

Shalini Dhyani  
Mrittika Basu  
Harini Santhanam  
Rajarshi Dasgupta *Editors*

# Blue-Green Infrastructure Across Asian Countries

Improving Urban Resilience and  
Sustainability

 Springer

## Authors and Affiliations

**Center for Study of Science, Technology and Policy, Bangalore, Karnataka, India**

Indu K. Murthy

**Integral University, Lucknow, Uttar Pradesh, India**

Monowar Alam Khalid

## Corresponding author

Correspondence to [Indu K. Murthy](#).

## Copyright information

---

© 2022 The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd.

## About this chapter

---



Check for updates

### Cite this chapter

Murthy, I.K., Khalid, M.A. (2022). Promoting Blue-Green Infrastructure in Urban Spaces Through Citizen Science Initiatives. In: Dhyani, S., Basu, M., Santhanam, H., Dasgupta, R. (eds) Blue-Green Infrastructure Across Asian Countries. Springer, Singapore.

[https://doi.org/10.1007/978-981-16-7128-9\\_4](https://doi.org/10.1007/978-981-16-7128-9_4)

Download citation

[.RIS](#) [.ENW](#) [.BIB](#)

DOI

[https://doi.org/10.1007/978-981-16-7128-9\\_4](https://doi.org/10.1007/978-981-16-7128-9_4)

Published

25 March 2022

Publisher Name

Springer, Singapore

Print ISBN

978-981-16-7127-2

Online ISBN

978-981-16-7128-9

eBook Packages

[Biomedical and Life Sciences](#)

[Biomedical and Life Sciences](#)

[\(RO\)](#)

# Table of contents (23 chapters)

---

Search within book



← Previous

Page

1

of 2

Next →

---

Front Matter

[PDF\\*](#)

Pages i-xxi

---

## [Blue-Green Infrastructure for Addressing Urban Resilience and Sustainability in the Warming World](#)

Shalini Dhyani, Sunidhi Singh, Mrityika Basu, Rajarshi Dasgupta, Harini Santhanam

Pages 1-22

---

## Opportunities and Advances

---

Front Matter

[PDF\\*](#)

Pages 23-23

---

## [Regional Trends in Social-Ecological-Technological \(SET\) Approaches to Sustainable Urban Planning: Focus on Asia](#)

Swetha Thammadi, Nidhi Nagabhatla, Sateesh Pisini, Stephanie Koza, Ashraf Mahmood

Pages 25-58

---

## [A Risk Assessment Approach to Urban Resilience](#)

Debbie Bartlett

Pages 59-73

---

## [Promoting Blue-Green Infrastructure in Urban Spaces Through Citizen Science Initiatives](#)

Indu K. Murthy, Monowar Alam Khalid

Pages 75-93

---

## [Is Ensuring the Sustainable Implementation of BGI Possible? System Thinking of Urban Rivers as Social-Ecological Systems](#)

Herlin Chien, Osamu Saito, Kensuke Fukushi

Pages 95-121

---

## [Understanding Blue-Green Infrastructure Through Spatial Maps: Contribution of Remote Sensing and GIS Technology](#)

Akhil Francis Thekkan, Anjaly George, P. Rama Chandra Prasad, Shijo Joseph


Pages 123-138



**Blue-Green Infrastructure Across Asian Countries** pp 75–93 | [Cite as](#)

[Home](#) > [Blue-Green Infrastructure Across Asian Countries](#) > [Chapter](#)

# Promoting Blue-Green Infrastructure in Urban Spaces Through Citizen Science Initiatives

[Indu K. Murthy](#)  & [Monowar Alam Khalid](#)

Chapter | [First Online: 25 March 2022](#)

564 Accesses | 1 [Altmetric](#)

## Abstract

The compounded effects of urbanization and climate change are taking a serious toll on rapidly growing urban spaces around the world. Blue-green infrastructure offers a host of opportunities and benefits for addressing the multiple challenges of environment, social well-being and climate change. Cities can mobilize key actors for crosscutting and inclusive action, bringing diverse stakeholders such as national governments, private sector, civil society and common citizens together. This chapter discusses the role of citizen science which is now seen as a tool for educating citizens on scientific research, engaging them where possible and considering views and expectations of different stakeholders. Citizen science can play a role at different stages of development of urban spaces, and they include (i) project demand, (ii) project design, (iii) project implementation and delivery and (iv) project monitoring and maintenance. For facilitating and promoting enhanced participation of citizens through the entire project cycle of blue-green infrastructure, appropriate policy instruments, ranging from legal to market-based to communication to organizational, are needed.

## Keywords

Blue-green infrastructure

Urban spaces

Cities

Climate change

Citizen science

Sustainable development