Sustainability of Pennsylvania forests challenged

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According to the latest assessment, Pennsylvania forests have declined slightly in the last decade as growth in urban areas outpaces farmland abandonment.

(PhysOrg.com) -- A new report on the sustainability of forests in the United States indicates that Pennsylvania forests have declined slightly in the last decade and face a number of threats, according to an expert in Penn State's College of Agricultural Sciences.

The USDA Forest Service recently released the second National Report on Sustainable Forests for the United States, and it offers a good look at how Keystone State forests are faring, noted Jim Finley, professor of forest resources. "The first report was released in 2004, and now, seven years later, we have a second snapshot to see how our forests are changing and the challenges they face," he said.

"The new report, which is aimed at creating discussion about forest sustainability, provides data and analysis addressing forest conditions and gives us some idea of how well we're caring for our forestlands."

While the National Report on Sustainable Forests focuses on the big picture -- the public and private forests of the nation -- the key findings are relevant to Pennsylvanians and are worth considering, Finley pointed out.

"Nationwide, our forest area is stable, but for Pennsylvania, the most recent assessment suggests a small decline in forest area as development in our more-urban areas outpaces farmland abandonment," he explained.

Across the country, fragmentation and forest loss is occurring in many regions and localities, owing mostly to development. According to the U.S. census, Pennsylvania has one of the lowest population-growth rates, yet data from other sources show that we have one of the highest forest and agriculture land-cover conversion rates in the nation."

National levels of forest disturbance are rising due to insect-induced mortality, Finley noted, and that's especially true in Pennsylvania, where emerald ash borer, hemlock wooly adelgid, elongated scale, gypsy moth and other native and nonnative insects are changing the face of our forests.

Nationwide, wood-products production is declining relative to growing consumption, driving increases in imports. Pennsylvania is no exception. "The economic downturn, especially in the housing market, has lowered hardwood consumption, and many hardwood sawmills have been shuttered in the commonwealth," he said.

"This change in demand may, in the long-term, affect the ability of some forest owners to hold their land, and it could lead to further development

and fragmentation."

The one piece of good news contained in the report, Finley contended, is that there is a growing interest in public and private collaborations through projects devoted to landscape-scale conservation. That is happening in Pennsylvania. "The dialogue about sustaining forests here is expanding," he said.

"The Department of Conservation and Natural Resources' landscape-conservation initiatives are increasing sustainable-forest discussions. Twenty-eight woodland owner groups, covering about three-quarters of the state, are helping private landowners make sustainable forest decisions. The forest-products industry also is supporting forest-sustainability initiatives through training and education."

The national report suggests that three overarching issues emerge about forests, Finley said. First, nationwide and locally, we are going to face challenges as we lose forest land near urban centers. This loss of forest cover will affect ecological and social values, such as clean air and water, wildlife habitat, and recreation.

At the same time, loss of forest cover has economic costs as employment tied to forestry and forest products declines. While harvesting trees is not the leading reason among private landowners for holding land, a lack of markets over time will mean more land is lost to development.

"Second, forests are at risk from climate change and bioenergy demand," he said. "Already, there is evidence of forests affected by changes in temperature, precipitation and insects. We will know more about the effects of these changes in the coming decades.

"At the same time that change is happening, we know forests sequester large amounts of carbon and that many people believe they are a source

of carbon-neutral energy. Harvesting our forests for energy could alter ecological and economic landscapes.

Third, forest health and disturbance patterns could lead to unexpected consequences, according to Finley. Careful management and tracking are important on all forests, he said.

More information: Landowners can request information about managing a woodlot following principles of sustainable forestry by requesting a copy of "Forest Stewardship Principles for Landowners" from the Forest Stewardship office at Penn State at 800-235-9473 or by downloading a copy online at sfp.cas.psu.edu/pdfs/FSPrinciples.pdf

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