

The North American North (1)

What strategy for development?

David Spurgeon in Ottawa summarises a Science Council report on the development of Canada's North

LITTLE-KNOWN to the rest of the world, Canada is a country about which myth and misconception abound. Many people are especially ignorant of Canada's North, but that is scarcely to be wondered at, for so are Canadians themselves. And lately, many of the myths have been challenged from within, including the myth of self-sufficiency in energy and minerals. No less than the economic adviser to the Progressive Conservative party, James Gillies, has wondered about Canada as a technologically advanced nation and suggested that the country should return to reliance on selling its natural resources.

This orgy of self examination has also included some fundamental studies of the North, and the latest is a report from the Science Council of Canada. Called *Northward Looking: A Strategy and a Science Policy for Northern Development*, it is the result of 3½ years' preparation and sets out a strategy designed to bring more economic and technological self-sufficiency to the North, and a set of principles that should guide science policies for northern development.

But to set the stage, it tells Canadians a few facts about the part of their country—the largest part—that few of them have ever seen. The perspective bears repetition. Canada is the second largest country in the world, and the Yukon and the Northwest Territories together comprise 41% of its land area. As the report puts it:

Canada ranks 33rd among countries of the world in population. There is no settlement in 89% of our land area. In 1971, our average population density south of 60 degrees was 1,024 people per hundred square miles; for Nova Scotia, 3,867; for Ontario, 2,239. In the Yukon it was 9, and in the Northwest Territories, 3. Half of the people in the Northwest Territories and 60% of those in the Yukon live in *urban* environments. The northern part of Canada is mostly a lonesome place.

The North, says the report, is characterised by "small populations, a short growing season, permafrost, and long, cold, dark winters. The Extreme North and the Middle North are very different. The Extreme North is nearly uninhabited, has very little vegetation, continuous permafrost, ice-infested waters all or nearly all year, and very little precipitation. The Middle North has discontinuous permafrost, is heavily forested, more accessible, and is the

focus of resource exploration at this time. It is the region where the large majority of northern residents now live".

The people of the North, as distinctive as their environment, present problems for demographers. They move over large areas, there are cultural and linguistic differences, and many settlements are relatively isolated. Demographic statistics are thus more crude than elsewhere in the country. No accurate population figures exist on Métis and non-status Indians in Canada. The Native Council of Canada estimates 750,000 people on the basis of three Métis for each status Indian (295,215 in 1971 in all Canada). The total population of the North is about one million. Compared with the rest of Canada, they are younger and have received less formal education. There is a larger component of native people (especially in Saskatchewan, Manitoba, Quebec, and the Northwest Territories), and larger proportions of the population are engaged in forestry, fishing, trapping, and mining than in Canada as a whole.

Large communities are uncommon in the North: in 1971 only 29% lived in settlements of over 10,000, compared to 65% in Canada as a whole. Within the North, a community of more than 2,000 is an urban environment. Most of the immigrants settle in the larger centres: more than 70% of the non-natives live in the five largest communities of the Northwest Territories—Yellowknife, Inuvik, Hay River, Fort Smith and Frobisher Bay.

Epidemiological data indicate that health standards in the North are lower than in the rest of Canada. And although the birth rate has now begun to level off, the age structure of the native population resembles that of Latin America or Africa more than the rest of Canada. Twenty per cent of the inhabitants of the Northwest Territories speak neither English nor French, there are several native dialects, and in the Mackenzie River Valley and Delta, six native languages. "There is not really just one North in Canada", says the report. "The diversity of the North is as striking as its cold".

Historical overview first

To study this area, the council undertook a historical overview and case

studies of northern development. The work was synthesised in a discussion paper, which then served as the basic document for seminars and to solicit opinion from more than 100 people involved in northern affairs. All this led to the framing of the final report. The chairman of the Science Council Committee on Northern Development, W. H. Gauvin, notes in an introduction that the process covered a period when many important issues were emerging: the OPEC oil embargo, land claims by natives in the James Bay area, the first drilling from artificial islands in the Beaufort Sea, preparations for northern pipelines and extraction of oil from the sands and so on.

It is against this background that the report's recommendations must be set. It notes that the recent history of the North has been the product of two conflicting trends: the thrust toward large-scale exploitation of natural resources, and the desire to continue traditional resource harvesting activities such as fishing, hunting and trapping, which would lead to development based on smaller scale, locally controlled projects.

"The Science Council believes that both major trends should be accommodated in a *strategy of mixed development*", says the report. "Such a strategy would press for more economic and technological self-sufficiency for the North. Activities that can be logically defined and controlled would be favoured over those which tend to increase political and economic dependence, the need for welfare, or other undesirable social conditions. This means an emphasis on relatively low capital, decentralised, and small scale development".

The objectives of northern development espoused by the Science Council are similar to those expressed by the federal government: to promote the welfare of northern people, to maintain and enhance the regenerative capacity of the environment, to give renewable resource development a higher priority, and to encourage economically viable non-renewable resource projects that are in the national interest and will benefit—or at least not harm—northern residents and their environment.

This strategy of mixed development will require greater sensitivity to traditional patterns of land use, says the report. It also says it will involve extracting mineral resources more slowly than some "major participants" may desire. Ironically, shortly after the report appeared, the Energy Minister, Alastair Gillespie, was proposing encouraging exploration by the multinational oil companies by offering them tax cuts. The report emphasises

that the land has special significance for many native northerners, and needs to be valued in terms of its capability to meet a variety of needs not measurable in monetary terms.

The report also calls for greater recognition of the value of public participation in projects concerning the North. "The right of people directly affected by a project to have something to say about it is becoming more widely accepted. . . . In the North, in fact, complaints about adequate *consultation* have been so frequent that the question of *participation* itself is only now being raised. To pursue successfully the strategy of mixed development, there must be more than informing, educating, and consulting northern people about the needs of the rest of Canada for a certain project".

The report lays down four principles that should guide policies for northern development:

- Technological sovereignty: the ability of Canadians to control, direct and benefit from technological enterprises deemed essential to the country.
- Life-style flexibility: the need to allow opportunities for choices of life style.
- Maintenance of the regenerative capacity of the land.
- Comprehensive and balanced assessment and monitoring of large and small projects.

These four principles, it says, should govern the choice of all new research and development initiatives in the North.

Technological sovereignty has become a buzz word at the Science Council. The reason for applying it to the North is that there, as elsewhere, "Canadians and Canadian science and industry tend to place undue emphasis on foreign expertise and foreign consultants". The report says that foreign-owned firms tend to perform the research that has the greatest potential for long-term payoffs in their home countries.

In offshore Labrador, for example, where several companies are searching for oil and developing the expertise necessary for that environment, Canadian firms have participated in the data collection phase, but they have had very little to do with planning and design of production and transportation facilities. The nature of research activity in Canadian resource-related industries, then, tends to resemble the resource extraction industries themselves. That is, with few exceptions, Canadians provide the raw materials, but the control of the operation, the processing and, hence, long-term benefits tend to flow out of the country.

In order to support the proposed strategies for northern development the Science Council makes a number of proposals. One is that universities should play a greater role in the solu-

tion of northern problems. In spite of the efforts of the universities of Alberta, Saskatchewan, McGill, Chicoutimi, Laval, Memorial (in Newfoundland) and others, most northern research is now performed by industry and government. Canada needs a cadre of researchers not dependent on contracts from interested parties, the report says. The Science Council urges that funds for northern research be re-allocated so that grants are emphasised over contracts, and that the granting councils provide funds for logistic support over and above other costs, because northern research is costly.

In addition, the Council urges the establishment of a University of the North to provide the focus for northern research. This university should concentrate on such areas as resource management and systematising resource inventories, and should promote the innovation of northern technologies. Native peoples should play a central role in the choice of

research topics and in undertaking research. Funding should be primarily from the federal government, and the university at first would give only graduate degrees.

The report emphasises the need for an inventory of renewable resources, and other data on the North, and the need for improved communications. There is also a need for coordination and exchange of the information that would come out of a northern data bank system, particularly among those who fund northern research. "It is intolerable that Members of Parliament should regularly report difficulties in gaining access to technical and scientific information relevant to political decision-making", it says.

In the past, most scientific exploration of Canada's North has been carried out by scientists of other countries, and much of the North's development has been for the benefit of others. If the Science Council's recommendations are acted upon, that era may end. □

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Prospecting for metals in Canada's North