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### **Fulfilling the Promise: Basic Components of Next Generation Environmental Assessment**

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# Fulfilling the Promise: Basic Components of Next Generation Environmental Assessment

Robert B. Gibson, Meinhard Doelle & A. John Sinclair\*

*This paper summarizes the working conclusions of a lengthy monograph, which also sets out the broad context and the background of experience with environmental assessment law and practice in Canada. Readers who find the premises behind the conclusions here unclear or dubious may wish to consult the monograph. It is posted at <https://uwaterloo.ca/next-generation-environmental-assessment/research-contributions/dissertations-theses-monographs-and-major-reports>.*

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## I. INTRODUCTION

Canada has been practicing environmental assessment for over 40 years. You might think we would be good at it by now. But we are not. The history of Canadian environmental assessment has been a race between accomplishment and disappointment. Today, assessment deliberations are characterized by tensions between needs for improvement and pressures for faster, easier and cheaper approvals.

Probably that was predictable. From the outset, environmental assessment laws demanded change and stirred resistance. They required proponents of major undertakings to incorporate environmental factors (variously defined) alongside financial, technical and political considerations in their planning because many proponents were not motivated to do so voluntarily. Moreover, given Canadian constitutional arrangements, the laws needed to be designed and applied cooperatively by the many Canadian jurisdictions (federal, provincial, territorial and Aboriginal) with environmental responsibilities—evidently also something for which existing motivations would prove to be insufficient.

Canada's first generation environmental assessment regimes have made important contributions. They have won greater attention to environmental considerations. They have opened some significant decision making to public scrutiny. In their brightest moments, they have been instrumental in forcing re-examination of prevailing priorities and practices. But environmental assessment laws and practices in Canada have not achieved the initially desired transformation in proponent and associated decision-maker culture to integrate habitual attention to environmental concerns. And they have not yet moved effectively to take on new understandings and imperatives—especially growing recognition of complex interactions in socio-ecological systems and increasingly pressing needs to ensure progress towards sustainability.

Centred on applications for project approvals and focused on mitigation of adverse effects, Canadian assessment processes have usually aimed for less bad projects rather than best service to the public interest.<sup>1</sup> Focused on the effects of individual projects, they have been poorly equipped to deal with cumulative and strategic effects and broad alternatives.<sup>2</sup> No two Canadian assessment regimes are the same and none represents a consistently high standard.<sup>3</sup> And with modest

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<sup>1</sup> Meinhard Doelle, *The Federal Environmental Assessment Process: A Guide and Critique* (Markham, ON: LexisNexis, 2008) [Doelle, *Federal Assessment Process*].

<sup>2</sup> PN Duinker & LA Greig, "The impotence of cumulative effects assessment in Canada: ailments and ideas for redeployment" (2006) 37:2 *Environmental Management* 153; BF Noble, "Promise and dismay: The state of strategic environmental assessment systems and practices in Canada" (2009) 29:1 *Environmental Impact Assessment Rev* 66.

<sup>3</sup> Environmental Planning and Assessment Caucus, *Inter-jurisdictional Coordination of EA: Challenges and opportunities arising from differences among provincial and territorial assessment requirements and processes*, by Deborah Carver et al (Canadian Environmental Network, 20 November 2010) online: <<http://rcen.ca/caucus/environmental-planning-and-assessment/resources>>; PJ Fitzpatrick & AJ Sinclair, "Multi-jurisdic-

exceptions, assessment has not evolved well to address changing global and domestic conditions.<sup>4</sup> Mostly, environmental assessment in Canada has struggled to be much more than a slightly earlier, more open and better integrated process for environmental licensing of conventional projects, and even then it has been criticized for slowing approvals.<sup>5</sup>

Next generation environmental assessment will have to aim higher. Five main transitions are involved:

(i) In contrast to the prevailing focus on mitigating significant adverse effects, next generation environmental assessment would expect proposals to represent the best option for delivery of lasting wellbeing, preferably through multiple, mutually reinforcing and fairly distributed benefits, while also avoiding adverse effects.<sup>6</sup>

(ii) In contrast to the common notion that economic, ecological and social objectives are inherently in conflict, can be addressed separately and will be accommodated through trade-offs that are “acceptable in the circumstances,” next generation environmental assessment would recognize that sustainability-enhancing economic, ecological and social objectives are interdependent. While some trade-offs will be unavoidable, they will be acceptable only in the last resort and under clearly delineated rules.<sup>7</sup>

(iii) In contrast to the assumption that effectiveness, efficiency and fairness are competing objectives, next generation environmental assessment would see that they too are logically and practically interdependent. Efficiencies would be sought by emphasizing assessment requirements where they can be most effective, especially through assessment in the development of policies, programmes and plans that are best suited to addressing cumulative effects and broad alternatives and to providing efficient guidance for projects and other more specific

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tional environmental assessment” in KS Hanna, ed, *Environmental Impact Assessment Process and Practices in Canada*, 3rd ed (Toronto: OUP) [forthcoming].

<sup>4</sup> The key new global and domestic conditions for assessment work include deepening unsustainability, greater understanding of complexity and its implications for interactive effects and precautionary approaches, links between financial and ecological debt, skepticism about the capability and credibility of governments and other authorities, and rising public expectations to be actively involved in decision making on important matters including beyond the project level.

<sup>5</sup> A John Sinclair & Meinhard Doelle, “Environmental assessment in Canada: Encouraging decisions for sustainability” in Bruce Mitchell, ed, *Resource and Environmental Management in Canada: Addressing Conflict and Uncertainty*, 5th ed (Toronto: OUP, 2015) 462, [Sinclair & Doelle, “Environmental assessment”].

<sup>6</sup> Robert B Gibson, Selma Hassan, Susan Holtz, James Tansey and Graham Whitelaw, *Sustainability Assessment: Criteria and Processes* (London: Earthscan, 2005).

<sup>7</sup> See Robert B Gibson, “Avoiding sustainability trade-offs in environmental assessment” (2013) 31:1 *Impact Assessment Project Appraisal* 2; Angus Morrison-Saunders & Jenny Pope, “Conceptualising and managing trade-offs in sustainability assessment” (2013) 38 *Environmental Impact Assessment Rev* 54.

initiatives,<sup>8</sup> and by fostering upward harmonization of the disparate assessment regimes (and associated regulatory permitting and post-approval monitoring) across Canada to compatible versions of a high next generation standard.

(iv) In contrast to environmental assessment being one, unusually open contribution to the broader set of largely inaccessible decision-making processes affecting individual projects, next generation environmental assessment would be the main public vehicle for deliberations and decisions on significant undertakings. It would adopt comprehensive sustainability-based purposes and their elaboration in criteria and it would apply to strategic level policies, plans and programmes as well as projects. In effect, environmental assessment would evolve into a tiered and integrated sustainability governance process.

(v) In contrast to treating assessment as hoops for proponents to jump through to gain project approval, next generation environmental assessment would be centred on learning, building a culture of sustainability and serving the long as well as short term public interest.

The following sections sketch out an initial framework of interrelated next generation components for environmental assessment regimes in Canada at the federal, provincial and territorial levels. The substance may be largely relevant to federal jurisdictions beyond Canada and to Canadian assessment regimes established through Aboriginal land claim agreements. There is no assumption here that a next generation regime would rely entirely on environmental assessment law. Useful roles are, for example, likely for strategic processes in regional planning, sectoral policy and regulation, and municipal decision making. Insofar as Canadian jurisdictions may be persuaded to adopt the basic assessment regime components presented here (with adjustments for their own circumstances), the results should deliver beneficial upward harmonization of environmental assessment in Canada.

## II. COMPONENTS OF A FRAMEWORK FOR NEXT GENERATION ENVIRONMENTAL ASSESSMENT

The basic components proposed for next generation environmental assessment are outlined below in categories that reflect the conventional steps of environmental assessment deliberations from purposes and application rules to follow-up monitoring and enforcement, plus design considerations that affect the whole process.

### (a) The purpose of environmental assessment

The core purpose of next generation environmental assessment is to ensure that deliberations and decision making on new and renewed undertakings at the

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<sup>8</sup> Robert B Gibson et al, "Strengthening Strategic Environmental Assessment in Canada: An Evaluation of Three Basic Options" (2010) 20:3 JELP 175 [Gibson, "Strengthening Strategic Environmental Assessment"].

project and strategic (policies, plans and programmes) levels foster proposal development, approvals and implementation that deliver the strongest feasible positive contributions to lasting wellbeing while avoiding significant adverse effects. More generally, the objective is to protect and enhance the resilience of desirable biophysical, socio-ecological and human systems and to foster and facilitate creative innovation and just transitions to more sustainable practices.

Serving this core purpose would entail adoption of corollary purposes concerning process and substantive requirements. Because transition to sustainable structures, cultures and behaviour is a long-term venture, next generation assessment must aim to establish deliberative decision-making processes that foster mutual learning among all interested participants to build understanding and capacities for effective engagement in governance for lasting wellbeing. To do that, it would need to facilitate collaboration with other authorities and meaningful public engagement from the conception through to the end of potential effects from undertakings that may have significant implications for progress towards sustainability.

For very practical purposes, assessment regimes would need to be structured to strengthen consistency and efficiency in decision making—from policy making, planning and programme design to post-approval project implementation and monitoring—through process linking and application of a common set of fundamental requirements. They would also need to favour flexibility and decentralization by respecting uncertainty and context, work iteratively with relevant stakeholders, and emphasize capacity to adapt to different ecosystems and communities, new understandings, and emerging challenges and opportunities.

Entrenchment of these purposes in next generation assessment law would begin with an explicit overall legislated objective tied to seeking progress towards sustainability. But the purposes would also need to be incorporated in the substance of all legislated provisions. Crucial components would include requirements for

- development and application of broad but comprehensive sustainability-based criteria for evaluations and decisions (see next section);
- emphasis on comprehensive and integrated attention to all factors affecting the long term as well as immediate desirability and durability of effects;
- comparative evaluation of potentially reasonable alternatives to identify best options for each undertaking, to move cumulatively to more sustainable practice; and
- application of case-specified sustainability-based purposes and criteria as the main structure for deliberations and decisions at all process stages for subject undertakings from initial identification of appropriate purposes and options (alternatives) to final deliberations on renewal, closure, decommissioning and continued management.

**(b) Sustainability-based criteria for evaluations and decision making**

In next generation environmental assessment, explicit sustainability-based criteria play several crucial roles. They provide a comprehensive, credible and explicit base for choices and decisions throughout the assessment process, enhancing the transparency and accountability of the deliberations. In the public interest, they ensure a focus on achieving maximum gains for sustainability by aiming for the selection of the best option, rather than attempting to judge the “acceptability” of proposed undertakings.<sup>9</sup> They encourage enhancement of multiple, mutually reinforcing, fairly distributed and lasting benefits in addition to avoidance or mitigation of significant negative effects.<sup>10</sup> And they motivate innovation in creating options that eliminate or minimize invidious trade-offs.

The legislation would need to establish the generic criteria for assessment decision making and provide for specification of these criteria for application to particular cases and contexts. The generic criteria would cover all core requirements for progress towards sustainability and their interactions.<sup>11</sup> Specifying the criteria for individual applications would be through informed choices by authorities and stakeholders, without compromising any of the generic requirements.<sup>12</sup> In particular cases, the criteria could evolve as new considerations and understandings arise, but they would provide the essential framework for evaluations and decisions through all stages of the assessment process.

In addition, next generation assessment law should establish explicit rules for evaluating trade-offs, and provide for case and context-specific elaboration of them. Trade-off rules would provide guidance on expectations for net

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<sup>9</sup> Effective attention to broader options or alternatives (and associated cumulative effects) will often be more feasible at the strategic level than at the project level. Accordingly, application rules and process design would emphasize assessment of strategic level initiatives that guide alternatives selection at the project level.

<sup>10</sup> In some cases, overall sustainability gains will be elusive. Best efforts to deal with residual stockpiles of high-level radioactive wastes, for example, may deliver only least bad solutions. However, some unsustainable undertakings, such as ones based on the exploitation of non-renewable hydrocarbon fields or mineral orebodies, can make a positive contribution to sustainability if designed and used (e.g. through investment of associated revenues and other opportunities) as bridges to more sustainable livelihood activities.

<sup>11</sup> Despite widespread inconsistencies and obfuscation even in professional references to sustainability, the core requirements for progress towards more sustainable futures are well established and supported. For one synthesis now well tested in practice, see Robert B Gibson et al, *Sustainability Assessment: Criteria and Processes* (Routledge, 2005), ch 5 [Gibson, *Sustainability Assessment*]. Some Canadian jurisdictions already have reasonably comprehensive sets of legislatively-grounded sustainability principles and guidelines. See e.g. those of the province of Manitoba at <<http://www.gov.mb.ca/conservation/susresmb/sd/>>.

<sup>12</sup> In some cases, strategic level assessments covering sectoral or regional issues could contribute a framework of specified criteria for deliberations on individual projects or more particular strategic undertakings in the sector or region.

sustainability gains, avoidance of significant adverse effects, allocation of the burden of argument, protection of unrepresented future generations, explicit justification, and open process.<sup>13</sup>

This emphasis on specified criteria and trade-off rules is meant to ensure attention to all key considerations for lasting wellbeing, including openings for multiple, mutually reinforcing benefits. But it also facilitates more open discussion of the otherwise often hidden, obscure and/or confused grounds for important decisions. Because such criteria will have significant influence, their adoption and case specification may become a focus for controversy and conflict. Such tensions are common in assessment processes now and are inevitable in any process of transition. Centring the tensions on explicit grounds for decision making seems to be a sensible option. Moreover, the difficulties should be accompanied and slowly mitigated by incremental learning and gradual enhancement of capacities for discursive problem solving. Nevertheless, the potential for discord adds to reasons for insistence on fair process.

Key additional needs associated with sustainability-based criteria include requirements for

- defining the public interest purpose of each assessed undertaking;
- identifying and comparing alternatives with selection of the most desirable option in light of the criteria;
- providing reasons based on application of the criteria for all assessment decisions;
- explicit identification and justification of trade-offs in light of explicit trade-off criteria; and
- precautionary recognition of uncertainties, with preference for low risk options and adaptive design as well as implementation.

**(c) Application rules**

A fundamental aim of the assessment regime is to ensure sustainability-based assessments are carried out for all proposed undertakings—including policies, programmes and plans as well as capital projects and physical activities—that might have significant effects on prospects for sustainability in and beyond the legislating jurisdiction. This includes undertakings that have potential for significant adverse effects, on their own and cumulatively. It also includes proposed undertakings that could foreclose other initiatives that would make a more positive contribution, and undertakings that warrant careful consideration of the manner in which the undertaking should be carried out to maximize benefits and minimize harm.

Meeting this aim requires, as much as possible, the anticipation and pre-identification of categories or characteristics of undertakings that are, or are likely to be, subject to assessment requirements. This will allow proponents and

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<sup>13</sup> Gibson, *Sustainability Assessment*, *supra* note 6 at ch. 6.

other potential participants to begin deliberations knowing their obligations and incorporating them from the outset.

Application decisions, which determine what undertakings are subject to formal assessment requirements and the particular streams of assessment required, will be critical for the success of a next generation regime. To be predictable and accountable, all application decisions will need to be guided by the legislated purposes, principles and criteria, and to be fully transparent. Decisions need to be justified in written reasons demonstrating consistency with the general purposes of the process and the specific principles, rules and criteria developed for application decisions, in combination with an opportunity to challenge decisions that are not. At the same time, flexibility is needed to recognize unanticipated cases and exceptional situations.

The general scope of application should respect three core considerations. First, the process should apply to undertakings at the project and strategic levels with appropriate streams for different categories of undertakings. Second, it should apply to new undertakings as well as continuing undertakings that merit periodic review, or that are to be revised, renewed or replaced. And third, it should apply to undertakings that are not in active development but have been identified as desirable, such as a new strategic initiative to address a pressing or anticipated issue raised in a project level assessment.

Specific rules of application should be designed to ensure the following:

- automatic application to undertakings in pre-identified categories set out in regulations made under the law to ensure early recognition of assessment obligations on the part of proponents and other interests;
- effective mechanisms to ensure early application to other undertakings with potentially significant effects, with clear rules, principles and criteria to maximize clarity and accountability;
- application to significant policies, programmes and plans that require ministerial approval, again with clear rules, principles and criteria to maximize clarity and accountability;
- application to new strategic level initiatives where the need for strategic level clarification has been identified in the course of a project level assessment;<sup>14</sup>
- application in other cases where the government chooses to require an assessment in response to public concern, through a transparent and accountable petition process set out in legislation, or on its own initiative in recognition of issues of significance for sustainability; and
- ability to make adjustments to application requirements in accordance with clearly established rules, principles and criteria and in a transparent and accountable manner.

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<sup>14</sup> See A John Sinclair & Meinhard Doelle, "Using law as a tool to ensure meaningful public participation in environmental assessment" (2003) 12:1 JELP 27-54. See also Gibson, "Strengthening Strategic Environmental Assessment", *supra* note 8.

**(d) Assessment streams**

To be effective, efficient, and fair, assessment processes must be suitable for the size and nature of the undertaking, the potential magnitude of adverse effects and benefits, and the level of public interest and concern. To this end, each type of undertaking should be clearly allocated to an appropriate assessment stream. The assessment process therefore needs to provide a range of specified streams. The number and particular characteristics of these streams might vary considerably among jurisdictions, but would include at least

- a demanding stream with detailed substantive evaluation and rigorous public and institutional review for the most significant undertakings with the greatest implications for ensuring and enhancing contributions to sustainability; and
- a more expeditious assessment stream for less significant undertakings.

While particular requirements for the scope of the assessment and the extent of public engagement will vary from stream to stream, all streams must meet a minimum standard of assessment. Each stream needs to apply the full set of sustainability criteria and trade-off rules, and include timely public notice and opportunities for public comment. Each stream must also meet the minimum scope requirements set out below, except where a narrower scope is established in the conclusions of a higher tier assessment. Each stream will have to include a mechanism for shifting exceptional cases to a more appropriate stream with clear rules, transparency and accountability for streaming decisions.

**(e) Linked tiers**

Tiers in assessment processes recognize that the design, approval and implementation of most undertakings that have important socio-economic and ecological implications are influenced by decisions at different levels, ranging from broad policy making to regulatory licensing, and that much can be gained by linking the decision making at all of these levels.

The main tiering idea links the project and strategic levels and has two parts—to use law-based strategic assessments for policies, plans and programmes to address big issues and opportunities, broad alternatives and cumulative effects that cannot be covered as effectively and efficiently at the project level, and to use the strategic level findings as authoritative guidance for project planning and assessment.<sup>15</sup> Examples of strategic undertakings that would likely produce useful guidance for subsequent project planning and assessment include planning initiatives that explore desirable and feasible futures for a region, and policy development efforts that examine the characteristics and potential cumulative effects of alternative ways of meeting a societal need.

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<sup>15</sup> Such tiered arrangements are already common internationally (e.g. in linked strategic and project assessment processes in the European Union) and in related fields in Canada, including urban and regional planning and forest management.

Policies, plans and programmes that have been subjected to or are based on sustainability-based next generation assessments may guide specific scoping, stream selection and other process decisions for assessments at the project level. They may help to focus the lower level assessment on a more limited range of alternatives than would be required in the absence of the broader level assessment. Findings at the strategic level about potential cumulative effects and their implications, and about appropriate means of avoiding adverse cumulative effects and enhancing positive ones, should also make project level assessments more efficient, effective and fair. In turn, project level assessments may often identify strategic assessment needs, opportunities, issues and options.

To facilitate such tiering, next generation assessment law would need to ensure application of assessment requirements to strategic level undertakings (see the discussion of application rules, above), provide for authoritative guidance from the strategic to project level and clarify the extent of, and limits to, this authority (e.g. through sunset provisions and renewal requirements). Legislative provisions would also establish equivalency rules for other sustainability-based and participative processes that develop and assess policies, plans or programmes that could provide legitimately authoritative guidance for projects planning and assessment.

For tiering links from the project to strategic level, next generation law should establish a mechanism for project level assessment processes to identify needs for strategic level consideration and response.<sup>16</sup> Normally, resulting strategic level assessments would be carried out concurrently with the continuing project assessment, but some cases may require suspension of the project assessment to ensure the strategic assessment findings can be integrated fully into the project assessment. The law could provide for earlier consideration of requests for amendments to existing policies, plans or programmes in light of problems or opportunities at the project level, but only through open processes applying specified, sustainability-based criteria. Parties seeking an amendment would have to justify it on the grounds of exceptional circumstances or recent changes in important factors.

Tiering links that identify, clarify and coordinate the relationship between project assessments and regulatory licensing have similarly great potential. For example, next generation assessment legislative provisions as well as administrative changes will be needed to clarify the level of detail required at each level, enhance the compatibility of requirements (e.g. documentation expectations and effects prediction methodologies), establish procedures for reconsideration of assessment findings in light of new information at the regulatory licensing level, and integrate assessment monitoring and follow-up into the regulatory process.

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<sup>16</sup> *Ibid.*

**(f) Scope of assessment requirements**

The overriding driver of scope determinations should be to allow environmental assessments to serve the sustainability-based purposes set out above. That entails ensuring the scope of all assessments covers the full suite of considerations that affect the potential for progress towards sustainability and facilitates identification of options, designs and implementation practices that deliver the best, most feasible undertakings in the long-term public interest. Efficiencies are gained by addressing appropriate issues at higher assessment tiers and using the results to shape project level decisions, not by artificially or arbitrarily limiting the scope of any assessment.

The assessment process should provide for a core legislated scope for all assessments (project and strategic levels) requiring attention to

- the purposes of and need for the undertaking (with both purposes and need related to the lasting public interest);
- potential reasonable alternatives;
- the full set of sustainability-related considerations and effects—bio-physical and socio-economic (and their interactions), positive and negative, indirect and direct, interactive/cumulative and individual, lasting and immediate;
- the full life of options (alternatives to and alternative means of pursuing the preferred alternative), including the upstream and downstream life cycle plus legacy effects;
- cumulative effects;
- enhancement of positive effects as well as mitigation/avoidance of adverse effects;
- uncertainties and means of accommodating surprise; and
- monitoring of effects and compliance, and response to the findings.

The process should ensure application of the core scope to all levels and streams of assessment and to requirements for equivalency in tiering links with undertakings prepared and assessed under other processes and regimes. It should clearly set out the more specific scope requirements for different applications, including assessments at different levels and in different streams, as well as ways to adjust and finalize the scope for individual assessments.

**(g) Effects assessment**

Next generation assessment regimes need to be carefully designed to ensure reliable effects assessment. The prediction and evaluation of effects is a central process component. It is crucial to understanding the prospects for positive and adverse sustainability effects, illuminating the comparison of alternatives, identifying best means of enhancing positive effects and avoiding or minimizing adverse effects, and evaluating potential trade-offs. It also provides the basis for decision making concerning approvals or rejections, conditions of approval, and monitoring requirements.

To minimize process uncertainties and delays, effects assessment requirements should be pre-defined to the extent possible, so that all participants in the assessment process know the expectations and their obligations and openings to contribute. The key general requirement is that all effects assessment is to be guided by application of the sustainability criteria specified for the case, and must recognize and document uncertainties (in study design as well as in effects prediction). Consequently, the requirements for effects assessment must be tied directly to application of the legislated purposes, the more specific decision making rules and the sustainability-based criteria. In addition to requirements discussed elsewhere, the mandatory obligations in law should include application of the sustainability criteria in all steps of effects assessment, including selecting alternatives to be compared; identifying most valued ecological, social and socio-ecological systems, characteristics and services to be examined most closely;<sup>17</sup> choosing methodologies and setting priorities for effects predictions and monitoring; and evaluating the significance of individual and cumulative effects and uncertainties (at the prediction and monitoring stages).

The assessment process should provide for early and open engagement of authorities, including Aboriginal governments, and stakeholders in criteria specification and application in the effects assessment steps above. Such engagement is also needed in discussions to clarify effects assessment scope and priorities (including identification of valued components), to review proposed methods, and to develop other case-specific guidance for design and implementation of effects studies and assessments. A final key topic for early and open engagement is the selection of consultants, which needs to be done in a way that will reduce conflicts associated with consultant dependency on and ties to proponent interest.

Beyond individual cases, it will be important to offer advanced general guidance materials on key aspects of sustainability-based effects assessment, including attention to positive sustainability effects and their enhancement, long term and legacy effects, and interactive and cumulative effects. General guidance should be complemented with more specific sectoral, regional and other guidance for assessment work relevant to categories of anticipated undertakings. In some cases, strategic level assessments will serve to develop such guidance.

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<sup>17</sup> Note that we refer here to valued systems, characteristics and services rather than to key indicators. Environmental assessment practice has sometimes demonstrated a tendency to restrict consideration to a few key indicators that may have insufficient ability to represent the status of or trends affecting larger systems. While the enormous complexity of potentially affected systems makes reliance of selected indicators inevitable, the objective must always be to build a reliable understanding of interactive effects. See, for the original work, GE Beanlands & PN Duinker, *An Ecological Framework for Environmental Impact Assessment in Canada* (Halifax: Institute for Resource and Environmental Studies, Dalhousie University & Hull: Federal Environmental Assessment Review Office, 1983).

Finally, effects assessment requirements need to ensure an emphasis on cumulative effects, and fully utilize the critical role of strategic level assessments for effective and efficient attention to cumulative effects predictions, implications and response options.<sup>18</sup>

#### **(h) Participation**

Participatory processes in next generation assessment regimes need to incorporate the insights of deliberative democracy, collaborative rationality and environmental justice.<sup>19</sup> By participation we mean encouraging and facilitating the active involvement of members of the public, stakeholders, relevant authorities and proponents in environmental assessment with the aim to enhance the quality and credibility of assessment decision making and to ensure associated learning and capacity building benefits are captured.<sup>20</sup> To ensure the basic legitimacy of next generation assessment, participatory processes also need to be meaningful by incorporating the basic components of participation into environmental assessment.

The basic components of meaningful participation have been well documented in the literature.<sup>21</sup> They include provisions to ensure adequate public notice, timely and convenient access to information, participant assistance, opportunities for public comment, public hearings, deliberative forums and early and ongoing participation throughout the process stages, including

- early deliberations on purposes/needs and alternatives, criteria specification, main consultant selection, and determination of effects assessment priorities and design of effects studies;
- review of initial effects findings and conclusions concerning the relative merits of alternatives;
- formal review of submitted proposals for approval, including environmental impact statements (or the equivalent in sustainability-based assessments), as appropriate draft review recommendations and decisions by the responsible authorities; and
- design of and participation in monitoring programmes and review of findings and response plans.<sup>22</sup>

<sup>18</sup> AJ Sinclair, P Duinker & M Doelle, “Looking Up, Down, and Sideways: Reconciling Cumulative Effects Assessment as a Mindset,” *Environmental Impact Assessment Rev* [forthcoming in 2015].

<sup>19</sup> Richard K Morgan, “Environmental impact assessment: the state of the art” (2012) 30:1 *Impact Assessment and Project Appraisal* 5.

<sup>20</sup> In participation provisions, and in regime design generally, it will be important to recognize Aboriginal and treaty rights and need to ensure special efforts to facilitate their effective engagement as relevant authorities, not mere stakeholders.

<sup>21</sup> Robert B Gibson, “Environmental assessment design: lessons from the Canadian Experience” (1993) 15 *The Environmental Professional* 12; David P Lawrence, *Impact Assessment: Practical Solutions to Recurrent Problems and Contemporary Challenges*, 2nd ed (New Jersey: John Wiley and Son, 2013).

While each of these basic components enjoys some recognition in assessment practice in Canada, special and renewed attention needs to be given to providing the capacity and funding necessary to enable representation of important interests and considerations not otherwise effectively included (for example, disadvantaged populations, future generations, broader socio-ecological relations). This will be a significant step given that only two jurisdictions in Canada currently offer some level of support to participants. Provisions for public hearings on cases of particular public interest and significance for sustainability will also have to include explicit detailed criteria for determining when public hearings are necessary and the establishment of an arm's-length body for advising on contested cases.

Initiating deliberative forums as an integral component of participation also requires new attention. Proponents, who most often lead participatory activities, frequently use open houses (and similar consultation methods), while government officials occasionally convene hearings, with the result that dialogic participation techniques are rarely used in Canadian assessment processes. As Sinclair and Diduck have noted, effective techniques for assessment participation use vehicles such as multi-stakeholder advisory committees and task forces, mediation and non-adversarial negotiation, and community boards to facilitate ongoing dialogue and communication among project proponents, environmental assessment officials, and civic organizations, and serve important mutual learning, relationship building, and conflict resolution functions.<sup>23</sup> Such approaches also anticipate the re-engagement of public officials and experts as well as stakeholders and members of the public in the participatory process.

Beyond specific provisions for involvement, next generation assessment also requires the establishment of a multi-stakeholder advisory body for open deliberations on issues and options for regulatory attention and other key matters of process implementation.

Also needed are mandatory requirements for regular and open public reviews of assessment regime performance, including consideration of potential improvements to participatory processes.

#### **(i) Review and decision-making processes**

Thorough review of environment assessment documentation through credible and transparent decision-making processes is another essential component of next generation assessment. A basic aim in this regard is to ensure consistent efforts to serve the objectives of assessment to advance prospects for lasting wellbeing in all key decision making—not only about proponent assessments, but also about proposed assessment policies, guidance

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<sup>22</sup> AJ Sinclair & AP Diduck, “Public participation in Canadian environmental assessment: enduring challenges and future directions” in KS Hanna, ed, *Environmental Impact Assessment Process and Practices in Canada*, 3rd ed (Toronto: OUP) [forthcoming].

<sup>23</sup> *Ibid.*

and other matters concerning regime implementation. Next generation assessment must also enhance the quality and credibility of assessment decision making, including by guarding against bias in public proceedings where the more narrowly motivated proponent leads proposal development and assessment.

As outlined above, more credible decision making will require mandatory development and application of explicit sustainability-based criteria, specified for the context of the case at hand. Evaluations of effects predictions, comparison of options and other key assessment review matters need to be based on the application of the explicit sustainability-based criteria developed. The review process also must be transparent and open to effective government, stakeholder and public engagement from the beginning of the deliberations. Regulation must allow the extent, nature and formality of requirements scaled to the significance of opportunities to avoid adverse effects and/or enhance positive ones, the level or potential for public concern and the potential for conflict or consensus.

Ensuring rigorous and open reviews will require multiple review process options that recognize differences among assessment streams, between strategic and project level undertakings, between single and multi-jurisdictional cases, and between cases promising conflict or consensus. Potentially desirable options include

- semi-formal public discussions with impartial facilitation where feasible and reasonable;
- reviews led by a credible government review body receiving open comments, and issuing draft findings, conclusions and recommendations for public review before finalization;
- informal hearings by an independent panel with members appointed in light of explicit selection criteria;
- opportunities for negotiation, arbitration or mediation (perhaps only on certain elements of a review);
- formal hearings, including consolidated hearings of two or more agencies and/or jurisdictions; and
- reviews with public deliberations led by independent experts with public review experience, such as those by the Royal Society<sup>24</sup> and OEER Association.<sup>25</sup>

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<sup>24</sup> Royal Society of Canada, *Elements of Precaution: Recommendations for the Regulation of Food Biotechnology in Canada* by Conrad Brunk & Brian Ellis (Ottawa: Royal Society of Canada, 2001).

<sup>25</sup> Nova Scotia Department of Energy, *Fundy Tidal Energy Strategic Environment Assessment* by OEER Association (April 2008), online: < <http://www.marinerenewables.ca/wp-content/uploads/2012/11/Fundy-Tidal-Energy-Strategic-Environmental-Assessment-Final-Report.pdf> > .

**(j) Decisions**

While the decision to approve a proposed undertaking attracts most attention, influential decisions are made at all stages of assessment processes. Many key decisions are made by or for the private or public sector proponents of undertakings subject to assessment requirements. Much of assessment law is aimed at guiding these proponent decisions, both directly by setting out assessment requirements and indirectly by establishing review, approval and other tests to ensure the requirements are met. Next generation environmental assessment must aim to ensure that all of these decisions are credible and sustainability-enhancing.

To be aligned with the purposes of next generation assessment, all decisions should aim to expand understanding and illuminate application of the “contribution to sustainability” test to the proposal and alternatives at hand. Approval decisions, in particular, play the gatekeeping role of ensuring that the earlier studies, deliberations and choices have delivered a proposed undertaking that represents the best option in the public interest, will deliver multiple mutually reinforcing gains and avoid significant adverse effects. Each approval decision must be supported by persuasive evidence reflecting application of the context-specified sustainability criteria. The main uncertainties must be identified. And where trade-offs are unavoidable, approval decisions must be accompanied by reasons based on the sustainability criteria and following explicit trade-off rules.

Next generation assessment law will also need provisions to ensure that decisions and conditions of approval (which may include meeting commitments made by the proponent in the proceedings) are practically enforceable. This will entail specification of enforcement and penalty powers; expectations for clear delineation of commitments and conditions of approval; and explicit allocation and provision of resources for, compliance monitoring and enforcement responsibilities.

Throughout all assessment decision making, the preference is for participative and, to the extent possible, consensus-based approaches, subject to adherence to the sustainability-based criteria. Over time, key next generation features, including insistence on public interest purposes and results, should increase prospects for consensus in assessment processes. Significant conflicts in aims and interests are, however, likely to characterize many future assessment cases. While integration of conflict management capacities in assessment deliberations may mitigate some tensions, assessment processes must continue to emphasize provisions not only for effective engagement (see “participation,” above) but also for fair adjudication.

Consequently, decision-making responsibility and authority must be vested in credible and accountable hands. Credibility is most likely for impartial decision makers who have been closely engaged in the deliberations and evidence and accountability is most likely for elected officials. In the circumstances, the best option is likely to be reliant on approval decision making initially by the

impartial government authority (in government but at arms length from particular departmental mandates or partisan pressures) that considered the evidence, with ultimate ministerial/Cabinet(s) authority within a specified period following the initial ruling to reverse, revise, or require reconsideration or new review. These arrangements would need to be accompanied by provisions for quasi-judicial appeals of the initial decision and judicial review of the ultimate political decision. The appeal should be based on a standard of correctness, whereas the judicial review could be based on reasonableness. Both avenues would consider whether the decision was adequately justified, based on and consistent with the sustainability-based criteria, and whether the decision-making process was fair.

**(k) Monitoring of effects and compliance, and response to findings**

Sound environmental assessment requires follow-up, yet it is most often done poorly, when it is done at all.<sup>26</sup> Follow-up properly includes monitoring, response to monitoring findings in environmental management, communication, and learning.<sup>27</sup> Monitoring programmes must aim to identify unanticipated positive and adverse effects, as well as other unpredicted pressures, opportunities and changes that may require interventions to correct or pursue. Monitoring also needs to provide an information base for ensuring that the terms and conditions of approvals are met, and commitments are fulfilled. Throughout implementation and after completion of an undertaking, those responsible for environmental management must be able to act adaptively to address problems and new opportunities identified by monitoring work. There must also be communication with regulators and the interested public and commitment to learn from the experience to enable better predictions, more reliable assessments, and better decision making in the future.<sup>28</sup>

Achieving these aims will depend on provisions for mandatory effects and compliance monitoring, scaled to the potential significance of the effects and contraventions, integrated into the regulatory framework of next generation assessment processes. The regulatory framework should also include powers to set requirements for

- specific commitments and conditions of approval (in part to facilitate effective monitoring of effects and compliance);
- anticipatory arrangements, and assignments of responsibility including for funding and public reporting, for monitoring of effects and

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<sup>26</sup> Sinclair & Doelle, “Environmental assessment”, *supra* note 5; Bram F Noble & Sarah N Macharia, “Towards a working framework for ‘best’-practice EA follow-up: lessons from Canadian case studies” (2004) 7 *Prairie Perspectives* 209.

<sup>27</sup> Angus Morrison-Saunders, Jill Baker & Jos Arts, “Lessons From Practice: Towards Successful Follow-Up” (2003) 21 *Impact Assessment and Project Appraisal* 43.

<sup>28</sup> Jos Arts, Paula Caldwell & Angus Morrison-Saunders, “Environmental impact assessment follow-up: good practice and future directions” (2001) 19:3 *Impact Assessment and Project Appraisal* 175.

- compliance and for timely response to emerging problems and opportunities; and
- public reporting of effects monitoring findings, with particular efforts to foster application of insights from monitoring in future assessments.

Regime design should anticipate monitoring and response needs by recognizing adaptive capacity as a criterion for design of approvable undertakings and implementation plans, acknowledging that effective adaptive management depends on adaptive capacity including adaptable design. Best practice in effects monitoring implementation will entail emphasis on the engagement of local residents, who are often most motivated to undertake effective monitoring, best placed to do so regularly and efficiently and most likely to gain from the learning opportunity. Best practice expectations also affect monitoring priorities. In particular, they suggest a focus on debatable predictions, untried mitigation and enhancement measures, as well as potential effects on vulnerable people, communities, species, and ecological relationships. And they encourage particular efforts in early identification of emerging problems and opportunities and response options. These monitoring and response obligations need to be treated as costs of the undertaking and not paid for from the public purse.

Compliance monitoring needs should also be anticipated in regime design. Effective compliance monitoring and response depends on ensuring that approval conditions and commitments are clear and specific enough to be monitored and that repercussions of non-compliance are well known. Rather than treating compliance monitoring findings as confidential business information, transparent public reporting should be emphasized. The findings could reward responsible proponents, shame non-compliers and contribute to monitoring of overall progress towards sustainability.

### **(I) Learning**

At least since 1995, participation in environmental assessment has been recognized as a means to broad-based individual and social learning that could enable the transition to sustainability.<sup>29</sup> Relying on assessment case evidence,

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<sup>29</sup> Alan Diduck & Bruce Mitchell, "Learning, Public Involvement and Environmental Assessment: A Canadian Case Study" (2003) 5:3 *Environmental Assessment Policy & Management* 339; Patricia Fitzpatrick & A John Sinclair, "Learning through public involvement in environmental assessment hearings" (2003) 67:2 *J of Environmental Management* 161; JR Palerm, "An Empirical-Theoretical Analysis Framework for Public Participation in Environmental Impact Assessment" (2000) 43:5 *J of Environmental Planning and Management* 581; A John Sinclair & Alan P Diduck, "Public involvement in E.A. in Canada: a transformative learning perspective" (2001) 21:2 *Environmental Impact Assessment Rev* 113; Thomas Webler, Hans Kastenholtz & Ortwin Renn, "Public participation in impact assessment: a social learning perspective" (1995) 15:5 *Environmental Impact Assessment Rev* 443.

Sinclair et al. developed a conceptual framework related to learning about and through environmental assessment. The framework establishes the potential for individual and collective capacity building and other learning, including about how to maintain and strengthen prospects for lasting ecological, social and economic wellbeing.<sup>30</sup> In this regard, next generation assessment must build understandings, capacities and motivations in all sectors and among all players. Assessment would be a useful venue for increased research and practice aimed at shedding light on the factors and implications of learning-oriented approaches to participation.<sup>31</sup>

To capture the potential for learning, next generation assessment will need to establish contributions to mutual learning as a responsibility for all assessment participants. Relevant responsibilities include providing opportunities for and facilitation of deliberative multi-stakeholder collaboration using the full range of methods in the participation toolbox—including more deliberative forums that include scenario building and visioning, increased attention to alternative dispute resolution and increased advocacy for sustainability assessment by public interest interveners.<sup>32</sup> Where possible, contributions to mutual learning should occur in overall regime deliberations (for example, concerning regulation and policy development and revision) as well as in individual cases (for example, in specifying terms of reference, elaboration of sustainability-based evaluation and decision criteria for particular applications, and design and application of assessment methodologies, including in post-approval monitoring).

Especially important are strong linkages between improving the provisions, opportunities and support for public participation in next generation assessment development, review and monitoring, as outlined above, and the increased potential for mutual learning outcomes this will avail. Mandatory monitoring and public reporting of effects in comparison with effects predictions, and of the effectiveness of responses to emerging problems and opportunities, will be essential to encouraging learning outcomes that are lasting and applicable beyond a single case. In this regard, an important facilitating step will be the establishment of an easily accessed, well-organized and searchable electronic library (or linked set of libraries) of environmental assessment case materials, including documentation of impact predictions and monitoring findings, records of decisions and justifications, and associated cases in law.<sup>33</sup> If made available to

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<sup>30</sup> For details see above and A John Sinclair, Alan Diduck & Patricia Fitzpatrick, “Conceptualizing learning for sustainability through environmental assessment: critical reflections on 15 years of research,”(2008) 28:7 *Environmental Impact Assessment Rev* 415.

<sup>31</sup> AJ Sinclair, AP Diduck & M Vespa, “Public participation in sustainability assessment: essential elements, practical challenges and emerging directions” in Angus Morrison-Saunders, Jenny Pope & Alan Bond, eds, *Handbook of Sustainability Assessment* (Cheltenham, UK: Edward Elgar) [forthcoming in September 2015].

<sup>32</sup> *Ibid.*

<sup>33</sup> LE Sanchez & A Morrison-Saunders, “Learning about knowledge management for

all, such a resource could be used by all parties in the assessment community to improve future project and strategic level assessments and decisions over time and to identify needs and opening for improvements to assessment law, regulation and policy. Regularly updating and upgrading guidance material and reviews of individual regime performance and progress towards upward harmonization within and across jurisdictions will also be required.

**(m) Authoritative requirements in legislation, regulation and guidance**

An effective assessment process should take full advantage of the different ways elements of the process can be established—in statute, in regulations, in binding policies, and in non-binding guidance. The objective should be to enshrine in statute the key elements and expectations that are not expected to change with experience and evolving circumstances. Elements that need to be open to regular and reasonably quick adjustment should not be included in statutes. Regulations offer a middle ground in that they are still legally binding, and require some process and scrutiny to be amended, but can be amended quickly and easily by governments.

Policies and guidelines can, in some circumstances still be binding on decision makers, but are generally not, and can be changed at will. They should therefore be seen as a vehicle for providing helpful information about how parties can best carry out the legal obligations set out in statutes and regulations. Enforceable requirements are needed for new obligations that those with assessment responsibilities may not be motivated to carry out on their own.

A key objective in deciding what to include in statute, regulations, policies and guidance is to provide clarity and facilitate consistency and authority in the application of fundamental requirements while retaining flexibility to accommodate differences in undertakings and context and to permit progressive innovation. The core elements of the assessment regime to be set out in the statute should include the following:

- a fundamental commitment to sustainability-based public interest purposes, principles and core criteria for decision making;
- basic components of the scope of assessment, including requirements for establishment of public interest based needs and purposes, comprehensive coverage of sustainability-related considerations, focus on cumulative effects, comparative evaluation of potentially reasonable alternatives;
- the essential characteristics of different streams of assessment for undertakings that merit more or less demanding expectations and review processes;
- central provisions guaranteeing and facilitating meaningful public engagement throughout the assessment process;

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improving environmental impact assessment in a government agency: The Western Australian experience” (2011) 92(9) *Journal of Environmental Management*, 2260.

- core process elements and process alternatives (especially streams, see above) specified in law with explicitly limited openings for discretionary avoidance or compromise;
- application to strategic as well as project level undertakings and provisions for linking strategic and project level assessments;
- requirements for explicit development and application of case-specified sustainability-based criteria, elaborating the core criteria set in the law; and for application in decision making, including explicit justification of trade-offs;
- transparent, accountable and enforceable decisions and conditions;
- mandatory monitoring of effects and compliance, comparison of actual and predicted effects identification of response needs and options;
- provisions for effective enforcement of assessment requirements, including terms and conditions of approval;
- independent monitoring and regular review of the regime for continuous improvement; and
- provisions for coordination and consolidation with equivalent assessment processes and process components in other jurisdictions.

Core elements set out in statute should be elaborated upon in more easily amended regulations. For example, detailed rules of application of the assessment process with emphasis on pre-identification of undertakings requiring assessment should be set out in regulations and updated as needed. Rules on how strategic level assessments can help streamline project level assessments can similarly be set out in regulations and developed with experience.

Non-binding guidance should focus on issues such as suitable approaches to specifying sustainability-based evaluation and decision criteria, clarification of implications for different sectors, regions and other circumstances, and emerging best practice methods for effects identification and assessment, including methods of addressing interactive effects, cumulative effects and uncertainties in assessments.

#### **(n) Process administration**

Any credible assessment regime depends heavily on capable and impartial overall process application and management. While expectations for the body assigned to the task centre on administrative implementation of the requirements set out in the laws and regulations establishing the regime, they necessarily also extend into making important decisions that affect the quality of assessment processes and the substance of assessment rulings.

Obvious decision-making roles include those related to specifying requirements for particular cases and carrying out formal reviews of proposed undertakings that are not assigned to public review panels. Decision-making

responsibilities will also be involved in establishing the key details about process components and procedures (e.g. for each assessment stream), clarifying new provisions (e.g. for strategic level assessments and linked strategic and project level assessments) and requirements (e.g. for development and application of sustainability-based evaluation criteria and trade-off rules), and ensuring appropriate support for effective public participation (e.g. through intervenor funding programmes).

In addition, the administrative body would participate in assessment learning and regime evolution. The body would need to monitor application successes and limitations, including strengths and deficiencies of impact predictions, public engagement, trade-off avoidance, compliance and effects monitoring. It would be responsible for identifying emerging needs and opportunities; considering implications for revision of procedures and guidance (and possibly regulations and statutory requirements); and consulting on response options.

Beyond internal functions, the administrative body would have responsibilities to collaborate with others within and beyond the immediate jurisdiction. The roles would include collaboration with

- governments and other bodies engaged in the broader development and application of sustainability-based decision principles and guidance, including sustainable development strategies that could inform and be informed by strategic and project assessment findings;
- bodies with expertise needed in assessment design, review and monitoring;
- bodies with complementary mandates and authority for monitoring trends, enhancing positive sustainability effects and avoiding or mitigating damage and risk;
- agencies leading or administering the development and review of strategic level undertakings that could be or become equivalent to strategic level environmental assessments and be effectively linked into tiered assessment arrangements;
- regulatory licensing bodies with interests in harmonized information and process requirements;
- bodies in other jurisdictions that may be willing to engage in joint and coordinated assessments, establishment of inter-jurisdictional tiering arrangements, joint research and policy development, and more generally the advancement of upward harmonization of assessment processes and requirements; and
- leaders of other sustainability-based activities and initiatives within and beyond government.

The administrative body should be required and empowered to be broadly consultative in carrying out its mandate. An important vehicle for consultation would be a multi-stakeholder advisory body (or bodies) that is consulted generally on matters of regulation, policy and guidance development. Particular topics suitable for advisory body attention include guidance on application of

assessment requirements to strategic undertakings, tiering, means of enhancing participative engagement, best practice assessment methodologies, specification of sustainability criteria including for particular individual sectors and regions, application rules for different assessment streams and allocation of categories of undertakings to different streams.

Because of significance and delicacy of these roles and the comprehensive scope of the sustainability-based agenda, the location of the administrative body within government is important, as are arrangements for ensuring its credibility and impartiality. The matter of location is most difficult. Clearly the body should be situated at arm's length from particular departmental mandates and partisan political interests. Probably it should also be positioned near the centre of government authority, rather than assigned to report to government through the environment minister or equivalent, as is now common in federal and provincial arrangements. Regime design must, however, ensure that movement of next generation assessment to a more central reporting position is done only where firm sustainability commitments ensure no loss of emphasis on the biophysical foundations of wellbeing.

The independent decision-making authority of the administrative body should be subject to override by the elected government as represented by Cabinet. However, any Cabinet override must be accompanied by an explicit public justification that respects the legislated purposes. For broader accountability, the administrative body should also be subject to mandatory transparency of reasons for decisions as well as regular independent auditing (e.g. by an equivalent of the federal Commissioner of the Environment and Sustainable Development), with public reporting of findings.

#### **(o) Linkages beyond assessment**

Assessment that seeks best contributions to sustainability is considerably more ambitious than assessment that is satisfied with mitigating adverse effects. Nevertheless, it is only one of many means of pursuing lasting wellbeing. These means will need to be diverse, innovative and adaptable to opportunities. But the main initiatives of public government will be served better if coordinated and, where feasible, integrated. Accordingly, environmental assessment should be linked with governments' broader efforts to identify emerging challenges and opportunities, set priorities, initiate responses, review progress and adjust accordingly.

To facilitate desirable connections, next generation assessment needs legislative and policy provisions for collaborations with and other links to:

- sustainability-related policy-making, including development of sustainability principles, criteria and strategies;
- regional and sectoral planning regimes and *ad hoc* planning initiatives (especially where these may become assessment equivalents at the strategic level);
- regulatory permitting and licensing; and

- sustainability reporting and other data banking that may inform assessment deliberations and should be linked to assessment products including assessment and monitoring findings.

More broadly, assessment process interests should be involved in inquiries into the design and application of other complementary tools to strengthen motivations for shifts to more sustainability-enhancing undertakings, structures, behaviours—for example, through pricing (of carbon and ecological goods and services), pilot/demonstration projects, ecological tax reform, non-economic status enhancement, and shame-based mechanisms.

Assessment processes would also benefit from participation in multi-party efforts to clarify and rationalize relations between environmental assessment and negotiation of private agreements that may have significant implications for project effects. These include agreements between project proponents and Aboriginal authorities and/or other communities or regions, concerning matters such as the distribution of economic opportunities and revenues, the mitigation and enhancement of other effects, and/or provisions for monitoring and response.

**(p) Effectiveness, efficiency and fairness considerations**

The perceived trade-off between effectiveness and efficiency, at the expense of fairness, has dominated the implementation of environmental assessment since its inception.<sup>34</sup> In next generation sustainability-centred assessment applications, effectiveness, efficiency and fairness are recognized to be interdependent and not candidates for trading off one for the other. In this context, effectiveness is centred on success in serving the purposes of sustainability-based environmental assessment (see above), while efficiency is the achievement of maximum benefit from the use of resources to deliver effectiveness. Fairness includes substantive fairness (enhancement of equity in the distribution of the positive and adverse effects of decisions, within and among generations) and process fairness (fairness in effective opportunity for able and influential engagement in deliberations and impartiality in decision making).

Within a sustainability-based assessment regime, effectiveness, efficiency and fairness in the delivery of positive contributions to sustainability are most likely to be enhanced by: clear generic rules, maintained beyond discretionary avoidance or compromise; early application; consistent guidance (e.g. from the strategic level to project planning); flexibility to recognize key contextual factors; and, by placing assessment at the centre of decision making on assessed undertakings. Within a jurisdiction, application of these enhancements will most likely be improved further with a strong commitment to progress towards sustainability, that includes collaboration and linking of associated policy, planning/assessment regulatory licensing and monitoring processes. This will

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<sup>34</sup> Sinclair & Doelle, “Environmental assessment”, *supra* note 5; Doelle, *Federal Assessment Process*, *supra* note 1.

require agencies within a jurisdiction to have shared sustainability-based purposes, shared information and expertise, equivalency of scope in policy, planning and assessment, equivalency of opportunity for effective public engagement, provisions for tiered guidance (for example, though law and policy to guide broad planning, in turn to guide project planning) and a focus on the collaborative implementation of associated policy, planning and regulatory licensing processes.

Across jurisdictions (federal/provincial/territorial/Aboriginal), effectiveness, efficiency and fairness in the delivery of positive contributions to sustainability are most likely to be enhanced by upward harmonization of assessment law and process to ensure equivalency in the key process components (purposes, scope, participative opportunities, etc.) as a foundation for linking associated policy, planning/assessment regulatory licensing and monitoring processes, and by sharing information and expertise. Such action should be guided by general law and process harmonization principles that include

- acceptance of process diversity within equivalency of fundamental process components;
- emphasis on broad engagement, sharing of expertise and learning (especially as governments reduce their in-house expertise in key areas of environmental assessment issues and applications); and,
- recognition that the greatest efficiency gains may require broader system changes that strengthen or expand motivations to incorporate attention to sustainability-related considerations (through carbon taxes, transparency in corporate reporting, requirements for free, prior and informed consent from affected communities, etc.).

Environmental assessment has always been about changing entrenched practices and next generation environmental assessment pushes this further. The transition to decision making that seeks positive contributions to sustainability, rather than only mitigation of significant adverse effects, is meant to bring lasting benefits and substantive fairness in relation to the distribution of the positive and adverse effects of decisions. Inevitably, however, this will cause disruptions and, despite best efforts, will involve trade-offs. In all change, risks are greatest for the sociologically and ecologically vulnerable. Next generation assessment must ensure consistent and committed attention to reduction of risks to the most vulnerable and fair distribution of the benefits. The likelihood of achieving this transition will be enhanced with provisions that at least ensure procedural fairness.

### **III. CONCLUSIONS AND WAYS FORWARD**

Next generation environmental assessment has been presented here as a key means of assisting a transition from broadly unsustainable trends to brighter prospects for lasting wellbeing. No such transition can be quick and easy. Establishing the new assessment regimes with the components sketched out here will demand much at all levels of government. Significant shifts in objectives,

structures and practices are involved and it is safe to assume that some of the needed changes will face serious resistance. But a future path without such changes is likely to be a good deal less comfortable. Environmental assessments in Canada are already venues for conflicts rooted in concerns about cumulative risks damages to lands, waters, traditional territories and climate. We consequently all have good reason to begin the learning process that will take us to next generation assessment.

Opportunities to implement what we have outlined above will arise at different times and in different ways in jurisdictions across Canada. In many cases, the opportunity will be to make incremental progress through adjustments at the legislative, regulatory or policy level. Other incremental improvements can be achieved through the application of particular tools, such as federal-provincial harmonization agreements, pilots to explore collaborative strategic environmental assessments, and experimental tiering of existing sustainability-based strategic planning with relevant project assessments. As has been done in some Canadian Environmental Assessment Agency panel reviews, the application of sustainability criteria and a net contribution to sustainability test can continue to be advanced on a case by case basis. In short, considerable progress can continue to be made within existing legislative structures.

In some jurisdictions, opportunities will arise to make a more fundamental shift towards the approach to environmental assessment that we have proposed. At the provincial level, this may occur as provinces feel the impact of the federal government's retreat from environmental assessment. At the federal level, opportunities for progress may await a change in government.

There are also many ways to initiate a broader discussion in Canada about the need for the kind of reform to environmental assessment we have outlined here. A multi-stakeholder process to develop and implement a next generation best practice standard for environmental assessment in Canada would be one way forward, with the promise of moving jurisdictions at all levels of government, including federal, aboriginal, provincial and municipal governments, towards the implementation of a sustainability-based assessment and decision-making approach that is integrated, transparent, and accountable.