Avoiding the Resource Curse
Coping with the Slippery Slopes of a Mining Boom

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Dr. Brenda Parlee
Department of Resource Economics and Environmental Sociology
Faculty of Agricultural, Life and Environmental Sciences
University of Alberta
The Chief of the Attawapiskat First Nation meets with the Grand Chief. "Sir," he says, "I have got some good news and bad news." The Grand Chief asks for the good news first and is told that the De Beers has just discovered diamonds near Attawapiskat. The Grand Chief is happy. He says, "Well, this is great. Hope for our youth. What could the bad news possibly be," he asks the Attawapiskat Chief. The reply is, "The bad news is that De Beers have just discovered diamonds near Attawapiskat." (Peerla, 2005).
Resource Development


Natural Resources Canada: Oil and Petroleum Resources
http://atlas.nrcan.gc.ca/site/english/maps/economic/energy/oilgas
<table>
<thead>
<tr>
<th>Selected Minerals and Fuels</th>
<th>Yukon</th>
<th>Northwest Territories</th>
<th>Nunavut</th>
<th>Newfoundland Labrador</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total metallic minerals</td>
<td>395.0</td>
<td>64.5</td>
<td>414.0</td>
<td>5,111.6</td>
<td>25,260.0</td>
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<tr>
<td>Selected metallic minerals</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Copper</td>
<td>194.0</td>
<td>2.0</td>
<td>0.0</td>
<td>610.0</td>
<td>5,012.0</td>
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<tr>
<td>Gold</td>
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<td>0.0</td>
<td>411.9</td>
<td>14.5</td>
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<td>Iron ore</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2,651.5</td>
<td>5,329.1</td>
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<tr>
<td>Nickel</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1,666.1</td>
<td>5,087.4</td>
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<tr>
<td>Silver</td>
<td>75.9</td>
<td>0.0</td>
<td>2.1</td>
<td>13.4</td>
<td>612.2</td>
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<td>Uranium</td>
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<td>0.0</td>
<td>1,089.2</td>
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<tr>
<td>Zinc</td>
<td>5.9</td>
<td>0.0</td>
<td>0.0</td>
<td>46.2</td>
<td>1,296.0</td>
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<td>Total non-metallic minerals</td>
<td>6.8</td>
<td>2,079.6</td>
<td>0.0</td>
<td>78.1</td>
<td>18,037.8</td>
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<tr>
<td>Selected non-metallic minerals</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Diamonds</td>
<td>0.0</td>
<td>2,069.6</td>
<td>0.0</td>
<td>0.0</td>
<td>2,523.0</td>
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<tr>
<td>Potash</td>
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<td>0.0</td>
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<td>0.0</td>
<td>7,972.6</td>
</tr>
<tr>
<td>Sand and gravel</td>
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<td>2.2</td>
<td>0.0</td>
<td>16.5</td>
<td>1,544.4</td>
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<tr>
<td>Total fuels</td>
<td>4.0</td>
<td>416.0</td>
<td>0.0</td>
<td>10,771.9</td>
<td>128,960.3</td>
</tr>
<tr>
<td>Selected fuels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>7,049.9</td>
</tr>
<tr>
<td>Crude petroleum</td>
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<td>350.0</td>
<td>0.0</td>
<td>10,771.9</td>
<td>91,110.3</td>
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<td>Natural gas</td>
<td>4.0</td>
<td>66.1</td>
<td>0.0</td>
<td>0.0</td>
<td>30,800.2</td>
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</tbody>
</table>

Production of selected minerals and fuels by province and territory, 2011 (in millions of dollars). (Statistics Canada, 2013)

http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/envi38c-eng.htm and
http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/envi38a-eng.htm
Exploration, mining take steep decline this year

The value of exploration and mining in the Yukon has fallen significantly compared to recent years, according to territorial government records.

By Chuck Tobin on November 16

Uncertainty in mining industry may retard growth

Following a bottom-of-the-barrel economic performance in 2013, the Yukon saw modest growth in 2014.

By Christopher Reynolds on January 8, 2015
Cost of Faro’s Toxic Tomb to Top $450 million

It will take 45 years to seal Faro’s toxic tailings off from the rest of the world, making it one of the most expensive mine remediation projects in Canadian history.

James Munson Monday February 9, 2009
Resource Curse

The Curse of Riches

Log Export Share as pct. of GDP

Avg Real GDP Growth 1965-90

100% 10% 0% 2% 4% 6%
What are the symptoms of the resource curse and how can they be avoided?

– How do we capture and sustain local/regional benefits from resource extraction that have long term and equitable benefits?
  • To what extent do the rents from mining create disincentives for other economic activity? Are rents invested into alternative economic opportunities to mitigate these effects?
  • How do we create education and training opportunities that avoid ‘brain drain’ and ‘resource curse’?
  • What are the economic policies that even out swings in economic pressure (e.g. avoid rapid swings in cost of living)?

– What are the social mechanisms / instruments needed to make all this happen?
Employment Opportunities!!

- Brain and Skill Drain

- Higher Incomes and Employment – driver behind government creating incentive for / approving large scale resource development projects.

- Income and well-being are thought to be strongly related – a theory which drives resource development (i.e. people will be better off with jobs and higher incomes); Not accurate at all income levels -- not absolute in northern Canada where culture, community and the land figure into peoples sense of a “good life”.

- A skill and brain drain effect is often created where high wages in the natural resource sector lead to labour being siphoned away from other parts of the economy. -
  - Community organizations with limited budgets suffer labour shortages;
  - Rural – Urban migration (e.g., creation of urban housing and service shortages)

How to create incentives for employment in other sectors;
How to limit rural-urban migration patterns or ensure urban centres are is a position to support increase number of temporary residents?
“Crowding Out”

A boom in one sector limits growth in the other sectors (i.e., the mining sector can outcompete service sector for labour and other forms of capital.)
Low High School Completion Rates and Post Secondary Enrollment

- Concerns expressed about loss of traditional knowledge and skills -- high school graduation) are low in most parts of northern Canada;

- Concerns that many students are “not ready” for education

- Opportunities for traditional systems of learning and format education are uneven within communities; diverse family histories often account for some children having many opportunities for learning and others having very few.
Low High School Completion Rates and Post Secondary Enrollment

<table>
<thead>
<tr>
<th>Province</th>
<th>High School Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nova Scotia</td>
<td>89%</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>84%</td>
</tr>
<tr>
<td>Ontario</td>
<td>82%</td>
</tr>
<tr>
<td>British Columbia</td>
<td>80%</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>79%</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>78%</td>
</tr>
<tr>
<td>Manitoba</td>
<td>75%</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>74%</td>
</tr>
<tr>
<td>Quebec</td>
<td>72%</td>
</tr>
<tr>
<td>Alberta</td>
<td>71%</td>
</tr>
<tr>
<td>Yukon</td>
<td>69%</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>65%</td>
</tr>
<tr>
<td>Nunavut</td>
<td>64%</td>
</tr>
</tbody>
</table>

High School Graduation Rate by Province (2011)
Vast Disparity between Canada’s Highschool Graduation Rates:
http://www.the10and3.com/the-vast-disparity-in-canadas-high-school-graduation-rates-00016/
Strategies for improving training such that northerners can better participate in the mining industry has been an important theme of northern social science research (e.g., Abele).

Increasingly, industry is playing an influential role in the dynamics of education and training – training is more directly tied to employment – e.g., technical training.

- “Relegating education to technical training creates other problems for a society in transition. Reactive, quick-fix solutions to perceived labour shortages disguise low formal education levels, as signing groups become sinecures of megaprojects through preferential hiring practices. While the optics may appear impressive as seen in increased hiring of northern Aboriginals at mine sites, most employees are young men who occupy low-level positions and must leave their community for extended periods of time to fulfill shift work. Meanwhile, the incentive to increase productivity through long-term capacity building is trumped by an elite financially compensated and motivated by the passive collection of rent and resource royalties”.

Effective Institutions

• Resource curse economies are characterized by poor governance - the mis-management of resource rents including inefficient management and allocation of resources, rent-seeking behavior and/or corruptive economic practices;
  – Consumptive rather than investment practices;
  – Inefficient allocation of resources;
  – “Fox in the hen house” institutions;

• Attributable to apathy or a false sense of security about the sustainability of the economy that can come with the sudden increases in wealth;
Complications of Infrastructure Shortages

- Absence of basic infrastructure correlated with poor health and well-being outcomes – complicate the capacity of communities to capture benefits.

- Housing insecurity is likely to be compounded by boom-bust cycles of resource development and uneven development across the territories with vulnerable populations (e.g. homeless, single mothers) facing the greatest dis-benefits;

Arviat Construction (CBC):
http://i.cbc.ca/1.2424196.1384291535l/fileImage/httpImage/image.jpg_gen/derivatives/16x9_620/arviat-construction.jpg
Avoiding the Resource Curse
Protective Factors – Capitals Framework

Social Capital Capital

• ‘features of social organization, such as networks, norms and social trust, that facilitate coordination and cooperation for mutual benefit’ (Putnam, 1995: 67)
  – family cohesion (parents supporting youth),
  – volunteerism, civic participation (participation in public meetings),
  – social interaction and communication,
  – demonstration of traditional values (respect for the land);
  – traditional economic practices

• Strong social networks that exist in northern communities are an incentive for industry - creates a kind of stability which is attractive to investors and project developers; social capital (e.g., food sharing) also creates a kind of cushion or sponge that supports individuals when times are tough and releases them again during an economic boom...

• Government cutbacks and disincentives for maintaining strong social organizations (e.g., community coops, women’s advocacy organizations) – many kinds of negative effects for communities and may have long term destabilizing implications for communities – stable economic growth.
Cultural Capital

- Culture is “protective” against some of the negative effects of development (symptoms of the resource curse)
- Cultural capital is also a key strength to successful economic development and sustainability (e.g., protecting the environment);
  - **Traditional Knowledge** - Use in management and monitoring of resource development increasingly best practice – may contribute to greater cultural capacity and cultural continuity
- Caution: Essentialization of culture into scientific frameworks as measureable bits or “things” is seen as overly simplistic -- part of a colonial process or “scientization” of traditional knowledge*


Laura Jane Michel and Kelsey Jansen at Eda Cho Kue, NWT. Using Traditional Knowledge in Monitoring of Mining on Barren Ground Caribou
Photo Credit Brenda Parlee (Eda Cho Kue)
Conclusions

• Large-scale natural resource development poses both opportunities and challenges northern communities including those living in Yukon, Canada. A rich endowment of natural resources in the region would suggest that economic growth is guaranteed, yet socio-economic statistics, and communities, tell a much different story.

• Indigenous communities in particular tend to suffer disproportionately from the adverse socio-economic and ecological implications of resource development and see few socio-economic benefits;

• Critical consideration of the symptoms of the resource curse and how to avoid them is critical for long term sustainable economic development.
For further references contributing to this presentation check out:
