

PROJECTIONS OF THE U.S. TIMBER SUPPLY AND DEMAND SITUATION TO 2050—DRAFT FINDINGS FROM THE USDA FOREST SERVICE 2000 RPA TIMBER ASSESSMENT

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ABSTRACT. The Draft RPA Timber Assessment projects, over the next 50 years, the likelihood of increasing abundance of softwoods in the South and decreasing abundance of hardwoods in the South. These trends in supply, along with projected contributions from the North and West, imply U.S. consumption needs could be met without increasing net product imports and would not increase softwood timber prices over the next 50 years. However, under this scenario, the adequacy of timber supplies depends on 1) continued expansion of softwood plantations with increased management intensity in the South, 2) moderation of hardwood use in the South, and 3) continued improvement in technology both to grow trees and to obtain more wood and paper product output per unit of timber input. The outlook has many forest management implications. For example, with relatively abundant supplies of wood fiber in the East, there would be little likelihood of expansion of pulp or OSB capacity in the West to use large volumes of small-diameter timber.

KEY WORDS. timber supply, timber demand, projections

INTRODUCTION

The USDA Forest Service has, since its inception, analyzed the timber demand and supply situation. The Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 as amended by the National Forest Management Act of 1976 formalized these analyses by directing the Secretary of Agriculture to prepare a Renewable Resource Assessment.

The purpose of this Assessment is to 1) analyze and project trends and determinants of trends in demands and supplies of timber, 2) estimate prospective changes in the land and timber resource base, 3) examine the implications of these trends in use and the resource base, and 4) survey the opportunities to manage and use the forest resource base to meet private and public sector goals. The fourth RPA Timber Assessment is being prepared. Draft projections show how the U.S. forest sector may evolve from 1952 to 2050. Findings are under review and subject to change.

FINDINGS

The trends and projections show a forest products sector changing and expanding to respond to several factors: rising consumption (which increases faster than population); a changing mix of forest products produced, with increasing emphasis on paper/paperboard and composite products; increased products production to the South; relatively stable forest products prices over the next five decades; a relatively stable private land base; and significant changes in the modes and intensities of forest management for private timberland owners.

Consumption and Production

Under assumptions regarding economic trends through 2050, U.S. consumption of forest products would increase 69 percent while U.S. timber harvest would increase 38 percent. Per capita U.S. harvest of roundwood would remain just under 1 ton per person per year. Patterns of production for solid wood products are projected to change: oriented strandboard will largely displace softwood plywood, hardwood lumber production increases more slowly than softwood lumber production, softwood lumber imports from Canada rise in the near term, and after 2015 softwood lumber production would increase most in the South. Pulp, paper, and paperboard production would increase most in the South, mainly in the South Central region.

Improvements in Processing Technology

Industrial product output per unit of roundwood input increased 40 percent since 1950 with greater use of mill residues, increased recycling, a shift toward paper and composite products, and processing improvements. Future increases would be slower, 16 percent between 2000 and 2050, with more moderate increases in use of recovered paper per unit of production.

Timber Harvest and Inventory

Total roundwood harvest in the United States is projected to be 24.1 billion cubic feet in 2050. Between 1996 and 2050, softwood harvest is projected to increase 38 percent to 14.1 billion feet and hardwood harvest by 37 percent to 8.9 billion cubic feet. The consumption of hardwood agrifiber for pulpwood would grow to 0.6 billion cubic feet by 2050. Harvest from National Forests is assumed to increase 31 percent to 1.0 billion cubic feet between 1997 and 2050.

Softwood timber harvest is projected to increase 38 percent, while U.S. softwood inventories increase 58 percent. Private land area in pine plantations in the South is projected to increase 53 percent by 2050. Harvest on pine these lands would increase with increases in management intensity. Hardwood harvest would increase 37 percent and hardwood inventories increase by 25 percent. While increases are similar for softwoods across regions, there are regional differences for hardwoods. Hardwood inventories are projected to decline slightly in the South. Inventories on National Forests are projected to increase, adding diversity to the Nation's forest resources.

The bulk of the Nation's timber harvest would occur in the East (79 percent in 1996 and 83 percent in 2050) and especially in the South (55 percent in 1996 and 60 percent in 2050). Most of the projected agrifiber supply is in the east. By 2050, roughly two-thirds of the softwood timber harvest comes from plantations on less than 20 percent of the timberland base.

Imports and Exports

The United States is projected to increase its dependence on domestic sources for its roundwood needs. Imports amount to 18 percent of consumption in 2050, compared with 21 percent in 1996. Exports amount to 11 percent of production in 2050, compared with 18 percent in 1996.

Canada is expected to be the primary source of imports (over 75 percent), but imports from nontraditional sources will also increase. Canada would provide roughly one-third of U.S. softwood lumber consumption over the next 50 years, but imports from other countries (e.g., Eastern Russia, the Nordic countries) would increase to 5 percent of U.S. softwood lumber

consumption. Canadian exports of newsprint would decline with declining U.S. newsprint consumption. Canadian exports of higher valued printing and writing paper would increase.

Prices

Sawtimber prices would stabilize after increasing in the 1990s. Market-based adjustments, mostly on private timberlands, would meet expected increases in U.S. consumption. Stumpage markets for small-diameter logs in the west would continue to be weak. Pulpwood prices would rise as a result of limitations in harvestable hardwoods and nonindustrial private timberlands in the South. Product prices are projected to be roughly constant at current levels.

For more information see www.fs.fed.us/pnw/sev/rpa.

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