Knowledge Synthesis Project

Synthesis at the nexus of sustainability assessment, regional/strategic assessment and Indigenous partnerships

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Executive summary

The project and its background

The most promising and overdue areas for innovation in impact assessment practice in Canada centre on three transitions. They involve basic purposes, major applications and sharing power. The first transition is from assessment regimes aiming only to mitigate significant adverse environmental effects to regimes expecting proposed undertakings to make positive contributions to sustainability. The second transition is to move assessment applications from an exclusive focus on projects to assessment law and process to also taking on bigger concerns and broader options at the regional and strategic level of policies, plans and programs and linking the regional/strategic and project levels of assessment together. The third transition is from accepting Indigenous people and organizations as participants in assessments to establishing assessment partnerships with Indigenous government bodies as decision making authorities in co-governance arrangements. Each of these transitions was identified as a key theme for the Knowledge Synthesis grant program.

The research project on which this document reports aimed to synthesize current knowledge about approaches to assessment that are sustainability-based, focused on issues and undertakings at the regional and strategic level, and involve Indigenous partners. Each of these three components is an area of assessment concern that has been overdue for innovation in law, structure, process and practice. As noted above, each of them centres on a significant transition – to more comprehensive and farsighted purposes, more ambitious and influential applications, and more just distribution and sharing of power. The three areas also overlap and interact. They are best understood as a dynamic set of mutual influences and overall potential.

This report draws from the existing literature to consider what can and should happen where the three transitions come together. Our question has been "what does a synthesis of current knowledge tell us about best approaches to assessments that are sustainability-based, focused on issues and undertakings at the regional and strategic level, and involve Indigenous partners."

Objectives and importance

The question is practical and timely. Assessment authorities, stakeholders, scholars and practitioners in Canada and beyond have been struggling for decades now with pressures and expectations in these three areas – to act on commitments to long term wellbeing (sustainability); to deal with big policy concerns, major cumulative effects and broad alternatives that lie beyond the capacities of project level assessments; and to organize and deliver more coherent and efficient assessments in a federal nation where multiple jurisdictions share authority and responsibilities and where Indigenous rights and commitments to reconciliation need to be honoured. The inadequacy of responses so far has been costly. One indicator is that many of the assessment-related conflicts and credibility losses in recent years have been, in part, consequences of overall governance failures to reverse unsustainable trends, face big policy issues and reconcile effectively with Indigenous peoples.

While the general story so far is of inadequate responses, the literature reports and examines many particular initiatives, including remarkable successes, in many of Canada's assessment jurisdictions. There is a great deal of experience as well as analysis from which to learn. Also, increasingly ambitious broad efforts are emerging. The most visible response is the new federal *Impact Assessment Act*, which came into effect in August 2019. The new Act includes provisions to address all three components in a context that makes integrated applications unavoidable. Regional assessments under the Act are likely to be sustainability-based and to require Indigenous partnerships if they hope to be credible and authoritative. However, as is common, the statutory provisions are general and enabling. Clarification of the full range of specifics – from overall purposes to particular options for structures and processes – lies ahead. This knowledge synthesis project has aimed to provide foundations for elaborating the specifics for applications under the new federal law and for other assessment jurisdictions in Canada facing similar concerns and opportunities.

Approach, findings and implications

Our approach to this synthesis project began with decades of experience in assessment cases in Canada, including many characterized by sustainability-based objectives (at least on the part of key participants), major regional and strategic concerns, and Indigenous communities, experts and authorities in crucial roles. In the literature-centred research, we relied heavily on case material, as does much of the available literature. But even in the works centred on concepts, principles, structural arrangements and generic rules of process and practice, we found that the sustainability, strategic and Indigenous considerations were deeply intertwined. Our report, despite the linear set of chapter topics, attempts to respect and reflect the interactions among the nominally separate topics.

The report begins broadly with consideration of sustainability-based assessment, narrows to examine sustainability-based regional and strategic assessment, and then addresses Indigenous partnerships in such assessments. At this most specific end point, we also provide contrasting case reports on the Yukon planning and assessment processes including the current initiatives with the Tr'ondëk Hwëch'in in the Dawson region, and on the Haida Nation's engagement in multiple collaborative and co-governance initiatives largely at the planning level but with project level implications.

The key findings are as follows:

- Sustainability-based assessments are based on the notion that projects and other undertakings subject to assessments should aim for positive overall contributions to sustainability. Diverse forms of such assessments have a long global record. Rough equivalents were initiated in Canada began well before the language of sustainability was popularized in the mid 1980s. Formal adoption of sustainability-based assessment law and practice was broadly supported during the recent federal assessment reform process consultations. Insofar as sustainability is fundamentally about improving prospects for lasting wellbeing, this support is not surprising. Sustainability-based assessment is merely deliberation and decision making in the long-term public interest. The difficulties arise not from the principle but from the consequential need to confront the unsustainability of many current practices. Associated challenges have arisen in clarifying the

implications for particular applications. For that, the apparent key is recognizing (i) that there is an easily identified set of generic requirements for moving towards sustainability; (ii) that while these requirements apply generally, they interact and apply in diverse and complex contexts; (iii) that the general requirements must be incorporated but specified and often re-organized and re-framed for application in particular places and cases; and (iv) that specified sustainability-based approaches have applications throughout the design and application of assessment regimes (statutes, regulations, policies and processes, institutional structures, and established practice), and throughout deliberations and decision making in individual assessments.

• Regional and strategic assessments, and their equivalents in, for example, land use planning, have also been numerous in Canada and elsewhere. However, as with sustainability assessments, the experience has mostly been in *ad hoc* applications, initiated where the relevant pressures, capacities, motivations and openings coincided. The diversity of practical explorations, plus associated thinking about basic objectives, structural options, relations with project assessments and approaches to application, provide a solid base for synthesis of initial lessons about core substance and process requirements, useful tools and effective approaches. At the same time, the literature recognizes major challenges – for example, in attracting multi-jurisdictional participation, assigning roles and responsibilities, and providing adequate guidance. A particularly important theme is that regional and strategic assessments so far have taken many forms to accommodate very different needs, participants, capacities and time demands. Access to a range of process models is therefore desirable. Nevertheless, all regional and strategic assessments have common needs to deliver credible and authoritative results – typically strategic undertakings such as policies, plans and programs that establish a reliable context and direction for more specific activities including project-level assessments.

• Collaborative partnerships with Indigenous governing bodies are likely to be needed in most regional assessments in Canada, and perhaps in many strategic assessments leading to policies, plans and programs of broad application. The literature, including especially the contributions from Indigenous scholars and other Indigenous voices, establishes that Indigenous partners are not like federal or provincial government partners. All three have Constitutionally entrenched rights and roles. But recognition of the rights of Indigenous peoples in the Constitution and beyond has special roots. The re-assertion of Indigenous rights defies the history of colonialism and associated efforts to eliminate Indigenous culture and power. Indigenous partnerships, consequently, involve both recovery and new application of Indigenous authority and Indigenous ways of seeing, deliberating and deciding. Consequently, assessment co-governance with Indigenous bodies is not a matter of integrating modestly different structures and responsibilities, but of retaining the integrity of resolutely defended and significantly different, though often complementary approaches. It is to be characterized by collaborating through braiding rather than merging. For sustainability-based regional and strategic assessment applications, that will often mean attention not only to deliberations and decision making on assessed undertakings, but also to building structures for shared governance over the implementation as well as assessment of policies, plans, programs and projects.

These findings imply that rich challenges are to be faced in each of the three areas of inquiry and practice. The intersection of sustainability, regional and strategic assessments and Indigenous partnerships may, nonetheless, provide many suitable venues for exploring promising pathways.

Action at the intersection may be unavoidable in any event given rising imperatives to address threats to sustainability, to develop regional and strategic guidance, and to build genuine reconciliation with Indigenous peoples in Canada. While the literature points to challenges, it also underlines necessity and positive potential.

Further information

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Chapter 1 – Introduction

Background and objectives

The new federal *Impact Assessment Act,* in force only since August 2019, introduces a sustainability-based agenda, promises regional and strategic assessments, and at least implies efforts to engage Indigenous people and governing bodies as full partners in collaborative assessments. How those innovations will be pursued in practice is not yet determined and may be established gradually over some years. Like most legislation, the new assessment law mostly sets out a broad structure and provides for the particulars of design and application to be specified in regulations, policies and institutional practice. This situation leaves an opening for applying the lessons from experience and deliberation on these matters so far.

Canadian federal legislation is, however, merely one venue for attention to sustainability, strategic issues, and Indigenous rights and re-empowerment. What is happening in assessment at the federal level in Canada is accompanied by related pressures, debates, openings and initiatives in other fields and jurisdictions across the country and beyond. All jurisdictions – federal, provincial, Indigenous, territorial, regional and municipal – now face concerns arising from the unsustainability of current activities and trajectories. All face strategic level issues including concerns and opportunities involving cumulative effects, broad alternatives and/or big policy issues that have been ignored or poorly addressed in existing processes and institutional practice. Moreover, many Canadian jurisdictions in addition to ones that are Indigenous governing bodies include Indigenous people with rights to be respected and authority to be recovered. Consequently, there are widely shared needs for better understanding of how sustainability-based strategic initiatives could and should be undertaken with Indigenous partners.

The research project on which this document reports aimed to synthesize current knowledge about approaches to assessment that are sustainability-based, focused on issues and undertakings at the regional and strategic level, and involve Indigenous partners. Each of these three components is an area of assessment concern that has been overdue for innovation in law, structure, process and practice. Each of them centres on a significant transition – to more comprehensive and farsighted purposes, more ambitious and influential applications, and more just distribution and sharing of power. Beyond these individual characteristics, the three areas overlap and interact. They are best understood as a dynamic set of mutual influences and overall potential. Consequently, the project research reported here draws from the existing literature to find what can and should happen where the three areas of innovation come together.

The project draws from a wide range of literatures and experiences. The available information base is substantial. While we are still in the early days of responding to these complex challenges, assessment authorities, stakeholders, scholars and practitioners in Canada and elsewhere have been struggling for decades now with pressures and expectations to act on commitments to sustainability, deal with big strategic concerns, and respect Indigenous rights and authority. The literature reports and examines a host of particular initiatives, including remarkable successes in many Canadian assessment jurisdictions. Practice so far falls well short of the ideals set out in theory and concept. At the same time, however, there is a great deal of exploration as well as analysis from which to learn.

Attempting now to integrate our understandings and identify their implications for practice is timely as well as important. Many of the assessment-related conflicts and credibility losses in recent years have been, at least in part, consequences of overall governance failures to reverse unsustainable trends, address big policy issues, and reconcile effectively with Indigenous peoples. By focusing on the intersection of these three problem areas, this knowledge synthesis project has aimed to strengthen the foundations for better understanding and more effective action on all of them.

Methods

This synthesis project rests on the authors' many decades of scholarly and applied work in assessment cases in Canada, and on an intensive and up-to-date literature review and analysis. Most of the experiential base and much of the reviewed literature on assessment and related planning reflect sustainability-based objectives (at least on the part of key participants), major regional and strategic concerns, and crucial roles for Indigenous communities, experts and authorities. Both the experiential and literature sources also involved case applications and studies as well as work centred on concepts, principles, structural arrangements and generic rules of process and practice. In most of the literature and experience, conceptual development and practical initiatives were deeply intertwined.

The formal literature review undertaken explicitly for the project was an integrative review, which is broadly inclusive of a range of sources, perspectives, fields of authority and expertise, and approaches to learning, rather than a more constrained systematic or semi-systematic review. The integrative approach is especially useful in cases where the aim is to "assess, critique, and synthesize the literature on a research topic," particularly on mature topics (Snyder, 2019, p. 335). Methods for this research were based on multiple understandings of how knowledge is synthesized.

First, we chose to synthesize knowledge across multiple topics, centred on sustainability, regional and strategic assessment, and Indigenous collaboration. This shaped our selection of literature in that we focused on identifying relevant work that either appeared in or was related to multiple areas of understanding. In light of the broad scope of each of the three intersecting areas, selection of literature to review and case studies to report was based on several factors. We aimed to capture work done primarily in or based on Canadian experience – institutional and legal structures, participating authorities and interests, processes, cases or other applications. International literature was relied upon chiefly for clarification of broader concepts, available options and parallel experiences. We also sought examples from a range of sectors and jurisdictions.

Second, our understanding of knowledge synthesis was also applied to sources of knowledge. We drew on our collective years of experience, as well as peer-reviewed scholarly literature, grey literature (including expert studies, institutional statements, policy documents, and submissions to and reports of assessment authorities), and relevant legislation, formal agreements and legal cases. The approach was both inductive and deductive. Based on our own experience and knowledge of key pieces and themes within each body of literature, we identified

critical themes in the three areas. These focal themes were then cross-referenced within the literature (i.e., snowballed) and additional themes were identified and subsequently examined.

Structure of the report

The following chapters report on the three constituent areas of study in succession and set out our overall conclusions. The apparently linear approach is, however, misleading. Our agenda has been to respect and reflect the interactions among the nominally separate topics. Consequently, the report is better conceived as the product of an iterative exercise in narrowing from a comprehensive objective to a particular area of application.

Chapter 2 begins broadly with consideration of sustainability-based assessment. Chapter 3 narrows the focus to examine sustainability-based regional and strategic assessment, and Chapter 4 addresses the particular matter of Indigenous partnerships is such assessments. At the end of Chapter 4, we provide two contrasting case reports. The first is about the planning and assessment processes established under the *Umbrella Final Agreement* between the Yukon First Nations and the Governments of Canada and Yukon, including the current initiatives with the Tr'ondëk Hwëch'in in the Dawson region. The second considers the Haida Nation's campaigns for and negotiation of multiple collaborative and co-governance initiatives, focusing on ones largely at the planning level but with project-level implications. The progressive tightening of focus, however, is accompanied by efforts to carry key insights along from the broader beginnings to the more specific ends.

Overall conclusions are summarized in Chapter 5. More specific syntheses are provided, and their implications examined, throughout.

Chapter 2 – Sustainability assessment: knowledge synthesis

Introduction

Sustainability assessment is most simply an approach to evaluating options in light of their prospects for contributing to lasting wellbeing. This report, however, concerns specific applications within an extended process. Our interest is in sustainability assessment arising from the traditions of environmental and impact assessment,[1] which concern decision making about physical projects and strategic undertakings such as policies, plans and programs. While some of the environmental assessment literature is narrowly focus on the biophysical environment, many regimes and researchers have favoured more comprehensive impact assessment or have defined "environment" broadly enough to inform sustainability considerations. The relevant decisions cover evaluations though the full life of an undertaking from initial purposes, identification and comparison of alternatives through to implementation monitoring, decommissioning or renewal. For these sustainability assessments, the core objective is to foster undertakings that make positive contributions to sustainability, while also avoiding or minimizing adverse effects.

This chapter provides a synthesis of current understandings about what sustainability assessment means and entails, how sustainability and assessment arose and were combined, and what lessons can be taken from the literature and experience that brought and tested sustainability assessment as a concept and as practice. The discussion explores the implications for designing and applying sustainability-based assessment regimes – especially those that include regional and strategic assessments and expect to involve partnerships with Indigenous authorities – and how the conceptual versions of best practice match with the record so far and with the provisions of the new federal legislation.

The essentials of sustainability

Sustainability is at once both innocuous and deeply disturbing. The agreeable basic notion is to ensure viable and desirable futures. But important current trajectories of change are moving us in the opposite direction. Consequently, pursuing sustainability entails redirecting or replacing a wide range of current activities, practices and ideas. Also, while the sustainability objectives can be expressed simply and the core requirements for progress towards sustainability are now quite evident, most everything else about the contexts, options and strategies for change is complex

[1] Environmental assessment and impact assessment regimes are law and policy-based structures that centre on defined processes for deliberation, documentation and decision making. They are intended to ensure attention to otherwise often neglected factors in the planning, approval and implementation of new activities – chiefly physical projects, but sometimes also strategic level undertakings such as policies, plans and programs. The terms "environmental assessment" and "impact assessment" have been used variously over the past 50 years. Impact assessment is nominally more broadly scoped – able to cover socio-economic and cultural as well as biophysical considerations and even a more comprehensive and integrated sustainability agenda. In practice, however, many narrowly focused biophysical studies have been labelled impact assessments. Similarly, though in the reverse direction, environmental assessment is often taken to centre on biophysical effects, but the first legislated assessment process (under the US National Environmental Policy Act) and many since have defined "environment" broadly to include social, economic, cultural and other human factors. In this report, we use the terms loosely, recognizing their potential for broad application as well as their often more constrained application.

and uncertain. For applications in sustainability assessment, those three characteristics – simple fundamentals, complex and context-dependent specifics, and pervasive uncertainties – are the main considerations.

The global roots of current sustainability concerns and actions are usually traced back to the United Nations' World Commission on Environment and Development (the Brundtland Commission) of the mid 1980s, though it built on much earlier recognition of unsustainable trajectories. The Brundtland Commission focused mostly on the increasing scale of environmental degradation and the continuing failure of development to serious privation for billions or people. These the Commission recognized as interacting problems demanding integrated responses: there could be no lasting reduction of poverty without environmental stewardship and vice versa. The proposed solution was sustainable development, re-orienting economic activities to provide sufficiency for all while preserving the biophysical foundations for wellbeing into the future (WCED, 1987).

Sustainability

The essentials of the Brundtland Commission's understanding of sustainable development remain in place today, though for reasons that matter little here, "sustainability" is now the usually favoured term. Over the intervening decades, gains have been recorded on many indicators of human wellbeing (UNDP, 2020). At the same time, however, evidence of deepening unsustainability has also mounted – concerning climate change (IPCC, 2018; Steffen et al., 2018), biodiversity decline (IPBES, 2019; WWF, 2018), persistent hunger (FAO et al., 2019), water scarcity (WHO, 2019), deepening inequities (Alvaredo et al., 2018; UNDP, 2020), resource use (O'Neill et al., 2018), other trajectories towards social and biospheric tolerance thresholds (Raworth, 2017; Steffen et al., 2015) and the challenges recognized by the UN Sustainable Development Goals (UN, 2019). Both the gains and the losses come despite and because of a doubling (roughly) of global wealth and associated activities since the mid-80s (G.-M. Lange et al., 2018; Worldometer, 2020).

Economic expansion as conventionally achieved has been both a blessing and a curse. How to de-couple that combination, or find and establish viable alternatives, is consequently a dominant theme of much of the sustainability literature (Daly, 2002; Jänicke, 2008; Martinez-Alier et al., 2010; Mol, 2001; Victor, 2019). The various schools of thought on best strategies nonetheless agree that sustainability is not so much a defined objective as a continuing process of social re-organization that recognizes broadly evident requirements for lasting wellbeing but also the different possibilities and preferences of different places and players (Adger & Jordan, 2009; Gibson, 2017).

Complexity

The overlapping second big theme centres on complexity. Roughly concurrent with the rise of sustainability concerns has been the rise of scholarship and practice recognizing the interactions and often non-linear dynamics of complex systems, including socio-ecological and socio-technical ones (F. Berkes et al., 2002; Fang et al., 2015; Holling, 2001; Liu et al., 2015; Loorbach, 2010; Ostrom, 2009). These complex systems are intertwined at all scales from the

sub-atomic to the planetary and beyond. In this complex world, all activities and effects that enhance and imperil wellbeing influence each other through intricate and ever-changing interactions (Liu et al., 2007, 2015). Despite the millennia of experience that underlies traditional understandings, including Indigenous knowledge, and the decades of extraordinary advances in modern science, including concerning the behaviour of complex systems, we know little relative to what would be necessary for a confident grasp of how it all works (Bai et al., 2016; F. Berkes et al., 2002; Willamo et al., 2018). Our learning about complexity is therefore also a lesson about uncertainty (Lees et al., 2016).

Moreover, the complexity literature focuses mostly on understanding of available evidence about past and current conditions and dynamics. Further challenges face sustainability-based assessments that aim to anticipate future effects and help to direct change towards desirable and viable futures. Even the most profoundly problematic current trajectories and associated behaviours are entrenched in systems that also have desirable qualities and functions. Moving towards sustainability therefore entails fostering and directing transformative change in systems that are driving unsustainable and otherwise undesirable change (Patterson et al., 2017; Meadowcroft et al., 2019; Scoones et al., 2020) while at the same time rehabilitating and strengthening the resilience of these systems' capacities to deliver and support valued services (MEA, 2005). Transformation and resilience building need to be done together (Foxon et al., 2009; Olsson et al., 2014) and both involve disturbing interventions for directed change in a world of complexity and uncertainty (Armitage et al., 2012; Blythe et al., 2018; Hickel, 2019; Hammond, 2020; Swilling, 2020).

While the need for these changes may be increasingly evident, the interventions face inevitable challenges. They confront entrenched ideas, institutions and practices, which are notoriously difficult to dislodge (M.-L. Moore et al., 2014). They must proceed in a wide diversity of contexts, in which the specific conditions and possibilities will differ, power and advantage will be unequally distributed (O'Brien, 2012) and the most vulnerable people and ecologies will be hardest to protect (Swilling & Annecke, 2012). Plus, complexity will always entail uncertainty (SAPEA, 2019).

Implications

For sustainability-based assessment practice, and sustainability-based governance generally, the main implications of sustainability and complexity are matters of substance and process. The substantive considerations begin with the agenda's breadth (the multi-scale interactions of all factors influencing wellbeing (Lawrence, 2007a) and length (inter-generational) – nicely encapsulated as "the big here and the long now" (Robin, 2007). Also key are the commitment to directed change combining transformation and resilience, the imperative to respect uncertainty and adopt precaution, and the need to combine attention to global sustainability requirements with appreciation of the contextual specifics of individual cases. These have most direct implications for the purposes, scope, vision and decision criteria of assessments that aim to deliver the best options for multiple, mutually reinforcing, fairly distributed and lasting gains while avoiding significant adverse effects (R. B. Gibson et al., 2005). As well, because all of the big global scale threats to sustainability are the cumulative interactive effects of local, regional and sectoral problems and behaviours (Liu et al., 2015), assessment processes focused on

individual undertakings need to pay particular attention to cumulative interactive effects, especially the big, broad and potentially lasting ones (Dibo et al., 2018; Hackett et al., 2018). That also means that assessment requirements should apply to influential strategic undertakings (policies, plans, programs and the equivalent) as well as projects (Cronmiller & Noble, 2018).

The process considerations for sustainability-based assessment centre on service to the ambitious scope and the agenda for change. These entail processes that enhance learning as well as decision making by embracing multiple knowledge sources (Beanlands & Duinker, 1983; Sneddon et al., 2006), expanding and mobilizing capacities to understand and engage effectively (Kemp et al., 2005; P. Lange et al., 2013), building multi-scale and multi-jurisdiction linkages (Holley et al., 2012), retaining adaptive capacity (Armitage, 2008; Holling, 1978), and emphasizing accountability (Adger & Jordan, 2009; P. Lange et al., 2013). These in turn have implications for transparency, flexibility, collaboration, meaningful public participation, published reasons for decisions tied to sustainability-base criteria, and effective monitoring and response (see Box 2.1).

The sustainability assessment concept and implications for practice

Sustainability assessment is the application of sustainability principles, objectives and criteria, and suitable processes, to the conception, planning, evaluation and implementation of particular undertakings (Bond et al., 2012; Dalal-Clayton & Sadler, 2014; Gibson, 2017; Kemp et al., 2005). Many different authorities, venues, processes and applications may be involved. Here we focus on legislated, sustainability-based approaches to impact assessment that have emerged from the longer tradition of environmental assessment or impact assessment law and practice. However, legislated approaches to regional planning (BC, 2015) and resource management (New Zealand Resource Management Act, 1991) have sometimes adopted an equivalent agenda. Other influential approaches to sustainability-based evaluation and decision making have been applied to a wide range of purposes (Lima & Partidario, 2020), including forest product certification and labelling (FSC, 2015), corporate management (Maas et al., 2016), review of food and agricultural systems (FAO, 2014), and determination of lasting effects on livelihoods in developing countries (UNDP, 2017). In assessment applications, the subject undertakings have most often been physical projects (mines, dams, highways, etc.) but many jurisdictions have also assessed strategic policies, plans or programs (Sadler & Dusik, 2016).

The core purpose of sustainability assessments is to drive and facilitate development of undertakings that deliver positive contributions to sustainability while avoiding and/or mitigating significant adverse effects. As suggested above, the essential implications of the sustainability concept mean that serious sustainability assessments must aim to build the resilience of valued qualities and systems and foster transformations to desirable futures. They should seek the best options among realistic alternatives (Bond et al., 2012a; Lee, 2006; Steinemann, 2001). In elaborating these alternatives, comparing them and making defensible decisions on the best option to pursue, sustainability assessments should seek advances addressing all of the key interdependent requirements for progress towards sustainability (R. B. Gibson et al., 2005; Sikdar, 2019). As well they should pay careful attention to the specific considerations that characterize the individual case and context at hand (R. B. Gibson, 2017; Pope et al., 2017).

The literature offers many general approaches to clarifying and acting upon the implications of these basic guiding observations. (Many further options are available for more specific methods and tools – see below). The most common but also most primitive general approaches adopt the simple social, economic and environmental categories of "triple bottom line" corporate sustainability reporting (Elkington, 1999). While these fit well with conventional divisions of expertise, data organization and institutional mandates, they are better suited to a world of fragmented analysis and inevitable trade-offs than one that must recognize complex interactions and find openings for mutually supporting gains (Elkington, 2018). Approaches that focus on the evident requirements for progress towards sustainability have greater capacity for direct attention to key concerns and opportunities, recognition of complex interactions, and efforts to avoid trade-offs (R. B. Gibson, 2006b; Pope et al., 2004; A. Smith & Stirling, 2010). Much depends, however, on the comprehensiveness of the principles and/or criteria identifying the key requirements. A third approach begins with a focus on indicators, recognizing the practical advantages of available metrics (Sala et al., 2015b). As with the triple bottom line approaches that begin with study categories, data-driven approaches constrained by indictor availability and convenience can involve the tail wagging the dog, unless the available indicators are well aligned with the requirements for progress in a complex world (Babcicky, 2013; George, 2001);. The UN Sustainable Development Goals, have particular promise because they are built on decades of experience with the most salient sustainability concerns, and combine evident requirements and indicators (Hacking, 2019; UN, 2019). However, they too have been criticized for putting more emphasis on the separate boxes of problems than on their interconnections (ICSU, 2017; S. L. Wood & DeClerck, 2015).

Appropriate sustainability-based criteria for assessments

For sustainability assessment purposes, the chief advantages of requirements-based approaches are that they represent directly what must be accomplished and can be rephrased easily to serve as broad criteria for evaluations and decisions. Also, there is no shortage of source material for identifying key requirements. A very simple listing derived initially from a broad synthesis of material available diverse sources over a decade ago (R. B. Gibson et al., 2005), presents widely recognized requirements in eight categories: to restore and strengthen ecological and socio-biophysical life support systems, provide lasting livelihoods, enhance equity within and across generations, encourage resource efficiencies, foster public understanding and engagement, respect uncertainty and favour precaution in mutually supporting ways. A more detailed version of this list, plus associated trade-off rules, is set out in Appendix 1. The list is minimally controversial. It does little more than combine standard substantive sustainability imperatives with attention to learning, uncertainties and interactions. Many other framings of the synthesis and phrasings of the particulars would serve as well, so long as they cover the essentials.

The sustainability and sustainability assessment literatures are, however, quite consistent in insisting that the while generic requirements/criteria are useful reminders of these matters are always important, the specifics of case and context are also crucial. Different communities, regions, ecosystems, sectors and cultures have different needs and resources, concerns and opportunities, capacities, vulnerabilities, stresses, histories and trajectories. Consequently, suitably framed and phrased criteria need to combine attention to the generic requirements and the particulars of case and context (R. B. Gibson, 2017).

Sustainability assessment substance and process

These basic sustainability requirements provide the foundations for the main substantive requirements and process design considerations for sustainability-based assessment regimes. The now vast literature on assessment regime components, and desirable overall design and implementation characteristics, offers many recommendations for improving existing practice and introducing new approaches. The following synthesis is the most recent iteration of a "next generation assessment" package that draws from the international literature as well as lessons from Canadian experience (Gibson et al., 2016). The sources include early work on overall environmental assessment best practice criteria , more recent works that focus on sustainability-based assessment (Bond et al., 2005; R. B. Gibson et al., 2015; Johnston, 2017; Joseph et al., 2015) and the literature on particular components (see below). The idea that sustainability-based approaches could be the foundation for "next generation assessment" originated with Sadler (1996).

While the next generation assessment concept and criteria are meant for broad application, the version presented here anticipates application in Canada. It consequently reflects an emphasis on considerations such as Indigenous rights and inter-jurisdictional collaboration that are particularly important in Canadian assessment practice. The fundamental components are organized for convenience into 16 categories in Box 2.1. However, each category covers multiple considerations that interact across categories. Together the set represents a package.

Box 2.1 Fundamental components of sustainability-based next generation assessment regimes

1. *Purpose:* a fundamental commitment to sustainability-based public interest purposes, especially to deliver the strongest feasible positive contributions to lasting wellbeing while avoiding significant adverse effects (Bond et al., 2012a; Dalal-Clayton & Sadler, 2014; R. B. Gibson et al., 2005; Morrison-Saunders et al., 2014; Sinclair et al., 2018)
2. *Criteria and trade-off rules:* adoption of core sustainability-based criteria and trade-off rules for evaluations and decision making and requirements for specifying these criteria and rules for particular cases and contexts (R. B. Gibson, 2017; Joseph et al., 2015; Morrison-Saunders & Pope, 2013);
3. *Tiered application:* application to strategic as well as project level undertakings and provisions for use of broader (usually strategic level) assessments to address big issues and options and provide authoritative guidance to narrower (usually project level) assessments (Arts et al., 2011; Johnston, 2017; Lindgren, 2019);
4. *Streams:* assessment of a wide range of sustainability-significant undertakings facilitated by availability of different strategic and project level assessment process streams for undertakings that merit more or less demanding expectations and review processes (R. B. Gibson et al., 2015; Johnston, 2017; Savan & Gore, 2015);
5. *Scope and alternatives:* a scope of assessment designed to further positive contributions to sustainability, including requirements for establishment of public interest needs and purposes, comprehensive coverage of sustainability-related considerations; plus comparative evaluation of potentially reasonable alternatives in light of sustainability

criteria (Bond et al., 2012a; Fischer, 2011; R. B. Gibson et al., 2015; J. Gunn & Noble, 2009a; Lee, 2006; Pope et al., 2017);

6. *Effects assessment:* effects assessment covering positive and adverse socio-economic and biophysical effects, recognizing particular and systemic interactions, and emphasizing cumulative effects, uncertainties, and lasting implications; drawing on multiple sources of knowledge (modern science, Indigenous knowledge, independent expertise, stakeholder perspectives, etc.) with justification for assessment methods, explicit criteria for evaluations, publicly accessible documentation (Aksamit et al., 2020; Eckert et al., 2020; Gasparatos, 2010; Lawrence, 2007a, 2007b; J. W. Moore et al., 2018; Westwood et al., 2019);
7. *Participation:* active encouragement and support of meaningful public engagement throughout the assessment process (MIAC, 2016; O'Faircheallaigh, 2010; Sinclair et al., 2015; Sinclair & Diduck, 2016);
8. *Review and decision-making processes:* informed and impartial assessment reviews and enforceable decisions that apply the "contribution to sustainability" test (seeking multiple, mutually reinforcing gains while avoiding adverse effects) with public reasons for decisions using explicit criteria including for justification of any trade-offs (R. B. Gibson et al., 2015; Joseph et al., 2015; Lindgren, 2016);
9. *Monitoring of effects and compliance, and response to findings*: clear assignment of responsibilities for mandatory monitoring of effects and enforcement of compliance; comparison of actual and predicted effects, timely response to emerging problems and opportunities, and adaptation plans based on adaptive design (Hunsberger et al., 2005; R. Marshall et al., 2005; Morrison-Saunders et al., 2014; Pinto et al., 2019);
10. *Authoritative requirements in legislation, regulation and guidance:* clear, consistent and authoritatively enforceable assessment requirements, with flexibility for different cases and contexts but not openings for avoidance and compromise (R. B. Gibson et al., 2015; Joseph et al., 2015);
11. *Impartial administration:* an arms-length public authority responsible for transparent decision making and process supervision and collaboration with other assessment participants and jurisdictions, use of independent expertise, subject to Cabinet override with justification based on the legislated purposes and factors for consideration; subject to independent monitoring and regular review of the regime for continuous improvement (R. B. Gibson et al., 2015; Johnston, 2017; Joseph et al., 2015);
12. *Indigenous rights and reconciliation:* government-to-government consultation and assessment collaboration, incorporation of Indigenous perspectives and knowledge, provision of space for application of Indigenous laws and process (Asch et al., 2018; Bowie, 2013; Clogg et al., 2017a; Eckert et al., 2020; G. Gibson et al., 2018; Papillon & Rodon, 2019a);
13. *Inter-jurisdictional collaboration:* facilitation of collaborative assessments with other jurisdictions adhering to best practice requirements, recognizing interactive effects across jurisdictional mandates, and respecting different modes of deliberation and decision making (Doelle et al., 2016; Fitzpatrick & Sinclair, 2009; Johnston, 2017; Kwasniak, 2009; Macintosh, 2010);
14. *Linkages beyond assessment:* effective links to other initiatives and processes (target setting and tracking, use of regulatory and fiscal tools, standard setting, programs for

innovation and experimentation, etc.) that contribute to a transition to lasting social, economic and ecological wellbeing (R. B. Gibson et al., 2015; Lawrence, 1997);

15. *Full process learning:* treatment of all process components as means to enhance broad-based individual and social (including institutional) learning to enable transitions to sustainability; multi-authority and multi-interest engagement; accessible and searchable information library; regular review of legislation and guidance (Mach et al., 2020; Morgan, 2017; Sinclair et al., 2008, 2015); and
16. *Effectiveness, efficiency and fairness considerations:* treatment of effectiveness, efficiency and fairness as interdependent objectives to be enhanced by clear rules, consistent sustainability-based guidance, recognition of key contextual factors, early process initiation, defined but flexible timelines, emphasis on multiple benefits, transparency and multi-jurisdictional collaboration and cooperation with planning and regulatory bodies beyond the assessment process (R. B. Gibson et al., 2015; Macintosh, 2010).

Sustainability assessment experience so far

From environmental assessment to sustainability-based impact assessment

Environmental assessment, first legislated in the United States in 1969 (National Environmental Policy Act of 1969, 1970), is a step from regulatory licensing of new projects to more anticipatory consideration of their overall environmental effects. Some jurisdictions defined "environment" broadly to cover social, economic and cultural as well as biophysical considerations (The Environmental Assessment Act, 1975, 1975; National Environmental Policy Act of 1969, 1970). Other jurisdictions and professional bodies covered the broader scope and practice as "impact assessment" (IAIA, 2020). While many environmental assessment processes were at least initially policy-based, legislation was eventually recognized as necessary for compliance and credibility.

At least in democracies, the requirements of environmental assessment law emphasized open processes and publicly defensible decision making. Accordingly, they featured rational planning expectations (often including explicit purposes and needs, comparative evaluation of alternatives, public reviews, enforceable decisions and post-decision monitoring), plus access to information, opportunities for public participation, expert reviews, published findings and reasons for decisions (Lawrence, 2003; C. Wood, 2002). However, all environmental assessment regimes focused on mitigating the significant adverse environmental effects of individual projects and were conceived and treated as contributions to decision making in which other key considerations, including economic and political ones, were addressed separately and retained central importance.

Even in the early pre-Brundtland Commission days, more comprehensive, integrated assessments were sometimes undertaken. One globally recognized example is Canada's Mackenzie Valley Pipeline Inquiry. Led by Justice Thomas Berger in the mid-1970s, the inquiry took an effectively sustainability-based approach to assessing how a major hydrocarbon project would affect the future of a large region as a homeland and/or resource frontier (T. R. Berger, 1977; Gamble, 1978; Page, 1986). However, such sustainability-like assessments were ad hoc initiatives in

special processes where useful responses to the identified problems demanded a broad ambit and a long vision.

More regular application of explicitly sustainability-based assessment approaches began in the late 1980s and 1990s after the Brundtland Commission and the 1992 Rio de Janeiro conference on environment and development (the Earth Summit) had won global recognition for sustainable development needs and objectives. The best publicized early applications included those in international aid decision making by multi-lateral and national development bodies and banks, corporate reporting initiatives, and product certification (Dalal-Clayton & Sadler, 2014). Application of sustainability-based approaches to the assessment of projects and strategic policies, plans and programs also became increasingly common. While many were individual case applications, establishment of legislated or policy-based regimes with sustainability-based assessment requirements emerged in the 1990s and early 2000s and spread quite quickly to many jurisdictions around the world (Dalal-Clayton & Sadler, 2014; Lima & Partidario, 2020). Particularly notable were broad policy initiatives of the European Union and OECD, and national and sub-national (provincial/state) processes in the United Kingdom, Australia, Canada, the Netherlands, Switzerland and South Africa (Bond et al., 2012; Dalal-Clayton & Sadler, 2014; Poveda & Lipsett, 2011).

For over ten years now, the literature has been reporting the current state of the art in both concept and practice (Bond et al., 2012; OECD, 2006; Pope et al., 2015; 2017; Sala et al., 2015). Much of the literature has focused on core conceptual and practical matters – how to frame and apply an understanding of sustainability imperatives and their implications (see the discussion above), how to address the many components needed for effective sustainability-based next generation assessment regimes set out in Box 2.1 (see the discussion and references above).

Assessment methods and tools for sustainability-based evaluations have also attracted scholarly as well as practitioner interest. The literature covers an evolving multiplicity of complementary and alternative options drawing from many disciplines and meant for generic or specific application in many different socio-environmental contexts (Lawrence, 1997; Ortolano et al., 1987; Barry Sadler, 1996; Senécal et al., 1999; C. Wood, 1995). These include approaches that are more or less qualitative or quantitative, driven by indicators or objectives, framed in the conventional sustainability pillars (society, economy, environment) or using more cross-cutting and integrative structures, expert run or more participative, standardized or context sensitive, and aided by future scenario depictions or not (Bebbington et al., 2007; Pope et al., 2017; Poveda, 2011; Sala et al., 2015a). Detailed reviews of tools, methodologies, and metrics for sustainability assessments have been provided by Ness et al. (2007), Srinivasan et al. (2011), Singh et al. (2012) and de Olde et al. (2017), among others. The most widely recognized assessment tools include multi-criteria analysis (Kain & Söderberg, 2008; Geneletti & Ferretti, 2015), integrated assessment (Frame & O'Connor, 2011); (Weaver & Rotmans, 2006), pillar and indicator based approaches including recent ones featuring the UN Sustainable Development Goals (Barbier & Burgess, 2019; Dahl, 2012; Moldan et al., 2012; Moyer & Bohl, 2019), adjusted forms of cost-benefit analysis (Ekins & Vanner, 2007; Shaffer, 2010), discursive and deliberative techniques (Benham & Hussey, 2018; Dryzek, 2016; Niemeyer, 2004), comparison of alternatives (Kuzdas et al., 2016; Schmitt et al., 2017), lifecycle assessment (Costa et al., 2019), risk analysis and uncertainty analysis (Rotmans, 1998; Vose, 2000), vulnerability analysis (O'Brien et al., 2004;

Schneider, Sarukhan, et al., 2001), systems approaches (Grace & Pope, 2015), scenario-based approaches (Bai et al., 2016; Sheate et al., 2008; Spangenberg, 2019), and trade-off analyses of various kinds (de Magalhães et al., 2019; Papadimitriou et al., 2019).

Taken together, the plurality of approaches has been more enriching than confusing. Rather than being characterized by conflict, the literature points to considerable cross-fertilization and a continuing evolution of ideas with mutual strengthening and useful combinations (Bond et al., 2012a; Lima & Partidario, 2020). Also, the availability of diverse options seems appropriate for an emerging practice facing many different applications and contexts (von Wehrden, 2017).

Global experience with sustainability assessment

Experience in the actual sustainability assessment regimes has also been examined and reported, though more often in studies of particular regimes – such as sustainability appraisal in the United Kingdom (Benson & Jordan, 2004; Eales & Sheate, 2015; Therivel & Walsh, 2006) – than in overall reviews (Bond et al., 2012b; Dalal-Clayton & Sadler, 2014). The early sustainability regimes were post-Brundtland initiatives that signalled deepening awareness of complex global sustainability concerns. Like the Berger Inquiry, many were also driven by evident local and regional needs to go beyond mitigating adverse environmental effects to address multiple interacting issues and long-term implications. However, many jurisdictions were responding not only to global and regional needs for sustainability-based objectives in decision making but also to pressures to incorporate other good governance factors (Kidd & Fischer, 2016). These included calls for more transparent, participative, credible and fair processes in a time of declining trust in official assurances, decreasing tolerance for more stresses on communities and valued local environments, and rising public expectations for undertakings to deliver lasting and fairly distributed overall benefits rather than merely mitigate significant adverse effects (Kidd & Fischer, 2016; Sinclair et al., 2015).

In the literature, and unevenly but importantly in practice, good governance objectives have been recognized both as substantive sustainability considerations and as necessary features of assessment regime design (Pintér et al., 2012). As a consequence, the introduction of sustainability-based assessment as a broader and longer agenda for assessments has usually incorporated at least some of the other advances in assessment expectations and practices listed in the "next generation assessment" synthesis of intertwined sustainability-based substantive and process components (Bond et al., 2012a).

The sustainability-based assessment regimes, including legislated ones, that are now distributed around the world feature a grand diversity of structures and practices (Bond et al., 2012b; Dalal-Clayton & Sadler, 2014; Lima & Partidario, 2020; Morrison-Saunders et al., 2014). The assessment regime differences arise in large part due to the wide variety of biophysical, socio-economic and governance contexts and the range of salient issues to be faced. However, the diversity also reflects diverging preferences for applications to projects and/or strategic undertakings, for voluntary or mandatory adoption, and for selection among the many possible approaches to recognizing, categorizing and evaluating sustainability-related effects (Pope et al., 2016). In turn, these different preferences are often rooted in the greater and lesser ambitions of jurisdictions, the strength of their institutional barriers to change, and their willingness to move boldly in an area in which they had yet to build experience and confidence. The influence of these considerations has been evident in Canada as well as elsewhere.

Sustainability assessment in Canada

It is virtually certain that informal sustainability assessments have been done in Canada for millennia – whenever people with reasonable foresight gathered to discuss how to deal with a collective problem. Formal sustainability-based assessments of ideas for projects, policies, plans, programs and other such undertakings are more recent phenomena, dating back at least to the Berger Inquiry (1974-77). An illustrative list is presented below. Like the Berger case, many predate, or for other reasons fail to adopt, sustainability language and all are exceptional cases. Some have been individual sustainability assessment applications in special public inquiries. Others have been atypical cases lying at the boundaries of legislated planning and assessment processes. The illustrative cases in the seven categories in Box 2.2 below have had mandates broad enough to approximate at least the beginnings of a sustainability-based agenda.

Box 2.2 Categories and illustrative examples of sustainability assessments (or the equivalent) in Canada

1. Project assessment panel reviews (all inter-jurisdictional) that were given or adopted a sustainability-based agenda:
    - Voisey's Bay Mine and Mill Environmental Assessment and Joint Panel review, 1997-1999 (VBEAP, 1999)
    - Whites Point Quarry and Marine Terminal Environmental Assessment and Joint Panel review, 2005-2007 (WPJRP, 2007)
    - Kemess North Copper-Gold Mine Environmental Assessment and Joint Panel review, 2004-2007 (KNJRP, 2007)
    - Mackenzie Gas Project Environmental Assessment and Joint Panel review, 2004-2009 (R. B. Gibson, 2011, 2017; MGPJRP, 2009b)
    - Lower Churchill Hydroelectric Generation Project Environmental Assessment and Joint Panel review, 2009-2011 (Doelle, 2012, 2017; LCJRP, 2011))
2. Strategic-level assessments under broadly scoped legislated assessment regimes (all in provinces):
    - Ontario Environmental Assessment Board (EAB) assessment reviews (Bond et al., 2012b; Dalal-Clayton & Sadler, 2014; Lima & Partidario, 2020; Morrison-Saunders et al., 2014) of the Ontario Class Assessment for timber management, 1988-1994 (Ontario EAB, 1994); Ontario Hydro's 25-year Demand/Supply Plan, 1989-1993 (Ontario Hydro, 1992; Ontario Hydro, 1989); and, in a joint hearing with the Ontario Municipal Board, the Ontario Waste Management Corporation's proposed central hazardous waste management facility, 1988-1994 (Ontario Joint Board, 1994), all of which contributed to substantial change in those sectors
    - British Columbia Salmon Aquaculture review, 1995-1997 (BCEAO, 1997; Davidson, 1999)
    - Strategic level assessment reviews by the Québec Bureau d'audiences publiques sur l'environnement (BAPE) in multiple cases involving significant issues including industrial scale hog farms (BAPE, 2003), shale gas drilling/fracking (BAPE, 2011), and uranium mining (BAPE, 2015).
3. Strategic assessments in broadly scoped linked sectoral planning and assessment regimes: sectoral planning body reviews of electric power system plans with implications for projects:

- Ontario Energy Board review of the Ontario Power Authority's proposed Integrated Power System Plan (R. B. Gibson et al., 2008; Winfield et al., 2010);
- Manitoba Public Utilities Commission review of the Need For and Alternatives To Manitoba Hydro's preferred electric power system plan (MPUB, 2014)

4. Broadly scoped regional plan development in linked regional planning and assessment regimes based in modern land claim agreements:
   - Yukon: North Yukon Regional Land Use Plan (Vuntut Gwitchin Government & Yukon Government, 2009) and Peel Watershed Regional Land Use Plan (First Nation of Na-Cho Nyäk Dun, Tr'ondëk Hwëch'in, Vuntut Gwitchin First Nation, Gwich'in Tribal Council & Government of Yukon, 2019)
   - Nunavut: Keewatin Regional Land Use Plan and North Baffin Regional Land Use Plan (Nunavut Planning Commission, 2000a, 2000b); also Nunavut strategic assessment on potential offshore oil and gas development in Baffin Bay and Davis Strait (NIRB, 2019)
5. Broadly scoped urban regional plan development establishing the strategic context for projects:
   - Development of the Urban Growth Management Strategy for British Columbia's Capital Regional District, 1996-2003 (Boyle et al., 2004)
   - Regional sustainability-based planning driven by project level controversies in York Region in the greater Toronto area (Kirchhoff et al., 2011)
6. Broadly scoped strategic assessments making use of special commission or public inquiry mechanisms, including involvement of more than one jurisdiction:
   - Canada/Ontario Royal Commission on the Future of the Toronto Waterfront (D. Crombie, 1992)
   - Canada-Nova Scotia review panel, 1996-99, on whether or not to extend the moratorium on hydrocarbon exploration on the Georges Bank fishing area in the boundary waters between Canada and the United States (Georges Bank Review Panel, 1999)
7. Broadly scoped strategic assessments making use of independent expertise to assess how to regulate new technologies or applications:
   - Royal Society of Canada review of the regulation of food biotechnology (Expert Panel, 2001; Andrée, 2006)
   - Nova Scotia and New Brunswick strategic assessment of potential tidal energy projects in the Bay of Fundy (Doelle, 2009; OEER, 2008)
   - Independent review of aquaculture regulation in Nova Scotia (Doelle & Lahey, 2014).

Of the cases listed above, only the five joint review assessments in Category 1 explicitly presented their efforts as sustainability-based assessments, and only the later ones featured well-elaborated and applied sustainability criteria. The others adopted a sustainability-oriented agenda implicitly and incompletely, but recognized that the issues they faced demanded attention to a broad range of effects considerations as well as concerns about long term consequences. Some, such as the urban growth management cases, had the added benefit of proceeding in an institutional setting (urban regional planning) that had for some time been evolving towards a more comprehensively scoped and anticipatory approach. Also, especially in the rapidly growing

metropolitan areas, the planning culture there was recognizing needs for a major transition from automobile-oriented low-density urban form to transit-supporting densities. In many of the listed cases, the participating provincial and territorial authorities already had broadly scoped assessment processes, covering social, economic and cultural as well as biophysical effects.

Perhaps not surprisingly, almost all the listed cases were strategic-level assessments addressing difficult and pressing issues for which conventional planning or policy-making processes were insufficient or unavailable. Even the five sustainability-based project assessments in the first category below addressed substantial strategic issues (e.g., how to ensure lasting benefits from limited life mining projects, how best to protect the environment and capture benefits from a huge infrastructure project in a thinly populated region with limited governance capacities). Also notable in the context of this paper is that several of the cases (the Voisey's Bay and Mackenzie Gas Joint Review Panels in Category 1 and all cases in Category 4) involved Indigenous jurisdictions as participating authorities.

Sustainability assessment in the new federal *Impact Assessment Act*

The IAAct is the product of an ambitious consultative process and a lengthy and sometimes contentious legislative debate. From the outset, however, wide support for a sustainability-based approach was evident (Expert Panel, 2017; MIAC, 2016). What the Act will deliver is not yet fully established – many of its key provisions depend on future elaboration in regulations and policies – but at minimum it establishes a foundation for sustainability assessment. The new Act and associated early guidance have been evaluated in some detail (Doelle & Sinclair, 2019; R. Gibson, 2020) using versions of the next generation assessment components list set out in Box 2.1, above. The following summary covers only a selection of the most important and illustrative findings.

The Act's key sustainability provision is in section 63, which sets out five considerations that, along with the assessment report, provide the mandatory grounds for authorities' decision making on proposed projects that have undergone assessment. The first consideration is "the extent to which the designated project contributes to sustainability" (Impact Assessment Act, 2019, s.63(a)). The others – concerning jurisdictional authority, mitigation measures, impacts on Indigenous peoples, and meeting environmental obligations and climate change commitments – are complementary. The Act defines "sustainability" broadly as "the ability to protect the environment, contribute to the social and economic well-being of the people of Canada and preserve their health in a manner that benefits present and future generations" (Impact Assessment Act, 2019, s.2). It also provides a useful set more specific factors for attention in all assessments – covering, for example, cumulative and interactive effects, and alternatives to (and alternative means of carrying out) the designated project (s.22(1)). So far, however, only preliminary clarification of how decision makers (and proponents) are to determine "the extent to which the designated project contributes to sustainability" has been provided in draft policy guidance (IAAC, 2020).

Concerning the other fundamental components of sustainability-based next generation assessment listed in Box 2.1, above, the Act moves tentatively in the right direction. However, several of the most substantial advances lack key specifics and some positive steps are

encumbered by contrary constraints or discretionary openings for timid or regressive practice (Doelle & Sinclair, 2019; R. Gibson, 2020).

The Act applies mostly to major projects. The initial regulation with the designated projects list categories (Impact Assessment Act, 2019) covers far fewer consequential projects than it might and reflects political sensitivities more effectively than sustainability-based considerations (Lindgren, 2019; Mascher, 2019b). A residual process for smaller government projects (Canada, 2019a, s.81-91) is not sustainability-oriented or open enough to be potentially credible. For regional and strategic assessments as will be discussed in the next chapter, the Act provides welcome enabling provisions but few specifics and does not explicitly require that these broader assessments are to meet the sustainability-based expectations set out for project assessments (Impact Assessment Act, 2019, s.92-103).

The potential for seeking best options for contributions to sustainability is enhanced by the Act's requirements to consider alternatives. However, neither the Act nor the initial policy guidance clearly requires comparative evaluations of project alternatives in light of specified sustainability-based criteria. Identification and evaluation of trade-offs is not mentioned in the Act or in current guidance. While the Act emphasizes attention to Indigenous rights and encourages collaborations, the government's commitment to implementing the United Nations Declaration on the Rights of Indigenous People (UN, 2007) is relegated to a mention in the Act's preface. The Act introduces a planning stage for project assessments, but initial requirements for project details undermine prospects for this stage to begin soon enough to guide proponents' crucial early weighing of options. The Act continues intervenor funding and emphasizes public participation, but also seeks efficiencies through adherence to timelines. That tension will be tested in discretionary decision making by the Agency and reviews panels, who under the Act are to "ensure that the public is provided with an opportunity to participate meaningfully, in a manner that the Agency [or review panel] considers appropriate" (Impact Assessment Act, 2019, s.4.1, 11, 27, 51(1)(c), 99).

The overall conclusion seems to be that the Act's inadequacies as a vehicle for sustainability-based next generation assessment are not fatal. Most could be addressed positively and effectively through suitable regulations, policy guidance and gradually entrenched practice. While such initiatives are realistic possibilities, there are no firm grounds for confidence that they will be pursued. The character of the new federal assessment regime is not yet determined.

Synthesis conclusions about sustainability and sustainability assessment

Sustainability-based impact assessment law today is required to operate in the wide gap between conventional undertakings and what is needed to ensure lasting wellbeing. In that context, the law takes an appropriately practical approach, focused on contributions to sustainability rather than expectations for achieving sustainability. Taken seriously, however, the contributions requirements should push proponents and decision makers to design and approve undertakings that make things better in all of dimensions of needed improvement for the long run. The contribution to sustainability test can recognize that best efforts will often be incremental steps. But it also recognizes that progress towards sustainability is about changing course. On some matters such as climate change, biodiversity and equity, progress towards sustainability entails

reversing the direction of current trajectories. The transformations and resilience building required for sustainability necessarily disturb business as usual as least to some degree (Scoones et al., 2020).

For sustainability assessment application, the challenge is therefore not only to find suitably rigorous and fair means of defining and applying its requirements, but also to figure out how to move gradually but quickly along the least risky path to a viable and desirable future (Sengers et al., 2019). That is a challenge that sustainability assessment shares with deliberations and decision making on most matters of consequence. But that does not make things easier. Moreover, in addition to its own design and application needs, sustainability assessment regimes must work effectively in and with other areas of decision-making practice and authority (Fischer, 2011; Hacking, 2019; Meadowcroft & Steurer, 2018).

Generally, despite their differences and limitations, current approaches to sustainability assessment documented in the international literature have more ambitious objectives and scope, and give greater attention to complexity, than conventional environmental assessments. However, they remain less demanding, less transparent and less widely applied than the literature suggests they could and should be. Also, while sustainability assessment processes and applications have become more common, they have also faced resistance and reversals. Over the past few decades, even quite conventional assessment laws and their implementation have been weakened by jurisdictions committed to cutting costs, encouraging business investment and, in some cases, protecting the controversial activities and practices of economically important sectors (Doelle, 2012; Morgan, 2012).

While the record of international and Canadian sustainability assessment practice so far has been in most places sporadic, uneven and occasionally turbulent, sustainability assessment as a concept has been advancing. The adoption of a sustainability-based agenda in the new federal assessment law is a case in point. So far, the law's potential is not supported by elaborated requirements for best practice sustainability assessment. However, that potential is sufficient to merit exploration in crucial applications, including in regional and strategic assessments that involve partnerships with Indigenous jurisdictions.

Appendix 2.1 Widely recognized requirements for progress towards sustainability and associated trade-off rules

- revised and updated from Robert B. Gibson, et al., *Sustainability Assessment: Criteria and Processes* (London: Earthscan, 2005), pp.235-238.

The Basic Sustainability Assessment Decision Criteria

Life support: Build human-ecological relations that establish and maintain the long-term integrity of socio-biophysical systems and protect the irreplaceable life support functions upon which human as well as ecological well-being depends.

Livelihood sufficiency and opportunity: Ensure that everyone and every community has enough for a decent life and opportunities to seek improvements in ways that do not compromise future generations' possibilities for sufficiency and opportunity.

Intragenerational equity: Ensure that sufficiency and effective choices for all are pursued in ways that reduce dangerous gaps in sufficiency and opportunity (and health, security, social recognition, political influence, etc.) between the rich and the poor.

Intergenerational equity: Favour present options and actions that are most likely to preserve or enhance the opportunities and capabilities of future generations to live sustainably.

Resource maintenance and efficiency: Provide a larger base for ensuring sustainable livelihoods for all while reducing threats to the long-term integrity of socio-ecological systems by reducing extractive damage, avoiding waste and cutting overall material and energy use per unit of benefit.

Understanding, commitment and engagement: Build the capacity, motivation and habitual inclination of individuals, communities and other collective decision-making bodies to apply sustainability principles through more open and better-informed deliberations, greater attention to fostering reciprocal awareness and collective responsibility, and more integrated use of administrative, market, customary, collective and personal decision-making practices.

Precaution and adaptation: Respect uncertainty, avoid even poorly understood risks of serious or irreversible damage to the foundations for sustainability, plan to learn, design for surprise and manage for adaptation.

Immediate and long-term integration: Attempt to meet all requirements for sustainability together as a set of interdependent parts, seeking mutually supportive benefits.

The Basic Sustainability Assessment Trade-off Rules

Maximum net gains: Any acceptable trade-off or set of trade-offs must deliver net progress towards meeting the requirements for sustainability; it must seek mutually reinforcing,

cumulative and lasting contributions and must favour achievement of the most positive feasible overall result, while avoiding significant adverse effects.

Burden of argument on trade-off proponent: Trade-off compromises that involve acceptance of adverse effects in sustainability-related areas are undesirable unless proven (or reasonably established) otherwise; the burden of justification falls on the proponent of the trade-off.

Avoidance of significant adverse effects: No trade-off that involves a significant adverse effect on any sustainability requirement area (for example, any effect that might undermine the integrity of a viable socio-ecological system) can be justified unless the alternative is acceptance of an even more significant adverse effect.

- Generally, then, no compromise or trade-off is acceptable if it entails further decline or risk of decline in a major area of existing concern (for example, as set out in official international, national or other sustainability strategies or accords or as identified in open public processes at the local level), or if it endangers prospects for resolving problems properly identified as global, national and/or local priorities.

- Similarly, no trade-off is acceptable if it deepens problems in any requirement area (integrity, equity, etc.) where further decline in the existing situation may imperil the long term viability of the whole, even if compensations of other kinds, or in other places are offered (for example, if inequities are already deep, there may be no ecological rehabilitation or efficiency compensation for introduction of significantly greater inequities).

- No enhancement can be permitted as an acceptable trade-off against incomplete mitigation of significant adverse effects if stronger mitigation efforts are feasible.

Protection of the future: No displacement of a significant adverse effect from the present to the future can be justified unless the alternative is displacement of an even more significant negative effect from the present to the future.

Explicit justification: All trade-offs must be accompanied by an explicit justification based on openly identified, context specific priorities as well as the sustainability decision criteria and the general trade-off rules.

- Justifications will be assisted by the presence of clarifying guides (sustainability policies, priority statements, plans based on analyses of existing stresses and desirable futures, guides to the evaluation of 'significance', etc.) that have been developed in processes as open and participative as those expected for sustainability assessments.

Open process: Proposed compromises and trade-offs must be addressed and justified through processes that include open and effective involvement of all stakeholders.

- Relevant stakeholders include those representing sustainability-relevant positions (for example, community elders speaking for future generations) as well as those directly affected.

- While application of specialized expertise and technical tools can be very helpful, the decisions to be made are essentially and unavoidably value-laden and a public role is crucial.

Chapter 3 – Regional and strategic assessment: knowledge synthesis

Introduction

Strategic assessments are approaches to planning, evaluation and decision making at the level of policies, plans and programs (strategic-level undertakings). Regional assessments are an important subset centred on strategic-level undertakings that address regional concerns and opportunities. The labels have often been applied loosely, sometimes including studies limited to information gathering, which may be neither strategic nor assessments. Here, the discussion will focus on actual assessments that consider strategic level issues and response options and lead to policies, plans, programs or the equivalent that can provide clear, credible and authoritative guidance for more specific activities. Such guidance may be chiefly for development of new projects subject to assessment and/or regulatory requirements. However, the guidance could be more broadly conceived as a strategic foundation for preparation of more detailed or smaller scale policies, plans, programs, regulatory initiatives and economic measures affecting existing as well as new activities.

Because of the importance of clear, credible and authoritative guidance, this chapter will concentrate on law-based regional and strategic assessment (R/SA) regimes with transparent and participative processes. Also, given the agenda of this report, the discussion will focus on sustainability-based R/SAs where there is potential for collaboration with Indigenous authorities. Finally, beyond the broad purpose of exploring the nexus of sustainability assessment, R/SAs and Indigenous collaboration, we will pay particular attention to implications for R/SAs that could be carried out under Canada's new *Impact Assessment Act* (IAAct).

Legislated sustainability-based regional and strategic assessments in the context of broader global and Canadian experience

Design and application of R/SA processes today benefit from decades of experience with legislated (and non-legislated) R/SAs and related planning processes in tiered structures linking the regional/strategic and project level (Sadler et al., 2011).

Most of this experience has been with regional/strategic *environmental* assessment – for example, most of the strategic-level assessments under the many national processes covered by the European Union's Directive on strategic assessments (European Union, 2001). In Europe and elsewhere, most strategic-level assessments have focused more or less exclusively on consequences for the biophysical environment and have not been well integrated with consideration of other factors. Consequently, their role has been limited to being one contribution among others in policy, plan and program selection, design and decision making. However, many more comprehensive R/SAs have been undertaken, including explicitly sustainability-based ones (G. Berger, 2007; L. White & Noble, 2013b). Some of these have been done in non-legislated strategic assessment processes, for example in Switzerland and Belgium (G. Berger, 2007). Others have been in joint planning/assessment regimes, for example in sustainability appraisal (the equivalent of sustainability assessment) in the UK (Dalal-Clayton & Sadler, 2014; Government of United Kingdom, 2019; Thérivel & Fischer, 2012), resource

management in New Zealand (New Zealand Resource Management Act, 1991) and development assistance (OECD, 2006). Some have also been undertaken in assessment regimes with linked regional/strategic and project level applications – for example, under Québec's *Loi sur la qualité de l'environnement* (Loi sur la qualité de l'environnement, 1972).

Types of regional and strategic assessment processes

Very broadly, R/SA requirements have been imposed in jurisdictions globally and in Canada to address two needs – to improve conventional processes for developing regional/strategic undertakings and to address neglected or emerging regional/strategic concerns, including to provide guidance on these matters for project-level assessments. While these needs could be addressed together in legislated regional/strategic planning and/or assessment processes, they present different challenges and have different implications for process design. Consequently, they have led to R/SA processes and individual applications of two overlapping types:

- Assessments applying to conventional strategic undertakings aim to ensure due attention to environmental and other often-neglected public interest considerations in the ordinary development and approval of policies, plans and programs.
- Assessments focused on addressing neglected or emerging regional/strategic-level issues aim to deal with major cumulative effects, unresolved policy issues, and broad alternatives that promise better routes towards sustainable futures – including those that are raised in project-level deliberations but that project-level processes including project assessments are ill-equipped to resolve (insufficient mandate, expertise, capacity and authority).

Assessment processes for conventional regional and strategic undertakings

R/SA processes of the conventional type apply to established policy-making, planning and program development activities (Fundingsland Tetlow & Hanusch, 2012; Partidário, 1996). The nationally legislated strategic environmental assessment laws established under the European Union's 2001 SEA Directive (European Union, 2001) represent the most commonly cited examples (Marsden, 2008). Such legislated processes vary in many specifics, including scope, coverage, procedures and responsible authorities (Sadler et al., 2011; Sadler & Dusik, 2016). But all recognize that because strategic-level undertakings may have substantially greater overall negative and positive effects than commonly assessed projects, assessments should also be required at the strategic level. While many of the plans and policies covered have project-level implications, and may provide important guidance for project assessments, and they are not often initiated to address immediate project level assessment issues.

In Canada, most common equivalents of regional/strategic assessments are those found deeply integrated in comprehensive regional planning. Prominent examples include the development of growth management plans for expanding urban areas where there may be multiple tiered layers of strategic planning – provincial planning policies, protected area and density plans, regional plans, municipal plans, etc. – leading to implications for particular projects such as subdivisions and water and transportation infrastructure (Government of Ontario, 2020a, 2020b; Planning Act, 1990). More conventional strategic assessment regimes apply requirements for considering environmental factors in the development of proposals for new strategic-level initiatives. The

most recognized example is the federal government's non-legislated process under the Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals (Government of Canada, 2010). The Directive, initially released in 1990, sets out assessment expectations for federal government departments and agencies. However, it is environmentally-focused and its potential value even for this limited agenda has been undermined by a non-transparent process and a record of weak compliance (CESD, 2018). The longest and strongest use of a law-based R/SA process in Canada is probably that of Quebec (Loi Sur La Qualité de l'environnement, 1972; Québec, 2020), though it too has limitations (Gauthier et al., 2011).

Assessment processes for neglected or emerging regional/strategic issues

Needs for R/SAs are often identified in deliberations about particular undertakings that raise regional and strategic issues involving major cumulative effects, big policy issues, alternative broad options for desirable futures, or some combination of the three (R. B. Gibson et al., 2010a; J. Gunn & Noble, 2011). All of these issues reveal gaps in existing policies, plans and programs. Some involve unanticipated concerns and opportunities. Others have been neglected because they lie beyond conventional mandates or require the joint attention of two or more jurisdictions. Because project-level proponents and assessment authorities typically lack the mandate, resources, and inclination to address these matters and act authoritatively (Duinker & Greig, 2006), R/SAs are proposed to develop suitable responses.

R/SAs or the equivalent have been used quite often in Canada to address policy, plan and program gaps in Canada. Almost all of the examples of Canadian sustainability assessments reported in Box 2.2 in chapter 2, above, are R/SAs. Only the five sustainability-based joint review panel assessments were at the project level. As was noted in chapter 2, the applications to date have more often been through ad hoc review mechanisms or evolving planning regimes than through established processes under assessment law. Only Quebec has made somewhat frequent use of law-based strategic level assessments applying explicit sustainability principles (BAPE, 2009).

The great diversity of reasonably successful cases and approaches in the six R/SA categories in Box 2.2 demonstrate the utility of various different models. Various cases have been led by independent experts, government review bodies or government planning bodies. Both single jurisdiction and multiple jurisdiction cases are represented. Several have involved partnerships with indigenous jurisdictions. All have been designed for, or have at least anticipated, providing authoritative guidance for planning and decision making on more specific undertakings – including lower tier plans, projects and regulatory applications. However, the tiering arrangements have varied. In a few cases, a strategic assessment under assessment law has led to rules for project assessments under that law. In other cases, a planning process is used to direct projects subject to legislated assessment requirements. Often the R/SA will influence a broad range of activities, only some of which are subject to formal assessment. Predictably, these different R/SA models and case applications have also tested a variety of deliberative processes and decision-making structures.

With some exceptions (especially Noble, 2009a), little overall comparative evaluation of the Canadian experiences and their strengths and limitations has been done. To our knowledge, no one has attempted a review of past R/SA experience in light of any reasonably comprehensive set of best practice criteria – such as the generic next generation assessment framework

components set out in Box 2.1, in chapter 2 or the more specific components for R/SAs in Canada listed below in Box 3.1. Cases in all of these categories faced challenging issues, potential tension among relevant authorities, and response options with significant implications for stakeholders. Most, though not all, entailed lengthy research and consultations. Some were undertaken within regimes that developed, approved and applied authoritative policies, plans and programs; others led to recommendations to authorities that chose whether or not to take the recommended strategic actions. Unlike project assessments and assessments of conventional regional/strategic undertakings, many of the cases began with problems rather than proponents with proposals. In the established planning regimes, the R/SA-equivalent process was the proponent's main vehicle for developing the regional/strategic undertaking. In other cases (e.g., those in categories 6 and 7 in Box 2.2), the body leading the R/SA process was, in effect, the proponent – required to marshal the expertise and develop proposals for regional/strategic action.

Most of the categories and cases have addressed long standing issues, some of which have become responsibilities of well-established governing bodies (urban regional planning and assessment). A few have been initiated to deal with newly emerging needs (e.g., Fundy tidal energy (Doelle, 2009; OEER, 2008)). However, those that have addressed issues arising from project assessments have been initiated only after repeated problems in successive cases at the project level (e.g., assessments of Ontario's power systems planning (Winfield, 2012; Winfield et al., 2010)). Many requests for R/SAs concern strategic level issues or policy uncertainties that need resolution for the project assessment in which they arose. Failure to address these needs has been a common complaint among participants in project level assessments, including private sector proponents and public interest intervenors (CCME, 2009; Duinker & Greig, 2006; Expert Panel, 2017; R. B. Gibson et al., 2015; MIAC, 2016, sec. 4.4.2). However, perhaps because of the challenges involved, the literature on responses to these failures reports few demonstrated solutions and is focused mostly on proposing possible approaches (Doelle, 2018a; Sinclair et al., 2009).

Integration and review in regional and strategic assessments

Some of the literature (e.g., Stoeglehner & Wegerer, 2006) distinguishes between R/SA requirements that are meant to be integrated into the planning of new regional and strategic undertakings and R/SA requirements that are treated as examination tools in a review process that follows the planning stage. The distinction can be exaggerated. Many assessment laws that focus on the review and approval stages of assessments do so presuming that review and approval requirements will push incorporation of the desired sustainability-related considerations in the planning stage. Moreover, the strategic assessment literature often treats both the development of policies, plans and programs and their review as constituent parts of the R/SA process (Brown & Thérivel, 2000). All advanced regional and strategic assessment processes also incorporate attention to follow-up implementation monitoring, adjustment and review (Arts & Morrison-Saunders, 2012; Cherp et al., 2012). The anticipated eventual result is a more broadly integrative and farsighted planning structure and culture.

Effective integration of sustainability considerations throughout regional and strategic planning, review and follow-up is common in some areas of application – especially in public sector land use planning for resource management and urban development where there have been concurrent

on-the-ground public pressures for attention to a broad range of sustainability-related issues. However, both public and private sector actors retain countervailing motives to focus on a narrower set of concerns, including financial imperatives, areas of mandate and expertise, and openings for short-term economic or political advantage. Ensuring impartial reviews is therefore important to support integration objectives as well as public accountability and credibility (Doelle, 2018a; Joseph et al., 2015), in all R/SA processes.

Anticipated types of regional/strategic assessments under the new federal *Impact Assessment Act*

The new federal *Impact Assessment Act* empowers the Minister of Environment and Climate Change to initiate regional and strategic assessments (Impact Assessment Act, 2019, secs. 92, 93 and 95(1)). A regional assessment must consider the effects of existing or future physical activities in a region (Impact Assessment Act, 2019, secs. 92, 93). A strategic assessment may address any issue or proposed or existing Government of Canada policy, plan or program that is relevant to conducting project assessments (Impact Assessment Act, 2019, sec. 95). Both regional and strategic assessments are to be conducted either by the Impact Assessment Agency or by a committee appointed by the Minister. Joint regional assessments may be established under agreement with another jurisdiction that has overlapping authority (Impact Assessment Act, 2019, sec. 93). Every R/SAs under the Act must make its information public, ensure meaningful public participation, take scientific information and Indigenous knowledge into account, and deliver a report to the Minister (Impact Assessment Act, 2019, secs. 97–102). Beyond these provisions, the Act leaves most specifics – concerning R/SA applications, roles, scope, ambition, processes, report contents and potential forms of authoritative guidance – to subsequent elaboration in regulations, policy and practice.

Among the basic features that remain uncertain is the role to be played by the Agency or by a committee in conducting an assessment. Given the range of potential applications, different roles may be expected. In strategic assessment cases addressing proposed government policies, plans or programs, the Agency or committees would likely be responsible for directing R/SAs and playing the review role, with the relevant government body being the proponent of the policy, plan or program involved. That approach could also apply in other cases, including some regional assessments. However, many if not most calls for R/SAs under the new Act are likely to concern neglected or emerging issues, including ones that arise in project assessments. For these issues, there has yet to be an adequate strategic response (an existing policy, plans and/or programs), perhaps due to the absence of a suitably authorized and committed proponent. In many cases, there may not be an authority with the mandate, capacity credibility and inclination to prepare and propose the needed policy, plan or program. In such cases, the Agency or a committee could be expected to act as a substitute for proponents – clarifying the regional/strategic questions to be answered, assembling information and expertise, examining concerns and opportunities, identifying and evaluating response options, and selecting a preferred alternative as the proposed regional/strategic policy, plan or program – and also to serve as their own reviewers. Usually, however, even in an R/SA without an initial proponent to develop the needed policy, plan or program, it should be possible reasonably early in the process to identify and engage appropriate authorities to implement the resulting policy, plan or program.

Similar situations have arisen in the past. Examples include regional/strategic inquiries established to address complex and/or delicate problems, including some involving multiple government departments (e.g., concerning how to regulate food biotechnology (Expert Panel, 2001)) or multiple jurisdictions (e.g., regional contributions to water contamination in the Toronto waterfront (D. Crombie, 1992)), none of which was in a position to be the proponent or to establish a collaborative proponency. The record of those experiences and the reasons for their successes and limitations are too complex and case specific to explore here. However, two reasonably safe lessons are evident. First is that in the absence of an initial proponent body or collaboration, R/SA processes would benefit from early identification of the kind(s) of regional/strategic undertaking(s) likely to be needed and clear designation of the authorities likely to be responsible for eventual implementation. Second is that the credibility of R/SAs and resulting undertakings is likely to be greater where the assessment principle of open and impartial review is retained. Where the Agency or a committee is required to act as a proponent, a separate independent review mechanism is needed.

Like Agency and committee roles, the possible types of R/SAs under the Act could range widely. Many anticipated regional and strategic applications appear to centre on neglected or emerging regional/strategic issues and, as noted above, past Canadian and international experience in such assessments has been characterized by a diversity of approaches adopted to fit different issues and contexts (Brown & Thérivel, 2000; Noble, 2009b). A similar range of process options may well be needed for R/SAs under the new Act, including for the special and perhaps common cases of R/SAs on issues arising, and needing to be addressed, in on-going project assessments. However, all useful options will need to deliver clear, credible and authoritative guidance. For this, the selection and elaboration of applicable types of assessment will need to incorporate best practice R/SA components and characteristics.

Best practice components and characteristics for next generation sustainability-based regional and strategic assessment regime in Canada

The literature and experience on regional and strategic assessments provide a rich foundation for identifying the best practice components and characteristics of R/SA regimes. The following synthesis outlines the key best practice elements for regional/strategic assessments under sustainability-based assessment law. It recognizes the particular demands upon federal assessment law and practice in Canada – a federation with an overlapping distribution of powers and responsibilities, Indigenous jurisdictions and rights, and highly diverse cases and contexts for application. Also, it focuses on the main types of R/SAs reasonably anticipated under the bare-bones provisions of the new Act.

Underlying assumptions

The key assumptions underlying the selection of best practice components and characteristics below are as follows:

- R/SAs serve in a tiered assessment structure in which their core role is to provide clear, credible and authoritative guidance for deliberations and decision making on physical activities, including projects subject to assessment under the Act (Impact Assessment Act, 2019, secs. 92, 93 and 95).

- For guidance purposes, R/SAs must deliver (recommendations for) regional or strategic undertakings – policies, plans, programs or the equivalent – that can provide authoritative direction for more specific activities.
- Effective tiered relationships depend on R/SAs having credibility as least equivalent to that of project assessments. Both need to be founded in law, to have a shared agenda (in this case sustainability-based), and to apply open, rigorous and participative processes, with impartial and accountable decision making.
- Given Canadian realities, R/SAs structures and practices must accommodate and foster collaboration between and among jurisdictions, while also raising assessment standards.
- Given the diversity of cases and contexts, R/SAs must combine adherence to fundamental principles with specification of roles, issues, alternatives, criteria and process mechanisms to suit particular applications.

Core substance and process requirements

The following requirements are fundamental for all sustainability-based regional/strategic assessment regimes in Canada. Where not explicitly established in law, they should be set out in clarifying regulations. The listed requirements incorporate the fundamental components of next generation assessment regimes set out in Box 2.2 in chapter 2, above, but are framed and specified to address R/SA needs. While the requirements are listed in rough sequential order, they interact. Some should be met concurrently and many should be revisited iteratively throughout the process. Like the broader list of fundamental next generation assessment components, this list draws broadly from the literature but emphasizes on Canadian sources in anticipation of Canadian applications (CCME, 2009; De Montis et al., 2016; R. B. Gibson et al., 2010b, 2015; J. Gunn & Noble, 2009b; IAIA, 2002; Noble, 2009a; Noble et al., 2019; Partidário & Clark, 2000; L. White & Noble, 2013a, 2013b). Like the fundamental components of sustainability-based next generation assessment set out in Box 2.1, above, the R/SA requirements listed in Box 3.1 represent a package of interacting components.

Box 3.1 Core substance and process requirements for next generation sustainability-based regional/strategic assessments

1. Identification of key issues, questions to be answered, concerns and opportunities, priorities for contributions to sustainability, and associated needs for a regional/strategic assessment and response (typically a policy, plan and/or program undertaking or package of undertakings) in the particular context (CCME, 2009; R. B. Gibson, 2017);
2. Identification of relevant jurisdictions, appropriate inter/multi-jurisdictional collaboration models and means of choosing among them (Olagunju & Gunn, 2016); see discussion of collaborations with Indigenous jurisdictions in chapter 4, below;
3. Initial identification and assignment of responsibilities: identification of who will be or act as the developer/proponent(s) of a regional/strategic policy, plan or program (or some combination) to address the issues at hand, or determination of the capacity of an assessment body (e.g., under the new federal Act, the Agency or a committee) to carry out the usual proponent roles at least initially; identification of any other potential participants in the development of a regional/strategic undertaking; identification of the bodies likely to be responsible for implementation of the undertaking(s); and

identification of responsibilities for review, approval and follow-up (Doelle & Sinclair, 2018; Noble, 2009a);

4. Open determination of the R/SA approach/model and mandate to be adopted: must be sustainability-based and must deliver a regional/strategic undertaking (policy, plan, program or equivalent) with specified authority, explicit implications for more specific decisions including in project assessments, and guidance for application to more specific undertakings (Arts et al., 2011; R. B. Gibson et al., 2015; Noble, 2002); see the discussion of R/SA types above and model options below;
5. Selection among specific means of ensuring appropriate Indigenous engagement and collaborative partnerships in light of Indigenous rights – including Constitutionally recognized Aboriginal and treaty rights, the duty to consult and accommodate and the UN Declaration on the Rights of Indigenous Peoples (Clogg et al., 2017a; Larsen, 2018; MIAC, 2016) – and respect for Indigenous worldviews, epistemologies and knowledge, legal and governance traditions; see chapter 4, below;
6. Selection among public engagement process options including elaboration of steps, means of ensuring transparency, timely access to information, means of facilitating meaningful public engagement with participant support, opportunities for dialogue rather than passive participation alone, and reporting on how public contributions were addressed (CCME, 2009; Noble, 2009a; Noble & Nwanekezie, 2017; Sinclair et al., 2009, 2017; Staples & Askew, 2016; UNECE, 1998; Wirutskulshai et al., 2011);
7. Understanding of the case and context, including use of best conventional scientific and Indigenous knowledge to establish baseline information on conditions and trends, key socio-ecological and other systems and their histories, stresses and opportunities, system thresholds, drivers and patterns of change and uncertainties; scenario analysis to identify desirable futures or future characteristics to be pursued and undesirable prospects to be avoided/mitigated or prepared for, and identification of associated regional/strategic objectives (CCME, 2009; Clogg et al., 2017a; J. Gunn & Noble, 2009b; Wirutskulshai et al., 2011) ;
8. Specification of sustainability-based criteria and trade-off rules for evaluations, recognizing the particulars of the case and context (Bond et al., 2012a; R. B. Gibson, 2017; R. B. Gibson et al., 2005; L. White & Noble, 2012);
9. Identification of regional/strategic alternatives (including the null option), prediction of their impacts and associated uncertainties (Bodde et al., 2018; Lees et al., 2016), and sustainability-based comparative evaluation of the alternatives, such as different pathways to potentially desirable futures and different policy, plan and program options (Atlin & Gibson, 2017; CCME, 2009; De Montis et al., 2016; Noble, 2009a; Staples & Askew, 2016);
10. Determination and elaboration of the preferred alternative in the form of one or more regional/strategic undertaking(s) that would have provide authoritative direction for future project assessments and other relevant deliberations and decisions (Acharibasam, 2013; González et al., 2015; L. White & Noble, 2013b);
11. Independent review of the proposed undertaking (in comparison with the alternatives), characterized by of impartiality, rigour, access to expertise, transparency and meaningfully participative public process (R. B. Gibson et al., 2015; Hunsberger et al., 2020; Lindgren, 2016);

12. Decision making on the regional/strategic undertaking with explicit, public reasons for decisions and conditions in light of legislated factors for consideration, sustainability-based criteria and trade-off rules (Bond et al., 2012a);
13. Specification of implementation and follow-up monitoring requirements (measurable objectives and relevant sustainability-based indicators, attention to potential thresholds, etc.) and allocation of responsibilities for follow-up monitoring and response to findings, including enforcement of conditions and adjustment of the regional/strategic undertaking and/or its application, possibly through new co-governance structures (Clogg et al., 2017a; De Montis et al., 2016; R. B. Gibson et al., 2010b; Noble, 2009a);
14. Commitments for regular review of the regional/strategic undertaking and its effects, with revisions as needed (Cheok et al., 2018; D. A. Hart, 1976);
15. Maintenance of the regional/strategic assessment links to other sustainability initiatives (e.g., at the strategic, project and regulatory levels) and further clarification of the regional/strategic undertaking's authority over and implications for particular activities, including projects subject to assessment requirements; clarification of the flexibility (and limits to flexibility) of strategic guidance to accommodate the peculiarities of individual cases and contexts (Griggs & Dunsby, 2015; Noble & Nwanekezie, 2017; Sinclair et al., 2017); and
16. Resource efficiency and timely delivery, facilitated by clear and authoritative requirements in legislation, regulation and guidance; selection among process streams for more and less onerous cases; and priority setting recognizing the many gaps in currently available regional/strategic guidance, the inevitable limitations of capacity, and the pressing needs for at least interim guidance for current and anticipated activities at the project level; special arrangements for delivery of credible and authoritative working direction to regional/strategic address issues arising in an on-going project assessment (Acharibasam, 2013; CCME, 2009; Hunsberger et al., 2020).

Big regional and strategic assessment regime design and application issues

The standard requirements reported above can be applied through many different R/SA structure and responsibility allocation arrangements. Because R/SA applications are highly diverse, this variety of arrangements is beneficial. The most important variables include jurisdictional participation, assessment roles and responsibilities, and immediacy of guidance needs. Anticipatory identification of available options and their strengths and limitations should be in place to inform selection of appropriate arrangements for the case and context.

1. Jurisdictional participation
Will the R/SA be under the authority of one jurisdiction or a collaboration of jurisdictions?

R/SAs by a single jurisdiction are possible and appropriate in circumstances where that jurisdiction has the necessary authority to develop and act on a sufficiently comprehensive regional/strategic policy, plan or program. Where guidance is needed for a project assessment and related decision making, a single jurisdiction's need to make a decision on the proposed project may be enough to justify a non-collaborative R/SA that also covers matters within

another jurisdiction's authority (e.g., where a federal R/SA addresses regional planning issues and options in a province where a proposed project requires federal approvals).

In many cases, however, collaboration with all relevant jurisdictions (federal, provincial Territorial, Indigenous) would be feasible as well as desirable to align guidance and the exercise of authority (Olagunju & Gunn, 2016). Collaborative inter-jurisdictional R/SAs should meet all of the basic process requirements listed above in Box 3.1. Accordingly, collaborations should adopt the most advanced characteristics of the partners' assessment regimes. Timely establishment of inter-jurisdictional collaborations can be facilitated by funding support and pre-established cooperation agreement templates that set out acceptable collaborative arrangements, processes for choosing among the available options, and frameworks for the allocation of responsibilities (R. B. Gibson et al., 2010b).

Where many jurisdictions may have some interest and authority, collaborations with all potentially relevant jurisdictions may be impractical. In such cases, smaller collaborations of core authorities may be viable if accompanied by means of ensuring serious attention to other voices and respect for the authorities outside the core. As well, there may be situations in which collaborations are based initially on the jurisdictions most likely to find positive solutions and bring other jurisdictions along (Phare et al., 2017).

Collaborations with Indigenous partners will need to feature recognition of Constitutionally entrenched Aboriginal and treaty rights, decision-making authority and jurisdiction under modern treaties, commitments to act on the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), and the importance of Indigenous laws and processes as well as Indigenous perspectives, knowledge and authorities (Borrows, 2010; Clogg et al., 2017a; Fidler & Noble, 2013a; Galbraith, 2014; Napoleon, 2007). These matters will be considered further in the next chapter of this report.

Collaborative R/SAs add particular complexities to the early best practice process steps. While collaborations need to be arranged early in the R/SA process, some specifics affecting the allocation of responsibilities will depend on information emerging from the assessment (e.g., concerning the nature of alternative responses to the regional/strategic issues involved). Consequently, collaboration agreements will need to retain flexibility while ensuring that are R/SA process requirements are met. Past experience indicates that collaborations may evolve in form as well as participants. Some regional/strategic initiatives lead eventually to new co-governance structures to provide on-going means of addressing the issues that led to an initial collaboration – see, for example, the case report on Haida Gwaii co-governance, below.

2. Assessment roles and responsibilities
Will the R/SA be led by an existing agency within government (or agencies within governments) or by an independent body?
Will the R/SA be centred on preparing a regional/strategic undertaking or on reviewing a proposed undertaking?
Will or will there not be an initial proponent for the anticipated regional/strategic undertaking?

These three questions apply jointly and demand combined answers in deliberations on the nature and allocation of assessment roles and responsibilities.

As discussed above, R/SA requirements can apply to the conventional regional/strategic undertakings of existing proponent departments and other government bodies, and to needs for regional/strategic undertakings to address neglected or emerging regional/strategic-level issues, sometimes in the absence of an initial proponent. Accordingly, in some cases, the R/SA requirements may centre on review and decision-making on a proposed regional/strategic undertaking, while in others the R/SA will be integrated into the planning of new regional/strategic undertaking. For these assessments, both agencies within government and specially appointed independent bodies are available.

Under the new federal act, all of these possibilities apply in collaborative as well as individual jurisdiction versions of the R/SA processes. The most complex cases – R/SAs for emerging/neglected issues, requiring development of new regional/strategic undertakings, and needing inter-jurisdictional collaborations – may be most common, or at least most commonly requested.

The new act establishes that each R/SA is to be assigned to the Agency or a committee. Either body could be assigned to direct an assessment in which the proponent of the regional/strategic undertaking would bear considerable responsibility for developing and justifying the proposed undertaking, in which case the Agency or committee's most visible role would be in the review and preparation of recommendations for decision makers. In other cases, the Agency or committee could get quite different assignments. Most significantly different would be cases where the Agency or committee is responsible for developing the response to a regional/strategic issue – clarifying the issues and options, conceiving and weighing alternatives, selecting and planning the proposed undertaking, etc. – as well as for managing the assessment process including liaising with the collaborating jurisdictions, coordinating the consultations, ensuring appropriate review and drafting recommendations for decision makers. Because both Agency and committee options are available, it is possible that some of these roles could be divided between the Agency and a committee (e.g., to provide for independent review).

In project level-assessments, the selection between Agency and committee (or panel, or review board) assessments has usually turned on the perceived need for more or less formal public hearings. At the strategic level, however, appointed committees and the equivalent have played many roles and used many engagement tools, sometimes not including hearings. The summary categorization presented above lists a variety of potentially credible processes for R/SAs involving neglected and emerging issues including the familiar appointed (sometimes joint) hearing panels and panels established by independent hearing boards. Other options include public inquiries, appointed expert teams that may engage in broad consultations other than hearings, and combinations of expert or technical panels and stakeholder advisory bodies. All of these can be used with and without inter-jurisdictional collaboration. While they have different strengths and limitations, all can be designed to meet the 16 basic process requirements set out above and to ensure clear, credible and authoritative results.

3. *Immediate guidance needs*

Will regional/strategic guidance be needed to address issues that have arisen in a project assessment? If so, can proper R/SA guidance be prepared and provided in time for application in that project assessment? What is the best way to deal with regional/strategic issues in project assessments when no R/SA is undertaken or when one is initiated but is unlikely to reach conclusions within the time line of the project assessment?

Probably the most common but least addressed demands for R/SAs concern absent guidance on important regional/strategic issues that arise in project assessments. This may also be the area in which deliberations on solutions are least advanced. Some project-level assessment participants have called for "off-ramps" for strategic issues that rise in project assessments and have supported strengthening of regional and strategic responses to these problems (Benevides et al., 2009; Doelle & Sinclair, 2006). The challenge lies in ensuring that suitable guidance returns on an "on-ramp." R/SAs are likely to be rare relative to identified needs for them. If the "off-ramp" mechanism simply removes strategic issues from project assessments and there is no certainty of R/SA response, the off-ramp approach would weaken project assessments and reduce proponent incentives to push for regional and strategic assessments.

An evidently better option would combine two elements: use project assessments to flag regional/strategic guidance needs and inform decision making on priorities for new R/SAs, but also establish a set of suitable approaches to addressing the identified needs in the project level assessments in which they were flagged (Doelle & Sinclair, 2006, 2018; Johnston, 2017). The available approaches would have to deal with two quite different categories of strategic guidance requirements in on-going project assessments. Easiest to meet are needs for guidance in the form of expert advice on how particular issues could be addressed. Means of obtaining such guidance could build on reasonably common measures used by past review panels that draw upon technical experts and/or policy officials from relevant units of public government. Examples include the studies commissioned by the Mackenzie Gas Project Joint Review Panel on several broad matters of strategic importance including sustainability-based significance determinations (Lawrence, 2005), indicators of social, economic and culture cumulative effects indicators (Kruse, 2006), development of sustainability-based evaluation criteria (R. B. Gibson, 2006a), and use of future scenarios in cumulative effects assessment (Duinker & Greig, 2007).

More challenging are needs for authoritative direction. Project assessments often confront needs for at least a working understanding of how regional cumulative effects may be addressed (e.g., in addition to potential conditions of approval of the proposed project), how the implications broad alternatives (beyond those immediately addressed in the project impact statement) are to be considered, and how major policy gaps are to be filled (e.g., for determination of implications for meeting overall environmental obligations and climate commitments under s. 63(e) of the Act). On these matters, the project-level reviewers need authoritative direction in the form of working policies (or perhaps plans or programs) or the equivalent. For particular cases, using the off-ramp/on-ramp mechanism would entail establishing a suitably credible means of developing interim working policy and delivering it to the on-going project assessment in time for it to direct review and decision making, and preferably in time to involve the proponent's project proposal.

A third option for cases involving significant regional cumulative effects issues would be to expand the scope and purpose of the project assessment to that of an R/SA (Azevedo, 2016). Except for cases with public sector proponents, however, moving from a project-centred assessment to regional assessment would also entail involvement of new proponents, including government bodies with sufficient authority to develop and apply regional plans and policies or the equivalent.

The nature of the most appropriate process and set of participants is likely to depend on the nature of the issues raised and guidance required (e.g., need for clarification of the implications of current policies or plans versus needs to deal with the absence of current guidance). Given the time limitations of project assessments, the best option may include interim substantive guidance centred on assessment of the risk of project decisions foreclosing important future options (Sinclair et al., 2017; Walters, 1975) and recommended provisions for on-going collaborative governance (C. E. Parlee & Wiber, 2018).

To be useful in project assessments, however, interim guidance must be reliable as a basis for planning and decision making. This means that the "interim" working guidance must reflect firm commitments. For example, regional/strategic guidance on cumulative effects concerns will be expected to clarify how adverse cumulative effects will be anticipated and managed. Often, that would involve some combination of regional protections for sensitive and valued lands and waters, programs for enhancing equity in the distribution of risks and benefits, and governance arrangements for controlling the pace and scale of development (Griggs & Dunsby, 2015). Implementation of such options may recommended as conditions of approval in project assessments (MGPJRP, 2009b). But project assessment decisions would be better informed and more credible if based on reliable commitments made during the assessment process.

Application, tiering and major issues in sustainability-based regional/strategic assessments

The available literature and experience to date point to a host of matters deserving attention in the design and implementation of legislated sustainability-based regional/strategic assessment processes. Of these, three seem to be priorities for summary coverage here: making decisions on application of R/SA requirements, ensuring effective tiering, and focusing on the major substantive issues.

Application of regional and strategic assessment requirements

Decision making on application of R/SA requirements is essentially about determining what regional/strategic undertakings and needs for such undertakings will be assessed. Those determinations, however, also involve further questions: should there be different (more and less ambitious) streams of R/SAs? how are priorities to be set, given many needs and limited capacities? and how can application decision making ensure assessments of new strategic undertakings begin before potentially desirable options have been foreclosed?

As noted above, most conventional strategic assessment regimes apply assessment requirements to the development and approval of new policies, plans and programs. For these, the categories of undertakings subject to assessment can be pre-identified, as they have been under the current

federal Cabinet Directive (Government of Canada, 2010). When application is pre-determined, proponents can incorporate assessment requirements into the development of their undertakings from the outset – establishing the purposes, identifying the options, predicting and comparing their effects, selecting the preferred alternative, etc., in light of the established strategic assessment factors that decision makers will consider.

Under Canada's new federal assessment law, some strategic assessments could proceed in that manner (IAAct, 2019, s.95(1)(a)). The IAAct has no explicit provisions for anticipatory identification of strategic-level undertakings that will be automatically subject to assessment under the Act. The Act merely empowers the Minister of Environment and Climate Change to require assessment of any proposed or existing Government of Canada policy, plan or program, or "any issue," that is relevant to project assessment (IAAct, 2019, s 95) or "the effects of existing or future physical activities carried out in a region" (IAAct, 2019, s.93(1)). However, it would seem possible to establish a policy-based process for anticipatory identification of categories and characteristics of priority applications of regional and strategic assessment requirements. Guidelines from the Canadian Council of Ministers of the Environment include a list of situations that may "trigger" a regional strategic assessment, including situations where "there is an application for development in a previously undeveloped region and for which no current regional plan or strategy exists" (CCME, 2009, p. 13). Where R/SA needs are pre-identified, they could be included on a roster of priorities (Expert Panel, 2017).

A further problem for application decision making is the absence so far of any details about what regional or strategic assessment processes will involve. The scope of considerations, the process characteristics, the anticipated strategic undertakings to result, the potential authority of these assessments and undertakings, and tools to be used to ensure effective implementation are not defined in the law and not yet addressed in regulations (Doelle & Sinclair, 2019c; R. B. Gibson, 2020). Consequently, decision making on application of R/SA requirements must proceed without information on the nature, strengths and limitations of the process to be applied.

The current gaps could be filled by regulations and other guidance on R/SA processes and anticipated products, application rules (e.g., setting out the characteristics of federal regional/strategic undertakings to which R/SA requirements would automatically apply), and criteria (e.g., for setting priorities for application of R/SA requirements to other regional/strategic undertakings). Until those gaps are filled, the R/SA processes under the new law are unlikely play an effective role in ensuring incorporation of sustainability considerations in the conventional development of new strategic undertakings.

Even with regulatory and policy clarification of these matters, use of the Act's regional and strategic assessment provisions is likely to be limited to a fraction of the federal policy, plan and program initiatives that could have important implications for progress towards sustainability. That problem could be mitigated somewhat by revising the non-legislated but broadly applicable Cabinet Directive to provide for more informed and credible strategic-level review of the larger suite of proposed federal policies, plans and programs. The necessary revisions, however, would be substantial. They would have to align the Directive with the sustainability-based agenda of the new Act, incorporate transparency and participative opportunity, and generally meet the requirements of a rigorous and credible process.

Beyond application to conventional federal policies, plans and programs that could be pre-identified for assessment, the Act's R/SA provisions may be used to address emerging issues that merit regional or strategic assessment. For the Act to apply, the issues must be "relevant to conducting impact assessments" (IAAct, 2019, s 95(1)) and/or about the effects of project-level activities (IAAct, 2019, ss 92-93). The issues could have implications for a wide range of future projects. Alternatively, they could arise in and be specific to a particular project assessment. Ideally, they would be flagged early in the project assessment planning phase and allow enough time for a regional/strategic response within the normal project assessment timeline.

R/SA applications to both broadly influential and project-specific emerging issues are also likely to deal with cases where strategic policies, plans or programs are needed but not being proposed by any existing government body. Many of the major regional/strategic issues that have arisen in past project assessments have frequently involved problems and/or opportunities that do not fit conveniently within the mandated responsibilities, capacities and authority of any one agency or jurisdiction. Examples include cases where there were unmet needs to consider regional development options or address the cumulative ecological and socio-economic effects of on-going or anticipated regional development. Application decisions in such cases may involve inter-departmental and inter-jurisdictional discussions on potential collaborations and decision-making roles and on identification of authorities with relevant mandates and potential responsibility for implementing required strategic actions. But in the absence of an established proponent or proponent team, the Agency or committee in the assessment (in cooperation with collaborating bodies) would have to take on the role of developing the strategic response. The relevant decision on application of R/SA requirements would then involve consideration of whether the Agency or committee would have the expertise, resources and authority to serve effectively and credibly in place of a proponent, how the review role would be covered and how the undertaking would be implemented.

Finally, decisions to initiate R/SAs will have to take particular process needs into account. Special process requirements are most obvious where the emerging issue arises in an on-going project assessment and any viable R/SA would have to be equipped to deliver timely direction back to the project assessment. However, probably every potential R/SA applications will have some particular process needs. Consequently, R/SA application decision making should be supported by the established availability of a range of different process approaches and streams from which to select.

Deliberations and decision making on all of these considerations – priority application to existing policies, plans and programs; anticipatory application to important new regional/strategic undertakings; applications to emerging issues and issues arising in on-going project assessments; applications in collaboration with other jurisdictions; applications in the absence of an initial proponent; and selection among different streams – need credible processes. The application of R/SA requirements should be transparent, have opportunities for public engagement, provide explicit public interest reasons for decisions and be independent of political interference. Properly, those principles should apply to most decision making on implementation of the Act, including development of regulations and policy guidance under assessment law other than through R/SAs.

Effective tiering

The provision of credible and authoritative strategic guidance to project-level activities reflects a tiered relationship. Most simply, tiering involves a hierarchical assessment structure wherein broader regional/strategic-level undertakings guide more specific project-level undertakings. The practical reality, however, is in several ways more complex (Arts et al., 2011).

First, the regional/strategic-level and project-level relationship is iterative, rather than simply top-down. R/SAs or the equivalent have often been initiated to address issues that emerged but could not be resolved effectively at the project level. Similarly, to maintain and increase their value, regional/strategic undertakings should be reviewed and revised regularly in light of cumulative effects studies and other monitoring of the effects of assessed projects and other undertakings that applied the guidance. That way, the tiered learning benefits flow up as well as down (Noble & Nwanekezie, 2017).

Second, existing policies, plans and programs dealing with major regional/strategic issues may rarely deliver specific guidance for individual project-level undertakings and their assessment. Ideally, sustainability-based regional and/or strategic policies, plans and programs would be prepared through credible processes and in place to guide projects from conception to closure. However, already available regional and strategic guidance is often at a high level and properly intended for broad application. Two or more layers of increasingly specific regional/strategic undertakings may be needed before the implications for project-level activities are clear. Consequently, tiering of assessments needs to include means of clarifying whether and how a strategic-level policy, regional or sectoral plan, or program would apply to a relevant more specific undertaking (e.g., a project within the boundaries of a regional land use plan) (Noble & Nwanekezie, 2017; Sinclair et al., 2017). Further strategic clarification needs arise where existing policies and plans need updating to recognize new developments and understandings (Doelle & Sinclair, 2018).

Third, projects subject to assessment may raise several issues for which regional/strategic guidance would be desirable. At the same time, most if not all projects are subject to or influenced by many existing regional/strategic undertakings (laws, regulations, policies, plans and programs, tax rules, etc.). This existing guidance will include a mix of mandatory requirements and discretionary advice. Typically, it will come from several jurisdictions (federal, provincial, Indigenous, territorial and municipal) and the individual items will not be well informed by, or entirely consistent with the rest. As a result, effective tiering entails careful consideration not only of how to address new and neglected issues, but also how to consolidate a larger package of old and new guidance and determine the place, level of authority and flexibility, and project-level implications of the various components.

Finally, as noted above, tiered relationships depend on R/SAs having credibility at least equivalent to that of project assessments. Both regional/strategic and project assessments need to be founded in law, to have a shared (in this case sustainability-based) agenda, and to apply open, rigorous and participative processes, with impartial and accountable decision making.

All of these complexities have been addressed in tiered regimes. The most well-developed tiered regime examples in Canada can be drawn from urban and regional planning. Growth

management planning for major metropolitan region in southern Ontario, for example, combines broadly scoped high-level provincial land use and transportation system rules in law, plans and policies; regional plans that must be consistent with the provincial requirements; municipal plans that must be consistent with the regional plans; processes for planning and approval of more specific plans and projects; and requirements for regular review and revision (Government of Ontario, 2019a, 2020a, 2020b; Planning Act, 1990). Though far from perfect, the system has proven able to direct a vast range of specific activities with rough consistency. More impressively, despite entrenched resistance, it is now serving to push and guide the beginnings of a gradual but profound transformation in urban/suburban structure from low-density/automobile centred development to a more viable higher-density/transit centred alternative (David Crombie, 2015; Filion et al., 2016).

The planning regimes were created over many decades. Europe's tiered strategic and project-level assessment regimes are also the product of a long evolution (ECE, 2019). Even with lessons from the experience of planning regimes and strategic assessment in Europe and elsewhere, an integrated structure of linked R/SAs and project assessments under the new federal law will take some time to mature. However, a basic working framework of elaborated R/SA processes and associated policies, structures and practices under the IAAct could be built immediately. The fundamentals would incorporate the iterative nature of R/SAs and project assessments, focus on delivering strategic undertakings that cover the big issues and also spell out the implications for project planning and assessment, and be clear on how guidance from particular assessed regional/strategic undertakings would fit in the suite of strategic guidance applicable to individual projects.

Focusing on the major substantive issues

Many of the most significant regional/strategic issues raised by proposed projects involve major cumulative effects, big policy issues, alternative broad options for desirable futures, or some combination of the three (R. B. Gibson et al., 2010b). All can lie beyond capable attention and resolution through assessments at the project level (Duinker & Greig, 2006).

Major cumulative effects that merit R/SA attention are particularly salient in three circumstances. The first is where multiple major industrial activities are expected in regions that have been previously untouched by such activities (CCME, 2009), such as anticipated mining and associated infrastructure in the non-roaded Ring of Fire area of northern Ontario (Atlin & Gibson, 2017; CCME, 2009; Chetkiewicz & Lintner, 2014). The second is where additional industrial activities are proposed in areas already stressed socially, culturally, and/or biophysically by past and current industrial activities, such as in the traditional territory of the Blueberry River First Nation in northern British Columbia's Peace River Valley (Ecotrust Canada, 2016; *Yahey v. British Columbia*, 2017). The third is in areas of existing or potential conflict among multiple current activities and objectives, such as the tensions among marine uses for salmon aquaculture, wild fisheries, shipping, tourism and protection of species at risk on the east and west coasts (Davidson, 1999; McNeely et al., 2018). For all three, R/SAs are expected not merely to describe the existing and potential effects, but to identify, evaluate and select among the options for effective action, and determine the implications for particular activities.

Big policy (or planning or program) issues suitable for attention in R/SAs often emerge in project assessments in the absence of adequate (up-to-date, public and credible) strategic-level

guidance. Perhaps the most pressing current example is the lack of clear policy on determining the implications of Canada's climate change commitments for the planning and evaluation of new projects (and the re-consideration existing activities) that may add to greenhouse gas emissions or compromise carbon sinks (Doelle, 2018b; Dusyk & Turcotte, 2019; R. B. Gibson et al., 2018). Many past R/SAs or the equivalent in Canada were initiated in response to project-level controversies that demanded resolution at the policy or planning level. Examples include British Columbia's salmon aquaculture review (BCEAO, 1997), Manitoba's "need for and alternatives to" assessment of Manitoba Hydro's electric power system plan (MPUB, 2014) and Québec's strategic assessments of industrial scale hog farms and uranium mining (BAPE, 2003, 2015). R/SAs can also be valuable in situations where there is a need for clear and consistent policies or plans to as a base for reliable project-level prediction of likely positive and adverse effects – e.g., policies on resource revenue sharing with affected Indigenous communities (Irlbacher-Fox & Mills, 2007; Pendakur & Fiser, 2017; Werker et al., 2017) or plans for managing the pace and scale of development (Clogg et al., 2017a; MGPJRP, 2009a).

Examining alternative broad options for desirable futures can be a core role of R/SAs in both cumulative effects and big policy issue cases. R/SAs are meant to clarify the larger context for project level deliberations. That entails giving R/SAs a physical scope beyond that of a project to cover a whole region (e.g., a major watershed) and/or system (e.g., an inter-urban transportation system). But often more importantly, the relevant temporal scope extends well into the future. To establish a clearer long term context, R/SAs may need to identify and compare future scenarios examining desirable and undesirable possibilities, associated objectives to be pursued, risks to be avoided, appropriate pathways to follow, and implications for policies and plans to guide near term projects and other undertakings so they contribute to overall long-term ends (Duinker & Greig, 2007; Greig & Duinker, 2007; Kahane, 2012; Noble, 2008; Sheate et al., 2008; Stinchcombe & Gibson, 2001).

Scenario-centred approaches are especially suitable for R/SAs in sustainability-based assessment regimes (Francis & Hamm, 2011). As discussed in the previous chapter, the sustainability agenda involves active pursuit of pathways to more lasting wellbeing. The objectives include not only protection of the valued qualities of existing ecological and socio-economic systems, but also transformation from unsustainable practices to ones that respect the interests of future generations. This choices-among-futures theme is not new. The Mackenzie Valley Pipelines Inquiry led by Justice Thomas Berger in the mid 1970s was in part a strategic level examination of whether that region's future was to be as a homeland, a resource extraction frontier or some viable combination of the two (T. R. Berger, 1977).

All three of these topics are challenging. Few particular cases are likely to enjoy easy and quick resolution. R/SAs may often have to aim for basic understanding and interim guidance and be treated as steps in a longer process of learning and adjustment. Given the significance of the issues involved, however, tentative guidance from a time limited R/SA is preferable to no guidance at all.

Conclusions

Canadian and global assessment applications at the project level have long suffered from the absence or insufficiency of guidance on how to deal with major regional and strategic issues that cannot be addressed effectively at the project level. Recommendations for use of legislated regional and strategic assessments to address these guidance gaps, and more generally to improve policy making, planning and program development, also have a long history. While Canadian and global experience with sustainability-based R/SAs and the equivalent is scattered, it is also diverse and illuminating. It provides a sufficient foundation of learning to support reasonably well-informed expansion of sustainability-based R/SA applications in Canada and implementation of advanced next generation approaches in those R/SAs.

Synthesis of available understanding permits identification of the basic requirements for R/SA processes, the key R/SA participants and the major considerations in allocating roles and responsibilities and in applying assessment requirements in different streams to different kinds of conventional and needed undertakings (see especially Box 3.1, above). The synthesis also points to the big strategic issues that merit most attention and underlines the core task of R/SAs in tiered processes to provide clear, credible and authoritative guidance on the implications for projects and other specific activities.

One good starting point for application of these understandings would be in filling out the new federal Act's enabling provisions on regional and strategic assessment. First, however, it will be important to consider more carefully how the generic understandings discussed here intersect with understandings about appropriate approaches to applications involving collaboration with Indigenous authorities.

Chapter 4 – Indigenous partnerships in sustainability-based, regional/strategic assessments

Introduction

Canada is a federal nation with rights-holding Indigenous peoples (First Nations, Métis Nation and Inuit). The Constitutional division of powers and responsibility among federal, provincial, territorial and Indigenous jurisdictions is both complex and imprecise (Borrows, 2005; Maclean et al., 2016; McNeil, 1998). Many areas of public concern are shared among two or more jurisdictions, in part because the boundaries of authority are ill-defined but also because the boundaries overlap and the areas of authority interact (*Friends of the Oldman River Society v Canada (Minister of Transport)*, 1992, para. 64). One consequence is that in Canada, collaborations between and among jurisdictions are often crucial. That is especially the case with sustainability-based regional and strategic assessments.

In the following discussion, partnerships and collaborations will be conceived broadly to include arrangements involving deliberations and decision making on identified matters of shared interest and at least potential responsibility. They may range widely in the degree and scope of cooperation, common purposes and shared authority. Also, they may be more and less well suited to the current context, including consistency with sustainability objectives and implications as they have been broadly sketched here.

Indigenous/non-Indigenous assessment partnerships of various forms have a considerable history in Canadian assessment processes and equivalent activities. These partnerships include ground-breaking case-specific arrangements for particular strategic or project level initiatives (e.g., several involving the Haida Nation – see case report 2, below). More broadly applied arrangements include those established under modern land claim agreements – including those that provide the foundations for assessment law and application in the three territories (CIRNAC, 2018a). While few applications have been explicitly sustainability-based, many have been scoped broadly enough to cover sustainability-related effects and permit a sustainability-based approach. All three territories, for example, have linked legislated planning regimes that address regional and strategic matters – planning and assessment are linked in the Yukon under the *Umbrella Final Agreement* (Council for Yukon Indians, 1993) and the *Yukon Environmental and Socio-economic Assessment Act* (YESAA, 2003a), in the Northwest Territories chiefly under the *Mackenzie Valley Resource Management Act* (Mackenzie Valley Resource Management Act, 1998; Government of Northwest Territories, 2016), and in Nunavut under the *Nunavut Planning and Project Assessment Act* (Nunavut Planning and Project Assessment Act, 2013).

The new federal IAAct has sustainability-based objectives and provides both for regional and strategic assessments and for assessments undertaken in collaboration with other jurisdictions (Impact Assessment Act, 2019, secs. 92–103), including Indigenous ones (Impact Assessment Act, 2019, sec. 93(1)(a)). How these provisions will be elaborated and applied remains uncertain. However, cases in many of the categories of regional and strategic assessments that could be initiated under the new federal IAAct will involve Indigenous communities, land, interests, authorities and jurisdictions, and will be likely candidates for collaborative arrangements with

Indigenous authorities. Further openings for Indigenous/non-Indigenous partnerships may arise through provincial planning and assessment process, for example in Québec, which has a considerable history in strategic level assessment and the application of sustainability principles (M. Crowley & Risse, 2011; Québec, 2020).

This chapter considers why and how Indigenous partnerships in collaborative sustainability-based, regional and strategic assessments might best be approached. For multiple reasons – the established Constitutional and treaty rights of Canada's Indigenous peoples, Canada's recognized obligations and commitments to reconciliation and the United Nations Declaration on Indigenous Rights, the potential significance of the regional and strategic effects and options, the value of Indigenous knowledge and understandings, and the reassertion of Indigenous law and governance processes – it is reasonable to examine and select among the options for conceiving, designing and implementing Indigenous partnerships in sustainability-based regional and strategic assessments. This is, however, an area in which contexts, concepts and practices are contested and evolving. Also, the chapter comes with an important caveat. Like the rest of this report, this chapter attempts to synthesize insights from the literature and documented experience and consider their implications and uncertainties; it does not presume to speak for Indigenous peoples. Any serious practical discussion of Indigenous partnerships in assessments begins with them.

The context for considering Indigenous partnerships in collaborative assessments

As will be discussed below, the record of assessments in this country and elsewhere includes diverse forms of collaboration between and among different decision-making authorities. In Canada, the collaborating authorities in many cases have been the federal and provincial governments. Federal-provincial co-operation agreements, case-specific inter-jurisdictional cooperation plans and joint federal-provincial review panels established for project assessments (Fitzpatrick & Sinclair, 2009; IAAC, 2019a, 2020a s 1.6) are familiar Canadian examples. Useful lessons can be drawn from them, not the least of which is that all of these arrangements involve the sharing of power. They are vehicles for co-governance. However, collaborations involving Indigenous partners are substantially different from partnerships between non-Indigenous authorities. Several key foundations for difference are involved.

First is that assessment collaborations involving Indigenous partners are established in the context of the long colonial history of Europeans appropriating Indigenous lands and suppressing Indigenous culture (Harris, 2002; TRC, 2015c). Perhaps that history includes enough examples of mutually beneficial exchange to justify use of the concept of re-conciliation to characterize recent objectives to build more positive relations. The understanding of reconciliation in the Canada literature, however, emphasizes not the recovery of a conciliatory past but recognition of wrongs and needs for initiatives broadly conceived as acts meant to restore Indigenous peoples' position as actors with a recognized base of power and influence. That suggests "restoration" (e.g., of place for Indigenous law and legal traditions) as a fifth "R" to be added to the usual four R's often associated with reconciliation – respect, responsibility, reciprocity and relevance (Kirkness & Barnhardt, 2001; TRC, 2015a, s 45(iv)).

Second, Indigenous resistance and resilience in the face of colonial behaviour, assimilationist policies and their legacies, has led to the gradual and important but still ill-specified and applied entrenchment of Indigenous and treaty rights in Canada (and elsewhere including New Zealand and Australia) over the past 50 years (Imai, 2008), and the results have significant implications for decision making concerning cumulative effects and other regional and strategic concerns (Clogg et al., 2017a). Aboriginal (the term used in the Constitution and associated court rulings) and treaty rights are recognized and affirmed under Section 35 of the *Constitution Act, 1982* (Constitution Act, 1982). Among the results has been recognition of the Crown having a legal duty to consult and accommodate with Indigenous peoples (Bankes, 2018; Inman et al., 2013; Urquhart, 2019). The duty to consult and accommodate has been shaped through judicial interpretations of Section 35 by the Supreme Court of Canada in specific cases beginning with *R v. Sparrow* in 1990 (*R v. Sparrow*, 1990). The Crown has a legal and fiduciary responsibility to consult with Indigenous people when a proposed development has known or potential impacts on Aboriginal and treaty rights (Brideau, 2019; Morellato, 2008). As further defined in the *Haida Nation v. British Columbia* case in 2004, the duty to consult arises even if title has yet to be proven in the court system, and the Crown cannot discharge this duty to a third party (*Haida Nation v British Columbia (Minister of Forests)*, 2004).

Moreover, Canada has expressed commitment to act on the UN Declaration on the Rights of Indigenous Peoples (Bennett, 2016; CIRNAC, 2017). UNDRIP is a set of 46 articles, recognizing that Indigenous peoples around the world have unique rights, including self-determination, protection from discrimination and assimilation, language protection, and distinct lands and territories (UN, 2007). At least for regional and strategic assessment purposes, the most debated expectations in UNDRIP are those for consulting and cooperating with Indigenous peoples to obtaining their "free, prior and informed consent" to measures and activities that may affect them (Papillon & Rodon, 2019b). Canada was an objector to UNDRIP when it was adopted by the General Assembly in 2007, but has been a supporter since May 2016. In November 2019, British Columbia passed a *Declaration on the Rights of Indigenous Peoples Act*. The bill outlines the first steps in implementing UNDRIP in the province, including ensuring all provincial laws align with UNDRIP, and supporting the development and continuation of Indigenous governing bodies (Declaration on the Rights of Indigenous Peoples Act, 2019). The federal government has also promised to "co-develop and introduce legislation implementing UNDRIP in 2020 (Canada, Governor General, 2019, p.9)

While major uncertainties remain, the legal consensus is that Indigenous governing bodies have substantial authority (CIRNAC, 2018b; McNeil, 1998) and that implementing UNDRIP could enhance this authority (Morales & Nichols, 2018). Currently established Indigenous authority would seem to be at least sufficient to provide legitimate legal and practical grounds for being recognized as jurisdictions for the purposes of participating as formal power-sharing partners in regional and strategic assessments, including those under the new federal *Impact Assessment Act* (s.93(1)(a)(i)).

Third, the federal government (Canada, Dept of Justice, 2018), the provinces generally (Council of the Federation, 2015) and some of the provinces quite specifically (e.g., British Columbia, 2020; Ontario, 2019) have committed to the pursuit of reconciliation between Indigenous and non-Indigenous peoples. The reconciliation agenda has broad implications, not only for acting on

Indigenous rights, but also for recognizing Indigenous worldviews, epistemologies and knowledge, legal and governance traditions (B. Gunn et al., 2017; Deborah McGregor, 2018). The literature recognizes that Indigenous approaches to these matters differ in important ways from those of western traditions and that there are differences among Indigenous traditions (Asch et al., 2018; Borrows, 2019; M. A. Hart, 2010; G. White, 2006). Reconciliation commitments and, at least to some extent, current interpretations of Canadian Constitutional law entail respect for these differences, including in joint activities (Asch et al., 2018; TRC, 2015c; *Tsilhqot'in Nation v. British Columbia*, 2014).

Fourth, while Indigenous approaches to these matters of understanding and deliberation are owed respect in light of established rights and reconciliation commitments, they also have conceptual strengths and demonstrated practical value likely to be advantageous in regional and strategic assessments. As will be discussed below, Indigenous worldviews and approaches to knowledge tend to emphasize attention to interconnections and integrated understandings that are especially important in sustainability-based regional/strategic assessments (Borrows, 2019; M. A. Hart, 2010; Hendry, 2014; Hoagland, 2016).

Finally, impact assessment can be an important point of intervention in Indigenous-Crown relations. Consequently, it could serve to be a significant leverage point in transforming this critical relationship beyond consultation and accommodation. Transformation involves fundamental change as well as strengthening of valued existing qualities. In the context of complex issue-areas such as sustainability and reconciliation, the needed transformation requires radical, systemic shifts in values and beliefs, patterns of social behaviour, and governance and management regimes (Olsson et al., 2004, 2014). Regimes must become more reflexively aware of the bounded rationality associated with colonial attitudes and approaches and critically evaluate their assumptions while attempting to create space for Indigenous peoples to begin to assert their own sovereignty and self-governance within, and in parallel to, Crown-Indigenous spaces (McNeil, 2016; Morellato, 2008; NCFNG, 2013). For more on the legal and constitutional requirements of this kind of transformation see the Centre for First Nations Governance's work on Transitional and Transformational Governance (CFNG, 2017; TGP, 2017).

Taken together, these points of difference suggest that developing Indigenous partnerships for collaboration in assessments involves a special set of positive obligations and opportunities. These include treating collaborations as venues for systemic change – repairing the damage from colonial legacies, respecting and maintaining the value and integrity of Indigenous approaches, and treating Indigenous partners as key contributors to regional and strategic assessments as well as authorities with their own decision-making powers.

Indigenous approaches and their implications for partnerships in collaborative assessments

For at least 20 years now, the literature on how to build relations including partnerships between Indigenous and non-Indigenous authorities has been focusing on respect for Indigenous approaches to worldviews, epistemologies and knowledge, legal and governance traditions as well as reconciliation (Borrows, 2005; Castleden et al., 2017; TRC, 2015a). In the context outlined above, respect for characteristics and strengths of Indigenous approaches would seem to

preclude partnership arrangements that merely grant Indigenous people opportunities to participate in the conventionally established processes for deliberation and decision making. For the purposes of the following discussion, Indigenous participation in collaborative assessment partnerships involves sharing of decision-making power and authority.

Partnerships that recognize the differences between western and Indigenous approaches and aim to merge them seem also to be problematic. In contrast to integration, the recent literature has been exploring co-operation in concurrent and coordinated but different operations (Denny & Fanning, 2016; B. Gunn et al., 2017; Phare et al., 2017). Combinations of integration and co-operation have also been examined and tested, since in many applications including ones in project and regional/strategic assessment, separate but co-operative deliberations and decision making have to come together enough to deliver coherent overall guidance, decisions and undertakings (Clogg et al., 2017b; G. Gibson et al., 2018; Noble, 2016; SDWGAC, 2019).

As will be discussed below, many past and existing joint processes involving Indigenous communities, organizations and authorities in Canadian assessment practice and related activities have been characterized (and criticized) as means of including Indigenous representatives in otherwise standard western structures and processes (Booth & Skelton, 2011; Hunsberger & Awâsis, 2019; Mascher, 2019a; Stevenson, 2004). Processes built on use of Indigenous as well as western approaches are conceptually as well as practically different. Moreover, respecting and facilitating application of these approaches is tied to re-empowering Indigenous peoples and governing bodies.

In the context outlined above, respecting the differences and facilitating empowerment entails systemic change. It involves, reforming existing patterns of thought, behaviour and social structures embodied in assessment forms and practices to avoid reinforcing the existing, problematic aspects of Crown-Indigenous relations and establish more positive alternatives (Gaudry, 2016; Vowel, 2016). The following discussion provides a framework and a set of broad criteria synthesized from the literature that considers how to foster a new type of collaboration or relationship-building process often referred to using the metaphor of “Braiding” (Andreotti et al., 2019; Fitzgerald et al., 2019; UN, 2007). In particular, we rely on the work of Andreotti et al. (2019) to articulate the need for, and nature of, the transformation in Indigenous/Crown relations that is required.

Towards braiding in assessments

Braiding is defined and elaborated in the literature as a concept and necessary practice for mutually respectful application of western and Indigenous understandings (Andreotti et al., 2019). This approach aims to take the first steps towards moving from the unproductive space of trying to “braid”, broadly defined western “bricks” with Indigenous “threads” (see table 4.1 below) and move towards a space where the profoundly different framings/understandings of the world could be more productively woven together while avoiding the many potential pitfalls along the way. The metaphor of moving beyond “bricks” and “threads” (a context within which braiding is not possible) towards a more generative space of “braiding” is not intended to dismiss differences, historical and systemic violence, uncertainty, conflict, paradoxes and contradictions (Andreotti et al., 2019).

The bricks and threads metaphor

Based on a distinction between Brick and Thread framings/understandings of the world (Jimmy & Andreotti, 2017), the notion of braiding in assessments offers powerful tools for analyses of tensions and possibilities for new forms of engagement and collaboration. Braiding has proven very useful in engaging Indigenous peoples in conversations about the tensions of working in and with non-Indigenous institutions and the essential steps that could enable possibilities for new forms of collaboration (Andreotti et al., 2019). The approach enables implicit patterns of thought and behavior to surface and supports the development of new and transformative relationships. The distinction between bricks and threads and the potential to move beyond these into the emergent practice of braiding can be operationalized using the four R's, often associated with reconciliation – respect, responsibility, reciprocity and relevance.

Table 4.1 Brick and thread strands in braided relationships
Taken from Elwood Jimmy and Vanessa Andreotti (Jimmy & Andreotti, 2017)

Brick sense and sensibilities	**Thread sense and sensibilities**
stand for a set of ways of being that emphasize individuality, fixed form and linear time • where the world is experienced through concepts that describe the form of things and places them systematically in ordered hierarchical structures; • where the value of something is measured against its capacity, achievement or potentiality to "move things forward" towards an idea of evolution, development and/or civilization; and • where self-worth is dependent on external validation.	stand for a set of ways of being that emphasize inter-wovenness, shape-shifting flexibility and layered time; • where the world is experienced through sensorial events involving movement, rhythm, sound and metaphor; • where every "thing" (including humans, non-humans and the land) is a living entity and every entity is valued for its intrinsic (insufficient and indispensable) inherent worth within an integrative and dynamic whole; and • where their self-worth is grounded on their connection with something beyond the individual self, but found within it.
… are goal- and progress-oriented. They demand that we share the same convictions about reality in order to engineer proper political, ideological and institutional structures that will in turn engender adequate social relations (i.e. adequate conditions will build adequate institutions that will secure adequate relationships). The focus on "engineering" is knowledge-based, methodological and based on consensual decision making. Human purpose can be	…are oriented towards relationality. They require that we sense entanglement in order to weave genuine relationships, which will in turn command responsibility for collective wellbeing as a grounding force for adequate (new) political and institutional systems (i.e. adequate relationships will build adequate capacities to work together that will secure adequate processes). The focus on collective wellbeing invites the

imagined as building monuments and walls that will last and leave a traceable legacy that attests to the worth and virtue of the individuals involved in contributing towards the imagined idea of progress.	surrender of individual entitlements for a greater good, and calls for a level of ongoing stretch-discomfort within a container of unconditional relationality. Human purpose is associated with "walking in beauty and wisdom", offering one's medicine to enable the continuity of life and related notions of "non-interference" in others' life and healing journeys.

The political, institutional, and cognitive impositions associated with the well-intentioned and inadvertent use of brick sensibilities, and the associated attempts to eliminate and/or instrumentalize thread sensibilities in Indigenous-Crown relations, is on-going and has lasting effects (Gaudry, 2016; MacKay, 2015; B. L. Parlee, 2015; M. S. Smith, 2013; Sousa Santos, 2007; von der Porten, 2014; Vowel, 2016). Sadly, it is extremely common to see liberal institutions creating conditional spaces for Indigenous inclusion that foreground the brick sensibility as a default disposition towards shared futures that is normalized and perceived as natural. In other words, threads are included into the organization on the condition that they contort themselves into the shape of a brick (Ahenakew, 2016; Ahmed, 2012; Andreotti et al., 2011).

This has been the nature of Indigenous-Crown relations to date, and has been reinforced in domains such as impact assessment, and must be surfaced and transformed to avoid perpetuating colonial hegemony (Haluza-DeLay et al., 2014; Joly & Westman, 2017). Braiding provides an orientation or compass-bearing that points towards a transformation. One ongoing and pervasive issue is impact assessment's incompatibility with Indigenous ways of knowing, which compromises the overall effectiveness of using Indigenous knowledge within the assessment process (Assembly of Manitoba Chiefs, 2016; Booth & Skelton, 2011; C. Crowley, 2016; Gosselin et al., 2010; McCormack, 2016, 2017; Natcher, 2001; Usher, 2000; C. Westman, 2012).

Braiding is not a form of synthesis in which two approaches are simply combined in order to create a new, third possibility to replace them both (i.e. get rid of both bricks and threads). Braiding is also not the result of a selective process, taking the best, or worse, most convenient, elements of each and combining them (i.e. throwing bricks and threads together); nor is it the result of an antagonistic process in which one side "wins" and forces the other to conform to their process (i.e. fitting threads into a brick wall). The spectrum of nongenerative to braiding within decision-making collaborations is described below:

Table 4.2 Generative and Nongenerative Relationships
Adapted from Elwood Jimmy and Vanessa Andreotti, [https://decolonialfutures.net/portfolio/towards-braiding-1-bricks-and-threads/]

Brick / Building				Threads / Weaving		
Nongenerative	Tipping	Generative	Braiding	Generative	Tipping	Nongenerative

Means and/or ends imposed with a presumption of desirability, without understanding of different sensibilities, or with tokenistic consultation; paternalistic presumption; "we are doing this for you, and therefore you should be grateful"	Tokenistic consultation only with those who already are likely to agree (or not to challenge); predefined outcomes; involving the minimum of people impacted; doing it "for show" (no genuine interest)	Ability to engage genuinely with multiple forms of expertise; involves those who are directly affected; self-critical; resilient; present	Decisions made together in a mutually defined process; collective accountability; adequate resource-sharing to ensure appropriate and just engagement; attention to different sensibilities	Ability to read the context, to translate different capacities of understanding; to navigate complexities; calling in rather than calling out (translations, patience, flexibility).	Being overwhelmed by the level of contextual or imposed demands; passive resistance to (tokenistic) consultation	Refusal to engage, to translate or to negotiate the terms of engagement; idealization of an alternative / single way; calling out; making it personal

Similar and complementary metaphors

Others have written using the metaphor of braiding (Fitzgerald & Schwartz, 2017; UN, 2007) and still others have written using similar metaphors including Two-Eyed Seeing (Bartlett et al., 2012; Hatcher et al., 2009; Iwama et al., 2009), Two-Roads approach (e.g., CEMA, 2012) and the two-row-wampum (e.g., D. McGregor, 2002; Stevenson, 2006; Stevenson & Natcher, 2010).

The literature on two-eyed seeing, for example, shows the consistency of essential themes and responses. A term first developed by Mi'kmaq elders Murdena and Albert Marshall (Hall et al., 2015) two-eyed seeing means "to see from one eye with the strengths of Indigenous ways of knowing, and to see from the other eye with the strengths of Western ways of knowing, and to use both of these eyes together" (Bartlett et al., 2012, p.335). Both eyes see the same picture but from different perspectives, without asking the knowledge systems to be juxtaposed against one another or merged together (Iwama et al., 2009). This approach has been used in various applications, especially concerning Indigenous health (Hall et al., 2015; Marsh et al., 2015; M. Marshall et al., 2018; Vukic et al., 2012), but also education (Bartlett et al., 2012; Hatcher et al., 2009; McKeon, 2012), community displacement (Martin et al., 2017), resource management (Denny & Fanning, 2016) and participatory action research (Peltier, 2018) among others. In the context of assessment processes, this means including Indigenous knowledge in its full form, allowing for epistemological pluralism and not reducing Indigenous knowledge to fit within the Western knowledge paradigm (Andreotti et al., 2011).

These related approaches speak directly to the notion of settler and Indigenous approaches running in parallel while not compromising, or unduly influencing, the integrity of the other. The braiding approach, and related social cartographies that Andreotti and colleagues have developed (Andreotti et al., 2019) not only highlight the importance of maintaining the integrity of both worldviews, but also speak to other attributes of these relationships, including the fact that true braiding has yet to be demonstrated and therefore requires a measure of "un-learning" and surfacing of differences; the fact that braiding relationships are emergent and heavily dependent

on the context and the community/nation involved; that moving towards braiding is a complex landscape with many potential pitfalls where relationships can become stuck in nongenerative spaces (Ahenakew, 2016; Andreotti et al., 2019). The notion of Two-Eyed Seeing, for instance (Bartlett et al., 2012; Hatcher et al., 2009; Iwama et al., 2009), may be a necessary precursor for braiding to be possible as it allows for the depth perception required to see both the differences between brick and thread sensibilities and the potential for more generative ways to bring the two together while maintaining their respective integrities.

Braiding, the four R's of reconciliation and implications for assessments

Braiding opens up novel and different possibilities for engagement, without guarantees about what might emerge from those engagements. It can be argued that the context for true braiding in this sense, has yet to emerge (or very rarely emerges) in most settler/Indigenous contexts in Canada, in particular in assessment processes, weaknesses surrounding assessing impacts on Indigenous communities and their participation have been documented (C. Crowley, 2016; Gosselin et al., 2010; Joly & Westman, 2017; McCormack, 2016, 2017; Natcher, 2001; Usher, 2000; C. Westman, 2012). Braiding is not an endpoint, but rather an ongoing and emergent process. This emergence takes place in the context of relationships and relationship building and should involve the following characteristics often associated with reconciliation: respect, responsibility, reciprocity and relevance. For the purposes of assessment applications, the process of braiding and the four R's of braiding-based relationships can be contextualized in the following criteria:

Responsibility

- Sincere acknowledgement of Canada's history of colonization, violence, oppression, marginalization and trauma to the First Peoples of Turtle Island (now North America) as an important first step in a broader braiding process. A failure to acknowledge the historical and contemporary injustices faced by Indigenous people runs the risk of perpetuating the colonial narrative (Booth & Skelton, 2011; TRC, 2015b). Guiding principles to acknowledge this truth can be found in the Truth and Reconciliation Commission's Calls to Action and final report (TRC, 2015b, 2015a).
- Responsibility to engage in collaboration, consultation and accommodation in good faith recognizing the Treaty and Inherent Rights of the First Peoples of Turtle Island (now North America) (McNeil, 2016).
- Taking responsibility for the implicit application of "brick" sensibilities in the context of collaborations, actively surfacing these sensibilities in collaborative processes and actively responding to "thread" sensibilities.

Respect

- Respect for Treaty and Inherent Rights under the Constitution and Supreme Court Decisions especially the Crown's Duty to Consult and Accommodate/FPIC.
- Respect for Traditional Knowledge – beyond tokenistic integration of TEK in IA processes (i.e. - two-eyed seeing). Two-Eyed Seeing offers an opportunity to utilize the strengths of Indigenous and Western knowledge systems alongside one another, without having to incorporate one knowledge system into the other or place the knowledge systems in competition with one another (Bartlett et al., 2012; Hatcher et al., 2009; Iwama et al., 2009). Two-Eyed Seeing requires the use of epistemological pluralism,

allowing multiple knowledge systems to be held as truths simultaneously (Andreotti et al., 2011). True two-eyed seeing is also quite rare and is a necessary precursor for opening the space for braiding.
- Respect for Indigenous ways of knowing and being, as represented by the "thread" sensibilities above, in relation to conventional, western "brick" sensibilities as evidenced by a commitment to engage in trust-based, relationship building, braiding processes.

Reciprocity
- Given the history of Canada and Turtle Island, any collaboration through Impact Assessment should involve the transparent sharing of all government and corporate information and knowledge regarding the relevant project or programme, plan or policy and in a manner that respects "Thread" sensibilities.
- Transparency is affirmed in Haida Nation v. British Columbia (2014). The Supreme Court of Canada noted The New Zealand Ministry of Justice's *Guide for Consultation with Mäori* (1997) which described consultation as not an information exchange but "a process in which should ensure both parties are better informed". From "good faith consultation" the duty to accommodate may also be revealed.
- Given the history of Canada and Turtle Island, any collaboration through Impact Assessment should center and share the decision-making power and authority with Indigenous Nations (McNeil, 2007).

Relevance
- Ensuring that any collaboration addresses the concerns and priorities of the Nation/Community involved and not simply the priorities of the government and the IA process.
- Ensure that any collaboration contributes to the broader systemic interests of the Indigenous Nation/Community including, but not limited to, self-governance, autonomy, elimination of systemic-racism, healing and health all of which are clearly in the mandate of a sustainability-based assessment regime.
- Given the responsibility to ensure a rights-based framework within the IA process, a commitment to a shared vision, values and goals between the Nation/Community and government interests are paramount in the planning management and assessment process (Armitage, 2005).

These criteria and application of the braiding model or the equivalent with other terminology provide a context for the following sections synthesizing the literature on how collaborative partnerships with Indigenous authorities have been and could be pursed in Canada.

Established and emerging approaches to collaborative inter/multi-jurisdictional assessment with Indigenous authorities in Canada

Governance partnerships

A considerable literature discusses governance partnerships centred on collaborations between conventional western-tradition governments and Indigenous governing bodies, including the strengths and limitations of efforts so far (Clark & Joe-Strack, 2017; Clogg et al., 2017a; G.

Gibson et al., 2018; Noble, 2016; SDWGAC, 2019). Much of reporting and analysis concerns co-management arrangements established to address project assessment needs and/or regional issues, sometimes with a sustainability-based agenda or a near equivalent (Armitage, 2005; G. White et al., 2007). However, there are also discussions of collaborations that involve regional strategic planning and policy making that reach beyond the usual scope of management. Examples include development of regional plans and establishment of governance bodies and guidance for implementation – see the Haida and Yukon case reports at the end of this chapter.

The collaborations literature most relevant to the focus of this report concerns Indigenous government bodies' involvement in governance arrangements in and/or resulting from regional/strategic planning and assessment processes. In Canada, that literature focuses mostly on the processes established under modern land claim agreements – especially those in the three northern territories. However, it also covers initiatives where no treaties or land claim agreements have been signed (Clogg et al., 2017a; Noble, 2016; SDWGAC, 2019). See also the Haida case report at the end of this chapter.

The arrangements tested so far have taken a variety of forms with different roles for the Indigenous participants. Generally, the different roles appear to turn on the nature of Indigenous partners' contributions to the deliberations and how much authority the Indigenous partners are able to exercise in decision making. The literature on Indigenous partnerships in collaborative co-governance arrangements on matters similar to sustainability-based regional and strategic assessments covers past and potential roles that fall into several broad and somewhat overlapping categories.

In initial steps, Indigenous authorities may be formally recognized as participants and contributors of knowledge in deliberations in otherwise conventional western resource management, planning and assessment structures (Bowie, 2013; Stevenson, 2004, 2006). The active seeking of Indigenous knowledge in resource management, planning and assessment structures recognizes the value of this knowledge. This represents a positive step from earlier government behaviour dismissing Indigenous knowledge as unscientific and therefore not worthy of consideration. Co-management structures of this kind can also deliver such benefits as coordination of activities, conflict resolution, shared learning and adaptive understanding (F. Berkes, 2009). Critics note, however, that acceptance of Indigenous contributions merely as additional data for integration in conventional management regimes is a modest step at best. Insofar as it excludes the associated understandings and ethical implications, it continues to disregard and devalue the fundamentals of Indigenous knowledge and understandings and their larger context and implications (Ellis, 2016; Latulippe & Klenk, 2020; Nadasdy, 2003; Natcher et al., 2005).

Beyond mere participation, Indigenous representatives may be allocated seats at the table not only for deliberations but also for making recommendations to the relevant authorities in otherwise conventional western resource management, planning and assessment structures. Examples in assessment regimes include participation by Indigenous authorities in developing sustainability-based mandates for the Voisey's Bay nickel mine (VBEAP, 1999) and Mackenzie Gas Project (MGPJRP, 2009a) joint assessment panel reviews. In both reviews, Indigenous governments, community representatives and individuals were important contributors to the

hearings and the resulting information base. Both panels had Indigenous members and addressed major regional/strategic and regional issues. But like all such panels their role was chiefly to make recommendations to federal and provincial authorities, who made the key decisions, typically applying conventional western modes of thinking and deliberating.

Co-governance arrangements go further, reallocating some power to Indigenous governing bodies and recognizing their separate authority in specified matters (Dodson, 2014; Lloyd-Smith, 2017). These arrangements may retain largely western structures but can incorporate attention to Indigenous preferences and interpretations as well as data. Some arrangements may also provide significant openings for application of Indigenous understandings and cultural traditions, and the exercise of broad Indigenous approaches to deliberation and decision making, especially on matters now largely within Indigenous authority. Examples include the joint planning and assessment regimes established under modern land claim agreements in the three northern territories (see references in the introduction to this chapter).

The co-management assessment regimes in Canada's northern territories were established under modern land claim agreements as a step towards sharing power. The negotiated regimes were generally based on then existing federal assessment models with insertion of Indigenous representatives. However, they also tend to feature regional offices and consequently some decentralization of influence and approach to the community/region level (Armitage, 2005). Overall, they provide a broader scope of assessment and a generally stronger base for Indigenous influence than conventional federal assessment regimes have done (G. White et al., 2007). Nunavut provides a special case where Indigenous people predominate in the communities and territorial government, and important areas of authority have been devolved from the federal level (Imai, 2008). On key matters of land and resources governance, the federal government retains significant ultimate decision-making power, though on those matters too further devolution is anticipated (CIRNAC, 2019).

In jurisdictions with substantial Indigenous roles in territorial government, project assessment case results have often reflected attention to long term considerations related to Indigenous land use concerns and values. Examples include the Nunavut Impact Review Board's reviews of the Back River Mining Project proposed by the Sabina Gold and Silver Corporation (G. Gibson et al., 2018; SDWGAC, 2019) and the Mackenzie Valley Environmental Impact Review Board review of the Screech Lake uranium exploration project proposed by Ur-Energy Inc. (Ehrlich, 2010; MVEIRB, 2007; Noble, 2016).

Some co-governance initiatives have demonstrated more advanced recognition of the authority of Indigenous governing bodies. In the case of the Fortune Minerals NICO Mine environmental assessment, for example, the Tłı̨chǫ Government acting under the *Tłı̨chǫ Land Claim and Self-Government Agreement* undertook a collaborative assessment with the Government of the Northwest Territories applying the *Mackenzie Valley Resource and Management Act*. Both governments exercised their own authority and reached their own decisions on the proposed project and carry responsibilities into project implementation monitoring (G. Gibson et al., 2018).

Such arrangements provide explicit, law-based space for the special character and strengths of Indigenous worldviews, perspectives, knowledge foundations, and legal and deliberative traditions. They facilitate "two-eyed seeing," or braided relationships rather than mere integration on important matters within the area of shared responsibility and authority.

Versions of co-governance arrangements with substantial power sharing have also been demonstrated in at the broader strategic level in regional planning and resource management. Two very different illustrations are provided by in the two case reports included at the end of this chapter. The first case is regional land use planning in the Yukon with powers and processes established under the 1992 *Umbrella Final Agreement* signed by the Council of Yukon First Nations, Government of Yukon, and Government of Canada (Council for Yukon Indians, 1993). The second covers key agreements and co-governance structures established by the Council for the Haida Nation with the British Columbia and Canada. Both cases are characterized by incremental gains in recovery of Indigenous governing authority won with difficulty over several decades.

These on-going co-governance arrangements are responses to the evident need for continuing attention to the kinds of issues faced in strategic-level assessments. Most discussions of regional and strategic assessments have focused on collaboration in the assessment itself – in development of regional and strategic policies, plans programs and similar strategic-level products to guide more specific activities and project assessments. But proper strategic level assessments, like project assessments, include post-approval implementation and monitoring. Even at the project level, assessment follow-up arrangements have often included establishment of on-going collaborative governance structures for implementation and oversight (MVRB, 2013; NWT Environment&Resources E&R, 2020; VBEAP, 1999). At the regional and strategic level, establishment of on-going governance arrangements could be major assessment outcomes. Especially in collaborative regional and strategic assessments with Indigenous partners, the potential need for new governance arrangements should be recognized from the outset and treated in the assessment as a possible matter to be addressed along with options for new policies, plans or programs.

The discussion of governance partnerships in assessments and assessment-related initiatives suggests a positive evolution towards genuine sharing of decision-making power. The advances, however, have been won with difficulty (see the Haida case report, below, for example). Regional strategic initiatives that began with high expectations for power sharing in considering options for regional futures have unravelled as governments backed away from sharing power (e.g., in Manitoba experience with planning for the lands on the east side of Lake Winnipeg (Hostetler, 2018a, 2018b)). Even arrangements based in modern land claim agreements have been subject to government retrenchment (e.g., in federal efforts to streamline the territorial regulatory regimes (Rodon & Therrien, 2015).

Independent assessments

Some Indigenous governing bodies have chosen to undertake independent assessments of proposed projects that are likely to affect their rights, lands and interests. These assessments have provided opportunities for direct application of Indigenous understandings, law and deliberative processes (Morales, 2019; O'Faircheallaigh, 2017). The variety of cases and approaches have included several independent Indigenous assessments that paralleled and influenced concurrent

territorial, provincial and/or federal project assessment proceedings. Examples in Canada have included the assessments undertaken by the Tsleil-Waututh Nation on the proposed Trans Mountain Pipeline and Tanker Expansion (T-WN, 2015), the Stk'emlupsemc of the Secwepemc Nation (SSN) concerning the proposed KGHM-Ajax-Abacus copper-gold mine at Pípsell (Jacko Lake, near Kamloops) in British Columbia (SSN, 2017), and the Squamish Nation on the proposed Woodfibre LNG Plant (FNEMC, 2019; G. Gibson et al., 2018; Hunter, 2017; Squamish Nation, 2015). Other independent assessments have been done by Indigenous authorities considering, or acting in, partnership with non-Indigenous proponents. Examples discussed in the literature include the joint review of a proposed extension to the Raglan nickel mine in Arctic Quebec by Makivik Corporation, the communities of Salluit and Kangiqsujua and the mine owner, Glencore (SDWGAC, 2019).

These independent assessments reflected Indigenous determination to exercise their inherent right to govern (Mascher, 2019a). They incorporated Indigenous knowledge and ways of seeing, and made use of Indigenous law and process traditions (G. Gibson et al., 2018). They were also characterized by a sustainability-aligned scope and vision with attention to consequences for future generations (G. Gibson et al., 2018). Most also addressed the larger context and implications of particular projects, including cumulative effects and other regional/strategic level issues (Clogg et al., 2017a). While these assessments were independent in the sense of being Indigenous-led, their successes depended in part on being well positioned in a larger decision-making process. Having a positive relationship with the conventional assessment process and/or the proponent was often crucial, sometimes because of funding needs and often because of the limited power of Indigenous authorities to determine overall project approval conclusions and to compel compliance with proposed conditions of approval (G. Gibson et al., 2018).

Even in cases involving independent assessment, however, Indigenous authorities' efforts to apply their own worldviews and core beliefs face challenges in the context of decision making on modern resource development undertaking. One set of examples is provided by the independent assessments done by the four First Nations in northern Manitoba who partnered with Manitoba Hydro in the proposed Keeyask hydropower dam project. The Tataskweyak Cree Nation and the War Lake First Nation (jointly), the Fox Lake Cree Nation and the York Factory First Nation prepared assessments of the project and held community consultations and ratification votes before agreeing to participate in the Keeyask Hydropower Limited Partnership (Keeyask Hydropower Limited Partnership, 2012). While each of the four First Nations chose to join the partnership, the assessments reveal how difficult that choice was. Keeyask was to be yet another in a long series of hydropower project in the Churchill-Nelson watershed with serious adverse effects on the Indigenous communities and their territories. The First Nations' assessments wrestled with how to reconcile commitment to preserving culture and lands and willingness to be partners in the project. While the communities did their own assessments and made their own decisions, they were influenced by the absence of other promising livelihood options and fears that the project would go ahead in any event (Fox Lake Cree Nation, 2012; YFFN, 2012).

Candidate issue areas for future applications of collaborative regional and strategic assessments with Indigenous partners in Canada

Indigenous peoples originally occupied all of Canada and their traditional territories cover the country (Native Land Digital, 2020). Indigenous communities today are widely distributed across Canada, including the most remote and most urbanized areas. These communities and associated organizations have long been active participants in project-level assessments and in the scattered regional and strategic planning and assessment initiatives we have seen in Canada so far (Berger, 1977; MGPJRP, 2009; VBEAP, 1999). That participation is expected to be more important in the future (Clogg et al., 2017a).

As was noted in chapter 3, calls for greater use of regional and strategic assessments have been made in Canada for many years. That advocacy has referred to both broad and case specific regional/strategic concerns and opportunities that face Indigenous authorities and communities and are not addressed well by project-level assessments or other available processes. The list in Box 4.1, below, sets out the main categories of issue areas that have been identified as candidates for attention in regional or other strategic initiatives and assessments.

Box 4.1 General categories of issue areas for collaborative, sustainability-based regional/strategic assessments including Indigenous partners

Regional/strategic undertakings and associated assessments are likely to be needed to address concerns and opportunities in the following issue areas:

- regions with significant existing system stresses, including cumulative effects of development, and need for positive future trajectories on Indigenous territories (e.g., Blueberry FN) (Gislason & Andersen, 2016)
- regions (e.g., ones not previously exposed to industrial activity) with significant anticipated development pressures, associated system stresses and opportunities, including cumulative effects of development on Indigenous territories (e.g., Matawa and downstream FNs re Ring of Fire mining and infrastructure) (Atlin, 2019; Chetkiewicz & Lintner, 2014)
- regions where proposed or already-initiated developments may induce enough further development to have major effects on the nature of new stresses and opportunities and the capacity of the region to capture benefits and mitigate adverse effects and manage the pace and scale of development (e.g., Mackenzie Gas Project (MGPJRP, 2009b))
- regions, sectors or other fields of activity where there is uncertainty about particular future options such as future energy sources (Winfield et al., 2010); or about the nature of and prospects for potentially viable and desirable community futures, including for remote and northern Indigenous communities (Cameron & Potvin, 2016; Zubrycki et al., 2016); and means of avoiding perilous climate change trajectories and mitigating anticipated problems such as rising sea levels, extreme weather events, droughts and wildfires (R. B. Gibson et al., 2019; Oulahen et al., 2018)
- regions, sectors or other fields of activity where there is existing or potential conflict involving overlapping inter/multi-jurisdictional authority, including Indigenous authorities (e.g., concerning further expansion of bitumen production and regional

futures in northern Alberta (Mantyka-Pringle et al., 2015; Mills, 2017; B. L. Parlee, 2015; C. N. Westman et al., 2019))

In all cases, regional or strategic assessments addressing the needs identified in Box 4.1 would entail developing as well as reviewing suitable responses to the concerns and opportunities involved. The responses could include a variety of initiatives ranging from interim guidance to new co-governance agreements entrenched in law. However, the core response options are strategic undertakings – policies, plans, programs and the equivalent, individually or in combinations. As has been noted above, broadly scoped studies have sometimes been labelled regional or strategic assessments. Studies of some sort have been involved in a regional and strategic assessments. Studies alone, however, cannot provide satisfactory responses to the needs in any of the Table 4.1 categories.

In some cases, a regional or strategic assessment may begin with an identified proponent. Assessments initiated under the European Union's Strategic Assessment Directive, for example, are proponent driven (European Union, 2001). So are the assessments under the federal Cabinet Directive in Canada (Canada, 2010). Assessments in the categories above, however, would in many cases address strategic gaps or emerging issues for which no proponent agency is actively developing a suitable policy, plan or program. That has been the situation leading to many of the regional and strategic assessments discussed in chapter 3 (BAPE, 2003, 2011, 2015; BCEAO, 1997; D. Crombie, 1992; Georges Bank Review Panel, 1999; NIRB, 2019; OEER, 2008). In such cases, the need, broad purposes and general mandate for a regional or strategic initiative may be evident at the outset. But the agenda and organization of the assessment and the specification of roles and responsibilities would have to include choosing among the potential response options and combining the best in a strategic undertaking (or set of undertakings) as well as ensuring appropriate review, decision making and follow-up.

In regional and strategic assessments featuring co-governance partnerships including Indigenous governing bodies, there may be cases where one of the partners – the federal government, a province, a territorial government or an Indigenous governing body – serves as the proponent and with due consultation examines options and proposes a set of policies, plans and/or programs, leaving the partnership to collaborate on review, recommendations to decision makers and determination of roles and responsibilities for implementation. Given past experience, however, the more likely expectation is that collaboration in regional and strategic assessments would typically cover the whole process from initial collaborative agreement on objectives, principles, roles and processes, through the development of responses and proposed undertakings, decision making and implementation.

Principles, steps, partnership forms and mandates for future applications of collaborative regional and strategic assessments with Indigenous partners in Canada

Many different mandates, processes and forms of power sharing and organization have been tested in project assessments co-management structures and co-governance collaborations involving Indigenous governing bodies in Canada (Clogg et al., 2017b; FNEMC, 2019; G.

Gibson et al., 2018; Griggs & Dunsby, 2015; Noble, 2016). A similar diversity of options is likely to be needed for collaborative sustainability-based regional/strategic assessments involving Indigenous partners. To deal with the range of potential partnerships, regional/strategic issues, time pressures, and surrounding governance tools, gaps and capacities, both Indigenous and non-Indigenous partners will benefit from access to multiple different options for collaborative assessment.

At the same time, use of many different process options and emphasis on specifying assessment processes and agendas for the particular case and context adds to the administrative challenges of partner authorities (Griggs & Dunsby, 2014, 2015). One response that does not entail sacrificing options and case specification centres on identify common core elements. Fortunately, the available literature points to common foundations for the diverse forms of application.

Box 4.2, below, summarizes the basic principles and Box 4.3. summarizes the generic steps to be reflected in all partnerships and assessment forms in sustainability-based regional/strategic assessment partnerships involving Indigenous authorities. The identified principles and steps follow and integrate the core substance and process requirements for next generation regional/strategic assessments set out in Box 3.1 in the preceding chapter but emphasize aspects particularly important in assessments involving Indigenous partners.

Box 4.2 Basic design principles for the many possible types of collaborative sustainability-based regional/strategic assessments involving Indigenous partners

Basic design principles
While partners in sustainability-based regional/strategic assessments involving Indigenous partners can make use of many different forms of regional/strategic assessments involving Indigenous governing bodies, all forms of assessment collaboration should

- recognize that the Indigenous partners are valuable contributors to collaborative processes and have areas of independent authority, though the extent of these areas has been expanding, continues to be contested and may be clarified by the collaborative partnerships themselves (Borrows, 2005; Clogg et al., 2017a, p. 43; G. Gibson et al., 2018; Griggs & Dunsby, 2015);
- provide spaces for Indigenous ways of understanding and deliberating (B. Gunn et al., 2017; Latulippe & Klenk, 2020; McNeil, 2016; G. White et al., 2007);
- represent "two-eyed seeing" and "braiding" or the equivalents as a basis for co-governance and apply this through the process from initial partnership negotiation through the end of implementation of the undertakings, with retention of separate authority and processes by the Indigenous partner(s), including use of Indigenous legal systems and approaches to deliberation and governance (see the discussion of "braiding" above);
- incorporate the full sustainability agenda, with multi-generational wellbeing objectives as well as a comprehensive scope in establishing purposes, identifying and comparing alternatives, and making and implementing decisions (Atlin, 2019; R. B. Gibson et al., 2010b);

- approach regional/strategic assessment partnerships as a venue for application of the UN Declaration on the Rights of Indigenous Peoples and deliberations on conditions for "free, prior and informed consent" (B. Gunn et al., 2017; Mascher, 2019a; Papillon & Rodon, 2019a; Simms et al., 2018);
- cover development, review, decision making, implementation and monitoring of regional/strategic undertakings, recognizing various options for the package (e.g., may be separate proponents and reviewers, may be several undertakings under different authorities, may be compatible rather than integrated; must provide clear guidance for more specific undertakings including projects; may entail new co-governance structures) (Clogg et al., 2017b; R. B. Gibson et al., 2015; Griggs & Dunsby, 2014; Lloyd-Smith, 2017);
- adopt credible, transparent processes with opportunities for meaningful public participation and Indigenous engagement in the context of a collaborative assessment with Indigenous authorities and approaches, and recognizing that different cases will demand different processes (Armitage, 2005; Doelle & Sinclair, 2006; Eckert et al., 2020; Noble, 2016; Sinclair et al., 2008);
- recognize needs for building relationships and trust, including through open oral dialogue (versus reliance on exchange of written materials), and seek consensus, recognizing that consensus is not always a realistic option or appropriate result (Armitage, 2005; Asch et al., 2018; Fitzpatrick et al., 2008; Sinclair & Diduck, 2017);
- ensure credible decisions, supported by published reasons by all decision making authorities, based on selection of the best option(s) in light of explicit sustainability-based criteria, potentially with consensus building mechanisms (Clogg et al., 2017b; Griggs & Dunsby, 2014);
- deliver one or more authoritative strategic undertaking – a regional or sectoral policy and/or plan, supportive programs (e.g., for infrastructure, funding, management and/or training), and other guidance for subsequent activities including projects, implementation plans, resource management and regulatory decision making, etc. (Clogg et al., 2017a);
- ensure that application of the regional/strategic assessment regime as well as the implementation of particular strategic undertakings are subject to monitoring, response to monitoring findings, and scheduled review and revision, renewal or expiry (Cheok et al., 2018; Clogg et al., 2017a);
- foster mutual and continuous learning and capacity building (Armitage, 2005; Clark & Joe-Strack, 2017; Griggs & Dunsby, 2014, 2015);
- be flexible enough to recognize and accommodate additional initiatives and roles (e.g., depending on the character of the undertaking(s) proposed, regional and strategic assessments may involve or entail negotiation of new governance structures and associated initiatives – see, for example, the Haida case report, below);
- align the process and governance with work of related institutions (e.g., other joint planning and co-management bodies, and regulatory processes) (Griggs & Dunsby, 2015); and
- design for efficiency as well as fairness and effectiveness in the process and its products, recognizing needs for capacity building, means of conflict resolution; but also needs for timely regional and strategic guidance; where appropriate plan for

interim as well as final products (Acharibasam, 2013; CCME, 2009; Hunsberger et al., 2020; Udofia et al., 2015, 2017).

Regional/strategic assessments with diverse specific characteristics can respect the design principles set out above. Major categories of diversity include the scope and intensity of efforts and the means of accommodating different approaches to understanding, deliberation and decision making. Needs to deliver different kinds of assessment products – policies, plans, programs, new governance structures, regulatory measures, etc. – can also influence the specifics of process design. Nonetheless, common basic steps can be identified. Despite these differences, the steps set out in Box 4.3, below, should be incorporated in all forms of collaborative regional/strategic assessments. The steps are to some extent a linear application of the Box 4.2 design principles. In actual application, however, most of the "steps" will be iterative, concurrent, mutually influential and/or combined.

Box 4.3 Common process steps for the many possible types of collaborative sustainability-based regional/strategic assessments involving Indigenous partners

All collaborative regional/strategic assessments should include the following steps, though not necessarily separately or in the sequence adopted here. Where not otherwise noted, the points below assume application of "braiding" approaches that apply but do not integrate Indigenous and non-indigenous ways of seeing, understanding, deliberating and deciding.

Concerning the initial partnership agreement, recognizing iterative needs to revisit the initial assumptions and arrangements throughout the process:

- identify relevant potential partners, including Indigenous government bodies and invite discussions on assessment collaboration (Olagunju & Gunn, 2016);
- seek agreement on common goals, clarify basic principles and initial implications for objectives, structures and funding (Armitage, 2005; Griggs & Dunsby, 2014, 2015);
- establish and iteratively clarify roles and responsibilities – recognizing various options for separate and shared roles and responsibilities – covering the full process including roles in developing the regional strategic undertaking (identifying and comparing alternatives, selecting the one likely to contribute most to sustainability, clarifying the implications for implementation), delivering credible review, making decisions with conditions and application guidance, directing implementation, and ensuring effective follow-up monitoring, adjustment and eventual expiry or renewal of the regional/strategic undertaking(s) (R. B. Gibson et al., 2015; Griggs & Dunsby, 2014; Noble, 2009b);
- establish the core approaches to information sharing and deliberations, decision rules, management and funding arrangements, and other processes for collaborative relations among partners in formal agreements (Clogg et al., 2017, p.43);
- clarify the deliberation and decision-making processes for the partners and for engagement with the public, independent experts, other authorities and stakeholders (Clogg et al., 2017b; Larsen, 2018; MIAC, 2016; Noble, 2002; Sinclair et al., 2015; Staples & Askew, 2016); and

- determine how to meet core governance and delivery requirements including resources, timeliness, capacity building, and regular reconsideration and adjustment (Griggs & Dunsby, 2014; Udofia et al., 2015).

Concerning the regional/strategic issues, response options and criteria for comparative evaluation in the collaborative regional/strategic assessment, all with braiding of Indigenous and non-indigenous proposals and processes:

- undertake studies (including separate studies by Indigenous partners) to examine current and anticipated regional/strategic issues, concerns, opportunities and sustainability priorities, assisted where appropriate by elaboration of scenarios of desirable and possible futures and their implications including for criteria for evaluating options (Atlin, 2019; CCME, 2009; Duinker & Greig, 2007, 2007; R. B. Gibson, 2017);
- identify and iteratively elaborate the potentially feasible and desirable strategic response options – policies, plans, programs, governance processes and structures – and their implementation implications, including for project-level activities (Atlin, 2019; CCME, 2009; De Montis et al., 2016; Lees et al., 2016; Noble, 2009b; Staples & Askew, 2016);
- iteratively clarify objectives and develop sustainability-based criteria for evaluation of the options, and ways of considering trade-offs – all specified for the particular case and context, with provisions for initially separate specification by Indigenous and non-indigenous partners (Bond et al., 2012a; R. B. Gibson, 2017; R. B. Gibson et al., 2005; L. White & Noble, 2012); and
- undertake studies of the potential positive and adverse effects of the options, and associated uncertainties, with attention to rigour and credibility as expected in the different knowledge traditions involved (CCME, 2009; Clogg et al., 2017b; J. Gunn & Noble, 2009b).

Concerning analysis, review, recommendations for decision making, and implementation:

- compare options using explicit case-specified criteria and trade-off rules, and develop suitable proposals for action – one or more regional/strategic undertaking – for example, a regional or sectoral plan, supportive programs (e.g., for infrastructure, funding, management and/or training) (Bond et al., 2012a; R. B. Gibson, 2017; Noble & Nwanekezie, 2017; Sinclair et al., 2017);
- prepare guidance for implementation, including implications for projects and other more specific undertakings (Arts et al., 2011; R. B. Gibson et al., 2015);
- apply credible processes for impartial review of proposed undertakings in light of other options, and for making recommendations and making authoritative decisions (open, explicit review, reasons for decisions) (Bond et al., 2012b; R. B. Gibson et al., 2015; Hunsberger et al., 2020); and
- establish responsibilities and processes for effective implementation of the approved undertaking(s), including application to more specific undertakings, monitoring and future review, revision and renewal or expiry (Cheok et al., 2018; Clogg et al., 2017b; De Montis et al., 2016; R. B. Gibson et al., 2010b).

The basic principles and steps set out in Box 4.2 and 4.3 are syntheses of common features that could be incorporated in guiding protocols for all regional and strategic assessments involving partnerships with Indigenous governing bodies. Such protocols would be useful for both Indigenous and non-Indigenous authorities with assessment regimes that anticipate collaborative regional or strategic assessments. Protocols on the basics would, however, be only a beginning. For each potential partner and each application, the negotiated arrangements for collaborative regional or strategic assessment would need to adjust, specify and add to the basic protocols to find and apply the particular set of mandates, roles and processes best suited to the case and context at hand.

Box 4.4, below, outlines the main categories of broadly different regional and strategic assessments that could be initiated in response to significantly different issues, players and circumstances.

Box 4.4 Broadly different specific demands, mandates, roles and processes for collaborative sustainability-based regional/strategic assessments involving Indigenous partners

Different options for assessment ambition and urgency of response:

- urgent needs for quick delivery of credible strategic-level guidance for a project assessment, within the time constraints of that assessment process (Doelle & Sinclair, 2018; IAAC, 2019);
- pressing near-term needs at least for interim working guidance for assessments, regulatory actions, etc., as in the BC salmon aquaculture review (BCEAO, 1997; Davidson, 1999), the Royal Society review food biotechnology regulation (Expert Panel, 2001), and the Nova Scotia/New Brunswick review of options for responding to proposals for tidal power projects in the Bay of Fundy (Doelle, 2009; OEER, 2008);
- requirements to develop longer-term policies, plans, programs or the equivalent to guide future development, protection and/or recovery, perhaps directly tied to existing or anticipated project assessments, for example, the anticipated regional assessment of mining and infrastructure development in Ontario's Ring of Fire area (IAAC, 2020; Scott, 2019);
- requirements to address overall strategic needs in preparing for, spurring and guiding long term major transitions, for example, meeting climate change commitments (R. B. Gibson et al., 2018, 2019); and
- combinations of recognized needs both for immediate regional strategic guidance for a project assessment and for development of longer-term policies, plans, programs or the equivalent, possibly with implications for establishing new co-governance structures with continuing roles.

Different options concerning partnership complexity

- simple agreement between two collaborating partners, or more complex agreements involving many collaborating partners with overlapping jurisdiction, territories and existing or potential conflict (Griggs & Dunsby, 2015; IAAC, 2019a); and
- partners with roughly equivalent authority and jurisdiction or collaborations with one central jurisdiction and others with important but relatively peripheral authority.

Different levels of comprehensiveness in partnership activities

- all partners play all the usual basic roles: as joint co-proponents, co-reviewers, co-decision makers, and co-implementers of the resulting strategic policies, plans and programs, etc., with shared as well as more or less separate deliberations (e.g., separate internal discussions by Indigenous partner(s) and non-Indigenous partners, applying their own understandings and processes);
- cases with more complex divisions of roles and responsibilities, which could involve
    - establishment of rules and responsibilities for assessments with joint assessment components (e.g., some or all of specification of mandates, identification of concerns and opportunities, delineation and comparative evaluation of response options, assessment panel reviews, decision making, implementation and follow-up);
    - two or more partners serving as proponents, developing the proposal(s) for strategic undertaking(s) as well as carrying responsibilities for review, decision making and implementation;
    - collaboration only in the development of a regional/strategic policy, plan, program or package of strategic undertakings;
    - coordination of otherwise separate assessments/reviews of a regional/strategic undertaking, perhaps with establishment of funding arrangements and other resource supports; and
    - delegation of some assessment tasks/components to one partner or another; or
    - substitution of an Indigenous process for a federal and/or provincial for some process elements (project level process substitution has been done with provinces (though with some controversy), and has been done in effect in the territories with federal deferral to processes based on modern land claims agreements; and
- cases with more and less integrated decision making, ranging from decisions in separate areas jurisdictional authority, though degrees of parallel but interactive deliberations and decisions, to more or less joint deliberations and recommendations leading to decisions by a joint body with delegated authority from partners (Griggs & Dunsby, 2015).

Different consequential requirements – needs for new processes and governance structures

- cases able to make use of established processes or process models (such as strategic-level equivalents of joint review panels for public review of proposed regional or strategic undertakings by an identified proponent or proponents;
- cases that involve establishment of new arrangements for public engagement as well as intra-partnership deliberations in developing as well as reviewing and making decisions on the undertaking(s); and
- cases with new strategic undertakings or implementation demands that entail establishment of new co-governance bodies, perhaps supported by new legislation – for example, British Columbia's *Haida Gwaii Reconciliation Act*; see the Haida case report at the end of this chapter).

The diversity of cases and associated potential partnership arrangements and expectations make anticipatory preparation difficult. But the absence of anticipatory preparation is likely to preclude quick and confident responses when pressing needs for assessment partnerships emerge. Many calls for regional and strategic assessments will come in cases that prompt guidance on how to address emerging strategic issues – for example, in project assessments, regulation of new technologies and applications, and land rushes following big resource discoveries. For such circumstances, pre-negotiated general collaboration agreements, standard templates for particular categories of cases and partnerships, early establishment of working relationships and trust, and general capacity building would be prudent (Griggs & Dunsby, 2015).

Even for regional and strategic assessment cases that face less pressure for immediate answers, potential partners would benefit from having in place anticipatory collaborative agreements and defined options for partnership roles and process designs.

The demands, mandates, roles and processes outlined in Box 4.4 do not constitute a complete list even of the broad categories. The lists focus on partnerships at the core of regional and strategic assessments under legislated assessment regimes, such as the ones being established under the new federal *Impact Assessment Act*. Further partnership opportunities can be expected on the periphery of such regimes and in their gaps. For example, in areas where needs for regional or strategic assessments are not being pursued under assessment law, Indigenous governing bodies may find it useful also to establish partnerships with other Indigenous and non-Indigenous bodies, including private sector and civil society organizations, as they have done in other cases. A notable example is the negotiation of land use plans for the Great Bear Rainforest (Curran, 2017; Government of British Columbia, 2016). Indeed, such partnerships could be established even where more conventional regional or strategic assessments are planned.

The new Canadian *Impact Assessment Act* as a vehicle for regional and strategic assessments with Indigenous partnerships/collaborations in Canada

The most immediate opportunities for Indigenous partnerships in regional and strategic assessments may be those under the new federal *Impact Assessment Act.* Facilitating Indigenous engagement in assessments was a consistently important theme in the government's assessment reform process leading to the new legislation (Narine, 2016) and in its post-passage development of guidance for implementation (IAAC, 2020a, s.5). Providing for collaborations with other assessment jurisdictions has also been a continuing theme. Preparations for Indigenous engagement are relatively well-advanced, but fall short of collaborative partnerships. They centre on ensuring proper consultations with Indigenous authorities and communities through the various stages of assessments (IAAC, 2020a, s.5). If and when Canadian commitment to the UNDRIP is entrenched in legislation and the principle of free, prior and informed consent is applied seriously, the nature of Indigenous consultations could shift further towards empowerment of Indigenous voices (Papillon & Rodon, 2019b). Little guidance is available so far on establishing collaborative assessment partnerships with other jurisdictions, including Indigenous ones including in regional assessments. The Act's provisions for such partnerships, however, represent a promising opening.

The *Impact Assessment Act's* provisions for regional assessments allow the Minister of Environment and Climate Change to enter into agreements with other relevant jurisdictions (Impact Assessment Act, 2019, sec. 93(1)(a)(i)). The potential roles for other jurisdictions are left unspecified, except that they involve participating in the "joint establishment of a committee to conduct the assessment and the manner in which the assessment is to be conducted" (Impact Assessment Act, 2019, sec. 93(1)(a)(i)). Potential partner jurisdictions include certain Indigenous governing bodies, and joint Indigenous/non-Indigenous assessment bodies that have been created under modern land claim agreements (Impact Assessment Act, 2019, s.2 *jurisdiction* (e-g) & 93(1)(a)(i)). The Indigenous governing bodies recognized in the Act are limited to those under land claim agreements or self-government agreements. That definition would exclude many other Indigenous governing bodies – for example, First Nations that were recognized under the historic treaties or that never signed a treaty or land claim agreement. However, these too could be recognized as jurisdictions for assessment partnership agreements if the government makes a regulation to empower the Minister to enter into assessment partnership agreements with them (Impact Assessment Act, 2019, sec. 114(e))(Canada, 2019, s.114(e)). According to the Impact Assessment Agency, the "Indigenous cooperation regulation" is to be in place before the end of 2021 (IAAC, 2019b).

The Minister has already announced a regional assessment under the Act for the Ring of Fire area of anticipated mining and infrastructure development in northern Ontario (IAAC, 2020). The area is within the intersecting traditional territories of several First Nations and development there will affect several more in the area and downstream (Atlin, 2019; Scott, 2019). Their involvement as recognized cooperating jurisdictions may be necessary if the regional assessment is to be credible and authoritative.

The federal *Impact Assessment Act's* provisions for strategic assessments do not mention partnerships with other jurisdictions, Indigenous or not. However, the Act seems not to preclude such partnerships and on many matters of broad strategic planning and policy making, the federal government may find it beneficial if not necessary to proceed through assessment partnerships with Indigenous, provincial and other jurisdictions that share authority in the area of strategic concern.

Collaborative regional/strategic assessments with Indigenous jurisdictions under the new federal *Impact Assessment Act* and beyond

The *Impact Assessment Act's* very general provisions for regional and strategic assessments and for collaborations with other jurisdictions leave diverse openings for pilot testing and broader adoptions of many different options for assessment partnerships with Indigenous jurisdictions. As noted above, regulatory action to expand the ambit of recognized Indigenous jurisdictions would be needed. When that is accomplished, the undefined elements of the Act's provisions for regional/strategic assessments should give Indigenous governing authorities and their partners considerable room to explore possible structures and agendas for multi-jurisdictional assessment collaborations at the regional and strategic level.

Clarification of the range of available models for collaboration could begin with the many options described in the literature and surveyed briefly above. These could also inform policy

that sets out common requirements and expectations – the basic principles governing collaborations with Indigenous jurisdictions, the core characteristics of acceptable models, generic cooperation agreement templates, standard approaches to determining potential funding and other assistance for and from collaborating jurisdictions – all with attention to the range of applications listed in Box 4.1, above, and the considerations listed in Boxes 4.2, .4.3 and 4.4.

Beyond the regional and strategic assessments under the federal Act are numerous further openings for Indigenous partnerships in assessments. As has been indicated by the sampling of examples in this chapter, an impressive diversity of assessment-related partnership initiatives including, and in some cases led by, Indigenous governing bodies has already been demonstrated in Canada. The potential for further new or adjusted regional and/or strategic assessment partnerships is great. The most convenient openings may be where Indigenous communities and authorities are seeking more effective means of dealing with regional and strategic issues, and the relevant provinces and territories have planning or assessment processes at the regional/strategic level with mandates broad enough to support a sustainability-based approach. Potential venues include the three territories, Québec and British Columbia. The case record so far, however, suggests that most initiatives in the near-term will arise case-by case where there is enough pressure, capacity, potential for trust among partners and the right combination of determined and flexible individuals. Eventually, establishment of institutionalized arrangements for regular use of collaborative regional and strategic assessments may follow.

Past experience provides no basis for confidence that regional and strategic assessments will proliferate with sufficient speed and capability to meet more than a fraction of identified needs for clear, credible and authoritative guidance in the foreseeable future. Consequently, there will continue to be needs for Indigenous leadership and partnerships in other venues for attention to regional and strategic issues. These include initiation of separate reviews by Indigenous governing bodies in project assessments that raise broader issues, in partnerships with proponents, and in multi-government/stakeholder negotiations on regional futures and other regional strategic level planning venues not clearly tied to assessment regimes (see the discussion of existing examples above and in the case reports at the end of the chapter).

Further potential openings for new and revised partnerships lie in a diversity of activities related to implementation of sustainability agendas that overlap with those of regional and strategic assessments. These include review of co-governance arrangements in resource and protected area management, monitoring and response to identified project-specific and cumulative effects, development and delivery of skills training and economic development programs. A potential example focused on governance of wild salmon conservation and harvest in Nova Scotia is suggested by the conjunction of Mi'kmaq advocacy based on two-eyed seeing (Denny & Fanning, 2016) and steps towards "Indigenous and Government of Canada collaboration through the co-development, co-design, and co-delivery of fisheries programs" (DFO, 2019).

New partnership approaches might also influence development and implementation of multi-interest agreements on resource management and other matters – for example, land use agreements involving government, industry and civil society organizations as well as Indigenous governing bodies (Stevenson, 2004). Illustrative cases include the Bras d'Or Lakes Collaborative Environmental Planning Initiative, an alliance of federal, provincial, First Nation and municipal

government bodies plus non-government organizations and experts that is developing a watershed management plan for Cape Breton Island's Bras d'Or Lakes (CEPI, 2011; Clogg et al., 2017a), and on the west coast the Great Bear Rainforest Agreement achieved by a collaboration of First Nations, forestry companies, environmental organizations, and the British Columbia government (Curran, 2017; Government of British Columbia, 2016).

Conclusions and implications

Most of the literature on Indigenous partnerships in assessments and related applications was produced in the last 20 years. Over that period, case experience has expanded and the level of demonstrated accomplishments and expectations has risen. Most notably, the literature has described an erratic and incomplete but unmistakable shift towards recovery of Indigenous authority. At the beginning, much of the literature featured scattered recognition of the usefulness of Indigenous knowledge and the importance of Indigenous voices in assessments. Dominant themes now centre on two quite different themes. The first is the legitimacy and distinctiveness of Indigenous ways of seeing, understanding, deliberating and deciding – matters of epistemology and law. The second theme is the nature and extent of decision-making authority being, and yet to be, regained by Indigenous governing bodies.

These themes are not peculiar to the assessment world. Reassertion of Indigenous epistemology, law and process has been a global struggle with a long history and the steps taken so far appear to be only the beginnings of initiatives to re-establish traditions and powers in new and changing circumstances. The efforts of Indigenous peoples to resist and recover from the crimes and failures of the colonial agenda have been and will continue to be entwined with a host of other challenges. One of these is the need for all peoples to find pathways to more sustainable futures in a world where the conventional growth trajectories are suicidal.

Assessments have been and will be only one venue for Indigenous reassertion and sustainability transition. However, assessment-related conflicts, negotiations, high court rulings and legislative and process changes have played a part in weakening some of the barriers to more promising explorations. The many efforts to establish Indigenous partnerships of various kinds in project assessments and, sometimes also at the regional and strategic level, have been successful enough to justify and inform more applications.

Whether the new federal assessment legislation will prove to be an effective vehicle for Indigenous partnerships in regional and strategic assessments remains to be seen. It is, however, suitably equipped with a legislative basis that adopts sustainability-based objectives, and the vagueness of its regional and strategic assessment provisions could be interpreted cheerfully as facilitating use of the many diverse options for regional and strategic assessment applications, structures and partnerships.

At the same time, the record so far has shown that reliance on one jurisdiction to take the lead is unrealistic and probably undesirable. The partnership experiences reviewed in this chapter cover a wide range of approaches that reflect the particular concerns and opportunities of each case and context. Some, such as regional planning in the Yukon, have been in established, law-based

regimes of broad application. Many others, however, have been essentially custom made. That can, should and perhaps inevitably will continue.

What is now possible is to draw more heavily on learning from the foundation of experience so far. Already the literature includes several initial consolidations of the lessons from experience for available models and best practices (Clogg et al., 2017a; G. Gibson et al., 2018; Noble, 2016; Noble & Udofia, 2015; SDWGAC, 2019). A further step would be identification of better and more consistent means of facilitating collaborative experimentation by and with Indigenous governing bodies, especially on regional and strategic matters that have been so poorly addressed by project assessments and other existing mechanisms. Some of the needs are evident. For example, the literature commonly points to the absence or inadequacy of funding support for assessment partnerships and the capacity limitations of many Indigenous governing bodies (Clogg et al., 2017b; Fidler & Noble, 2013b; G. Gibson et al., 2018; Noble & Udofia, 2015). It also points to needs for more exploration of how to facilitate separate but complementary application of Indigenous and non-Indigenous approaches to assessment as both evaluation and decision making (Clogg et al., 2017b; G. Gibson et al., 2018; Papillon & Rodon, 2019a). Responses to these and other openings for better guidance and practice could contribute significantly to the prospects for Indigenous partnerships, regional and strategic assessments and progress towards sustainability.

Appendix 4.1 Case Report – Co-Governance in the Yukon

The shared decision-making structure and processes for lands and resources in the Yukon involve First Nation, territorial, and federal governments. The governance arrangement is grounded in modern treaties, also referred to as land claims agreements. This case report describes key characteristics of this arrangement, specifically as they relate to addressing strategic/regional level issues, and identifies several challenges that have emerged through its implementation.

The region now known as the Yukon is one of three territories in northern Canada and has been home to First Nations[2] since time immemorial. The way of life and the laws of these communities continue to guide their relations with humans, non-human beings and the land today. Impacts of colonization came to the Yukon in multiple waves, beginning with the presence of Russian traders in Alaska, followed by fur traders, gold seekers, the American army, mining companies, and an expanding presence of the Canadian government (Council for Yukon Indians, 1973). These impacts have been well-described; in short, they targeted all aspects of life for Yukon First Nations. Also, as Corntassel (2012) notes, colonialism is not a relic of the past, but is a shape-shifter; it continues today though it does not look the same now as it did previously.

As early as 1901, First Nations in the Yukon began to push for recognition of their land claims. However, the eventual agreement was not achieved until 1992. *Umbrella Final Agreement* (UFA) signed by the Council of Yukon First Nations, Government of Yukon, and Government of Canada (Council of Yukon First Nations, 2020) became the blueprint for final and self-government agreements that were signed by individual First Nations in subsequent years. Though each party had its own motivations for signing the agreement, all parties "came together to build a new relationship so that we could speak to each other as equal partners. We came together because we could no longer turn away from the pain and suffering that the laws of the day had created for the Yukon First Nation peoples" (*First Principles Project*, 2020, p. 3).

The co-governance model

The *UFA*,[3] as well as successor legislation tied to the UFA, established the foundation for a shared decision-making model for lands and resources. The roles and powers of the three levels of government (First Nations, territorial, and federal) within this system are complex. While the details are beyond the scope of this case report, in brief, the authorities' roles and powers range from joint leadership (e.g., on regional planning commissions) to separate decision-making (e.g., for projects assessed on settlement and non-settlement land) and consultation (e.g., for First Nation authorities concerning projects assessed solely on non-settlement land).

[2] While there are fourteen First Nations in the Yukon today, these divisions do not necessarily represent how people would have identified previously. Also, this case report focuses on First Nations in the Yukon and therefore does not address the portion of the Inuvialuit Settlement Region that overlaps with the Yukon.

[3] In focussing on the *UFA*, this case report does not address the complexities of the three First Nations that have not signed final and self-government agreements.

Perspectives on the successes and limitations of the UFA vary. While some see potential strengthening of land claims agreements and positively evolving conversations around co-governance (Clark & Joe-Strack, 2017), others raise concerns that the decision-making authorities created through the UFA facilitate resource extraction industries' access to Indigenous lands (Charlie, 2017).

A central component of the UFA-based co-governance framework is a tiered regional planning and assessment process. Regional land use plans are established through commissions made up of Yukon Government and respective First Nation representatives. Both governments have the authority to accept, reject, or modify these plans. Similarly, the Yukon Environmental and Socio-economic Assessment Board (YESAB) members are appointed by the Council of Yukon First Nations, territorial government, and federal government. When projects are being assessed under the *Yukon Environmental and Socio-economic Assessment Act* (YESAA), their conformity with land use plans must be considered (Yukon Environmental and Socio-Economic Assessment Act, 2003b, sec. 44). Conversely, when regional land use plans are being established, the assessment board may provide relevant information to the planning commission (Yukon Environmental and Socio-Economic Assessment Act, 2003b, sec. 45). The UFA also provides important principles to guide these processes. For example, objectives for regional planning include but are not limited to recognizing Yukon First Nations' responsibilities to the land, recognizing and promoting Yukon First Nations' cultural values, and ensuring sustainable development (Council for Yukon Indians, 1993, sec. 11.1.1)

The importance of regional land use planning in addressing strategic/regional level issues is underscored by the absence of alternative avenues to do so. While *YESAA* – an act that stems from chapter 12 of the UFA – identifies the potential for processes such cumulative effects studies or reviews of plans, programs, policies, or proposals that could consider strategic level issues (Yukon Environmental and Socio-Economic Assessment Act, 2003b, secs. 2(1) and 102–109), no such processes have yet been implemented. Consequently, pressure has been placed on the regional land use planning process to address cumulative effects and other regional/strategic level issues that cannot be addressed effectively at the project level. This pressure adds to the challenges facing regional planning implementation.

Regional land use planning in the Yukon

Implementation of regional land use planning in the Yukon has been slow, in part due to a court case involving the Peel Watershed Regional Land Use Plan. The one plan that has been implemented in the Yukon – the North Yukon Regional Land Use Plan – provides a promising example of regional planning's ability to address strategic level issues. In the North Yukon case, a scenario analysis approach was used to consider various alternative futures and identify cumulative effects thresholds that reflected the objective of maintaining caribou populations – identified by Vuntut Gwitchin as central to their identity and culture – on the landscape for generations to come (Francis & Hamm, 2011).

The Peel Watershed Regional Land Use Plan, which has been approved but not yet fully implemented, has demonstrated the credibility and authority of the regional land use planning process as grounded in the UFA. In a case where the Yukon Government challenged the plan developed by the Peel Watershed Planning Commission, the Supreme Court of Canada upheld

the *UFA*-based process (*First Nation of Nacho Nyak Dun v. Yukon*, 2017). Though the case also identified limits to the process – for example, the territorial government is not legally bound to conduct regional planning – it confirmed the significance of shared decision-making processes under the UFA.

At the same time, regional planning in the Yukon faces implementation difficulties. First, the process has been slow to unfold. Much of the Yukon remains years away from implementing a regional land use plan, and continues to struggle with strategic level issues, including cumulative effects on important values and rights identified by Yukon First Nations (YLUPC, 2019). While ad hoc interim approaches are in some cases emerging outside the structure established by the UFA (e.g., in access management planning), their scope and efficacy remains unclear, particularly in regards to key issues of sustainability, shared decision-making, and respect for First Nations authorities, ways of life, and laws. How such processes will relate to those that are laid out in the UFA (e.g., cumulative effects studies, sub-regional planning under the UFA), but not yet implemented, is also unclear.

In addition to implementation difficulties are time and financial constraints that limit the scope of the regional land use planning process. For example, in the North Yukon plan, effects thresholds have been identified for some valued system components, but biophysical values have received much more coverage than social, economic and cultural ones (Vuntut Gwitchin Government & Yukon Government, 2009). Similar practice has been evident elsewhere in the territorial north (Salmo Consulting, 2006). While biophysical values have important connections to other values, such as cultural identity and treaty rights, failure to give due attention to all sustainability-based considerations is a problem that has long been recognized, including in assessments in northern Canada (Dalseg et al., 2018; Galbraith et al., 2007; Whitelaw et al., 2009). In the context of the Yukon, where alternative regional/strategic level mechanisms have not yet emerged, the limited scope of regional land use planning raises important issues about where cumulative impacts on a broader range of values are going to be addressed.

Finally, the connection between the regional land use planning process and project-level assessments is not always clear. For example, it remains unclear how conformity with regional land use plans should be determined within project assessments or how legally binding such conformity checks are. It is also unclear how the thresholds identified within the regional plan are to be addressed at the project level. For example, in 2016, YESAB was taken to court when it referred a project for further review on the grounds that it did not have sufficient information to determine the magnitude of impacts to caribou populations (Deuling, 2016). In this case, disturbance thresholds had been identified based on scenarios considering impacts to caribou populations as a primary value, but the planning-level thresholds work did not translate to clarity about implications at the project level.

The above challenges have been slow to emerge through the gradual implementation of regional land use planning in the Yukon. However, they are quickly becoming prominent issues in the currently unfolding Dawson Regional Land Use Planning process. Unlike the North Yukon and Peel Watershed planning regions, the Dawson region has long seen the highest concentration of mining activities in the territory (Government of Yukon, 2018). Accordingly, concerns over cumulative effects have been at the centre of the planning process (Dawson Regional Land Use

Planning Commission, 2019). In particular, Tr'ondëk Hwëch'in – with whose traditional territory the planning region overlaps – has called for interim approaches to address cumulative impacts to their lands, values, and treaty rights while regional planning occurs. In light of the high volume of project assessments that have occurred and will likely continue to occur in this region, the relationship between these assessments and a future regional plan will be especially important.

The shared decision-making processes established in the Yukon through the modern treaty process have important qualities that should not be overlooked. Yukon First Nations and the territorial government are collaborating on creating regional land use plans that reflect consideration for future generations, important values and rights identified by Yukon First Nations as key to their way of life and identity, authority in the eyes of the *UFA* and (theoretically) its signatories, and a tiered approach connected to the project level. However, the challenges facing regional land use planning raise important questions of implementation and the extent to which interim or additional mechanisms may be required to address the strategic/regional level issues emerging across the territory, in particular to address issues raised by First Nations as impacting their rights, livelihoods, and self-determination.

Appendix 4.2 Case Report – Co-Governance on Haida Gwaii

The agreements and supporting governance structures established by the Council for the Haida Nation with the Province of British Columbia and the Government of Canada on Haida Gwaii, British Columbia, are an example of Indigenous-settler collaboration in environmental decision-making in action. This case report will provide a brief description of Haida Gwaii and the Haida Nation, a summary of their existing agreements and co-governance structures, and some project level implications.

Haida Gwaii

Haida Gwaii, an island archipelago on the coast of northwest British Columbia, is the unceded and ancestral territory of the Haida people (Council of the Haida Nation, 2018). Sometimes referred to by environmentalists as the "Galapagos of the North" as testimony to its rich biodiversity and variety of endemic species, Haida Gwaii is regarded as an ecological hotspot for its remaining sections of intact coastal temperate rainforest (Takeda, 2015).

Haida Gwaii is also known for the resilience of the Haida people, who have lived on Haida Gwaii since time immemorial (CHN, 2018). Given its location on the west coast of Canada, Haida Gwaii was not visited by Europeans until Spanish explorer Juan Perez sailed to and around Haida Gwaii in 1774 (Collison, 2018). Although colonization arrived later than in many other places in Canada, its impacts were still harsh. After a deliberate introduction of smallpox in 1862, the Haida population dropped from an estimated 10,000-30,000 down to just 600 people by the beginning of the 20th century (Collison, 2018). Despite the damage from colonization and assimilation, the Haida have developed governance structures over the last few decades in order to maintain their culture and authority while working alongside and in collaboration with private sector interests (such as logging and fisheries) and other levels of government across the country.

Haida Nation Governance

Since Haida Gwaii is not under Treaty, the legal questions of title and ownership of the lands are contested. The Haida and the governments of Canada and British Columbia have differing opinions of who legally owns the lands and surrounding waters, which has led to issues in natural resource management and decision making. In response, the Haida Nation developed their own government, known as the Council of the Haida Nation (CHN). Formed officially on December 7, 1974, the CHN was intended to provide the Haida with a single political entity. One priority was to help reach agreements on land claims on Haida Gwaii in the face of increased logging pressures and ongoing logging permit controversies (CHN, 2018; Collison, 2018).

The CHN receives its mandate from the Constitution of the Haida Nation, which was formally adopted in 2003 and most recently amended in 2018 (CHN, 2018). The Constitution states that the mandate of the CHN is:

> …To steward the lands and waters of the Haida Territories on behalf of the Haida Nation, and to perpetuate Haida culture and language for future generations. (A6.S1)

The importance of the CHN was exemplified first in the Haida response to increasing logging pressure, especially on the southern portion of Haida Gwaii. Commercial logging had begun on Haida Gwaii in the early 1900s. By the 1980s, significant portions of old growth forest had already been logged across the islands and second growth forests were already being logged in several areas (Collison, 2018). To block further expansion of logging on the southern islands of Haida Gwaii, the Haida designated the area now known as Gwaii Haanas as a Haida Heritage Site (National Centre for First Nations Governance, 2013). In 1985, in support of this action in the face of continued logging, many Haida set up blockades on logging roads on Athlii Gwaii (Lyell Island) to protest continued forest harvesting in the area (von der Porten, 2014). These protests led to arrests, brought to light the issues with existing resource management on Haida Gwaii, and provided the spark for conversations on how to improve decision-making concerning Haida lands and waters.

Archipelago Management Board (AMB)

Following the Athlii Gwaii protests in 1985, negotiations began between the Government of Canada and the CHN about the management of Haida Gwaii. A result of these negotiations was establishment of the Gwaii Haanas National Park Reserve, National Marine Conservation Area, and Haida Heritage Site (typically referred to collectively as Gwaii Haanas). Gwaii Haanas is cooperatively managed by the Haida Nation and the Government of Canada. This relationship was formalized by the Gwaii Haanas Agreement, signed in 1993 by the Haida Nation and the Government of Canada, represented by Parks Canada. The agreement begins with a statement that although both parties differ "with respect to sovereignty, title or ownership" of Gwaii Haanas, they will work together for its protection (Government of Canada & CHN, 1993, sec. 1.1).

As part of this agreement, the Archipelago Management Board (AMB) was created and its structure and mandates were developed. The AMB is the co-governance body responsible for implementing the *Gwaii Haanas Agreement*, with the Board consisting of equal representation from the Haida Nation and the Government of Canada (Collison, 2018). In 2010, the CHN and Canada signed the Gwaii Haanas Marine Agreement, which extended co-management into the marine area and expanded the AMB from four members to six, adding a representative from the Department of Fisheries and Oceans (DFO) and another from CHN to maintain equal representation (Canada & CHN, 2010).

The AMB operates with decision making by consensus. Decisions about Gwaii Haanas must be agreed upon by both governments before being implemented (Gladstone & Boyko, 2019). All decisions must go through the AMB and a consensus must be reached before decisions are made in regards to Gwaii Haanas (Collison, 2018).

Reconciliation Protocol

Building upon the momentum of the Gwaii Haanas initiatives, the Province of British Columbia and the Haida Nation signed the Kunst'aa guu Kunst'aayah ("In the Beginning") Reconciliation Protocol in 2009). Similar to the Gwaii Haanas Agreement, the protocol establishes that, although both parties hold different perspectives with respect to title and ownership of Haida Gwaii, they are choosing to work together collaboratively through shared-decision making and

developing a new relationship for governance (Coast Funds, 2016). The purpose of the protocol was to develop and formalize the relationship between the Haida Nation and the Province of British Columbia in decision making about land and natural resource management on Haida Gwaii (Haida Nation, 2009).

In 2010, the relationship described in the Kunst'aa guu Kunst'aayah Reconciliation Protocol was entrenched in provincial legislation – the *Haida Gwaii Reconciliation Act* (BC, 2010). Along with formally recognizing Haida Gwaii as the name for the islands, the Act established the Haida Gwaii Management Council (HGMC) as the joint decision-making body for land use and development (Haida Nation, 2009). The roles of the HGMC included the development of a new Land Use Objectives order, and the determination of the annual allowable cut for timber on Haida Gwaii (Haida Nation, 2009). The HGMC has five members, two from the Haida Nation, two from the Province of British Columbia, and one jointly appointed chairperson (Haida Nation, 2009). While the HGMC deals largely with strategic level decisions on Haida Gwaii, the practical application of these decisions falls to the Solutions Table, an advisory body that does not hold decision-making authority but provides "informed input to decision makers" on development applications for Haida Gwaii (Haida Nation, 2009, sec. 3.3.2).

The Gina 'Waadluxan KilGuhlGa Land Sea People Management Plan

The most recent step in co-governance on Haida Gwaii was the development of a new management plan for Gwaii Haanas. Today, Gwaii Haanas has five designations, including a Haida Heritage Site, a National Park Reserve, a National Marine Conservation Area Reserve, a UNESCO World Heritage Site, and three National Historic Sites (Gladstone & Boyko, 2019). Because many objectives (including terrestrial, marine, and human) must be served in the management of Gwaii Haanas, the AMB developed an integrated management plan.

In the Gwaii Haanas Gina 'Waadluxan KilGuhlGa Land-Sea-People Management Plan, the protection of Gwaii Haanas extends from the "tops of the mountains to the depths of the ocean" (Collison, 2018, p. 118; Parks Canada, 2019). The Land-Sea-People Management Plan was unveiled and launched in November 2018 after four years of meetings, discussions, and consultation between Parks Canada, the Department of Fisheries and Oceans (DFO) and the CHN (Parks Canada, 2019). Initial goals, objectives, and targets were drafted by the AMB in 2014, and the plan was developed through multiple rounds of consultation (Parks Canada, 2019). These deliberations involved working with Haida citizens, Haida Gwaii communities, key stakeholders including those in the fishing and tourism industries, and the Gwaii Haanas Advisory Committee (Parks Canada, 2019). The Gwaii Haanas Advisory Committee, created to provide guidance and advice throughout the development of the Land-Sea-People Management Plan, is a 13-person group of individuals identified as having significant knowledge and experience related to Gwaii Haanas (Parks Canada, 2019).

The plan is organized around six guiding principles adapted from "ethics and values of Haida law" which also align with the tenets of ecosystem-based management (Government of Canada & CHN, 2018). These principles emphasize respect, responsibility, interconnectedness, balance, seeking wise counsel, and giving and receiving (Archipelago Management Board, 2018). The complementary ecosystem-based management principles are precautionary approach, inclusive

and participatory, integrated management, sustainable use, adaptive management, and equitable sharing (Government of Canada & CHN, 2018).

These guiding principles, which can be understood from differing paradigms, were then used to develop specific goals related to the management of Gwaii Haanas. The seven management goals cover collaborative relationship building, conservation and restoration, Haida culture, sustainable resource use, knowledge building, public awareness, and visitor experience (Government of Canada & CHN, 2018). Within each goal, there are several objectives, with specific targets identified to measure the success of implementation (Government of Canada & CHN, 2018). The management plan is intended to be the guiding document for the next ten years of activities related to Gwaii Haanas, and provides a basis for all management decisions.

Conclusion

Over the last several decades, the Haida Nation has become a leader in co-governance models and structures in Canada. From the development of the CHN in 1974, to co-management agreements with the governments of Canada and British Columbia, Haida Gwaii has tested several models for government-to-government interactions related to land and sea decision making. The Gwaii Haanas Gina ‘Waadluxan KilGuhlGa Land-Sea-People Management Plan is the most advanced co-management agreement to come from Haida Gwaii, combining while preserving Haida laws and ecosystem-based management principles. With a vision to protect the lands, waters, and beings of Gwaii Haanas, this plan creates a unified foundation for all decision making that respects both ways of knowing and acting.

Chapter 5 – Conclusions

This knowledge synthesis report has examined the nexus of current knowledge about three areas of current concern and potentially transformative innovation in assessment law and practice: assessments with a "contribution to sustainability agenda, assessment approaches to resolution of issues at the regional and strategic level, and assessment collaborations that include Indigenous partners. The three areas have particular characteristics, histories and literatures. They have been examined in separate chapters. But their stories also overlap, interact and permit a logic of discussion that proceeds from broad sustainability considerations to regional and strategic assessments with Indigenous partners.

Sustainability is essentially the objective of lasting wellbeing. Sustainability assessment is accordingly a comprehensive and forward-looking approach to deliberations and decision making in the public interest. Those basics are simple and sensible. The challenges lie in application, in a highly complex world in which reliable prediction is at best difficult and many important conditions and trajectories are unsustainable (e.g., nutrition, sanitation, atmospheric chemistry, biodiversity, equity, and other matters recognized by the UN's Sustainable Development Goals). The core innovations of sustainability assessment lie in embracing unavoidable complexity and pursuing necessarily transformative change in ways that are both realistically incremental and seriously demanding. In sustainability assessment, that approach centres on seeking "contributions to sustainability" (as in the new federal IAAct), applying core principles and criteria that cover the common requirements for progress towards lasting wellbeing, and specifying those criteria for the case and context.

Regional and strategic assessments are promising and important venues for sustainability-based approaches. They are, essentially, assessments done at the level of policies, plans and programs that have broad national, regional or sectoral application. Some regional and strategic assessments have reviewed policies or other strategic-level undertakings conventionally developed and proposed by existing government authorities. In Canada, however, much past experience has involved ad hoc problem-solving – special bodies of various kinds have been assigned to develop and propose strategic responses to large issues for which no adequately credible and authoritative established guidance or agency was available. Both types may be initiated under the IAAct. Also likely are demands for expeditious guidance on regional and strategic issues that emerge in on-going project assessments and must be addressed in time to direct deliberation and decision making in those assessments. Given the range of possible applications, a diversity of process options will be needed, including ones that feature inter-jurisdictional collaboration. As with sustainability assessment, however, some common fundamentals apply. Especially important are means of ensuring that regional and strategic assessments can deliver credible and authoritative strategic direction for assessments in general and/or for particular project assessments.

Serious efforts to address major sustainability-related concerns and opportunities in Canada will entail increased emphasis on Indigenous partnerships in regional and strategic assessments. That is for two main reasons. First, many of Canada's most significant regional and strategic concerns and opportunities – for example, those involving renewable and non-renewable resource

exploitation, climate change mitigation and adaptation, infrastructure expansion, poverty reduction, and ecological system protection and rehabilitation – affect and involve Indigenous peoples, communities and territories. Second, the importance of effective and authoritative participation by Indigenous governing bodies in deliberations and decision making on matters affecting their territories, rights and interests is now firmly, though not in all matters precisely, established in Canadian law, internationally recognized rights, and national commitments to reconciliation.

Collaborative assessments have important advantages, especially in Canada. They facilitate joint application of the diverse powers, responsibilities and authority of the multiple relevant jurisdictions, along with their different understandings, processes and capacities. Shared roles in deliberation and decision making increase the potential for mutual learning and commitment to the resulting joint undertakings. Consolidation of assessment requirements promises a more comprehensive scope and more coherently organized requirements. It should also deliver more consistent expectations of proponents and other participants, and make more efficient use of available resources. Collaborations in the development and assessment of undertakings at the regional and strategic level should also permit better overall strategic guidance for project level planning and evaluation in the participating jurisdictions.

These advantages come with similarly significant challenges. Establishing collaborative partnerships depends on reaching agreements with multiple authorities on key steps, roles and conclusions. Canada has a century and a half of experience with collaboration in a federal system, and a similarly long history of inter-jurisdictional conflict. While assessment collaborations at the project level have been reasonably successful in joint review panel cases, more ambitious partnerships have been rare. That has been due in part to the usual inter-jurisdictional tensions and contextual differences. But no less important has been the great diversity of existing federal, provincial, territorial and Indigenous assessment processes. At the strategic level, where assessment applications are less well established, collaborative initiatives may be less likely to stumble over entrenched process differences. But that is a small positive factor. Strategic matters typically raise more political and institutional sensitivities than mere projects. All jurisdictions engage in some forms of strategic policy making and planning, and much of that strategic work is done behind closed doors. Regional and strategic assessments that move policy making and planning into the public light, while also requiring inter-jurisdictional collaborations, sail into the wind.

Many more specific challenges arise in regional and strategic assessments. As has been discussed above, regional and strategic assessments will often be more demanding than project assessments because the collaborating jurisdictions will be required to develop and implement new undertakings (plans, policies, programs), and perhaps also establish new collaborative governance structures, rather than merely review proposals from existing proponents. The diversity of regional and strategic assessment needs and potential applications entails difficulties in ensuring both flexibility and consistency. The number of potential applications is almost certainly beyond the capacities of even the most richly resourced jurisdictions. Consequently, regional and strategic applications with Indigenous and other partners introduce new and complex demands for collaborative priority setting as well as assessment.

Beyond priority-setting, the many issues to be resolved begin with "who" and "what." The "who" questions include which jurisdictions are to be invited to participate. Should all that have some relevant interest and authority be included, or only the ones that are most likely to find positive solutions and bring other jurisdictions along (Phare et al., 2017)? The "what" questions centre on the core components to be included in initial partnership agreements. Should only the common core objectives, the identities of the partners and the basic funding arrangements be determined in founding agreements, or also the nature of anticipated undertakings, the initial sustainability-based evaluation criteria, the allocation of roles and responsibilities, and the process model to be used?

Among the many other difficult issues for collaborations are how to deal quickly with tightly time-constrained guidance needs for on-going project assessments, what to do when one or more relevant jurisdiction chooses not to participate or bows out part way through the deliberations, how to allocate responsibilities while ensuring that all partners gain from full process learning and build commitment to the resulting undertaking(s), and how to determine the extent to which the resulting undertakings (strategic policies and regional plans, etc.) are binding on activities under the jurisdiction of all the partners.

Sustainability-based regional and strategic assessments including Indigenous partners involve an additional, and in some ways different, level of benefits and challenges. Such partnerships bring crucial but historically disadvantaged and often excluded authorities, interests, understandings and expertise into the deliberations and decision making. These in turn increase the potential for better informed, more credible and more influential results. Assessments with Indigenous partners also entail expectations for genuine steps towards reconciliation, effective inclusion (but not integration) of distinct understandings and processes, strengthened capacities and grounds for greater trust (Armitage, 2005; Booth & Skelton, 2011). As well they will have to be venues for further clarification of Indigenous rights (e.g., how the right to "free, prior and informed consent" should be respected in the development and assessment of regional and strategic undertakings) and clarification of the nature of and routes to more desirable and viable futures for Indigenous communities and nations. Perhaps most importantly, sustainability-based regional and strategic assessment partnerships with Indigenous governing bodies must be means to re-empowering Indigenous peoples. They must be means of expanding the authority as well as a space for exercise of Indigenous ways of seeing, deliberating and deciding.

The advantages and challenges sampled above are complex and entwined. Proceeding seriously with sustainability-based regional and strategic assessments including Indigenous partners will entail significant commitment. Inevitably, it will also take time for mutual learning, testing and improving the many different approaches and applications. The alternative, however, appears to be to continue on some version of the current path – with deepening and spreading conflicts over disrespect for Indigenous rights and culture, inattention to adverse cumulative effects, continuing impairment of Indigenous territories, and more weight on project assessment processes that are contested, frustrating and inconclusive even if a formal decision is reached. Beside those prospects, the road to regional and strategic assessments with Indigenous partners seems sunny and smooth.

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