

emergency response. The Canadian Emergency Response Model and the Trajectory Model track and predict the atmospheric transport of pollutants and volcanic ash plumes globally.

## Challenges and Next Steps

Current global and regional air issues are strongly interrelated. Implementation of the policies to address air management issues falls largely on provincial governments, while much of the research takes place at the federal level. Through the National Air Issues Coordinating Committee, Canada seeks to ensure the integration of policy and science surrounding air issues, which have been developed in relative isolation in the past.

We must continue to enhance our predictive capabilities concerning climate change by increasing our understanding of the role of oceans, key land surface processes, clouds, and aerosols. The Climate Research Network, linking government and university researchers, is one tool for our assessment of climate change and variability.

Prior to Canada's NAPCC, energy-related greenhouse gas emissions were forecast to rise by 13 percent over 1990 levels by the year 2000 (see figure). The challenge we face is to close this gap.

The Voluntary Challenge and Registry (VCR) Program is a key element of the NAPCC. The VCR invites Canadian companies and organizations to express their intention to participate, on a voluntary basis, and develop action plans to limit net greenhouse gas emissions. A public registry will document the commitments, action plans, progress reports, and achievements of all participants.

Our progress in meeting our climate change goals will be assessed and our program updated on a regular basis against the recommendations stemming from the first meeting of the Conference of the Parties to the Framework Convention on Climate Change. The first review of the NAPCC, expected by the end of 1996, will provide insight into the effectiveness of Canada's response and any need for additional measures.

The mechanisms involved in depletion of stratospheric ozone over the Antarctic are known sufficiently to promote confidence in the effectiveness of measures under the Montreal Protocol and its amendments. An important current objective of the Canadian stratospheric ozone science program is to determine more exactly the mechanisms responsible for ozone depletion at midlatitudes (e.g., over Canada) where we can explain about half the depletion that has actually occurred.

With new international programs for managing persistent organic pollutants emerging on various geographic scales ranging from bilateral with the United States to global, efforts are required to ensure consistent and complementary approaches within the various forums. These, and other issues, are being addressed through partnerships between governments, the private sector, communities, universities, and other institutions.

*Natural Resources Canada encourages Canadian fleets to reduce operating costs and environmental impacts through energy-efficient practices and the use of alternative fuels. Activities include driver-training programs, information materials, and technical demonstrations. A more comprehensive program will be launched early in 1996. To encourage fuel efficiency within its own vehicle fleet, the federal government launched the FleetWise program in 1995 to assist federal government fleets to cut costs by increasing fuel efficiency in the federal fleet and to reduce the environmental impacts of the 25,000 vehicles in the federal fleet.*