

these research missions constitute the bulk of federal government science activities. Several government agencies have no legislative and regulatory function or only a small one because constitutional authority in their fields belongs primarily to the provinces. Their primary role lies with their research mission. The National Research Council, the Department of Energy, Mines and Resources, and the Forestry Branch of the Department of Fisheries and Forestry are in that category.

The Committee is convinced that serious imbalances and weaknesses have developed in Canada over the years in this broad area of research missions where R&D activities are carried out for others. These deficiencies have appeared mainly because of the limitations of the Republic of Management and, more precisely, because the government has relied exclusively on a series of limited and isolated science policies, without having an overall view of what was going on and a global strategy for what had to be done.

#### INHERENT LIMITATIONS OF ISOLATED SCIENCE POLICIES

There is a striking analogy between government science activities and government financial activities. Both kinds of operations are carried out in one form or another by all departments and agencies. They both involve the transfer of something—money or information—from the federal government sector to others. In carrying out their specific mission, all government agencies must plan their expenditures, prepare a budget, and thus develop their own financial policy. In the same way, they must all make decisions about their science activities and thus formulate their own science policy.

But governments do not rely exclusively on the particular financial policies developed by their specialized agencies. If they did, they would have no overall financial policy or they would get one by accident. It is easy to imagine the kind of financial situation that would result in the absence of an overall financial policy. Yet this is precisely the approach that has been used by the Canadian government in dealing with its science activities. The results of this exclusive reliance on specific and isolated policies have not been too happy.

The Committee has found, through its historical studies, its international comparisons, and its evidence, that the broad directions of Canada's R&D effort were determined largely by the Republic of Science and the Republic of Management. At least six inherent limitations of that joint system can be identified.