

Foreign Investment in Northern Development ***Opportunity or Vulnerability?***

By: Tom Hoefer, NWT & Nunavut Chamber of Mines
To: the Arctic Security Working Group – November 24, 2020

Thank you very much Conrad for the introduction and for inviting me.

When Conrad invited me, he indicated there was some strong interest in the Hope Bay situation, with the potential purchase by Chinese investors.

I have woven that into this presentation, and hope you find the information helpful.

Key Messages

- Canada's North is huge and has tremendous potential
- Resources are our competitive edge, but margins for error are thin
- Hope Bay is a good example
- Foreign countries are taking a strong interest in Canada's North
- Recommendation: Hope Bay needs to keep operating
- Recommendation: Canada needs to strongly advance its northern policy



These are the key messages that I want to leave you with today.

Canada's North is huge and has tremendous potential

Resources are our competitive edge, but margins for error are thin in the North

Hope Bay is a good example

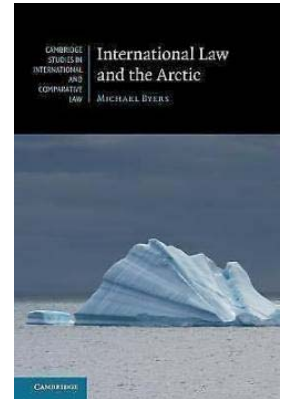
Foreign countries are taking a strong interest in Canada's North

Recommendation: Hope Bay needs to keep operating

Recommendation: Canada needs to strongly advance its northern policy

Crystal ball from a Canadian Arctic expert in 2013

- *“We need to invest in the Arctic because any other self-respecting developed country would have done so by now. This is our future, and yes it will cost money, but the great dream, the great projects are worth investing in.”*
- *“If you don’t want to pay for what [development] is necessary, then you should put the Canadian Arctic up on eBay and see how much China would pay for these opportunities, how many trillions of dollars a country like China would pay to have the opportunity that Canada has in the Arctic.”*



... Dr. Michael Byers, Canada Research Chair in Global Politics and International Law, University of British Columbia
on receiving the Donner Prize in 2013



Source: [Michael Byers, International Law and the Arctic – Donner Prize 2013](#)

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This slide is a bit of a commentary on Canada’s approach to its Arctic.

It’s a crystal ball really from 2013 on the very situation we find ourselves in today.

Dr. Michael Byers is a Canada Research Chair at UBC and wrote this award winning book on International Law and the Arctic.

Note Dr. Byer’s quotes are from 2013:

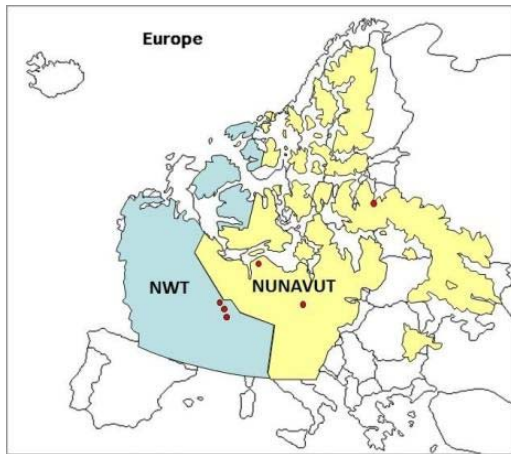
Canada needs to invest in the Arctic because any other self-respecting developed country would have done so by now. This is our future and yes it will cost money, but the great dream, the great projects are worth investing in.

If you don’t want to pay for what [development] is necessary, then you should put the Canadian Arctic up on eBay and see how much China would pay for these opportunities, how many trillions of dollars a country like China would pay to have the opportunity that Canada has in the Arctic.

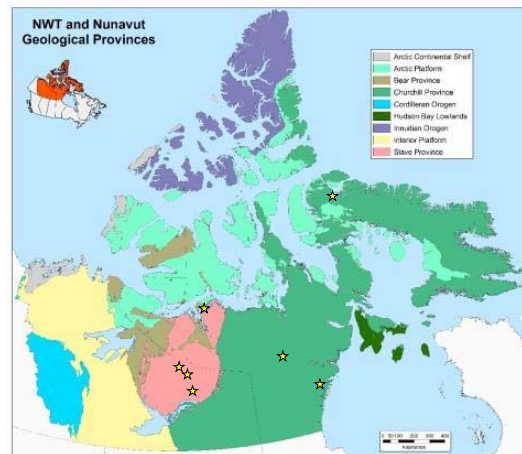
He certainly foreshadowed the situation we find ourselves in today.

Canada's North: Huge with high potential, but hurdles too

Huge Geography



Rich Geology, but barely tapped



- NWT + Nunavut = 1/3 of Canada's geography with less than 85,000 residents
- Only 7 operating mines in an area the size of Europe, footprint of < 0.006% of NWT + NU
- Remote with Canada's largest infrastructure deficit



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A little background on the North.

Canada's two territories of NWT and NU alone are huge. Add in Yukon and northern Quebec and it is greater than 40% of the country.

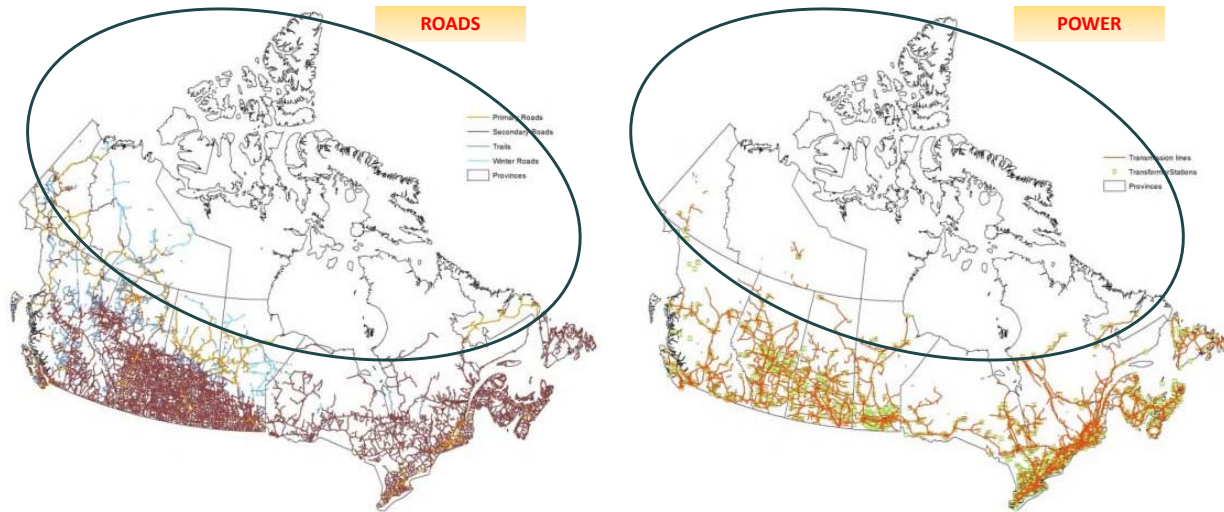
I've overlain the image over Europe to give you a sense of the size. When one compares the infrastructure and population of Europe and the north, of course it's very different.

There are only about 85,000 people living in NWT and NU, making it one of the least developed parts of the world.

We have tremendous and enviable geology. This geology map is multicolored showing the variety of geological environments, which translates to great mineral potential.

NWT and NU currently host only 7 operating mines, with a very tiny footprint.

Lack of infrastructure drives high costs



- Besides road and power deficit, add climate, permafrost, and lack of marine and air ports and rail to the North's challenges



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The region is significantly challenged with a lack of infrastructure, in particular roads and power, as shown here.

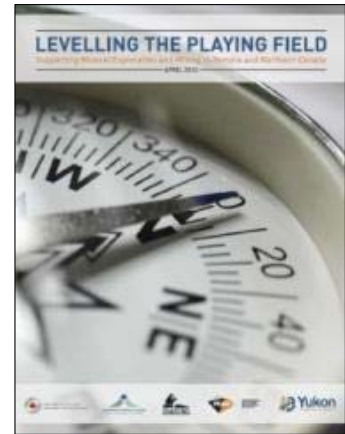
We could add to this shortages of railways and ports and paved airstrips and communications too. Add into this climate.

And I'm just speaking to physical challenges.

What is not shown is the continuing poor social situation from lower-than-average education levels, high unemployment, severe housing shortages, and other social problems.

The North's cost differential due to Infrastructure deficit

- The North's infrastructure deficit adds significant costs:
 - Exploration costs up to 6 x higher than the south
 - Mine capital costs up to 2.5 times more
 - Mine operating costs 30 to 60% higher
- This un-level playing field hinders the North's economics and competitiveness



Industry Study: Levelling the Playing Field, May 2015



Having the largest infrastructure deficit in Canada adds significant costs.

An industry study, Levelling the Playing Field, reveals how lack of infrastructure raises costs for our industry:

- Our mine capital costs are up to 2.5 times more expensive
- Exploration costs up to 6 times higher.
- And operating costs from 30-60% higher than the south.

This unlevel playing field hinders the North's development.

We need help to level that competitive playing field.

Canada once helped with Northern resource Infrastructure

- 1948 – Built the Snare Hydropower for Yellowknife gold mines
 - 1959 – Roads to Resources, highways to mining and resource towns
 - 1961 – Great Slave Lake Railway for Pine Point zinc-lead mine
 - 1966 – Taltson Hydropower for Pine Point zinc-lead mine
 - 1974 – 18% ownership in Nanisivik zinc-lead mine: town site, marine port, airport
 - 1975 – New ice-breaking cargo ship technology to service Nanisivik & Polaris mines
- **There's been a 40 YEAR FEDERAL INVESTMENT GAP FOR NORTHERN MINING**



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It wasn't always this way.

Years ago, the Federal government was a major partner in providing infrastructure for the mining industry. They realized that partnering with industry could help development.

You can see the many examples here:

- In 1948, the Federal government built the Snare Hydropower system for Yellowknife and its gold mines
- In 1959 – Roads to Resources, highways to mining towns
- In 1961, Canada built the Great Slave Lake Railway for Pine Point zinc-lead mine
- And in 1966, the Taltson Hydropower plant for the Pine Point mine.
- In 1974, Canada took an 18% ownership in the Nanisivik mine and provided the townsite, dock, and airport for the zinc-lead mine
- And in 1975, the partnered in the Canarctic Shipping partnership with industry to build the world's first ice-breaking cargo ship to service the Nanisivik & Polaris mines.
- Unfortunately, we haven't seen any other investments until 2017 with the Tlicho road which has some benefits for one mining project.

We have suffered a gap of 40 years without federal investment in infrastructure for northern mining.

We need help to catch up.

Some examples of Historical Federal Mining Support Programs

- Northern Roads Program, 1965
 - Long range, 20-year program to bring permanent roads to within 200 miles of all potential areas of resource development
 - Area development roads – Financed 100% by Federal Government
 - Mine development roads – Financed 100% by Federal Government
 - Mine access roads – Financed 2/3 by Federal Government
 - Mine tote roads – Financed by government if sufficient funds available
- Northern Resource Airports Program, 1965
 - Exploration airstrips – Financed 50% by Federal Government
 - Production airstrips – Financed 50% by Federal Government
- Northern Mineral Exploration Assistance Program
 - Up to 40% grants for approved exploration programs in North



Sources:

- *Mining in the North 1961, Department of Northern Affairs and National Resources*
- *Report: North of 60, Mines & Minerals Activities 1971, Department of Indian Affairs & Northern Development*

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Here are examples of Federal programs that Canada developed in the 1960s to leverage resource development to help build the country.

These programs no longer exist, having evaporated in the mid-1970s.

Today, mines are on their own to pay it all



Today, our remote mines must look after themselves entirely with their own costly infrastructure.

- With no power grids to our remote mines, they must provide their own diesel generated power, or wind in the case of Diavik.
- Being off the highway system, they must build their own roads – whether seasonal ice roads, or all weather roads. (Note the ice road melts every year and must be rebuilt annually for \$25 million. Note NU has no highway system, and this mine road at 110 km is Nunavut's longest road.)
- Also rail, eg, Baffinland proposing its own railway
- Some of our mines must build their own seaports and all provide their own airports.
- Mines must provide camps for their workers, with recreation and medical facilities too.
- And they must buy their entire year's consumables inventory ahead of time which brings carrying costs. Of course they must also store all that inventory on site, which costs them more for storage facilities.

It all adds up to significant extra costs to mine in the north.

And it challenges our mines' competitiveness in the global marketplace.

This creates a thin Margin for Error in northern mining, eg:
(note, these all occurred in the last 12 years)

- Meadowbank gold mine profitability – deposit quality, infrastructure costs
- Snap Lake diamond profitability & mine closure – deposit quality
- Jericho diamond mine closure and bankruptcy – deposit quality
- Ekati mine bankruptcy protection – maturing deposit quality, COVID market
- Mary River iron mine profitability – market risk, infrastructure deficit
- Hope Bay gold mine profitability – technology risk in Arctic



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This creates a thin Margin for Error in northern mining.

All these examples are from the past 12 years:

Meadowbank gold mine was never profitable according to the company. Having to build a 110-km long Arctic access road did not help.

The Snap Lake diamond mine never made money because of water issues and deposit quality

This year the Ekati mine was forced into bankruptcy protection, due to its deposit quality in the face severe COVID market effects

The Mary River iron mine needs higher volume production and a billion dollar railway to help profitability

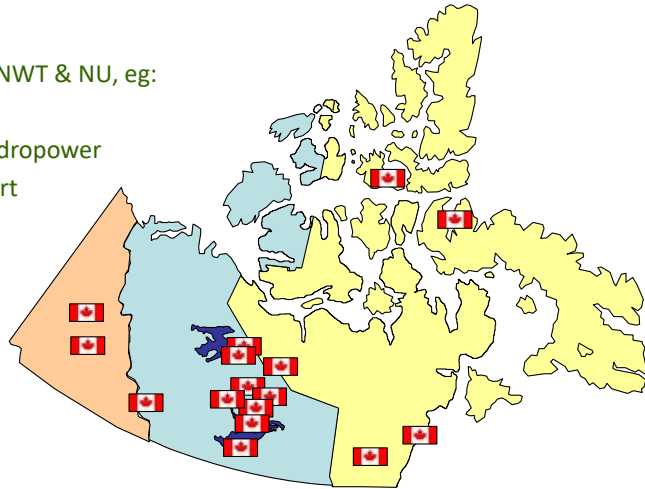
And of course, then there is the Hope Bay situation, where untried southern technology has put them into a terrible bind.

Unless you have the world's best mineral deposits, these extra northern burdens can bit you.

Mining Investment – 1930s-1990s – Strong Canadian Presence

- Federal direct project support in NWT & NU, eg:

- Great Slave Railway
- Snare Hydropower & Taltson Hydropower
- Nanisivik mine port, town, airport
- M.V. Arctic shipping technology
- Roads to resources



- Particularly in the growth period following WWII, Canada supported Canadian companies in pushing back frontiers to access minerals & other resources for Canada's economy.
- Federal investment into roads, hydropower, ports, airports, and townsites into the 1970s helped tremendously.



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Let me shift gears now to mining investment in the north.

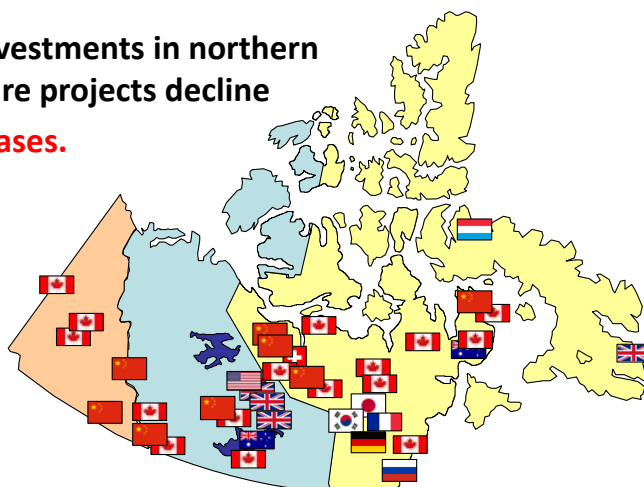
Mining began in the north in the 1930s, and up until the 1990s was very much Canadian company driven.

It was also closely linked to Federal government support for development to open remote parts of the country and build a stronger Canadian economy. Is there a linkage? I'm not sure.

This support mostly dried up in the mid-1970s as I previously explained.

Exploration & Mining Investment – 1990-2020

- 1980s: Canada's direct investments in northern resource and infrastructure projects decline
- Foreign investment increases.
- Coincidence?



- Anglo/Australian firms build diamond mines in NWT; later US takeover of Ekati mine
- Canadian gold mining investment began in Nunavut.
- Luxembourg & Chinese investment into iron in Nunavut.
- French, German, Japan, Korea investment in uranium
- Chinese investment grows into base metal, silver, gold projects in Nunavut and Yukon.



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Beginning in the early 1990s to today, we have seen a big increase in foreign investment.

Is it a coincidence that it grew as Canadian government investment was weak? Also I'm not sure.

Here I've identified a number of the mines and advancing projects and their investors. and in the column on the right.

- The diamond discoveries in the NWT saw global giants like Anglo-Australian Rio Tinto and BHP Billiton and Anglo-American De Beers come and invest.
- We saw some good Canadian gold mining investment in Nunavut
- And we saw Luxembourg investment in Nunavut iron, along with some Chinese investment.
- And around uranium in Nunavut we saw French, German, Japanese and Korean partnerships.
- And we've seen growing Chinese investment into exploration and development projects

Not all foreign ownership is the same

MINE	Ownership	Publicly traded or Private or State	Financial Ability
EKATI ORIGINAL	Foreign Multi-national	Public	Strong
EKATI COVID	Foreign Single operation	Private	Unknown
DIAVIK	Foreign Multi-national	Public	Strong
GAHCHO KUÉ	Foreign Multi-national	Public	Strong
MELIADINE	Canadian Multi-national	Public	Strong
MARY RIVER	Canadian Multi-national	Private	Strong
HOPE BAY (CANADIAN)	Canadian Single operation	Public	Weak
HOPE BAY (IF CHINESE)	Foreign Multi-national	Public but with Chinese state ownership	Strong
			\$4.44 Billion from Bank of China for overseas acquisitions

- Multi-national miners have other mines to provide revenue in difficult times
- Single operation miners have less ability to cross-subsidize mines in difficult times
- Publicly traded = transparency
- Foreign state ownership adds confusion, with implication that politics and not economics may be at play

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So we are accustomed to some foreign investment, but that being said, not all foreign ownership is the same.

Here I've identified a number of our mines in the NWT and Nunavut.

I've shown their ownership as multi-national with multi-operations, or single operation. This is important when a mine runs into a problem like market changes, technology issues, etc. If you have just one mine with no other revenue sources, you are more financially exposed than a company with multiple mining operations, and can cross subsidize internally. That's shown in Financial ability.

I've also indicated if they are public or private, which relates to transparency.

Importantly for Shandong, you'll see that this company is a bit different as they have Chinese state government ownership. This is what makes people wonder what is motivating the sale.

Also, note that Shandong is very well financed for overseas acquisitions. I'm sure many of our companies wish they had that backing.

Hope Bay Gold Mine, Nunavut



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So let me quickly describe the Hope Bay mine situation.

Hope Bay is one of three gold mines in Nunavut, and is located virtually on the NW Passage in the Kitikmeot region of Nunavut.

Next slide:

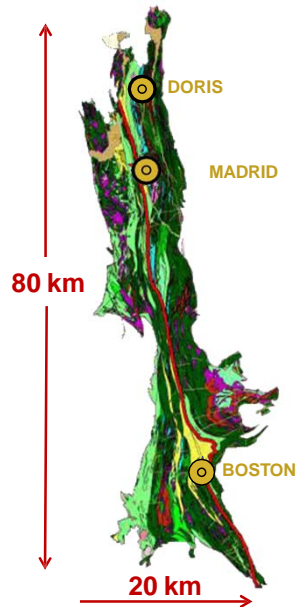
Global Access with prime shipping location on NW Passage



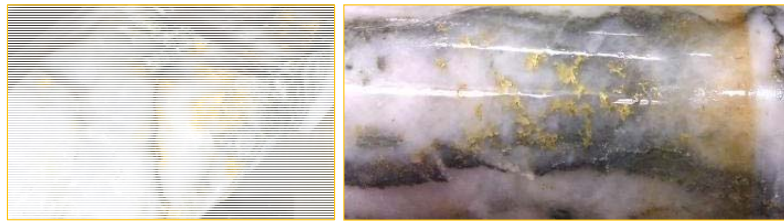
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Being on the NW Passage, they have good marine access and have seen ships come in from as far away as Australia.

Hope Bay has quality gold deposits



- Huge geological potential with 80 km of high gold geology similar to gold-rich Abitibi in Ontario
- Already high quality reserves of ~ 5 million ounces
- Long life potential
- Much needed and welcome economic contributor to Inuit, to Nunavut, and to Canada



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Hope Bay is located in prime geology for gold deposits.

In fact, it's similar to the very rich Abitibi region of Ontario and Quebec.

It has reserves of 5 million ounces which is similar to Agnico Eagle's new Meliadine mine by Rankin Inlet.

With a land position 80 km long and already several deposits, it has long life potential.

And, of course, very importantly, it is providing jobs, business and cash benefits to the region and to public and Inuit governments.

Already \$2 Billion Invested with \$1 Billion Infrastructure



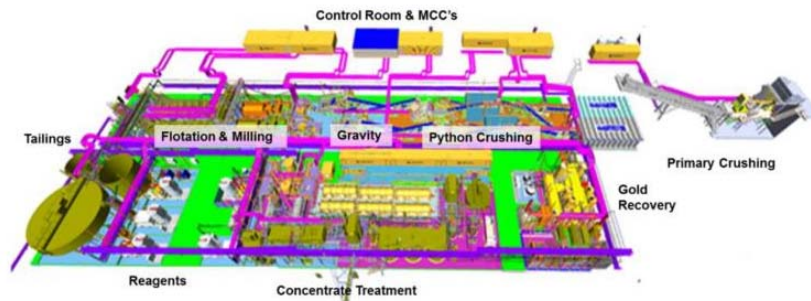
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There has been upwards of \$2 billion invested over the past 30 years. since its discovery in 1988.

Today there is about \$1 Billion invested in infrastructure – including a port, roads, several mine sites and their facilities, and an airport.

Hope Bay's Achilles Heel

- Gold recovery rates are far below expectations
- Process plant technology previously untested under Arctic conditions
- Single mine company without other revenues to address the problem
- This is forcing the sale



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Its weakness that has caused the sale, is its process plant.

It's technology developed in Australia, and hasn't performed to expectations at Hope Bay.

Whereas most gold mines reach upwards of 96% gold recovery, this plant has reached only the low to mid 80s.

TMAC was a small junior company that started the mine, and has no other mining operations that can cross subsidize this mine.

This is forcing the sale.

The proposed Hope Bay sale

- Only one bidder, Shandong Gold
 - Chinese publicly traded company but with state ownership too
 - With a \$4.44 Billion strategic partnership with Bank of China to help finance overseas acquisitions.
 - What is the message here?
- Not even a bidder from Canada
 - What is the message here?
 - That Canadian companies, despite their great mining experience, do not find this project in their own country attractive enough to bid on?



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What is unusual about the sale is that only one bidder came forward.

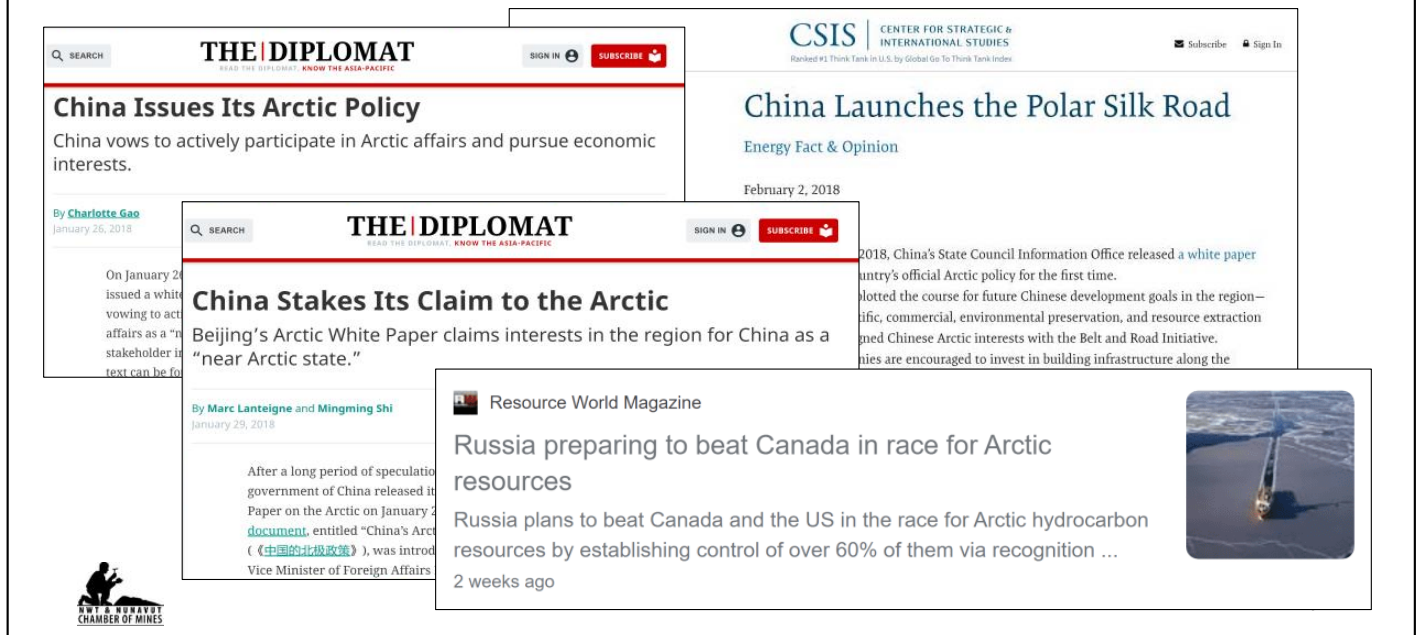
And it wasn't a Canadian company, rather a Chinese company and with state ownership.

I know many of our members are puzzled by this.

If experienced Canadian companies wouldn't buy it based on economics, do they see the north as too risky for investment?

Is China buying it based on economics? Or based on their Arctic policy intentions? Or both? We just don't know.

Eyes on the Arctic: China has an aggressive Arctic plan, Russia too



Let me speak to Arctic and northern policy.

China has made no bones about wanting in on the Arctic. It has issued its own Arctic Policy. It is building a Polar Silk Road.

And they aren't the only ones with a strong Arctic interest.

Russia already has a strong Arctic presence and is getting increasingly assertive too in resource development, although it seems to be focused more in this story on hydrocarbons.

What of Canada's Northern & Arctic strategies?

- Frankly, from our minerals industry perspective, NOT GREAT
- Federal support post-war through 1970s – GREAT
 - Lots of government support for resource development
 - Railway, hydropower, roads, Arctic mining, Arctic ship technology
- 2008 Canada's Northern Strategy – POOR
 - Little for resource development
 - Virtually no infrastructure construction, no specific project support
- 2019 Arctic and Northern Policy Framework – NON-EXISTENT
 - Some good words, but still no meat on the bones!



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So what about Canada?

Frankly, from our perspective Canada's approach has not been great.

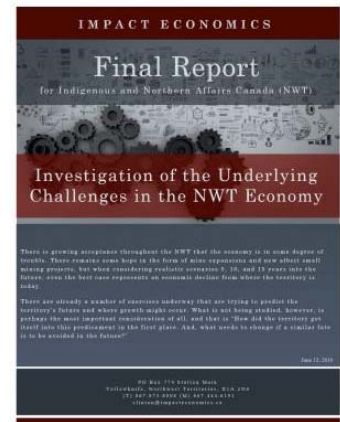
Where Canada once invested strongly in infrastructure and resource development, which as I said earlier was very good. But since then, it's really fallen.

We were excited by Stephen Harper's Northern Strategy launch in 2008, but it failed to deliver anything concrete.

Similarly, the latest Liberal Arctic and Northern Policy Framework has been much talked about, but it's still just words with no real serious financial investment and actions. It's a good instrument, but it needs lots of meat on its bones.

E.g., Underlying Challenges in the NWT Economy

- Access, with missing transportation infrastructure
- Cost, which includes issues of access but also the need for cheaper and dependable power
- Regulatory uncertainty, costs, and timelines
- Lack of clarity surrounding the territory's system of governance
- No consensus around a vision for the future



[Impact Economics, Report to CIRNAC, June 2019](#)



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Some of the shortcomings were pointed out in this report for CIRNAC by Impact Economics in the NWT.

They also pointed out re is much that is needed in the north.

Our territorial governments don't have the capacity to do all of this.

We need Canada's help.

The Arctic and Northern Policy Framework could be used to address this, but we haven't seen action yet.

Recommendation: Hope Bay needs to keep operating

- Hope Bay gold mine must stay open to:
 - provide maximum socio-economic benefits revenues for Inuit and governments,
 - to help address Indigenous reconciliation, and
 - to help Canada wave the sovereignty flag over its vast North.
- Canada has 3 choices:
 1. support the sale,
 2. step in itself with an investment plan,
 3. not support the sale, and not invest in it.
- Option 3 should be inconceivable due to its negative effects on Nunavut, Nunavummiut and to Canada.



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Let me conclude with our Chamber's recommendations for Hope Bay.

- The Hope Bay gold mine needs to stay open. It needs to keep providing benefits to Inuit and Canada. And it needs to help wave the sovereignty flag for Canada.

We see that Canada has 3 choices:

- Support the sale to Shandong
- Or Step in itself to solve the dilemma with an investment plan;
- Or not support the sale and take no action.

That options is inconceivable due to its negative effects on the north and Canadians.

Recommendation: Canada strongly advance its northern strategy

- Now is the time for Canada to meaningfully and aggressively invest to advance its Arctic and Northern Policy
- COVID recovery and growing and competing Arctic interest are good drivers to create significant improvements in Canada's North
- A good start would be real work to see:
 - Actual construction of transportation and energy infrastructure for resource development
 - Support for mining of Northern critical minerals
 - An enhanced and competitive North of 60 mineral exploration tax credit
 - Funding assistance for specific Canadian resource projects as Canada once provided
 - Fit foreign investment into this Northern Strategy



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We also recommend that Canada strongly advance its own Arctic and Northern Policy.

Now is the time given growing and competing interests.

And it's a good time to use the north to help Canada emerge stronger from COVID.

A good start would include

real work to see:

- Actual construction of transportation and energy infrastructure for resource development
- Support for mining of Northern critical minerals
- An enhanced and competitive North of 60 mineral exploration tax credit
- Funding assistance for specific Canadian resource projects as Canada once provided
- Fit foreign investment into this Northern Strategy. That could provide clarity in an area that is of growing interest and imperative.

Thanks very much.

End.

End

