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System -- Chapter 7 Benefactions of Agroforestry to Ecosystem Services -- Chapter 8 Agroforestry for Restoring and Improving Soil Health -- Chapter 9 Nutrient Acquisition in Agroforestry Ecosystem Services and Soil Health -- Chapter 10 Carbon Sequestration in Agroforestry: Enhancement of Both Soil Organic and Inorganic Carbon -- Chapter 11 Sustainable Forest Management (SFM) for C footprint and Climate Change Mitigation -- Chapter 12 Climate Change Mitigation Through Agro-forestry Improves Natural Resource and Livelihood Security -- Section III: Ensuring Food Security Via Agro-forestry System -- Chapter 13 Interaction Between Belowground and Aboveground Resources in Tree-Crop Systems -- Chapter 14 Restoration of Degraded Soils for Food Production Through Agroforestry -- Chapter 15 Nano-fertilizers: A Novel Technology for Enhancing Nutrient Use Efficiency of Crops and a Relevance to Agroforestry -- Chapter 16 Sustainable Agroforestry Based Approach to Achieve Food Security through Soil Health -- Chapter 17 Soil, Water and Biodiversity Conservation Through Agroforestry for Crop Production -- Chapter 18 Breeding of *Jatropha* For Oil, Phorbol and Quantitative Traits for Sustainable Yield Under Agroforestry System -- Section IV: Socio-economic impact of agro-forestry system -- Chapter 19 Breeding Potentials Of Wild Forest Rattans Palms To Ensure Food Security -- Chapter 20 An Insight into Prevalent Agroforestry Land use Systems of North Western Himalayan region, India: Challenges and Future prospects -- Chapter 21 Assessment of Impact of Land uses on Soil Carbon Stock and Quality -- Chapter 22 Litter Fall Decomposition and its Effects on Nutrient Accretion to Soil Under Agroforestry Systems -- Chapter 23 Agroforestry - a Key Technique for Achieving the Sustainable Development Goals -- Chapter 24 Exploring the Agroforestry Systems for Ecosystem Services: A Synthesis of Current Knowledge and Future Research Directions -- Chapter 25 Revitalizing Degraded Soils with Agroforestry Interventions: Opportunities, Challenges and Future Direction -- Chapter 26 Rice-fish Based Agroforestry System: A Climate Smart Way to Reconcile Sustainable Livelihood Options. .

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### Sommario/riassunto

This edited book brings out comprehensive insights on agro-forestry systems to cope up climate change globally. The main essence of this book is to unfurl the positive sides of agri-silvipastoral system to reduce greenhouse gases (GHGs) and temperature. Agro-forestry can be defined as the farming practice combining field crops, perennial trees and livestock. The impact of agro-forestry on ecology is implacable which is thoroughly discussed under different heads in this book. In addition, the book is bundle of different novel sections including tables, graphical representation, and figures showcasing the bright side of agro-forestry system. Furthermore, trees which are important component of boosting socio-economic conditions, especially for the indigenous populations have also been discussed meticulously. Hence, all together this book deciphers an account of agro-forestry practices in society and environment along with the major pros- and cons- of the system. Undoubtedly, this information could enrich the scholarly knowledge for graduate research fellows, teachers, scientists, researchers, and environmentalists in gaining multifaceted information of agro-forestry system in both ecological and economical aspects. Different research highlights will be helpful for the policy makers to implement this novel practice in intensive production systems and harness the maximum benefits out of this. .

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