The estimates of wood volume, given in Table 8.1, are also subject to continued revision as more accurate and complete inventories are compiled. The 1986 national forest inventory is more standardized across the country than in the past and is derived from provincial forest inventories. The 1986 volume estimates encompass only inventoried areas, and estimates of wood volume are based only on productive forest land. The estimates, therefore, are low because 12% of the forest lands were not yet inventoried at that time but are representative of commercially accessible timber supplies.

8.1.2 Forest depletion

The average annual forest utilization by cutting is shown in Table 8.2. The primary sources of Canada's current wood production are the inventoried, non-reserved, productive forest lands that are south of 60°N latitude. These lands constitute 212 million hectares or nearly 87% of productive forest lands in Canada. It is estimated that the annual allowable cut is 225 million m^3. From 1982 to 1985, the annual average of wood volume harvested amounted to about 159 million m3. In addition to cutting, extensive forest depletion is caused by fire (see Table 8.3) and insects and diseases (see Table 8.4). Preliminary estimates of these losses average between 150 to 220 million m^3 annually. This gives a total yearly depletion of around 300 to 350 million m^3. Although this is still within the estimated mean annual growth of the forests, localized shortages are becoming evident. Coupled with this, the demand for forest products is expected to increase in the long run.

In order to be able to participate in expanding markets for forest products, forest growth, particularly in accessible areas, must be increased accordingly. In 1980, the Canadian Council of Resource and Environment Ministers endorsed a timber supply target of 210 million m^3 annually by the year 2000. This represents approximately a 32% increase above the 1982-86 average harvest. This increase will be possible through a concerted nationwide forest renewal and management program which is supported by forest development agreements between the provinces and the federal government, totalling $1.1 billion. Under the terms of the agreements, planting of cutovers is to be significantly increased, and areas receiving silvicultural treatments are to increase dramatically.

8.1.3 Forest administration, protection and regeneration

South of 60° latitude the provinces own 90% of the forests in the form of provincial Crown land. The rest is reserved for special purposes such as national parks or are private holdings. The Constitution Act, 1867 specifies that the provinces have direct responsibility for management of their public lands and the timber and wood on them. The federal government owns or administers about 95 million hectares, but most of this land is in the Yukon and Northwest Territories and is largely unsuitable for commercial timber production. Federal ownership in the provinces is only about 5.2 million hectares and mostly in national parks and military reserves and Indian lands which account for 2.6 million hectares. The federal government has major or shared jurisdiction over many policies and activities related to forest resources, fiscal management, regional development, trade and tariffs, transportation and environment. At least six federal departments have a major interest in forestry.

Federal. The principal federal forestry agency, Forestry Canada, provides national leadership through the development, co-ordination and implementation of federal policies and programs to enhance long-term economic, social and environmental benefits to Canadians, from the forest sector.

Forestry Canada undertakes research and development initiatives in the forest sector and encourages the transfer of technology from research to the provinces and industry. Its challenges and concerns are wide-ranging, and include cost-effective forest management and protection methods; chemical and biological pest control strategies; pesticide application technology; environmental impact of forestry practices; tree genetics; the use of biotechnology to improve growth and yields; and research on forest ecology. Research includes the use of sophisticated satellite technology to maintain a comprehensive national forest inventory and applications of high technology to improve methods of forecasting, detecting and suppressing forest fires.

In addition to conducting extensive forestry research, Forestry Canada administers cooperative research programs with the provinces and industry; gives financial support for forestry research and provides technical advice, scientific information and specialized services to federal departments and agencies, the provinces and the forest sector.

Forestry Canada is responsible for the formulation and co-ordination of federal forest policy. It also provides detailed statistics and economic information to forestry user groups, encouragement of new investments in the forest resource and Canadian forest products exports, as well as