Technologies to Sustain Tropical Forest Resources

Foreword

The United States has a stake in the sustained economic development of tropical nations for humanitarian, political, and economic reasons. To a great extent, the development of these nations depends on increasing production from their potentially renewable soil, forest, and water resources. But tropical forest resources, which cover nearly one-half of the tropical nations' land, are being consumed at a rate that may make them nonrenewable. They are exploited for timber and cleared for pasture and cropland with little regard for their abilities to produce important goods, maintain soil productivity, regulate water regimes, or regenerate themselves in a long-term sustainable fashion.

International recognition of the importance of tropical forest resources and efforts to sustain the productivity of these resources have increased significantly in the last decade. In 1980, the House of Representatives, Committee on Foreign Affairs, Subcommittee on International Organizations held hearings on tropical deforestation. The committee then requested the Office of Technology Assessment (OTA) to conduct a more thorough assessment of the problem, the technologies that could help sustain tropical forest resources, and possible options for Congress. The Subcommittee on Insular Affairs of the House Committee on Interior and Insular Affairs and the Subcommittee on Environmental Pollution of the Senate Committee on Environment and Public Works endorsed the request. The Senate Committee on Energy and Natural Resources asked that the assessment specifically address forest resources of the U.S. insular territories in the Caribbean and western Pacific.

This summary presents the study's major findings. The full report and its two background papers *(Reforestation of Degraded Lands* and *US, and International Institutions)* identify and discuss in depth some of the constraints and opportunities to develop and implement forest-sustaining technologies.

OTA greatly appreciates the contributions of the advisory panel and workshop participants assembled for the study, the authors of the commissioned technical papers, and the many others who assisted us, including liaisons from other Government agencies. As with all OTA studies, however, the content of the report is the sole responsibility of the Office of Technology Assessment.

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NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory panel members. The **panel** does not, however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility for the report and the accuracy of its contents.

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