# Reconsidering the Impact of Climate Change on Global Water Supply, Use, and Management

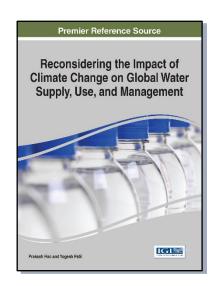
Part of the Advances in Environmental Engineering and Green Technologies Book Series

Prakash Rao (Symbiosis International University, India) and Yogesh Patil (Symbiosis International University, India)

# **Description:**

Changes in the planet's climate in recent years have led to significant impacts on natural resources and ecosystems. New strategies must be adopted in order to support the protection and continued development of numerous natural resources.

Reconsidering the Impact of Climate Change on Global Water Supply, Use, and Management is a pivotal reference source for the latest scholarly material on the relationship between global climate changes and the planet's water ecosystems. Highlights relevant environmental, social, and economic issues.



# **Readers:**

This book is ideally designed for academics, researchers, policy makers, students, and practitioners interested in the impacts of climate change on global water resources.

**ISBN:** 9781522510468 **Release Date:** November, 2016 **Copyright:** 2017 **Pages:** 392

# **Topics Covered:**

- Bottled-Water Production
- Climate Smart Agriculture
- Glacial Retreat
- Industrial Wastewater Management
- Mountain Ecosystems
- Sustainable Watershed Management
- Water Treatment and Irrigation

Hardcover + E-Access + Free E-Access: Free Hardcover:

\$215.00 \$215.00

# **Order Information**

Phone: 717-533-8845 x100 Toll Free: 1-866-342-6657

Fax: 717-533-8661 or 717-533-7115 Online Bookstore: www.igi-global.com



#### **Table of Content**

#### Preface

#### Chapter 1

Recent Trends, Issues and Challenges in Water Resource Development And Global Climate Change

Prakash Rao, Symbiosis Institute of International Business, Symbiosis International University, Pune, India

Yogesh Patil, Symbiosis Centre for Research and Innovation, Symbiosis International University, Pune, India

# Chapter 2

Traditional Water Management System for Climate Change Adaptation in Mountain Ecosystems

Bhaskar Shrinivasulu Padigala, Centre for Environmental Planning & Technology University (CEPT), Ahmedabad, Gujarat, India

#### Chapter 3

Understanding Glacial Retreat in the Indian Himalaya: Historical Trends and Field Studies from a Large Glacier

Rajesh Kumar ,School of Basic Sciences and Research, Sharda University, India

Prakash Rao ,Symbiosis Institute of International Business, Symbiosis International University,Pune, India

G Areendran, Indira Gandhi Conservation Monitoring Centre(IGCMC), WWF India

# Chapter 4

Issues, Concerns and Local Stakes: Future of Water Resources in Coastal Villages of Devbag and Tarkarli, Coastal Maharashtra, India Navendu Chaudhary ,Symbiosis Institute of Geoinformatics, Symbiosis International University,Pune, India

Yogesh Pisolkar ,Symbiosis Centre for Management Studies, Symbiosis International University, Pune, India

# Chapter 5

Impact of Climate Change on the Retreat of Himalayan Glaciers and Its Impact on Major River Hydrology Himalayan Glaciers Hydrology Ram Karan Singh, King Khalid University, Kingdom of Saudi Arabia

# Chapter 6

Mitigation of Climate Change Impacts through Treatment and Management of Low Quality Water for Irrigation in Pakistan Ghulam Murtaza,Institute of Soil and Environmental Sciences, University of Agriculture Faisalabad, Pakistan Muhammad Saqib ,nstitute of Soil and Environmental Sciences, University of Agriculture Faisalabad, Pakistan Saifullah ,College of Applied Medical Sciences, University of Dammam, Kingdom of Saudi Arabia.

Muhammad Zia-ur-Rehman ,Institute of Soil and Environmental Sciences, University of Agriculture Faisalabad, Pakistan Muhammad Naveed, Institute of Soil and Environmental Sciences, University of Agriculture Faisalabad, Pakistan Abdul Ghafoor ,Institute of Soil and Environmental Sciences, University of Agriculture Faisalabad, Pakistan

# Chapter 7

Characterization and Management Concerns of Water Resources around Pallikaranai Marsh, South Chennai Avantika Bhaskar, Care Earth Trust, Chennai, India G. Babu Rao, Care Earth Trust, Chennai, India Jayshree Vencatesan, Care Earth Trust, Chennai, India

#### Chapter 8

Achieving Climate Smart Agriculture with a Sustainable Use of Water: A Conceptual Framework for Sustaining the Use of Water for Agriculture in the Era of Climate Change Sneha Kumari, Symbiosis Centre for Research and Innovation, Symbiosis International University, Pune, India Yogesh Patil, Symbiosis Centre for Research and Innovation, Symbiosis International University, Pune, India

Entangled Systems at the Energy-Water-Food Nexus: Challenges and Opportunities

Joseph Nyangon, Center for Energy and Environmental Policy, University of Delaware, USA

Nabeel Álabbas, Center for Energy and Environmental Policy, University of Delaware, USA

Lawrence Agbemabiese, Center for Energy and Environmental Policy, University of Delaware, USA

#### Chapter 10

Inter Linkages of Water, Climate and Agriculture Sunil Londhe, World Agroforestry Centre (ICRAF), Pusa Campus, New Delhi, India

# Chapter 11

Role of Water - Energy - Waste Inter-Relatedness to Drive Sustainability amid Climate Concerns Salil K Sen, Multilateral Developmental Institution in ManilaAsian Development Bank, PhilippinesAsian Institute of Management, Manila, Philippines

Junya Pookayaporn, Founder of University Social Responsibility, Sripatum University, Thailand

#### Chapter 12

Congo Basin's Shrinking Watersheds: Potential Consequences on Local Communities

Bila-Isia Inogwabini, Center for Research and Sustainable Development Communication (CERED), Saint Pierre Canisius Institute of Agriculture and Veterinary Sciences (ISAV) Kinshasa, Democratic Republic of Congo & Swedish University of Agricultural Sciences, Uppsala, Sweden

# Chapter 13

Tipaİmukh Multipurpose Hydroelectric Project-A Policy Perspective: Indo-Bangla Priorities, Indigenous Peoples' Right and Environmental Concern

Ali Reja Osmani, Karimganj Law College, Silchar, Assam, India

# Chapter 14

An Approach to Sustainable Watershed Management: Case Studies on Enhancing Sustainability with Challenges of Water in Western Maharashtra

Sneha Kumari,Symbiosis Centre for Research and Innovation, Symbiosis International University, Pune, India Yogesh Patil,Symbiosis Centre for Research and Innovation, Symbiosis International University, Pune, India Prakash Rao,Symbiosis Institute of International Business, Symbiosis International University, Pune, India

# Chapter 15

Participation Framework to Sustainability: The Undercurrents in Bottled-Water Production and Consumption Taksina Chai-ittipornwong, Rajabhat Muban Chombueng University, Thailand

# Chapter 16

Industrial wastewater management in the context of climate change adaptation in selected cities of India – A business approach Rahul Hiremath, Symbiosis Centre for Management and Human Resource Development, Symbiosis International University, Pune, India

Bimlesh Kumar,Civil Engineering, Indian Institute of Technology, Guwahati.

Sheelratan S. Bansode, Mechanical Engineering Department, Solapur University, India.

Gurudas Nulkar, Symbiosis Centre for Management and Human Resource Development, Symbiosis International University,& Trustee Ecological Society, Pune,India

Sharmila S Patil Information Technology Department, WIT, Solapur, India

J.Murali, Environmental Solutions and Consultancy, Dubai

# Chapter 17

Adaptive Coevolution: Realigning the Water Governance Regime to the Changing Climate

Dauglas Wafula Juma ,Tongji University UNEP-Institute of Environment for Sustainable Development (IESD), Shanghai, China Makomere Reuben, Tongji University UNEP-Institute of Environment for Sustainable Development (IESD), Shanghai, China Hongtao Wang, Fengting Li, Tongji University UNEP-Institute of Environment for Sustainable Development (IESD), Shanghai, China

#### Chapter 18

Climate Change and Agriculture: Time for a Responsive and Responsible System of Water Management Eshwar Anand Ventrapragada, Symbiosis Institute of Media and Communication, Symbiosis International University, Pune, India Neela Rayavarapu , Symbiosis Institute of Technology, Symbiosis International University, Pune, India

#### Chapter 19

Common Duckweeds as a Model Ssystem for Climate Change Impact Assessment

Vinay Rale, Symbiosis School of Biomedical Sciences, Symbiosis International University, Pune, India Pooja Tendulakr, Biologist, SA Associates, Bareilly, Uttar Pradesh, India

**Prakash Rao** has 33 years of experience in the field of energy and environmental management with interests in climate change, energy and sustainable development. He holds a Ph.D. from the University of Bombay, India and has coordinated several multidisciplinary projects ranging from natural resources to climate change and energy. He has led the Climate Change and Energy Programme at WWF-India, coordinating its global research, energy policies and community action. Dr. Rao has published around 82 research papers, notes and book chapters in peer reviewed international journals and books and contributes in an advisory capacity to the corporate sector on environmental sustainability issues. He has published three books including one on Assessment of Climate Change in India and Mitigation Policies. He is also the Deputy Editor of the *International Journal of Agricultural Resources, Governance and Ecology.* He is currently the Deputy Director and Head, Energy and Environment Programme at the Symbiosis Institute of International Business, Symbiosis International University, Pune and is a certified Sustainability Assurance Practitioner from Accountability, UK.

Yogesh Patil is a Professor and Head - Research Publications at the Symbiosis International University, Pune, India. Dr. Patil holds his Doctorate degree in Environmental Sciences from Pune University, India and has over sixteen years of Post Graduate teaching and research experience in Environmental Science, Management & Technology. His research areas of interest include - waste management, bioremediation, sustainability, climate change and industrial ecology. He has over 50 research papers in national and international journals of repute and has also published one edited book on 'Applied Bioremediation – Active and Passive Approaches' published by InTech, Croatia. Dr. Patil has undertaken several research/consultancy projects funded by UGC, IFS (Sweden) & OPCW (The Netherlands), World Bank and PMC. He is recipient of several honours/fellowship awards like DST, CSIR, Best PhD Research Award, UGC-Post Doctoral Fellowship to name a few. He is reviewer and editorial board member of several journals indexed in Scopus and SCI.

**Order Information** 

Phone: 717-533-8845 x100 Toll Free: 1-866-342-6657

Fax: 717-533-8661 or 717-533-7115 Online Bookstore: www.igi-global.com

