

universities (35%). Support of industrial R&D is provided principally through special programs designed to develop a research capacity in Canadian industry. Support of R&D in Canadian universities and related institutions is provided primarily through grants programs. Expenditures for natural science activities are shown in Tables 9.3, 9.5 and 9.6, and for social science activities in Tables 9.7, 9.8, 9.10 and 9.11.

Most federally-supported social science activities (72%) are performed intramurally. Data collection is the major activity (\$164.5 million planned for 1977-78) followed by R&D (\$127.3 million). Fifty departments and agencies devote resources to social science activities, 16 with annual expenditures of over \$5 million.

Three areas of the federal government account for approximately half the social science expenditures. For 1977-78, Statistics Canada was allocated \$148.0 million, Canada Council \$31.6 million and National Health and Welfare \$27.4 million.

### **Department of Fisheries and the Environment**

#### **9.2.1**

The Department of Fisheries and the Environment is the major funder of scientific activities. Expenditures for 1977-78 were set at \$313.8 million in natural sciences and \$14.6 million in social sciences.

A major performer of R&D is the Fisheries and Marine Service, operating nine research establishments across Canada with headquarters in Ottawa and research vessels on both coasts. Research concerns use and conservation of freshwater fisheries and marine resources. The service also conducts development activities in support of industries that depend on fishery resources. The Ocean and Aquatic Affairs Directorate conducts oceanographic research and surveys and charts coastal and inland navigable waters.

The Atmospheric Environment Service performs such basic research as studies of atmospheric electricity and applied research to support weather forecasting and data collection. Work is done on the climates of Canada and the application of meteorological information to such other activities as pollution research. The service collects large quantities of meteorological data, develops and tests meteorological instruments and operates the National Library of Meteorology at Toronto.

The Environmental Management Service consists of four main elements. The Lands Directorate is concerned with land classification, land inventory and land-use planning. Scientific activities consist of data collection and information services. The Inland Waters Directorate conducts research on the scientific aspects of the behaviour of water, on improved methods of water and waste water treatment and on the development of water treatment technology. Much scientific activity is conducted at the Canada Centre for Inland Waters in Burlington, Ont. The Canadian Forestry Service carries out most research into the protection and utilization of forest resources and improvement of tree growth. It operates regional laboratories, field stations and experimental areas across Canada. The Canadian Wildlife Service is responsible for research on the protection and preservation of wildlife.

The Environmental Protection Service is responsible for developing and enforcing environmental protection regulations and controls. It also informs other federal departments administering legislation under which environmental regulations are developed.

### **National Research Council of Canada**

#### **9.2.2**

The National Research Council (NRC) is the principal federal agency with responsibility for scientific activities. Created in 1917 to provide Canada with qualified scientists and to promote research, its operations cover all aspects of scientific effort through three programs: engineering and natural science research, scientific and technical information, and grants and scholarships in aid of research.

The engineering and natural science research program accounts for most of the council's intramural research. Its six activities are: basic and exploratory engineering and scientific research; research on long-term problems of national concern; research in direct support of industrial innovation and development; research to provide technological support of social objectives; national facilities; and research and services related to standards.