



Monique Landry: Preparing the ground for a new era of attention and greater concern for the environment.

The commission, chaired by the Prime Minister of Norway, Gro Harlem Brundtland, called for new efforts by national governments to link economic development and environmental protection, and highlighted the depletion of the world's natural resources as a potentially devastating problem.

In her response to the Brundtland Commission, Canada's External Relations Minister Monique Landry emphasized the importance of promoting development "that doesn't assume resources are cost-free and endless," and "that doesn't force the poor to destroy tomorrow's resources just to stay alive today." The new program emphasizes a preventive approach to environmental management, in which potential problems are identified and addressed through a complete impact assessment at the earliest stages of a development project.

As well, Canada will continue to back developing nations in their efforts to establish appropriate environmental monitoring agencies and to collect reliable data on available natural resources.

The Canadian government has already provided bilateral support for the development of national conservation strategies in Nepal and Pakistan, and for the operation of the Environmental Management and Development Institute in Indonesia. It will contribute almost \$300 000 to a two-year environmental development education program for Canadian schools, to "prepare the ground for a new era of attention and greater concern for our environment," Mrs. Landry said.

Engineering Centennial Celebrations

Canada's transcontinental railway, the St. Lawrence Seaway, and a light but powerful bush plane developed by de Havilland Aircraft Ltd. have received top honours as the most exceptional feats of Canadian engineering over the past 100 years.

The nation-wide contest was a highlight of centennial celebrations to mark the founding in 1887 of the Canadian Society of Civil Engineers, the nation's first professional engineering association. Entries were selected for their national significance, as well as their international impact. The list of 10 outstanding projects also included:

- the Alouette telecommunications satellite;
- a popular and versatile snowmobile manufactured by Bombardier Ltd.;
- a state-of-the-art telecommunications system developed by Bell Canada;
- a 735-kilovolt electric power line built by Hydro Quebec;
- a unique process that yields petroleum from "oil sands" in the western province of Alberta;
- the Candu nuclear reactor; and

■ a major petrochemical complex in southern Ontario constructed by Polysar Ltd.

Other events to mark the engineering centennial included a technology and engineering exposition featuring 170 holograms from 40 countries, a major exhibit highlighting the engineering and architectural achievements of Leonardo da Vinci, and a major, four-day professional symposium, all in Montreal.

As well, Canada Post issued a commemorative stamp for the centennial on May 19, and the Montreal-based Engineering Centennial Board published the first book-length history of Canadian engineering in co-operation with the National Museum of Science and Technology.

Focus on the "Greenhouse Effect"

National Research Council (NRC) scientists have been working with their American and British counterparts this summer to study the effect of heat, moisture and carbon dioxide on crop growth, and to test the effectiveness of different airborne measuring techniques.

Flying a Canadian Twin Otter aircraft over Kansas, U.S.A., grasslands, and using sensing equipment developed with the help of Agriculture Canada, the NASA-sponsored study team gathered extensive data that will be compared with measurements collected on the ground and by satellite.

The information will help researchers predict how quickly crops will grow under different weather and climatic conditions, and will contribute to the study of the "greenhouse effect," the name scientists give to the probable long-term warming of the earth's climate due to large-scale emissions of carbon dioxide into the atmosphere.

Alzheimer's Disease: Searching for Clues

A study team based at the National Institute for Health Sciences Research (NIHSR) in Quebec City has developed a new approach to find the cause of Alzheimer's Disease, a debilitating and often fatal illness that afflicts an estimated 300 000 Canadians over the age of 65 and as many as 2 million North Americans.

The gradual deterioration of memory, judgment, and other mental abilities in some older adults has been recognized as a dreaded disease for centuries. But it wasn't until the early twentieth century that Alois Alzheimer published a clearly articulated, scientific description of the illness and its symptoms. Only in recent years has medical science developed the diagnostic tools to identify the biological effects of Alzheimer's and to begin the search for its cause.

The key to the NIHSR study, co-ordinated by Dr. Denis Gauvreau of the University of Quebec, is the use of a population database covering five generations between the years 1842 and 1971. While the researchers will explore a variety of possible causes, the database enables them to track genetic factors that might contribute to the development of Alzheimer's. At the very least, the team hopes to establish a "genetic predisposition" to the disease in certain families within the sample.

The second stage of the project will explore possible environmental and occupational causes, and will also determine the socio-economic and geographic distribution of Alzheimer's within the sample population. The final stage will address well-known biological and molecular aspects of the disease in order to identify specific signposts that precede its onset.