

# Indicator 7.46:

U.S. Forest Sustainability Indicators <https://www.fs.fed.us/research/sustain/>

## Cross-sectoral policy and program coordination

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October 3, 2018

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

A broad range of biophysical, economic, and social influences affect forests. Many of these influences originate beyond the forest community in sectors such as agriculture, housing, water, energy, and transportation. Urban development and other nonforest land-use decisions and actions can have significant effects on forests and the goods and services that they provide. Developing policies and programs that have coordinated aims, strategies, and instruments across multiple sectors can produce comprehensive solutions to the complex problems threatening forests and their sustainability. This indicator is closely linked to Indicator 7.52 describing partnerships that support the sustainable management of forests. These two indicators should be cross-referenced for complementarities.

### What does the indicator show?

In the United States, an expanding array of forces influence forests, and these forces stretch far beyond the forest sector. Complex issues, such as water consumption, open-space preservation, and biodiversity protection typically intersect with forests, crossing ecological, economic, social, political, administrative, and legal boundaries (fig. 46-1). Traditionally, a relatively autonomous policy sector (e.g., Federal and State forestry agencies) has addressed forest issues. However, there is increasing emphasis on the development of cross-sectoral policies and programs that link related policy networks, purposes, and desired outcomes, many of which focus on a landscape-scale perspective.



Figure 46-1—Key policy sectors interacting with forests in the United States.

**Land use.** Land cover in the United States reflects a dynamic pattern of land use. Multiple sectors—which often are at odds across space and time—influence these patterns. Forests cover 33 percent (766 million acres) of the country, active cropland covers an additional 19 percent (361 million acres), and developed land covers another 6 percent (113 million acres). Although developed land is a comparatively small fraction of the total land area, according to the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service’s National Resources Inventory, about 16 million acres of forest land, 12 million acres of pasture and rangeland, and 11 million acres of cropland were converted to developed uses between 1982 and 2007. Ultimately, shifts between agriculture and forest, and the ongoing loss of both to development, reflect the importance of policies and practices beyond the forest sector in determining forest extent, health, and composition.

Local governments primarily regulate urban and housing development in the United States through traditional land-use controls, such as zoning and performance standards. These controls may provide for natural resource protections, but they also often permit resource

removal and land-use change. A 2012 U.S. Environmental Protection Agency study on residential construction trends in metropolitan areas measured a significant shift toward denser development and suburban to urban migration during the 2000s, particularly in areas with more rigorous regional land-use plans. Yet, during the latter half of the decade, 205 of the 209 (98 percent) metropolitan regions studied continued to grow outward faster than they were growing inward when measured on a per-housing-unit basis. “Smart growth” or “smart development” initiatives generally focus on balancing long-term urban growth and development with the preservation of natural lands and sensitive areas, protection of water and air quality, and reuse of already-developed land. These initiatives have been promoted as an alternative approach to local-level land-use planning and development. On the rise in many parts of the country since the early 1990s, these approaches have been shown to be effective in addressing cross-sectoral sustainable development.

Various fiscal mechanisms promote sustainable land use and development, including financial support for the acquisition of forested areas and other open spaces. Local authorities create municipal bonds to fund land purchases and/or the transfer of development rights through conservation easements. At the Federal level, the Land and Water Conservation Fund (LWCF) provides financial resources to Federal, State, and local governments to acquire land, water, and conservation easements in critical areas. Since its inception in 1965, the LWCF has distributed more than \$9 billion to purchase or acquire more than 7 million acres of new parks and recreational lands and to protect thousands more through State and local development projects. Nevertheless, private forest land in the United States is expected to face continued and significant pressure from development and other drivers for the next few decades at least, especially in the East, which has the largest area of private forest land.

**Water.** Water supply and demand issues in the United States drive cross-sectoral and intergovernmental policy and program developments that increasingly focus on forest protection, particularly since approximately two-thirds of the freshwater in the United States originates from forested watersheds. The Federal Government promotes sustainable water use and conservation of water sources across multiple sectors and levels of government. For example, the Urban Waters Federal Partnership, established in April 2013, includes 11 Federal entities and a wide range of State and local agencies and nongovernmental organizations in a landscape-scale approach to water conservation from the upstream forest to the downstream faucet, with a specific focus on revitalizing urban waters and the communities that

surround them. State and local governments also engage in collaborative, cross-sectoral water conservation and watershed protection initiatives. Private-sector companies and organizations that rely on water supply and directly or indirectly affect forested watersheds are also engaging in water conservation and watershed stewardship initiatives.

**Energy.** As energy demands and costs have continued to rise in the United States and around the world, so too have policies and programs promoting renewable energy sources and uses, along with efficiencies in their production and processing. Wood-based energy comprises about 2 percent of the total energy consumed nationally (Indicator 5.24). Policy developments, such as the Renewable Electricity Production Federal Tax Credit and the Energy Independence and Security Act (EISA), have spurred new markets for wood-based energy. In particular, EISA combines mandates and subsidies to promote increased use of liquid biofuels for domestic transport, requiring American fuel producers to gradually increase their supply by 2025. Cross-sectoral initiatives promoting increased production and use of renewable energy have also been expanding. For example, 25x’25 is a cross-sectoral initiative that encompasses a diverse alliance of agricultural, forestry, environmental, conservation, and other organizations to secure 25 percent of the Nation’s energy needs from renewable sources by the year 2025. In the 2017 budget extension processes, Congress also declared that for the purposes of all Federal agencies and programs, wood would be defined as carbon neutral, thus opening the door to more Federal support for forests and wood energy to ameliorate climate change. Increasing demand for wood-based biofuels from abroad also drives increased U.S. production (e.g., growing demand for wood pellets from the Southeastern United States to help meet European renewable energy portfolio standards).

**Climate change.** Cross-sectoral and intergovernmental policies and programs that address the effects of climate variability on forests and the communities that depend on them are on the rise. Examples include the U.S. Global Change Research Program, a confederation of the research divisions of 13 Federal Departments and agencies; a climate science and conservation planning enterprise led by the U.S. Department of the Interior, which includes the National Climate Change and Wildlife Science Center, 8 regional Climate Science Centers, and 22 Landscape Conservation Cooperatives; and the USDA Climate Hubs developed to inform and assist farmers, ranchers, and forest landowners in their adaptation to climate variability and change. Other efforts to address the existing and expected effects of climate change on forests and other important resources at local to global levels continue to expand across multiple sectors.

**Statutes promoting cross-sectoral coordination.** In general, the Federal Government encourages or requires the development of multi- and cross-sectoral plans to address impacts on forests and other resources. For example, the Cooperative Forestry Assistance Act of 1978 encourages lead forestry agencies of State governments to develop plans that focus on statewide forest resource conditions and trends within the context of the broader environmental, social, and economic system. More recently, the Food, Conservation, and Energy Act of 2008 (also called the 2008 Farm Bill) required States and territories to develop Forest Action Plans that assess forest conditions and trends on public and private lands and provide strategies to address forest threats and improve forest health across all land ownerships and policy sectors. In addition, the 2012 National Forest Land Management Planning Rule directs national forests to work across forest boundaries in a collaborative, adaptive, “all-lands” approach to forest assessment, planning, management, and monitoring.

## What has changed since 2010?

This is a new indicator, so there are no changes to document since the previous National Report on Sustainable Forests, but there have been substantial advances in understanding cross-sectoral interactions and developing interdisciplinary public programs that recognize and promote sustainable land and forest use over the past decade or more.