

## No Time To Lose

# The Challenge of Global Warming

The average temperature of the Earth is rising. Many scientists believe that this temperature increase is an early manifestation of a global warming that is being precipitated by the emission of certain gases from the industrial and agricultural activities of humanity. If present trends in the atmospheric accumulation of so-called "greenhouse gases" — principally carbon dioxide, CFCs, methane and nitrous oxide — continue, they will reach the equivalent of twice the pre-industrial level of carbon dioxide within 40 years. How this change will affect global climate is uncertain but the scientific consensus today is that temperatures will rise by an average of 1.5° to 4.5° C, with larger increases at high latitudes and smaller increases in the tropics. This warming would be sufficient to alter rainfall patterns and temperature regimes around the globe and to increase mean sea level, perhaps by a half-metre or more. This is likely to be accompanied by changes in wind patterns, ocean currents, the accumulation of snow and ice in polar regions, the frequency of severe storms, variations in the range of disease-bearing organisms and changes in natural ecosystems such as forests and wetlands. In turn, these changes would affect the habitation patterns and agricultural and industrial activities of the human population. One of the key events that expanded the debate about global warming from the scientific domain into the political arena was the Toronto Conference on "The Changing Atmosphere: Implications for Global Security", held in June 1988.

Given the mounting evidence that human activities are beginning to alter the basic equilibrium processes of the Earth, this Committee in 1989 launched a study of global climate change from a Canadian perspective. We wanted to assess the state of knowledge regarding human-induced change in the Earth's climate, its potential impact on the welfare of Canadian and global society, Canada's role as a precipitator of climate change, and policies which we could recommend to reduce both Canada's emissions of greenhouse gases and those of other countries through our foreign aid and trade policies and the export of appropriate technologies and expertise. Today, having heard almost 60 witnesses on the subject and having received more than 200 public submissions, the Committee presents its principal findings in this **interim report**. The Committee's detailed analysis and a more lengthy set of recommendations will be presented in a comprehensive final report.

The Committee presents its interim report on the eve of the Second World Climate Conference in Geneva. This meeting is expected to provide the framework within which countries can take national and international initiatives to limit and reduce climate change.