

ducts development activities in support of industries that depend on fishery resources. The Marine Sciences Directorate of the Fisheries and Marine Service, with a scientific budget of almost \$37 million in 1973-74, conducts oceanographic research and surveys and charts coastal and inland navigable waters.

The Environmental Management Service consists of four main elements: the Lands Directorate, the Inland Waters Directorate, the Canadian Forestry Service and the Canadian Wildlife Service. The 1973-74 scientific budget totalled \$83 million. The Lands Directorate is concerned with land classification, land inventory and land-use planning; its scientific activities consist of data collection and information services. The Inland Waters Directorate gathers, analyzes and disseminates data on quality and quantity of water and related resources; it conducts research on all aspects of surface and sub-surface water, the properties of materials in water and waste-water, hydraulics, and the science of lakes and lake behaviour. In-house R&D expenditures in 1973-74 were \$5 million and data collection activities cost \$9 million. Much of the scientific activity of the Directorate is conducted at the Canada Centre for Inland Waters in Burlington, Ont. The Canadian Forestry Service conducts most of Canada's research into the protection and utilization of forest resources and the improvement of tree growth, spending over \$20 million for current in-house R&D in 1973-74. It operates regional laboratories, field stations and experimental areas across Canada. Research on the protection and preservation of wildlife is the responsibility of the Canadian Wildlife Service which spent \$11 million on scientific activities in this area in 1973-74.

The Atmospheric Environment Service performs basic atmospheric research, such as studies of atmospheric electricity, and applied research to support forecasting and data collection activities. Studies are carried out on the climates of Canada and meteorological information is applied to other scientific activities such as pollution research. In addition, the Service is a major provider of scientific data through its meteorological data collection activities (current in-house expenditures of \$36 million in 1973-74). Other related activities include the development, testing and calibration of meteorological instruments and the operation of the National Library of Meteorology at Toronto.

The Environmental Protection Service has the principal responsibility for dealing with environmental problems, particularly the development and enforcement of environmental protection regulations and controls. Its principal scientific activity is data collection (over \$500,000 in 1973-74). The Environmental Protection Service also serves as an information source for other federal departments administering legislation under which environmental regulations are developed.

The National Research Council is the only agency of the federal government with responsibility solely for scientific activities. Created in 1917 to provide Canada with qualified scientists and to promote research, the Council has profoundly influenced the development of science in Canada. Its activities cover all aspects of the scientific effort — intramural research, support of university and industrial research and scientific and technical information services.

In-house R&D activities are conducted in the National Research Council laboratories which consist of seven divisions, located in Ottawa, and two regional laboratories — the Prairie Regional Laboratory in Saskatoon and the Atlantic Regional Laboratory in Halifax. The 1973-74 in-house research budget reached \$50 million (current expenditure). Over \$17 million was spent on basic research; the Council is the principal federal performer of such research.

The aim of the regional laboratories is to carry out research activity yielding social and economic benefits to the region. Research at the Atlantic Regional Laboratory is concentrated in the fields of biology and chemistry. At the Prairie Regional Laboratory the emphasis is on fundamental studies to provide groundwork for applied research in agricultural production, such as research into the biochemistry of plants, micro-organisms and proteins.

Scientists at the Division of Biological Sciences in Ottawa are studying the structure/activity relationship in biological systems. Projects include such areas as X-ray crystallography, molecular biophysics and immunochemistry. It is also concerned with environmental, food and radiation biology. The current interest in environmental problems has led to the creation of an Environmental Secretariat within the Division to review relevant literature and recommend scientific criteria for pollutant levels.