

## Indicator 1.01.

### Area and Percent of Forest by Forest Ecosystem Type, Successional Stage, Age Class, and Forest Ownership or Tenure

#### What is the indicator and why is it important?

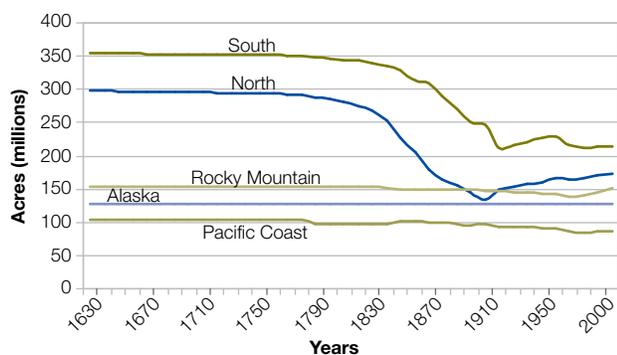
This indicator uses age-class distribution by broad forest type as a coarse measure of the landscape-scale structure of the Nation's forests. Within forest types, this serves as a surrogate for stand development or successional stage. A diverse distribution of forest lands across forest types and age classes is an indicator of tree-size diversity and is important for determining timber growth and yield, the occurrence of specific wildlife and plant communities, the presence of other nontimber forest products, and the forest's aesthetic and recreational values.

#### What does the indicator show?

Forest area in the United States stands at 751 million acres, or about one-third of the Nation's land area. Forest area was about one billion acres at the time of European settlement in 1630. Of the total forest land loss of nearly 300 million acres, most occurred in the East (divided into North and South regions in the accompanying charts) between 1850 and 1900, when broadleaf forests were cleared for agriculture (fig. 1-1). For the past 100 years, the total forest area has been relatively stable, although the U.S. population has nearly tripled.

Today, regional forest cover ranges from a low of 19 percent of the land area in the Rocky Mountain Region (fig. 1-2) to 45 percent in the Pacific Coast Region, 41 percent in the North, 40 percent in the South, and 34 percent in Alaska.

**Figure 1-1.** Historic forest area in the United States by geographic region, 1630–2007.



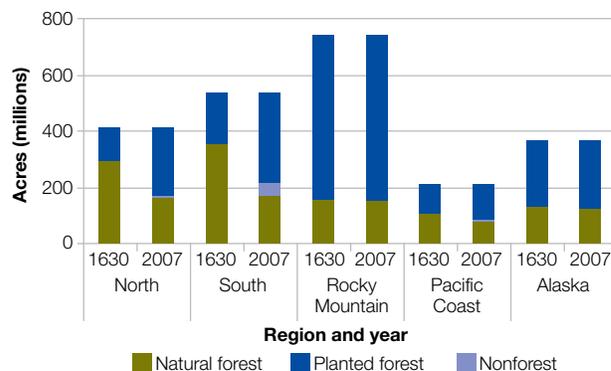
Source: USDA Forest Service, Forest Inventory and Analysis

**Broadleaf forests.** Broadleaf forests cover 290 million acres nationwide (fig. 1-3), predominantly in the North and South (239 million acres). With 139 million acres in the United States, oak-hickory is the largest single forest cover type. It constitutes more than 19 percent of all forest land in the United States and nearly one-half of all broadleaf forests. Covering 54 million acres, maple-beech-birch forests, are also dominant in the Eastern United States. Combined, these two upland forest types constitute nearly two-thirds of all broadleaf forests and have increased 25 and 39 percent, respectively, since 1977. Broadleaf types have a fairly normal age distribution, showing a bulge in the 40- to 79-year age-class, as second- and third-growth forests in the East continue to mature (fig. 1-4).

**Conifer forests.** Conifer forests cover 409 million acres in the United States and are found predominantly in the West (314 million acres) and South (69 million acres). Pines are the single-most dominant group of conifer forests. Loblolly-shortleaf pine and longleaf-slash pine types in the South and ponderosa and lodgepole pine types in the West combine to cover 121 million acres, or more than one-fourth of all conifer forest types.

The largest single conifer type, with 58 million acres in interior Alaska, is the spruce-birch type. Douglas-fir follows closely, with 39 million acres found predominantly in the Pacific Coast Region. Conifer forests are somewhat bimodal in age structure

**Figure 1-2.** Area of natural forest, planted forest, and nonforest land by geographic region, 1630 and 2007.



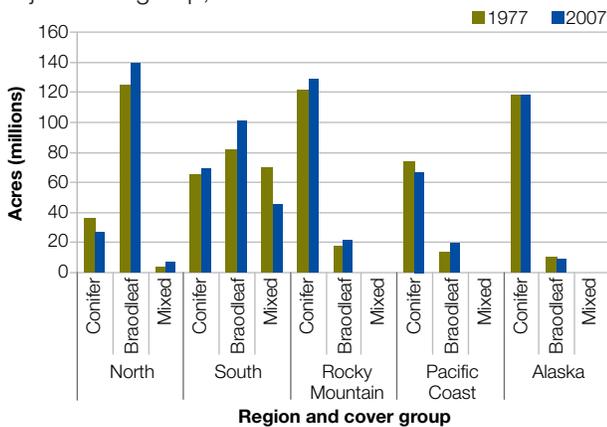
Source: USDA Forest Service, Forest Inventory and Analysis

with more acreage in younger age-classes because of more intensive management for wood production in the South and a preponderance of older stands in the West where most of the United States remaining old-growth forests occur and where recent policy changes have reduced harvesting of mature stands.

**Mixed forests.** Virtually all of U.S. mixed forests are found in the South, where oak-pine (30 million acres) and oak-gum-cypress (20 million acres) are the major forest types. Although oak-gum-cypress is found in the wet lowlands, oak-pine is usually found on the drier uplands of the South. The largest age class for these forests is 40 to 59 years old.

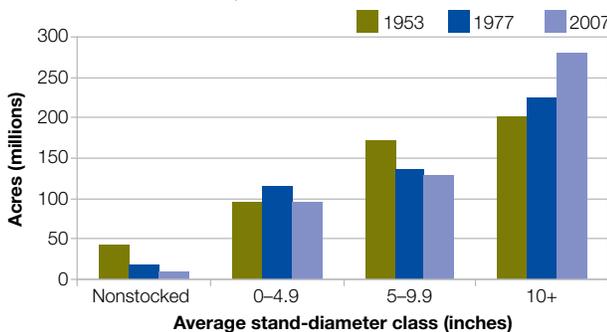
Although trend data on forest age-class are sparse, historic data are available for average tree size in forest stands (fig. 1-5). Stands with trees averaging 0 to 5 inches in diameter increase as older stands are harvested and regenerated. The recent trend in this diameter class is slightly downward. Although intermediate stands in the 6 to 10 inch diameter range have been declining, stands averaging more than 11 inches in diameter have been rising. This later trend is indicative of shifts in management that have decreased harvesting on public forests in the West, thus, increasing the acreage of larger diameter stands in that region, particularly in coniferous forests types.

**Figure 1-3.** Area of forest land in the United States by major cover group, 1977 and 2007.



Source: USDA Forest Service, Forest Inventory and Analysis

**Figure 1-5.** Trends in timber land area by average stand-diameter class, 1953–2007.



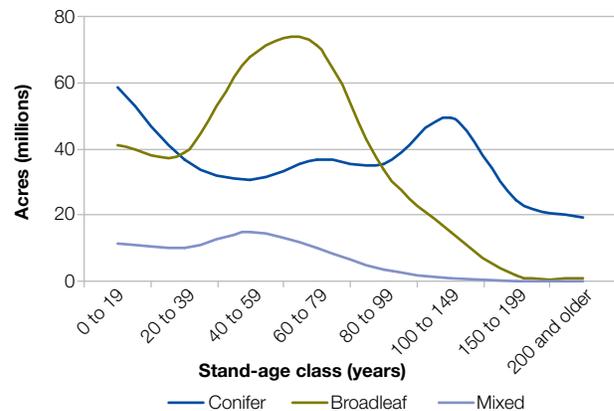
Source: USDA Forest Service, Forest Inventory and Analysis

Ownership patterns have a profound effect on forest management policies and activities. Although 81 percent of forests of the North and South are in private ownership, only 30 percent of forests in the West are in private ownership (fig. 1-6). Overall, 56 percent of U.S. forests are in private ownership. Thus, public land policies have a more significant affect on western forests and their use.

### What has changed since 2003?

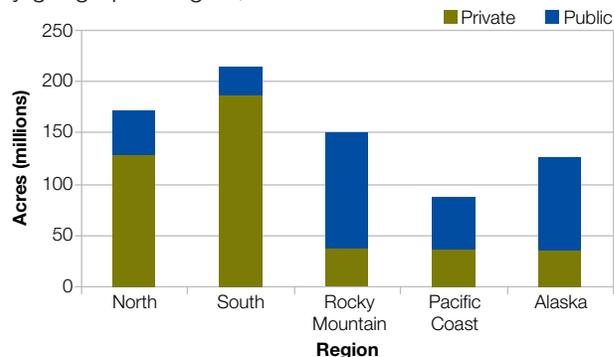
Forest land area has remained essentially stable since 2003. The data indicates an increase of 8 million acres (about 1 percent), but much of this increase came as result of changes in the classification of land cover types as either forest or nonforest. From a regional standpoint, a general loss of forest has occurred in the coastal regions of the East and West with offsetting gains in forest area in the interior region. Much of the loss can be attributed to urban sprawl, and much of the gain can be attributed to forest encroachment following decades of fire suppression. Generally the forest gained is of lower productivity than the forest lost.

**Figure 1-4.** Forest area by stand-age class for conifer, broadleaf, and mixed forests, 2007 (excludes Alaska).



Source: USDA Forest Service, Forest Inventory and Analysis

**Figure 1-6.** Forest land ownership in the United States by geographic region, 2007.



Source: USDA Forest Service, Forest Inventory and Analysis