

## INTRODUCTION

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The International Union of Forest Research Organizations (IUFRO) All Division 5 Conference in Rotorua, New Zealand, March 11–15, 2003, focused on issues surrounding sustainable forest management and forest products research. As the conference title “Forest Products Research: Providing for Sustainable Choices” suggests, the purpose of the conference was to consider scientific progress towards meeting the rapidly increasing demands for forest products in the context of social, economic, and environmental considerations associated with sustainable forest management. Conference attendees addressed challenges and opportunities of sustainable forest management through exchanges of knowledge and experience from presentations, field trips, and formal and informal discussions about forest products research at national and international levels.

This publication is the 3<sup>rd</sup> proceedings of the IUFRO Division 5 Sustainable Production of Forest Products Research Group 5.12. Two prior proceedings were from the 1997 All Division 5 conference in Pullman, Washington, USA (Barbour and Skog 1997) and the 2000 IUFRO World Congress in Kuala Lumpur, Malaysia (Barbour and Wong 2001). New to this proceedings, however, is the inclusion of papers from the Non-Wood Forest Products Research Group 5.11. Many similarities emerge when both wood and non-wood research is set in the context of social, economic, and ecological dimensions of sustainable forest management. This suggested a natural combining of the papers from the two Research Groups for this publication. Both Research Groups focus on the development, evaluation, and application of forest products. Both address complex issues of ecological integrity and economic development. Also, both grapple with the ways that research is providing for sustainable choices for forest-based societies around the world.

Although all research groups of Division 5 participated in the conference, this proceedings includes only those papers from the 5.11 and 5.12 Research Groups.

The Sustainable Production of Forest Products Research Group 5.12 focuses on global issues regarding sustainably produced forest products. It provides a forum for researchers who study the production of wood and other forest products in a sustainable manner. Among other things, the group members examine questions regarding green certification, life cycle analysis, wood products from sustainable managed forestry, and the economic contribution of wood products to sustainable forestry.

The Non-Wood Forest Products Research Group 5.11 focuses on the discovery, development, and wise use of non-wood products found in forests around the world. This Group conducts research on medicinal and aromatic plants, edible plant products and forest fungi, resins and gums, and many other non-wood products that have long been important for rural and native people for cultural, subsistence, and economic reasons. The research focuses on a variety of topics including harvesting techniques and effects on ecological integrity, techniques for extracting and synthesizing compounds, traditional and non-traditional uses of non-wood products, and commercial development opportunities.

The papers on sustainable wood forest products discuss the history of forest disturbance and wood removal in temperate and tropical regions, especially Indonesia, and the cultural and silvicultural practices needed to sustain forest wood production and stable forest ecosystems. Effects of timber harvesting on a non-sustainable basis are discussed, as well as the effects of government and forest management policies striving to achieve sustainable wood production.

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Regional assessments and future projections (based on modeling) are discussed as potential aids to achieve sustainable wood production. The identification of barriers to achieving sustainability is also discussed. The role of social science is linked with the ecological, economic and social aspects of forest management to indicate its importance to sustainability. The relationships between integrated research and sustainable forest management and production are also discussed.

The papers on non-wood forest products address research, management, and economic development challenges, as well as opportunities, associated with increased demand for non-wood products and increased pressure on forest ecosystems. Specific non-wood products discussed in the papers include medicinal plants in Nepal, and barks, leaves, and resins in India. Harvesting methods intended to increase ecological integrity and sustainable economic development opportunities are discussed. The design of inventory protocols and the development of production and trade statistics are discussed as ways to contribute to resource management, national and international policymaking, and economic development strategies. The role of non-wood products in employment and income generation for rural people is addressed in a number of papers. Research strategies for non-market and market non-wood products and the role of research institutions in the economic development of forest-based communities are discussed. Several papers talk about the ways that assessments of non-wood products contribute to sustainable development and resource management at national and international levels. The terms non-wood forest products and non-timber forest products are used in a number of papers and can be considered synonymous, unless otherwise stated.

Full papers or extended abstracts are included for the majority of conference sessions of the 5.11 and 5.12 Research Groups. Papers were provided for printing by the authors, who are therefore responsible for the content and accuracy. Opinions expressed may not necessarily reflect the position of the U.S. Department of Agriculture. The use of trade names is for information only, and does not imply endorsement by the U.S. Department of Agriculture of any produce or service.

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## **LITERATURE CITED**

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