

Preface

The term "Biodiversity" refers to the variety and variability among organisms and the ecological complexes in which they occur. Thus, biodiversity can be defined as the totality of genes, species and ecosystems of a region. India is one of the 17 mega-diverse countries of the world. The genetic variation existing within a species is called genetic diversity. Species diversity refers to the variety of species within a region.

India is considered as one of the mega-biodiverse countries of the world. In India the forest cover is an actual area of 63.73 million ha. The Dense forest is 37.74 million ha., open forest is 25.51 million ha., mangrove forest is 0.487 million ha. and scrub forest is 5.19 million ha. The bio-geographical zone(s) are, The Western Ghats, The Deccan Peninsula, The Gangetic Plain, North - East India, The Islands and Coasts. The endemism of Indian biodiversity is high about 33 per cent of the country's recorded Flora and it is concentrated in North - East, Western Ghats, North - West Himalayas and Andaman Nicobar Islands.

This book addresses the economic, institutional and social challenges confronting scientists and policy makers in conserving biodiversity and ecosystem services that are critical for sustaining human well being and development. The contributors to this book are experts who have made significant contribution to biodiversity research. The volume encompasses a wide range of themes and issues such as Species biodiversity, Herb biodiversity, Tree biodiversity, Forest biodiversity, Orchids biodiversity, Fungal biodiversity, Crop diversity, ethnomedicinal informations, climate change etc. The book includes chapters with focus from various climatic zones of India covering diverse ecosystems like tropical evergreen forests, tropical deciduous forest, agroecosystems, arid, freshwater, estuarine, marine ecosystems.

In addition, we hope it will help natural resource managers, scientists and decision makers in overcoming their fear of models and help them in translating the model results into pro-active implementation to mitigate biodiversity loss.

This book also provides updated information about the current state of animal distribution across India covering a variety of habitats. The book will provide useful information to students, environmentalists, foresters as well to the general public at large.

My heartfelt thanks are due to all contributors who made this compilation possible as well as my research students tremendously helped me in shaping this book.

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