

**Environmental Sustainability through Food Security,  
Agricultural and Modern Science Innovations**

**Dr. Rachna  
Dr. Sharali Sharma  
Dr. Anil Kumar Singh  
Dr. Ragni Bhargava**



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**Head, Production (Higher Education and Professional) & Publishing Director**

Dr. Jitendra Mehta

**Product Manager**

Dr. Manoj Kumar Jhariya

**General Manager**

Jaya Mehta

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Office Address:

**VITAL BIOTECH PUBLICATION**

772, Basant Vihar, Kota,

Rajasthan-324009 India

Visit us at: <http://www.vitalbiotech.org>

Contact No. +91-9784677044

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## Preface

In the face of growing global challenges such as climate change, population growth, depleting natural resources, and environmental degradation, the concept of sustainability has emerged as a guiding principle for our collective future. Among the key pillars of sustainability, ensuring environmental health while maintaining food security and fostering agricultural advancement is crucial. This book, *Environmental Sustainability through Food Security, Agricultural and Modern Science Innovations*, is a step towards exploring integrated, science-driven solutions to achieve these goals.

The primary aim of this book is to highlight the critical interdependence between environment, agriculture, and technological innovations. It brings together a rich collection of insights from experts, researchers, and academicians who explore how modern scientific practices—from precision farming and biotechnology to climate-smart agriculture and digital tools—can contribute to sustainable food production and environmental conservation.

Through a multidisciplinary lens, the chapters delve into sustainable agricultural practices, soil and water conservation, organic farming, renewable energy in agriculture, genetic improvements, and the role of policy and education in promoting sustainability. By combining traditional knowledge with cutting-edge science, the contributors emphasize the need for resilient and adaptive strategies to secure both the environment and human well-being. This book will serve as a valuable resource for students, researchers, policy makers, and practitioners in agriculture, environmental science, and allied disciplines. It is our hope that it inspires innovative thinking and collaborative action towards a greener, more food-secure planet.

***Editors***

**Dated: 15-06-2025**

**Dr. Rachna**

**Dr. Sharali Sharma**

**Dr. Anil Kumar Singh**

**Dr. Ragni Bhargava**

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