

Assessing local impacts using a multiple account evaluation framework

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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.

Limitations of Current IA Process

- Impact estimation methods overestimate benefits and underestimate costs
- Local and regional impacts are undervalued
- Capacity and regulatory barriers impede effective participation from local communities
- No consistent, comprehensive tool available to communities to estimate the net impacts of a project

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

Multiple Account Evaluation

Strengths

- Comprehensive
- Estimates net impacts
- Ensures consideration of impacts that cannot be quantified
- Disaggregates impacts by key groups and regions
- Facilitates transparent comparison of trade-offs

Limitations

- Defining accounts can be subjective
- Sensitivity analyses can result in divergent, imprecise results
- Incorporates various methods and therefore possesses the limitations of these methods

SFU Multiple Account Evaluation Project

Purpose: Develop guidelines for a MAE methodology to assess local level impacts and inform public interest determinations in IA

Objectives:

- Transparently and accurately communicate project trade-offs;
- Assess net (vs gross) project impacts; and
- Assess impacts to local 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 MAE 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/ territorial, municipal, and Indigenous governments.	Net revenue
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
Indigenous Community	Measures impacts of the proposed project on Indigenous communities located near project.	Indigenous community revenue, economic activity, environmental, social, health, governance
Summary	Measures the net impact of the proposed project to the public: the sum of all accounts above.	-

Indigenous Community MAE 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, and air quality.
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.	-

Public interest
MAE Framework

Private
Developer
Account

Government
Revenue
Account

Economic
Activity

Environmental
Account

Social Account

Health
Account

Indigenous
Community
Account

Summary
Account

Indigenous
Community MAE
Framework

Indigenous
Government/
Organization
Revenue Account

Economic Activity

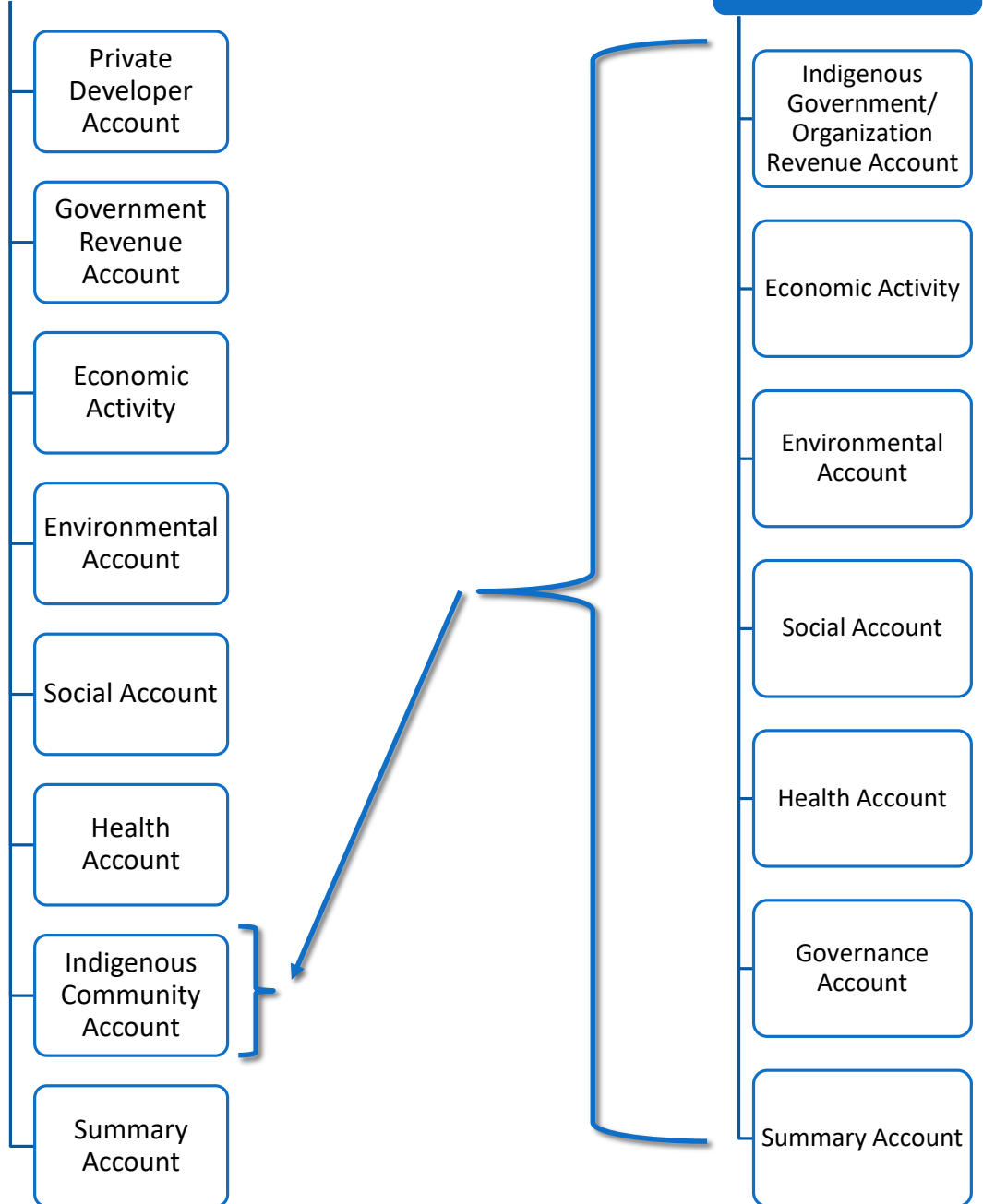
Environmental
Account

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
- Two impact benefit agreements (IBAs)- Inuit Impact and Benefit Agreement (ERP) and Inuit Certainty Agreement (Phase 2)

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	\$252 - \$1,844
	Government Revenue (Federal and Territorial)	Net revenue impacts of Project on Federal government and Government of Nunavut.	\$1,198	\$624 - \$1,572
	Economic Activity	Net impacts of the Project on Canada's training and education, employment, and economic activity including upstream, downstream, and competing sectors.	\$145	-
	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.	(\$792) Less incremental costs associated with impacts to terrestrial species, birds, permafrost disturbance, vegetation, archaeological and heritage sites, aquatic species, surface water and groundwater, and climate commitments.	(\$3,261) - (\$767)
	Social	Net impacts of the Project on the social wellbeing of population of Canada.	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. Net monetary impact not estimated.	-
	Health	Net impacts of the Project on the mental and physical wellbeing of population of Canada.	Net monetary impact not estimated.	-
	Inuit	Net impacts of the Project on the Inuit population of Nunavut.	\$565*	\$414 - \$704
	Total	Overall Impact of Project	Net impacts of the project including impacts to the private project developer.	\$1,817 (Excluding non-monetized project costs and benefits).
Canadian Public		Net impacts of the project to Canada <i>excluding</i> impacts to the private project developer.	\$570 (Excluding non-monetized project costs and benefits).	(\$2) - \$945

*Monetary benefit estimates for Inuit accounted for in government revenue and economic activity accounts.

Comparison of Economic Impacts for Mary River Mine

Indicator	Economic Impact Analysis	Multiple Account Evaluation
Gross employment (operations phase)	5,031 PY (construction) 903 to 1,177 (operations)	1,000 PY (construction) 178 to 232 avg annual PY (operations)
Net employment	n. a.	44 PY (construction, Inuit employment) 8 to 10 avg annual PY (operations, Inuit employment)
Employment benefit (\$)	\$559 million (wage bill)	\$23 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)

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.	\$145 less incremental costs of impacts to food harvesting and tourism industries.	\$145
	Environmental	Incremental cost to air quality. Potential adverse impacts to terrestrial species, birds, land/ topography, vegetation, archeological sites, aquatic species, surface water and groundwater.	(\$25) Incremental costs associated with impacts to terrestrial species, birds, permafrost disturbance, vegetation, archaeological and heritage sites, aquatic species, surface water and groundwater.	(\$25)
	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.	\$565 Less unestimated incremental costs.

Using the MAE Framework to Inform IBA Design and Evaluation

The MAE Framework

- Indicates the estimated revenue accruing to community
- Indicates the estimated economic activity impacts
- Provides comprehensive information regarding the adverse consequences of a project

Using the MAE Framework to Inform IBA Design and Evaluation (continued)

The MAE Framework

- Indicates the distribution of project benefits and costs
- Indicates the impacts of a project on Indigenous rights and title
- Indicates the **Net** impact to the community

Conclusions

Limitations of impact assessment:

- Impact estimation methods overestimate benefits and underestimate costs;
- Local and regional impacts are undervalued;
- Capacity and regulatory barriers impede effective participation from local communities; and
- No consistent, comprehensive tool available to communities to estimate the net impacts of a project.

Solution:

- Multiple Account Evaluation framework

Thank You!

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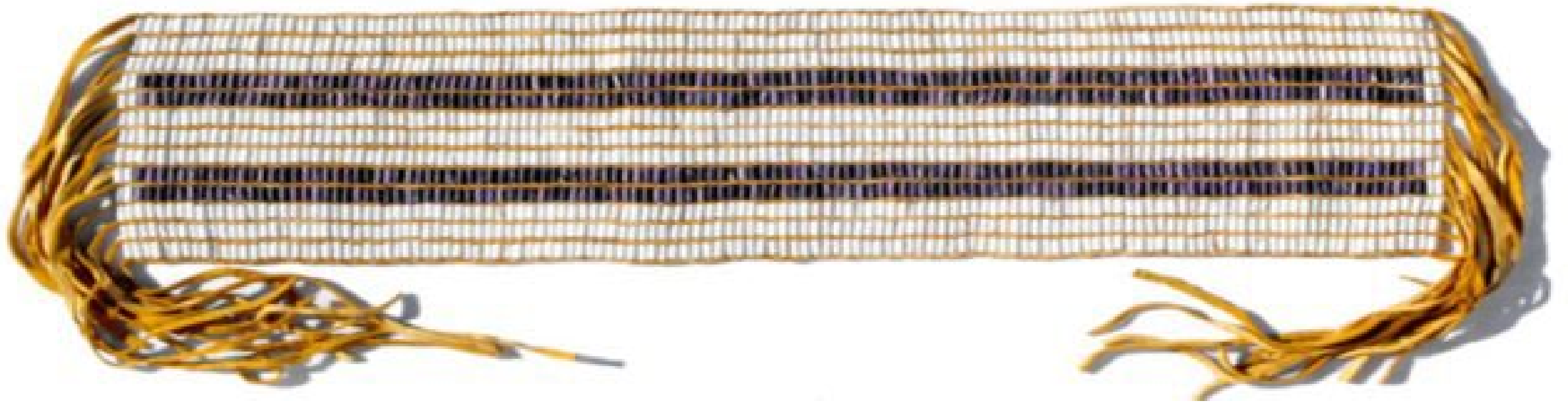
ECONOMIC RECONCILIATION

CIP 2022

July 7th

Jonathan Boron

Reconciliation



ECONOMIC PARTICIPATION

- Participation as Reconciliation
 - “closing the gaps”
 - “Having a seat at the table”

“What are we participating in?”

ECONOMIC PARTICIPATION

Resource Extraction Projects

- Impact Benefit Agreements
- Revenue Sharing Agreements
- Equity Ownership
- Short- and long-term economic benefits from these agreement provisions
- offer new opportunities for Indigenous governance and autonomy that can transform socio-economic well-being (Slowey, 2008)



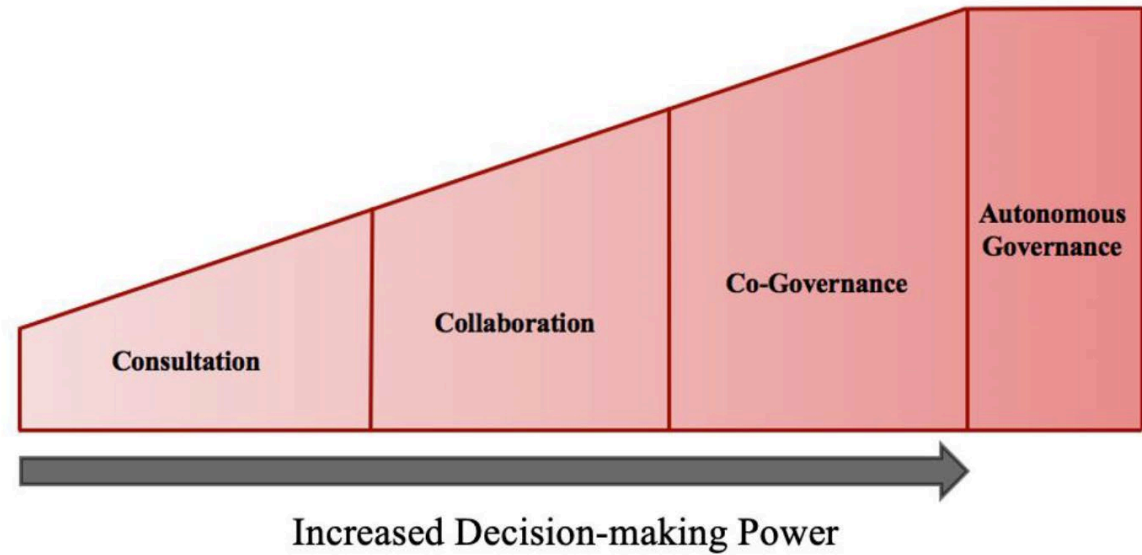
Engaging in colonial
decision-making
processes



Engaging in
community based
decision-making
processes

WHO'S SETTING THE TABLE?

Figure 1. Participation Spectrum for Resource Decision-making.



ECONOMIC
SELF -DETERMINATION
AS
ECONOMIC
RECONCILIATION





Neither Prepared nor Transformed: Institutional Responses to Unconventional Oil and Gas Development in Australian and Canadian Communities

Sean Markey, Greg Halseth, Laura Ryser,
Neil Argent, and Fiona Haslam-McKenzie

Canadian Institute of Planners

July, 2022

OUTLINE

- Rural Restructuring and the Rise of UOGD
- Dependency and Divergence in UOGD
- Methodology
- Findings
 - Impacts
 - Local Responses
 - Fiscal Mechanisms
- Discussion

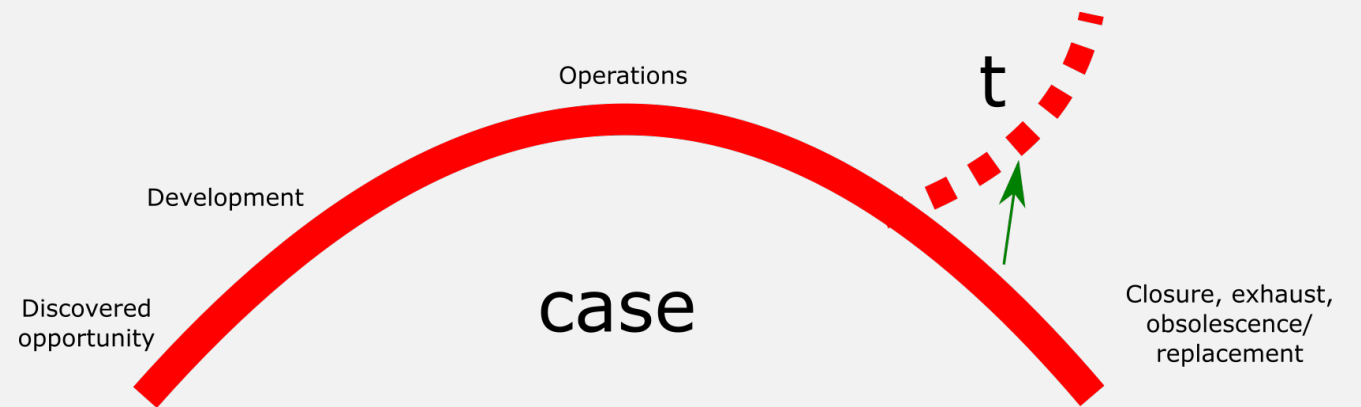
RURAL RESTRUCTURING AND THE RISE OF UOGD

- Rural regions used as resource banks
 - Limited resources to maintain / diversify local economies
 - Limited resources to mitigate socio-economic and environmental impacts
- Inadequate neoliberal policies exacerbated resource exploitation impacts
- Influx of unconventional oil and gas development into rural regions
 - Rapid speed, scale and spatial spread of exploration and production

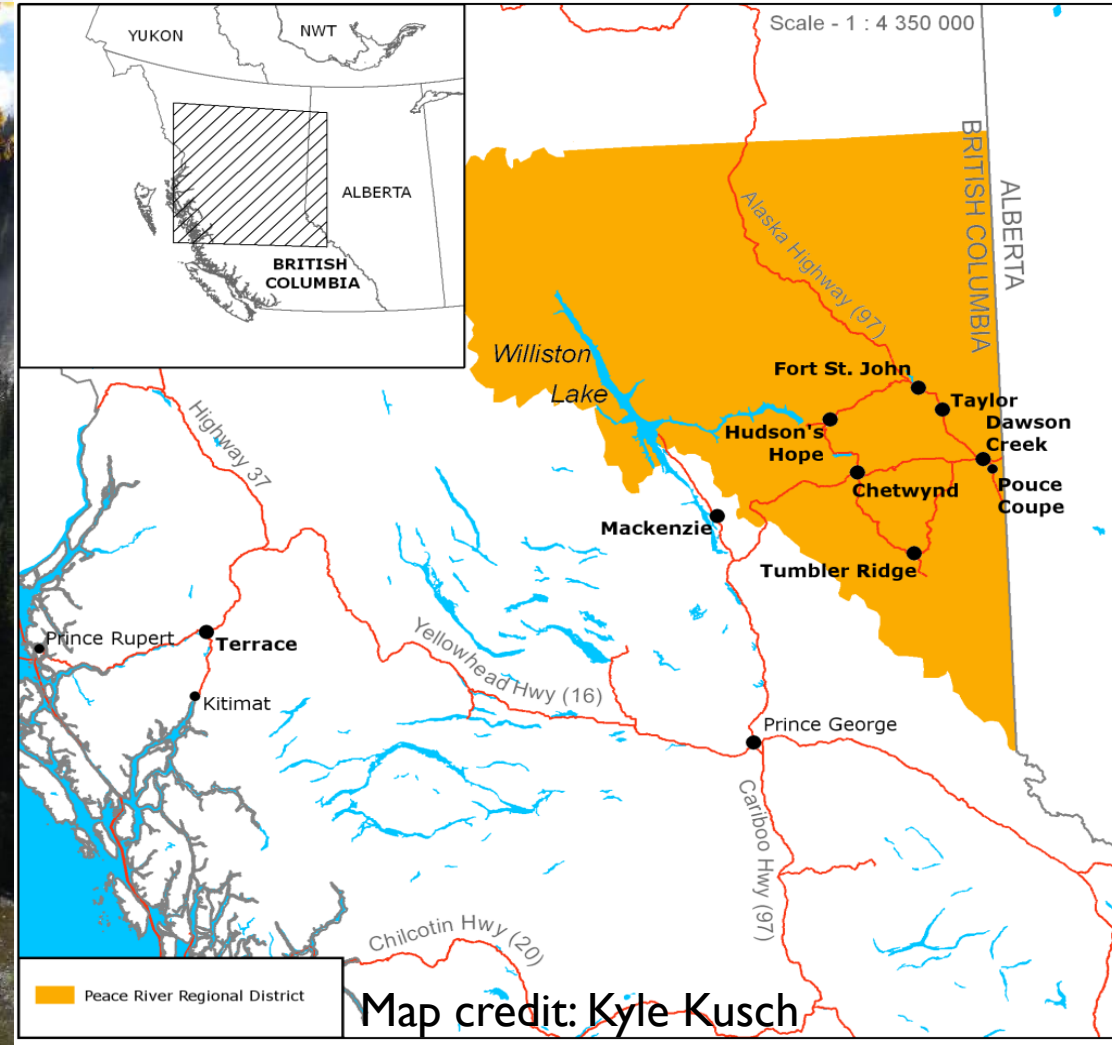


DEPENDENCY AND DIVERGENCE IN UOGD

- Path development trajectories
 - Path exhaustion
 - Path extension
 - Path emergence



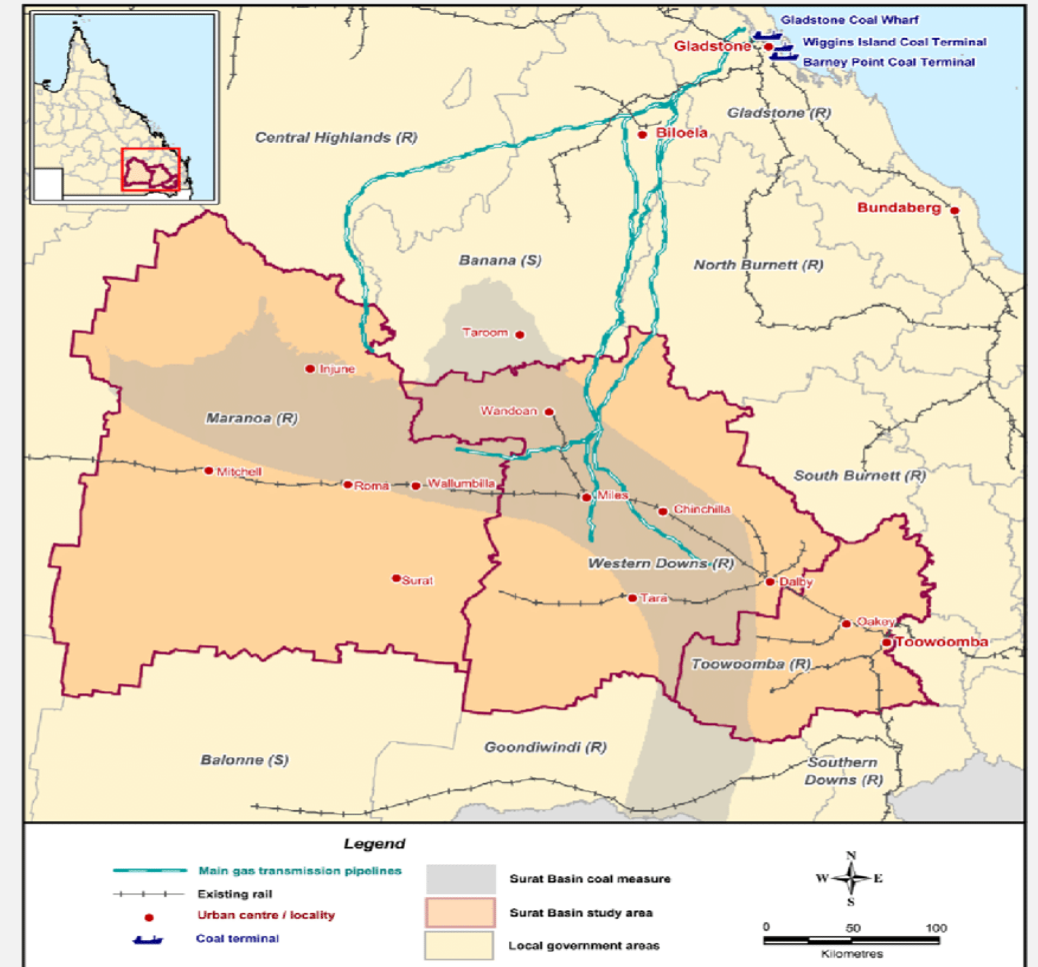
PEACE RIVER REGION, BRITISH COLUMBIA, CANADA



SURAT BASIN, QUEENSLAND, AUSTRALIA



The Ruby Jo coal seam gas central processing plant, near Chinchilla in Queensland's Surat Basin, October 2013. AAP/Dave Hunt



Source: Walton et al. 2016.

METHODOLOGY

- 38 key informant interviews (Peace = 22; Surat = 16)
 - Community leaders, negotiators, consultants, regional development organizations, and provincial and state stakeholders
- Questions:
 - Negotiation of royalty returns
 - Outcomes of applying those returns to support strategic directions, operations
 - Investments in community and economic development

AU IMPACTS: THE TIDAL WAVE

Negative impacts in the Surat

- Pressure on town infrastructure
- Displacement in local housing
- Social and service pressures
 - Influx of large mobile workforce
- Environmental impacts shape opportunities for other sectors



A coal seam gas field in the Surat Basin just south of Chinchilla, Queensland.
Source: AAP Newswire in Andersen 2011.

PEACE IMPACTS: THE TIDAL WAVE

Negative impacts in the Peace River Region

- Overwhelmed health, emergency, education, employment, and social services
- Public policies reduced funding
 - Deferrals to private and non-profit sector



Firelight Group

IMPACTS: LACK OF INTEGRATED, LEVERAGED PLANNING

They're building a temporary bridge over the Peace River... That was I think our biggest disappointment as a community. ***Council couldn't pressure the project and the Province to build a proper permanent bridge*** over the Peace River that would have been an asset for future generations. Because it's always about transportation and moving goods and people around. ***They built a construction bridge that they're going to demolish*** (RR#6, 2017).

AU: LOCAL RESPONSES – RESISTANCE, ORGANIZATION

Surat response

- Lack of readiness
 - Poor understanding of UOGD
 - Inadequate data
- I I local governments amalgamated into Maranoa and Western Downs
- Lock the Gate alliance formed in 2010



Lock the Gate Alliance

PEACE LOCAL RESPONSES: RESISTANCE, ORGANIZATION

Peace River response

- Participated in environmental impact assessment processes
- Formed the Northeast BC Resource Municipalities Coalition



AU FISCAL MECHANISMS: TOP-DOWN GRANTS

Royalties for Regions (2012 – 2016)

- AU\$495 million delivered through competitive grants for infrastructure projects

Building Our Regions

- AU\$375 million distributed through competitive grants
- Funding schemes: capital, local government, remote and Indigenous, and transportation infrastructure

AU FISCAL MECHANISMS: NOT STRATEGIC

- Local government areas able to capture industry taxation
- But funding programs lacked data to demonstrate economic development / employment benefits
- Lack of documentation of selection criteria
- Inconsistency between stated guidelines and funding invested
- Limited awareness about R4R and BOR funded projects



PEACE FISCAL MECHANISMS: LOCALLY EMBEDDED

Fair Share Agreements

- Formula tied to growth in the region
 - \$4m (1994); \$46m (2015); \$75m (projected 2019)
 - Grant-in-lieu of property tax
- Strict spending and investment guidelines on capital, not operations

Peace River Agreement (2016)

- \$50,000,000 per year (+2% for inflation)
- Based solely on population
- Lost connection to growth in industrial property tax base

PEACE FISCAL MECHANISMS: PATH DEPENDENT

- Limited departure from resource dependency
- Funds used to support operations
 - Ranging from 2% to 40%
- Reliance on funds for operations prompted dissolution of Fair Share Agreement
 - Breakdown of the regional coalition
 - Provincial government exploited internal divisions for new agreement



DISCUSSION I

Local Organization and Resistance

- Central in mobilizing senior government responses
- Peace River region coordinated municipalities to support robust approach
- Queensland response maintains top-down state control through grant programs
 - Hinders certainty and capacity for local and regional planning in the Surat
- But.... neither jurisdiction granted new powers to local governments
 - Responses are framed within traditional governance and regulatory structures

DISCUSSION II

Reactionary Policy

- Speed and scale of UOGD outpaced institutional responses
- Roll-out of neoliberal policies focused on supporting industry competitiveness
- Market-oriented responses to service and infrastructure needs
- Strategies for economic diversification / impacts are secondary
- Regulatory deference to industry

DISCUSSION III

Fiscal Mechanisms

- Mixed developmental outcomes
 - Tendency toward lock-in / path reversion
- Investments in quality-of-life infrastructure
 - But only modest investments in economic diversification
- Complacent approach to community development
 - Absence of a long-term legacy investment mechanism to support long-term transformation

PUBLIC INTEREST

- Senior governments view role as facilitating industrial development
- Assumption of public value, interest
- Unwillingness to create precedent (contextual blindness)
- Unwilling to shift antiquated regulatory structure



THANK YOU!

- Sean Markey, Simon Fraser University, spmarkey@sfu.ca
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