management by electric utilities, changes in electricity pricing and regulatory structures, and systemic changes in urban centres, e.g. increased public transit and improved traffic flows. On the basis of continuing reassessment, additional measures will be considered. The use of economic instruments to achieve environmental objectives, including taxes and an emissions trading system, is under discussion. Finally, the Government will significantly increase its commitment to scientific research on climate change, including more sophisticated climate modelling and monitoring.

2. Factors Influencing Decisions

In the Canadian constitutional system, provinces have rights of resource ownership and legislative powers in wide areas of energy and environmental policy. The federal government has responsibility for overall economic policy and international and interprovincial trade. Federal, provincial and territorial governments cooperate closely in the matters of energy and environment, with regular meetings of the Federal-Provincial-Territorial Ministers of Energy, as well as the Canadian Council of Ministers of the Environment. The development of comprehensive regional and national action plans therefore involves a large degree of cooperative effort at all levels.

The energy sector plays an important role in the Canadian economy as a source of employment, national income, and export earnings. In 1988, the energy supply sector accounted for 7 per cent of GDP and 14 per cent of total investment. Energy related activities provided about 3 per cent of employment. Canada is rich in virtually all energy resources, including hydroelectricity, and is a net exporter of all the main energy commodities. It is the world's leading uranium producer and exporter. Currently, Canada sells about 38 per cent of its energy production abroad. In 1987, energy exports generated more than C$13 billion in revenue. Canada has currently the highest ratio of energy use per unit of GDP among the major energy users in the world. This energy-intensiveness is due to climatic conditions, geography-induced transport needs, a high standard of living, an industrial structure that reflects the plentiful and competitively priced energy, and export of energy-intensive commodities.

Both energy supply and demand differ greatly among regions and provinces, as do levels of urban development and industrial activity. Consequently, carbon dioxide emissions vary both in quantity and source across the country. Ontario, the most populous and industrialised province, accounts for the largest proportion of Canadian emissions of carbon dioxide. Alberta, which produces large amounts of oil and gas and uses mainly coal to generate electricity, is the next largest contributor. Quebec is a relatively minor contributor of emissions in part because of its hydraulic electricity generation. Regional variations in emissions are largely influenced by the way in which electricity is generated, by the proportion of electricity demand, and by the nature of the industrial structure. Fossil fuels are used extensively in electricity generation in the Atlantic region, Ontario, Saskatchewan, and Alberta. Ontario also makes extensive use of nuclear power. Quebec, Manitoba, and British Columbia rely heavily on hydro-electricity, and they tend to make more use of electricity, thus using less fossil fuel.