

has on the environment is a topic of current concern, and great benefits are derived from co-ordinated studies being conducted in both hemispheres. Similarly, one of the earth's geomagnetic poles is in Canada while the other—or its conjugate point—is in the Antarctic, thus, Canada is an obvious location for conducting co-ordinated studies of high-latitude geomagnetic phenomena. Also, cold and heavy bottom water formed in the polar and sub-polar parts of the oceans are exchanged between the two hemispheres; for example, waters from Antarctica influence the Grand Banks off Newfoundland. Clearly, Canada can contribute significantly to bipolar studies, and we have much to gain by joining other scientific groups in such investigations. On a global scale, Canada is a relatively minor player in science and technology activities, and is a net importer of new knowledge. We may want to make our facilities in the North more accessible to foreign scientists as a means of enhancing international co-operation on bipolar phenomena.

Science for Science's Sake

In the current climate of severe economic constraints, allocations to scientific activities are frequently justified in terms of specific (often economic or commercial) benefits that may result from the activity. It is important to note that such utilitarian motives have not been important in justifying scientific activities in the Antarctic. The pursuit of new knowledge for its own sake has been the driving force behind the scientific activities of most countries. The Antarctic Treaty established the continent as an area of "peace and science" where scientific studies would be a major activity and where related information would be freely shared among the parties.

Dispersed Federal Interests

Several federal departments have broad mandates that include Antarctica. For example, the Department of Foreign Affairs and International Trade is responsible for the intergovernmental and policy aspects of the Antarctic Treaty, including the Protocol on Environmental Protection; Environment Canada, through the Atmospheric Environment Service, has a significant interest in meteorological data from the area, particularly for studies of stratospheric ozone distribution, and for the development of global circulation models and Global Change studies; Fisheries and Oceans Canada has an interest in global ocean-current models and holds parts of international databanks containing Antarctic data; Natural Resources Canada's mandate extends to the study of glaciology and plate tectonics far beyond Canada's borders; and the Department of Indian Affairs and Northern Development is involved, because the minister is responsible for the Canadian Polar Commission. There is no co-ordination at the national level and no exchange of information among federal scientists involved in Antarctic studies, because it is not a major priority for any