

Subject Guide

Urban Ecology

Urban ecology studies the impact of urban areas on local environments, highlighting both the challenges and solutions to sustainability in an increasingly urbanized world. Urban ecology recognizes that cities are complex and dynamic systems with their distinct ecological characteristics ([Grimm et al., 2008](#)).

Background Sources

[Annual Review of Ecology, Evolution, and Systematics Focuses](#) on providing authoritative and in-depth reviews that summarise the current state of knowledge in ecology, population dynamics, and ecosystem processes.

[Urban Ecology](#) explores key concepts in urban ecology, urban ecosystems, soil, hydrology, and wildlife.

[Urban ecology – current state of research and concepts](#) examines how urban areas interact with natural ecosystems, advocating for the view of cities as complex systems where social and ecological components are interconnected.

[Biodiversity by 2030](#): advocates for integrating urban ecology into city planning by emphasizing green infrastructure and community engagement to enhance sustainability and resilience.

[Urban Ecology](#) provides an overview of concepts of urban ecology and resilience framed by the interrelationships between communities and the natural and built environments at local, regional, and global scales.

[The History of Urban Ecology: An Ecologist's Perspective](#) overviews urban ecology from an ecologist's perspective.

The Global North dominates urban sustainability research. To understand the landscape of knowledge read '[The urban South and the predicament of global sustainability](#)'.

[Advancing Urban Ecology toward a Science of Cities](#) aims to become a comprehensive, integrated science, fostering interdisciplinary collaboration and innovative research to enhance urban sustainability and resilience.

[Biodiversity - our strongest natural defense against climate change](#) discusses the interplay between climate change and biodiversity, underscoring the urgent need for conservation action amidst ecosystem disruptions.

Subjects: urban ecology, urban ecosystems, built environment, sustainability, ecosystem services

Tags: urban, ecology, environment, biodiversity, nature, biology

Subject Librarians: Shalini B G, Nabeel Ahmad | shalinibg@iihs.ac.in; nahmad@iihs.ac.in | T+ 91 080 - 6760 6661

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News

Nature Portfolio is an international weekly journal of science that also publishes reviews, critical comments, news, and analysis.

The Conversation provides information on ecology, urban wildlife, and biodiversity.

Science X is a network of websites that offers the most thorough and up-to-date daily coverage of news related to science, technology, and medicine.

The Nature of Cities

An online platform for transdisciplinary dialogue about urban ecology and sustainability, featuring articles, essays, and discussions from experts around the world.

Dictionaries and Encyclopedias

- [Encyclopedia Britannica](#) offers detailed introductions to key concepts and disciplines on [urban ecosystems](#).
- [The Encyclopedia of Earth](#) is fully searchable and free and its [Ecology collection](#) covers a variety of topics.
- [UNESCO - Encyclopedia Life Support Systems is](#) a repository on the web of natural and social sciences.
- [The Dictionary of Ecological Economics](#) offers an extensive range of definitive terms in ecological economics.
- [Encyclopedia of Sustainability Science and Technology](#) provides peer-reviewed coverage of sustainability science and technology.

Journals

- [npj Urban Sustainability](#)
- [Nature Sustainability](#)
- [Landscape and Urban Planning](#)
- [Journal of Urban Ecosystems](#)
- [Journal of Urban Ecology](#)
- [Cities - The International Journal of Urban Policy and Planning](#)
- [Landscape Ecology](#)
- [Ecosystem Services](#)
- [Environmental Management](#)
- [Sustainability](#)
- [Journal of Environmental Planning and Management](#)
- [Journal of Urban Design](#)
- [Frontiers in Ecology and Evolution](#)
- [Watershed Ecology and the Environment](#)
- [Oikos Journal - Advancing Ecology](#)
- [Frontiers in Conservation Science](#)
- [Urban Ecosystems](#)
- [Current Landscape of Ecology Report](#)
- [Ecohydrology](#)
- [Ecological Applications](#)
- [Nature Sustainability](#)
- [Nature Water](#)
- [Urban Climate](#)
- [Ecological Indicators](#)
- [Sustainable Cities and Society](#)

Additionally, visit the Google Scholar listing of [Sustainable Development, Hydrology and Water Resources](#) and

[Environmental Sciences IHS library journals database](#) to access the journals that the library has subscribed to.

Open Access E-Journals

[Journal of Urban Research](#)

Publisher: Cairo University

Country: Gamaa Street, Giza

Language: English

Keywords: Urban environmental studies, urban planning, regional planning and development

Start year: 2015

[Cities and the Environment \(CATE\)](#)

Publisher: Loyola Marymount University

Country: California

Language: English

Keywords: Ecological landscaping, urban ecology, urban ecology education

Start year: 2008

[Ecosystem Health and Sustainability](#)

Publisher: Taylor & Francis

Country: United Kingdom

Language: English

Keywords: Ecological theory, sustainable development, sustainability ecosystems

Start year: 2015

[Ecology and Society](#)

Publisher: Resilience Alliance

Country: United States

Language: English

Keywords: Ecology, social-ecology, society, resilience

Start year: 2004

[Environmental Research Letters](#)

Publisher: IOP Publishing

Country: United Kingdom

Language: English

Keywords: Climate, environmental science, environmental policy

Start year: 2006

[Ecology, Economy and Society – The INSEE Journal](#)

Publisher: IOP Publishing

Country: United Kingdom

Language: English

Keywords: Ecology, economy, conservation, sustainability, environment

Start year: 2018

[BMC Ecology and Evolution](#)

Publisher: BMC

Country: United Kingdom

Language: English

Keywords: Ecology, biodiversity, evolutionary biology

Start year: 2021

[Folia Oecologica](#)

Publisher: Institute of Forest Ecology of the Slovak Academy of Sciences

Country: Slovakia

Language: English

Keywords: Ecosystem ecology, forest ecology, environmental sciences

Start year: 2017

[Ecological Indicators](#)

Publisher: Elsevier

Country: United Kingdom

Language: English

Keywords: Ecosystem services, indicator monitoring, resource management

Start year: 2021

[Journal of Ecology, Society and Science](#)

Publisher: ECOTAS

Country: Indonesia

Language: English

Keywords: ecology, environment, environmental sciences

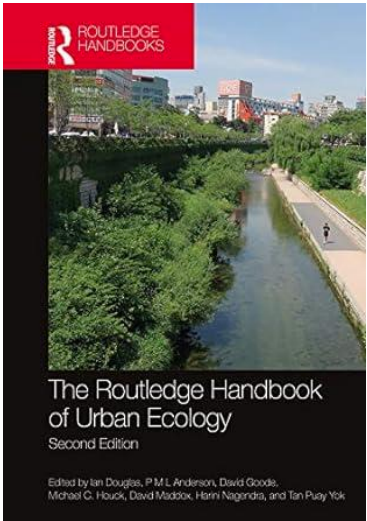
Start year: 2020

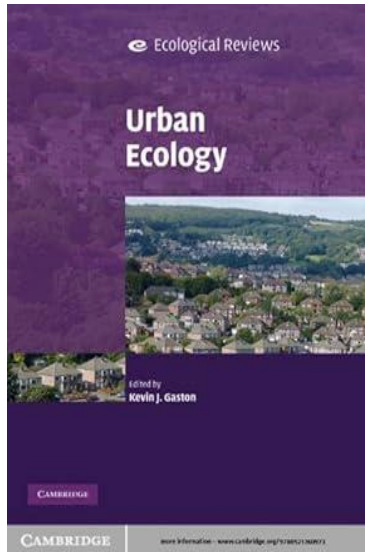
Key Journal Articles

- [Urban ecology and sustainability: The state-of-the-science and future directions](#)

- [Urban Ecological Systems: Linking Terrestrial Ecological, Physical, and Socioeconomic Components of Metropolitan Areas](#)
- [Urban Ecological Systems: Scientific Foundations And A Decade of Progress](#)
- [Researching Cities, Transforming Ecology: An Investigation into Urban Ecology Agendas](#)
- [Evolution and future of Urban Ecological Science: ecology in, of, and for the city](#)
- [Beyond The Urban: Rethinking Urban Ecology Using Kolkata as A Case Study](#)
- [Prioritizing India's Landscapes For Biodiversity, Ecosystem Services and Human Well-Being](#)

Books

	<p>The Routledge Handbook of Urban Ecology / edited by Ian Douglas, Pippin Anderson, David Goode, Michael C. Houck, David Maddox, Harini Nagendra and Tan Puay Yok</p> <p>Call Number: 307.7603 DOU 017954</p> <p>ISBN: 9781138581357</p> <p>Publication Date: 12-2020</p>
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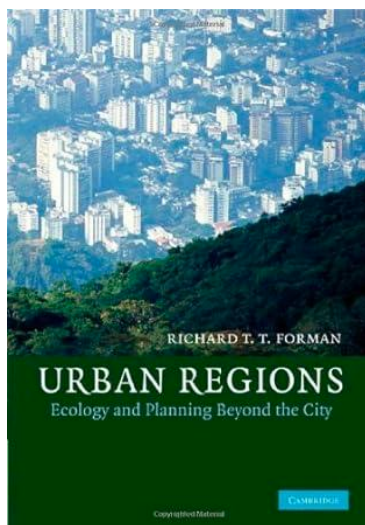


[Urban Ecology](#) / edited by Kevin J. Gaston

Call Number: 307.76 URBA 008593

ISBN: 9780521743495

Publication Date: 10-2010

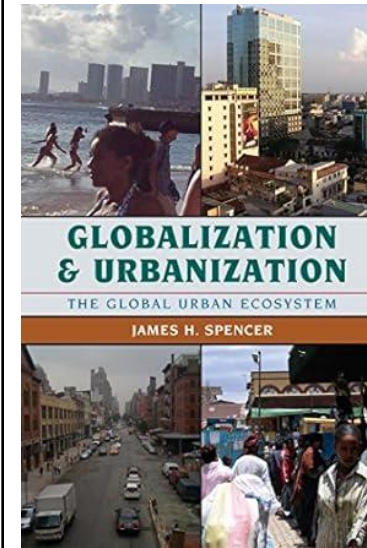


[Urban Regions : Ecology and Planning Beyond the City](#) / Richard T.T. Forman

Call Number: 307.1216 FOR 002815

ISBN: 9780521670760

Publication Date: 6-2008

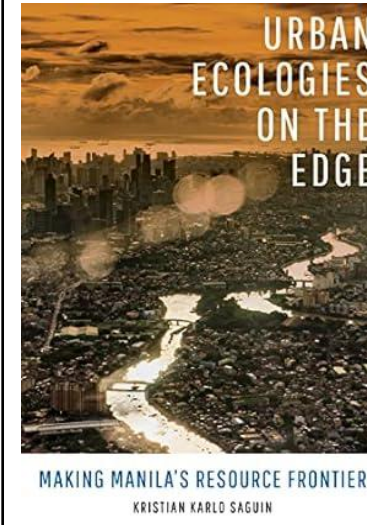


[Globalization and Urbanization : the Global Urban Ecosystem](#) / James H. Spencer

Call Number: 307.76 SPE 004846

ISBN: 9781442214750

Publication Date: 6-2014

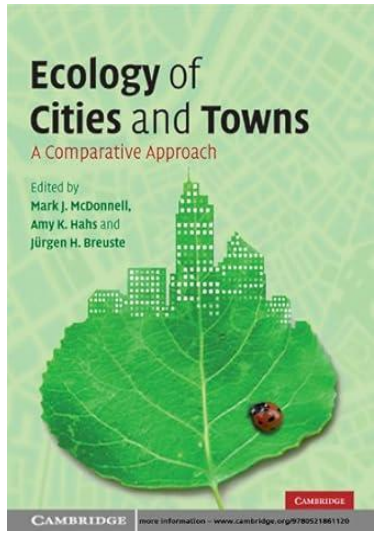
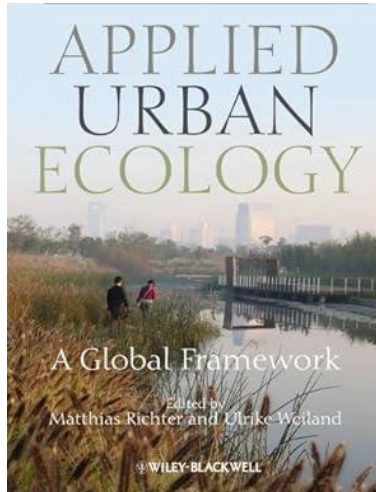


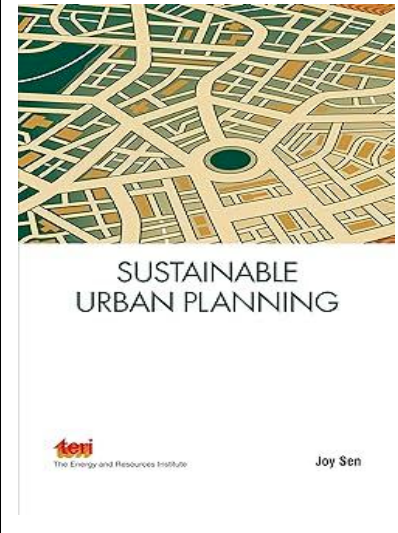
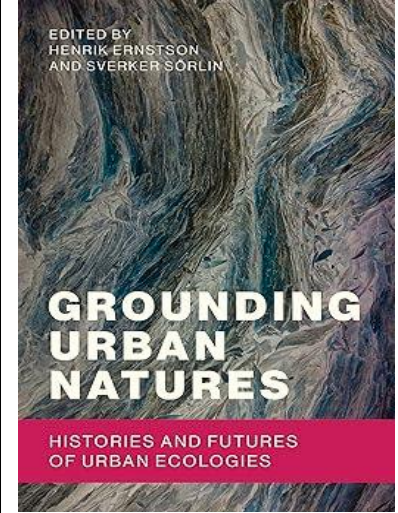
[Urban Ecologies on the Edge : Making Manila's Resource Frontier](#) / Kristian Karlo Saguin

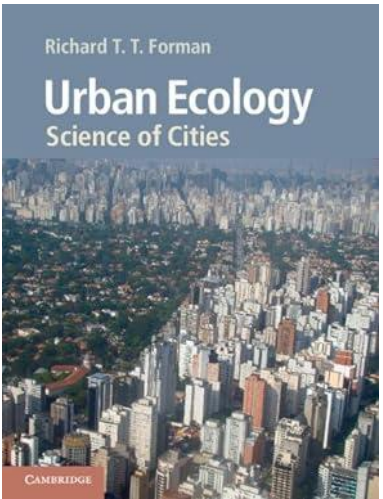
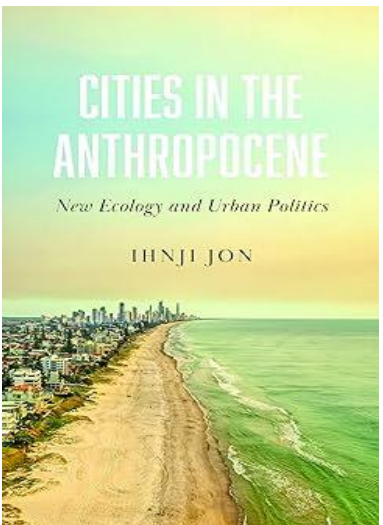
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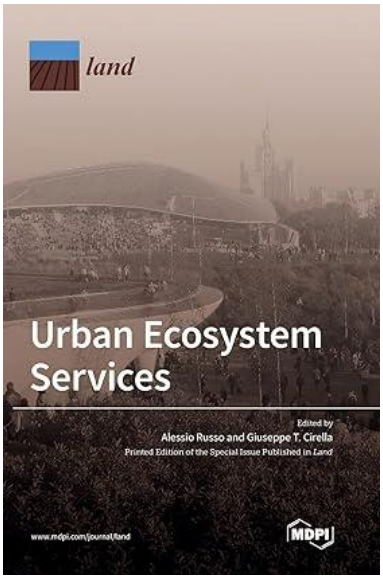
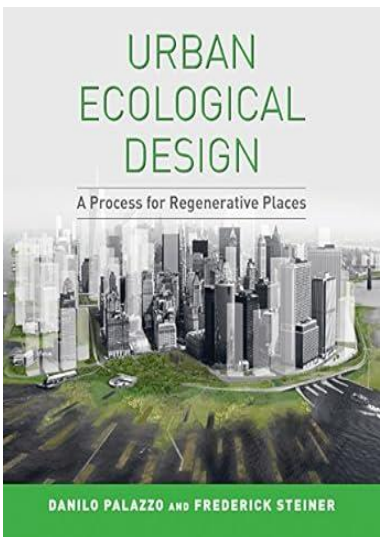
ISBN: 9780520382664

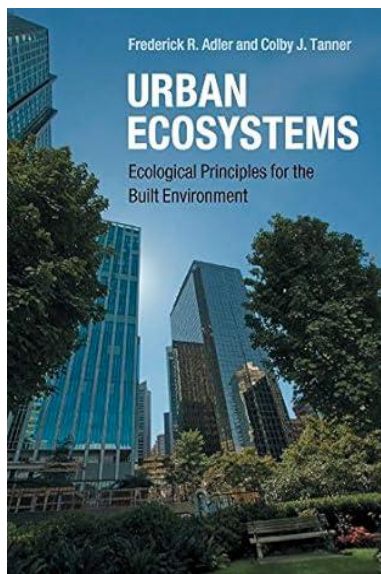
Publication Date: 6-2022

 <p>Ecology of Cities and Towns A Comparative Approach</p> <p>Edited by Mark J. McDonnell, Amy K. Hahs and Jürgen H. Breuste</p> <p>CAMBRIDGE</p>	<p>Ecology of Cities and Towns : a Comparative Approach / edited by Mark J. McDonnell, Amy K. Hahs, Jürgen H. Breuste</p> <p>Call Number: 577.56072 ECO 002179 ISBN: 9780521678339 Publication Date: 6-2009</p>
 <p>APPLIED URBAN ECOLOGY</p> <p>A Global Framework</p> <p>Edited by Matthias Richter and Ulrike Weiland</p> <p>WILEY-BLACKWELL</p>	<p>Applied Urban Ecology : a Global Framework / edited by Matthias Richter ; Ulrike Weiland</p> <p>Call Number: 577.56 APP 002917 ISBN: 9781444333404 Publication Date: 11-2011</p>

 <p>SUSTAINABLE URBAN PLANNING</p> <p>teri The Energy and Resources Institute</p> <p>Joy Sen</p>	<p>Sustainable Urban Planning in India / Joy Sen</p> <p>Call Number: 307.76 SEN 002315 ISBN: 9788179933244 Publication Date: 3-2012</p>
 <p>EDITED BY HENRIK ERNSTSON AND SVERKER SÖRLIN</p> <p>GROUNDING URBAN NATURES</p> <p>HISTORIES AND FUTURES OF URBAN ECOLOGIES</p>	<p>Grounding Urban Natures : Histories and Futures of Urban Ecologies / edited by Henrik Ernstson and Sverker Sörlin</p> <p>Call Number: 304.2091732 ERN 014695 ISBN: 9780262537148 Publication Date: 10-2019</p>

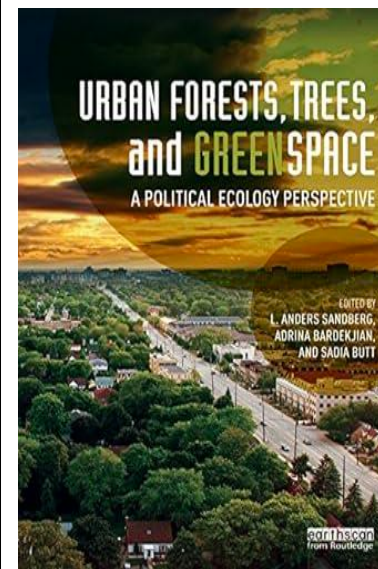
 <p>Richard T. T. Forman Urban Ecology Science of Cities CAMBRIDGE</p>	<p>Urban Ecology : Science of Cities / Richard T. T. Forman</p> <p>Call Number: 577.56 FOR 004117 ISBN: 9780521188241 Publication Date: 2-2014</p>
 <p>CITIES IN THE ANTHROPOCENE New Ecology and Urban Politics IH NJI JON</p>	<p>Cities in the Anthropocene : New Ecology and Urban Politics / Ihnji Jon</p> <p>Call Number: 307.76 JON 019067 ISBN: 9780745341507 Publication Date: 6-2021</p>

 <p>land Urban Ecosystem Services Edited by Alessio Russo and Giuseppe T. Cirella Printed Edition of the Special Issue Published in Land www.mdpi.com/journal/land MDPI</p>	<p>Urban Ecosystem Services / Alessio Russo and Giuseppe T. Cirella</p> <p>Call Number: 577.56 RUS 017903 ISBN: 9783036505824 Publication Date: 5-2021</p>
 <p>URBAN ECOLOGICAL DESIGN A Process for Regenerative Places DANILO PALAZZO AND FREDERICK STEINER</p>	<p>Urban Ecological Design : A Process for Regenerative Places / Danilo Palazzo and Frederick Steiner</p> <p>Call Number: 307.1216 PAL 012167 ISBN: 9781597268295 Publication Date: 12-2011</p>



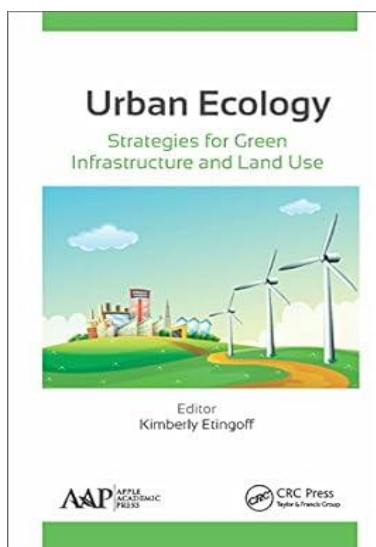
[Urban Ecosystems : Ecological Principles for the Built Environment](#) / Frederick R. Adler and Colby J. Tanner

Call Number: 307.76 ADL.E 008250
ISBN: 9780521746137
Publication Date: 05-2013



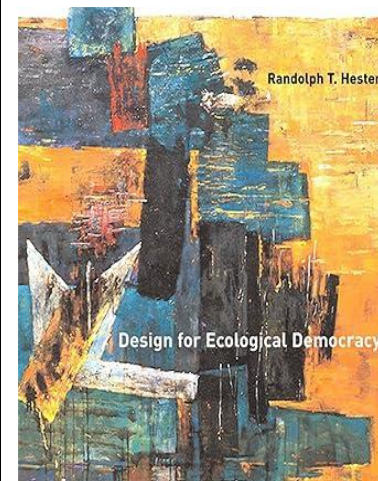
[Urban Forests, Trees, and Greenspace : A Political Ecology Perspective](#) / edited by L. Anders Sandberg, Adrina Bardekjian, and Sadia Butt

Call Number: 635.977 URB 23 012199
ISBN: 9781138282575
Publication Date: 07-2016



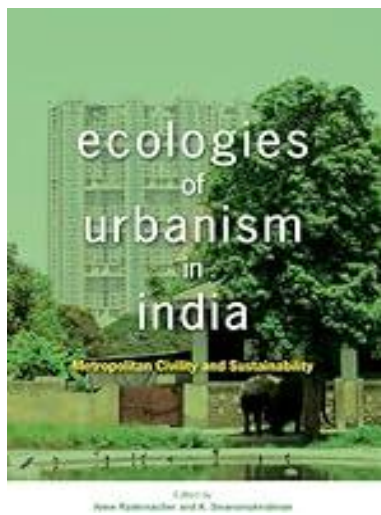
[Urban Ecology : Strategies for Green Infrastructure and Land Use](#) / Edited by Kimberly Etingoff

Call Number: 307.76 URB 23 020870
ISBN: 9781771882811
Publication Date: 07-2016



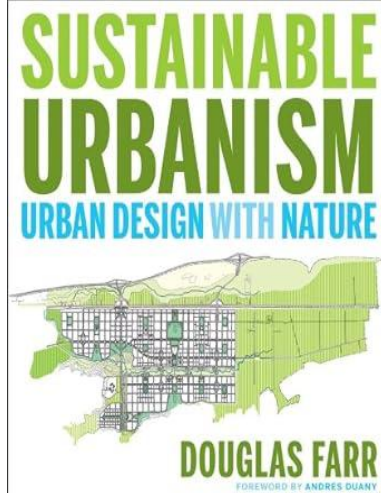
[Design for Ecological Democracy](#) / Randolph T. Hester

Call Number: 307.12160973 HES 001530
ISBN: 9780262515009
Publication Date: 01-2006



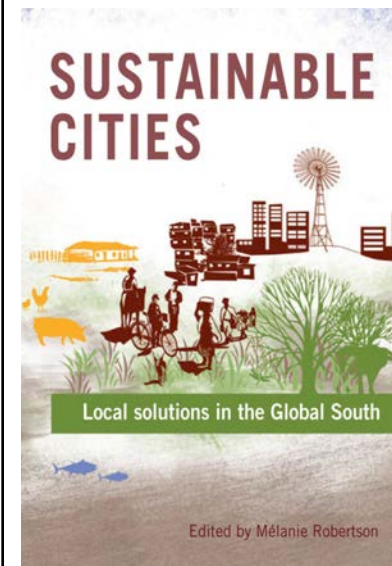
[Ecologies of Urbanism in India : Metropolitan Civility and Sustainability](#) / edited by Anne Rademacher and K. Sivaramakrishnan

Call Number: 307.760954 ECO 23 004642
ISBN: 97898888139774
Publication Date: 03-2013



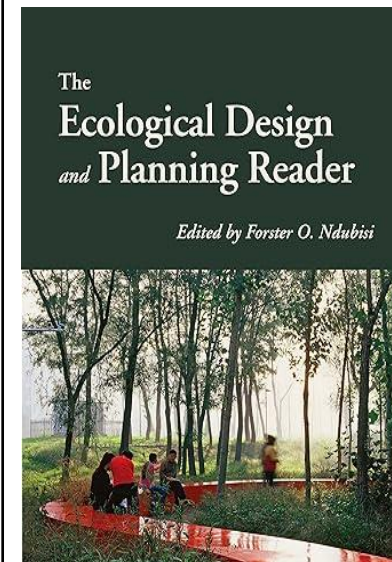
[Sustainable Urbanism : Urban Design with Nature](#) / Douglas Farr ; foreword by Andres Duany

Call Number: 307.76 FAR.R 016380
ISBN: 9780471777519
Publication Date: 01-2008



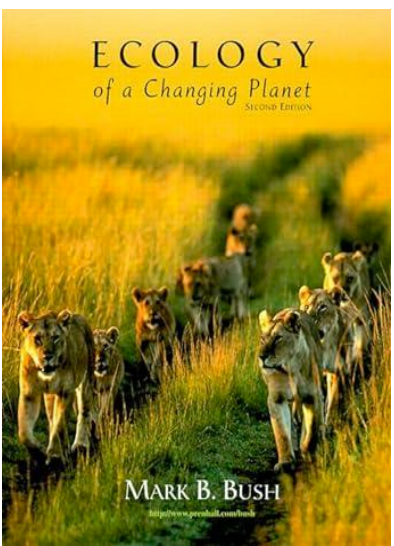
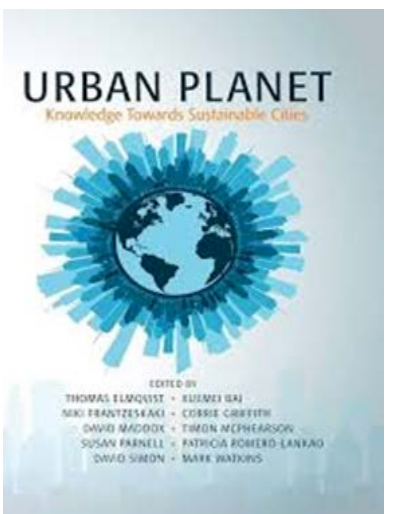
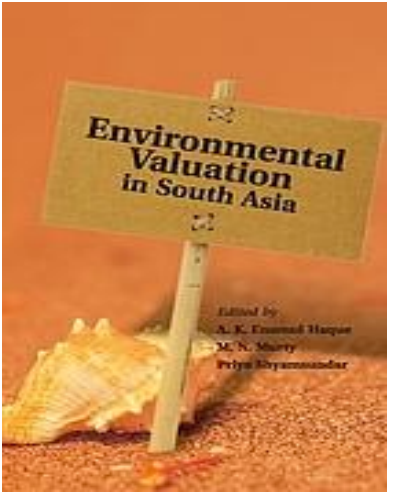
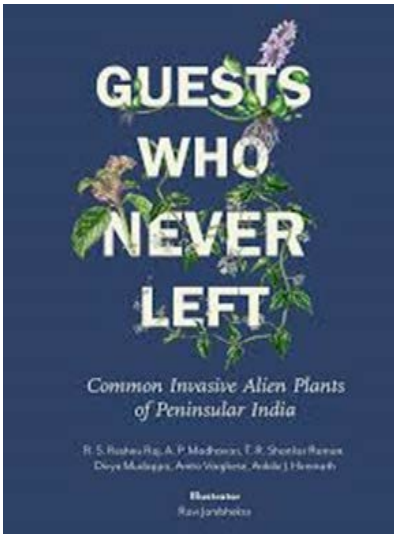
[Sustainable Cities : Local Solutions in the Global South](#) / edited by Mélanie Robertson

Call Number: 307.141 SUS 23 004658
ISBN: 9781853397233
Publication Date: 01-2012

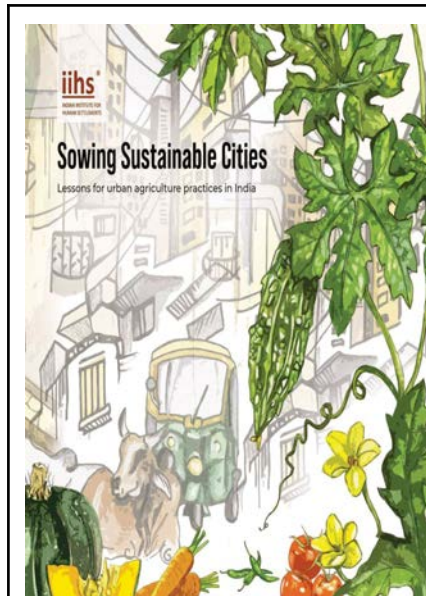


[The Ecological Design and Planning Reader](#) / edited by Forster O. Ndubisi

Call Number: 304.2091732 ECO 23 011255
ISBN: 9781610914895
Publication Date: 01-2014

	<p>Ecology of a Changing Planet / Mark B. Bush</p> <p>Call Number: 577 BUS 005573 ISBN: 9780130112026 Publication Date: 07-2000</p>		<p>Urban Planet / edited by Thomas Elmqvist</p> <p>Call Number: 307.76 ELM 009656 ISBN: 9781107196933 Publication Date: 04-2018</p>
	<p>Environmental valuation in South Asia / edited by A.K. Enamul Haque, M.N. Murty, and Priya Shyamsundar</p> <p>Call Number: 333 ENV 23 008155 ISBN: 9781107007147 Publication Date: 08-2011</p>		<p>Guests who never left : common invasive alien plants of peninsular India / R. S. Reshnu Raj, A. P. Madhavan, T. R. Shankar Raman, Divya Mudappa, Anitha Varghese, Ankila J. Hiremath ; illustrated by Ravi Jambekar</p> <p>Call Number: 581.652 RAJ 020696 ISBN: 9788195466399 Publication Date: 08-2023</p>

Faculty Publications

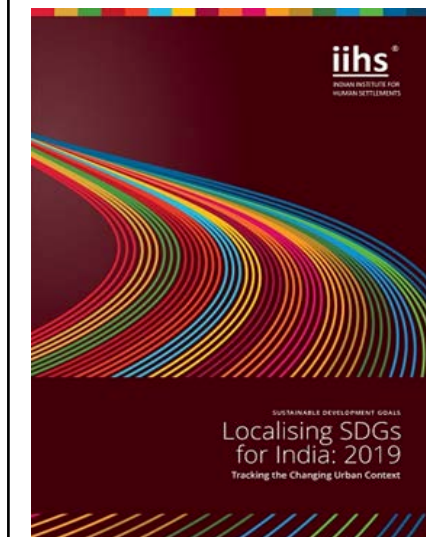


[Sowing sustainable cities : lessons for urban agriculture practices in India](#) / Sheetal Patil, Nitya Rao, Maitreyi Koduganti, Chandni Singh, Prathijna Poonacha, Swarnika Sharma, Parama Roy, Ashwin Mahalingam and Nishant

Call Number: 630.954 PAT 019949

ISBN: 9788195466399

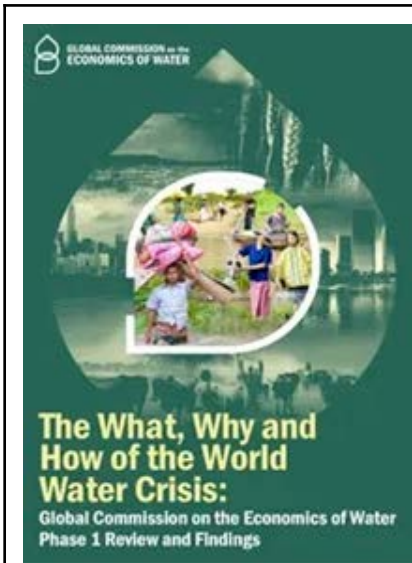
Publication Date: 08-2023



[Localising SDGs for India: 2019 Tracking the Changing Urban Context](#) / Aromar Revi, Gargi Sen, Yamini Suresh, Rahael Kuruvilla, Amir Bazaz

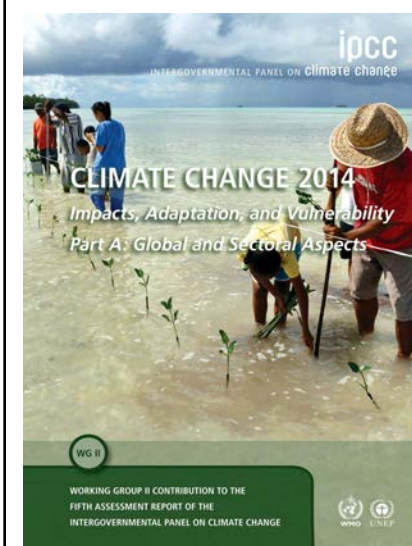
ISBN: 9789387315624

Publication Date: 06-2014



[The What, Why and How of the World Water Crisis: Global Commission on the Economics of Water Phase 1 Review and Findings](#) / Quentin Grafton, Joyeeta Gupta, Aromar Revi, Jagdish Krishnaswamy, Amir Bazaz, Prajna Beleyur, Ketaki Ghoge, Santhosh Ragavan K V, Mahima Vijendra, Kavita Wankhade et al.

Publication Date: 03-2023



[Urban Areas: Climate Change 2014: Impacts, Adaptation, and Vulnerability](#) / Aromar Revi, David E. Satterthwaite, Fernando Aragón-Durand, Jan Corfee-Morlot, Robert B.R. Kiunsi, Mark Pelling, Debra C. Roberts, William Solecki, Jo da Silva, David Dodman, Andrew Maskrey, Sumetee Pahwa Gajjar, Raf Tuts

ISBN: 9781107641655

Publication Date: 2014

Open Access Books

- [Urban Literacy: Learning to Read the City Around You](#)
- [Textbook of Environment and Ecology](#)
- [Urban Ecosystem Services II: Toward a Sustainable Future](#)
- [Scenes and Communities in the City](#)
- [Identity, Space, and Everyday Life in Contemporary Northeast China](#)
- [Beyond the Garden: Sustainable and Inclusive Green Urban Spaces](#)
- [The Impact of Social and Ecological Factors on Coupled Human-Environment Systems](#)
- [Urban Transition](#)
- [Mobilities on the Margins: Creative Processes of Place-Making](#)
- [Urban Land Systems: An Ecosystems Perspective](#)

Reports

- [United Nations - Climate Reports](#)
- [Global Assessment Report on Biodiversity and Ecosystem Services](#)
- [The Economics of Biodiversity: The Dasgupta Review](#)
- [World Cities Report 2020: The Value of Sustainable Urbanization](#)
- [Cities and Biodiversity Outlook - Action and Policy](#)
- [Exploring the Urban Ecology Report 2023](#)
- [IPCC Sixth Assessment Report: Cities, settlements and key infrastructure](#)

- [Regional Assessment Report on Biodiversity and Ecosystem Services for Asia and the Pacific](#)
- [Restoring India's Terrestrial Ecosystems: Needs, Challenges, and Policy Recommendations](#)
- [State of the World's Cities 2006/2007](#)
- [Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network](#)
- [Ecological Threat Report 2023](#)
- [Summary for Urban Policy Makers: What the IPCC Special Report on Global Warming of 1.5°C means for cities](#)
- [Millennium Ecosystem Assessment Report 2005](#)
- [Global Warming 1.5°C: Sustainable development, poverty eradication and reducing inequalities](#)

Databases

[Global Biodiversity Information Facility \(GBIF\)](#): GBIF is an international network and open-access data platform that provides biodiversity data from around the world.

[Open City Urban Data Portal](#) provides easy access to a wealth of urban data, fostering transparency and empowering citizens to make informed decisions about their cities.

[The National Bureau of Economic Research Historical Urban Ecological \(HUE\)](#) data set describes ward-level health and environmental conditions in seven of America's largest cities--Baltimore, Boston, Brooklyn, Chicago, Cincinnati, New York (Manhattan), and Philadelphia--from 1830 to 1930.

[The UN-Habitat Urban Indicators Database](#) is a comprehensive source offering global urban data and statistics, focusing on various aspects such as population dynamics, housing, and environmental sustainability.

[The Atlas of Urban Expansion](#) is an open-access platform that provides data and maps on urbanization patterns and trends in 200 cities worldwide.

[Our World in Data](#) is a renowned source providing meticulously researched global statistics and insights, facilitating informed decision-making and fostering evidence-based discussions.

Working Papers

- [OECD Environment Working Papers](#)
- [STEPS Centre Working Papers](#)
- [Society of Urban Ecology \(SURE\) Working papers](#)
- [FAERE Working Papers](#)
- [International Water Management Institute Working Papers](#)
- [Economic and Social Affairs Working Papers](#)
- [Research in Environmental Economics - NCEE Working Paper Series](#)
- [Working and Policy Papers on Biodiversity and Ecosystems](#)
- [Economics, Ecology and Environment Working Papers](#)

- [University of Queensland, School of Economics Economics, Ecology and Environment Working Papers](#)

Government Resources

[The National Mission for Clean Ganga \(NMCG\)](#) proposes a five-tier system for Ganga river: national, state, and district levels for pollution control and rejuvenation.

[The National Green Tribunal \(NGT\)](#) deals with the expeditious resolution of cases related to environmental protection and the conservation of natural resources.

[Ministry of Environment, Forest and Climate Change \(MoEFCC\)](#) provides India's environmental policy and actions, tackling urban issues from air pollution to biodiversity conservation to improve urban sustainability.

[National Mission Sustainable Habitat](#) (NMSH) mission has been part of the National Action Plan on Climate Change (NAPCC) since 2010, and aims to enhance urban resilience to climate change impacts, focusing on city sustainability.

[Western Ghats Ecology Expert Panel Report](#) led by Madhav Gadgil and initiated by India's Ministry of Environment and Forests, aimed to evaluate the region's ecological health and propose conservation strategies.

[Report of the High-Level Working Group on the Western Ghats - Kasturirangan Report](#) identifies ecologically sensitive zones to harmonise environmental conservation with economic development.

[National Action Plan on Climate Change](#) outlines a strategic framework to address climate change challenges through eight national missions, promoting sustainable development.

[Cities of the Future: Reimagining and Rejuvenating India's Top 50 Urban Ecosystems](#) aims to transform India's top 50 urban ecosystems by integrating advanced technologies and sustainable practices to enhance livability, efficiency, and resilience.

[India's Second National Communication to the United Nations Framework Convention on Climate Change](#) addresses climate change through comprehensive policies and actions, reflecting its dedication to sustainable development and global environmental stewardship.

[Biodiversity Report India 2023](#) highlights India's rich biodiversity and underscores the urgent need for conservation efforts to protect its ecosystems and species diversity in the face of growing environmental challenges.