

INDIGENOUS
TRADITIONAL
KNOWLEDGE IN
CANADIAN FEDERAL
ENVIRONMENTAL
ASSESSMENT

SUBMISSION TO THE EXPERT
REVIEW PANEL

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Abstract:

The Canadian Environmental Assessment Act (2012) leaves the incorporation of Indigenous Traditional Knowledge (ITK) into the environmental assessment (EA) process up to the discretion of a project proponent. This submission to the Expert Panel for the review of EA processes in Canada focuses on an investigation of the question: What role should Indigenous traditional knowledge (ITK) play in federal environmental assessments and what are some international best practices? This submission to the Expert Panel begins with a review of the current literature and history surrounding the role of ITK within federal environmental assessment. We found that Canada is considered a world-leader in its treatment of ITK in EA; however, we argue that it is essential that Canada continues to be a world-leader by strengthening the way it incorporates ITK into the federal EA process to serve as a role-model globally. Moreover, we found time and time again that ITK can play a pivotal role in EA through the identification of impacts and the decision-making process. Finally, we examine several options to address the current state of ITK in Canadian federal EA, and provide several recommendations to the Expert Panel regarding how ITK can be better incorporated into federal EA legislation.

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1. Introduction:

Environmental assessment (EA) can be understood as a “proactive planning tool that allows developers, regulatory authorities, scientists, and the public to identify, evaluate, and mitigate, where possible, the potential changes to an environment from a proposed initiative before development is undertaken” (Fitzpatrick & Sinclair, 2003). If undertaken properly, with attention to detail and quality, EA has the ability to prevent significant adverse environmental effects associated with projects (Hanna, 2016). The importance of a quality EA is reflected in what it can do in a best-case scenario. In such a scenario, EAs have the ability to promote sustainable development, mitigate impacts to the environment, allow for public input, engage with Indigenous groups, and benefit the project proponent with a better planned project (Hanna, 2016).

This submission to the Expert Panel for the review of EA processes in Canada will focus on an investigation of the question: What role should Indigenous traditional knowledge (ITK) play in federal environmental assessments and what are some international best practices? The objective of this paper is to identify and assess flaws in the Canadian EA process in regard to considering ITK in EA, while also providing the Canadian Environmental Assessment Agency (CEAA) with an effective means of incorporating ITK into EA. We start this submission by recognizing that we are non-Indigenous individuals, and as such we do not attempt to speak on behalf of Indigenous peoples. Rather, we recognize that there are issues with the incorporation of Indigenous traditional knowledge in federal EA. Moreover, we are providing an assessment of EA based on a non-Indigenous perspective, which is centred in Euro-Western academia. Lastly, there is a particular concern with inconsistent references in naming Indigenous knowledge (Usher, 2000). ITK is otherwise known as Aboriginal traditional knowledge (ATK), and has also

been referred to in the literature as "traditional ecological knowledge" (TEK), as well as "traditional knowledge" (TK), and can all be considered synonymous to ITK (Usher, 2000). This causes problems at several steps in the information collection phases of an EA as there is confusion to what is and what is not appropriate information. While "ATK" is used within the language of the Canadian Environmental Assessment Act (CEAA 2012), the recommended question posed by the Expert Panel asks about the role of "ITK" in EA, and, for the purposes of this paper, we will use "ITK" when appropriate.

The submission begins with a summary of the literature on ITK and its potential uses within EA. Then, we will examine the evolution of practice of Canadian federal EA and the history of how ITK has either been left out, or included, throughout the last 40 years. The ensuing section will consist of a statement of the problem in the federal EA process with respect to the current role of ITK in EA. We will conclude the submission with options to address the problem of ITK's current role in federal EA, and our recommendations to the Expert Panel on changing ITK's role in the future of Canadian EA.

2. Literature Summary:

ITK is described by Stevenson (1996) as the "cumulative, collective body of knowledge, experience, and values held by societies with a history of subsistence". Over the past 40 years, ITK has gradually been injected into resource and environmental management discourse, including government policies, co-management strategies, and international agreements. However, while the current academic literature places emphasis on the ways in which ITK is recognized, collected, distributed, and preserved in Canada, there is a significant gap in the

literature that surrounds the application of ITK in federal environmental decision-making processes, including EA (Gardner, 2016).

The literature recognizes that ITK often plays a diminished role in EA due to the difficulties in understanding, documenting, and conveying ITK to non-Indigenous people. Stevenson (1996) argues that the absence of ITK within federal EA is likely due to the fact that traditional knowledge is rarely understood or appreciated as an information source in either government or industry. Since Western science routinely dominates the EA process, many non-Indigenous people fail to realize the potential for ITK in EA (Stevenson, 1996). Furthermore, since the documentation of ITK requires the participation of both Indigenous people and “trained intermediaries”, effectively recording ITK is often a challenge (Usher, 2000).

Another barrier to the integration of ITK in federal EA is a perceptual difference between Indigenous and non-Indigenous perspectives (Sallenave, 1994). There is a stark difference in how Indigenous peoples interpret significant impacts, versus significant impacts interpreted by policy-makers and project proponents (Sallenave, 1994). According to Sallenave (1994), the difference in interpretation of impacts between Indigenous peoples and proponents/government impedes the monitoring of impacts, and the incorporation of TEK into the EA process within impact monitoring.

The use of ITK in an EIS submitted by the proponent is not always appropriate (Gondor, 2016). However, ITK that is not appropriate for documentation within an EIS can be addressed in the public review phase (Gondor, 2016). According to Sallenave (1994), for TEK to be useful in EA, research on TEK should include four perspectives: a taxonomic perspective, a spatial perspective, a temporal perspective, and a social perspective (Sallenave, 1994). The hope is that research on these four perspectives will enable an effective incorporation of TEK into the EA

process. Moreover, Gondor (2016) adds that there are “three elements of ITK that exist: knowledge about the environment (observations, associations or patterns, causal statements, predictions); knowledge about use and management of the environment (how the environment is used and managed, relationships with it, and cultural and social activities); and values about the environment (includes moral and ethical statements about humans, animals and the environment, and doing the “right thing”)”. These three elements have the potential to be incorporated throughout the EA process (Usher, 2000).

2.1 Changes to the Canadian Environmental Assessment Act of 2012:

There is an acceptance in the current literature that CEAA 2012 will continue to “undo decades of progress” for federal EA unless the Expert Panel is able to successfully restructure federal EA legislation in their review of EA processes in Canada (Gibson, 2012). Some authors, such as Gailus (2012), claim that CEAA 2012, surreptitiously passed through Bill C-38, is an “act of deception” that will continue to “substantially weaken Canada’s federal environmental assessment and review process”. Doelle (2012), argues that the repeal and replacement of the original CEAA is completely counter-intuitive to the improvements to federal EA that are proposed in the current literature. Doelle (2012) points to several regressive changes to the original CEAA, including “a shift in responsibility for EA, a discretionary application of the process, a more narrowed scope, new powers of delegation, substitution and equivalency, and a more restricted role of the public in participating and informing EA”. Doelle (2012) contends that CEAA 2012 has entirely failed the federal EA process in Canada, and that it is now up to provincial, territorial, Aboriginal, and municipal planning and EA processes to prevent the adverse environmental effects that may be caused by development.

While authors such as Doelle (2012), Gailus (2012), and Gibson (2012) identify the clear need for federal EA reform in Canada, there is a significant gap in the literature recognizing how the increased role of ITK within the federal EA process can benefit sustainable development. However, researchers from the University of Waterloo have published several articles related to the changes to the CEAA and the resulting implications for Indigenous peoples in Canada (First Nations, Inuit, Metis) and their capacity to both participate in and inform federal EA in Canada (Kirchoff, Gardner, & Tsuji, 2013; Gardner, Kirchoff, & Tsuji, 2015; Gardner, 2016).

Gardner, Kirchoff, and Tsuji (2015) argue that the integration of ITK in EA is largely dependent on Indigenous participation within the EA process, and advocate for “early and meaningful engagement” through information and knowledge exchange between the proponent and the Indigenous communities directly involved in or impacted by the project. Gardner, Kirchoff, and Tsuji (2015) also contend that Indigenous participation often occurs far too late in the EA process, meaning that the role that ITK can play in influencing project decisions is greatly reduced. In a study examining the EA process of the Kabinakgami River Hydroelectric Project, Gardner, Kirchoff and Tsuji (2015) found that Indigenous consultation in regard to ITK occurred only after downstream communities expressed their concerns for the project. However, the Kabinakgami River Hydroelectric Project is not the only example in which ITK has been an afterthought for both proponents and policy makers alike. In examining the history of ITK in federal EA in Canada, it can be seen that Indigenous values and knowledge are routinely left out of the EA process.

2.2 History of Indigenous Traditional Knowledge in Federal EA:

Over the last 40 years, there has been an increasing recognition of ITK as both a reliable source of environmental information and a vital component of “environmental decision-making processes” – including federal EA (Stevenson, 1996; Ellis, 2005). Much of the literature surrounding the role of ITK in federal EA points to the publication of the Mackenzie Valley Pipeline Inquiry by Justice Thomas Berger in 1977 as the “initial impetus” for ITK to be incorporated into federal environmental and resource management legislation (Christensen & Grant, 2007).

2.3 The McKenzie Valley Pipeline Inquiry:

Justice Thomas Berger helped to lay the foundation for the federal EA process in Canada by carrying out a major, ground-breaking environmental-social impact assessment of the proposed Mackenzie Valley Pipeline in 1974 (Roué & Nakashima, 2002). Commissioned by the Government of Canada to assess the potential environmental and socio-economic impacts of the proposed McKenzie Valley Pipeline, Berger held public consultations in 35 Indigenous communities to hear the various concerns over the proposed project from local Indigenous residents (Sallenave, 1994). Berger brought both the interests and the valued knowledge of Indigenous inhabitants to the attention of the Government of Canada, recommending that the project be suspended for 10 years to negotiate Indigenous land-claim agreements in the McKenzie Valley (Sallenave, 1994; Roué & Nakashima, 2002). It can be argued that the McKenzie Valley Pipeline Inquiry “set a precedent of consultation with local Aboriginal people”, allowing for the knowledge and values of Indigenous residents to be effectively communicated to environmental decision-makers (Christensen & Grant, 2007).

2.4 ITK and federal EA legislation in the 1990s:

By the early 1990s, various forms of legislation were beginning to include ITK within frameworks for environmental and resource management. As Indigenous political presence grew in the Canadian north, several co-management plans, formed between territorial governments, non-governmental departments, and Indigenous communities, began to identify and apply ITK in assessment processes (Christensen & Grant, 2007). For example, after disagreements regarding Beluga whale hunting practices arose between government biologists and Inuit hunters in 1994, the Department of Fisheries and Oceans (DFO) and the Nunavut Wildlife Management Board came together to write a co-management plan that incorporated the language, ideas, and knowledge of both parties (Stevenson, 1996). Even international agreements, such as the Arctic Environmental Protection Strategy, documented the “holistic knowledge” of Indigenous peoples within official environmental management policies (Stevenson, 2000).

Such examples as the McKenzie Valley Pipeline Inquiry, the DFO and Nunavut Wildlife Management Board co-management plan, and the Arctic Environmental Protection Strategy made significant progress in the incorporation of ITK in environmental and resource management planning and policy. However, in 1992, when the Canadian Environmental Assessment Agency put the first CEAA into practice, ITK was not included within the federal EA legislation.

2.5 2003 CEAA Amendment:

Through the 1990s into the 2000s, Parliament periodically reviewed and amended the CEAA when deemed necessary. However, ITK remained absent within federal EA until 2003,

when Chapter 9 of the 1992 Act was amended to include the following section on the role of ITK in EA: “Community knowledge and Aboriginal Traditional Knowledge (ATK) may be considered in conducting an environmental assessment” (Canadian Environmental Assessment Agency, 2003). By stating that ITK (or “ATK”) only “may be considered” in a federal EA, the 2003 amendment only served to recognize ITK as a valid source of information in assisting a federal EA, and offered no guidance to responsible authorities on how to consider either community knowledge or ITK in a formal EA.

3. Statement of the Problem:

3.1 ITK, CEAA 2012, and the Implications for Indigenous populations:

ITK in federal EA legislation was updated mostly recently when the Harper administration repealed the 1992 Act, replacing it with CEAA 2012. Kirschhoff, Gardner, and Tsuji (2013) argue that the changes introduced with CEAA 2012, followed by a number of other recent government initiatives, “further weakens Aboriginal Peoples’ capacity to participate in the resource development review process of undertakings that affect their traditional lands”. Section 19(3) of CEAA 2012 states that responsible authorities are given the discretion to consider Indigenous traditional knowledge in any EA: “The environmental assessment of a designated project may take into account community knowledge and Aboriginal traditional knowledge” (CEAA, 2015).

However, it can be argued that section 19(3) of CEAA 2012 is only a hollow rewording of the 2003 amendment and that the language found within CEAA 2012 lacks both clarity and direction for proponents and policy-makers alike to ensure that ITK is incorporated into federal

EA. The 1992 Act, the 2003 amendment, and CEAA 2012 have done little to advance the practice of the meaningful incorporation of ITK in federal EA. Although CEAA may recognize that ITK can be used as an “important part of project planning, resource management, and environmental assessment”, there is no proper guidance in ensuring that ITK is effectively gathered and employed within current, federal EA legislation (CEAA, 2015).

Therefore, while there has been a significant push for ITK to be incorporated into federal EA, there is no written requirement for proponents to analyze or integrate ITK into a federal EA. Since CEAA states that it is under the discretion of responsible authorities to consider ITK when conducting a federal EA, ITK is routinely left out of the EA process.

The current requirements for the consideration of ITK in EA are inadequate. The inadequacies of ITK consideration in EA have emerged throughout several projects requiring EAs in British Columbia (BC). As consideration of ITK in EA is left to the discretion of the responsible authority, EAs for projects such as the Pacific NorthWest LNG project in BC have been completed without proper consideration of ITK (Ananthalakshmi, 2016). The result is an EA and a project that leaves Indigenous groups feeling left unheard and important TEK missing from the decision-making process. ITK may find its way into federal EA through the Indigenous consultation requirements; however, the lack of concrete requirements to incorporate ITK into EA, as well as the absence of a specified role of ITK within EA, contribute to an incomplete and misinformed EA.

However, we recognize that ITK is not always available to the responsible authority for a variety of reasons. For example, Johannes (1993) notes that TEK is tied to status and power, and in sharing this knowledge, some of this status and power is lost. Moreover, Johannes (1993) suggests that there is a reluctance in sharing traditional knowledge if there are no evident

benefits, as there is a fear that project proponents might profit at the expense of the people, or that development aided by their knowledge might further damage and restrict their resources. Therefore, the availability of ITK in itself is a problem, which makes it difficult to require responsible authorities to incorporate ITK into EA.

4. Options to Address the Problem

4.1 The Role of Regional Assessment and Strategic Assessment:

Throughout our evaluation of the role of ITK within the federal EA process, we have recognized the need for increased Indigenous engagement to improve how ITK is used in informing EAs. However, as Doelle (2012) argues, changes to the federal EA process have greatly discouraged meaningful public and Indigenous engagement from occurring under CEAA 2012. To rectify the implications of CEAA 2012 for Indigenous peoples, Doelle (2012) recommends that federal EA legislation in Canada incorporate both Regional EAs and Strategic EAs into the federal, project-based EA process.

Fidler and Noble (2013) also identify regional and strategic environmental assessment (R-SEA) as a potential pathway for increased Indigenous participation and better communication of traditional knowledge. Fidler and Noble (2013) describe R-SEA as a “process designed to systematically assess the potential environmental effects” through the consideration of alternative environmental strategies or initiatives for an identified region. In arguing that project-based EA has a limited capacity and timeframe for concerned Indigenous people to engage in the EA process, Fidler and Noble (2013) recognize the need for “a broader environmental planning and management framework” to advise development decisions. It is important for the Expert Panel to consider that, where project-based federal EA may result in a lack of Indigenous

engagement and gathering of ITK, conducting R-SEAs may result in the better transmission of ITK to inform EAs.

4.2 Looking Abroad: Some International “Best Practices”:

In looking for international best practices or options on how to better integrate ITK in EA processes, we came across various studies indicating that Canada was a world leader in addressing ITK in EA (Nakamura, 2008; Palerm & Aceves, 2004). However, this must not create a sense of complacency, as countries around the world look to Canada as a role model, and as such, Canada should be taking the lead in strengthening its efforts in incorporating ITK in the federal EA process.

Neighbouring countries like the USA and Mexico have acknowledge issues with their consideration of ITK in the EA process. For example, Palerm and Aceves (2004) note that the integration of traditional knowledge is absent from Mexican EA processes. Palerm and Aceves (2004) suggest that the Mexican treatment of ITK in its EA system had many barriers such as: “language barriers; lack of recognition of traditional institutions; inadequate public participation mechanisms; and failure to recognize the role and value of traditional knowledge”. King (2000) indicated that there were similar issues with the treatment of ITK in the USA, noting that there was usually some treatment of ITK in American EA; however, EA documents were not clear about how it was described or incorporated.

Furthermore, in Australia, Prober, O’Conner, and Walsh (2011) found that ITK was not considered effectively in natural resource management. They added that the overall research and documentation of ITK was lacking, which contributed to the ineffective consideration of ITK in

natural resource management and environmental decision-making processes (Prober, O’Conner, & Walsh, 2011).

5. Recommendations:

We argue that the Expert Panel needs to conduct a rigorous evaluation of the federal EA process within Canada to ensure that the proper legislation is set in place to establish a pathway for ITK to effectively inform federal EA and assist in the prevention of further environmental degradation within Canada. Through our analysis of ITK in federal EA, we have found that the application of ITK in informing project decisions is a critical component of the federal EA process in Canada. We propose to rectify the problem of insufficient incorporation of ITK within the CEAA in the following ways.

Currently, under CEAA 2012, it is under the proponent’s discretion to consider ITK in a federal EA. It is our recommendation that ATK and Western knowledge should be equally valued, and that the Indigenous engagement and the gathering of ITK occur much earlier within the federal EA process to ensure meaningful consultation and better-informed decisions. We suggest that there be a mandatory requirement for proponents to attempt to incorporate ITK or request ITK. However, as mentioned in previous sections, ITK might not always be suitable or available for use in EA.

Second, we suggest simply to change the language in section 19(3) in the current Act from “may take into account” to “should take into account” ITK. This way, proponents might feel more inclined to incorporate ITK into EAs, as the change in language represents a transition from incorporation of ITK as optional to suggested. However, it must be noted that this is just a simple change to the legislation that is not a dramatic change from the previous iteration of

section 19(3). Moreover, we recognized that forced or required incorporation of ITK by changing the section to “have to take into account” would not work, as many barriers exist that would cause proponents to fail to meet this requirement.

Lastly, we suggest that more opportunities should be present where ITK can be incorporated throughout the EA process (and in the EIS), which will be at the discretion of Indigenous peoples rather than project proponents. We believe that this change is a fundamental shift that must be made, as it is currently at the discretion of the proponent to incorporate ITK into the EA process. It must be at the discretion of Indigenous peoples to have their knowledge included into EA for several reasons. First, this allows Indigenous groups to have agency over the inclusion of their knowledge into the EA process. Secondly, more opportunities for inclusion of ITK at the discretion of Indigenous peoples allows for a more natural interaction between proponents and Indigenous peoples. Finally, a shift in power occurs where Indigenous peoples are thought of less as subjects for study but rather as experts who have a lot to offer to the EA process.

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