

Assessing the public interest in impact assessment using a multiple account evaluation framework

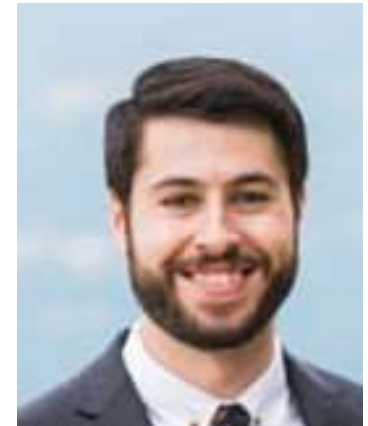


Cameron Gunton

*PhD Candidate
Simon Fraser University
Canada*

cameron_gunton@sfu.ca

*Contributors: Dr. Sean
Markey and Dr. Thomas
Gunton*



Public Interest and Major Projects

British Columbia

Site C dam granted environmental assessment approval

In a statement issued Tuesday, the B.C. forest and environment ministers said they had decided that Site C, a proposed \$8-billion hydroelectric dam on the Peace River in Northern B.C. is in the public interest and that the benefits provided outweigh the risks of significant adverse environmental, social and heritage impacts.

Calgary

Grassy Mountain coal project 'not in the public interest,' Alberta review panel says

Panel concluded the project is likely to result in adverse environmental effects

Edmonton

Potentially damaging Jackpine oilsands mine expansion OK'd by Ottawa

Environment minister says negative environmental effect is 'justified in the circumstances'

A review panel concluded last July that the project was in the public interest but warned that it would result in severe and irreversible damage so great that new protected areas should be created to compensate.

CANADA

National Energy Board rules Trans Mountain expansion project should be approved

The [National Energy Board](#) (NEB) has decided the [Trans Mountain Pipeline](#) expansion project is in the public interest of Canadians and should go forward, subject to 156 conditions.

IA Act Public Interest Determination Factors

- Contribution to sustainability;
- Significance of adverse effects;
- Implementation of mitigation measures;
- Impacts on Indigenous groups; and
- Impact on Canada's environmental obligations and climate change commitments

Limitations of Current Methods

- **No transparent method** for assessing and comparing impacts to determine whether project is in public interest;
- **No transparent method** for assessing technical and economic feasibility of mitigation measures; and
- **Methods currently used “justify”** project by **overestimating benefits** and **underestimating costs**.

TABLE 3.1 NEB Assessment of Benefits and Burdens of TMEP

Benefits	Rating	Burdens	Rating
Market Diversification	Considerable Regional and National	Adverse Effect on Southern Killer Whales	Considerable Local, Regional and National
Jobs	Considerable Local, Regional and National	Adverse Effect on Aboriginal Culture	Considerable Local and Regional
Competition among Pipelines	Considerable Regional and National	Marine GHG Emissions	Considerable Regional and National
Spending on Pipeline Materials	Considerable Local and Regional	Municipal Development Plans	Modest Local
Community Benefit Program	Modest Local and Regional	Impairment of Aboriginal Use of Land and Water	Modest Local
Enhanced Marine Spill Response	Modest Local and Regional	Impairment of Stakeholders Use of Land and Water	Modest Local and Regional
Capacity Development (Humans resources)	Modest Local and Regional	Pipeline Oil Spill	Acceptable Risk Local and Regional
Government Revenue	Considerable Local, Regional and National	Marine Tanker Spill	Acceptable Risk Local and Regional

SOURCE: NEB (2016, pp. xiii–xiv).

Methods Reviewed

- 1. Economic Impact Analysis;**
2. Sustainability Assessment;
- 3. Benefit-Cost Analysis;**
4. Multi-Criteria Decision Analysis; and
- 5. Multiple Account Evaluation**

Multiple Account Evaluation (MAE)

Strengths

1. Estimates net impacts
2. Covers all key indicators
3. Disaggregates impacts by key groups (Indigenous) and region
4. Facilitates comparison of trade-offs

Weaknesses

1. Similar to EconIA and BCA
2. Defining accounts

SFU Multiple Account Evaluation Project

Purpose: Develop guidelines for a MAE methodology to support IA and public interest determination

Objectives:

- Transparently and accurately communicate project trade-offs;
- Assess net (vs gross) project impacts; and
- Assess impacts to Indigenous communities.

Multiple Account Evaluation in Literature

Accounts	Shaffer	Winter et al.	US Water Resources Council	Campbell & Brown	City of Saskatoon	Crown Corps Secretariat	BC Ministry of Agriculture and Lands	BC Ministry of Transportation	Alberta Transportation
Project/ Market Valuation	✓	✓	✗	✓	✓	✓	✗	✓	✓
Government/ Taxpayer (Revenue)	✓	✓	✓	✗	✓	✓	✓	✗	✗
User/ Target Beneficiary	✓	✓	✗	✓	✓	✓	✗	✓	✓
Project Developer	✓	✓	✗	✓	✗	✓	✗	✓	✓
Economic Activity	✓	✓	✓	✗	✓	✓	✓	✓	✓
Environmental	✓	✓	✓	✗	✓	✓	✓	✓	✓
Social/ Community	✓	✓	✓	✗	✓	✓	✓	✓	✓
Indigenous Peoples	✗	✓	✗	✗	✗	✗	✓	✗	✗

Public interest multiple account evaluation framework

Account	Description	Sub-accounts/ valued components
Project Developer	Measures impacts of the proposed project on the project developer's finances.	Net revenue
Government Revenue	Measures the fiscal impacts of the proposed project for federal, provincial, and municipal levels of government.	Net revenue
Indigenous Community	Measures impacts of the proposed project on Indigenous communities located near project.	Indigenous community revenue, economic activity, environmental activity, social, health, governance
Economic Activity	Measures the impacts of the proposed project on economic activity.	Economic activity, employment, training, and education
Environmental	Measures the impact of the proposed project on the natural environment.	Terrestrial/ arboreal species, landforms, private property, recreation, heritage sites, aquatic species, surface and ground water, air quality, GHG emissions, climate commitments, etc.
Social	Measures the social impacts of the proposed project.	Community services and infrastructure, community wellbeing, equality (gender and marginalized groups)
Health	Measures the health impacts of the proposed project.	Mental wellbeing, physical wellbeing
Summary	Measures the net impact of the proposed project to the public: the sum of all accounts above.	-

Indigenous community multiple account evaluation framework

Account	Description	Sub-accounts/ valued components
Indigenous Government/ Organization Revenue	Measures the fiscal impacts of the proposed project to the Indigenous community's government or administrative body.	Net revenue
Economic Activity	Measures the impacts of the proposed project on economic activity.	Employment, training and education, local business, local infrastructure
Environmental	Measures the impact of the proposed project on the natural environment.	Terrestrial/ arboreal species, landforms, private property, recreation, heritage sites, aquatic species, surface and ground water, air quality, GHG emissions, climate commitments, etc.
Social	Measures the social impacts of the proposed project.	Social wellbeing
Health	Measures the health impacts of the proposed project.	Mental wellbeing, physical wellbeing, cultural and spiritual wellbeing
Governance	Measures the impacts of the proposed project on the community's governance over its territory and resources.	Governance-related impacts (benefits and costs), Free, prior & informed consent
Summary	Measures the net impact of the proposed project to the public: the sum of all accounts above.	N/A

Public interest
MAE Framework

Private
Developer
Account

Government
Revenue
Account

Indigenous
Community
Account

Economic
Activity

Environmental
Account

Social Account

Health
Account

Summary
Account

Indigenous
Community MAE
Framework

Indigenous
Government/
Organization
Revenue Account

Economic Activity

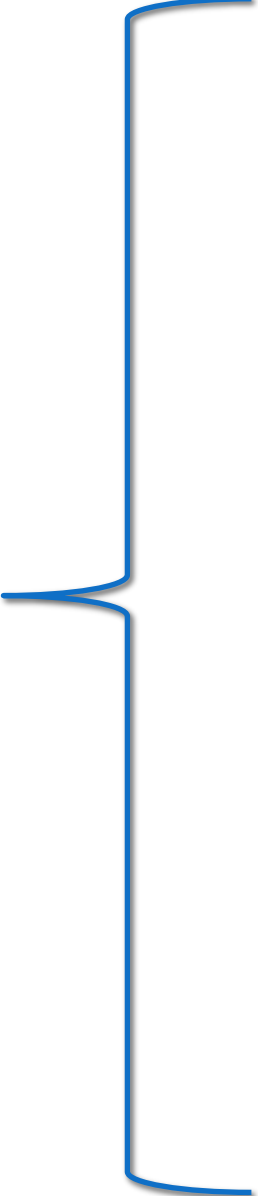
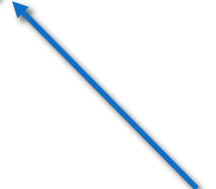
Environmental
Account

Social Account

Health Account

Governance
Account

Summary Account



Case Study: Mary River Iron Mine



Case Study: Mary River Iron Mine

Context:

- Began operations in 2015 (early revenue phase)
- Application for “Phase 2” expansion currently under review
- Inuit Impact and Benefit Agreement (ERP) and Inuit Certainty Agreement (Phase 2) are publicly available

Case study analysis of Mary River Mine: Public Interest Summary Account

Account	Sub-account	Summary of impacts	Net Impact (NPV, Millions of CAD)	Sensitivity
Summary	Project Developer	Net revenue impacts to the private project developer	\$1,246	\$847 - \$3,387
	Government Revenue (Federal and Territorial)	Net revenue impacts of Project on Federal government and Government of Nunavut.	\$773	\$322 - \$981
	Inuit	Net impacts of the Project on the Inuit population of Nunavut.	\$585	\$413 - \$702
	Economic Activity	Net impacts of the Project on Canada's training and education, employment, and economic activity including upstream, downstream, and competing sectors.	\$0	-
	Environmental	Net impacts of Project on land/ topography, vegetation, archeological sites, aquatic species, surface and groundwater, tourism and recreation, air quality, and GHG emissions, and climate commitments.	<p>(\$767 mil)</p> <p>Less unestimated incremental costs associated with impacts to terrestrial species, birds, permafrost disturbance, vegetation, archaeological and heritage sites, aquatic species, surface and groundwater, tourism and recreation, air quality, and climate commitments.</p>	<p>(\$3,261) - (\$767)</p>
	Social	Net impacts of the Project on the social wellbeing of population of Canada.	<p>Net monetary impact not estimated.</p> <p>Potential adverse impacts to social wellbeing due to fly in/fly out requirements, potential increased levels of substance abuse, family violence, and gambling, influx of in-migrant workers, and inequitable hiring practices.</p>	-
	Health	Net impacts of the Project on the mental and physical wellbeing of population of Canada.	Net monetary impact not estimated.	-
Total	Overall Impact of Project	Net impacts of the project including impacts to the private project developer.	<p>\$1,837</p> <p>Less unestimated incremental costs.</p>	\$270 - \$2,810
	Canadian Public	Net impacts of the project to Canada <i>excluding</i> impacts to the private project developer.	<p>\$591</p> <p>Less unestimated incremental costs.</p>	\$18 - \$966

Case study analysis of Mary River Mine: Inuit Summary Account

Account	Sub-account	Summary of impacts	Net Impact (NPV, Millions of CAD)	Sensitivity (Millions of CAD)
Summary	Inuit Government/ organization revenue	Net revenue impacts of Project for NTI, Kitikmeot Inuit, Kivalliq Inuit, and QIA.	\$445	\$273 - \$562
	Economic Activity	Net impacts of Project on Inuit training and education, employment, local business, and local infrastructure.	\$140 less incremental costs of impacts to food harvesting and tourism industries.	\$140
	Environmental	Net impacts of Project on land/ topography, vegetation, archeological sites, aquatic species, surface and groundwater, tourism and recreation, air quality, and GHG emissions.	Incremental costs associated with impacts to terrestrial species, birds, permafrost disturbance, vegetation, archaeological and heritage sites, aquatic species, surface and groundwater, tourism and recreation, and air quality.	-
	Social	Net impacts of the Project on the social wellbeing of the Inuit.	Net monetary impact not estimated.	-
	Health	Net impacts of the Project on the mental wellbeing, physical wellbeing, and cultural and spiritual wellbeing of the Inuit.	Net monetary impact not estimated.	-
	Governance	Net impacts of the Project on Inuit rights and title.	Net monetary impact not estimated.	-
	Total	-	Net impacts of the Project on the Inuit.	\$585 Less unestimated incremental costs.

Comparison of Economic Impacts for Mary River Mine

Indicator	Economic Impact Analysis	Multiple Account Evaluation
Gross employment (operations phase)	5,568 person years (PY) (direct employment) 28,248 PY (total employment)	232 annual PY (direct employment) 1,177 annual PY (total employment)
Net employment	n. a.	Minimal to nil
Employment benefit (\$)	\$559 million (wage bill)	\$19 million (net)
Economic benefit to Nunavut (\$) (including government of Nunavut and Inuit)	\$7.7 billion (gross)	\$1.5 billion (net)
Total benefit	\$12.2 billion (GDP) (EconIA)	\$1.8 billion gain (MAE) (including project developer)

Conclusions and next steps

Problems:

1. No clear guidelines
2. Discretionary approach generates widely divergent results
3. Rely on economic impact analysis to estimate project benefits and justify project

Solution:

1. Multiple Account Evaluation best approach (combines EconIA, BCA, EIA, and more)

Next Steps:

1. **Continue working with IAAC, other agencies, and Indigenous groups to improve and refine the MAE framework**

Let's continue the conversation!

Post questions and comments via chat in the IAIA22 platform.



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Cameron Gunton

PhD Candidate

Simon Fraser University

Canada

cameron_gunton@sfu.ca