



Reforestation Fact Sheet

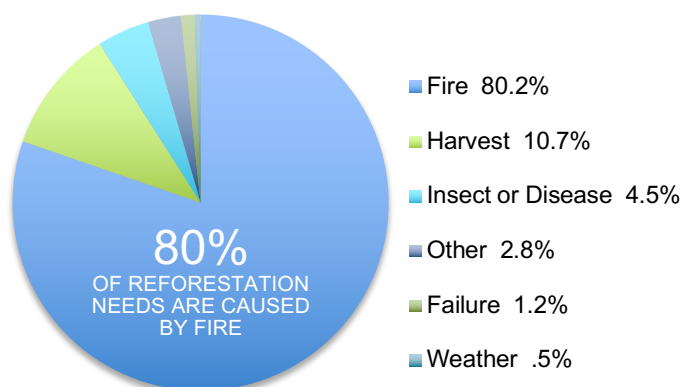
Healthy and resilient forests across the Nation provide countless benefits, including clean drinking water, wildlife habitat, forest products, hunting and fishing opportunities, and places to explore with our children and grandchildren.

On the National Forests

Postdisturbance—Uncharacteristic wildfire, insects and disease, extreme climate events, drought, and invasive species currently threaten our forests.

- Reforestation is a key tool for restoring our forests and helping them to adapt to changing conditions so they can continue to provide the benefits we depend on.
- The USDA Forest Service currently has 1.3 million acres of identified reforestation needs on national forest system lands with more than 700,000 acres needing planting or seeding and 600,000 acres requiring facilitated or natural regeneration.
- In 2019, the Agency addressed less than 5 percent of wildfire-caused planting needs on national forests.
- The consequences of not planting trees where reforestation is needed include conversion to nonforested conditions or much delayed forest recovery. This has the potential to impact water quality, erosion control, future timber harvest, carbon storage, wildlife habitat, recreation opportunities, and the overall health and resilience of our Nation's forests.

- **Who pays?** The Reforestation Trust Fund (\$30 million/year) provides the majority of funding for postdisturbance reforestation on national forests. The authorization for the reforestation trust fund has not increased since it was established 40 years ago. Partners, including the National Forest Foundation, Arbor Day Foundation, American Forests, and One Tree Planted, as well as regional and local partners, also provide funding for tree planting. Their growing support provides approximately 5 percent of funds for tree planting annually. However, our disturbance-generated reforestation needs are outpacing our ability to respond.



Post timber sale—After a timber sale, the Forest Service is required by law to ensure the area is reforested.

- **Who pays?** Reforestation after a timber sale is paid for by proceeds from the timber sale that are deposited into the Knutsen-Vandenburg fund (a Forest Service trust fund) or through funding from stewardship contracts or Good Neighbor agreements.



The USDA Forest Service plants approximately 60,000 acres per year or about 18 million trees annually on national forest system lands. The Forest Service Nursery System produces nearly 35 million native tree and plant seedlings per year for national forests and other Federal lands, as well as for States and Tribes.



On the Nation's Forests

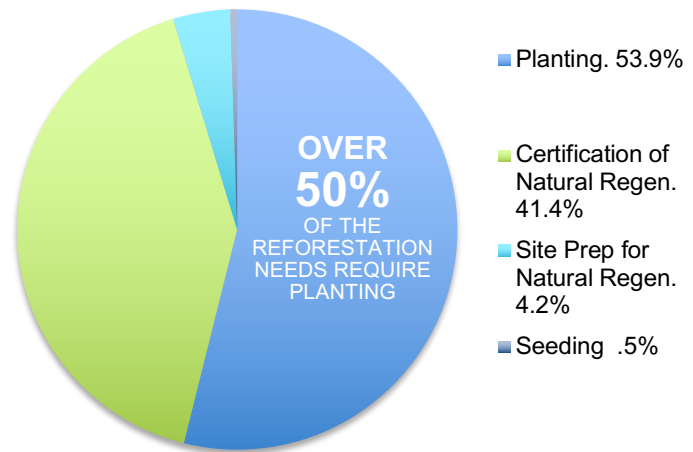
Eleven million private forest owners own more than half the forest land in the United States (441 million acres). That land stores 14 billion tons of carbon.

- The Forest Service, through State forestry agencies and partners, provide reforestation technical assistance to private forest landowners.
- **Who pays?** State forestry agencies utilize forest stewardship funds (Forest Service appropriated funds) and the Rural Forestry Assistance authority to maintain tree nurseries that grow and distribute tree seedlings. Forest Service provides funding and technical assistance to Federal nurseries to produce healthy and high-quality seedlings.
- Twenty-nine States and Guam operate tree nurseries that produce over 117 million native tree seedlings per year. Thirty States operate seed orchards that provide seed stock for State tree nurseries.
- Forest Service helps through:
 - Conducting annual tree nursery surveys and maintains an online directory of businesses that support the propagation of tree seedlings.
 - Monitoring planted seedlings to reduce the need for multiple replanting efforts.

Steps to a new forest—Reforestation is accomplished through either the planting of native trees or seeds or by facilitating tree regeneration from seeds already present on the site.

To plant native trees, we must:

- Collect seeds (some conifer trees may only produce seeds every 2–5 years).
- Grow seeds in nursery for 1–3 years.
- Prepare the forest site for planting (clear brush, invasive species).
- Plant trees (generally 200–1,000 trees/acre, depending on location, with Agency average of 300 trees/acre).
- In 10–20 years, thin the forest so the remaining trees stay healthy.



Role of Research

The Forest Service Research and Development branch helps land managers by:

- Quantifying the carbon benefits of planting trees and maintaining forests. For example, research shows that if 1 million acres of national forests were reforested following wildfires, it would result in 500,000 metric tons sequestered per year.
- Summarizing the effects of disturbance on forest conditions on all lands and over a full range of disturbance intensities, including monitoring trends in post-disturbance regeneration and forest recovery.
- Quantifying conditions immediately following disturbances, compare to previous conditions, and monitor forest regeneration through time by using the Agency's extensive Forest Inventory and Analysis plot network.