

preventing soil erosion, and also in providing a habitat for native fauna and recreational facilities for all who wish to enjoy them.

10.1.1.4 Land use

The Lands Directorate of the Department of the Environment is responsible for investigating national aspects of land-use planning. It provides other agencies with a wide range of land resource data and co-operates with provinces in studies of land use and land-use planning.

The Canada Land Inventory is representative of work undertaken by the Evaluation and Mapping Branch. Under federal-provincial agreement all settled lands of Canada have been classified according to their capabilities for agriculture, forestry, recreation and wildlife. These data are used for land-use planning at the regional level. A computer system has been designed to facilitate use of this information for planning purposes.

The Land-Use Studies and Land-Use Planning Branches are involved in work where there is specific federal or national concern from a lands and environment viewpoint. This work most often involves a multi-disciplinary team and various levels and branches of government.

10.1.2 Forest depletion

The average annual forest depletion by cutting and fire is shown in Table 10.2 for the 10-year period 1962-71. The primary sources of Canada's current wood production are the areas of Crown forest land allocated to wood production and private forest land. These two ownerships constitute 434.8 million acres and, of that area, 1.8 million acres (based on 1968 information), or about two fifths of 1% were cut annually over the period 1964-68. On a volume basis, the average annual depletion from cutting was 3,853 million cubic feet (MM cu ft), which may be compared with an estimated permissible cut on a sustained yield basis of 8,481 MM cu ft from approximately the same areas of Crown and private land. In addition to cutting and fire, extensive forest depletion is caused by insects, diseases and natural mortality but no reliable estimates of these losses, either physical or economic, are available.

A large surplus of timber exists in Canada although there are shortages in some regions and in some species which could be overcome by increased silvicultural and management inputs where such are considered to be economic. Also, greater utilization of individual trees and of certain species could further extend the resource.

A total of 8,227 forest fires occurred across Canada in 1972, destroying 1.9 million acres of valuable forest land (Table 10.3). Despite a 7% increase in fire occurrence, acreage burned was held slightly below that for the 10-year (1962-71) average. However, the two most significant features of the 1972 season were the heavy damages and high firefighting costs; both showed an increase of 60% over the corresponding averages for the previous decade.

Through carelessness and incendiarism, man has been blamed for 69% of all forest fires reported in 1972 (Table 10.4). Lightning accounted for 2,524 fires or 31% of the annual total.

10.1.3 Forest administration

10.1.3.1 Federal forestry programs

The federal government is directly responsible through several departments and agencies for the protection and administration of forest resources in the Yukon Territory and Northwest Territories and on other federal lands such as the national parks, Indian reserves, military areas, and forest experiment stations. In addition, there are important federal responsibilities with respect to the nation's forest resources as a whole. These responsibilities, which relate to forestry research and development and the provision of information and technical services are defined and established by the Forestry Development and Research Act (1966) and the Department of the Environment Act (1970).

The primary federal organization concerned with forestry is the Canadian Forestry Service of the Department of the Environment. Its program covers seven categories: forest policy and program planning; production forestry; environmental and amenity forestry; background research; operations; extension services; and international forestry.

To promote improved management of forest resources and better forest products, the Canadian Forestry Service, through publications, workshops, seminars, etc., disseminates technical information to forest resource and wood processing managers. Forest advisory ser-