

services and the department started a rural program in 1976 to find ways to improve them. By early 1980 it had spent some \$2 million on efforts to stimulate design of products suited to rural telecommunication, provide an engineering and economic framework for development of federal policies and to promote federal-provincial co-operation in improving rural services. The rural program is evaluating such current technologies as satellite systems and fibre optics to encourage development of better rural communications and is working with a number of universities for technical studies and provincial government agencies for field trials.

Domestic security

14.1.3

In the human sciences field, the justice department carries out many activities related to protecting the life and property of Canadians and improving the effectiveness and fairness of the criminal justice system. These activities include preparation of background studies, analytical studies and evaluations of the whole judicial spectrum. The aim is to provide persons required to make decisions about the country's laws with a sound base of information, to point out areas in need of reform and to identify anomalies or inconsistencies in the system.

Related studies are carried out by the department of the solicitor general under a program to develop and publish information about prevention of crime and victim assistance, criminal justice policy and research on policing and corrections policy. Recent projects included a Vancouver study on the frequency and distribution of certain crimes and the impact on victims, and evaluation of a policing program applied by the tribal council on six Dakota-Ojibway reserves in Manitoba. A new publication program was started in 1977 and reports have been issued. The department has a program of matching contributions to selected research projects at university criminology centres.

Although most of its research is performed by the solicitor general's department, the Royal Canadian Mounted Police carries out some internally. Their program has included research into white collar and computer crime, gun control, child abuse and domestic violence, crime prevention techniques and police-community relations.

At the request of the Canadian Association of Chiefs of Police, the RCMP and NRC embarked on research into the development and improvement of police equipment. Major projects included were face shields for riot helmets, improvement in both tear gas and methods for its dispersal, use of lasers in fingerprint detection and bomb suits for handling explosives.

Energy

14.1.4

An interdepartmental panel on energy R&D has monitored and co-ordinated most of the government's energy R&D activities since 1976-77. Related S&T supported by the government, outside the responsibility of the panel, involves such aspects as environmental impact, resource assessments, socio-economic studies and major demonstration projects.

S&T activities directed by the government are concerned with conservation, fossil fuels, nuclear energy, renewable energy resources, and transportation and transmission of energy.

Energy conservation in the transportation sector is the largest program in conservation, particularly in plans for developing energy efficient automobiles, small aircraft and power plants. Conservation studies identified opportunities for potential energy savings, principally in heating and air-conditioning buildings; plans were under way for a high priority research, development and demonstration program to take into account both the retrofit and new construction markets.

Both cost and availability of energy are major elements in the government food strategy, described in Chapter 11. Resources in the federal agriculture department support energy R&D in food processing and in livestock structures, crop drying and greenhouse operations. For conservation and energy recovery, the environment department has been conducting a program in industrial and municipal wastes management. Projects were started for recovery of used oil and ferrous and non-ferrous scrap, re-use of waste paper and processing of used tires into rubber-asphalt compounds.