

## Reorienting Indian Agriculture

### Challenges and Opportunities

**Raj S. Paroda**, Trust for Advancement of Agricultural Sciences (TAAS), India

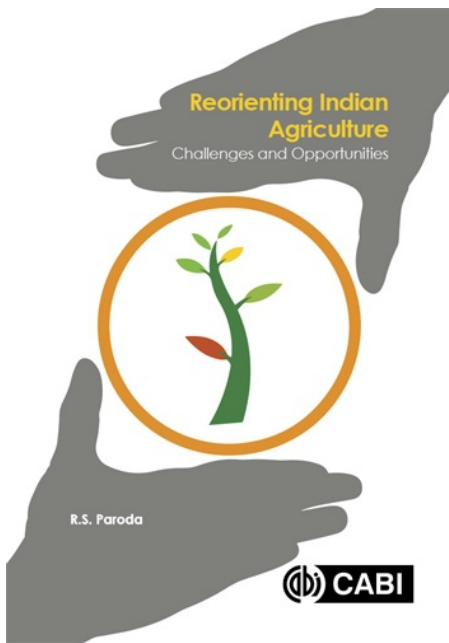
Nov 2018 | 336pp

**While the "Green Revolution" was a major success, many issues with food production and increasing population and climate change mean that countries such as India face major challenges. Paroda argues for choosing the best technologies and blending them with rich traditional knowledge to attain sustainable development goals.**

**Open Access eBook**

**ePDF / 9781786395184**

**ePub / 9781786395191**



Despite multiple revolutions, daunting challenges face agriculture. How can it address poverty and hunger, including malnutrition? How much is it responsible for degradation of natural resources (soil, water, agrobiodiversity) and climate change? How can agricultural diversification, and secondary and speciality agriculture help in improving productivity, sustainability and farmer income? Can integrated natural resource management (including conservation agriculture, innovative extension, agricultural education and an enabling policy environment) help achieve resilience and faster agricultural growth?

This book sketches a journey from green to an evergreen revolution through reorientation of Indian agriculture to address emerging challenges. It covers global agriculture, genetic resource management, crop breeding (including biotechnology), seed production technology, agronomy, innovative extension, motivation of youth (including women), climate change and policy reforms for improving farmers' income. It provides insight into:

- India's agricultural scenario, and the strength of agricultural research for development.
- Better ways of managing natural resources for sustainable farming systems.
- Climate-smart, diversified and resilient agriculture for improved productivity and income.
- The need to reorient research, development and related policies concerned with agricultural research and innovation for development (ARI4D) to harness new opportunities

This book is for researchers, students and policymakers interested in agricultural policy, increased food production, rural development and natural resource management, especially: general agriculture, genetic resources, crop breeding, seed development, agricultural biotechnology, agronomy, international agriculture, climate change and sustainable agriculture.

**"Reorienting Indian Agriculture is a tour de force. It neatly encapsulates in one, well-structured volume, the entire array of India's impressive strides in improving its agriculture sector, while offering incisive commentary on how sustainable agriculture can deliver the next generation of development dividends to end hunger, malnutrition, poverty and environmental degradation in our lifetime." - Ismail Serageldin, Founder and Director Emeritus, Library of Alexandria**

**"Every policymaker and researcher interested in India's development should want to read this book and explore its implications for policy and action." - Dr Uma Lele**

**HB / 9781786395177 / £39.00 / €45.00 / \$55.00**

# Contents

## PART I: AGRICULTURAL SCENARIO

- 1: The Indian Agricultural Scenario
- 2: Agriculture for Achieving Sustainable Development Goals

## PART II: REVOLUTIONS IN AGRICULTURE

- 3: Fifty Years of the Green Revolution and Beyond
- 4: Intensive Efforts for Food and Nutrition Security
- 5: The White Revolution and Livestock Production
- 6: Aquaculture Development and the Blue Revolution

## PART III: REORIENTING AGRICULTURAL RESEARCH FOR INNOVATION

- 7: Increasing Productivity Growth Rate in Agriculture
- 8: Reorienting Agricultural Research for Development for Sustainable Agriculture
- 9: Strategies for Scaling Innovations for Impact on Smallholder Farmers

## PART IV: IMPROVING PRODUCTIVITY AND PRODUCTION

- 10: Enhancing Productivity of Foodgrains
- 11: Horticulture for Food and Nutrition Security
- 12: Strategies for Enhancing Oilseed Production
- 13: Accelerating Forage Crop Production

## PART V: HARNESSING AGRICULTURAL BIOTECHNOLOGY

- 14: Agricultural Biotechnology for Food and Nutritional Security

## PART VI: MANAGING PLANT GENETIC RESOURCES

- 15: The International Treaty – Current Concerns
- 16: Agrobiodiversity: Dynamic Change Management
- 17: Managing Agrobiodiversity through Use: Changing Paradigms

## PART VII: THE ROLE AND GROWTH OF THE SEED SECTOR

- 18: The Growth of the Indian Seed Sector: Challenges and Opportunities
- 19: Revitalizing the Indian Seed Sector

## PART VIII: INTEGRATED NATURAL RESOURCE MANAGEMENT

- 20: Managing and Improving Soil Health
- 21: Increasing Water-use Efficiency
- 22: Agroforestry in India: The Way Forward

## PART IX: IMPACT OF CLIMATE CHANGE

- 23: The Impact of Global Climate Change on Agricultural Growth
- 24: Towards Climate-smart Agriculture

## PART X: INNOVATION IN EXTENSION

- 25: Linking Research with Extension for Accelerated Agricultural Growth
- 26: Empowering Farmers through Innovative Extension Systems

## PART XI: THE ROLE OF WOMEN AND YOUTH

- 27: Women's Empowerment for Agricultural Development
- 28: Attracting and Retaining Youth in Agriculture

## PART XII: POLICY REFORMS FOR ACCELERATED GROWTH

- 29: Revitalizing the Indian Agricultural Education System
- 30: A Strategy for Doubling Farmers' Income
- 31: Future Challenges and Opportunities in Agriculture
- 32: Change We Must – But Change is Difficult

## ORDER INFORMATION

To order a copy at a 20% discount enter the code CCAB20 at the online checkout

UK, Europe and ROW: Visit [www.cabi.org/bookshop](http://www.cabi.org/bookshop)\*

Or contact Marston Book Services Ltd, 160 Eastern Avenue, Milton Park, Abingdon, OX14 4SB,

UK T: +44 (0)1235 465577 E: [direct.orders@marston.co.uk](mailto:direct.orders@marston.co.uk)

\*Please note: Forthcoming titles may be pre-ordered direct from Marston Book Services only

North and South America: Visit [cab.presswarehouse.com](http://cab.presswarehouse.com)

Or contact Stylus Publishing, Customer Services, PO Box 605, Herndon, VA 20172-0605, USA

T: (703) 661-1581 or (800) 232-0223 E: [StylusMail@PressWarehouse.com](mailto:StylusMail@PressWarehouse.com)

To receive news and updates on CABI books, eBooks and online resources, please sign up at:

<http://www.cabi.org/bookshop/subscribe/>