

# Canada and strategic minerals

by Jock Finlayson

There is growing anxiety about future access to needed minerals. A marked deterioration in East-West political relations, the Soviet and Cuban interventions in Africa since 1975, and the invasions of Zaire's mineral-rich Shaba province by Katangan rebels in 1977 and 1978 (perhaps with outside support) have led many analysts and policy-makers in various western countries to conclude that the West is increasingly vulnerable to drastic increases in prices and to interruptions in the supply of "strategic" non-fuel mineral commodities.

This growing interest in the politics and economics of international resources trade has also been stimulated by such diverse causes as the sharp increases in petroleum prices engineered by OPEC, the oil embargo instituted by Arab petroleum producers during the 1973 Middle East War, the astonishing rise in virtually all primary commodity prices during the 1972-74 commodity "boom," the formation and strengthening of producer cartels for such commodities as copper, bauxite, iron ore, natural rubber and bananas, and increasing concern about the depletion of essential non-renewable mineral commodities. This increasing anxiety is mainly directed to those minerals exported by southern African countries and the Soviet Union, although some other minerals and suppliers do pose problems.

Traditionally, certain minerals were deemed to be strategic because continued access to them was seen as essential for the maintenance of adequate national defence preparedness and for the prosecution of war. In the last decade, however, concern has mounted over the more general economic and social consequences of sudden interruptions in mineral supplies to the Western industrial countries. The dislocation caused by periodic reductions in petroleum deliveries during the 1970s serves as an indication of the difficulties that can result from supply curtailments.

Table 1 provides data on the import dependence of Canada, the United States, the European Community and Japan for eleven minerals normally included in discussions of Western minerals vulnerability. A brief glance at the table indicates that Canada is in a very favorable position compared to its allies. Canada is self-sufficient with respect to the crude forms of all but four of these minerals. The

*Jock Finlayson is Research Associate in the Institute of International Relations at the University of British Columbia in Vancouver. He was supported in his research for this article by the Department of National Defence.*

EEC and Japan depend on external sources of supply for at least eighty percent of their requirements for all eleven, and for one hundred percent in the cases of four or five. The United States is less exposed to foreign producers than the European Community or Japan, as it satisfies most of its demand for iron ore and copper through domestic mine production and also produces significant quantities of nickel, tungsten and zinc. Nonetheless, the US is much more import-dependent than Canada, and is likely to become considerably more so in spite of recent efforts to increase mining activity in parks and other areas under

**Estimated Import Dependence of Canada, the U.S., the EEC and Japan:**  
Imports as a Percentage of Apparent Consumption in the late 1970s

MINERAL	CANADA	U.S.	EEC	JAPAN
BAUXITE	100	93	95	100
CHROMIUM	100	90	100	100
COBALT	—	98	100	100
COPPER	—	13	95	98
IRON ORE	—	30	80	95
MANGANESE	100	98	100	98
NICKEL	—	92	100	100
PLATINUM GROUP	—	90	100	100
TIN	95	82	88	98
TUNGSTEN	—	57	99	98
ZINC	—	62	80	80

Sources: Amos Jordan and Robert Kilmarx, *Strategic Mineral Dependence: The Stockpile Dilemma*, the Washington Papers, Volume VII (Beverly Hills: Sage Publications, 1979), p. 40; Mineral Commodity Summaries, 1981 (Washington: U.S. Bureau of Mines, Department of the Interior); and data from the Department of Energy, Mines and Resources, Canada.

**TABLE 1**

federal control, developments resulting from the relentless depletion of ore deposits and higher production costs.

## The Canadian patrimony

The Canadian supply situation with respect to these minerals is more complicated than the simple figures in Table 1 suggest. Although the country is self-sufficient in the *crude forms* of cobalt, copper, nickel, platinum and tungsten, it must turn to external sources to obtain many of the *processed and fabricated forms* of these minerals. Thus the existence of mineable domestic ores does not necessarily mean that security of supply is assured, for it is essential to obtain minerals in forms which are usable in industry. However, Canada is fortunate in that it imports most of its fabricated mineral raw materials from the United States and Western Europe, which can be considered relatively "reliable" suppliers. Significant quantities of Canadian mineral ores have long been sent to the US or