete and less integrated than might be expected after more than 17 years of implementation. Two key weaknesses relate to 1) few national environmental standards and policy statements (which are discretionary) have been drafted, and 2) regional policy statements (which are mandatory) have been rated as being of generally inferior quality and insufficient to promote good plan-making (Dalal-Clayton and Sadler, 2005).These, in turn, raise questions regarding the extent to which a tiered approach to policy and plan preparation is really in place (Dalal-Clayton and Sadler, 2005). This is similar to Fischer's comment that "there is a fairly clear, but incompletely implemented, planning hierarchy, with national policy statements feeding into regional and district management plans" (Fischer, 2007: 87) Generally speaking, New Zealand has a tradition of transparent and cooperative planning, and consultations and public participation are important elements of public decision-making processes (Fischer, 2007).

Strengths and Weaknesses: According to Fischer (2007), strengths of the New Zealand SEA system include: objectives-led approach to integrated environmental management with clear sets of goals; highly developed environmental consciousness in society; transparency, participation and cooperation in public decision-making; integrated transport and SEA process. Weaknesses include lack of rigour in evaluating options and issues; weak enforcement; limited consideration of alternatives, weak impact mitigation and compensation; and somewhat reactive SEA.

3.3.3 Australia

In 1999, the Australia Environment Protection and Biodiversity Conservation Act (EPBC Act, 1999) replaced a number of federal statutes including the Environment Protection Act of 1974 (Dalal-Clayton and Sadler, 2005). The new act introduced important EIA provisions and procedures and provides for a strengthened role for the federal government in matters of national environmental significance in relation to world and national heritage places, nationally threatened plants and animals, migratory species and internationally important wetlands (Early, 2004).

Under section 146 of the EPBC Act (OLDP, 1999: Part 10), the Australian Environment Minister may agree to conduct an SEA of potential actions under a policy, programme or plan. A strategic assessment should happen early in the assessment process and may examine the potential cumulative impacts of actions in accordance with one or more policies, programmes or plans (DEWHA, 2008). These may include but are not limited to: regional-scale development plans and policies; district structure plans; local environmental plans; large-scale industrial development; fire, vegetation or pest management policies, plans or programmes; water extraction/use policies; and infrastructure plans and policies (DEWHA, 2008). In addition, it requires strategic assessment of all fisheries managed by the Federal Government and all fisheries involved in the export industry (OLDP, 1999).

Dalal-Clayton and Sadler (2005) cite the work of Marsden (2002) where he evaluates the provisions of sections 146 of the EPBC Act against principles of international best practice in SEA, as defined by Sadler and Verheem (1996), and identifies a number of procedural shortcomings, including the relatively restricted scope of application of the Act – it excludes matters of national environmental significance such as forests. In addition, Marsden argues that section 146 also leaves too much discretion to the Minister and therefore lacks much of the certainty and transparency that a legal framework should bring.

The National Forest Policy Statement brings provision for the conduct of Comprehensive Regional Assessment (CRA), which has many of the characteristics of SEA (Dalal-Clayton and Sadler, 2005). This process is the basis for the conclusion of regional forest agreements (RFAs), which the Federal and State governments pursued from the mid-1990s as a means of resolving jurisdictional and fundamental conflicts over land use and management (Dalal-Clayton and Sadler, 2005). CRAs are undertaken through two parallel streams of assessment: one environmental and heritage assessment (relating to national estate values, world heritage values, Aboriginal heritage values, endangered species, biodiversity, old growth and wilderness values and to ecologically sustainable forest management), and on economic and social assessment (relating to resource use and development opportunities and the consequences of exploiting them) (Dalal-Clayton and Sadler, 2005).

Strengths and Weaknesses: Strengths include provisions for application to policies as well as plans and programmes; Mandatory SEA to all fisheries. Weaknesses include restricted scope of application (do not apply to forests), too much discretion to the Minister, and lack of transparency.

3.3.3.1 State-level SEA: Western Australia

As has been discussed by Morrison-Saunders and Bailey (2000), there has been a tradition of strong project level environmental assessment carried out under the Western Australian *Environmental Protection Act* (1986). A few amendments to the Environmental Protection Act were undertaken so that SEA could be part of the system. In 1996, changes were made specifically to create a process for the environmental assessment of land use planning schemes prepared by local governments or by the state government planning agency (Malcolm, 2002). Referral to the EPA is compulsory, but each planning scheme is screened on a case-by-case basis by the EPA to determine whether assessment is warranted. For schemes undergoing formal assessment (called "Environmental Review"), final decision making is made by the Minister for the Environment in collaboration with the Minister for Planning, and conditions of approval are incorporated into the planning scheme text, making them legally binding. Follow-up is the responsibility of the relevant planning body.

In 2003, amendments to the Act gave the Environmental Protection Authority (EPA) formal authority to assess "strategic proposals" likely to have a significant effect on the environment (Government of Western Australia, 1986: section 40B), allowing proponents to refer their strategic proposals voluntarily. The SEA system requires a tiered assessment of environmental issues during planning decision making, which influences environmental outcomes through a hierarchical planning framework (Environmental Protection Authority, 2008). The process includes scoping, document preparation, public review, EPA evaluation and finally condition setting by the Minister for the Environment, which is legally binding. The advantage to proponents in subjecting them to SEA is that subsequent derived proposals will not require further assessment (Dalal-Clayton and Sadler, 2005). Examples of such strategic proposals include land use planning strategies, drilling programs or satellite mining developments (Marsden and Ashe, 2006); however, to date no strategic proposal have completed this assessment process.

In addition to the two SEA processes described above, the Western Australian EPA has frequently used "an informal SEA process derived from its Section 16 'Functions' powers pertaining to general advisory provisions" (Malcolm, 2002) This informal, voluntary SEA-type process has long been used in Western Australia for strategic proposals outside of the assessment of planning schemes which anticipate future projects or activities that will have a significant impact on the environment. Unlike the previous SEA mechanisms mentioned, the process ends with publication of the EPA's report; there is no legally binding decision made at the Ministerial level. Malcolm (2002) suggests proponents have been interested in having their proposals considered at least informally by the EPA, so they have greater certainty about the environmental acceptability of the future projects that their strategic proposals anticipate. There is no follow-up to the informal process; instead future projects are subject to the formal project level assessment process.

Overall, as is the case with project level assessment (Morrison-Saunders and Bailey, 2000) the EPA is an important enforcement institution and plays a crucial support role for effective SEA application, providing clear guidance to stakeholders (e.g. EPA, 2008) as well as advice and recommendations to the Minister for the Environment.

Strengths and Weaknesses: Strengths in the Western Australian SEA system include clear legislative requirements, consultation and participation, an integrated approach, an effective tiered planning system, and the strong enforcement and support role of EPA. Weaknesses include reduced transparency in decision making due to the minister's negotiation right, weak consideration of alternatives, and weak follow-up activities. The variety of SEA instruments may be perceived as an advantage because of flexibility or a weakness because of proliferation of different processes with different outcomes and parties involved.

3.3.4 South Africa

There are currently no formal SEA requirements in South Africa. However, the National Environmental Management Act (NEMA) (No. 107 of 1998) makes provision for the development of assessment procedures that aim to ensure that the environmental consequences of policies, plans and programmes are considered (DEAT/CSIR, 2000). In practice, there have been a number of SEAs conducted on a voluntary basis, and SEA experience in South Africa is widely reported on in the literature (e.g. Rossouw et al, 2000; Retief, 2007). As mentioned by Fischer (2007), most experiences stem from EIA-based SEA in land use and sectoral planning. In the mid 1990s, an innovative approach to SEA emerged, pioneered by the Council for Scientific and Industrial Research (CSIR), which published an SEA Primer in 1996, and later an SEA Protocol in 1997 (Dalal-Clayton and Sadler, 2005). The emphasis was on assessing the effect of the environment on development needs and opportunities, with a strong focus on assessing cumulative impacts.

In 2000, national SEA guidelines were published (DEAT/CSIR, 2000) for application at the planning and programme level as a proactive management instrument. The guidelines on SEA stand apart as an attempt by a developing country to adapt SEA to its own specific needs and priorities (Kjorven and Lindhjem, 2002). The guidelines describe the main perceived benefits of SEA, as well as the key elements of an SEA process (i.e. identify broad plan and programme alternatives; screening; scoping; situation assessment; formulate sustainability parameters for the development of the plan or programme; develop and assess alternative plans and programmes; decision-making; develop a plan for implementation, monitoring and auditing; and implementation).

The guidelines also provide a set of substantive and procedural principles for SEA:

1. SEA is driven by the concept of sustainability;
2. SEA identifies the opportunities and constraints which the environment places on the development of plans and programmes;
3. SEA sets the criteria for levels of environmental quality or limits of acceptable change;

4. SEA is a flexible process which is adaptable to the planning and sectoral development cycle;
5. SEA is a strategic process which begins with the conceptualisation of the plan or programme;
6. SEA is part of a tiered approach to environmental assessment and management;
7. The scope of the SEA is defined within the wider context of environmental processes;
8. SEA is a participative process;
9. SEA is set within the context of alternative scenarios; and
10. SEA includes the concepts of precaution and continuous improvement (DEAT/CSIR, 2000: 15-16).

According to Fischer (2007), SEA in South Africa is currently largely private-sector driven. Public consultation and participation and a highly developed environmental consciousness in society are key features of the South African SEA system. While monitoring features strongly in the DEAT/CSIR national SEA guidelines, in practice, monitoring has been very weak. Fischer (2007) argues that the lack of nationally agreed sustainability objectives hampers the application of SEA and its ability to deal with the concept of sustainability, especially in relation to the so-called objectives-led approach to SEA. Strategic planning is not well developed, project EA is perceived as an obstacle to development, there is weak political will for SEA and insufficient funding for both project EA and SEA (Fischer, 2007).

Strengths and Weaknesses: In summary, the strengths of the South African SEA system include the presence of national draft SEA guidance; public participation is a key feature; SEA applied to the private sector. Weaknesses include no legal requirements; public-sector SEAs not common; weak EIA system; insufficient political will and administrative support; inadequate funding; strategic planning not well developed; SEA practitioners and assessors see themselves only as technicians, not as proactive actors.

3.4 SEA experience in international development agencies

In addition to the national SEA systems discussed above, there have been some initiatives by international development agencies as well, and these are discussed below.

3.4.1 The World Bank

To a great extent, the context for SEA within many developing countries and those in economic transition has been through the policies and requirements of the World Bank. In 1989 the World Bank adopted an Operational Directive 4.00 which included provisions for regional and sectoral EAs. At the time, these instruments made a significant contribution to the development of SEA tools, although clearly evolving from a project EA perspective as an attempt to look at development activities rather than individual projects (Partidário, 2003). Later, the Operational Directive was converted into an Operational Policy/Bank Procedure (OP/BP 4.01, 1999), which broadened environmental and social assessment approaches in Bank operations, and confirmed a requirement for borrowers to conduct sectoral and regional EA, as and where relevant (Dalal-Clayton and Sadler, 2005). However, as suggested by Kjorven and Lindhjem (2002: 3), the

Bank's "ad hoc approach to SEA to date has produced a mixed but promising record. There have been relatively few sectoral and regional EAs, and many of these have not in fact been very strategic in substance."

In 2001, the Bank approved its Environment Strategy, which states that SEA is part of a systematic approach to ensuring that environmental matters are considered early in the development planning process (Mercier and Ahmed, 2005). In 2004, a new Development Policy Lending policy (OP/BP 8.60) was approved, which promised to influence the use of SEA in World Bank operations, as it requires the Bank to determine if specific country policies supported by the operation are likely to have significant effects on the environment and natural resources of the client country (Dalal-Clayton and Sadler, 2005).

In practice, the determination of whether a project financed by the Bank needs an SEA (in the form of regional or sectoral EA) depends on answering a set of questions (World Bank, 1993; World Bank, 1996). A positive response to at least one of these questions suggests that an SEA is "highly recommended":

Regional EA:

- Is the Bank considering supporting an investment programme or project(s) in a region with existing significant and inter-related environmental problems or major uncertainties about ecological functions and relationships?
- Could the proposed programme or project(s) have significant region-wide environmental impacts (including environmental-related social impacts and impacts on cultural heritage) that need comprehensive treatment to be understood and addressed?

Sectoral EA:

- Are there major existing environmental problems associated with the sector, and/or sector-wide potential environmental impacts resulting from the proposed programme or series of projects?
- Is there a clear potential for significant environmental improvement or avoidance of major problems in the sector?
- Are there clear policy, regulatory and/or institutional weaknesses relative to environmental management in the sector?

According to Goodland (2005: 3), only "some Regional and Sectoral EAs are occasionally produced. However, there is no requirement for SEA outside the 'project box', and SEA is not yet integrated into the World Bank's work." In fact, Kjorven and Lindhjem (2002) show that they have been sporadic rather than systematic. Another problem relates to financing SEA. Goodland (2005) mentions that there is no reliable source of financing even for the mandatory EAs, let alone for SEA. "EA often still has to be paid for by seeking funds outside the Bank, from trust funds, grants, bilaterals and other ad hoc sources. This suggests that EA, though mandatory, has yet to be integrated into normal project preparation. SEA is often impossible because the funds are much more difficult to obtain for what is seen as 'non-project' work" (Goodland, 2005: 3).

Strengths and Weaknesses: Strengths include the Bank requires the borrower to prepare sectoral or regional EA, but no legal requirement for EA of development policy lending; guidance on conducting sectoral and regional EA exists; consultation and public participation is integral to the process; SEA reports always prepared and made available to the public. Major weaknesses include influence on decision making has been negligible; consideration of alternatives has been inadequate with few exceptions; lack of reliable source of financing for SEA; tiering does not occur unless borrower is engaged in doing so; SEA follow-up, although recommended by the Bank, is seldom implemented.

3.4.2 United Nations Development Programme (UNDP)

In the 1990s, UNDP introduced the Environmental Overview (EO) approach as an SEA tool used in the formulation stages of aid programming. The EO is no longer current within UNDP, but was regarded as a sound and effective approach (Dalal-Clayton and Sadler, 2005). It involved four critical aspects:

- The project/programme must be in its draft formulation stages;
- There must be sequential completion of each of three structured 'questions'[8] of the EO;
- The EO must be undertaken in a participatory way, using a broad mix of specialists and others; and
- The process must include modification on the draft project/programme as an integral part of the EO. The tool should be recognized as a creative process, not just a document (Dalal-Clayton and Sadler, 2005: 146).

The EO was a flexible tool that has been applied to non-geographically based projects and programmes, to sectoral activities and to policies. Brown (1997) reports that the EO represented an innovative procedural form of SEA in the development context, and that its characteristics conformed to many of the principles for effective SEA.

3.4.3 United Nations Environment Programme (UNEP)

Since 1992, the Economics and Trade Branch of the UNEP has pursued a programme of activities related to project EA and SEA in response to Agenda 21 under a mandate from the UN Conference on Environment and Development (Dalal-Clayton and Sadler, 2005). In the 1990s, UNEP developed an *EIA Training Resource Manual* with a focus on capacity building. In 2002, a

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[8] First, it asks questions concerning the baseline conditions for the project/programme. Second, it asks questions concerning the impacts and opportunities and how the draft project/programme can be redrafted in an operational strategy to take these, and the baseline conditions, into account. Additional questions focus on modifications that should be made to the original design. Answering these questions results in a brief document, but it is the interactive process of assembling the EO that is the heart of the process (Brown, 1997).

second edition of the training manual was published incorporating a module on SEA (UNEP, 2002). According to Dalal-Clayton and Sadler (2005), this was developed in response to continued requests to UNEP for assistance, information and training in SEA, particularly from developing countries.

In addition, UNEP has also issued guidance on project EA and SEA addressing elements of good practice, with particular application to developing countries and countries in transition to market economies (Abaza et al, 2004). The guidance emphasizes concepts, procedures and tools in current use or those that are potentially relevant for several purposes: integrated impact assessment; implementing EIA and SEA as tiered systems; and adopting a differentiated approach to SEA of development policies, plans and programmes that recognizes how they differ (Dalal-Clayton and Sadler, 2005).

An approach developed by UNEP that is of interest is the Integrated Assessment of Trade-related Policies (UNEP, 2001) to help policy-makers and practitioners examine the economic, environmental and social effects of trade policy and trade liberalization. This approach aims to facilitate informed and balanced decision-making in support of sustainable development (Dalal-Clayton and Sadler, 2005). The framework for an integrated assessment comprises the following four steps:

Step 1: *Identifying the purpose* – establishing appropriate parameters for integrated assessment.

Step 2: *Designing an integrated assessment* – key issues to be decided at the beginning of the process: timing of assessment, stakeholder and public participation and appropriate methodology and indicators.

Step 3: *Use of methods and techniques* – selecting those that support the particular priorities of the user.

Step 4: *Integrated policy response* – ranging from the macroeconomic, such as changes in fiscal and monetary policies, to the microeconomic, including environmental and social policy.

3.4.4 Canadian International Development Agency (CIDA)

Assessing the environmental implications of projects, programmes, and policies has become an integral part of planning and implementation at CIDA (CIDA, 2008). *CIDA's Policy for Environmental Sustainability* addresses not only the issue of changes to the biophysical environment, but how these changes affect the social, economic, cultural, and political sustainability of a community. The interrelationship of these elements of sustainable development is acknowledged within CIDA's project cycle, and informs all stages of development planning, from conceptualization and appraisal to monitoring and completion (CIDA, 2008). At CIDA, an SEA would typically be conducted for the following documents (not an exhaustive list):

- allocation memoranda and other memoranda to Cabinet (MCs);

- Treasury Board submissions;
- country (and regional) development programming frameworks (CDPFs, RDPFs);
- strategic plans, implementation plans and action plans;
- policies;
- development programmes;
- sector-wide approaches (SWAps); and
- sectoral reviews and guidelines (CIDA, 2004: 3).

CIDA has prepared an SEA handbook to provide guidance on implementing the federal Cabinet Directive on the Environmental Assessment of Policy, Plan and Programme Proposals. The handbook is intended for those who may be involved in the development of a policy, plan, or programme proposal—Cabinet liaison staff, environment specialists, programme and project analysts, and policymakers (CIDA, 2004). The SEA process at CIDA entails four main steps:

- Preliminary scan (to determine if there are important environmental effects)
- Conduct SEA
- Prepare SEA report
- Approval of the policy, plan or programme

According to CIDA (2004), by addressing the questions below and by following the guidelines on how to present the SEA report (Section 5 of the handbook), the basic requirements for an SEA will be met:

- What is the existing situation? (in a particular sector or region);
- What are the goals and objectives of the policy, plan or programme? How do these support CIDA and Government of Canada policies (particularly those related to the environment and sustainable development)?
- What are the different feasible options for delivering the policy, plan or programme?
- What are the most pronounced environmental issues (positive or negative) associated with each of the preferred options?
- How significant are these environmental effects?
- What can be done to avoid/lessen negative effect issues and to enhance positive ones?
- What is the best feasible policy, plan or programme?
- How do I measure, monitor and report on the environmental effects? (CIDA, 2004: Section 4)

After conducting the SEA, findings should be presented in a short report (2-10 pages) that:

- Addresses the questions in Section 4 of the handbook (see above);

- Describes the process and outcomes of any internal or external consultation processes that were integrated in the SEA;
- States how the findings of the SEA influenced the final product; and
- Identifies how the environmental effects associated with the policy, plan, or programme proposal will be measured, monitored, and reported upon (CIDA, 2004).

Appendix A of the CIDA handbook outlines the basic principles of SEA (which were adapted from the ones developed by DEAT/CSIR (2000) – see Appendix Section 3.3.4 on South Africa's SEA system), the implications for CIDA, and the actions that should be taken as part of the SEA analysis. A sample SEA checklist is provided in Appendix B, and Appendix C provides the SEA applicability form (CIDA, 2004).

3.5 Summary

Having presented the key aspects of each SEA system discussed in this section, Table 3.2 shows a summary of "good examples" for selected SEA components that have been in place in the SEA systems discussed above, highlighting the particular strengths of each system.

Table 3.2 - Summary of selected SEA components good examples found in the literature

Selected SEA components	Countries
Integration of SEA within the PPP process	California, New Zealand, The Netherlands (EIA-based SEA system), Western Australia and Finland
Tiered planning hierarchy	California, New Zealand, South Africa, The Netherlands (both SEA systems), Western Australia and Finland
Consideration of alternatives	California and The Netherlands (EIA-based SEA system)
Adaptive process for dealing with uncertainties	California and Western Australia
Transparency and co-operation	California and Finland
Public participation	California, New Zealand, South Africa, The Netherlands (EIA-based SEA system) and Finland
Appropriate time and funding	The Netherlands (EIA-based SEA system), Western Australia and Finland
Legislative requirements	California, New Zealand, The Netherlands (EIA-based SEA system), Western Australia and Finland
Clear Guidance	The Netherlands (EIA-based SEA system), UK and Finland
Clear roles and responsibilities	The Netherlands (both SEA systems), Western Australia and Finland
Enforcement of compliance	California, the Netherlands (EIA-based SEA system), Western Australia and Finland
Monitoring and follow-up	New Zealand, the Netherlands (EIA-based SEA system) and Finland

Support base (political, legal, public, administrative)	Western Australia and Finland

Source: (based on Dalal-Clayton and Sadler, 2005; Jones et al, 2005; Chaker et al, 2006; Fischer, 2007)

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