

## 8.4 FOREST RESOURCES

Data on forest resources are aggregated and information on individual tree species are not provided in any terms. For the U.S., the forests are differentiated into two categories (i.e., hardwood and softwood), while in Canada there are three categories (i.e., hardwood, mixed and softwood). Quantitative information of the total volume of forest resources (yield), its growth (or annual yield) and value is provided in the inventory for each state or province and deposition regime.

### 8.4.1 U.S. Forest Resources

As of 1977, total commercial forest land in the U.S. was  $197 \times 10^6$  hectares, and the total timber volume was  $22.6 \times 10^9 \text{ m}^3$  (USDA 1978b). The annual growth was  $350 \times 10^6 \text{ m}^3$  of softwoods and  $270 \times 10^6 \text{ m}^3$  of hardwoods. The average stumpage price in 1978 dollars was \$27.50 per  $\text{m}^3$  for softwoods and \$8.60 per  $\text{m}^3$  for hardwoods (Ulrich 1981). Combining the annual growth and appropriate value estimates gives a value of \$11.9 billion to the net annual growth.

The total forest land area in those states east of the  $100^\circ$  meridian was  $145 \times 10^6$  hectares, and the total timber volume was  $9.8 \times 10^9 \text{ m}^3$ . The annual growth was  $224 \times 10^6 \text{ m}^3$  of softwood and  $252 \times 10^6 \text{ m}^3$  of hardwoods. Combining the annual growth and appropriate value estimates results in a value of \$8.3 billion for the net annual growth in the eastern United States.

The total forest volume and annual growth grouped by the two higher deposition categories are displayed in the Appendix to this section. Note that the data on annual growth are incomplete for several states. These data are not available on a county basis, so they did not appear in the data summary.

The volume and growth increments show a similar distribution among the four deposition categories (Table 8-10). Approximately 10% of the hardwood and softwood growth is found in areas of highest depositions and over 75% of the hardwood and softwood growth is found in areas of moderate deposition.

Although the aggregate 38 state data show that only 15% of the forest volume is exposed to sulphate deposition greater than  $40 \text{ kg/ha.yr}$ , individual state data show a different picture (Table 8-11). A significant portion of the forest areas in the states of Arkansas, Ohio and Texas receives sulphate deposition greater than  $40 \text{ kg/ha.yr}$ . In nine states 30% or more of the forest area receives sulphate deposition greater than  $40 \text{ kg/ha.yr}$ .