
Preface

Agroforestry has been the way of life since time immemorial, but the subject is relatively new as a science. Still, India has the distinction of having the longest history of formal agroforestry research in the world. It has come of age during the past three decades when activities and interest in agroforestry research, education, and training have increased tremendously. Its importance has been felt more during the last one decade in the scenario of climate change when perennial farming systems are considered more appropriate and sustainable for livelihood security in general and poor, marginal, and landless farmers in particular.

Today, agroforestry is taught at the senior undergraduate and post-graduate levels in many institutes and universities around the world, either as a separate subject or as a part of the regular curricula of agriculture, forestry, ecology, and other related programs. Although several books on the subject have been published during the past few years, there is still no single publication that may be recognized giving detailed description covering all the aspects on the subject. This publication is an effort to make up for this deficiency.

The introductory chapter traces the brief history of the development of agroforestry underlying the concepts of the subject, and the very purpose of publication. It is followed by 12 chapters dealing with the majorly practiced systems found in the tropics and temperate regions, especially different agro-climatic regions of India and the recent developments in each of them are discussed in detail. The site-specific systems/practices include edaphic and climatic parameters, ecology, vegetation, site-specificity, and structure and livelihood security of different stakeholders. Important success stories have been highlighted, research gaps have been identified, and the way forward has also been suggested. Finally, in the Synthesis Chapter the gist of the book is given. The important initiatives taken at the level of researchers and policy makers and the way forward for agroforestry research in India have been highlighted.

Recent concerns such as agroforestry for ecosystem services, mitigating climate change, carbon sequestration, biodiversity conservation, value addition, and role in health services through medicinal and aromatic plants have been addressed separately. There is a global consensus

that integration of trees/perennials into farms, grazing lands, and other production landscapes helps to capture social, economic, cultural, ecological, and environmental benefits. With these developments in agroforestry science, we are now in a better position than ever before to capitalize the promise of multi-functional agriculture to make a difference in the lives of millions of people across the globe.

Overall, agricultural ecosystem can be further improved through agroforestry to ensure environmental restoration (including defended habitats), enhanced farm productivity, nutrient security, and realization of ecological services including climate change mitigation and adaptation for improved rural livelihoods. Nonetheless, this calls for a policy to help strengthen agroforestry research and tree development at the national level. This volume is a holistic effort to consummate the flagged research in agroforestry that addresses socio-biological issues of the very practice, apart from mundane ecological and climate change-related issues.

Most of the contributors are experts in their relevant fields and have added their field experiences to the value of this publication. We sincerely thank all the contributors and reviewers, who contributed enormously and cooperated so splendidly under strict and difficult time schedules. We also acknowledge the critical overview given by Prof. Dr. P. K. R. Nair, Florida University, Gainesville, USA, which helped us in improving the contents of various chapters and integrating them such that the document appears to be whole rather than the sum of its components. He was also kind enough to write the Foreword. We hope that the publication will be very useful for scientists, policymakers, environmentalists, educationists, and researchers for shaping this very important field of present-day science.

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Agroforestry Systems in India: Livelihood Security &
Ecosystem Services

Dagar, J.C.; Singh, A.K.; Arunachalam, A. (Eds.)

2014, X, 400 p. 66 illus., 55 illus. in color., Hardcover

ISBN: 978-81-322-1661-2