Achieving a Next Generation of Environmental Assessment

Submission to the Expert Review of Federal Environmental Assessment Processes

Environmental Planning and Assessment Caucus of the Canadian Environmental Network

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Introduction

The Environmental Planning and Assessment Caucus of the Canadian Environmental Network is pleased to make this submission to the Expert Panel appointed to review Canada's environmental assessment processes (the EA Review), to provide the Panel with our collective best thinking on federal environmental assessment reform. The development of leading-edge environmental assessment practices is a process of continuous research and re-consideration, and these recommendations are therefore an important step in a work-in-progress. We expect to build on these and make further recommendations to the Agency and other federal departments following the release of the Expert Panel's report in 2017.

We are at an important moment in the history of environmental law in Canada. The present EA Review and the legislative and policy reforms that are expected to follow are a rare opportunity to enact a next-generation package of environmental assessment law and policies that works for the environment, Indigenous peoples and non-Indigenous communities. While next-generation law as we envision it is a dramatic shift from current EA practice at the federal level, it is not a huge departure from best practices and leading-edge thinking that have previously been developed and implemented in Canada. Perhaps the most important task before us now is to codify those best practices in order to ensure their application consistently and meaningfully, in order to ensure wise and fair environmental decision-making that aspires to equitably distributed net social, environmental, and long-term economic benefits for today's and future generations.

Nothing less will do. We cannot afford to continue to ignore what science and traditional Indigenous knowledge alike are telling us: that we need to start making decisions as if we meant to stay on this planet. We may not have all the answers, but we've got some good ones, presented here under the banner of 'next-generation EA'.[1]

Next-generation EA requires the implementation of an integrated package of leading edge law and policy reforms. We have organized the ideas and reforms required for next-generation EA in the federal context into the eight themes that form the chapters of this submission:

1. Achieving cooperative multi-jurisdictional assessment in Canada's complex federal system;
2. Designing an appropriate structure to deliver effective and robust assessment processes and decisions;
3. Guaranteeing early triggering and effective scoping of assessments;
4. Ensuring effective post decision tracking, reporting, and compliance;
5. Embracing a learning orientation throughout the assessment, decision-making, and follow-up processes;
6. Making sustainability a core principle of assessment;
7. Incorporating the principles of meaningful public participation; and
8. Addressing climate change effects in EA.

These themes revolve around a few core or cross-cutting elements: the need for serious assessment processes at tiers of assessment higher than the project level — namely regional and strategic assessment — with feedback loops among the different tiers; the need to address the cumulative impacts of undertakings of all size and scale; and the need for improved institutional responsiveness and

[1] See Robert B. Gibson et al, (2015) "Fulfilling the Promise: Basic Components of Next Generation Environmental Assessment" at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2670009 and West Coast Environmental Law, "EA Reform Summit" (2016) at http://www.envirolawsmatter.ca/easummit.

governance to address issues of quality and rigour. We also understand that in next-generation EA, effectiveness, efficiency, and fairness are not competing objectives but are additive and interdependent.[2] These elements have been thoroughly explored and reinforced in the literature, so we simply note that this submission is intended to reinforce and build on that work.

The need – and opportunity – for better recognition of Indigenous jurisdiction and authority and Aboriginal rights, including Canada's commitments to implement both the Calls to Action of Canada's Truth and Reconciliation Commission and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), is an overarching theme of our work. Reconstructing the federal EA regime represents an important opportunity to create the possibility of reconciliation with respect to Indigenous peoples and territories by building in a respectful place for Indigenous participation in EA, but more importantly by respecting Indigenous authorities and jurisdiction in their own territories.

The other essential theme of our work is the challenge presented by climate change, also involving international commitments by Canada such as the Paris Agreement. Addressing climate change is a daunting problem. EA, and specifically sustainability and cumulative effects assessment, is an essential tool, especially if it includes effective strategic-level EA.

This report represents our best effort to use our collective knowledge, expertise, and experience to develop a common, public interest-based vision of truly effective federal EA with the time and resources available to us. This report details only that which we were able to discuss and develop approaches for in the time available, so it should not be considered comprehensive. We have attempted to cover what we consider to be the key issues in federal EA today, and we have tried to describe the components of a next-generation federal environmental assessment regime as an integrated package. Different authors have 'held the pen' on each chapter of this report and there may be some differences in style, etc., but we have endeavoured to provide coherent and mutually complementary recommendations based on the consensus and collective experience and wisdom of our members.

It should also be noted that several members of the Caucus also sit on the Multi-Interest Advisory Committee (MIAC) appointed by the Minister of Environment and Climate Change to advise the Expert Panel. In some areas, where our recommendations have been largely accepted as consensus by the MIAC (notably in public participation), its report echoes ours.

Background

The Caucus is comprised of over 60 Environmental Assessment (EA) experts, practitioners, and other concerned citizens who have experience with, and share a common vision of, truly effective EA in Canada.

Since 1988, the Caucus has helped the Canadian government create and improve EA law, regulations, policies, and practices, and provide guidance to federal departments. At the same time, it has helped facilitate meaningful public participation in EA policy development and individual EAs. The Caucus also provides input, feedback, and analysis to member groups and the broader environmental community on developments and issues connected with EA law, regulations, and policy, and helps member groups to fit local initiatives into larger policy contexts. The strong communication between diverse member groups in all regions of Canada and the energy, knowledge, and "on the ground" experience of its members make the Caucus the most substantive and dynamic network of environmental assessment expertise in Canada today.

[2] "Fulfilling the Promise: Basic Components of Next Generation Environmental Assessment," *supra*, at 253.

Our thinking about what the next generation of EA should embrace is informed by our experience with the implementation of EA process at the federal level in Canada, but also provincial, Indigenous, and municipal processes. We have collectively participated in the original development of the CEAA, in many resulting federal EAs, in the development of the revision of federal EA through our participation on the Regulatory Advisory Committee, and in the court cases that have been brought around EA processes. Many of our members have also published reports, books, and journal papers about their experiences with EA processes in Canada and abroad, including about next-generation EA.
The Caucus met at the end of April to identify priorities for the promised review of federal EA processes; many Caucus members stayed on to participate in the EA Summit convened by West Coast Environmental Law, the results of which we endorse and support. This fall, the Caucus members worked on a series of discussion papers related to the themes that we had identified as priorities for the review process. On November 12-14th, we met to review those papers and elaborate and consolidate our collective recommendations on federal EA process reforms. Since then, we have worked on refining and finalizing the input provided here.

The document provides detailed recommendations along with context and rationale for them. *Key recommendations are highlighted in italics.* For reference purposes, we have summarized the key recommendations under each thematic area in Appendix I.

Theme 1: Multi-Jurisdictional Assessment

Multi-jurisdictional EA, in the context of federal EA reform, is about the relationship between the federal EA process and processes in other jurisdictions potentially affected by proposed activities, policies, plans or programs. The focus of discussion about multi-jurisdictional EA is often on the relationship between federal and provincial EA processes, but it is important to also consider relevant processes involving Indigenous communities and governments, as well as municipalities. The issue is further complicated by the need to consider not just project EAs, but also regional and strategic assessments.

An important starting point for the consideration of multi-jurisdictional EA is the jurisdictional question. Our position, as described below, is that any new or revised federal EA law needs to embrace a 'cooperative EA' approach with other jurisdictions. We start our discussion with an overview of federal constitutional jurisdiction relevant to EA, followed with some brief comments on the jurisdiction of provinces, aboriginal communities and municipalities.

Federal Jurisdiction

We need to consider federal jurisdiction at three key stages of assessment – in deciding whether to do an assessment, in deciding the scope of an assessment, and in post-assessment decision-making processes. With respect to the decision to carry out a federal assessment, any new EA law would need a trigger (see Theme 3: *Triggering and Scoping*, below) that gives careful consideration to the potential of a proposed activity to affect an area of federal jurisdiction. It seems clear that in principle, the federal government has the constitutional authority to carry out an assessment whenever a proposed activity has a realistic potential to affect an area of federal jurisdiction. We generally think of environmental impacts within federal jurisdiction to mean aquatic species, migratory birds, marine pollution, and Indigenous rights, but the list is, of course, much longer, including the release of toxic substances, transboundary effects such as climate change, effects associated with shipping, effects on navigable waters, and impacts on endangered species.

With respect to the scope of assessments, it seems unlikely in light of Supreme Court of Canada decisions in *Oldman*,[3] *Hydro Quebec*,[4] and *MiningWatch*,[5] and the more recent *Syncrude* decision at the Federal Court[6] (involving ethanol in fuel regulations under CEPA), that courts would impose limits on the scope of a federal assessment.

With respect to post-assessment decision-making, there is some uncertainty about the precise limits of federal jurisdiction, but it is clear that the results of the assessment need to lay a proper foundation for federal decision-making. If the assessment identifies clear impacts on areas of federal jurisdiction (whether they be biophysical or socio-economic), there is a solid basis for federal jurisdiction to take an integrated and comprehensive approach to addressing the impacts identified. Where an assessment clarifies that a proposed activity does not affect any areas of federal jurisdiction, there will be no basis for a federal decision. In short, the results of the assessment will necessarily shape the decision-making authority of the federal government.

It is clear that there is a significant gap between the perceived and real constitutional constraints on the federal government's ability to base its project, strategic (SEA), and regional (REA) assessment

[3] Friends of the Oldman River Society v. Canada (Minister of Transport) [1992] 1 SCR 3 https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/829/index.do
[4] R. v. Hydro-Québec [1997] 3 SCR 213 https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/1542/index.do
[5] MiningWatch Canada v. Canada (Fisheries and Oceans) [2010] 1 SCR 6 http://scc-csc.lexum.com/scc-csc/scc-csc/en/item/7841/index.do
[6] Syncrude Canada Ltd. v. Canada (Attorney General), 2014 FC 776 (CanLII) http://www.canlii.org/en/ca/fct/doc/2014/2014fc776/2014fc776.html?resultIndex=1

processes and post-assessment decision-making on the principle of sustainability. The gap between perceived and actual constitutional powers is particularly wide with respect to the scope of assessments and post-assessment decision-making.

For REA and SEA, there seems to be an implicit assumption that beyond the assessment of federal policies, plans, and programs, strategic and regional assessments can only be carried out with the cooperation of provinces. What has been missing from the discussion is a clear separation of the information gathering and assessment process from the decision-making process. Assuming that REAs and SEAs are primarily intended to offer appropriate background and context for valid federal policy-making and for project assessments and project decision-making, there is no reason to conclude that even a "federal only" REA or SEA would be challenged successfully on constitutional grounds, as long as the REA and SEA include issues within federal jurisdiction and are ultimately used to inform decisions that are within federal jurisdiction.

At the project decision-making stage (following a project assessment that may have considered the results of an REA or SEA) the critical question will be whether the issues raised in *Oldman* and *Syncrude* lead to a conclusion that the project decision is not a valid exercise of federal jurisdiction. Clearly, these two cases suggest that federal government has considerable latitude, but there will be limits that have yet to be clearly established by the courts.

Provincial, Indigenous, and Municipal Jurisdiction

Canadian provinces also enjoy broad and robust constitutional authority over EA. This jurisdiction is largely a reflection of the fact that our constitutional regime endows the provincial Crown with ownership of most public lands and resources. With this endowment comes legislative authority to regulate, among other things, in relation to "property and civil rights," "matters of a merely local or private nature," "mines and minerals," "non-renewable natural resources, forestry and electrical energy," "municipal institutions," and "local works and undertakings."

Indigenous jurisdiction and authority originate from Indigenous peoples' own legal orders. These legal orders draw their origin from Indigenous worldviews and cultural contexts. As part of reconciliation and nation to nation relationships, it must be recognized that Indigenous laws and legal orders predate contact with settlers and continue to exist today. Canada's Truth and Reconciliation Commission's *Calls to Action* require the recognition of Indigenous laws. Recognizing constitutional space for Indigenous laws and legal orders in environmental decision-making is an integral element of nation to nation and reconciliation dialogues. This includes the collaborative development of specific legislative proposals that uphold Indigenous laws and jurisdiction in Western environmental decision-making.

Within the Western common law tradition, the jurisdiction of 'Aboriginal peoples' as defined in the Constitution of Canada flows from unextinguished aboriginal rights and title (including inherent title and governance rights), modern (land claims and self-government) treaties, section 35 of the Constitution, and relevant legislation.

Municipal jurisdiction is passed on by provinces. Municipalities can therefore not have jurisdiction over issues that are within the exclusive realm of the federal government. Given the broad range of provincial powers with respect to environmental matters, this will rarely (but sometimes) limit or inhibit municipal engagement. More practically, municipalities only have jurisdiction over matters within the jurisdiction of provinces, and only to the extent that the province delegates jurisdiction to the municipality over a particular subject matter. Subject matters commonly passed on to municipalities include planning, public transportation, waste and water management, and the general health and welfare of its inhabitants.

Jurisdictional Cooperation

Having set the stage from a jurisdictional perspective, we now consider how jurisdictions should cooperate with respect to EA. The approach that offers the best combination of efficiency, effectiveness and fairness is one that ensures one process that considers the full range of impacts, benefits, risks and uncertainties, that actively engages all affected jurisdictions, and that retains responsibility for project decision-making and oversight over implementation and compliance with each affected jurisdiction. We refer to this as 'cooperative EA', and define it as follows:

> A cooperative EA requires all affected jurisdictions to carry out an EA cooperatively, with all jurisdictions actively involved in the design of the process, its implementation, decision-making, and post EA follow-up.

It is our position that cooperative EA is the preferred approach to multijurisdictional EA, that it offers the best combination of efficiency, effectiveness and fairness, and that it therefore should be used where possible. We recognize that conditions may not always be such that a cooperative approach with all affected jurisdictions is possible. Alternative approaches include opportunities for:

- Each jurisdiction to carry out its own EA process in line with its jurisdiction, expertise and/or interests.
- Jurisdictions to agree on the scope and process, with only one jurisdiction carrying out the EA process. Each jurisdiction then uses the results of the EA process for its own decision-making and post EA follow-up.

In addition, there are approaches that have at times been proposed and/or used that we would reject outright:

- Any delegation of decision-making;
- Any delegation of responsibility for ensuring compliance or effective implementation;
- Substitution, whereby one jurisdiction carries out an assessment without the active involvement of other jurisdictions with decision-making responsibility; and,
- Any combination of processes that result in only partial consideration of the impacts, benefits, risks, and uncertainties of proposed projects and activities.

Federal EA legislation should clearly establish that the default and preferred process is 'cooperative EA', in which all affected jurisdictions are actively engaged in the process design, in ensuring the scope includes all issues relevant for sound decision-making in the process itself, and in post EA decision-making and follow-up. Concerns about efficiency of cooperative EA are best addressed through efforts to improve the efficiency of multi-jurisdictional cooperation.

Avoiding Substitution and Equivalency

As should be clear from the above, the vision of cooperative EA we are recommending does not include deviation away from a cooperative approach in favour of approaches that promote substitution and equivalency. There are a long of list of reasons for this; we canvass some below and suggest that a number of scholars have considered these issues in their writing and draw like conclusions about the utility of these approaches[7,8,9,10]

[7] Jason MacLean, Meinhard Doelle, and Chris Tollefson. "Polyjural and Polycentric Sustainability Assessment: A Once-in-a-Generation Law Reform Opportunity" (August 15, 2016). (2016) 30:1 *Journal of Environmental Law and Practice*, Forthcoming. Available at SSRN: https://ssrn.com/abstract=2839617

[8] Patricia Fitzpatrick and A. John Sinclair. "Multi-jurisdictional environmental assessment" In *Environmental Impact Assessment: Practice and Participation*. Third edition, K.S. Hanna (ed.). Toronto: Oxford University Press, 2016. pp. 354-372.

i. The public has little faith in substituted EA processes and has not been convinced of the value of this process option. The public has even less faith in equivalency – since they are often highly suspect of the EA processes considered for equivalency (e.g., provincial), due in part to the higher potential that provincial decision makers will be blinded by short-term benefits of proposed projects that can directly affect their immediate re-election prospects.

ii. Scientists and EA experts within federal and provincial departments bring at least some expertise to the review of proponent EA documents. If you take away review by federal scientists and officials the whole process suffers. Ensuring such review adds to the "public trust" that the Expert Panel has been tasked with restoring in federal EA. While s. 20 of CEAA 2012 requires federal authorities with expert knowledge to provide information "upon request" for substituted processes, we know from past cases that this is very unlikely in a provincially-lead assessment.

iii. Substitution will NOT make things more efficient from a proponent perspective. We believe that in cases where substitution eliminates the federal level of assessment, regulatory agencies such as DFO will be under pressure to create a "duplicative process" to obtain the information they need to issue authorisations.

iv. Under a substituted process, the Minister's advisors from the Agency/Authority and from other departments will not have the same level of knowledge about the project under consideration and its environmental effects as they would have in a "cooperative assessment" where they are fully engaged throughout the process. Consequently, the Minister and in some cases Cabinet may not be as well informed as they should be. This could result in decision delays and in the case of controversial projects (and many conducted under CEAA 2012 fit that category), in added pressure on the Minister to turn down projects that have been approved by a provincial EA, due to insufficient information and understanding.

v. In some assessments, it is important to have information about federal policies, laws, regulations etc. There will be little public confidence in the process if this information is forthcoming from the proponent or the province and not directly from the federal government. The Prosperity Panel documents note some of the problems the panel had during the review when the province conducted its own assessment in parallel with the panel review and did not participate in the hearings – the same happened in Manitoba with dams and floodways.

vi. The Expert Panel's discussion document asks, among other things, "How to ensure that environmental assessment legislation is amended to enhance the consultation, engagement and participatory capacity of Indigenous groups in reviewing and monitoring major resource development projects?" We doubt how much trust Indigenous people will place in a substituted process with a province and whether the federal government can really fulfil its Constitutional obligations to Indigenous peoples with a substituted process.

In noting these points, we agree fully with the notion of "one project – one assessment", which in our view should be taken to mean one cooperative assessment. In Theme 2 of this submission we outline an institutional structure that we think would be best for implementing the cooperative approach we envisage.

[9] A. John Sinclair, Gary Schneider and Lisa Mitchell. "Environmental impact assessment substitution: experiences of public participants," *Impact Assessment and Project Appraisal*, 30:2 (2012), pp.85-94.
[10] Meinhard Doelle, The Federal Environmental Assessment Process: A Guide and Critique. Markham: LexisNexis Butterworths, 2008.

Theme 2: Structure of Assessment Regimes

The need to address sustainability and cumulative environmental impacts in EA calls for an assessment regime structure that strengthens the focus on strategic and regional level assessment, in addition to improving project assessment. We suggest an institutional model that could help fulfil the requirements of next-generation EA, and identify where the responsible authority is housed for each level of assessment and what decisions they should be making. We also have specific observations and recommendations regarding what needs to be in place in law, regulation and guidance to make strategic and regional assessment work, and to be effectively linked to project assessment.

A New Model

Figure 1 captures a possible governance model that we are proposing for the structure of the assessment regime. As the model suggests, and as discussed below and elsewhere (see Theme 3, *Triggering and Scoping*), next-generation environmental assessment legislation needs to clearly set out triggers for regional, strategic, and project EAs. We are also suggesting that regional, strategic, and project EAs could be triggered by petition to the Minister by the public, Indigenous peoples, and other governments, and by recommendation by an expert committee.

At the core of the model is a central federal Assessment Authority responsible for initiating and reviewing all levels of EA (regional, strategic, and project EAs). This body would be the federal responsible authority for all EAs, including those currently conducted by the National Energy Board (NEB) and Canadian Nuclear Safety Commission (CNSC). The Authority could be replaced by regional co-governance boards upon agreement by the Crown and Indigenous governments. The Authority would be responsible in the first instance for developing the terms of reference for the SEA, REA or project EA (PEA), in collaboration with Indigenous and provincial governments wherever possible.

Once the terms of reference are set, the assessment itself can commence. In the case of regional assessments and, at the request of a minister, strategic EAs, assessments would be conducted by temporary expert bodies, referred to here as "Assessment Councils", as shown in Figure 1, which are comprised of government, Indigenous and outside (e.g., from academia, consultancies and NGOs) appointed on a case-by-case basis by all involved jurisdictions collaboratively. In the case of PEA, an Assessment Council would conduct the EA, under the supervision of the Assessment Authority. The project proponent would be charged a fee.

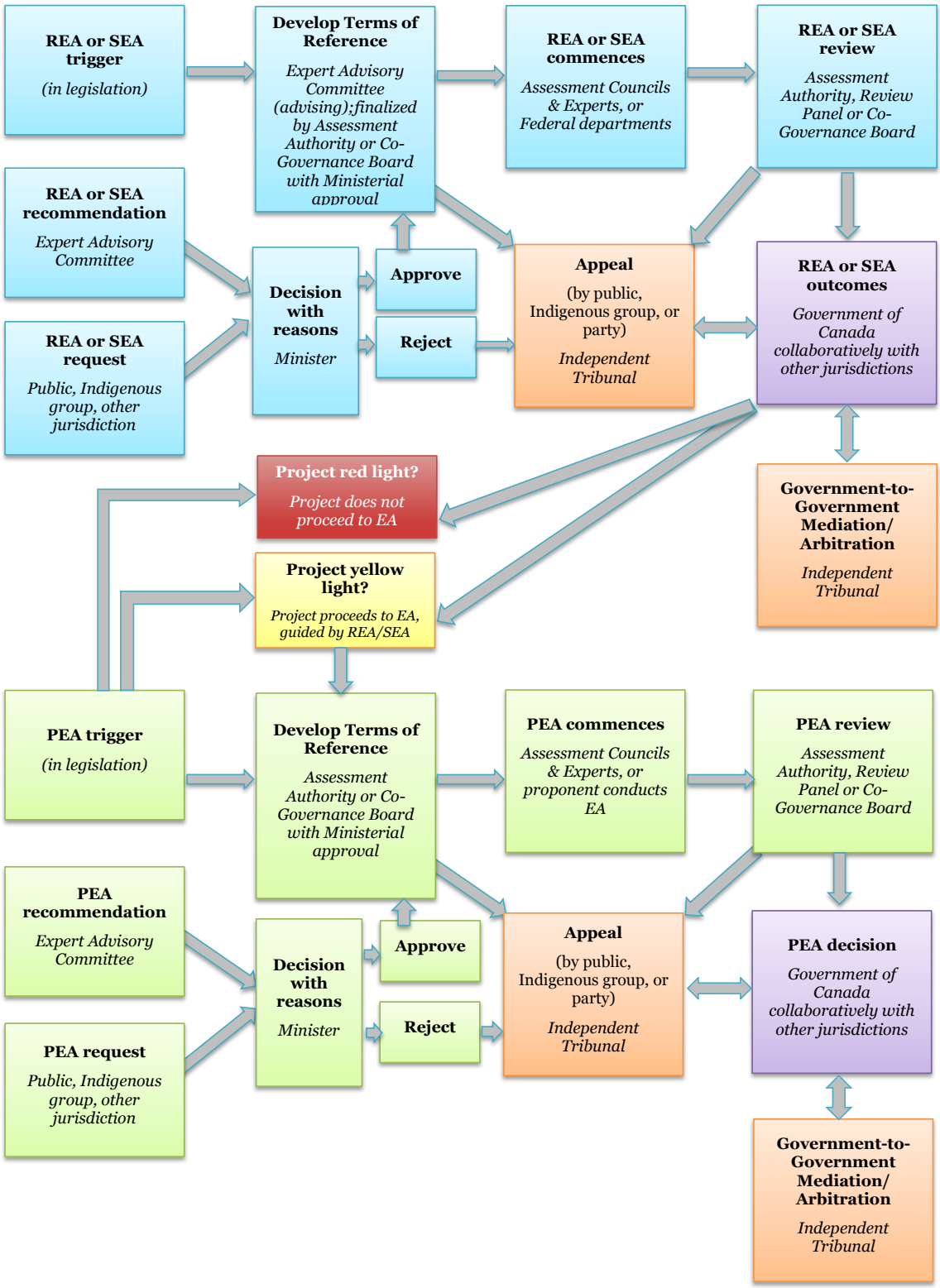
REAs, SEAs and PEAs would be reviewed by the Assessment Authority, a review panel appointed for the purpose, or a co-governance board. The reviewing bodies would make recommendations to decision-makers, with final decisions made collaboratively by all relevant jurisdictions. Decisions made at all levels would feed back to the earlier stages in the process (e.g., Terms of Reference and review) to ensure that a cycle of learning is developed for subsequent EA processes and that decisions from higher-tier REA and SEA filter down to PEA (this cycle of learning is captured in part in Figure 1 with arrows linking REA or SEA outcomes to the initiation of a PEA).

As mentioned in other Themes of this report, there needs to be a clear right of appeal in the legislation for both process (interim) and final EA decisions. We recommend the establishment of an independent tribunal to hear appeals of all SEA, REA and PEA decisions, as well as such matters as whether public participation has been meaningful, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) appropriately implemented, and sustainability criteria and trade-off rules correctly applied. The tribunal should also be authorized to set up and oversee mediation or arbitration for government-to-government negotiations where governments are not able to come to consensus on process or final decisions.

Finally, we recommend the establishment of an independent Expert Advisory Committee to provide strategic advice and assistance on all aspects and levels of EA, including when REA and SEA should occur, terms of reference, and policy and guidance.

As noted in Theme 1, *Multijurisdictional Assessment*, above, the preferred approach to multijurisdictional EA is cooperative EA. This model therefore encourages and facilitates federal collaboration with provincial and Indigenous jurisdictions and the meaningful engagement of co-governance boards and local governments. The discussion below assumes, at the very least, cooperative EA with Indigenous governments.

Figure 1: Regional, strategic, and project EA processes



Institutional Structure

The model we are suggesting includes the following institutions:

Assessment Authority

This permanent body, housed within the federal government, would review regional, strategic and project-level assessments that do not go to a review panel and where co-governance boards have not been established. Where co-governance boards have been established, the Authority would provide a "bridge" between the boards and the federal government, and retain authority over any implications or effects beyond a provincial scale. It could also provide secretariat support for the Expert Advisory Committee, review panels and Assessment Councils, and facilitate government to government collaboration on environmental assessments. Its functions could include:

a) Establishing guidance for implementing Indigenous and public engagement in all levels of EA;

b) Informing and engaging the public, Indigenous peoples, local governments, and industry in regional and strategic assessments, and facilitating that engagement in assessments reviewed by review panels or commissioners;

c) For all levels of EA that do not go to a review panel, appointing and directing Assessment Councils and reviewing the EA, in collaboration with other jurisdictions;

d) Serving as a secretariat to support review panels;

e) Managing contracts with external experts;

f) Serving as a secretariat for representatives of the Government of Canada in government-to-government negotiations with Indigenous Peoples on mutually agreed-on processes, decisions, guidance, and agreements, such as:

    a. Government-to-government agreements to conduct collaborative or parallel assessments;

    b. Terms of reference for regional, strategic and project EAs;

    c. Measurable management objectives for valued components and systems, and their spatial application within each Indigenous Nation's territory and broader region, where applicable; and

    d. Decisions regarding whether a project or undertaking should be allowed to proceed and under what conditions.

g) Implementing follow-up obligations, such as:

    a. Tracking of predictions, commitments, obligations, conditions and processes, and initiating changes as appropriate;

    b. Evaluating prediction accuracy, monitoring sufficiency and efficacy, mitigation effectiveness and adaptive management plans;

    c. Collecting and reporting all data and evaluations relevant to EAs and follow-up; and

    d. Investigating and remedying non-compliance.

h) Supporting the Minister under enabling legislative provisions to enact federal regulations and develop policy to further the purposes and goals of federal EA.

Co-Governance Boards

Cooperation should be the ultimate goal for conducting collaborative EAs (see Theme 1, *Multijurisdictional EA*). One approach to facilitating jointly managed assessment between the federal

government and Indigenous peoples, would be through encouraging, in legislation, the establishment of regional co-governance boards in each province. (Existing co-management bodies established under modern treaties/land claims agreements would continue to operate within their own jurisdiction, including in the territories.) Such boards would be empowered through federal legislation and be served by an equal number of commissioners nominated by Indigenous peoples' organizations and the Crown, with one of each serving in a co-chair role, and staff to help carry out its functions.

The boards would be explicitly empowered to seek and implement solutions that uphold the respective jurisdiction, authority and laws of all levels of government including Indigenous governments. They would also be empowered to serve the functions of the Assessment Authority that are not national in scale, such as:

a) Informing and engaging the public, Indigenous peoples, local governments and industry in regional and strategic assessments, and facilitating that engagement in assessments reviewed by review panels or commissioners;

b) For all levels of EA that do not go to a review panel, appointing and directing Assessment Councils, and reviewing the EA in collaboration with other jurisdictions;

c) Serving as a secretariat to support review panels;

d) Managing contracts with external experts;

e) Implementing follow-up obligations; and

f) Serving as a secretariat to review panels and government-to-government negotiations between representatives of the Government of Canada and Indigenous peoples on aspects of EA of a regional or EA-specific nature. For example:

    a. Terms of reference for REA and SEA, including a range of plausible scenarios (for protection of valued components and pace and scale of development in the region);

    b. Terms of reference for PEA, consistent with the management objectives and plans established through regional and strategic environmental assessment; and

    c. Decisions regarding whether a project or undertaking should be allowed to proceed and under what conditions (this duty may also remain with the Assessment Authority).

Review Panels

As with project-level EA, regional and strategic assessments will vary in size and degree of public interest. Responsibility for larger-scale, more complex or more controversial assessments at all three levels should be vested in review panels. Where co-governance boards exist, those boards would appoint the review panels; in regions without co-governance boards, such appointments would be made by the Minister in collaboration with other relevant jurisdictions (Indigenous, provincial, and territorial), with the advice and support of the Assessment Authority. The required expertise of review panel members may be established in legislation, regulations, or guidance as appropriate. The responsibilities of the review panels would be similar to those of panels under the current legislation, and would include:

a) Reviewing project EAs, scenario-based assessment reports, and the results of regional cumulative effects assessments;

b) Identifying any information gaps and commissioning outside expert assistance as needed;

c) Conducting public and Indigenous engagement; and

d) Making recommendations, based on the above and on the sustainability criteria discussed in Theme 6, *Sustainability Approach to EA*, for the consideration of federal, provincial, territorial and Indigenous governments and land claims and treaty-based EA processes as applicable.

Assessment Councils

Assessment Councils, formed for the purposes of an REA, SEA or PEA, would be comprised of scientific and Indigenous experts with experience relevant to the assessments from the federal government, Indigenous governments, and provincial governments (where applicable), as well as any outside experts necessary to fill knowledge gaps and provide the best available information.[11] Their responsibilities would include:

a) Conducting an REA, SEA or PEA (see "REA or SEA commences" and "PEA commences," in Figure 1) (as distinct from reviewing the assessment, i.e. evaluating predictions and making recommendations).

b) Compiling and, where necessary, conducting research to establish baseline scenarios that reflect the historic range of variability in ecosystem conditions for valued components and systems based on best available scientific and Indigenous knowledge;

c) Undertaking periodic broad-scale assessments of the condition of valued components and systems in regions;

d) Conducting technical aspects of regional and strategic environmental assessment, including independent assessments of multiple scenarios for the protection of valued components and systems and the pace and scale of development in a region, including a comparative evaluation of the net contribution to sustainability of each scenario;[12] and

e) Producing scenario-based regional and strategic assessment reports for consideration by the reviewing body.

Expert Advisory Committee

To encourage the best available minds and expertise to guide SEAs and REAs and ensure the learning and knowledge gained through these is reflected in project EA, a legislated national advisory body comprised of leading scientific and Indigenous experts should be appointed to provide strategic and expert guidance to the Minister. In order to help ensure that it is comprised of the top experts from a spectrum of subject matters, this body should be a legislated independent committee modelled after COSEWIC, with members appointed by the Minister for four-year terms. Like COSEWIC, it would elect a chair, govern its operations and procedures, meet periodically, and between meetings its members would undertake work identified as needed. Importantly, this Committee would not be an interest or stakeholder-based Committee (the Minister may wish to separately appoint an interest-based committee, like the former Regulatory Advisory Committee, to serve an advisory role). Membership, expertise, and terms of appointments governing such a committee would be detailed in the legislation, similar to COSEWIC.[13]

Its responsibilities would include such activities as the following:

a) Recommending criteria for when strategic and regional assessments that are not already required under federal legislation should be undertaken;

b) Considering requests from the public, Indigenous peoples, provincial, and local governments and industry to conduct strategic and regional assessments;

[11] To facilitate the retention of experts and prevent delays, bureaucratic requirements (such as the need for Treasury Board approval) should be addressed and mitigated at the outset.
[12] A more complete list of legislative requirements for such an assessment might include: a) recommended actions to mitigate negative effects on valued components from past, present and reasonably foreseeable future development; b) an analysis of how different climate change scenarios are anticipated to affect valued components; c) an analysis of uncertainties in knowledge and how the precautionary principle has been applied in the face of such uncertainties; d) an explicit analysis of interactions among impacts and trade-offs between valued components in each scenario; e) a comparative evaluation of the net contribution to regional sustainability of each scenario.
[13] *Species at Risk Act,* SC 2002, c 29, s 16.

c) Identifying, based on information and their own knowledge and expertise, the need for strategic-level EAs not required under the legislation, and to advise the Minister of Environment and Climate Change on the need for strategic and regional EAs and their scope;

d) Providing guidance to decision-makers and review authorities on strategic and regional EA terms of reference;

e) Helping draft sectoral template terms of reference;

f) Providing recommendations on scientific standards for various stages of EA

g) Recommending strategic and regional EA review panel members or commissioners;

h) Identifying and recommending experts for the Assessment Council to conduct regional and strategic EAs;

i) Reviewing and providing advice on regional and strategic EAs; and

j) Providing additional advice and expertise to the Minister and Indigenous and provincial (where appropriate) governments as needed.

Independent Tribunal[14]

This tribunal would be a dispute resolution body for regional, strategic and project-level environmental assessments. The functions of the tribunal could include:

a) Mediating and, where necessary, arbitrating where consensus cannot be reached between federal, provincial, territorial or Indigenous governments on any of the above;[15]

b) Hearing appeals from any interested party;

c) Conducting investigations and audits to ensure compliance with any provision of the Act or the regulations, and for other overall quality assurance; and

d) Making related remedial or enforcement orders binding any party, including the Crown.

Conduct of EA

For strategic EAs of plans, policies and programs (those currently governed by the Cabinet Directive), assessments would be conducted by the relevant federal departments and agencies and sent to the Assessment Authority for review.

For the conduct (as distinct from EA review) of regional EAs and some strategic EAs (e.g., the more proactive strategic assessments of major, complex and controversial policy issues, such as Canada's pursuit of oil to tidewater, or the pace and scale of development in regions with concentrations of mineral deposits), we propose the assembly of temporary, *ad hoc* Assessment Councils by the Assessment Authority, co-governance board or review panel for of EA. At the project level, an Assessment Council would conduct the EA, and the project proponent would be charged a fee.

Recommendations for Implementation

This proposed model is designed to allow key recommendations to be implemented:

[14] This tribunal could have a broader mandate than just environmental assessment; e.g., it may also be tasked with handling appeals and disputes under the *Fisheries Act* and *Navigation Protection Act*.
[15] Outcomes must be consistent with both Canadian and Indigenous law, and in government mediation and arbitration, all parties must agree to go before the Tribunal.

1. *One central authority housed within the federal government should have national-level EA responsibilities (such as providing policy guidance), as well as responsibility for all aspects and levels of EA in regions that do not have co-governance boards.*
2. *Strategic, regional and project-level EAs should be governed collaboratively by all relevant jurisdictions wherever possible and by co-governance boards where they are established.*
3. *In the absence of provincial cooperation, the federal government, in collaboration with Indigenous jurisdictions, should still proceed with regional and strategic EAs where appropriate, including where needed to inform project EAs.*
4. *The federal government should ensure all assessments are designed and conducted on a nation-to-nation basis with Indigenous nations.*
5. *At the federal level, strategic and regional EAs will likely fall under the primary responsibility of the Minister of Environment and Climate Change (the Minister), but may also involve other federal authorities such as the Ministers of Natural Resources, Fisheries, Science, Transport and INAC.*
6. *There should be a legislated, federally-appointed, independent Expert Advisory Committee, comprised of scientific and Indigenous experts who provide strategic advice to the Minister about REAs, SEAs, project EAs and related matters.*
7. *Strategic and regional EAs should be conducted by external and internal (government staff) experts.*
8. *While reactive EAs of government policies, plans and programs currently governed by the Cabinet Directive on Strategic EA may still be conducted by federal departments and agencies, they should be reviewed by a central authority.*
9. *Proactive strategic assessments of major, complex, and controversial policy issues (e.g., regarding Canada's pursuit of oil to tidewater, or the pace and scale of development in regions with concentrations of mineral deposits, such as the Ring of Fire in Ontario and Golden Triangle in British Columbia) should be carried out by review panels.*
10. *While reviewing bodies should be responsible for reviewing assessments and drafting resulting plans, decision-making should rest in the hands of federal (and provincial, where applicable) elected representatives and Indigenous governments collaboratively.*
11. *Secretariat support will be required to assist the Expert Advisory Committee, review bodies, and decision makers.*
12. *An independent tribunal should be established to hear appeals and resolve disputes regarding strategic, regional and project-level EA.*
13. *EA, and especially regional and strategic EA, should be a consensus-building exercise with a strong focus on public participation, mutual learning, and Indigenous engagement.*

Summary

The growing necessity to address cumulative environmental impacts in EA and to proactively seek out sustainable outcomes calls for a strengthened focus on the strategic and regional levels. Under our suggested model, strategic and regional assessments would not only provide a forum for policy-level discussions to take place at appropriate scales, but should at the same time provide guidance to subsequent project-level EAs (including to project proponents) and better enable EA to serve as a planning tool.

To date, in spite of successful *ad hoc* efforts, systematic incorporation of strategic and regional processes into EA, as well as collaborative assessments with all relevant jurisdictions (federal,

Indigenous and provincial), remain elusive. Moreover, the vesting of authority for some EA reviews in the National Energy Board (NEB) and Canadian Nuclear Safety Commission (CNSC) has proven problematic in fundamental ways that in our view cannot be fixed by improving those institutions. For one, there are great inconsistencies in the processes used by the three responsible authorities. Perhaps more importantly, the NEB and CNSC are regulators without the relevant mandate or impartiality to undertake the sort of fair, public, planning-based process that good EA requires.[16]

Canada needs one central, independent and trustworthy authority to govern all EAs it undertakes at all levels, with the additional power to appoint regional co-governance boards where possible with provincial and Indigenous governments. Additionally, our proposed establishment of an independent tribunal would help adjudicate disputes, facilitate government-to-government relations, and provide quality assurance reviews of the federal EA regime and bodies. And, while this body may be busy at the outset, as it sends signals of acceptable process to governments, proponents and the public, its work will be greatly reduced. An expert advisory committee could provide strategic guidance on such matters as when regional and strategic EAs should be conducted (in addition to legislative triggers for REAs and SEAs), terms of reference, appointing review bodies, scientific standards, conduct of EAs, and more. Finally, ad-hoc "Assessment Councils" comprised of federal and Indigenous (as well as provincial, where applicable) experts, as well as experts from outside government, can be appointed on a case-by-case basis to conduct (do the data-gathering on) regional and strategic EAs.

As discussed in more detail under Theme 1, *Multi-Jurisdictional EA*, the federal institutional structure must permit and encourage collaborative EA processes. Given the Canadian constitutional framework, as well as inherent Indigenous jurisdiction and the federal government's obligations under the United Nations Declaration on the Rights of Indigenous Peoples, our proposed model facilitates and encourages collaboration with provincial and Indigenous jurisdictions, land claims and treaty-based authorities and local governments. All parties (governments, the public, proponents and the environment) stand to benefit when jurisdictions collaborate.

[16] See, e.g., Meinhard Doelle, "CEAA 2012: The End of Federal EA As We Know It?" (2012), 24 JELP 1, at 9, and Richard D. Lindgren, "Going Back to the Future: How to Reset Federal Environmental Assessment Law – Preliminary Submissions from the Canadian Environmental Law Association to the Expert Panel regarding the *Canadian Environmental Assessment Act, 2012* at 14-16: http://www.cela.ca/sites/cela.ca/files/1083-CELA%20Preliminary%20Submissions%20to%20the%20Expert%20Panel%20(Nov%207,%202016).pdf.

Theme 3: Triggering and Scoping

Project Assessment: Complementary Comprehensive and List-Based Triggering

The Caucus has always advocated, as a matter of principle, that all proposed projects, programs, and policies requiring a federal decision or that affect the national interest in terms of the environment, be assessed. This does not necessarily mean that a next-generation law would require mandated processes for assessments in all circumstances. The list-based approach under CEAA 2012 has meant that few projects (roughly 25 to 50) are assessed annually compared to the several thousand assessed annually prior to 2012 under CEAA 1992. As a result, no federal (or provincial) assessments were conducted at all for many important projects having adverse environmental effects.

The Caucus proposes a model for triggering undertakings (i.e., projects and activities) that combines the list-based approach taken in CEAA 2012 and the decision-based approach taken in CEAA 1992.

Mandatory Assessment List of Undertakings

First, assessments should be legally required for undertakings included in categories set out in a regulation similar to the current CEAA 2012 regulation. This list of undertakings requiring assessment (mandatory assessment list) would be expanded to include categories of undertakings such as *in situ* oil sands projects, projects with GHG emissions that exceed a defined threshold, or other projects for which a federal assessment is deemed to be in the national interest. Recommendations for additions or deletions to the mandatory assessment list would be made by an expert advisory committee or multi-interest advisory committee based on a "national interest" determination to the Minister of Environment and Climate Change.

A key advantage of the mandatory assessment list is that proponents are afforded certainty that given projects are required to be assessed (or not).

Decision-based Triggering

Second, a modified version of the decision-based triggering approach employed in CEAA 1992 should be used in addition to the mandatory assessment list of undertakings. As noted in the Background to this section, the four decision-based triggers in CEAA 2012 included the federal proponent, federal land disposition, federal funding and federal regulatory triggers.

Undertakings likely to have an adverse environmental effect and requiring a federal decision would be required to be registered. Registration is critical in determining assessment level, and in tracking permitting and execution or implementation, through monitoring, follow-up, and quality assurance programs. Registrations should include public notice and be made available on a searchable public registry. Undertakings on the mandatory assessment list would also be registered.

The following are the decision-making triggers that would be included in the next-generation assessment law:

1. ***Undertakings requiring a federal regulatory decision:*** Assessments would be required prior to federal regulatory decisions under such statutes as the *Fisheries Act*, *Navigation Protection Act, Species at Risk Act* and *Migratory Birds Convention Act.* Statutory and regulatory provisions that would trigger an assessment would be listed in regulations similar to the *Law List Regulations* under CEAA 1992.

2. ***Undertakings receiving federal funding:*** Assessments would be required for federal financial investments in undertakings. Strategic environmental assessments with guarantees of public engagement, transparency and accountability could be used to assess the impacts of infrastructure programs that provide federal funding to a wide variety of undertakings.

3. ***Federal land dispositions:*** Few environmental assessments were triggered by CEAA 1992's land disposition trigger partly because of the difficulty in determining whether or not any given land disposition was undertaken for the purposes of enabling a project to be carried out. An assessment under a next-generation law should be required prior to the sale or transfer of an interest in federal land, regardless of the purpose.

4. ***Undertakings with a federal proponent:*** If a federal department or a Crown corporation proposes a development or activity for its own use (e.g., building a new headquarters in a wetland), that undertaking should be required to be assessed. Smaller projects and activities proposed by a federal department or Crown corporation could be addressed through a sustainable development strategy assuming guarantees of transparency, accountability, and public participation, but bigger undertakings should be assessed under the next-generation law.

5. ***Undertakings in federal and internationally designated protected areas:*** Any proposed project or activity to be located in (or adjacent to) any federal terrestrial or marine protected area, including National Parks and National Wildlife Areas, should be assessed as a matter of law prior to federal approval of that project. Undertakings proposed to be sited on federal lands within the borders of internationally recognized natural areas such as World Heritage Sites, RAMSAR wetlands, and Important Bird Areas should also be assessed.

Provision would be made under the next-generation law to narrow the assessment and its scope and effort, or to exclude assessment of undertakings, as appropriate, using the appropriate tools:

(a) Class screenings, both model and replacement (these were never fully utilized under CEAA 1992);

(b) Regional environmental assessments (REAs) such that where a project is proposed for a region under an REA, proponent and administrative requirements could be reduced (see Theme 2: Structure of assessment regimes);

(c) Strategic environmental assessments (SEA) of proposed federal policies, programs, or plans such that where a project is proposed and SEA applies to the project or impacts, proponent and administrative requirements could be reduced. (see Theme 2, *Structure of Assessment Regimes*);

There should also be a rigorous and transparent process for "bumping up" projects or activities that are subject to class assessment, or that are excluded, to a more rigorous level of assessment.

The next-generation law should require an initial review and decision as to whether an assessment is necessary.

The initial review would start with the pre-posting of the proposal on the public registry as described above for projects subject to federal regulatory decisions, a reasonable comment period, and legislated criteria for the decision whether to require an assessment. As well, there should be a public petition mechanism to require an assessment of a project that falls into this category, a requirement to justify the decision against the legislative criteria, along with an opportunity to appeal to the Tribunal based on adherence to the legislative criteria.

Referral

The next-generation law should provide that a federal assessment is required as a matter of law for any proposed project or activity referred for assessment to the Minister of Environment and Climate Change by an Indigenous community or government unless the Minister publicly issues a determination with reasons within a specified time following that referral that such an assessment is demonstrably not in the public interest.

Further, the Minister of Environment and Climate Change should be required to refer for assessment any undertaking whose greenhouse gas emissions is likely to inconsistent with the achievement of Canada's domestic or international greenhouse gas emissions reduction targets or that is like to induce industrial development in a given region of Canada (See Theme 8*, Incorporating Climate Change into EA*, for rationale).

Early Triggering

Next-generation assessment legislation should mandate early triggering of project reviews and should be carefully designed to motivate all key actors (including government officials and proponents) to cooperate to trigger the process early.

A clearer and stronger version of the CEAA 1992 requirement should be used: that assessment be conducted early in the planning stages of a project not only before irrevocable decisions are made, but also any related decisions that are important to the public, local communities, and Indigenous peoples. To do this, a next-generation assessment law will have to clearly establish expectations for proponents and government to engage the general public, Indigenous communities and local communities well before project decisions are made (see Theme 7, *Principles of Meaningful Public Participation in Environmental Assessment and the Essential Steps to Getting There*).

Strategic and Regional EA Triggers and Tiering

Regional and strategic EAs are of crucial importance in identifying sustainability goals and pathways and providing project-level guidance for achieving those goals. It is important that regional and strategic EAs be tiered with project-level EAs so that each tier informs and guides the others: e.g., project EA should feed back into regional-scale cumulative effects frameworks; and regional and strategic EAs should guide where, how and when undertakings proceed, as well as when EAs should be required and the appropriate level of assessment for different types or classes of undertaking.

In addition to legislated requirements for project EA, the legislation should include triggers for regional and strategic EA, as well as require periodic updates to those EAs (e.g., every five years). Triggers should include:

1. ***For federal policies, programs, and plans:*** *The next-generation law should require assessments of proposed federal policies, programs or plans being advanced for Cabinet or ministerial decision (At present the Cabinet Directive on Strategic Environmental Assessment requires such assessments as a matter of Cabinet policy but not law).*

2. ***Where cumulative effects are significant:*** *The legislation should require regional EAs when cumulative effects in a region are significant or otherwise hindering progress towards sustainability.*

3. ***Where significant development is foreseeable:*** *The legislation should also establish a requirement for a strategic or regional assessment when the Minister is aware of efforts or plans to open*

significant development in a region (e.g., the Ring of Fire) or sector (e.g., LNG in BC) with the potential to impact progress towards sustainability objectives.

4. ***Where there are significant socio-economic or health concerns:*** *The legislation should also include a trigger for a regional or strategic EA when the Minister is aware of significant socio-economic or health concerns that may be linked to development in a region.*

Additionally, the legislation should establish a mechanism that would allow any person or government to trigger a regional or strategic assessment by submitting an application that meets prescribed criteria. It should also empower the Expert Advisory Committee (described in Theme 2, Structure of Assessment Regimes) to recommend to the Minister that regional or strategic EAs be conducted. Where an EA request has been made, the legislation should require the Minister of Environment and Climate Change (the Minister) to respond with reasons within a prescribed time limit and to proceed with the EA unless prescribed criteria are not met.

It is important that regional, strategic, and project EA be tiered, and that EAs at all levels be linked to regulatory permitting and information-gathering. *The legislation should require project EAs to be guided by EA outcomes at the regional and strategic levels, and for information collected at the project and regulatory levels to feed back into regional cumulative effects frameworks and periodic updates at the regional and strategic levels.* This is further discussion in Theme 2, *Structure of Assessment Regimes*.

Project Scoping

Federal authorities should not be afforded the discretion to split or otherwise down-scope projects in order to minimize assessment requirements or to avoid assessing the full range of impacts, benefits, risks and uncertainties of proposed projects by considering something less than what the proponent is proposing. In short, the next-generation law should protect against narrow project scoping, adhering to the spirit of the *MiningWatch* decision.

Background

Section 5 of CEAA 1992 governed what federal actions or decisions triggered an environmental assessment. Environmental assessments were triggered where a federal authority (FA)

- was the proponent of a project [proponent trigger];
- was providing financial assistance to enable a project to be carried out [funding trigger];
- was selling, leasing or otherwise disposing of federal lands [land trigger]; or
- was exercising a regulatory duty prescribed in Law List Regulation (e.g. issuing a permit, licence, authorisation etc. under the *Fisheries Act*, *Navigable Waters Protection Act, Migratory Birds Convention Act*) [regulatory trigger].

The CEAA 1992 approach was that all projects in the nature of physical works within federal authority required assessment ("in") unless specifically excluded ("out"). Projects that were physical works were excluded from assessment if they were listed on the Exclusion List Regulations. Activities not related to physical works were only assessed if they were listed in an Inclusion List Regulation.

Under CEAA 1992 there were four assessment tracks:

- screenings – individual, model class, and replacement class;
- comprehensive study – major type projects listed on the Comprehensive Study Regulations
- panel review – Minister decides, could be a joint panel review with a province/territory; and
- mediation (to our knowledge never formally used).

Where a project fell under a model class screening, the proponent only needed to adjust the class screening report to fit the particulars of the project. Where a project fell under a replacement class screening, the proponent needed only to establish that the project fit the class, then no further assessment was required (this was essentially a form of exclusion).

Roughly speaking, screenings were the least intensive review, comprehensive studies more intensive, and panel reviews, the most intensive. The vast majority of the more than 4000 assessments initially carried out annually under CEAA 1992 were screenings. Mediation was included in CEAA 1992 as an alternative to a panel review, but was never used formally.

A serious on-going challenge with CEAA 1992 was project scoping. The federal authority responsible for the EA (the responsible authority) scoped a project to assign an assessment track. To illustrate, in some cases it had to choose whether the project was an oil sands mine, or just the destruction of a stream associated with that mine. If the former, a comprehensive study review would be required, if the latter, a screening. A 2010 Supreme Court of Canada decision, *MiningWatch Canada v. Canada (Fisheries and Oceans*,[17] ("Red Chris Mine") determined that responsible authorities could not split a project into components and "down scope" it beyond the scope of the project as proposed by the proponent. More generally, it meant that an assessment of a project had to consider the whole project as proposed, not just a component that required federal regulatory approval. The effect of the *Red Chris* decision on project scoping was quickly undone through an amendment to the CEAA embedded in the 2010 budget bill, *The Jobs and Economic Growth Act.*[18] That provision gave the Environment Minister the power to limit the EA to one or more components of a project.

CEAA 2012 removed the four triggers employed under CEAA 1992. The Law List Regulations, Inclusion List Regulations (activities not connected to physical works that needed to be assessed), and Exclusion List Regulations were replaced by the Regulations Designating Physical Activities, which list project types subject to environmental assessment under CEAA 2012. The list is similar to the projects listed in the former Comprehensive Study List Regulations, with some important exceptions. As a result, some projects that were subject to a comprehensive study and essentially all projects subject to screenings under CEAA 1992, are no longer assessed. The effect of the changes to triggering has been to reduce the annual number of assessments from thousands to a few dozen. For example, from January 1 to December 31, 2014, only 23 assessments were initiated, according to the Canadian Environmental Assessment Agency site.

CEAA 2012 does not mention project scoping but that does not mean that the list approach has eliminated project scoping issues. One CEAA 2012 issue is whether the scope of a project may contain project aspects that go beyond the description of the designated activity. Also, it is not clear whether the RA may exclude aspects of a project that are included in the description of the designated activity. There are only two assessment tracks under CEAA 2012, regular assessment and panel review (ordered by the Minister).

Early triggering of assessments is a problem that has plagued EA both in CEAA 1992 and CEAA 2012. CEAA 1992 contained provisions that recognized the importance of early triggering. For example, section 11 required RAs to ensure that EA is conducted "as early as is practicable in the planning stages of the project and before irrevocable decisions are made." Often enough this did not happen, partly because by the time the RA was involved in a project the proponent was well into the project planning and development stage. CEAA 2012 does not carry forward the CEAA 1992 provisions regarding early triggering. In fact, the discretion to decide whether a project requires an assessment may provide further incentives under CEAA 2012 for the proponent to initiate contact with the CEA Agency late, once it has completed its work and is in a position to make its case that no assessment is needed.

[17] *MiningWatch Canada v. Canada (Fisheries and Oceans)*, [2010] 1 SCR 6, 2010 SCC 2.
[18] SC 2010, c 12 s 2155.

Theme 4: Post Assessment Decision Tracking, Reporting, and Compliance Assurance

Building public trust in EA processes is only possible if the commitments and obligations arising from the EA process result in meaningful tracking, reporting, and compliance assurance. Proponents typically make commitments through the EA process regarding mitigation, monitoring, and contingencies and corrective action. The EA can also identify follow-up work that should be done by either the proponent, the federal government, or other parties (such as provincial/territorial governments or non-government entities), including work needed to verify predictions and confirm mitigation effectiveness.

There must be assurance that the obligations and commitments made during hearing processes yield the expected results following the EA decision. To ensure this occurs, next-generation EA legislation should set out a more prescribed approach to implement the various follow-up obligations made in the EA process.[19]

How Should Tracking and Reporting Be Conducted?

Tracking and reporting of the results of EA must be done in an open and transparent manner. A registry of commitments and obligations with clear identification of responsible government departments or agencies, to be maintained by the EA Authority, is needed for this purpose.

The registry should include all commitments and conditions related to the project, not just those within direct control of federal decision makers. Tracking of follow-up and reporting on progress through the registry should be conducted by the Assessment Authority. This will require increased capacity to ensure timely tracking and sufficient technical capacity to review and evaluate obligations to ensure timely reporting and an objective assessment of reporting requirements (including conditions, mitigation programs, and adaptive management processes).

A next-generation EA law must ensure that the information required to assess, track, and report obligations will be made available to the tracking agency (the Assessment Authority) and to the public, through the registry, in a timely fashion. The type of information required and the timeline for disclosure may be set out in regulation. The need for timely tracking and reporting should be a principle embedded in the legislation. The timing of tracking and reporting of conditions will depend on the nature of the impacts that are the subject of conditions although a prescribed time (e.g. yearly) for reporting on progress is preferred.

There should be a legislative mechanism to allow individuals, RAs, and the EA agency to initiate specific tracking and reporting measures where there appear to be issues of non-compliance. Next-generation EA law should ensure that proponents are obliged to report any observed non-compliance event, as soon as it becomes aware of it. The responsible government authority and individual members of the public should be empowered to initiate an investigation into EA obligations and conditions at any time. These "triggered" compliance investigations should be accompanied by a requirement to provide a response in a prescribed time.

Tracking of Proponent Commitments and Federal Obligations

Commitments made during the course of EA reviews are deemed to be binding conditions aimed at a prescribed party. For this to occur it is important for the reviewing agency (Assessment Authority or

[19] It should be noted that CEAA 2012 included some provisions for enforcement and compliance; however, gaps in the follow-up system remain.

Panel) to ensure commitments are expressed in a clear and enforceable manner, and are specifically tracked in the EA decision-making process.

In this way proponent commitments, once made, become enforceable conditions on the proponent's federal authorisation. These conditions, being a component of the federal EA decision, need not be directly linked and constrained to the function of a duty of a responsible authority.

There should be an EA-specific authorisation, with conditions, in addition to other relevant federal authorisations.

Recommendations directed at federal departments should be framed in a clear and concise manner and should, once accepted by the relevant Minister, result in public reporting to track and assess compliance with the recommendation.

Tracking of Predictions, Mitigation, and Adaptive Management Plans

Project-based EA relies heavily on future performance to minimize environmental impacts. In this regard, mitigation effectiveness and addressing uncertainty through the ability to adapt through time (i.e. adaptive management and continuous improvement) are central components to "follow-up" programs.

The new EA law must create a system where this follow-up is transparent and accountable. To be effective, adaptive management and mitigation measures must be entrenched in a formal system of monitoring, evaluation, and have the ability to result in a change to management and regulatory responses.

Table 1 outlines the types of follow-up monitoring and reporting that should be undertaken.

Table 1: EA decision implementation – tracking and reporting of obligations

EA follow-up activity	Content	Agency/process
Tracking of predictions, obligations, conditions and processes	● Conditions ● Predictions ● Implementation of mitigation measures ● Adaptive management plan content ● Adaptive management plan implementation ● Tracking process and timelines	● Assessment Authority undertakes initial tracking ● Public right to comment on tracking content and approach ● Enable Authority and RA-initiated changes to tracking content/approach
Evaluation	● Prediction accuracy ● Monitoring sufficiency/efficacy ● Mitigation effectiveness ● Adaptive management plan evaluation ● Procedural fairness and effectiveness of programs and process	RA and/or Authority a) Standing review: evaluation and reporting at prescribed time intervals b) Triggered review: Regulation or policy prescribed process where RA/Authority decision or criteria based trigger Appeal is available to Independent Tribunal (Theme 3) a) Petition to RA/Authority b) Appeal to Tribunal
Reporting	a. Data must be open access b. Monitoring approaches/methodology must	Authority to administer the EA registry Reporting requirements should be

	be presented to allow for public evaluation of compliance c. Claims of confidentiality/proprietary interest in data, modelling and analysis must be prohibited and/or minimized	reviewable (to Tribunal)
Response/ remedy	a. Amend plans b. Amend conditions c. Suspend/revoke all or part of authorisation d. Order funding to third party e. Mediation – with public participation f. Administrative penalties and prosecutions (where conditions are violated)	Relevant RA or Authority will pursue remedies as appropriate. ● Regulatory/administrative orders, fines and/or prosecutions for non-compliance with conditions ● Planning and management amendments for mitigation and adaptive management failings Mediation may also be applicable in some circumstances but discussions and outcomes must be publicly available.
Learning	Mandatory feedback loops to Assessment Authority, RA, and those undertaking REA, SEA to inform: ● Future project conditions and assessments ● Mitigation effectiveness ● Adaptive management learning ● Monitoring needs and budgeting ● Policies and program ● Discretionary consideration of RA and relevant Minister(s).	Quality Assurance Agency in conjunction with RA and Authority.

Responses to Tracking, Evaluation, and Reporting

Next-generation EA law should outline prescribed and discretionary responses to the tracking process. Public reporting should be prescribed across all predictions, commitments, and obligations arising from the EA process. Additional responses will vary depending on the nature of the obligation. We recommend the following approach:

1. *Where there is non-compliance by a **proponent,** the relevant regulator or the Assessment Authority will have the discretion to issue an administrative order (including the ability to order additional information or study and directions to alter project management), issue a fine, augment conditions as deemed necessary, or pursue a prosecution.*
2. *Where there is non-compliance by a **federal department or agency,** that department/agency must report the status of work undertaken toward complying with EA obligations, the reasons for any delay or failure, and set out a detailed approach to remedy the situation.*
3. *Where there is non-compliance by a **provincial department or agency**, or other parties outside the regulatory control of the federal government, the incident of non-compliance must still be reported to the public. Any apparent reasons for non-compliance and the resulting impact of non-compliance should be included in the reporting. This reporting will provide learning for future approaches and EA processes and ensure transparency, which in turn will motivate provincial/territorial compliance (see "Learning" in Table 1, above).*

There may be opportunities where mediation is considered an appropriate process to resolve failures to meet EA obligations.

Information that is used to inform the mediation process and the mediated settlement should be made public on the registry.

Other Post-EA Decision Matters

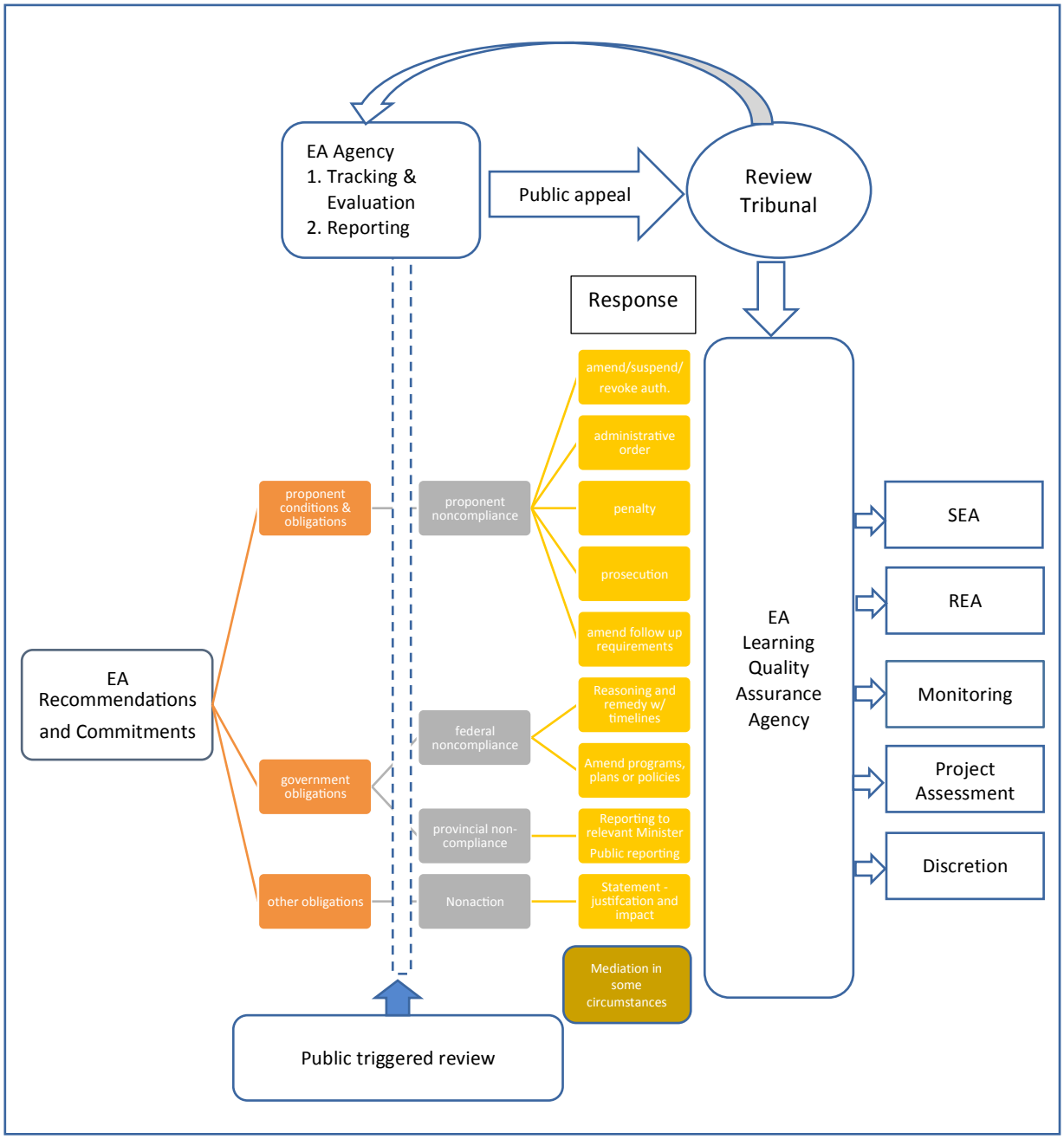
Authorisation and EA Lapsing

Where approved projects do not proceed within a reasonable time, next-generation EA legislation should prescribe a time period after which the results of an EA are considered lapsed and must be updated through a new EA (that can take previously conducted EAs into account). Where projects are initiated following delay, but before the EA has expired, there should still be opportunities to integrate, consider and evaluate new information and technologies.

Harmonized Monitoring Methodology, Data Collection and Reporting

In an effort to harmonize monitoring with other jurisdictions and community-based monitoring, project-based and regionally-based monitoring should be standardized to the extent feasible to ensure temporal and geographic consistency and integration.

Figure 2: Tracking and monitoring of follow-up obligations



Theme 5: Learning Oriented Environmental Assessment

In contrast to treating assessment as hoops for proponents to jump through to gain project approval, environmental assessment must be centred on learning, building a culture of sustainability, and serving the long- as well as short-term public interest. To achieve this, assessment processes need to facilitate collaboration with other authorities and meaningful public engagement from project/undertaking conception through follow-up and monitoring and any remaining potential effects. In fact, we contend that the current crisis in federal EA in Canada that underpins the current expert panel consultation was caused in large part through the lack of integration of learning in EA processes. This suggests that learning, and the potential for it, needs to be recognized throughout all components of the assessment process and across the levels of assessment: strategic, regional, and project. Four components of EA are, however, particularly important to fostering a learning orientation – public participation, knowledge development, monitoring of effects and regime evolution.

Public Participation

At least since 1995,[20] participation in environmental assessment has been recognized as a means to broad-based individual and social learning that could enable the transition to sustainability.[21,22,23] Relying on EA case experience and participation, Sinclair *et al.*[24] developed a conceptual framework related to learning in and about EA. 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 well-being. In this regard, next-generation assessment must build understandings, capacities, and motivations in all sectors and among all players.

To capture the potential for learning through participatory programs, assessment processes will need to:

- *establish that contributing to mutual learning is a responsibility for all assessment participants;*
- *detail relevant responsibilities, including providing opportunities for, and facilitation of, deliberative multi-stakeholder collaboration using the full range of methods in the participation toolbox – including opportunities such as scenario building and visioning, increased attention to alternate dispute resolution and increased advocacy for sustainability assessment by public interest interveners (i.e. implement the recommendations in Theme 6, Principles of Meaningful Public Participation in Environmental Assessment and the Essential Steps to Getting There);*
- *ensure strong linkages between improving the provisions, opportunities and support for public participation in next-generation assessment, on the one hand, and monitoring and review, on the other; and*
- *allow time for reflection on the implementation of other worldviews and processes in decision-making.*

[20] Webler, T., H. Kastenholz, and O. Renn. 1995. "Public participation in Impact Assessment: A Social Learning Perspective." *Environmental Impact Assessment Review* 15(5): 443–63.
[21] Diduck, A. P., & Mitchell, B. (2003). Learning, public involvement and environmental assessment: A Canadian case study. *Journal of Environmental Assessment Policy and Management* 5(3): 339–364.
[22] Sinclair, A.J., and P. Fitzpatrick. 2003. 'Provisions for more meaningful public participation still elusive in new Canadian EA bill'. *Impact Assessment and Project Appraisal* 20(3): 161–76.
[23] Palerm, J.R. 2000. An empirical-theoretical analysis framework for public participation in environmental impact assessment. *Journal of Environmental Planning and Management* 43(5): 581–600.
[24] Sinclair, A.J., A.P. Diduck, and P.J. Fitzpatrick. 2008. 'Conceptualizing learning for sustainability through environmental assessment: critical reflections on 15 years of research'. *Environmental Impact Assessment Review* 28(7): 415-522

Knowledge Development

Next-generation environmental assessment will place a heavy reliance on knowledge inputs of various kinds throughout almost all stages of the process, including (but not limited to): initial scoping and terms of reference; collection of baseline data; generating reasonable predictions about potential impacts; devising measures to mitigate adverse environmental effects or enhance positive ones; predicting the likelihood of adverse socio-ecological impacts or net socio-ecological benefits; predicting risk; designing and implementing monitoring programs; reviewing of EA statements and reports; and designing, implementing, reviewing and adjusting adaptive management programs.

Knowledge inputs will come through tradition Indigenous and non-Indigenous sources, science and other sources.

To reflect a learning orientation to generating knowledge, next-generation assessment law must:

- *require knowledge inputs from diverse sources before decisions are taken;*
- *recognize traditional and local knowledge as legitimate sources of information;*
- *guarantee that time is spent learning about community values and priorities;*
- *ensure that science is treated as just one source of knowledge, that it not just follow previously established templates, and that it involve both government and non-government scientists;*
- *dictate that knowledge is shared among all parties, explained in a way that can be understood by those involved and that vehicles are available to build capacity to help people to understand when they do not;*
- *establish ways to test and analyze the knowledge generated through fair & open processes; and*
- *allow opportunities to learn about Indigenous worldviews and laws – ascertaining how to learn about these is an example of taking nation to nation seriously.*

Monitoring of Effects

Follow-up properly includes monitoring, response to monitoring findings in environmental management, communication, and learning. As outlined in our recommendations on follow-up and monitoring (Theme 4, *Post EA Decision Tracking, Reporting, and Compliance Assurance*), such 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.

Monitoring programs, when done well, offer an opportunity for mutual learning beyond the assessment process. The iterative act of collecting data and reflecting on a project can lead to participant learning when the community is involved in the follow-up and monitoring activities. Proponents and regulators also have opportunity to learn as they continue engagement with the public, collect data, reflect, and adapt their management plans to better meet sustainability goals.

To ensure a learning orientation, EA monitoring programs must:

- *require mandatory monitoring and public reporting of effects in comparison with effects predictions overseen by the federal Chief Science Officer;*
- *report on the effectiveness of responses to emerging problems and opportunities;*
- *establish 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. If made available to all, such a resource could be used by all parties in the assessment community to improve future project, strategic and regional level assessments and decisions over time and to identify needs and opening for improvements to assessment law, regulation, and policy; and

- *involve the public in the design, implementation and delivery of monitoring programs.*

Regime Evolution

All parties to assessment and particularly administrative bodies must participate in assessment learning and regime evolution. Administrative bodies in particular need to monitor application of EA processes for successes and limitations, including strengths and deficiencies of impact predictions, aboriginal and public engagement, trade-off avoidance, compliance and effects monitoring and effectiveness of multi-jurisdictional activities. They would also 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.

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). Regularly updating and upgrading guidance material and reviews of individual regime performance and progress towards upward harmonisation within and across jurisdictions will also be required.

To achieve this, *EA legislation should include specific provisions for the ongoing assessment of quality assurance to ensure meaningful regime evolution. This would be accomplished through:*

- *providing the Independent Tribunal (see Theme 3: Structure of Assessment Regimes) with the power to consider all of the regime evolution issues noted above, with advice from the Expert Advisory Committee;*
- *establishing mandatory requirements for FAs and federal regulators to ensure appropriate reporting requirements are put on proponents so that the Tribunal can do its work;*
- *indicating under what circumstances it is appropriate to rely on other jurisdictions' mitigation conditions in regulatory approvals (Tribunal reports can inform this);*
- *creating a feedback and improvement mechanism so the same mistakes are not repeated;*
- *compelling FAs to comply with Tribunal improvement requirements (accomplished through a regulation, or Ministerial or Cabinet Directive), and;*
- *requiring Tribunal public reporting requirements of decisions, predictions, mitigation, follow-up, monitoring compliance, enforcement actions, and analyses data in a fashion that is easy to understand and interpret.*

Theme 6: A Sustainability Approach to Environmental Assessment

Sustainability assessment (SA) embraces a range of processes that all have as their broad aim to integrate sustainability concepts into decision-making. While this concept may not seem different from the aim of best-practice EA, by taking the concept of sustainability as its foundation, SA strives for greater breadth of coverage and integration of concerns than EA's traditional emphasis on the biophysical environment. Sustainability incorporates the social, economic, and biophysical environments, emphasizes their interconnections and interdependencies, and often includes consideration of resilience. Hence, SA is conceived as a fundamentally integrative process.

With the exception of some legislative retreats, such as CEAA 2012, EA has trended towards a more comprehensive consideration of diverse factors. As such, SA can be seen as a matured version of EA that fully accounts for the social, economic, and environmental pillars of sustainability. However, SA explicitly seeks to do more than assess the acceptability of a project or plan, and instead "[s]ustainability assessments have the double role of being vehicles for the general pursuit of sustainability and contributors to defining the specifics of sustainability in particular circumstances."[25,26]

As well, SA can be applied at the project, strategic and regional level. Many existing assessment procedures focus on single dimensions of sustainability, but most often these are conducted independently without regard to their inherent interrelations and without an attempt to integrate them into a larger vision of sustainability. The same often occurs with separate social, economic, and biophysical assessments conducted as part of a decision-making process. This tendency is exacerbated by the momentum of established assessment practice in which relevant experts are trained in one of the three fields, information is collected and categorized separately, and government agencies typically have mandates tied to only one sustainability dimension. This approach can lead to SA being primarily about balancing dimensions against one another via trade-offs.

Given prevailing alignments of power, if not carefully designed and implemented, SA practice, by combining environmental, social, and economic considerations, could end up sacrificing environmental protection in favour of economic growth, giving up the hard-won gains of decades of EA advocacy. But this outcome would be a distortion of a fundamental assumption of SA: sustainability of any one dimension is necessarily dependent on that of the others. Instead, SA practice seeks mutually beneficial outcomes among dimensions that together enhance sustainability. This expectation requires considering social, economic, and environmental factors concurrently and how they are mutually reinforcing and/or detrimental.

A sustainability assessment starts with articulation of sustainability criteria to guide decision-making. While numerous broad articulations of sustainability exist, practical application requires that these be translated into specific decision criteria appropriate to the particular context. In this way, the assessment will not be measured against a baseline, but rather will determine direction and distance to the target of sustainability for the specific matter under consideration. Integrating resilience with sustainability into a suite of systems and sustainability-based criteria is also now a common practice for SA scholars and practitioners.

Considerations of resilience are one way of examining the aspects of socio-economic systems and associated socio-ecological systems that we want to transform. The above perspectives help to establish that SA requires a highly participatory approach that engages stakeholders to generate a contextually appropriate vision of sustainability. This approach also enhances the SA's integrated character since an SA process that effectively engages the public tends to identify opportunities to improve livelihoods,

[25] Gibson, R.B., S. Holtz, J. Tansey, G. Whitelaw, S. Hassan. *Sustainability Assessment: Criteria and Processes*. Earthscan, 2005.
[26] Gibson, R.B. *Sustainability Assessment: Applications and opportunities.* Routledge, 2016.

safety, health, and otherwise enhance communities.

Furthermore, a highly inclusive and participatory approach to SA can be a safeguard against decision-makers discounting or neglecting factors identified as vital to the overall sustainability of the context germane to the participants.

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. They encourage enhancement of multiple, mutually reinforcing, fairly distributed and lasting benefits in addition to avoidance or mitigation of significant negative effects. And they motivate innovation in creating options that eliminate or minimize invidious trade-offs.

Next generation EA legislation would need to establish the generic criteria for assessment decision-making and provide for further specification of these criteria for application to particular cases and contexts in line with the legislative generic criteria.

The generic criteria (initially set out in regulation to allow for enhancement with experience) would cover all core requirements for progress towards sustainability and their interactions. Specifying the criteria for individual applications would be through informed choices by authorities and stakeholders, without compromising any of the generic requirements. 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 legislation 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 sustainability gains, avoidance of significant adverse effects, allocation of the burden of argument, protection of unrepresented future generations, explicit justification, and open process.

A key issue in the design and implementation of a sustainability approach is to recognize that efforts to strive for the ideal of an integration of net ecological, economic, social and cultural benefits without risks, uncertainties and significant impacts, while rarely completely successful, have to be taken seriously in the process. To ensure this, we recommend a threshold of demonstrating that every reasonable effort to find integrated solutions in line with the criteria have been made before engaging in the application of the second part, trade-offs and application of the associated rules. The effort to look for integrated solutions before engaging in the application of the trade-off rules should be subject to review by the tribunal established under Theme 3, *Structure of Assessment Regimes,* as should be the actual application of the trade-off rules.

The emphasis on specified criteria and trade-off rules is meant to ensure attention to all key considerations for lasting well-being, 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 us 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 in EA legislation for

- *defining the purpose of each assessed undertaking from a public interest perspective;*
- *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 and a recognition that projects should not be approved if they do not pass the net contribution to sustainability test.*

The following are abbreviated sustainability criteria and trade-off rules from the Report of the Joint Review Panel for the Lower Churchill Hydroelectric Generation Project. They are included here to offer some ideas of what might be included in legislation regarding sustainability criteria and trade-off rules to guide sustainability based assessments. The concept presented is that generic criteria will be set out in legislation along with a requirement to elaborate more detailed assessment specific criteria at the start of an assessment. The specific criteria, as long as they are in line with the legislated generic criteria, will guide the actual assessment.

Of note is that all benefits, effects, risks, and uncertainties are relevant to determining a project's contribution to sustainability. At the same time, the significance of individual effects is still relevant, as the trade-off rules include a presumption that significant adverse effects are not to be traded off against benefits. Ultimately, the magnitude of effects on areas of federal responsibility will be important to allow federal decision makers to determine the jurisdictional basis for project decisions and follow-up.

Sustainability Criteria to Predict the Effects and Risks of the Project, and to Identify Uncertainties

1. ***Ecological Effects, Benefit, Risks, and Uncertainties*** – Are biophysical systems adequately protected throughout all phases of development, construction, operation, and decommissioning of the Project?
2. ***Economic Effects, Benefit, Risks, and Uncertainties*** – Does the Project provide net economic benefits to the people in the area surrounding the Project, in the province, and in Canada?
3. ***Social and Cultural Effects, Benefit, Risks and Uncertainties*** – Does the Project contribute to community and social well-being of all potentially affected people? Is it compatible with their cultural interests and aspirations?
4. ***Fair Distribution of Effects, Risks, and Uncertainties*** – Are the effects, risks, and uncertainties fairly distributed among potentially affected individuals, communities, regions and other interests?
5. ***Present versus Future Generations*** – Does the Project succeed in providing economic and social benefits now without compromising the ability of future generations to benefit from the environment and natural resources in areas potentially affected by the Project?
6. ***Integration*** – Are all principles of sustainability applied together, seeking mutually supportive benefits and multiple gains?

Principles to Guide the Project Decisions in Light of the Range of Positive and Negative Effects of the Project (Trade off Rules)

1. Maximum Net Gains

- Overall, the Project should deliver net progress towards meeting the requirements for sustainability; it should seek mutually reinforcing, cumulative, and lasting contributions and should favour achievement of the most positive feasible overall result, while avoiding significant adverse effects.

2. Avoidance of Significant Adverse Effects

- A significant adverse effect on any sustainability requirement area can only be justified if the alternative is the acceptance of a more significant adverse effect.
- Compromise is acceptable if it avoids further decline or risk of decline in a major area of existing concern, or if it improves prospects for resolving problems properly identified as global, national and/or local priorities.
- Incomplete mitigation of significant adverse effects is not acceptable if stronger mitigation efforts are feasible.

3. Principles of Fairness

- No current or future generation should bear an unreasonable share of the adverse effects, risks or costs, or be denied a reasonable share of the benefits of the Project.
- No geographic region affected by the Project should bear an unreasonable share of the adverse effects, risks or costs, or be denied a reasonable share of the benefits.
- The Project should make a net positive contribution to sustainability in each of the three main areas, the environment, the economy, and social conditions.

4. Explicit and Transparent Justification

- Any compromises on the overall effects, risks, and uncertainties of the Project and their distribution should be accompanied by an explicit and transparent justification based on openly identified, context specific priorities, as well as the sustainability decision criteria.

Theme 7: Principles of Meaningful Public Participation in Environmental Assessment and the Essential Steps to Getting There

Meaningful public participation in environmental assessment (EA) processes has immense importance and benefits. Though public participation has long been a tenet of EA in Canada, and meaningful public participation is even a stated purpose of CEAA 2012, EA law and policy must be updated with application of principles that ensure meaningful public participation actually occurs throughout EA processes.

Meaningful public participation refers to processes that incorporate *all* of the essential components of participation, from the opportunity to provide input to active and critical exchange of ideas among proponents, regulators, and participants. In considering application of meaningful participation, we note that there are considerable linkages among the discussion themes you have identified and, as such, some of our recommendations interact with other themes. For instance, the increased use of Strategic and Regional EA could, in some cases, ensure more meaningful participation at the project EA level.

We have assembled ten overarching principles for meaningful participation in federal EA that address the issues raised in the Expert Panel's *Suggested Themes for Discussion*[27] and set the foundation for strong and meaningful participatory processes. These principles should be applied to all levels of assessment, including project, regional, and strategic EA and to the full suite of EA steps from process initiation through to monitoring and follow-up. Properly applied, they will improve trust and faith in federal EA processes. They are:

1. Participation begins early in the planning and decision-making processes, is meaningful and builds public confidence;
2. Public input can influence or change the outcome/project being considered;
3. Opportunities for public comment are open to all interested parties, are varied, flexible, include openings for face to face discussions and involve the public in the actual design of an appropriate participation program;
4. Formal processes of engagement, such as hearings and various forums of dispute resolution, are specified and principles of natural justice and procedural fairness are considered in formal processes;
5. Adequate and appropriate notice is provided;
6. Ready access to the information and the decisions at hand is available and in local languages spoken, read, and understood in places potentially affected by proposed undertakings;
7. Participant assistance and capacity building is available for informed dialogue and discussion;
8. Participation programs are learning oriented to ensure outcomes for all participants, governments, proponents and participants;
9. Programs recognize the knowledge and acumen of the public; and,
10. Processes are fair and open in order for the public to be able to understand and accept decisions.

The principles are elaborated in more detail below, along with the recommendations that flow from them.

[27] http://eareview-examenee.ca/participate/suggested-themes-for-discussion/

1. Participation occurs early in the decision process, is meaningful, and builds public confidence

Engagement with the public even before there is a specific proposal, when higher level and strategic topics are being discussed, is an essential underpinning of meaningful public participation. If the public is engaged too late, valuable input may be lost and participants may become disillusioned and feel as though important decisions have already been made without their involvement, leaving no reason for further or future engagement, or trust in the results. Participants need to have confidence in the process and believe their involvement is making a difference.

'Early' is sometimes defined as being before irrevocable decisions are made, which is actually too late in the process. Starting participatory processes when a proposal is submitted to the reviewing body is also too late. Recognizing this fact, regulators encourage proponents to consult at least with those directly affected before any formal EA process starts. This is still problematic for a number of reasons, including the lack of any access to due process, and leaving the proponent to report to decision makers the concerns of the public. To build public confidence in the process, people should be involved in participatory processes – regarding the conception and design of projects, activities, regional assessments, and strategic undertakings – at the strategic planning phases.

- *Meaningful participation needs to be defined in legislation as including the principles established in this document.*
- *Early involvement must be established as being before significant investment has been made in a project, undertaking, regional assessment, or strategic proposal and well before the submission of an impact statement – preferably starting at the strategic planning phase. In the case of a project, 'early' can also be thought of as when a proponent first contacts a community or a government official about a project.*
- *Mandatory involvement of the public needs to occur in the initial scoping stage and during the development of the terms of reference for the EA.*
- *Development of a public participation program must also occur early and involve government officials in its development, implementation, and reporting.*

2. Public input can influence or change the outcome of the project being considered

The public must have confidence that their input will actually be considered and that their involvement in the process could affect the outcome of the EA. If the public believe that a decision has already been made and that their participation is just a formality or only meant to consider decisions that are merely operational (eg., what height the dam should be) they are less likely to become involved and more likely to become cynical about the participation process.

- *As noted above, the legislation must ensure that participation begins early, so that projects and strategic initiatives can be significantly modified or not proceed before significant investments are made by proponents, the public, and regulators.*
- *The legislation must make clear to all parties that the assessment process requires consideration of alternatives to a project, undertaking, or strategic initiative, and alternative means of proceeding, including the 'do not proceed' alternative.*
- *The legislation must ensure that for all public participation processes, there will be a written and reasoned response to public input, including why and how, or why not, that input was used.*

3. Opportunities for public comment are: open to all interested parties, varied, flexible, include openings for face-to-face discussions, and involve the public in the actual design of an appropriate participation program

Clearly, those who are directly affected by an EA decision should be allowed to participate; however, only allowing people who are deemed to be directly affected to participate is an enormous oversight, as the exclusion of someone merely 'interested' is a missed mutual learning opportunity. Participation should be open to anyone who wants to become involved, through flexible and appropriate processes. In our increasingly connected and globalized world, simple geography does not determine impact or interest, and anyone who is interested should be able to participate, learn more, and voice their support or opposition to a proposed project or initiative. The focus on "directly affected" is arbitrary and excludes other voices from the decision-making process; often, these are the very people and groups that would address sustainability objectives and outcomes.

There are many different tools available for working with the public and gaining their input, ranging from the passive submission of comments to public hearings. We recommend that proponents and regulators employ the full gamut of tools available in the many guides to participation and greatly enhance the "go to" or "default" opportunities for participation most often used now – written comment and open houses. There must be opportunities for the public to engage using methods that foster deliberative dialogue. Programs involving face-to-face discussion also offer mutual learning opportunities.

- *The law must require that a program of participation be designed once the decision to engage has been made, be open to review and adjustment as the program proceeds, and be on a scale appropriate to the circumstances.*
- *The public must be involved and consulted in the design of the participation program to ensure it meets their needs and involves them in an appropriate way.*
- *Proponents and responsible authorities must provide opportunities for face-to-face meetings and open, deliberative discussions in addition to hearings if these are desired.*
- *Regulation and guidance should set out a non-exhaustive variety of methods for achieving face-to-face public deliberations and meetings.*
- *Requirements for participation programs to be open to all should be clearly stated – a directly affected bias has no place in an EA law.*

4. Formal processes of engagement, such as hearings and various forums of dispute resolution, are specified and principles of natural justice and procedural fairness are considered in formal processes

In all Canadian jurisdictions, environment ministers have the ability to call public hearings. As well, the federal and most provincial EA processes allow the use of mediation to aid in contentious EA decision processes. These mechanisms are used sparingly in Canadian EA and there is a need to use them far more often.

- *Procedures that adhere to the rules of natural justice, including hearings and other approaches to achieve mutual resolution of issues, need to be clearly outlined in law.*
- *The use of smaller-scale hearings (for assessments that currently do not undergo a panel review) needs to be encouraged to facilitate more opportunities for people to have their voices heard before an independent panel.*
- *Hearings and other forms of dispute resolution should take place in affected communities and at times when people can attend.*
- *Intervenors' right of interrogation must be recognized in regulation.*

- *Assurances of simultaneous translation of hearings or dispute resolution processes should be set out in regulations.*
- *Guidance is needed as to when dispute resolution might be used within an ongoing case or hearing about a specific issue or set of issues.*
- *The law must recognize the importance of using deliberative approaches to engagement, in addition to more formal opportunities.*

5. Adequate and appropriate notice is provided

In order for the public to get involved in the EA process and meaningfully participate, they must be notified that an EA is occurring and advised of upcoming opportunities for involvement. Typically, notice includes advertisement in local print media and occasionally broadcast media. Given the ubiquitous nature of the Internet and social media, we recommend that proponents and regulators also post notice on these platforms, where a wider range of members of the public may become aware of the proposal and of opportunities to participate. People should be able to sign up for automatic electronic notifications based on geography or subject matter interest.

- *Requirements for public notice of a proposal must be required in law for all projects, undertakings, activities, and regional and strategic assessments to which the law applies.*
- *Regulations must ensure that notice is widely distributed through as many venues as practical, including print, broadcast, websites, email, and social media.*
- *Regulation must also ensure that notice includes information about the proposal, where the public can seek further information, and to whom the public can direct their comments, at a minimum.*

6. Ready access to the information and the decisions at hand is available and in local languages spoken, read, and understood in affected areas

Participants must be able to easily access all the information and comments from the regulator, proponent, and other participants. All information must be available in a timely manner and in local languages as appropriate to the circumstances. In most jurisdictions, registries or repositories located at public libraries are the main method of public access. Most jurisdictions also have Internet access to registries, or parts of them, and this should be a requirement as it is helpful for keeping records up to date and conveniently available for participants. However, some documents may not be available on the Internet registry for proprietary or privacy reasons and this can be an access issue, especially in case of short timelines for participation.

- *The law must spell out how access to information will be coordinated and the minimum mechanisms for accomplishing this.*
- *All information pertaining to a case must be released as quickly as practical and through one window, so it is clear where the reviewing body, proponents and participants submit and access all details of the assessment.*
- *Participants must be given a period of time to review all information that is commensurate with the complexity and volume of documents for any project or undertaking. Requests for more time to review documents should be granted unless found frivolous or vexatious.*
- *Guidance must be provided on new ways to communicate project, undertaking, regional and strategic information with the public – this includes electronic, interactive impact statements.*
- *A live person help line should be provided, directing people on how to navigate the site.*

- *The record should be permanent to encourage follow-up, ongoing learning, and research.*

7. Participant assistance and capacity building is available for informed dialogue and discussion

Participants must be supported if they are to effectively and meaningfully participate in EAs. Power and resources are not distributed equally between proponent and participants. Participant assistance (often in the form of funding) is an important step to lessen the power and resource differentials and allows public voices to be heard that may have been silenced through lack of funds. It also provides participants with the capacity to get experts to consider the contentions of the proponents about project impacts and mitigation of those impacts. Besides monetary support, participants should also be given access to experts that can guide them through the EA process. Participation workshops can also be helpful in instructing the public on the ways to get involved in an EA.

- *EA law must establish participant assistance programs that include clear methods and criteria for determining support.*
- *Participant assistance must be available for all kinds of EAs, not just hearings, or large projects or undertakings.*
- *Guidance must be provided to government agencies about the types of capacity support and expertise they can provide to proponents and the public – this kind of support must be made available to the public as well as those seeking approvals.*
- *The federal EA Agency should be identified in regulation as having a very strong role in public involvement, carrying out workshops on getting involved in EA, in guiding people through the participant funding possibilities, etc.*
- *Participant assistance and/or capacity building has to be provided in time for people to prepare and participate in any formal process. Longer-term assistance will be needed for strategic and regional level assessments.*

8. Participation programs are oriented to ensure learning outcomes for all participants, governments, and proponents

Programs should be deliberative in nature and oriented around learning outcomes. Early and ongoing engagement as well as forums such as community advisory committees, co-governance boards, and independent oversight bodies are all useful and create spaces for mutual learning. Essential for learning, participation programs must include ample time for critical reflection and dialogue in order to help ensure greater mutual learning.

- *Regulation must establish learning-oriented participatory opportunities through encouraging dialogue among parties and providing time for reflection on issues.*
- *Any timelines for participatory activities must ensure that participation programs are not rushed and that all participants, governments and proponents have time to dialogue with each other and to critically reflect on each other's views, which in turn will lead to greater mutual learning.*
- *Follow-up programs must have legally mandated participation components, especially in regards to their design and reporting.*
- *A transparent and easily accessed reporting system for monitoring and follow-up must be mandated to encourage learning among and between cases, especially regarding impact prediction and mitigation.*
- *The legislation should establish periodic public reviews of EA processes that report on, at a minimum a) the types of participatory processes used in EAs during the review period; b)*

whether and to what degree those processes have met the goals of federal EA; c) whether and to what degree the public is satisfied with those processes; and d) recommendations for future EA processes, law, and policy based on those findings. The public should be involved in these reviews.

9. Programs recognize the knowledge and acumen of the public

Public participation programs should not just be viewed as a way for the proponent and regulators to "educate" the public about what they are planning to do. Programs must be designed and executed with the understanding that the public does hold valuable knowledge that all parties can learn through interacting and deliberating together. All parties must be open to engaging in a two-way knowledge exchange and the potential of learning new things that could change their views on a project, undertaking, regional assessment, or strategic initiative. Moreover, reviewing bodies should not give greater weight, or a presumption of accuracy, to proponents, but rather treat the public's science, knowledge, values, and perspectives with due respect.

- *Regulation and guidance must make clear that the purpose of meaningful participation is to learn from others, not just educate them about the components of a project, undertaking, regional assessment or strategic initiative.*
- *The legislation should recognize that Elders' knowledge and oral traditional knowledge be given equal weight to any other knowledge or science generated.*
- *The legislation should require the responsible authority to give greatest weight to the most credible science or knowledge, taking into consideration the independence, rigour, and any peer-review of the information provided.*
- *The legislation should explicitly recognize the importance of local knowledge, and it should provide for guidance to encourage the seeking out and application of local knowledge during EAs and follow-up.*
- *In order to accomplish this principle and make better use of public expertise, the heavy reliance on "open houses" must be replaced with more opportunities to exchange knowledge between the public and the proponent.*

10. Processes need to be fair and open in order for the public to be able to accept a decision

Currently, EA processes are – or at a minimum are heavily suspected to be – weighted in favour of proponents, with public participation often seen as little more than a box to check. The public often does not know whether or how their (often considerable) efforts to inform EA processes are taken into account, and there is a deep perception that 'the gig is fixed.' For the public to be able to accept decisions, they have to be able to see how decisions were made, and that they adequately followed and reflected public processes.

- *The legislation should require that all information provided and considered during an EA be made publicly available on a searchable registry for the assessment.*
- *The legislation should require that responses to all issues raised by the public receive a response that is posted to the public registry.*
- *The legislation should mandate what information is required to reach a decision, must make that information accessible to the public, and must mandate that decisions be accompanied by an explanation of how they were reached.*

- *The legislation should establish decision-making criteria to guide decisions to prevent behind closed-doors "justifications" that do not reflect the best available information collected and analysis conducted during EAs through to decisions and follow-up/monitoring.*

Summary

The literature clearly shows that meaningful participation is an essential aspect of EA. Such participation can bring a myriad of benefits, including improved projects and strategic proposals, restored public trust, legitimacy, and mutual learning. Past EA laws have stated that meaningful public participation is a purpose of EA, but have not set the framework needed for it to actually happen despite the many "best practices and principles" guides available and the public's expertise with participatory processes. These best practices and principles must be incorporated into statute, regulation, policy, and guidance starting with the ones we have suggested above. The principles must also be recognized as a package – if easy to accomplish ones are just cherry-picked, then the ultimate goal of restoring Canadians' trust in environmental assessment will be impossible to achieve.

Theme 8: Incorporating Climate Change Into EA

A Clear and Urgent Need for Policy Guidance

Canada is lagging behind in the global fight against climate change. As a result, Canada ranks 56 out of 61 countries on climate action[28] and ranks amongst the highest GHG emissions per capita in the world. Despite the country's small population, it is one of the 10 most important emitters in the world in absolute terms.[29] To this day, Canada has never adopted, let alone implemented, reduction targets that are sufficient in the eyes of international scientific consensus. Canada has actually increased its GHG emissions since concerted international action has begun, despite efforts towards joining these international efforts. This decades-long lack of Canadian policy on climate change is a global injustice. Within Canada, climate change is already having disproportionate impacts on Indigenous peoples as well as rural, remote, northern, and poor communities. Regions and communities who have contributed less to the climate problem and are disproportionately affected by it should not be further penalized.

With the conclusion of the UN climate negotiations in Paris, the Paris Agreement's ratification by Canada and its entry into force on November 4, 2016, Canada is now committed to making all reasonable efforts to reduce and eliminate GHG emissions and to complete a transition to a GHG emission neutral society within the next few decades.[30] EA is a critical tool for meeting our country's global commitments. Integrating climate change into EA requires consideration of mitigation, adaptation, and loss and damage that cannot be prevented through effective mitigation and adaptation efforts.

In the Paris Agreement, all nations recognized that there is a significant gap between current national actions and commitments on climate change and what is globally required in order to avoid dangerous climate change and realize the long-term goals set in the Agreement. Efforts and commitments in Canada will need to be ramped up to address the requirements of justice, and regulatory regimes must leave room for adapting to emerging knowledge and increasing ambitions as required by the Agreement.

Climate Considerations Should be Treated at the Strategic Level First

Climate change mitigation policy and energy policy should be treated as prime and priority candidates for comprehensive Strategic Environmental Assessment (SEA). In particular, for project EA to address climate considerations effectively, efficiently, and fairly, it needs to be guided by criteria and principles set by national climate change policies established through SEA.

Climate change mitigation should be treated as a cumulative effects issue in both SEA and project EA. GHG emissions are cumulative effects that are already unacceptable and will continue, absent concerted efforts and fundamental transitions in multiple sectors. Consequently, the relevant thresholds developed in policy should identify required steps towards elimination of GHG emissions. Development of policy responses, including delineation and comparison of pathway needs and options, should not be pursued in silos.

Since evaluating climate effects associated with one specific project is nearly impossible and unproductive given our understanding of the cumulative impacts, GHG emissions and climate goals should be used as proxy for climate effects. This means any net increase in GHG emissions as a result of a project is to be considered an adverse environmental effect. The rest of the analysis should be carried out in accordance with the sustainability approach under Theme 6, *A Sustainability Approach to EA*.

[28] German Watch Climate Performance Index 2016, 9.
[29] World Resources Institute, *6 Graphs Explain the World's Top 10 Emitters*, CAIT Climate Data Explorer.
[30] Meinhard Doelle, *Integrating Climate Change into EA: Thoughts on Federal Law Reform*, Schulich School of Law, Dalhousie University.

Key elements include: determining whether everything reasonable is being done to avoid or further reduce the net GHG emissions; whether any remaining emissions are acceptable in light of other impacts, benefits, risks, and uncertainties related to the proposed undertaking; and whether the emissions are sufficiently significant that they should be avoided altogether.

Develop Pathways to Decarbonisation in Multiple Sectors

Canada needs to develop pathways for meeting emissions reductions targets and ultimate decarbonisation by no later than 2050 before approving any new major carbon emitting projects, projects that would contribute cumulatively to carbon emissions, or projects that may hinder Canada's transition to GHG emission neutrality. Indeed, there is no equitable allocation of the global effort needed to meet the objective of limiting global warming at 1.5°C or even well below 2°C above pre-industrial level that does not involve Canada reaching GHG emissions neutrality well before 2050.[31] These pathways should be developed through a credible, transparent strategic EA that includes meaningful public participation throughout and provides an authoritative guide for project planning and assessment. The pathways should provide a basis for EA evaluations and decisions that are consistent with pathway compliance and carbon budgets. Pathways should be updated regularly (eg. every three or five years).

To ensure appropriate guidance to project EAs, this process should:

- Clarify the interim and final deadlines for greenhouse gas (GHG) neutrality in Canada arising from and in accordance with signing the Paris Agreement.
- Set out the best current understanding of the preferred pathways (character and schedule of major transition steps) that would ensure meeting those deadlines and ultimate decarbonisation.
- Specify, to the extent feasible, the implications of the deadlines and pathways for various areas of activity in the interest of providing forward guidance to proponents, review agencies and other EA participants about implications for project planning and assessment.
- Establish federal, regional (i.e., provincial and territorial) and sectoral carbon budgets and plans.

At a minimum, the federal government conduct project assessments so as to understand whether proposed projects affect Canada's ability to meet its international climate commitments and obligations.

Develop an Additional Mandatory Federal EA Climate Trigger

Triggering should be designed to ensure that all activities that are not likely to have a transformational benefit and assist in the transition to GHG emission neutrality are automatically assessed before project decisions are made.[32] While some projects with significant short-term GHG emissions may be compatible with a transition to GHG neutrality, other projects with small direct GHG emissions may nevertheless put us on a track that is incompatible with the transition to GHG emissions neutrality. See Theme 2, *Triggering and Scoping*, for further details.

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[31] In the wake of the Paris Agreement, efforts are starting to assess what should be Canada's share of global emission reductions efforts under different approaches involving the ultimate temperature target and effort- sharing principle used. One study indicated reductions ranging from 90-99% would be necessary by 2030 to limit warming to 1.5°C based on a conservative effort-sharing principle. Taking a fair-share approach based on equal cumulative per capita emissions towards limiting temperature rise to 2°C has a similar effect of requiring Canadian emissions to near zero in 2030. Attempting to do its fair share towards a 1.5°C goal would lead Canada to a carbon budget that would be exhausted in only a few years. See Dr. Simon Donner & Dr. Kirsten Zickfeld, *Canada's Contribution to Meeting the Temperature Limits in the Paris Climate Agreement* (2016).

[32] Approach developed by Meinhard Doelle, *Integrating Climate Change into EA: Thoughts on Federal Law Reform*, Schulich School of Law, Dalhousie University (See Environmental Law News Blog, October 18, 2016, at https://blogs.dal.ca/melaw).

First, a project list should be developed in each of the key sectors involved in the transition to GHG emission neutrality, including electricity, resource extraction, transportation, manufacturing, forestry, and agriculture. For each sector, a list of projects that warrant an assessment in light of their potential to hinder this transition should be developed. The list should be developed with a reverse onus approach, so that activities are listed unless they are demonstrated to be consistent with the transition without the need for an EA.

In order to successfully decarbonise human activities, SEA must identify what current and potential human activities have the potential to interfere with climate goals and what activities will help with the needed transition. In absence of SEA, we need to identify sectors and triggers within sectors that will make path toward decarbonisation more difficult. For each sector (such as energy, transportation, agriculture and manufacturing) interim treatment of climate change requirements in an EA remains necessary. The considerations outlined in the next section should be taken into account in the interim, and form part of the ultimate design of project EAs.

Climate Test Considerations for Project-Level Assessments

The propositions below should be considered additional, rather than alternatives to one another. A project should successfully pass each of these requirements before it can be said to have passed the 'Climate Test'. Although they are specifically tailored to apply in project level assessments, we recommend their consideration in regional as well as strategic level assessments.

EA is not simply about deciding whether the project goes ahead, but also the conditions that come with approval. A variety of mitigation options are possible in response to negative social costs. A test is needed for when it is possible to justify a project with economic benefits but that comes at a social cost. Three key questions:

- Does the project fit within the carbon budget of the sector?
- Does the project keep us on identified pathways to GHG reduction targets and ultimate decarbonisation?
- What are the social costs associated with climate impacts and how will they be mitigated or compensated, and traded-off in the broader sustainability test?
- Is the project economically viable if the social cost of its life cycle GHG emissions is internalized?

Defining the Climate Effects of a Project in Terms of Net GHG emissions

The climate effects of a project should be defined in terms of net GHG emissions, which involves quantifying life cycle emissions over the entire lifespan of the project, including indirect upstream and downstream emissions as well as emissions it might displace. There should be clear scoping guidelines to ensure proponents are properly calculating their proposed projects' expected emissions to include full life cycle GHG emissions and a clear articulation of uncertainties associated with the analysis. (A full life cycle assessment would include emissions directly caused by the proposal as well as any connected actions – including upstream and downstream emissions – over its lifespan.)

The *Canadian General Guidance for Incorporating Climate Change Considerations in Environmental Assessments* (July 2016) indicates assessments should include direct and indirect GHG emissions as well as related effects without defining these terms.[33] In this context, U.S. developments can help define and expand these terms. Regulations under the U.S. National Environmental Policy Act (NEPA; the

[33] Canadian Environmental Assessment Agency, *Canadian General Guidance for Incorporating Climate Change Considerations in Environmental Assessments* (July 2016)

President's Council on Environmental Quality (CEQ) Regulations) require federal agencies to consider direct,[34] indirect,[35] and cumulative[36] environmental effects of proposed actions prior to undertaking action. These regulations also require agencies to conduct a coordinated environmental review of three types of "related" actions that are interdependent parts of a larger whole and actions that have cumulatively significant impacts on the environment: connected,[37] cumulative,[38] and similar actions.[39]

In August 2016, the CEQ issued final guidance on considering climate under NEPA, which states that climate analyses should include consideration of "connected actions – subject to reasonable limits based on feasibility and practicality", including activities "that have a reasonably close causal relationship to the Federal action, such as those that may occur as a predicate for a proposed agency action or as a consequence of a proposed agency action (including land clearing, access roads, extraction, transport, refining, processing, using the resource, disassembly, disposal, and reclamation)".[40]

In the past five years, over a dozen lawsuits have been filed in the USA challenging the approval of fossil fuel extraction and transportation because the lead agency failed to consider indirect upstream and/or downstream greenhouse gas emissions during its NEPA review. For extraction proposals, courts have consistently held that downstream emissions fall within the scope of indirect impacts that should be reviewed under NEPA and that emissions from combustion are "reasonably foreseeable" when production estimates are available.[41]

We recommend that project assessments in Canada adopt a similar approach to the causation inquiry into indirect emissions.[42] We further recommend that the legislative framework require that wherever reasonably feasible, the life cycle emissions of a proposed activity be included in all levels of assessments.

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[34] Defined as those that are "caused by the action and occur at the same time and place." 43 FR 56003, Nov. 29, 1978, sec. 1508.8 (a).

[35] Defined as those that are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable," and which may include "growth inducing effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." 43 FR 56003, Nov. 29, 1978, sec. 1508.8 (b).

[36] Defined as those that result from "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions." 43 FR 56003, Nov. 29, 1978, sec. 1508.7.

[37] Defined as actions that are «closely related and therefore should be discussed in the same impact statements.» 43 FR 56003, Nov. 29, 1978, sec. 1508.25 (a) 1.

[38] Defined as actions that "have cumulatively significant impacts and should therefore be discussed in the same impact statement." 43 FR 56003, Nov. 29, 1978, sec. 1508.25 (a) 2.

[39] Defined as "have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography." 43 FR 56003, Nov. 29, 1978, sec. 1508.25 (a) 3.

[40] Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews P.13-14

[41] Burger, M. and S. Wentz, "Downstream and Upstream Greenhouse Gas Emissions: The Proper Scope of NEPA Review", Harvard Environmental Law Review, Vol. 41, No. 1, 2016, p. 28.

[42] The courts have rejected the three types of arguments against causation typically raised by industry Status Quo Argument : where agencies have asserted that the continued operation of the mine will not increase the rate at which coal is extracted and thus they will not increase combustion emissions, as compared with the status quo, see *Dine Citizens Against Ruining Our Env't* v. *United States Office of Surface Mining Reclamation & Enf't*, 82 F. Supp. 3d 1201, 1217 (D. Colo. 2015); S. Fork Band Council of W. Shoshone of Nevada v. U.S. Dep't of Interior, 588 F.3d 718, 725 (9th Cir. 2009); The "perfect substitute" argument posits that the extraction of fossil fuels will not actually cause an increase in consumption, because the same quantity of the fuel would be produced elsewhere and eventually transported and consumed, even if the agency did not approve the proposal at issue, see *High Country Conservation Advocates* v. *United States Forest Serv*., 52 F. Supp. 3d 1174, 1190 (D. Colo. 2014); "not our call" argument : there is not a "reasonably close causal relationship akin to proximate cause" between the extraction of the coal and emissions from downstream activities such as the combustion of the coal, because the agency lacks jurisdiction over those activities", see *Border Power Plant Working Grp*. v. *Dep't of Energy*, 260 F. Supp. 2d 997, 1017 (S.D. Cal. 2003).

Determining the Project's Contribution to National Reduction Targets and Overall Decarbonisation

In EA applications, a key test of a proposal would be whether or not it enables, assists, or hinders Canada's ability to remain on the policy pathways described above, and to what degree, in comparison with alternative options (i.e., does it contribute appropriately to meeting Canada's climate commitments). Of the alternatives considered, the option that would most, and most quickly, help put Canada on a pathway to decarbonisation as well as result in positive contributions to social, environmental, and long-term economic sustainability, should be preferred.

Project-specific sustainable decision-making criteria should include the requirement that a project should help Canada meet its climate goals and targets as well as ultimate decarbonisation, and trade-off rules should be designed so that a carbon-intensive proposal can't be justified in light of short-term economic gains if it leads to long-term loss.

Ensuring Projects Have Positive Structural Impacts on Decarbonisation

A key test of proposals is whether it enables or hinders Canada's ability to remain on the policy pathways. Of the alternatives considered, the option that most, and most quickly helps Canada on a pathway to decarbonisation as well as results in positive contributions to social, environmental and long-term economic sustainability should be preferred.

Qualitative analysis should be conducted, by addressing questions about the political economy of an undertaking such as:

- *What are the project's implications for the transition towards decarbonisation?*
- *Does the project contribute directly or indirectly to the carbon lock-in of the Canadian economy?*
- *Does the project impede other current or future actions to avoid dangerous climate change?*
- *Does the project contribute to social or political norms, risk reduction, or economies of scale for fossil-based infrastructure that further contribute to its lock-in (or other fuels' or technologies' lock-out)?*

Considering Alternatives and "Zero-option"

EAs should be required to consider alternatives to the proposed project and a "no project option", as described in Theme 7, Principles of Meaningful Public Participation in Environmental Assessment. This approach assists in establishing an emissions baseline as well as mitigation ideas. Further, alternative means to reduce GHG emissions within the project should also be explored.

Incorporating Climate Commitments & Social Cost of GHGs in Socio-Economic Analysis

Climate change commitments and the social cost of GHGs should be incorporated in socio-economic analyses of projects. Economic analyses must rely on global and domestic economic models that are consistent with the world achieving global decarbonisation by the second half of this century as per the Paris Agreement. The long-term economic viability of reviewed projects must be established within the context of global energy scenarios that are consistent with international climate goals. Anything less would mean that Canada is planning based on scenarios that assume the failure of the Paris Agreement and that fail to deliver on our promise to do our fair share to avoid dangerous climate change. This is especially important for energy projects or energy-intensive projects.

Once a project has been deemed acceptable based on a capacity to remain on this pathway, the equitably distributed economic and other benefits would have to be, at a minimum, sufficient to compensate for all adverse effects, including all climate impacts, that can be attributed to the project.

The social cost of GHGs such as carbon dioxide, methane, and nitrous oxide used by ECCC in the regulatory context should be used in the EA context as a proxy for climate loss and damage associated with a project's emissions. The social cost of GHGs is a monetary measure of the global damage expected from climate change from the emissions of an additional tonne of a GHG in the atmosphere in a given year. It includes the anticipated effects of climate change on agricultural productivity, health, property damage caused by the increased flood risk, and the value of ecosystem services.[43]

The concept of social cost was first developed by experts in the in the context of American regulatory cost benefit analysis, and has been used in three U.S. federal environmental assessments to date.[44] The legality of the social cost of carbon approach was recently confirmed by the U.S. Federal Court of Appeals for the 7th Circuit.[45]

Assessing a Project's Resilience to Climate Actions and Impacts

An undertaking's resilience to climate change impacts and mitigation actions should be included in the assessment. Ensuring climate resilience will vary according to projects but includes such things as not building on floodplains, taking account of soil subsidence in the North, resilience to extreme weather events, pests, etc.

Future climate impacts on the project and local communities have to be assessed in order to ensure they can adapt. Indigenous peoples and local communities have essential spatial, temporal, and historical knowledge that should be included when establishing baselines and assessing potential impacts based on past observations.

Further, in assessing the other environmental effects of the project on the local environment, future climate change must be considered.

Finally, projects' resilience to GHG mitigation action must be assessed to ensure the project does not rely on carbon-intensive fuels or technologies on a time horizon that goes beyond their planned or necessary phase out.

Climate Considerations for Project Implementation/Follow-up

A condition of approval of an undertaking should be that the proponent remains responsible and liable for all GHG emissions associated with their project, including setting aside financial security for their fair share of future climate impacts, and may be subject to additional future requirements to ensure that they contribute to Canada's commitments towards decarbonisation.

Tying a Project's Obligations to Mitigate GHGs to Canada's Reduction Targets and the Paris Agreement

Undertakings should be required to undergo stringent mitigation based on legislated emissions reduction targets (or in the interim, the Nationally Determined Contribution in the UNFCCC process).

Requiring Security for Climate Damages

Regulatory frameworks should require, as a condition of approval, that proponents of carbon-significant projects set aside financial security for their fair share of potential future climate impacts in Canada,

[43] ECCC, *Technical Update to Environment and Climate Change Canada's Social Cost of Greenhouse Gas Estimates*, March 2016.
[44] The most comprehensive of which in the context of the *Rulemaking for Colorado Roadless Rule*.
[45] *Zero Zone inc.* v. *United States Department of Energy*, 46 ELR 20137, No. 14-2147 et al., (7th Cir., 08/08/2016).

using the social costs of GHGs established by the ECCC (or an equivalent social cost developed domestically).

Overall Considerations for Inclusion of Best Available Climate Science

Canada should lead the world in the development of climate science. The scientific understanding of climate impacts is very complex, rapidly evolving and has crucial implications for prioritizing mitigation and adaptation options.

The best available climate science should be used throughout EA processes by adopting best practices for fact-gathering and modelling. Specific attention should be given to the treatment of short-lived high global warming potential non-CO_2 GHGs as well as impacts on Canada's important carbon sinks.

Adopting Best Practices for Fact Gathering & Modelling

Existing emissions targets should be assessed using an accounting system devised in consideration of national emissions, along with the expected emissions of projects that are currently undergoing EAs, and compared to national reduction targets. In order to be able to assess the cumulative effect on climate change, disclosure obligations would need to be implemented where they are not already. Existing standards and protocols can be used as starting points where appropriate.[46]

Further, the Assessment Authority must have the power to compel the production of documentation and expertise necessary to estimate GHGs as accurately and completely as possible, and that documentation needs to be made publicly available in a searchable registry.

There needs to be complete transparency in modelling assumptions, data choices and uncertainties.

In the absence of government or proponent-provided data, carbon budgets or pathways, the Assessment Authority should be enabled to commission and rely on the best available independent scientific information, such as published peer reviewed academic papers. Where information is missing due to exorbitant costs or infeasibility, a summary of any credible scientific evidence and an analysis of theoretical approaches or research methods generally accepted in the scientific community should be provided, and reviewing bodies should be empowered to retain experts to provide missing information. Considerations should also be given to methodologies developed in other jurisdictions.

In situations where information relevant to the foreseeable significant adverse impacts cannot be obtained (because of cost or lack of knowledge), the Authority will: state that the information is incomplete or unavailable, provide a statement of relevance of the incomplete information, summarize existing credible scientific evidence, and evaluate the impact based on theoretical approaches or research methods generally accepted by the scientific community.[47]

Prioritizing Specific Sources and Types of Emissions

Most recent scientific research and international agreements show the importance of focusing attention on short lived, high global warming potential non-CO_2 GHGs such as methane, nitrous oxide, black

[46] For an example of standard see International Organisation for Standardisation (ISO) *Environmental management — Life cycle assessment (LCA) standard* (ISO 14044); for an example of a verification protocol see American National Standards Institute (ANSI) Accreditation, Program for Greenhouse Gas Validation/Verification Bodies
[47] See *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Ac*t, [2] [3] 40 C.F.R. 1502.22(b)[4].

carbon, and HFCs.[48] It is crucial to use the most up to date global warming potential (GWP) of these non-CO_2 gases and their most relevant time frame when conducting assessments.[49]

Further, given Canada's important carbon sinks (boreal forest, peatlands, etc.), and historically obscure methods of accounting for emissions and reductions, specific attention must be given to accounting for future GHG emissions associated with land use, land use change and forestry. Emissions review methodology should account for the GHGs resulting from land use change and biogenic emissions.[50]

[48] In early 2016, Canada, the United States, and Mexico agreed to reduce short-term climate change pollutants including methane, black carbon and HFCs. See also Kigali agreement where 197 states agreed to reduce hydrofluorocarbons (HFCs).
[49] For example, up until very recently, Canada was using 25 as the GWP of methane, an outdated value since the release of the IPCC Fifth Assessment Report, which presented two values calculated both with and without the effect of climate-carbon feedbacks. Methane's 100-yr GWP is listed as either 28 (without climate-carbon feedbacks) or 34 (with climate-carbon feedbacks). principle would militate in favour of the higher value. Still, in most circumstances, it will be more relevant to use a shorter time frame GWP, in which case the 20-yr GWP of methane can be used (84 without climate-carbon feedback or 86 with climate-carbon feedback). IPCC WGI Fifth Assessment Report, Final report (7 June 2013) Table 8.7, p.58. Venting and fugitive emissions factors for methane for a variety of activities will also need to be updated.
[50] See for inspiration the methodology developed in California in order to assess the land use emissions related to oil production. Emissions include oxidized carbon emerging from disturbed soil, the carbon from oxidized biomass from the disturbance of biomass, and the loss of sequestration potential (since carbon sequestration from biomass is weak on cleared land). the *California Low Carbon Fuel Standard, Final Regulation Order* § 95489, Subchapter 10, Article 4, Subarticle 7; Hassan M. El-Houjeiri, Kourosh Vafi, James Duffy, Scott McNally, and Adam R. Brandt, *Oil Production Greenhouse Gas Emissions Estimator: OPGEE v1.1 Draft E: User guide & Technical documentation*, 2015; *California Low Carbon Fuel Standard, Final Regulation Order*, , Table 8, pages 88 *et seq.;* Sonia Yeh, Sarah M. Jordann, Adam R. Brandt, Merritt R. Turetsky, Sabrina Spatari, et David W. Keith, *Land use greenhouse gas emissions from conventional oil production and oil sands*, Environmental Science & Technology 2010, 44, 8766–8772, available online.

Appendix I: Summary of Recommendations

Theme 1: Multi-jurisdictional assessment

We asked, how should the federal assessment regime work with others, including provinces and Indigenous authorities? What principles should guide multijurisdictional assessments?

Recommendation 1

A 'cooperative' federal EA approach with other jurisdictions should be used, to provide the best combination of efficiency, effectiveness, and fairness, with the aim of doing one assessment per project. Cooperative EA requires efforts to ensure all relevant jurisdictions are actively involved in the design of the process, its implementation, decision-making, and post-decision follow-up.

Recommendation 2

Delegation, equivalency, and substitution of provincial processes for the federal one should not be permitted, for reasons of public confidence as well as process standards.

Theme 2: Structure of assessment regimes

We asked, what needs to be in place in law and regulation and guidance to make strategic and regional assessment work, and to be effectively linked to project assessment? What specific considerations need to be identified regarding cumulative effects assessment? Where is the responsible authority housed for each level of assessment? What powers should they have, how are decisions made, and what appeal process is there? What is the proper role for consultants, government scientists, traditional knowledge holders, etc.?

Recommendation 3

At the federal level, there should be one responsible authority for reviewing all levels of assessment (regional, strategic and project-level), including those currently reviewed by the NEB and CNSC. (Co-management bodies established under comprehensive land claims agreements would not be infringed on.)

Recommendation 4

Decision-makers would receive recommendations from reviewing bodies, with final decisions made by all relevant jurisdictions.

Recommendation 5

An independent tribunal would handle disputes, facilitate government-to-government negotiations, and potentially conduct periodic reviews of the federal EA regime and processes overall (i.e., quality assurance).

Recommendation 6

An independent expert committee (modelled after COSEWIC) would provide strategic advice and assistance on all levels of EA, including when regional and strategic EAs should be conducted.

Theme 3: Triggering and scoping

We asked, how should assessments be initiated, for project and strategic and regional assessment, and how should the appropriate level and scope of assessment and review be determined?

Recommendation 7

Triggering of federal assessments of undertakings should combine the list-based approach taken in CEAA 2012 and the decision-based approach taken in CEAA 1992:

1. A list of undertakings for which assessments are mandatory; and
2. Decision-based triggers for undertakings that require a federal regulatory decision or meet other criteria for federal involvement. Provision would be made to narrow assessments, scope and effort, or to exclude assessment of environmentally insignificant undertakings.

Recommendation 8

There should be mandatory triggering of strategic and regional assessments of proposed federal policies, programs, or plans being advanced for Cabinet or ministerial decision, where they meet specific criteria.

Recommendation 9

An expert or multi-interest committee should be established to advise the Minister of Environment and Climate Change on changes to the mandatory assessment list of undertakings, decision-based triggers for undertakings, and triggering of strategic and regional assessments

Theme 4: Post assessment decision tracking, reporting, and compliance

We asked, what institutional structures and support are necessary to create effective follow-up, monitoring, compliance, and enforcement for assessment processes? How can provincial and Indigenous authorities link to federal EA follow-up, compliance and enforcement?

Recommendation 10

Commitments and obligations arising from the EA process should result in meaningful tracking, reporting and compliance assurance. Project-based and regionally-based monitoring should be standardized to the extent feasible to ensure temporal and geographic consistency and integration.

Recommendation 11

The Assessment Authority should maintain a registry of commitments and obligations identified through EA, with clear identification of responsible government departments or agencies.

Recommendation 12

There should be a legislative mechanism to allow individuals, RAs, and the Assessment Authority to initiate specific tracking and reporting measures where there appear to be issues of non-compliance.

Recommendation 13

There should be an EA-specific authorisation, with conditions, in addition to other relevant federal authorisations to ensure commitments are expressed in a clear and enforceable manner, and are specifically tracked in the EA decision-making process.

Recommendation 14

Adaptive management and mitigation measures must be entrenched in a formal system of monitoring, evaluation, and have the ability to result in a change to management and regulatory responses.

Recommendation 15

A next-generation new EA law should outline the prescribed and discretionary response to the tracking process.

Recommendation 16

Where approved projects do not proceed within a reasonable time, next-generation EA legislation should prescribe a time period after which the results of an EA are considered lapsed and must be updated through a new EA.

Theme 5: Learning

We asked, what needs to be in place in law and regulation and guidance to give life to the principles of responsiveness to new information and circumstances, continual improvement in processes and programs, and learning culture/orientation (for example, quality assurance programs).

Recommendation 17

Assessment processes will need to explicitly include mechanisms to facilitate learning in order to capture the potential for learning through participatory programs,

Recommendation 18

Next-generation EA legislation must reflect a learning orientation to the generation, testing, and sharing of knowledge.

Recommendation 19

To ensure a learning orientation, EA monitoring programs must require mandatory monitoring and public reporting, as well as meeting specific requirements regarding reporting.

Recommendation 20

Next-generation EA legislation should include specific provisions for the ongoing assessment of quality assurance to ensure meaningful regime evolution. This would be accomplished through the appointment of an independent ombudsperson-like agency – a "Quality Assurance Agency" (QAA) with specific powers and obligations.

Theme 6: Sustainability

We asked, recognizing that EA needs to be re-framed as sustainability assessment, what practical questions need to be addressed? How should a "next-generation" federal assessment regime address alternatives and trade-offs in project purpose and design, assessment of alternatives, and the need to protect assessment from international investment arbitration via legislated decision-making criteria and trade-off rules?

Recommendation 21

Next generation EA legislation should establish the generic criteria for assessment decision making and provide for further specification of these criteria for application to particular cases and contexts in line with the legislative generic criteria.

Recommendation 22

Next-generation assessment legislation should establish explicit rules for evaluating trade-offs, and provide for case and context-specific elaboration of them.

Theme 7: Public participation

We asked, what needs to be in place in law and regulation and guidance to make the principles of meaningful public participation work in practice?

Recommendation 23

EA law and policy must be updated to apply the following ten overarching principles to ensure meaningful public participation actually occurs through EA processes:

1. Participation begins early in the planning and decision making processes, is meaningful and builds public confidence;
2. Public input can influence or change the outcome/project being considered;
3. Opportunities for public comment are open to all interested parties, are varied, flexible, include openings for face to face discussions and involve the public in the actual design of an appropriate participation program;
4. Formal processes of engagement, such as hearings and various forums of dispute resolution, are specified and principles of natural justice and procedural fairness are considered in formal processes;
5. Adequate and appropriate notice is provided;
6. Ready access to the information and the decisions at hand is available and in local languages spoken, read and understood in affected areas;
7. Participant assistance and capacity building is available for informed dialogue and discussion;
8. Participation programs are learning oriented to ensure outcomes for all participants, governments, proponents and participants;
9. Programs recognize the knowledge and acumen of the public; and,
10. Processes are fair and open in order for the public to be able to understand and accept decisions.

Theme 8: Incorporating Climate Change Into EA

We asked, what measures need to be in place in order to integrate climate change considerations into assessment processes?

Recommendation 24

At a minimum, the federal government must conduct project assessments so as to understand whether proposed projects affect Canada's ability to meet its international climate commitments and obligations.

Recommendation 25

Climate change policy is a prime and priority candidate for treatment through comprehensive SEA. In order for project EA to address climate considerations effectively, efficiently and fairly, national and federal climate change policies are needed that guide project-level EA.

Recommendation 26

Pathways for meeting emissions reductions targets should be developed through a credible, transparent, strategic EA that includes meaningful public participation throughout and provides an authoritative guide for project planning and assessment.

Recommendation 27

Triggering should be designed to ensure that all activities that are not likely to have a transformational benefit and assist in the transition to GHG emission neutrality are automatically assessed before project decisions are made.

Recommendation 28

The climate effects of a project should be defined in terms of net GHG emissions which involves quantifying life cycle emissions over the entire lifespan of the project, including indirect upstream and downstream emissions as well as emissions it might displace.

Recommendation 29

Of the alternatives considered, the option that most, and most quickly helps Canada on a pathway to decarbonisation as well as results in positive contributions to social, environmental and long-term economic sustainability should be preferred.

Recommendation 30

EAS should be required to consider alternatives to the proposed project and a 'no project option' in order to establish emissions baseline and mitigation ideas.

Recommendation 31

Climate change commitments and the social cost of GHGs should be incorporated in socio-economic analyses of projects.

Recommendation 32

Assessment should include an undertaking's resilience to climate change impacts and mitigation actions.

Recommendation 33

Proponents should remain responsible and liable for all GHG emissions associated with their project and may be subject to future restrictions, including financial securities held against future climate impacts.

Recommendation 34

The best available climate science should be used throughout EA processes.

Appendix II – Credits

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Caucus Meeting Attendees, November 12-14, 2016

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Jamie Kneen, MiningWatch Canada (Co-Chair and Coordinator)
Oscar Koren, Slovenian Sports Federation
Arlene Kwasniak, Alberta Wilderness Association
Brennain Lloyd, Northwatch
Pat Moss, North West Institute
Joëlle Pastora Sala, Public Interest Law Centre
Karine Péloffy, Centre québécois du droit de l'environnement (CQDE)
Michael Poellet, Inter-Church Uranium Committee Educational Cooperative (ICUCEC)
Justina Ray, Wildlife Conservation Society Canada
Barry Robinson, Ecojustice
Gary Schneider, Environmental Coalition of Prince Edward Island (ECO-PEI)
John Sinclair, Green Action Centre
Jason Unger, Environmental Law Centre (Alberta)
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Support

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