

The Peri-Urban Interface

Approaches to Sustainable Natural and Human Resource Use

Edited by
Duncan McGregor, David Simon
and Donald Thompson

EARTHSCAN

London • Sterling, VA

Contents

<i>List of Figures and Tables</i>	x
<i>List of Contributors</i>	xiv
<i>Acknowledgements</i>	xx
<i>List of Acronyms and Abbreviations</i>	xxi
Part 1 The Search for Peri-Urban Resource Sustainability	1
1 Contemporary Perspectives on the Peri-Urban Zones of Cities in Developing Countries	3
<i>David Simon, Duncan McGregor and Donald Thompson</i>	
Introduction	3
Between urban and rural: Distinctiveness or hybridity?	4
Beyond the built-up city: The peri-urban interface (PUI) and urban footprints	7
Defining the peri-urban	9
Overview of the book's contents	12
2 Peri-Urban Ecosystems and Societies: Transitional Zones and Contrasting Values	18
<i>Ian Douglas</i>	
Introduction	18
The nature and rates of land cover/land-use change in developing area peri-urban zones	20
Peri-urban land cover/land-use changes and their origins in processes of migration, poverty and providing basic human needs	21
Consequences of land cover/land-use changes as induced by materials flows for shelter, manufacturing, infrastructure and transportation: Accumulation of the urban 'stock'	21
Air and water pollution and soil and land contamination in peri-urban areas, and their health and ecosystem impacts	23
Impacts of water use and hydrological and aquatic ecosystem transformation, and their consequences	24
Ecology and biodiversity of peri-urban areas: Resilience and response particularly in stressed environments	25
Political and institutional factors in peri-urban environmental change	25
Conclusions	26

3	Understanding Environmental Change in the Context of Rural–Urban Interactions	30
	<i>Adriana Allen</i>	
	Beyond conventional dichotomies	30
	Bringing the peri-urban interface (PUI) into focus	32
	Environmental processes of change in the PUI	35
	Conclusions	40
4	Falling between Stools? Policies, Strategies and the Peri-Urban Interface	44
	<i>Julio Dávila</i>	
	Introduction	44
	Policies with an explicit spatial focus	45
	Sectoral policies with no explicit spatial focus	49
	Conclusions	52
	Part 2 Production Systems at the Peri-Urban Interface	57
5	The Environmental and Social Impacts of Peri-Urban Irrigated Vegetable Production around Jos, Nigeria	59
	<i>Frances Harris, Margaret Pasquini, Jasper Dung and Albaji Adepetu</i>	
	Introduction	59
	Historical context	61
	Methodology	62
	Results and discussion	64
	Conclusions	70
6	Horticulture and Market Information at the Peri-Urban Interface: Agricultural Marketing in Tanzania	74
	<i>Kenneth Lynch and Nigel Poole</i>	
	Introduction	74
	Results	82
	Atomic Speed Group (ASG): Case study of a successful production group	85
	Discussion	87
	Potential delivery systems for appropriate information	88
	The future: Enhancing private networks through information and communications technology (ICT)	90
	Enhancing livelihoods	91
7	Livelihoods from Dairying Enterprises for the Landless in the Peri-Urban Interface around Hubli-Dharwad, India	94
	<i>Robert M. Brook, Prakash Bhat and Anil Nitturkar</i>	
	Introduction	94
	Methodology	96
	Results	97
	Discussion	101

8	Waste-Fed Fisheries in Peri-Urban Kolkata <i>Madhumita Mukherjee</i>	104
	Introduction	104
	Fish farming in the Kolkata peri-urban wetlands	106
	Existing aquaculture practices in the East Kolkata Wetlands	107
	Existing activities under the control of the Department of Fisheries, Government of West Bengal	109
	A conceptual model for the East Kolkata (waste-fed) Wetlands	110
	Integrated aquaculture	112
	Conclusions	113
9	Alternative Strategies in Alternative Spaces: Livelihoods of Pastoralists in the Peri-Urban Interface of Yabello, Southern Ethiopia <i>Edlam Aberra</i>	116
	Introduction	116
	Conceptual framework: Examining livelihood sustainability	118
	Livelihoods in the peri-urban interface (PUI)	119
	A changing Borana pastoralism	120
	Capital assets and livelihood strategies of pastoralists in the PUI	123
	Livelihood constraints for pastoralists in Yabello's PUI	126
	Conclusions	130
10	Sustainable Livelihoods in the Peri-Urban Interface: Anse La Raye, St Lucia <i>Michelle Mycoo</i>	134
	Introduction	134
	Conflicts and change frontiers in the peri-urban interface (PUI)	138
	Conclusions	145
	Part 3 Planning and Development of the Peri-Urban Zone	149
11	The Inevitable Illusiveness of 'Sustainability' in the Peri-Urban Interface: The case of Harare <i>Tanya A. S. Bowyer-Bower</i>	151
	What constitutes the peri-urban interface (PUI)?	151
	Investigating constraints to achieving sustainability in the PUI	154
	Conclusions	161
12	Peri-Urban Development in Gampaha District, Sri Lanka <i>Nimal Dangalle and Anders Närman</i>	165
	Introduction	165
	Objective	167
	Gampaha district: An overview	167
	Peri-urban development in Gampaha district	170
	The cost of peri-urban development	173
	Economic and social problems	175
	Conclusions	178

13	The National Highway Bypass around Hubli-Dharwad and Its Impact on Peri-Urban Livelihoods	181
	<i>Kiran C. Shindbe</i>	
	Introduction	181
	The Hubli-Dharwad peri-urban interface (PUI)	182
	The study area	183
	Survey methodology	185
	Results and discussion	186
	Conclusions and policy recommendations	193
14	Conflict and Cooperation in Environmental Management in Peri-Urban Accra, Ghana	196
	<i>Katherine Gough and Paul Yankson</i>	
	Introduction	196
	Peri-urban Accra	198
	Conclusions	207
15	Re-evaluating People–Environment Relationships at the Rural–Urban Interface: How Sustainable Is the Peri-Urban Zone in Kano, Northern Nigeria?	211
	<i>Tony Binns and Roy Maconachie</i>	
	Introduction	211
	Exploring the sustainability of Kano’s peri-urban zone	213
	Urban growth and Kano’s Close-Settled Zone (CSZ): Sustainability under threat?	214
	A comparative study along a distance–decay transect	215
	Competition for land	217
	Soil infertility	219
	Soil erosion	220
	Changes in tree cover	221
	Water quality and peri-urban pollution	224
	Conclusions	225
	Part 4 Strategies for Sustainable Development	229
16	Community-Based Waste Management Strategies: Peri-Urban Interface, Kumasi, Ghana	231
	<i>Abdullah Adam-Bradford, Duncan McGregor and David Simon</i>	
	Introduction	231
	Research methodology	232
	Waste management in peri-urban Kumasi	234
	Backyard container composting	235
	Policy implications	242
	Conclusions	243

17	Measuring Sustainability in Peri-Urban Areas: Case Study of Mexico City	246
	<i>Rocio A. Diaz-Chavez</i>	
	Introduction	246
	Peri-urban areas	247
	Mexico City	248
	Developing the sustainability indicators of the peri-urban indicators framework	251
	Applying indicators to the case study	254
	Conclusions and final recommendations	261
18	Promoting the Interests of the Poor in the Peri-Urban Interface: The Experience of the Intermediate Technology Development Group in Kenya	266
	<i>Lucy Stevens, Rachel Berger and Michael K. Kinyanjui</i>	
	Introduction	266
	Sand extraction in Nakuru, Kenya	269
	Peri-urban agriculture in Mavoko, near Nairobi	277
	Conclusions	283
19	A Co-Management Approach to Sustainable Watershed Utilization: Peri-Urban Kumasi, Ghana	287
	<i>Duncan McGregor, David Simon, Donald Thompson, James Quashie-Sam, Sampson Edusab and Kwasi Nsiab-Gyabaah</i>	
	Introduction: The Kumasi peri-urban interface (PUI)	287
	Environmental degradation in the Kumasi PUI, with particular reference to water resources	290
	The Watershed Management Framework (WMF)	295
	Feedback from communities on WMF activities	305
	Conclusions	306
	Part 5 Synthesis	311
20	The Peri-Urban Interface in Developing Areas: The Research Agenda	313
	<i>Duncan McGregor, David Simon and Donald Thompson</i>	
	Introduction	313
	Peri-urban production systems	315
	Peri-urban planning and development	316
	Strategies for sustainable development in the peri-urban interface (PUI)	318
	Conclusions: Directions for research and the dissemination of new knowledge	319
	<i>Index</i>	326