

BALANCING GROWTH, HARVEST, AND CONSUMPTION: A REGIONAL RESPONSE TO THE NATIONAL ISSUE OF FOREST SUSTAINABILITY

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ABSTRACT. The 46 million people who live in the North Central Region of the United States account for about 17 percent of the wood annually consumed in the United States. The region contains 14 percent of the nation's timberland, but annual timber growth is equivalent to only 10 percent of nation's total. Annual timber harvest is equivalent to only 7 percent of the nation's total. Failure to balance growth and harvest with consumption of forest resources in one region shifts the impacts of harvesting and production to other regions of the U.S. or to other countries. It also exports the environmental and social consequences associated with the timber harvest (both the positive and the negative consequences). The U.S. is a net importer of wood products, and wood consumption is expected to increase by up to 40 percent in the next 50 years as population increases. Local decisions about wood production and consumption can have far reaching consequences.

KEYWORDS. North Central Region, timberland

The goal of sustainable forest management requires us to think broadly about local, regional and national roles in supplying timber and other forest products and amenities. For example, forest sustainability implies (among other things) that timber removals must not exceed forest growth in the long run. Moreover, removals are driven by demand for and consumption of forest products. Examination of the balance among growth, harvest, and consumption of timber products at local, regional, and national scales can shed light on the issue of forest sustainability.

Growth, Harvest, and Consumption

Between 1953 and 1997 the volume of timber (growing stock) in the North Central Region of the U.S. more than doubled from 37 to 84 billion cubic feet. Annual growth in the region (2.3 billion cubic feet) is approximately twice annual removals (1.1 billion cubic feet), and that pattern is consistent in each of the seven included states (Minnesota, Wisconsin, Michigan, Indiana, Illinois, Iowa, and Missouri) (Shifley and Sullivan 2002). At the same time, at 73 cubic feet per person (Howard 1999), the 46 million people who live in the region consume 3.4 billion cubic feet of timber products annually--about 1.5 times growth and 3 times removals.

Although in the North Central Region we have 14 percent of the nation's timberland, annual growth is equivalent to only about 10 percent of the national total, and annual harvest is equivalent to only about 7 percent of the national total. However, annual wood consumption by the 46 million people who live in the region is equivalent to approximately 17 percent of the national total. Failure to balance growth and harvest with consumption of forest resources in one region shifts the impacts of harvesting and production to other regions of the U.S. or to other countries. It also exports the environmental and social consequences associated with the timber harvest (both the positive and the negative consequences).

Finding a Balance

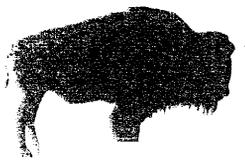
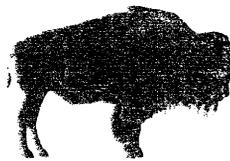
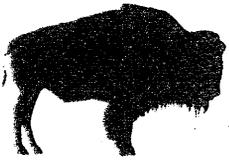
The United States is a net importer of timber products. An increasing U.S. population is expected to increase the demand for wood by nearly 40 percent over the next 50 years (Haynes 2003), and issues of sustainability will become even more acute. Examining the balance among growth, harvest, and consumption of wood products provides an important perspective on this issue both regionally and nationally.

Examining the balance (or imbalance) of growth, harvest, and consumption by state and region provides a broader perspective on sustainable forestry. In the North Central United States we consume more wood than we grow and far more wood than we harvest or process into products. Production per acre of timberland in the North Central Region is low relative to the major wood producing regions of the nation. Much of what we consume comes from the South, the Pacific Northwest, and Canada. When we import timber products we export the environmental, economic, and social consequences (positive and negative) associated with the production of those products. Is this sustainable forestry?

In terms of timberland area the North Central Region is a microcosm of the world. The region is 31 percent forested, in a Nation that is 33 percent forested, on a continent that is 31 percent forested, on an earth with a land base that is approximately 30 percent forested. What opportunities or responsibilities do we have to change the balance of growth, harvest, and consumption in our region? There are many ways to change the balance of growth harvest and consumption: consumers can alter their habits, managers can alter the intensity of management and rate of timber growth, elected officials and administrators can alter law or policies that affect timber production and consumption. We can all devote effort to discussing the issues.

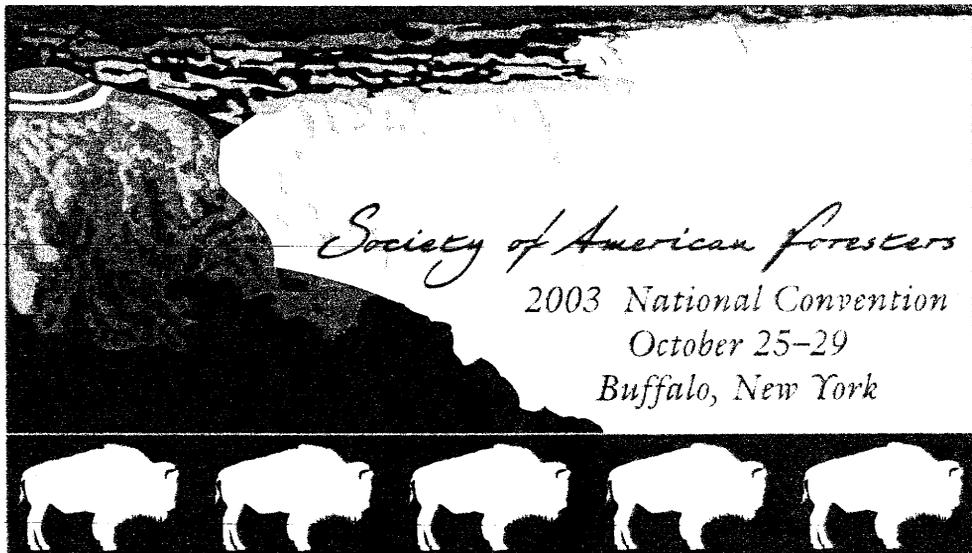
For Further Information

These topics are discussed in greater depth and with more forest resource statistics in *The Status of Timber Resources in the North Central United States* which is available in print and electronic formats (Shifley and Sullivan 2002). Source material on forest growth, removals, and forest conditions for individual states and major regions of the United States is available from Smith *et al.* (2001) or can be readily tabulated and mapped using online data bases and mapping software (Miles 2001, May 1998). Trends in consumption of forest resources are reported in Howard (1999). Forecasts of future trends in forest growth, harvest, and product consumption are available from Haynes (2003).

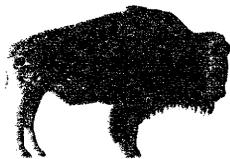
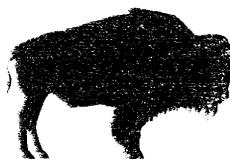


PROCEEDINGS

**SOCIETY OF AMERICAN FORESTERS
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