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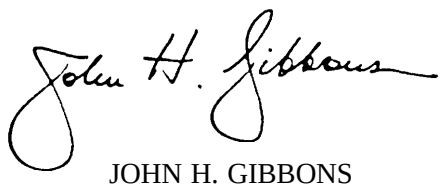
Foreword

The Office of Technology Assessment has conducted an assessment of the role of technology in the U.S. forest products industry. It was undertaken at the request of Senator Mark Hatfield, Chairman of the Senate Committee on Appropriations, and Senator Thad Cochran, Chairman of the Subcommittee on Agriculture, Rural Development, and Related Agencies. Representative James Weaver, Chairman of the Subcommittee on Forests, Family Farms, and Energy, joined in support of the assessment in the House of Representatives.

This assessment surveys the contribution of the forest products industry to the U.S. economy, the ability of the industry and the U.S. forest resource to satisfy expected domestic demands for wood, the competitiveness of U.S. forest products on world markets, and the role of technology in stretching the U.S. forest resource and providing products that satisfy domestic needs as well as international markets. It discusses the relationship of various levels of government and the forest products industry in providing for future wood products needs, Finally, it presents policy options designed to enhance the advantages of U.S. producers in international markets, to provide research and development in forest management, environmental effects of forestry, and wood materials science, and to improve the productivity of U.S. forests.



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NOTE: OTA is grateful for the assistance of its project advisory panel, chaired by Larry Tombaugh, and the members of its Wood Science and Technology Working Group and for the advice of numerous reviewers in agencies of the U. S. Government, academia, and industry. However, OTA assumes full responsibility for its report, which does not necessarily represent the views of individual members of its advisory panel or working group.

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Organization of the Assessment

Volume I of the assessment is organized as follows:

- Chapter I provides an overview and summary of the report and a tabulation of key issues and legislative options for congressional consideration.
- Chapter II contains a more detailed discussion of these issues and options.
- Chapter III discusses international trade in wood products and summarizes the implications of world demand and supply for the U.S. timber resource and the forest products industry.
- Chapter IV describes the range of uses of wood and forest products in the U.S. economy and evaluates the impacts that current trends may have on domestic wood demand and supply in the future.
- Chapter V reviews the technologies available for increasing the growth and productivity of American forests and assesses the potential for harvesting technologies to expand supply by recovering larger proportions of timber at harvest. It also summarizes the status of manufacturing technologies that are covered in detail in volume II.
- Chapter VI reviews the U.S. forest resource base and weighs constraints for ensuring that future wood demands are met.
- The appendix to volume I includes a glossary of terms which the reader may find useful in understanding forestry terminology.

Volume II of this report contains a detailed review and assessment of manufacturing technologies and trends in end-use design for wood products.