Preparing a sustainability-based argument for environmental assessment proceedings in Canada

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The basic test to be met by proponents of proposed projects is changing. Traditionally, environmental assessment law and policy in most jurisdictions have focused chiefly on mitigating significant negative biophysical effects. This is useful – there are plenty of adverse environmental effects to mitigate. But as a general agenda, mitigation serves only to make our decisions and activities less bad when what we should be doing is delivering positive contributions to the ecological and socio-economic foundations of lasting wellbeing.

These notes are about how to apply the higher test, demanding that a proposed project be likely to deliver positive contributions to sustainability. The notes are designed for public interest participants who are preparing for involvement in environmental assessment reviews and similar processes in Canada. The discussion below is framed mostly in the context of major environmental assessment reviews with public hearings. But the approach applies as well to other processes under the *Canadian Environmental Assessment Act,* other provincial or territorial assessment law, similar planning or resource management processes, and various combination. The involvement may be in discussions about the terms of reference for the review, comments on the directions to be given to project proponents (e.g. guidelines for preparation of the environmental impact statement), review of the assessment submitted by the proponent and/or participation in public hearings. In all of these opportunities, it is worthwhile to encourage attention to the big question of whether the project (or plan, etc.) will help us move to a desirable and resilient future, and do a better job of that than some reasonable alternative.

Basic background

In Canada, application of the higher, sustainability-based test is often possible as well as desirable. That test requires proponents to show, and decision making authorities to be convinced, that the proposed new undertaking will make a positive overall contribution to sustainability and avoid or mitigate all potentially significant negative effects. In Canada, at least five major environmental assessment panel reviews operating in part under the

old *Canadian Environmental Assessment Act* have applied a positive contribution to sustainability test.[1]

The Joint Review Panel for the Mackenzie Gas Project explained its test as follows:

> *In preparing for public hearings, the Proponent, Interveners and other participants should be aware that the Panel will evaluate the specific and overall sustainability effects of the proposed project and whether the proposed project will bring lasting net gains and whether the trade-offs made to ensure these gains are acceptable in the circumstances.*[2]

Other panels and proceedings may not be so clear about their approach. However, because contributing to sustainable development is one of the founding purposes of Canadian federal assessment law and is a stated goal of many other laws, because the idea of improving wellbeing is also a commonly accepted purpose, and because the precedent of adopting a sustainability-based approach is now well established in environmental assessments in Canada, all panels should be able to adopt some version of a sustainability-based approach and participants in panel hearings should be able to present sustainability-based analyses in panel proceedings including hearings.[3]

The essentials of a sustainability-based analysis and presentation

A proper, sustainability-based analysis should be clearly required in assessment expectations and evident as the foundation of a proponent's project proposal and environmental assessment document. This is not yet common, unfortunately. Participants in assessment reviews can, however, prepare a useful sustainability-based assessment framework and apply it in their analysis of proposed assessment terms of reference and environmental assessments submitted by proponents.

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[1] These are the Voisey's Bay Nickel Mine and Mill Panel, the Whites Point quarry and Marine Terminal Panel, the Kemess North Copper-Gold Mine Panel, Mackenzie Gas Project Panel and the Lower Churchill Hydroelectric Generation Project Joint Review Panel. All were joint review panels involving federal, provincial or territorial authorities. In some cases Aboriginal assessment authorities were also involved.

[2] Mackenzie Gas Project Joint Review Panel 2005. "Determination on Sufficiency," 18 July 2005. http://www.ngps.nt.ca/registryDetail_e.asp?CategoryID=54, *last accessed 12 February 2011.*

[3] The terms of reference issued to panels are sometimes narrower than may be desired. Also, panels may include few members with any experience in sustainability-based assessment and may be inclined to favour the old mitigation approach. But typically there is still room to use the sustainability-based approach in framing arguments. At minimum that will strengthen the case for better mitigation efforts.

The process of preparing and applying this analytical framework for a particular case can be organized as a series of eight steps, though they do not have to be taken exactly in the order set out below and some back-and-forth between steps is likely to be helpful.

1. Pose the key question: do we have grounds for reasonable confidence that the project would deliver lasting net gains and avoid significant adverse effects?

2. Set out explicit criteria for examining the proposal and potentially reasonable alternatives. This is not difficult; it is just a matter of combining (i) the usual list of general requirements for moving towards sustainability with (ii) the big issues that surround the case and place to ensure that all of the main concerns related to long as well as short term effects are covered. For some details see the next section. The criteria represent the purposes that ought to be served by the project.

3. Identify the suitable range of reasonable options (alternatives) that ought to be (or ought to have been) considered in the development of a proposed project.

4. Examine the proposed project and the alternatives in light of the criteria. Try to cover all of the major considerations, though it is sensible to focus on the ones that appear to be most significant and/or most likely to be overlooked otherwise. (Where alternatives have not yet been explored in any detail only tentative conclusions about their merits and disadvantages will be possible.)

5. Look especially for opportunities (with the proposed project or with one or more of the reasonable alternatives) to deliver multiple, mutually reinforcing, fairly distributed and lasting gains.

6. Identify significant trade-offs (where important gains seem to entail accepting significant losses). Consider whether any trade-offs could be avoided by project redesign or adjusted implementation, or by preferring an alternative to the proposed project. Draw particular attention to any trade-offs that involves displacing a significant negative effect to future generations, who cannot be at the table now to defend their interests.

7. Set out and assess the likely lasting or legacy effects, positive and negative.

8. Provide a set of well supported conclusions about
- whether there are grounds for reasonable confidence that the project would deliver lasting net gains and avoid significant adverse effects;
- whether any trade-offs made to achieve anticipated gains are acceptable in the circumstances;
- whether preferable alternatives may be available; and
- what the main implications are (e.g. whether project approval would be appropriate with certain conditions, whether to delay a decision until neglected issues or options are examined, whether to pursue evidently more attractive options).

How to develop a set of core criteria for applying a positive contribution to sustainability test

The core criteria for planning and evaluating a proposed undertaking should cover all of the general requirements for moving towards sustainability and at the same time recognize the big issues that surround the case and place.

The general requirements for moving towards sustainability are

- to maintain or improve the long term viability of the ecosystems that people rely on and to organize resource extraction and other human activities so they provide social and economic benefits without undermining the ecological base;
- to ensure everyone has the opportunities and other basic requirements for making a decent living;
- to reduce unfairness and inequities today and to protect the interests of future generations;
- to reduce waste and environmental damage, and cut overall energy and material use;
- to strengthen everyone's ability to participate knowledgably and jointly in decision making for the transition to sustainability;
- to respect uncertainty, anticipate surprise and build capacities for adaptation (flexibility, back-up options, a tradition of mutual aid, etc.);

and

- to recognize that all of the above are interconnected and to address all of them at the same time, seeking multiple, mutually reinforcing, fairly distributed and lasting gains.

The big issues for particular places and cases vary. Different places have different problems, opportunities, assets, deficiencies, valued qualities, aspirations, etc. Among the questions worth asking to build the core list of big issues for a particular place are the following:

- What qualities are most highly valued in the region, communities, and associated natural and built environments?
- What local resources, ecosystems, people, traditions and other assets are already stressed or otherwise vulnerable to damage or loss?
- Are new or expanded or more diverse livelihood opportunities needed and if so where and for whom?
- Where are the greatest needs and openings for greater efficiencies and less waste in the use of environmental and other assets?
- Where are the greatest needs and openings for more equitable distribution of livelihood opportunities and for fairer distribution of influence in decision making, risks of adverse effects, etc.?
- Where are the greatest needs and openings for building greater community and regional self-reliance and adaptive capacities (greater ability to take advantage of new opportunities, and reduced vulnerability to outside pressures, unexpected problems, etc.)?

Also, different proposed projects raise different issues. Among the potentially relevant questions about proposed projects are the following:

• Would proceeding with the project increase risks of lasting damage to ecosystems, especially valued ecosystem components, and/or livelihood and cultural activities?
• Would it provide possibilities for rehabilitating past damage, replacing undesirable current facilities or practices, and/or introducing new understandings and protective measures?
• Would the new benefits and opportunities be at least potentially lasting or only short term (e.g. for employment purposes) and have boom-bust effects?
• Would the new opportunities entail sacrificing valued current activities, resources or other ecological, social or economic assets?
• Would future options be expanded or reduced?
• If mostly short term opportunities are involved, are there preparations to make sure the revenues and other openings for improvement will be used to build something more lasting?
• Would the benefits go mostly to those who most need them or mostly to those who are already advantaged?
• Would the results leave a greater diversity, depth and flexibility of skills and abilities, more livelihood options, enhanced self-reliance, greater ability and willingness to work together?
• Where a project involves potentially significant effects beyond the immediate region, will the effects bring overall improvements and avoid significant adverse effects both locally/regionally and at the larger (provincial/territorial, national and/or global) scale?

Sources of more details about sustainability assessment approaches and applications

The book is Robert B. Gibson, et al., *Sustainability assessment: criteria and process* (Earthscan 2005). The essentials are summarized in an academic paper: Robert B. Gibson, "Sustainability assessment: basic components of a practical approach," *Impact Assessment and Project Appraisal* 24:3 (2006), pp.170-182.

The most advanced application by a Canadian environmental assessment panel is in the Mackenzie Gas Project case:

Joint Review Panel for the Mackenzie Gas Project, *Foundation for a Sustainable Northern Future,* December 2009, [http://www.acee-ceaa.gc.ca/default.asp?lang=En&n=155701CE-1 (see esp. chapter 5 on methodology and 19 on final analysis and conclusions)]

For details on the underlying approach see

Robert B. Gibson, *Sustainability-based assessment criteria and associated frameworks for evaluations and decisions: theory, practice and implications for the Mackenzie Gas Project Review,* final report to the Joint Review Panel for the Mackenzie Gas Project, 26 January 2006, [http://www.acee-ceaa.gc.ca/default.asp?lang=En&n=155701CE-1] also [http://ssrn.com/abstract=1663015]

On sustainability assessment generally see http://uwaterloo.ca/sustainability-assessment-project/