

# FORTUNE

## As the polar ice caps recede, Canada plans Asian shipping routes and sustainable developments for its northern lands.

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June 3, 2011, 11:04 AM EDT

FORTUNE — Climate change is reshaping our world from pole to pole. But one result of global warming could alter the face of commerce in North America and Asia forever: the opening, thanks to the melting polar ice caps, of a new maritime shipping route through the Arctic ocean. The route would connect Asia with Northern Canada and might open up in the next 20-30 years, according to the Canadian government. When that happens, the Québécois will be ready.

“We’re building a parallel canal to the Panama Canal for Chinese ships so they can accelerate the transport of goods,” Jean Charest, the Premier of Québec, tells *Fortune*. Charest and his government predict demand in China, India and other emerging markets will increase dramatically in the next 20 years. During that same time period, “Climate change is going to change this whole economy.” So, he asks, “How do we develop?”

His answer focuses on trade. This month, Charest announced Québec’s Plan Nord, which aims to convert the northern portion of the province into an economic hot spot and capitalize on rich mineral resources in the tundra. But that’s not all: The trade pathway cleared by global warming could usher in a new mentality in Western economic growth. Unlike previous development plans that have bulldozed first and asked questions later, Plan Nord takes the unprecedented approach of tackling sustainability from the get-go.

The pressure is on to succeed, not just economically, but environmentally. “It’s very exciting and a little frightening because there’s so much at stake,” says Mathew Jacobson, the manager of the International Boreal Conservation Campaign, which works to protect Canada’s boreal forest and is part of the Pew Charitable Trusts. Failure would signal that even the most well-equipped, environmentally conscious nation can’t solve the riddle of boosting business while safeguarding the environment.

Plan Nord targets an area of about 450 thousand square miles north of the 49<sup>th</sup> parallel. Over the next 25 years, the government wants to build the infrastructure to mine metals, construct energy facilities, boost tourism and establish sustainable logging. In addition, the government wants to do so with the blessing of leading members of the four aboriginal nations that inhabit Northern Québec — roughly 33,000 aboriginals live there, accounting for about a third of the area’s population.

Plan Nord would also protect 50% of Canada’s Boreal Forest in Québec from industrial development. “It’s about twice the size of Texas,” Jacobson says, “They’d be protecting one Texas.”

Protecting a practically untouched ecosystem the size of the Lone Star State is no small feat. One major challenge, according to John Mutter, the director of Columbia University’s PhD program in Sustainable Development, is that Plan Nord pushes mining. For mining projects, inevitably, he says, “You have to put a lot of energy in to get a little bit out.”

Mining is perhaps the toughest part of Plan Nord for environmentalists to swallow because there's no escaping the basic premise of permanently removing resources from under the surface of the earth. "You can sustainably forest manage," says Mutter. "You can't sustainably extract copper."

But the Québec government is making an effort. To try to offset emissions from mining and other non-green activities, the plan calls for generating 3,500 megawatts of clean, renewable energy. Most of that energy — 3,000 megawatts worth — will come from hydroelectric power, which, while it has a relatively low carbon footprint, requires building a number of new dams with reservoirs. Those dams will drastically alter surrounding ecosystems.

Northern Québec contains nine of North America's remaining pristine river systems, is the breeding ground for 180 species of birds, and supports the world's largest herds of barren-ground caribou, according to a conservation group called the Canadian Boreal Initiative. Even with the most careful attention to sustainability, some of these ecosystems will change, and Charest knows that. "Everything man does on earth has an impact on the environment — there is no utopia," he says. "We're looking at how we can reduce that impact and do something that will be sustainable in time."

That goal goes against the grain, says Mutter. "Is Canada moving in a different trajectory? At least they seem to be thinking about it," which, he adds, is novel.

Sustainable development could pay off for the province and the country in several ways, says Jacobson. For example, Québec could sidestep legal issues, which often develop because of damage to the environment and indigenous populations. "There's a sense of a need for reliability and security for investors," Jacobson says. "They don't want to deal with all kinds of losses in the future."

Then, of course, there's a simple sense of pride. Plan Nord could make Canada the world's leading innovator in sustainable development of valuable resources. At the same time, the project could turn an apparent calamity — the melting of the ice caps — into a sustainable economic opportunity that cuts thousands of miles off of the Pacific Ocean trade routes that ships are currently plying.