

# GEOG5005 Environmental Hazard Management (Semester 1)

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80 items

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## Core text (1 items)

This is the core text for this module, please ensure you read the first few chapters early on in the module, you can then use the thematic chapters to read about specific disaster types as we cover them (Earthquakes and volcanoes in chapter 8, The Pressure and release model in chapter 2, Flooding chapter 6, and Famine chapter 4). The Pressure and release model is explained and adopted throughout the book. It will be important to get to grips with this model during the module and it will be explained and used in sessions.

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**At risk: natural hazards, people's vulnerability and disasters**, by Benjamin Wisner; Piers M. Blaikie, 2004

[Book](#) | Essential

## Student mini-lecture reading (30 items)

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### Does forecasting of hazardous events save lives? (6 items)

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**Early warning systems must protect everyone within five years**, by World Meteorological Organization, 2022

[Webpage](#) | Essential

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**Forecasting hazards, averting disasters**, by Overseas Development Institute, 2018

[Document](#) | Optional

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**Electric shockers: a novel method of predicting earthquakes** - in New scientist, by Julie Wakefield, 1997

[Article](#) | Optional

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**Here comes the big one: seismic waves and earthquake forecasting** - in New scientist, by Ruth Flanagan, 1996

[Article](#) | Optional

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**And here is the eruption forecast** - in New scientist, by Daniel Pendrick, 1995

[Article](#) | Optional

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**On watch for the killer wave** - in New scientist, by Gabrielle Walker, 1995

[Article](#) | Optional

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## A role for the military in disaster relief (4 items)

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**Evaluating Military Engagement in Disaster Response**, by Advanced Training Program on Humanitarian Action, 2016

[Webpage](#) | **Essential**

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**Military participation in emergency humanitarian assistance** - in Disasters, by Joel C Gaydos; George A Luz, 1994

[Article](#) | **Recommended**

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**Military forces in the counter-disaster role** - in Disaster management: a disaster manager's handbook, 2008

[Chapter](#) | **Optional**

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**Foreign military resources for disaster relief: an NGO perspective** - in Disasters, by Peter Walker, 1992

[Article](#) | **Optional**

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## **Role and impact of the mass media in disasters** (7 items)

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**Role of frequency modulation radio in disaster communication: A case study of Pakistan earthquake** - in Jàmbá Journal of Disaster Risk Studies, by Syed I. Rahman; Nauman Sial; Saniya Moazzam, 2021

[Article](#) | **Recommended**

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**The Power of Radio to Promote Health and Resilience in Natural Disasters: A Review** - in International Journal of Environmental Research and Public Health, by Karin Hugelius; Mike Adams; Eila Romo-Murphy, 2019

[Article](#) | **Recommended**

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**Competing Constructions of Calamity: The April 1991 Bangladesh Cyclone Abstract** - in Population and Environment, by Michael R. Dove; Mahmudul Huq Khan, 1995

[Article](#) | **Recommended**

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**Disasters, relief and the media**, by Jonathan Benthall, 2010

[Book](#) | **Recommended**

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**Getting the message: news, truth and power**, by J. E. T. Eldridge; Glasgow University Media Group, 1993

[Book](#) | **Recommended**

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**The role of the media in hazard mitigation and disaster management** - in Disasters, by Stephen Rattien, 1990

[Article](#) | **Recommended**

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**Are the News Media Responsible for the Disaster Myths? A Content Analysis of Emergency Response Imagery** - in International Journal of Mass Emergencies & Disasters, by James D Goltz, 1984

[Article](#) | **Essential**

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## **The role of new technology in disaster relief and mitigation** (5 items)

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**Information technologies and disaster management – Benefits and issues** - in Progress in Disaster Science, by Mihoko Sakurai; Yuko Murayama, 2019

[Article](#) | Recommended

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**How technology is changing disaster relief** - BBC News, by Edwin Lane, 2014

[Webpage](#) | Optional

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**Finding community through information and communication technology in disaster response** - in Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work, November 8-12, 2008, Hilton San Diego Resort, San Diego, California, USA, by Irina Shklovski; Leysia Palen; Jeannette Sutton, 2008

[Chapter](#) | Optional

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**Issues in managing disaster relief inventories** - in International Journal of Production Economics, by D. Clay Whybark, 2007

[Article](#) | Optional

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**Disaster robotics**, by Robin Murphy, 2014

[Book](#) | Optional

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## Aid - does it really? (4 items)

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**Does aid work?: report to an intergovernmental task force**, by Robert Cassen, 1994

[Book](#) | Recommended

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**Recent Trends in the International Relief System** - in Disasters, by John Borton, 1993

[Article](#)

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**British aid and international trade: aid policy making, 1978-89**, by Oliver Morrissey; Brian Smith; Edward Horesh, 1992

[Book](#)

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**Food aid: the challenge and the opportunity**, by H. W. Singer; John Wood; Anthony Jennings, 1987

[Book](#)

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## The gender dimensions of an emergency (1 items)

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**Working with women in emergency relief and rehabilitation programmes**, by League of Red Cross and Red Crescent Societies, 1991

[Document](#) | Optional

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## Responding to the refugee problem (3 items)

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**Handbook for emergencies**, by Office of the United Nations High Commissioner for Refugees, 2000

[Book](#) | Optional

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**Environmental change in refugee-affected areas of the Third World: the role of policy and research** - in Disasters, by Richard Black, 1994

[Article](#) | Optional

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**Refugees and displaced persons: geographical perspectives and research directions** - in Progress in human geography, by R. Black, 1991

[Article](#) | Optional

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## Week 1 - Introductory reading (2 items)

This book by Coppola contains essential reading for weeks 1 and 2. There is a quiz in week 2 based on 'trends' in disasters, but you must do the reading before taking the quiz

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**Introduction to international disaster management**, by Damon P. Coppola, 2015

[Book](#) | Essential | Read pages 1-10 before taking the quiz

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**Disaster by choice: how our actions turn natural hazards into catastrophes**, by Ilan Kelman, 2020

[Book](#) | Recommended | This book will clarify that Natural hazards do not really lead to natural disasters. It looks at the human element of disasters and helps you to understand what makes a disaster and introduces the concept of vulnerability that we look at in more detail later in the course

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## Week 2 - The disaster Management Cycle (3 items)

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**Introduction to International Disaster Management**, by Damon P Coppola, 2015

[Book](#) | Essential

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**Mitigating natural disasters: phenomena, effects and options**, by United Nations, 1991

[Book](#) | Recommended | Mitigation phase

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**Disaster management: international lessons in risk reduction, response and recovery**, by Maureen Fordham, 2014

[Book](#) | Recommended

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## Week 3 - Earthquakes (4 items)

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**At risk: natural hazards, people's vulnerability and disasters**, by Benjamin Wisner; Piers M. Blaikie, 2004

[Book](#) | Essential | Read Kobe case study on pages 293 to the top of p300. (This is part of chapter 8)

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**1995 Kobe Earthquake 10 - year retrospective**, by Risk Management Solutions, 2005

[Document](#) | Essential | We note how long disaster recovery can take, even after 10 years the impacts are still being felt! Make notes on the geographical response in terms of town planning and zoning areas for priority development.

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**The power of people: social capital's role in recovery from the 1995 Kobe earthquake** - in

Natural Hazards, by Daniel P. Aldrich, 2011

**Article** | **Essential** | This article is about 'social capital' and how it can speed recovery from disasters. The idea of capitals comes from the work of Bordieu

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**Advances in earthquake and tsunami sciences and disaster risk reduction since the 2004 Indian ocean tsunami** - in Geoscience Letters, by Kenji Satake, 2014

**Article** | **Recommended**

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## Week 4 - Vulnerability Readings (8 items)

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**At risk: natural hazards, people's vulnerability and disasters**, by Benjamin Wisner; Piers M. Blaikie, 2004

**Book** | **Essential** | This week you will get familiar with the Pressure and release model that is central to the core text for the module (At Risk), so ensure you read about the model in chapter 2 there first

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**Vulnerability to environmental hazards** - in Progress in human geography, by Susan L Cutter, 1996

**Article** | **Optional** | This is a precursor article to the one from 2008 ('A Place based model for understanding community resilience to natural disasters') which is the essential reading. This one is a review article, so has some great references to previous work.

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**A place-based model for understanding community resilience to natural disasters** - in Global Environmental Change, by Susan L. Cutter; Lindsey Barnes; Melissa Berry; Christopher Burton; Elijah Evans; Eric Tate; Jennifer Webb, 2008

**Article** | **Essential** | Please read the whole thing but in particular try to get to grips with the DROP (place based) model in this article. The important thing in this article is the newer argument that we should move on from vulnerability to thinking about resilience, so read this AFTER the Cutter et al 2000 article on vulnerability

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**Revealing the Vulnerability of People and Places: A Case Study of Georgetown County, South Carolina** - in Annals of the Association of American Geographers, by Susan L. Cutter; Jerry T. Mitchell; Michael S. Scott, 2000

**Article** | **Essential** | The place based model in this article (Figure1) is the part you need to understand. For those interested in how to do vulnerability mapping please read on to explore how the authors do this in Georgetown in North Carolina - Vulnerability mapping is very useful and might make it into your recommendations section - but you need to know how to do it before you can recommend it.

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**Post-disaster recovery and ongoing vulnerability: Ten years after the super-cyclone of 1999 in Orissa, India** - in Global Environmental Change, by Vasudha Chhotray; Roger Few, 2012

**Article** | **Optional** | If you want to look at an Asian example of vulnerability in a developing world context (in contrast to our Japan earthquake case study) this is one of two readings from India

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**Power, choice and vulnerability: a case study in disaster management in South India, 1977-1988**, by Peter Winchester, 1992

**Book** | **Optional** | Again a disaster management example from India to contrast to the 10 year retrospective from Japan last week

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**Why vulnerability still matters: the politics of disaster risk creation**, edited by Greg Bankoff; Dorothea Hihorst, 2022

[Book](#) | Optional

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**Climate change impacts and women's livelihood: vulnerability in developing countries**, by Salim Momtaz; Muhammad Asaduzzaman, 2020

[Book](#) | Optional

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## Week 4 Volcano Reading (2 items)

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**At risk: natural hazards, people's vulnerability and disasters**, by Benjamin Wisner; Piers M. Blaikie, 2004

[Book](#) | Essential | Read chapter 8

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Please see Moodle for materials and links relating to volcanic hazards

## Lightning (2 items)

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**Lightning**, by Derek M. Elsom, 2015

[Book](#) | Recommended

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**Factors contributing to a long-term decrease in national lightning fatality rates: case study of the United Kingdom with wider implications** - in International Journal of Disaster Risk

Reduction, by Derek M. Elsom, 2018

[Article](#) | Essential

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## Flooding (2 items)

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**Flood risk and community resilience: an interdisciplinary approach**, by Lindsey McEwen, 2024

[Book](#) | Recommended

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**At risk: natural hazards, people's vulnerability and disasters**, by Benjamin Wisner; Piers M. Blaikie, 2004

[Book](#) | Essential | Please read chapter 6

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## Arid Zone disasters (4 items)

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**At risk: natural hazards, people's vulnerability and disasters**, by Benjamin Wisner; Piers M. Blaikie, 2004

[Book](#) | Essential | Please read chapter 4

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**Sustaining the soil: indigenous soil and water conservation in Africa**, by Chris Reij; Ian Scoones; Camilla Toulmin, 1996

[Book](#) | Essential | I know it's an old source but the principles of how to manage water within the soil in arid areas has not changed

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**Combating HIV and/or AIDS : a challenge to millennium development goals for disaster managers in the Southern African development community : original research** - in Jamba : Journal of Disaster Risk Studies, by Alice Ncube; Olivia Kunguma, 2016  
[Article](#) | [Recommended](#) | HIV/AIDS as a compounding disaster in Southern Africa

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**Natural disaster hotspots: case studies**, by World Bank, 2006  
[Book](#) | [Recommended](#) | Particularly good on drought

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## General reading list - Books (5 items)

Key books on disaster management

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**Disaster and development**, by Andrew E. Collins, 2009  
[Book](#) | [Recommended](#)

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**Environmental hazards: assessing risk and reducing disaster**, by Keith Smith, 2013  
[Book](#) | [Recommended](#)

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**Natural disaster hotspots: case studies**, by World Bank, 2006  
[Book](#) | [Recommended](#)

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**Natural disasters**, by David Alexander, 1993  
[Book](#) | [Essential](#)

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**The environment as hazard**, by Ian Burton; Robert W. Kates; Gilbert F. White, c1993  
[Book](#) | [Optional](#)

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## Additional Reading (13 items)

Everyone will have their own interests to follow up so the list below includes classic texts and more general readings from which you can choose what to read. There is also a list of journals for you to browse if you want to follow up on any specific themes or cases

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**The Routledge handbook of disaster risk reduction including climate change adaptation**, edited by Ilan Kelman; Jessica Mercer; J. C. Gaillard, 2020  
[Book](#) | [Recommended](#)

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**Disaster by choice: how our actions turn natural hazards into catastrophes**, by Ilan Kelman, 2020  
[Book](#) | [Recommended](#)

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**The politics of scale and disaster risk governance: Barriers to decentralisation in Portland, Jamaica** - in Geoforum, by Sophie Blackburn, 2014  
[Article](#) | [Recommended](#)

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**Disaster management and rehabilitation**, by Rajdeep Dasgupta, 2007  
[Book](#) | [Optional](#)

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**Christian perspectives on disaster management: a training manual**, by Ian Davis; Michael Wall, 1992  
[Book](#) | [Optional](#)

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**World Disasters Report 2022**, by International Federation of Red Cross and Red Crescent Societies, 2023

[Webpage](#) | Optional

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**Disaster risk, climate change and international development: scope for, and challenges to, integration** - in Disasters, by Lisa Schipper; Mark Pelling, 2006

[Article](#) | Optional

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**Cities, disaster risk and adaptation**, by Christine Wamsler, 2014

[Book](#) | Optional

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**Extreme natural hazards, disaster risks and societal implications**, edited by Alik Ismail-Zadeh, 2014

[Book](#) | Optional

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**Revisiting the 'disaster and development' debate – Toward a broader understanding of macroeconomic risk and resilience** - in Climate Risk Management, by Junko Mochizuki; Reinhard Mechler; Stefan Hochrainer-Stigler; Adriana Keating; Keith Williges, 2014

[Article](#) | Recommended

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**Disaster management and climate change adaptation: a remote island perspective** - in Disaster Prevention and Management, by Ingrid Johnston, 2014

[Article](#) | Optional | Good to note the impact of climate change on any recommendations you may have for future disaster management

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**Workshop Report: Multi-Hazard Risk Scenarios for Tomorrow's Cities**, by Joel C Gill; Ekbal Hussain; Bruce D Malamud, 2021

[Document](#) | Recommended | Great report considering the risk of multi or compound hazards

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**Risk Factors for Suicidal Behaviours after Natural Disasters: A Systematic Review** - in Malaysian Journal of Medical Sciences, by Hamid Jafari; Mohammad Heidari; Samaneh Heidari; Nasrin Sayfour, 2020

[Article](#) | Optional | Slightly tangential to the module but interesting because i) it shows how risk is human and relates to vulnerability and ii) from a research point of view it is a nice example of a study using a systematic literature review which some of you may consider as an approach for your dissertation

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## Reading list - journals (4 items)

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**Disasters**

[Journal](#) | Essential

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**Australian journal of emergency management**

[Journal](#) | Essential

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**Environment & Urbanization**

[Journal](#) | Optional

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**International Development Planning Review**

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**Journal** | **Optional** | Earlier title: Third World Planning Review