

Valuing Agroforestry Systems

Advances in Agroforestry

Volume 2

Series Editor:

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Aims and Scope

Agroforestry, the purposeful growing of trees and crops in interacting combinations, began to attain prominence in the late 1970s, when the international scientific community embraced its potentials in the tropics and recognized it as a practice in search of science. During the 1990s, the relevance of agroforestry for solving problems related to deterioration of family farms, increased soil erosion, surface and ground water pollution, and decreased biodiversity was recognized in the industrialized nations too. Thus, agroforestry is now receiving increasing attention as a sustainable land-management option the world over because of its ecological, economic, and social attributes. Consequently, the knowledge-base of agroforestry is being expanded at a rapid rate as illustrated by the increasing number and quality of scientific publications of various forms on different aspects of agroforestry.

Making full and efficient use of this upsurge in scientific agroforestry is both a challenge and an opportunity to the agroforestry scientific community. In order to help prepare themselves better for facing the challenge and seizing the opportunity, agroforestry scientists need access to synthesized information on multi-dimensional aspects of scientific agroforestry.

The aim of this new book-series, *Advances in Agroforestry*, is to offer state-of-the art synthesis of research results and evaluations relating to different aspects of agroforestry. Its scope is broad enough to encompass any and all aspects of agroforestry research and development. Contributions are welcome as well as solicited from competent authors on any aspect of agroforestry. Volumes in the series will consist of reference books, subject-specific monographs, peer-reviewed publications out of conferences, comprehensive evaluations of specific projects, and other book-length compilations of scientific and professional merit and relevance to the science and practice of agroforestry worldwide.

Valuing Agroforestry Systems

Methods and Applications

by

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PREFACE

The primary objective of this book is to offer practical means for strengthening the economics and policy dimension of the agroforestry discipline. This book, written by the leading experts in economics and agroforestry, encompasses case studies from Australia, China, Kenya, India, Indonesia, Malawi, Mexico, Micronesia, Tanzania, United Kingdom, United States, Zambia, and Zimbabwe. The applied economic methodologies encompass a wide variety of case studies including enterprise/farm budget models through Faustmann models, Policy Analysis Matrix, production function approach, risk assessment models, dynamic programming, linear programming, meta-modeling, contingent valuation, attribute-based choice experiments, econometric modeling, and institutional economic analysis. It is our belief that these methodologies help agroforestry students and professionals conduct rigorous assessment of economic and policy aspects of agroforestry systems and to produce less biased and more credible information.

Furthermore, the economic and policy issues explored in the book – profitability, environmental benefits, risk reduction, household constraints, rural development, and institutional arrangements – are central to further agroforestry adoption in both tropical and temperate regions.

All of the chapters in this volume were subject to rigorous peer review by at least one other contributing author and one external reviewer. We would like to acknowledge the indispensable collaboration of those who provided careful external reviews: Ken Andrasko, Chris Andrew, Peter Boxall, Norman Breuer, Bill Hyde, Tom Holmes, Sherry Larkin, Jagannadharao Matta, Venkatrao Nagubadi, Roz Naylor, Thomas Randolph, Gerald Shively, Changyou Sun, Bo Jellesmark Thorsen, and Yaoqi Zhang. All reviews were coordinated by the book editors.

We would like to take this opportunity to express our gratitude to all the authors and co-authors of each chapter for their valuable contribution and timely response. Special thanks are extended to Jensen Montambault for making the production of this volume on a tight time schedule possible through editing, technical, and formatting assistance. We are also grateful for additional formatting and indexing assistance supplied by Terri Mashour, Troy Timko, and Fauzia Zamir. Generous in-kind and direct support were provided by the University of Florida and the USDA Forest Service. Finally, we would like to express our appreciation for the guidance of the editors at Kluwer Academic Publishing, Helen Buitenkamp, Sandra Oomkes, and Amber Tanghe-Neely.

– *The Editors*