The bulk of the department's S&T activities is in the Research Branch which operates 52 research units across Canada. These specialize in local problems. In addition Agriculture Canada operates six national research institutes: the Animal Research Centre, the Biosystematics Research Institute, the Chemistry and Biology Research Institute, the Food Research Institute, the Land Resource Research Institute, and the Engineering and Statistical Research Institute.

S&T activities include research on soil properties; water use and water management; energy utilization; environmental quality research; research on production development including animal crossbreeding, feed lot systems and genetics; research relating to processing distribution, retailing and consumer concerns; and forestry research.

12.2.3 Energy, Mines and Resources Canada

The federal department of energy, mines and resources (EMR Canada) planned to spend about $385 million on its S&T activities in 1986-87, 70% intramurally and 17% in the industrial sector. EMR operates several laboratories across Canada including the Atlantic Geoscience Centre in Nova Scotia and the Pacific Geoscience Centre in British Columbia; the Canada Centre for Mineral and Energy Technology (CANMET), the Canada Centre for Remote Sensing and the Earth Physics Branch in Ottawa; the Institute for Sedimentary and Petroleum Geology in Calgary; the Cordilleran Geology Division in Vancouver; and coal research laboratories in Edmonton and Calgary, Alta. and Sydney, NS.

The department is responsible for geological surveys and the mapping of the Canadian landmass. The department also develops R&D policies to support national energy options, management and technical evaluation of the government's energy R&D program. See also Chapter 10, Mines and minerals.

12.2.4 Environment Canada

The federal department of the environment (Environment Canada) is fourth of the major spenders with estimated spending of $361 million for S&T in the natural sciences and engineering. Over 90% was being spent in its own laboratories with about one-fifth on R&D and four-fifths on RSA, primarily for data collection.

Environment Canada's activities occur in its four services: atmospheric environment, environmental conservation, environmental protection and Parks Canada. Environment Canada operates a series of laboratories across the country to cope with both regional and national environmental concerns. The inland waters directorate and the National Water Research Institute are in Burlington, Ont. and the National Hydrology Institute is in Saskatoon, Sask.

The atmospheric environment service was responsible for about 66% of the department's S&T expenditures. It provides historical, current and predictive meteorological, sea-state and ice information for all areas of Canada and contiguous waters. The service provides assessments of human activities in the atmospheric environment and conducts research on the behaviour of the atmosphere, wind-wave mechanisms and the dynamics of ice.

About 26% of Environment Canada's funding for S&T was budgeted for environmental conservation which includes water resources development; water quantity and quality research; hydrometric data collection and the development of inventories of land capability and use.

12.2.5 Natural Sciences and Engineering Research Council

The Natural Sciences and Engineering Research Council (NSERC) is the largest of the two university granting councils in natural sciences and engineering with planned expenditures of $326 million in 1986-87. The second council is the Medical Research Council with expenditures of $165 million. About 92% of NSERC's budget goes to Canadian universities and 2% to foreign performers with the bulk of the balance devoted to administration. Two activities account for 80% of the Council's program: grants to individuals and groups for expenses in support of research activities (research grants); and grants for advanced study and professional development in universities.

12.3 Major participants in social sciences and humanities

Five federal departments and agencies fund 64% of the total expenditures in the social sciences and humanities. The scientific and technological endeavours cover a wide range of activities including collection and dissemination of information, funding of basic research in universities and research on third world social problems.

12.3.1 Statistics Canada

With estimated 1986-87 expenditures of $350 million, Statistics Canada is by far the largest spender on social sciences and humanities (about five times that of the second largest spender). As the statistical agency of the federal government, Statistics Canada collects and provides