

Briefing paper

Basic framing of guidance for consideration of “contribution to sustainability” in project and strategic level assessments and decision making

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Summary

Guidance for considering the “contribution to sustainability” of an assessed project or strategic undertaking will need to focus on criteria for evaluations and decision making. There are three main tasks

- to develop generic criteria for broad application to all project and strategic assessments and other deliberations under the *Impact Assessment Act*;
- to prepare directions on how to specify these criteria for application in particular cases and contexts;
- to develop intermediate-level criteria and associated processes for application of specified versions of the generic criteria to undertakings in particular sectors, in special regions or areas, and in other identifiable categories

Viable basic framing and initial substance for the first two tasks are mostly available, but will need further integration and elaboration. The paper proposes an initial set of generic criteria categories (Box 5) and outlines basic specification guidance needs.

Foundations for the intermediate-level criteria are also largely available now for some sectors, but criteria development is likely to take more time for other sectors and regions.

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Introduction

This briefing paper concerns basic framing of guidance for sustainability-based deliberations and decision making under the *Impact Assessment Act*. Current discussions assume reliance on policy-based guidance, at least initially.

The focus here is on sustainability-based assessment criteria. The needed sustainability guidance will also involve other matters, possibly including overall objectives and particular information gathering requirements and associated processes and procedures. Criteria, however, will play a central role in clarifying the scope of sustainability considerations, clarifying broad expectations for all assessments, and providing a common base for case-specific elaborations that reflect the particulars of the case and context.

At the generic level as well, the basic criteria categories discussed here will require considerable elaboration of more focused criteria plus other clarifications of the issues to be addressed and approaches to be applied.

Sustainability in the *Impact Assessment Act*

Under s.63(a) of the *Impact Assessment Act*, decision makers will be required to consider “the extent to which the designated project contributes to sustainability.” Practically, that requirement for decision makers entails attention to implications for sustainability throughout the whole process – in the conception, planning, evaluation and follow-up of projects to which the Act applies. Since strategic and regional assessments are expected to provide information and direction for project assessments, guidance on sustainability will be relevant there too.

The contribution to sustainability focus contrasts with the focus of the current and previous version of the *Canadian Environmental Assessment Act*. Those laws included a sustainability purpose and were occasionally applied with a sustainability agenda.¹ But they were designed mostly to centre more narrowly on identification and mitigation of adverse environmental effects. The *Canadian Environmental Assessment Acts* provided

¹ Four joint review panels applied a sustainability-based approach:

- Voisey's Bay Mine and Mill Environmental Assessment Panel, *Report on the Proposed Voisey's Bay Mine and Mill Project* (Ottawa: Canadian Environmental Assessment Agency, March 1999), <http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=F06E8BD3-1>;
- Whites Point Joint Review Panel, *Environmental Assessment of the Whites Point Quarry and Marine Terminal Project* (Ottawa: Canadian Environmental Assessment Agency, 2007); <http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=CC1784A9-1>;
- Kemess North Joint Review Panel, *Kemess North Copper-Gold Mine Project - Joint Review Panel Report* (Ottawa: Canadian Environmental Assessment Agency, 2007); <http://www.ceaa-acee.gc.ca/052/details-eng.cfm?pid=3394>; and
- Mackenzie Gas Joint Review Panel, *Foundation for a Sustainable Northern Future: Report of the Joint Review Panel for the Mackenzie Gas Project* (Ottawa: Canadian Environmental Assessment Agency, 2009); <http://www.acee-ceaa.gc.ca/default.asp?lang=En&n=155701CE-1>; Lower Churchill Joint Review Panel (2011).

for significant adverse environmental effects to be justified in the circumstances, but this opening for broader analysis was not defined in the Act and was not commonly incorporated in the public processes under the Act.²

In the *Impact Assessment Act*, “sustainability” is defined as follows:

“sustainability means the ability to protect the environment, contribute to the social and economic well-being of the people of Canada and preserve their health in a manner that benefits present and future generations” (s.2).

Some elaboration of relevant sustainability considerations is provided in the purposes of the Act in s.6 and in the relevant specific factors for consideration by decision makers listed in s.22. For practical application under the Act, all participants will need clear, credible and authoritative guidance on how to frame and undertake contribution to sustainability evaluations.

Sustainability fundamentals

The fundamentals of sustainability are widely reported and easily summarized. While rigorous sustainability-based decision making is unfamiliar to many authorities and there is widespread confusion about what “sustainability” entails, the available base of understanding is well established. Over the 30+ years since the World Commission on Environment and Development (the Brundtland Commission) popularized “sustainable development,” we have amassed a huge literature much of it reflecting learning from experience. That literature reports many variations and emphases, reflecting different application subjects and contexts, and different levels of ambition. Nonetheless, a broad consensus on the fundamentals has been evident for at least the last 15 years.³

Of the key insights most relevant to developing guidance for assessment applications under the *Impact Assessment Act*, the following may be most crucial:

- Sustainability is about lasting wellbeing, and covers the factors and interactions that may affect lasting wellbeing.
- Sustainability guidance cannot be built on a fixed objective. There is no sustainability end point. Sustainability is an ongoing pursuit in dynamic complex systems that will continue to interact and change.
- Guidance development is best focused on requirements for moving towards greater

² One joint review panel recommended sustainability-based criteria for use by federal and provincial decision makers in determining whether or not identified significant adverse effects would be justified in the circumstances. See *Report of the Joint Review Panel: Lower Churchill Hydroelectric Generation Project* (Ottawa: Canadian Environmental Assessment Agency, 2011), <http://www.ceaa.gc.ca/052/details-eng.cfm?pid=26178>. That recommendation appears to have been rejected by the federal government and the government of Newfoundland and Labrador at the time.

³ See the synthesis in Robert B. Gibson, et al., *Sustainability Assessment: Criteria and Processes* (London: Earthscan, 2005), chapter 5.

and more lasting wellbeing, strengthening the resilience of valued and sustainable components and interactions, and making changes to correct unsustainable and undesirable components and interactions and take advantage of positive new opportunities

- The basic requirements for progress towards sustainability are reasonably well identified as the matters that are always important and always to be taken into account. In guidance, these requirements can be translated into mandatory generic considerations for all applications and framed as broad criteria. They are, however, only a starting point for guidance.
- Specific sustainability considerations for individual applications must respect the particulars of the case and its context. Guidance needs to set out suitable means of specifying the generic criteria for particular applications.
- A fundamental insight from sustainability initiatives over the past three decades is that interactions are always crucial. These include interactions among components of social and ecological systems, among effects on those systems, and among the considerations identified in assessment criteria. Attention to interactions respects the complexity of the real world and also opens positive possibilities.
- Pursuit of greater long-term wellbeing is not about balancing conflicting environmental, economic, social and health objectives. It is about enhancing prospects in all of these areas in ways that deliver multi-mutually reinforcing gains. Trade-offs are to be avoided to the extent possible.
- Progress towards sustainability involves transition and entails innovation. Sustainability-based decision making has a broader scope and a longer view than most conventional decision making, which assumes further development along established trajectories. While sustainability-based approaches are more likely to challenge current behaviour, they are no less constrained by practical limitations.
- Because it aims to foster transition to more desirable pathways, sustainability-based decision making depends heavily on credible processes, commonly shared learning and fair distribution of opportunities and risks.

Implications of the sustainability fundamentals for policy guidance under the Act

The implications for policy guidance centre on two major requirements for overall guidance under the *Impact Assessment Act*:

(i) General substantive guidance in the form of generic sustainability criteria, including trade-off rules, for evaluations and decisions is needed to ensure consistent attention to the fundamental sustainability requirements that apply in all assessment cases and places. The guidance must supply reasonably comprehensive generic criteria for evaluations and decision making, and recognize that the concerns addressed in the criteria are interdependent.

(ii) General process guidance is needed on how best to specify these generic criteria for particular applications, recognizing that each case and context has its own major strengths, stresses, opportunities and vulnerabilities, etc.

The next step would be to build an intermediate level of guidance between the generic sustainability criteria and the case-specific criteria. That would consist of criteria tailored for application to major sectors and/or categories of designated projects and strategic undertakings; and/or assessments involving special areas. For example, broadly specified criteria could be developed for

- projects in Indigenous territories and/or with potential effects on Indigenous rights and/or culture;
- hard rock mining projects;
- projects that would open previously inaccessible and/or non-industrialized areas;
- hydrocarbon and other projects requiring particular consideration of implications for meeting Canada’s climate change commitments; and
- projects in particular already stressed or vulnerable lands or waters (e.g., the Bay of Fundy and the Gulf of St. Lawrence).

For some of these categories, intermediate level guidance might be developed through strategic assessments.

Scope of sustainability considerations

The scope of considerations in the *Impact Assessment Act* is consistent with the comprehensive definition of sustainability in s.2 and the agenda of contributing to lasting wellbeing. The Act reflects the focus on lasting wellbeing that is at the core of the public interest. The main factors for decision making in the public interest in s.63 of the Act cover positive contributions [s.63(a)] and mitigation of adverse effects [s.63(b) and (c)] with special attention to the rights of Indigenous peoples in Canada [s.63(d)], and to Canada’s ability to meet environmental and climate change commitments and obligations [s.63(e)]. The Act also requires comprehensive attention to individual and cumulative environmental, health, social and economic effects and their interactions [esp. s.22(1)(a)], while underlining key specifics including “considerations related to Indigenous cultures” in s.22(1)(l), and, sex, gender and identity factors in s.22(1)(s).

The scope of attention to adverse effects includes emphasis on adverse effects within federal jurisdiction but also covers direct or incidental effects [defined in s.2] of federal action to approve or facilitate an assessed project. For adverse effects, that would appear to retain a scope comprehensive of lasting wellbeing consideration. In that context, the required consideration of contribution to sustainability would entail similarly comprehensive attention to positive effects.

Applications for sustainability-based criteria under the Act

Under the *Impact Assessment Act*, sustainability-based criteria would be used to help guide identification of important matters for consideration and for evaluation of effects

(including their interactions), alternatives, trade-offs and overall contributions to sustainability.

Explicit sustainability-based criteria would provide a transparent, consistent and defensible basis for planning and decision making in individual assessments and other elements of the application of the new law. Four key applications merit attention:

Project level assessments: Most of the Act is devoted to project-level assessments. For these, guidance on the sustainability-based criteria and their specification would guide proponents, authorities and other participants throughout the assessment process – beginning with early planning and extending through design of follow-up plans and requirements.

Strategic and regional assessments: The Act [s.92-103] enables but provides few details about expectations and processes for strategic and regional assessments. It is clear, however, that the strategic and regional assessments are intended at least in part to develop guidance for project assessments. Consequently, they would generally need to have the same sustainability-based scope to produce useful and credible results for project assessment applications. More narrowly scoped regional assessments might be considered in some circumstances (e.g., for multi-jurisdictional reviews of particular cumulative biophysical effects concerns and response options), but any resulting guidance would still have to be integrated into the broader sustainability-based analysis required for projects.

Comparative evaluation of alternatives: The Act requires consideration of “alternative means of carrying out the designated project” and “alternatives to the designated project” [s.22(1) (e) and (f)]. The potential range of alternatives in each category is uncertain and subject to case-by-case scoping by the Agency or the Minister [s.22(2)]. However, the null option of not proceeding with the proposed undertaking would always remain and exclusion of all other alternatives would likely be imprudent.

In any event, the evident intent of any requirement to consider alternatives is to provide a basis for comparison of the project as proposed with other potentially reasonable options. Properly, the comparative evaluation of alternatives would aid in identifying the best option in project planning, and determining the relative desirability and approvability of the proposed project in decision making. Application of sustainability-based criteria would be crucial for the credibility and defensibility of the comparisons.

Roughly the same logic applies for comparison of options in assessments at the strategic level.

Associated applications: Sustainability-based criteria should also inform other deliberations and decision making under the Act. Appropriate applications include the following:

- development and regular amendment of the project list;
- preparing other regulatory and policy guidance; and

- decision making on initiating and defining mandates for strategic and regional assessments.

Basic framing of the needed guidance

As suggested above, several levels of sustainability-based criteria are needed. The simple logical structure is presented in Box 1, below, could provide the basic framework for the core of policy guidance on for deliberations on contribution to sustainability.

Box 1 Three levels of sustainability-based criteria for deliberations under the Impact Assessment Act

Criteria levels	Needed guidance
<i>Generic level</i>	
Major categories of generic criteria	Guidance to set out categories based on <ul style="list-style-type: none"> • globally generic requirements for progress towards sustainability, • key Canadian priorities, and • needs for evaluations and decisions involving trade-offs
Generic criteria in each category	Guidance to set out <ul style="list-style-type: none"> • each criterion, with explanations of meaning and implications, associated methods of application • approaches to incorporating attention to interactions among the criteria
<i>Intermediate level</i>	
Broadly specified criteria lying between the generic sustainability criteria and the case-specific criteria.	Guidance to set out criteria tailored for application to project or strategic level assessments <ul style="list-style-type: none"> • in each major sector subject to assessment requirements • involving unique regions or specially sensitive or vulnerable areas • in other major categories of designated projects and strategic undertakings
<i>Case-specific level</i>	
Criteria to be developed in each case	Guidance to clarify on how to specify criteria in individual cases, incorporating <ul style="list-style-type: none"> • the generic and intermediate level

	<p>criteria</p> <ul style="list-style-type: none"> • the particular considerations and priorities of the case and context
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Supporting guidance would also be needed on the selection and use of particular methods for applying a sustainability-based approach to major assessment tasks, including

- identifying key issues, concerns and opportunities, etc., to be recognized in the specification of criteria;
- identifying potentially viable alternatives and other options for the undertaking
- establishing suitable indicators;
- gathering and organizing data;
- predicting, evaluating and comparing potential effects (including their interactions); and
- undertaking comparative analyses.

This guidance would need to include approaches to meaningful engagement with relevant jurisdictions, interests and experts.

Given time pressures for available guidance when the Act comes into effect, methodological and other guidance can begin with basics and proceed with elaboration of specifics following as needs dictate and time allows. Even in areas newly identified for federal assessments (e.g., attention to positive contributions to sustainability and socio-economic effects), existing methodological guidance is often readily at hand from international experience, practice in other Canadian jurisdictions (e.g., those with assessment processes that have always addressed socio-economic and cultural effects), and learning elsewhere in federal activities (e.g., longstanding expertise on identification and analysis of gender equity effects in the Canadian International Development Agency).

Generic criteria

The core structure of generic sustainability-based criteria for application under the *Impact Assessment Act* can be built on the foundation of

- globally generic requirements for progress towards sustainability,
- key Canadian priorities, and
- guidance needs for evaluations and decisions involving trade-offs.

Together, these three components would provide a standard base for specification of criteria for each individual assessment, which would combine attention to the generic requirements and to the particular concerns and opportunities of the case and its context.

(i) Globally generic requirements for progress towards sustainability

The list of eight generic sustainability assessment criteria categories in Box 2, below, represents a very basic summary of the essential requirements for progress towards sustainability anywhere in the world. The requirements, drawn from a broad review of the sustainability literature, are phrased as criteria in the form of positive expectations to which a proposed undertaking or alternative should contribute, or at least not hinder.⁴

It is not surprising that the criteria categories in Box 2 align very well with the sustainable development principles set out in Bill C-57, which amends the *Federal Sustainable Development Act*. See appendix 2.

Box 2 Generic sustainability assessment criteria categories

<i>Category</i>	<i>Ecosystems and human-environment relations</i>
generic criterion	maintain, restore or enhance the lasting viability of biophysical systems and socio-ecological systems to maintain life-support services (such as those related to climate stability, flood attenuation, sustainable food systems)
<i>Category</i>	<i>Livelihoods and health</i>
generic criterion	increase lasting opportunities for everyone to have the fundamentals for a decent, healthy life and rewarding livelihood
<i>Category</i>	<i>Intragenerational equity</i>
generic criterion	ensure fairness in the distribution of benefits and costs, opportunities and risks, recognizing needs to reduce existing inequities (such as those related to gender, economic status, Indigenous heritage, etc.)
<i>Category</i>	<i>Intergenerational equity</i>
generic criterion	favour options that are most likely to preserve or enhance the opportunities and capabilities of future generations to live sustainably
<i>Category</i>	<i>Resource maintenance and efficiency</i>
generic criterion	reduce extractive damage and waste, and cut overall material and energy use per unit of benefit to a level that is sustainable in the long run
<i>Category</i>	<i>Understanding, participating and governing</i>
generic criterion	enhance sustainability-based understanding, opportunities and capacities for individuals and communities to participate meaningfully in collective deliberations and decision making

⁴ For background to and elaboration of the criteria, see Robert B. Gibson, et al., *Sustainability Assessment: Criteria and Processes* (London: Earthscan, 2005), especially chapter 5.

<i>Category</i>	<i>Uncertainty</i>
generic criterion	incorporate respect for the limits of present knowledge, the likelihood of surprises and the need for precautionary and adaptive approaches
<i>Category</i>	<i>Integration</i>
generic criterion	attempt to meet all requirements for sustainability together as a set of interdependent parts, seeking mutually supportive gains

(ii) Special criteria recognizing key Canadian priorities

In addition to globally recognized requirements for progress towards sustainability, assessments under the *Impact Assessment Act* must pay attention to broadly applicable Canada-specific requirements. The categories and broad criteria items in Box 3 are obvious candidates, given their inclusion as core decision making considerations in s.63 of the Act.

Box 3 Broadly applicable Canadian criteria categories

<i>Category</i>	<i>Indigenous rights and reconciliation [s.63(d)]</i>
generic criterion	facilitate meaningful exercise of the rights of the Indigenous peoples of Canada, contribute to community health and foster reconciliation
<i>Category</i>	<i>Canada's environmental commitments and climate change obligations</i>
generic criterion	contribute to Canada's efforts and ability to meet its international commitments on environment and climate change
<i>Category</i>	...
generic criterion	...

(iii) Criteria for particular application in trade-off evaluations and decisions

Trade-offs – accepting adverse effects in exchange for getting positive effects – are to be avoided to the extent possible. This is especially the case in sustainability-based deliberations, where the objective is mutually reinforcing gains in all contributing areas. In assessment cases, guidance on trade-offs under the *Impact Assessment Act* would be most directly important for analyses (determining whether a proposed undertaking or alternative would make an overall contribution to sustainability in spite of having predicted adverse effects in one or more of the criteria categories) and decision making (determining whether an undertaking or alternative could be approved despite entailing a significant adverse effect in any criteria category).

The points in Box 4, below, summarize generic trade-off rules that would apply to all applications.

Box 4 Generic trade-off rules

An undertaking that entails a trade-off shall be permitted only where *all* of the following conditions are met:

- The undertaking would deliver overall progress towards meeting the requirements for sustainability.
- The proponent has met the burden of demonstrating in light of established sustainability-based criteria that the undertaking with the proposed trade-off(s) represents the best option for delivering mutually reinforcing, fairly distributed and lasting cumulative contributions, and achieving the most positive feasible overall result with the least adverse effects, in comparison with the reasonable alternatives.
- The undertaking entails no trade-off that involves a significant adverse effect on any sustainability criterion area, unless the alternative is acceptance of an even more significant adverse effect, recognizing that
 - no compromise or trade-off is acceptable if it entails further decline or risk of decline in a major area of existing concern or if it endangers prospects for resolving problems identified as global, national and/or local priorities;
 - no trade-off is acceptable if it deepens problems in any requirement area where further adverse effects may imperil the long-term wellbeing, even if compensations of other kinds, or in other places, are offered; and
 - no enhancement can be permitted as an acceptable trade-off against incomplete mitigation of significant adverse effects if stronger mitigation efforts are feasible.
- The undertaking involves no displacement of a significant adverse effect from the present to the future except where the alternative is displacement of a more significant negative effect from the present to the future.
- All proposed trade-offs have been accompanied by an explicit justification based on openly identified, context-specific priorities as well as the sustainability-based decision criteria and the general trade-off rules.
- All proposed trade-offs have been examined and justified through processes that include open and effective involvement of all stakeholders.

A combined set of generic criteria categories

Box 5, below combines the globally generic criteria categories with the additional Canada-specific requirement categories established in the *Impact Assessment Act* s.63(d) and (e), plus a trade-offs category to provide a place for elaboration of the points set out

in Box 4. Taken together, the combined set illustrates a comprehensive overall framing for overall criteria for the sustainability guidance.

Box 5 Combined generic criteria categories for sustainability guidance under the Impact Assessment Act

Ecosystems and human-environment relations

- maintain, restore or enhance the lasting viability of biophysical systems and socio-ecological systems to maintain life-support services (such as those related to climate stability, flood attenuation, sustainable food systems)

Livelihoods and health

- increase lasting opportunities for everyone to have the fundamentals for a decent, healthy life and rewarding livelihood

Intragenerational equity

- ensure fairness in the distribution of benefits and costs, opportunities and risks, recognizing needs to reduce existing inequities (such as those related to gender, economic status, Indigenous heritage, etc.)

Intergenerational equity

- favour options that are most likely to preserve or enhance the opportunities and capabilities of future generations to live sustainably

Resource maintenance and efficiency

- reduce extractive damage and waste, and cut overall material and energy use per unit of benefit to a level that is sustainable in the long run

Understanding, participating and governing

- enhance sustainability-based understanding, opportunities and capacities for individuals and communities to participate meaningfully in collective deliberations and decision making

Uncertainty

- incorporate respect for the limits of present knowledge, the likelihood of surprises and the need for precautionary and adaptive approaches

Indigenous rights and reconciliation

- facilitate meaningful exercise of the rights of the Indigenous peoples of Canada, contribute to community health and foster reconciliation

Canada's environmental commitments and climate change obligations

- contribute to Canada's efforts and ability to meet its international commitments on environment and climate change

Integration

- attempt to meet all requirements for sustainability together as a set of interdependent parts, seeking mutually supportive gains

Trade-off avoidance

- avoid all trade-offs that are not openly justified as achieving the most positive feasible overall sustainability result with the least adverse effects, in comparison with the reasonable alternatives

These criteria categories are reproduced in appendix 1 along with relevant principles from Bill C-57, which sets out the amended principles to be addressed in the preparation of federal sustainable development strategies. The appendix reveals the extent to which the C-57 principles reflect a similarly broad range, covering some aspects of all but one of the criteria categories above. However, the C-57 principles fall well short of the comprehensive guidance needed for application under the *Impact Assessment Act*.

Elaboration of the generic criteria

In the anticipated policy guidance, the generic criteria under the big categories, including the broadly applicable Canadian categories, would need to be elaborated in some detail. As suggested above, one option would be to begin by incorporating the incomplete but useful principles for preparation of federal sustainable development strategies, which are articulated in Bill C-57, the amended *Federal Sustainable Development Act* (see appendix 2).⁵ Another useful initial source of elaborated criteria already recognized for broad application in Canada is the sustainability principles that have been legislated in other Canadian jurisdictions. A good example is the set of principles defined in Québec's *Sustainable Development Act* of 2006 (see appendix 3).

Detailed elaboration of criteria on some matters may be undertaken through strategic assessments. The anticipated strategic assessment of Canada's climate change obligations may be the first strategic assessment initiated, at least in part, to develop suitable guidance for broad application in deliberations under the *Impact Assessment Act*. A similar approach could be taken to other important areas for which guidance is needed.

In all cases, the guidance produced will be helpful only if the processes for its development are transparent, well-informed and otherwise credible. Guidance is also likely to be given more respect if it is clearly authoritative. While relatively flexible policy-based guidance may be appropriate initially in difficult and unfamiliar areas where added flexibility is needed to accommodate learning, guidance through regulations is more authoritative.

Intermediate level guidance for specification of criteria for particular sectors, areas or regions, and categories of projects and strategic undertakings

Intermediate-level, category-specific guidance for deliberations and decisions is likely to be important as a means of providing additional clarity about expectations and appropriate approaches for proponents, assessors and other participants. Such guidance has been common for decades in assessment documentation and practice. While relatively few past examples feature an explicit sustainability agenda, many have had a similar scope.

⁵ *Bill C-57, An Act to amend the federal Sustainable Development Act*, as passed by the House of Commons, 4 June 2018.

The most common examples are the products of strategic-level initiatives that provide a planning base for undertakings subject to assessments. For instance, Ontario in the 1980s and 90s, established a linked planning and assessment approach that sets out the substantive and process aspects for forest management planning, assessment and approvals for individual management units on Crown lands across the province. The guidance development process involved a wrenching transformation of forest management thinking as well as practice, and the class environmental assessment hearings in the case were arduous and conflict ridden. However, the regularly updated and revised results have now served the province for two decades.

The sustainability-based joint panel review of the proposed Kemess North copper-gold mine in British Columbia made use of several sets of sustainability-oriented criteria for the mining sector, including the products of provincial strategic planning for the mining sector, documents from the provincial and Canadian mining industry organizations, and a framework for sustainability assessment prepared by the industry's global Mining, Minerals and Sustainable Development initiative.⁶ The panel's resulting project assessment recommendations led immediately to rejection of the proposed project on sustainability grounds. But that result in turn led a new owner to prepare a substantially revised alternative proposal that addressed the main sustainability concerns and proved to be much more acceptable to the affected First Nations, provincial and federal authorities.

The two cases demonstrate the need and possibilities for intermediate level guidance. But they also point to important differences in applications. Developing sectoral guidance will be easier for mining and other sectors that already have advanced experience with sustainability-based criteria, than it was for forest management in Ontario where big issues were just beginning to be faced. Having a foundation of broader generic criteria under an explicitly sustainability-based law should also make development of sectoral and regional criteria easier. The cases nonetheless illustrate the importance of careful and credible guidance development at the intermediate level. In some cases, development of defensible intermediate level guidance may take some time.

Guidance for specification of criteria for particular cases and other individual applications

While the generic sustainability-based criteria apply to all undertakings in all circumstances, attention to the specifics of case and context is always crucial. The specifics include issues and aspirations, capacities and limitations, vulnerabilities and openings, conflicts and possibilities for resolving them – all of which affect what matters in particular applications. As is conventionally recognized in the identification of valued components in individual assessments, respect for the context is needed in the determination of what positive effects (including opportunities) are most needed, and

⁶ Kemess North Joint Review Panel. *Panel Report: Kemess North Copper-Gold Mine Project* (17 September 2007), p.234, <http://www.acee-ceaa.gc.ca/052/details-eng.cfm?pid=3394>.

what adverse effects (including risks) are most worrisome. Contextual factors also affect what conditions, trends and possibilities are or are not well understood and documented, what indicators are likely to be most useful in illuminating the current status and prospective changes in key components and relations, and what potentially important considerations merit more study.

Specifying the criteria (and the indicators and options, etc.) for the planning and assessment of particular undertaking involves the reasonably familiar steps of

- identifying the starting conditions and existing dynamics, the potential effects of what is being assessed (including various plausible options), and the future results that are desired or feared;
- translating the major objectives and concerns into criteria for identifying and evaluating options for the new undertaking;
- ensuring that working list of criteria also addresses all of the generic sustainability criteria considerations;
- organizing the criteria into a manageable number of understandable categories with associated questions and indicators; and
- applying and adjusting them iteratively through the assessment process (including monitoring of implementation and closure or renewal).⁷

Because the specific considerations arise from the particulars of case and context, overall policy guidance for specification must focus on the process. That will involve two main process components. The first is elaboration of the five bullet points above concerning the steps of criteria specification. The second is centred on matters of process transparency and credibility. Key process considerations entail guidance on how to foster meaningful public participation and how to ensure effective engagement of more formal expertise, for appropriate sustainability-based scoping, gathering best available information, and ensuring rigorous analysis and testing.

Under the *Impact Assessment Act*, case specific elaboration of sustainability-based criteria should be explicitly identified as a task to be undertaken in the early planning phase. It would be the responsibility of the Agency in consultation with the proponent, other jurisdictions including Indigenous authorities, and other participants.

Along with establishing criteria specification as a task in early planning, regulatory as well as policy guidance under the Act should require impact statements (or whatever supporting documentations proponents are required to provide) to include evaluations based on a explicit set of sustainability-based criteria that incorporate the generic ones and the specifics of case and context. The same requirement should be set out clearly for decisions by the Minister or Cabinet, and for monitoring plans.

While the emphasis on criteria here may seem to add an onerous new element to

⁷ For details see Robert B. Gibson, et al., *Sustainability Assessment: Applications and Opportunities* (London: Routledge/Earthscan, 2017), especially chapter 2.

assessments, most of the assessment work involved is already common, especially in jurisdictions that recognize socio-economic as well as biophysical effects. The basic framing of assessments according to what is judged to be important is more or less inevitable. As noted above, it has long been incorporated in the identification and examination of valued system components.⁸

A final note

Especially at the level of overall evaluations and judgments in assessments, a sustainability-based agenda is comprehensive enough to allow and require explicit grounds for determinations about what is or is not important, preferable and worthy of approval. A common current limitation of more narrowly conceived assessments is that the grounds for approval judgements are often left implicit, rather than integrated into a visible package and treated as matters for open deliberation. Having explicit sustainability-based criteria that have been transparently specified for the case and context has the advantage of providing a clearer, more consolidated and more credible foundation for assessment decision making throughout the process. It also provides a defensible base for major, potentially contested decisions on approvals and conditions. Increasingly, the viability of assessments depends on an integrated, open and defensible framework of criteria as the grounds for proposals, evaluations, recommendations and decisions.

⁸ Specification of criteria for particular applications is more comprehensive but broadly similar to case specification of valued system components. Process requirements for identification and use of valued ecosystem components were elaborated in Gordon Beanlands and Peter Duinker, *An Ecological Framework for Environmental Impact Assessment in Canada* (Halifax: Institute for Resource and Environmental Studies, Dalhousie University, 1983), and have been in common, if imperfect, use in assessment practice for decades.

Appendices

Appendix 1. Combined generic criteria with references to the Bill C-57 principles for preparation of federal sustainable development strategies

The following set of criteria categories combines those set out in Boxes 2-4, above. In each case the category title is followed by a brief statement of the requirement for sustainability that is represented by the category. The requirement is stated in the form of a positive criterion.

Under each category, any relevant principle from the Bill C-57 principles for preparation of federal sustainable development strategies is included in italics. The exercise shows that Bill C-57 includes principles relevant to 10 or the 11 generic criteria categories, but in many cases the coverage of sustainability requirements is far from comprehensive.

Ecosystems and human-environment relations

- maintain, restore or enhance the lasting viability of biophysical systems and socio-ecological systems to maintain life-support services (such as those related to climate stability, flood attenuation, sustainable food systems)

Relevant principles from Bill C-57: protection of ecosystems, prevention of pollution, conservation of cultural heritage [s.5(a1)(ii)]

Livelihoods and health

- increase lasting opportunities for everyone to have the fundamentals for a decent, healthy life and rewarding livelihood

Relevant principle from Bill C-57: protection of human health [s.5(a1)(ii)]

Intragenerational equity

- ensure fairness in the distribution of benefits and costs, opportunities and risks, recognizing needs to reduce existing inequities (such as those related to gender, economic status, Indigenous heritage, etc.)

Relevant principle from Bill C-57: promotion of equity [s.5(a1)(ii)]

Intergenerational equity

- favour options that are most likely to preserve or enhance the opportunities and capabilities of future generations to live sustainably

Relevant principles from Bill C-57: the principle of intergenerational equity, which is the principle that it is important to meet the needs of the present generation without compromising the ability of future generations to meet their own needs [s.5(b)]; recognition of the present generation's responsibility to provide future generations with a healthy and ecologically sound environment [s.5(a1)(ii)]

Resource maintenance and efficiency

- reduce extractive damage and waste, and cut overall material and energy use per unit of benefit to a level that is sustainable in the long run

Relevant principles from Bill C-57: efficient use of natural, social and economic resources [s.5(a)], the “polluter pays” principle, the principle of internalization of costs and the principle of continuous improvement [s.5 (a1)(iii)]

Understanding, participating and governing

- enhance sustainability-based understanding, opportunities and capacities for individuals and communities to participate meaningfully in collective deliberations and decision making

Relevant principles from Bill C-57: the principle of openness and transparency, which is the principle that the release of information should be encouraged to support accountability and public engagement [s.5(c)]; the principle of collaboration, which is the principle that it is important for stakeholders to collaborate in the pursuit of common objectives [[s.5(e)]; the principle that a results and delivery approach – that allows for developing objectives, developing strategies for meeting those objectives, using indicators for reporting on progress towards meeting those objectives and establishing accountability – is key to meeting measurable targets [s.5(f)]

Uncertainty

- incorporate respect for the limits of present knowledge, the likelihood of surprises and the need for precautionary and adaptive approaches

Relevant principle from Bill C-57: taking into account the precautionary principle [s. (a1)(iii)]

Indigenous rights and reconciliation

- facilitate and enhance the meaningful exercise of Aboriginal and treaty rights and community health

Relevant principle from Bill C-57: the principle that it is important to involve Aboriginal peoples because of their traditional knowledge and their unique understanding of, and connection to, Canada’s lands and waters [s.5(d)]

Canada’s environmental commitments and climate change obligations

- contribute to Canada’s efforts and ability to meet its international commitments on environment and climate change

Relevant principle from Bill C-57: respect for domestic and international obligations relating to sustainable development [s.5(a1)(ii)]

Integration

- attempt to meet all requirements for sustainability together as a set of interdependent parts, seeking mutually supportive gains

Relevant principle from Bill C-57: the need for the Government of Canada to integrate environmental, economic and social factors in the making of all of its decisions [s.5(a)]

Trade-off avoidance

- avoid all trade-offs that are not openly justified as achieving the most positive feasible overall sustainability result with the least adverse effects, in comparison with the reasonable alternatives

No relevant principle from Bill C-57

Appendix 2. Principles for preparation of federal sustainable development strategies⁹

Principles

5 The following principles shall be considered in the development of sustainable development strategies:

- (a) the principle that sustainable development is based on an efficient use of natural, social and economic resources and the need for the Government of Canada to integrate environmental, economic and social factors in the making of all of its decisions;
- (a.1) the principle that sustainable development
 - (i) is a continually evolving concept,
 - (ii) may be achieved by, among other things, the protection of ecosystems, prevention of pollution, protection of human health, promotion of equity, conservation of cultural heritage, respect for domestic and international obligations relating to sustainable development and recognition of the present generation's responsibility to provide future generations with a healthy and ecologically sound environment, and
 - (iii) may be advanced by, among other things, taking into account the precautionary principle, the "polluter pays" principle, the principle of internalization of costs and the principle of continuous improvement;
- (b) the principle of intergenerational equity, which is the principle that it is important to meet the needs of the present generation without compromising the ability of future generations to meet their own needs;
- (c) the principle of openness and transparency, which is the principle that the release of information should be encouraged to support accountability and public engagement;
- (d) the principle that it is important to involve Aboriginal peoples because of their traditional knowledge and their unique understanding of, and connection to, Canada's lands and waters;
- (e) the principle of collaboration, which is the principle that it is important for stakeholders to collaborate in the pursuit of common objectives; and
- (f) the principle that a results and delivery approach – that allows for developing objectives, developing strategies for meeting those objectives, using indicators for reporting on progress towards meeting those objectives and establishing accountability – is key to meeting measurable targets.

⁹ Bill C-57, *An Act to amend the Federal Sustainable Development Act*, as passed by the House of Commons, 4 June 2018, https://www.parl.ca/Content/Bills/421/Government/C-57/C-57_3/C-57_3.PDF

Appendix 3. Principles defined in Québec's Sustainable Development Act (2006)¹⁰

6. In order to better integrate the pursuit of sustainable development into its areas of intervention, the Administration is to take the following set of principles into account when framing its actions

- a. "Health and quality of life": People, human health and improved quality of life are at the centre of sustainable development concerns. People are entitled to a healthy and productive life in harmony with nature;
- b. "Social equity and solidarity": Development must be undertaken in a spirit of intra- and inter-generational equity and social ethics and solidarity;
- c. "Environmental protection": To achieve sustainable development, environmental protection must constitute an integral part of the development process;
- d. "Economic efficiency": The economy of Québec and its regions must be effective, geared toward innovation and economic prosperity that is conducive to social progress and respectful of the environment;
- e. "Participation and commitment": The participation and commitment of citizens and citizens' groups are needed to define a concerted vision of development and to ensure its environmental, social and economic sustainability;
- f. "Access to knowledge": Measures favourable to education, access to information and research must be encouraged in order to stimulate innovation, raise awareness and ensure effective participation of the public in the implementation of sustainable development;
- g. "Subsidiarity": Powers and responsibilities must be delegated to the appropriate level of authority. Decision-making centres should be adequately distributed and as close as possible to the citizens and communities concerned;
- h. "Inter-governmental partnership and cooperation": Governments must collaborate to ensure that development is sustainable from an environmental, social and economic standpoint. The external impact of actions in a given territory must be taken into consideration;
- i. "Prevention": In the presence of a known risk, preventive, mitigating and corrective actions must be taken, with priority given to actions at the source;
- j. "Precaution": When there are threats of serious or irreversible damage, lack of full scientific certainty must not be used as a reason for postponing the adoption of effective measures to prevent environmental degradation;
- k. "Protection of cultural heritage": The cultural heritage, made up of property, sites, landscapes, traditions and knowledge, reflects the identity of a society. It passes on the values of a society from generation to generation, and the preservation of this heritage fosters the sustainability of development. Cultural heritage components must be identified, protected and enhanced, taking their intrinsic rarity and fragility into account;
- l. "Biodiversity preservation": Biological diversity offers incalculable advantages and must be preserved for the benefit of present and future generations. The

¹⁰ <http://www.assnat.qc.ca/en/travaux-parlementaires/projets-loi/projet-loi-118-37-1.html>. The principles are to be incorporated into the interventions of all departments and agencies. They are based on the principles of the 1992 Rio Declaration on Environment and Development.

- protection of species, ecosystems and the natural processes that maintain life is essential if quality of human life is to be maintained;
- m. “Respect for ecosystem support capacity”: Human activities must be respectful of the support capacity of ecosystems and ensure the perennality of ecosystems;
 - n. “Responsible production and consumption”: Production and consumption patterns must be changed in order to make production and consumption more viable and more socially and environmentally responsible, in particular through an ecoefficient approach that avoids waste and optimizes the use of resources;
 - o. “Polluter pays”: Those who generate pollution or whose actions otherwise degrade the environment must bear their share of the cost of measures to prevent, reduce, control and mitigate environmental damage;
 - p. “Internalization of costs”: The value of goods and services must reflect all the costs they generate for society during their whole life cycle, from their design to their final consumption and their disposal.