During February 2000, the Churchill Northern Studies Centre hosted the Fourth Circumpolar Ecosystems Conference and Workshop. Of more than 120 participants, 92 travelled to Churchill from all directions, with strong representation from the Kivalliq Region of Nunavut. By many definitions, well over 50% of Canada is northern in nature. While this fact of physical geography is well known, the human implications need to be considered as well. That is, over 50% of Canada is sparsely populated by hunter-gatherers, who are now facing a myriad of critical concerns affecting their survival. Land-based villages have concentrated people who were previously distributed throughout the land and sea ice wherever the resources were most numerous. In addition to centralization, stress on the resources from overpopulation and long-distance transport of contaminants have contributed significantly to the decision by many governing bodies to pursue a market economy as one alternative strategy. North-south transportation is minimal and very expensive; consequently, it is a challenge to find competitive venues for this fledgling economy. In the absence of agriculture, I suspect that hunting and gathering will be the most viable option in all the circumpolar regions for some time to come. Consequently, the objective of the Circumpolar Ecosystems meeting was to bring together Northerners and scientists to exchange information and discuss relevant options for sharing indigenous knowledge and scientific research. This has been done in the traditional winter environment that dominates northern processes and lifestyles.

A number of themes were developed at the meeting. One theme was adaptation to the changing climate. Although in general the ongoing warming has brought a decline in the period of annual snow and ice cover, the timing of seasons has become unpredictable. Changes in large-scale atmospheric circulation have been associated with a greater input of contaminants from southern latitudes, which is a major cause for concern. Another theme was that the approach to the coastal marine environments must be consolidated. For example, aspects of the Hudson Bay ecosystem involve the jurisdictions of three provinces and one territory, as well as aboriginal, federal, and international jurisdictions. It was suggested that a cooperative framework is needed in approaching systems like that of Hudson Bay. The final theme was that we need strong north-south communication and the establishment of a comprehensive northern ecological monitoring and assessment network in support of the issues relating to the other themes. The discussions relating specifically to Hudson Bay have been published by the Churchill Northern Studies Centre (2000) as a report entitled “Addressing Climate Change in Hudson Bay: An integrated approach.”

The seven papers included here represent contributions from over 40 presentations on the themes of the conference and outdoor workshop. The meeting was sponsored by the Canada Millennium Partnership Program, the Climate Change Action Fund, the Meteorological Service of Canada, Fisheries and Oceans Canada, the Canadian Polar Commission, the Ecological Monitoring and Assessment Network of Environment Canada, the Canadian Wildlife Service, Kaufman Footwear, CALM Air International, Manitoba Hydro, Blackwell Science, Parks Canada Agency, OmniTRAX, the Churchill Chamber of Commerce, Conservation Manitoba, Northern Lights Cinema, The Arctic Trading Company, Northern Images, and Great White Bear Tours. I would particularly like to thank the residents of Churchill; Senator Willie Adams (Nunavut); the Honourable David Anderson, Minister of the Environment, Canada; the Arctic Institute of North America; and the Kivalliq Inuit Association for their support and cooperation.

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