

The Role of Traditional Ecological Knowledge in EIA: *A Critical Look into the Mackenzie Valley Pipeline Project*

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## **Introduction**

Traditional ecological knowledge (TEK) is defined by Noble (2015) as “a cumulative knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.” TEK is an important means of bringing together proponents, government and Indigenous communities to create a better understanding of the environment and improve impact assessment and management. It is now a policy requirement that TEK be incorporated into environmental assessment and resource management in the North (Usher, 2000), and management boards now recognize the invaluable knowledge held by community residents by explicitly putting it on the same footing as scientific knowledge for decision making (White et al., 2007). For the purposes of this paper, we will be examining the role of TEK in the EIA process as it relates to the Mackenzie Valley Pipeline Project (MVPP).

## ***The Mackenzie Valley Pipeline Project Background***

In 1974, Chief Justice Berger was appointed to conduct the Mackenzie Valley Pipeline Inquiry to investigate the social, economic and environmental impacts of the Arctic Gas Pipeline

Project. The inquiry “was more than an investigation into a single project; it was an examination of the purpose of northern development, the place of the environment in Canadian society, and the potential role of northern peoples in that development” (Christensen & Grant, 2006). The Inquiry consisted of both formal and informal (community) hearings with northern residents (Goudge, 2016). At the end, Berger recommended a 10 year moratorium to deal with unresolved issues before revisiting the project plan.

In 2004, the MVPP was referred for an environmental assessment by a joint review panel consisting of: the federal Minister of the Environment, the Mackenzie Valley Environmental Impact Review Board (MVEIRB) and the Inuvialuit Game Council (Environment Canada, 2013). The Joint Review Panel concluded that adverse effects of the project would not likely be significant and the project would be positive. However, the project was officially abandoned in 2011 due to high project costs.

### ***The Berger Inquiry***

Berger’s examination of potential environmental effects was accomplished using mostly what would be considered *western science*; relying on expert opinion. It is important to point out that The United States Department of the Interior, Arctic Gas consultants Dr. Frank Banfield and Ronald Jakimchuk, as well as biologists Dr. Peter Lent, Dr. George Calef and Dr. David Klein provided for Berger the vast majority of cited knowledge on environmental impacts used in the final report (Goudge, 2016). It is evident that Indigenous TEK may have been examined in determining potential impact significance, rather than assessing the potential impacts themselves. Oral testimony from indigenous communities was used primarily as justification for the recommendations made by western science, as Berger’s recommendations never explicitly

mention indigenous TEK of the VEC in question. However, Indigenous relationships to the VEC's were considered.

The Berger Inquiry was the initial impetus for today's incorporation of indigenous knowledge into resource management because it set a precedent of consultation with local people. Consequently, the Mackenzie Valley Resource Management Act (MVRMA) 1988, now enables and encourages indigenous peoples' participation in all phases of the EA process (White et al., 2007), rather than being limited to deadlines and short periods of public engagement.

### ***Joint Review Panel for the Mackenzie Gas Project***

The Proponents chose to obtain TEK in the creation of the environmental impact statement (EIS) by organizing TEK studies in the Project area communities that were carried out by local working groups. The studies were not themselves intended to determine impact significance, but rather to guide the Proponents decisions according to their own criteria (JRPR, 2010). During the course of many community hearings, the Joint Panel Review Board (JPRV) stated that considerable TEK from public participants was heard, in addition to the TEK studies received from proponents. (JRPR, 2010).

However, the Panel did not receive all the traditional knowledge studies undertaken for the assessment (5 of the 13 TK studies) but from what they did receive, Indigenous concerns about the project VECs were considered. (JRPR, 2010). The incompleteness of said information demonstrates that TEK takes a longer process time due to the nature of the data than a scientific process, this may be unattractive for proponents looking for immediate project approval (Usher, 2000). According to Noble's (2015) operating principles of public participation, the Joint Panel

Review lacked early initiation and support of the TEK studies conducted. Additionally, there was a lack of consistency and verification amongst the information in the TEK studies (JRPR, 2010). This may point out the lack of guidance on TEK and policy implementation in Canadian impact assessment procedure (Usher, 2000). The proponents should have allotted more time to conduct it's TEK studies, and put more efforts into planning their methods of engagement with communities. The JRP pointed out that the independent groups conducting these TEK studies were not under the direct guidance of the proponents, which does not facilitate a sustained engagement throughout the process (Noble, 2015).

## **Conclusion**

The successes and shortcomings of the Mackenzie Valley Pipeline Project EIA process may illustrate how TEK and science may be incorporated in future assessments. The Berger Inquiry was an important stage of EIA history which served as a precedent for the integration of Indigenous consultation and participation into EIA framework, which led to the establishment of the MVRMA that now facilitates public participation in the EIA process in the Mackenzie Valley. The EIS put forth by the JRP did consider TEK from community hearings, however the proponent's TEK studies were incomplete, was therefore not considered fully. As outlined above, a lack of consistency and accuracy in TEK provided did not meet certain basic and operating principles that guide a meaningful public participation process (Noble, 2015). It is evident from the MVPP, that the integration of western science and indigenous TEK—combining two alternative sets of data cohesively is a major challenge to implementing

TEK into EIA framework (Noble, 2015). Moving forward, we can look to best-practice operating principles for meaningful engagement to help facilitate the integration of TEK in assessments.

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