Maryland has more than 2.7 million acres of forestland, and nearly 90 percent of it is in private ownership. Healthy, productive forests are critical in urban and rural areas for soil conservation, clean air and water, wildlife habitat, outdoor recreation, and aesthetics. In 1990, forest-based earnings contributed more than $400 million to the State’s economy.

The Resource

The Forest Stewardship program ensures the availability of a professionally prepared forest stewardship management plan for non-industrial, private landowners. As of May 1997, 2,823 stewardship plans have been written covering 160,870 acres. In 1997, an additional 383 plans were written.

A workshop sponsored by the USDA Forest Service and a cooperative agreement with the Society of American Foresters (SAF) will involve a training session for 200 resource professionals. This training program will focus on how to manage growing urban development and its effect on forest fragmentation.

Special Issues

Gypsy Moth — In 1997, 10,737 acres were treated to protect foliage and to suppress populations of the gypsy moth on forested residential land. In addition, federal land managers treated 2,658 acres at Blackwater National Wildlife Refuge. Treatment efficacy, in combination with the natural collapse of populations caused by the gypsy moth fungus, *Entomophaga maimaiga*, reduced defoliation dramatically to 569 acres, the lowest level since 1980.

Pine Shoot Beetle — Even though many destructive insects and diseases were introduced more than 50 years ago, more recent exotic introductions are also having an impact. A recent introduction of the exotic pine shoot beetle has now been found in three western counties (Washington, Allegheny, and Garrett). Although there has yet to be any impact, a federal quarantine has restricted the movement of pine material from the infested counties. In addition to the pine shoot beetle, 17 other exotic bark beetles are established in Maryland. Only some of these have had an economic influence, but the ecological impact is still to be determined.

Hemlock Woolly Adelgid — This insect produces masses of a cottony substance, which is evident throughout the year, but more conspicuous in the spring. The adelgid sucks the sap from young twigs, subsequently producing needle yellowing and dropping. Populations of the hemlock woolly adelgid across the state appear to be stable. A distribution survey has found the adelgid to be in the same area for the past five years. The infested area includes the metropolitan area between Baltimore and Washington and native stands of hemlock in Harford and Frederick Counties. As part of a mid-Atlantic multi-state survey, 13 plots have
been set up in six counties to assess the impact of the adelgid on the hemlock stands. So far, no tree mortality due to hemlock woolly adelgid has been reported.

**Elm Yellows** — This disease, caused by a phytoplasma, is likely transmitted by leafhoppers. The symptoms appear in late summer as yellowing, drooping, and premature leaf drop. All North American elm species are susceptible. This disease has significantly reduced the population of wild elms in the central part of Maryland. Future surveys will be undertaken to determine the extent of the impact of this disease.

**Exotic Plants** — The concern over exotic pests is not limited to insects and diseases. Non-native plants are also threatening forests and other native plant communities. Although the impact of insects and disease are often more obvious, non-native plants can overtake a site, preventing tree regeneration and reducing aesthetic value. Kudzu, multiflora rose, Japanese knotweed, and Japanese and amur honeysuckle have been found in many of the woodlots in Maryland.

**Urban Forestry**

A total of 36 municipalities in Maryland have either applied for or received official Tree City USA status. Tree City USA was originally established by the National Arbor Day Foundation to promote proper care for safety and beautification of city trees. The municipality is required to have a tree ordinance for the purposes of ensuring that city trees are correctly maintained and that hazard tree liability is clearly recognized.

Education of the public is an especially important objective in becoming an official Tree City USA.

Four new applications for this status were submitted in 1997.

**Watershed Protection**

The Watershed Protection and Flood Prevention Act authorizes the Secretary of Agriculture to cooperate with State and local agencies to plan and install needed water management and flood control measures.

The USDA Forest Service works in partnership with the Natural Resources Conservation Service (NRCS), the State Forester’s office, and other agencies to provide technical assistance to local watershed organizations. An example of this partnership in action is the Lake Linganore watershed protection project in Frederick County. In 1988, planning efforts helped to protect Lake Linganore from agricultural and urban runoff. As of March 1997, 342 acres of trees had been planted, and 32 landowners were assisted.

The Riparian Forest Initiative, which is sponsored by the Chesapeake Bay Initiative and the Conservation Reserve Enhancement Program, is involved with riparian buffer restoration. Within Maryland, 600 miles of buffer strips are projected to be planted with riparian species by the year 2010. Presently, 41 miles have been planted.