

Reviews

Agrarian Change, Gender and Land Rights. Edited by SHAHRA RAZAVI
Blackwell: 2004, 296 pp. £19.99 (pbk). ISBN 1 405 11076 7

This book provides a very useful consideration of the relationships between agrarian change, gender and land rights in a number of developing countries. There are two general chapters which explain the overall themes and six case studies: sub-Saharan Africa, South Africa, Tanzania, India, Uzbekistan and Brazil. The essential message of the book is that the widespread adoption of neo-liberal economic policies by developing countries has had generally dire effects on rural women. This is despite policies aimed at gender equality and land reform (termed 'piety in the sky' – they sound well meaning but are rarely effective). In many countries women play a crucial part in the agrarian sector. As men have been absorbed into paid economic activities, it is frequently women who are left to run the family farm. In the case of Uzbekistan, the collapse of the Soviet system led to an economic crisis for women as they were disproportionately affected by the cutbacks in state employment in health care and education and were forced to return to the land. This is described as a process of demonetization and re-agrarianization for subsistence. Although there are substantial differences between the case study countries, typically, male heads of households have rights to land while women do not. Governments and international agencies frequently prescribe land reforms which disadvantage women, despite their growing role in the agrarian economy. The authors stress that policies have too often tried to simplify complex situations with an overemphasis on title to land while other important issues, such as access to capital, markets, technology and labour have been neglected.

This book is a reprint of a 2003 special issue of the *Journal of Agrarian Change* in book form, so it will appeal most to those who do not have access to the journal. The various authors refer to their chapters as papers and there is no conclusion. However there is an index and the editor's introductory chapter provides a useful summary. Although the affiliation of the authors is not given they do not seem to be geographers. We are told for example

that 'contextual specificity' is important, for which read 'geographical context'. Aside from that the book is free of jargon and will be of value to final year undergraduates specialising in development and postgraduates looking for a useful summary of the issues and a guide to further reading.

ALASDAIR BLAIR, *University of Westminster*

Dangerous Harvest: Drug Plants and the Transformation of Indigenous Landscapes. Edited by MICHAEL STEINBERG, JOSEPH HOBBS and KENT MATHEWSON
Oxford UP, 2004, 325 pp. £25.00 (pbk). ISBN 0 19 514320 5

Psychoactive plants are associated in most people's minds with drug addiction, crime and violence as if they serve no useful purpose whatsoever. It is often overlooked that the cultivation and use of psychoactive plants are deeply embedded in many indigenous cultures, and that it is only when drug plants are misused and taken out of their cultural context that they cause harm. Somehow we must learn to live with the existence and use of drug plants but mitigate their negative social and environmental effects. How to do so is far from easy. As the contributors to this edited collection testify, most efforts to eradicate drug cultivation and trade fail and even provoke more violence and drug misuse.

This book is a highly original contribution in that it deals with the social, cultural and environmental dimensions of drug production and trade from the perspective of indigenous farming communities, whose cultures and landscapes are being transformed by outside demand for the drug plants they cultivate or that are found in their territories. They get blamed for growing the plants, but are often caught between a rock and a hard place; victims of both the trade and the eradication programmes. They may be a part of the problem but they will also have to be a part of any workable solution.

One can only be impressed by the expertise of the contributors and the book's comprehensive geographical coverage, which takes in the Americas, Asia and the Pacific. The organisation of the book is also well thought out. After two fine chapters by Kent Mathewson and Alfred McCoy that outline the

broader context and present the key issues, each of the following six are case studies on drug production and trade from various parts of the world. The third part of the book, on history and drug plants shows that efforts to promote and suppress drug trafficking have a long history. Despite this, policymakers are unwilling to learn the lessons of past successes and failures. The final section comprises three chapters on environmental issues.

The book would be outstanding enough if it confined itself to describing the current situation. But the closing chapter by Joseph Hobbs not only elegantly distils the key points identified by the other authors but also presents some important policy recommendations. The overriding one, as expressed by Hobbs, is that we must 'wage war on poverty and inequity, not on drugs'.

GRAHAM DUTFIELD, *Queen Mary,
University of London*

The Meaning of Water. By VERONICA STRANG
Berg: Oxford, 2004, 320 pp. £16.99 (pbk). ISBN 1
85973 753 6

In 'The Meaning of Water', Veronica Strang uses an ethnographic approach supplemented with broader literature to examine people's connections to water within the (cultural) landscape of England's Stour Valley. Her general finding is that a range of factors have conspired over time to disassociate people from their common water resources. To simplify, the use of technology in water provision has physically alienated people from water while the trend towards centralized water bureaucracies and privatization has disconnected them mentally. These separations run counter to the 'core meaning' encoded in water, resulting, she argues, in a 'Tragedy of the Uncommon' which contributes to water's misuse and calls for a new paradigm in water management.

In terms of the book's style, some may feel inundated by the flood of water related metaphors, presumably included to illustrate how water permeates even our everyday language. Others may find this style refreshing. Similarly, some may find the layout – text punctuated by a near constant stream of offset quotes largely from informant interviews – disruptive, while others may find it humanizing. In terms of content, one finds a number of mis-steps including a rather unlikely date attributed to a statement by Benjamin Franklin at the book's very opening, use of long questioned arguments by Wittfogel, and, especially, rather liberal interpretations of inferential powers and correlation (does the fact that some people guess their body to be more than 70 per cent water really say much about attitudes

towards water?). Nonetheless, the approach used by Strang also leads to a number of interesting insights into our sometimes ironic perceptions of water and its qualities, insights which would not typically be found through more conventional water science approaches. The example of the atheist water scientists who write off 'water spirits' as rubbish while continuing to baptize their children comes immediately to mind. Whether one finally agrees or disagrees with Stang's conclusions about the need for a new path in water management, the value of 'The Meaning of Water' is not in particular points or interpretations. It is in the totality of its story which provides an interesting and thought-provoking chronicle of the many and changing influences on our connections to water and how the totality of those influences interacts with some universal constants to affect the way we manage and care for the precious resource.

MARK GIORDANO,
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Isle of Fire: The Political Ecology of Landscape Burning in Madagascar. By CHRISTIAN A KULL
Chicago: UP, 2004, 322 pp. \$25.00 (pbk). ISBN 0
226 46140 8

Challenging claims that fires are responsible for widespread deforestation, desertification, soil degradation, and erosion in the world's fourth largest island, the author demonstrates that 'fire is an integral part of many Malagasy rural production systems' (p. 12). He convincingly argues that Madagascar's real 'fire problem' resides in the struggle between peasants and state over the nature of, and access to, natural resources. Rather than being simply 'good', or 'bad', fire is a complex phenomenon having negative or positive effects. It can lead to the creation of pastures, rice fields and livelihoods, or it can lead to the destruction of forests, timber, and biological diversity. In his analysis, Kull employs a *political ecology* approach: how people cooperate and negotiate, or fight and struggle, over the control and use of resources from the perspective of history, ecology, and regional differences. During twenty-two months of field research, he studied eight regional situations, discussing five highland cases illustrating in detail various aspects of the fire problem: its use in managing pastures to raise cattle, in crop-field preparation, pest control, fire protection, and so forth. Of particular importance is the use of fire in the maintenance of *tapia* woodlands, a scrubby forest dominated by the species *Uapaca bojeri*, that is economically valuable for the production of wild silk, marketable fruit, and firewood; and is locally protected by custom and

lore. Of equal interest is the use of fire as a fertility management practice in *tavy*, or slash-and-burn cultivation, mostly of rice, employed in sparsely populated areas and settlement frontiers. *Tavy* is central to the subsistence needs of rural Malagasy farmers, and is surrounded by important cultural meanings and rituals, yet is strongly condemned by government officials and conservationist groups.

The final section of this important book covers the historic struggles over fire by herders and farmers on one side, and parts of the state on the other side. Key processes involved are criminalization – the attempt by the state to eradicate the use of fire through the enforcement of legislation – and resistance – the attempt by resource users to protect their rights of access. This impasse led to the creation of a new community-based management policy called GELOSE which goes some way towards empowering farmers, granting a measure of legitimacy to their use of fire as a resource management practice. The author concludes this truly superb account of the use of fire in Madagascar with recommendations for policy makers. Listening to Kull's constructive advice might lead to a reversal of the deforestation problem.

OLGA F LINARES,
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River Channel Management: Towards Sustainable Catchment Hydrosystems. By PETER W DOWNS and KENNETH J GREGORY
Arnold, London, 2004, 395 pp. £21.99 (pbk). ISBN 0 340 75969 0

This book is a welcome addition to the fold that encloses the minority of fluvial geomorphologists who have attempted to 'make a difference' to what they see as a misguided past, dominated by engineering interventions in the interests of river 'training'. The Preface briefly lays out the history, dating back to the 1960's, of a growing perception by geomorphologists of a profound negative impact of channel management within the dominant engineering paradigm. The book is not, however, a mere celebration of the way in which geomorphologists rode the new wave of sustainable development and 'catchment consciousness', choosing only a brief section entitled Retrospect before moving on very positively to Realization and Requirements. The overall impression is one of an earnest desire to contribute, rather than to sit back, review and evaluate. The choice of sub-title helps reveal the timeliness of the contribution in the context of, for example, the European Union's Water Framework Directive which creates hierarchies from catchments

to biotopes in the interests of managing rivers for 'good ecological quality'.

This is not to say that review is missing. Making extensive borrowings from other protagonists, the authors make extensive use of tables to summarize and integrate – it is in this way that managers will welcome the rationalization of an otherwise daunting academic literature (and lecturers will welcome the handout material!). Table 7.1 illustrates that the authors are prepared to work to make their structure meaningful, since it evaluates the Retrospect and Realization sections in order to shape the Requirements. Chapter Seven is entitled 'A Foundation for 21st Century River Channel Management': it is neither bombastic nor tendentious. Whilst many of the examples are taken from the UK, where the full extent of channel modification (>60%) has recently emerged through River Habitat Surveys, there is ample material from the USA, Australia and the rest of Europe.

The individual chapters will be second-nature to fluvial specialists, coping with the core dilemmas of channel adjustment ('instability' to riparian dwellers), channel design for restoration and the harsh reality of moving from concepts to tools – and thus to public accountability as the price of a greater policy involvement. Perhaps the greatest current dilemma concerns the validity of channel typologies (or should it be channel change typologies?) as part of geomorphological recipes for management. Another quandary covered by the book is that of the empirical nature of fluvial studies and the requirement for both expensive primary survey activity (for example 'Fluvial Audits') and rigorous post-project-appraisal of the many 'live experiments' now going on in terms of geomorphological channel design. It will be hard to reconcile the authors' views that 'no one solution works for all cases' (p. 322) 'a diagnostic procedure can be developed similar to that of medical practice' (p. 50).

As a final recommendation for this book, the authors have worked within a realization that sustainable river basin management must work within an ecosystem context – and that humans must be considered within that ecosystem. Cross-references to the literature of freshwater ecology are copious and the public policy context, including public participation, is never excluded. In fact, the final section (Revision) puts up a 15-point reminder of the recommended management paradigm, of which only half are the province of scientific endeavour. Could it be that river management carries its practitioners from Geography back to core values for the discipline?

MALCOLM NEWSON,
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Southeast Asia: The Human Landscape of Modernization and Development (2nd edition). By

JONATHAN RIGG

Routledge: London, 2003, 408 pp. £20.99 (pbk). ISBN 0 415 25640 2

As Jonathan Rigg notes in the preface to this second edition of *Southeast Asia*, the original edition first appeared in publication at the somewhat inopportune moment (for a book on Southeast Asian development) of the onset of the Asian economic crisis. Thus, this substantially revised (including approximately 60 further pages) edition, seeks to unpick both the prior economic 'miracle' as well as the 'crisis', and to explore the processes of subsequent adjustment and reform.

To recap, *Southeast Asia* examines the nature of modernization and development in this diverse and fascinating region. The book is structured in terms of three sections; conceptual understandings of Southeast Asian development, impacts of development with reference to economic and social marginalization and exclusion, and the interaction of the 'urban and rural worlds'.

In the light of the considerable implications of the impact of the economic crisis for wider development studies, Rigg's meticulous updating assessment of the material is especially useful. The particular qualities of the text have always been its eloquent synthesis of wide-ranging sources and careful review of their theoretical bases and predispositions. A whole series of synthesizing figures enhance the usefulness of the book for teaching purposes.

The economic crisis clearly led to serious questioning of the 'miracle' thesis of Southeast Asian development, and was indeed, viewed almost gleefully by some critics of the World Bank. However, in assessing the impacts of the crisis some seven or so years later it is notable that it certainly did not herald the kind of collapse which some critics had suggested. Probably the greatest impact of the crisis has been political, in leading to the fall of Suharto and the (perhaps surprisingly relatively smooth) onset of democratization in Indonesia. Indeed even Indonesia is now (belatedly) seeing a return to some kind of economic stability.

In writing a new edition relatively shortly after the first, an author is faced with the difficult task of balancing the inclusion of new material within the approximate bounds of the book's length. The updated tables and figures are especially useful in charting the trajectories of Southeast Asian countries' development.

The discussion of the ideological and theoretical factors shaping interpretations of the crisis is particularly useful and links well with the structuring of the original text. However, I personally would

have welcomed a rather more detailed examination of the origins of the crisis, for instance, with respect to such matters as the 'pegging' of Southeast Asian currencies, property inflation and 'cavalier' approaches to business/loan risk assessment. However, as Rigg notes, part of the difficulty in identifying core factors underlying the economic crisis is that there was not one crisis but rather a whole series of crises taking place in different forms in different Southeast Asian countries.

The key quality of the book continues to be the careful marshalling of evidence and theory to provide a well balanced appraisal of the overall (positive) impact of development in Southeast Asia. The strongest chapter (which has been further enhanced) is probably the final one which draws together the foregoing material to provide a sound and nuanced set of critiques of post-development thinking. In sum this book reflects many years of careful scholarship and committed engagement with the region, and, as befits a Southeast Asianist, a genuine and realistic appreciation of the ways in which development and modernization are appraised by the peoples of Southeast Asia.

NICHOLAS FORD, *University of Exeter*

The Russian Far East: A Reference Guide for Conservation and Development (2nd Edition). By

JOSH NEWELL

Daniel & Daniel, McKinleyville, 2004, 466 pp. £54.50. ISBN 1 88028 476 6

This is a much revised edition of the 1996 publication: 'The Russian Far East: Forests, Biodiversity Hotspots, and Industrial Developments' which Newell co-wrote with Emma Wilson. This earlier publication, whilst characterized by the same general structure as the revised edition, focussed predominantly on the delineation of Biodiversity Hotspots within the majority of the Russian Far East's federal units. Both Newell and Wilson had been involved in the conceptual development of the 'hotspot' idea relative to the Russian Far East (RFE) through their work with Friends of the Earth – Japan in the early part of the 1990s. At a general level, these areas were understood as a function of biological rarity and anthropogenic threat. Furthermore, the presence of indigenous peoples was an additional feature incorporated into the underlying methodological framework. The identification of actual 'hotspots' was determined through discussion at a conference held in Vladivostok during 1995 which brought together a range of academics, practitioners and politicians from each of the RFE's federal regions. The 'hotspots' approach was thus designed to identify key areas for conservation in

order to facilitate the effective targeting of limited financial resources and enable the region to hook into international systems of conservation management. While a concern for addressing conservation and development issues remains of central importance, this second edition represents a substantial expansion relative to the 1996 publication in terms of both the nature and extent of the content.

The prime aim of the book is ' – to provide a source of information for interested parties ranging from practitioners to academics'. Newell goes on to state in the preface that he would 'like to think of the book as a kind of travel guide for the RFE development community' with the intention – 'to make the text as useful for the businessperson or World Bank official as for the scientist or environmentalist'. The structure of the book, with its regional approach and consistent engagement with a variety of underlying themes, ensures that it will appeal to a range of different end-users. Furthermore, the conscious engagement with critical academic literature and extensive footnoting provides a useful resource for more scholarly forays into the book's substantive themes. The book is divided into eleven main chapters (comprising 466 pages in addition to 53 maps, approximately 80 tables and figures, and a range of colour photographs).

The first chapter provides an overview of the Russian Far East while the remaining chapters explore each of the region's ten federal units in turn. Each chapter follows a similar pattern and covers main themes which include a general geographical/ecological background to the Republic/Krai/Oblast/Okrug in question, the identification and description of areas considered important for conservation reasons (biodiversity hotspots), a general overview of the economic situation, and a section concerned with the issue of sustainable development. Its consistency of format facilitates rapid extraction of data/information once the user is familiar with the layout. The appendices provide useful support to the text at various stages of the book. It should be noted that whereas the original 1996 edition included the work of 18 contributors, this edition draws on the expertise of over 90 specialists incorporating a wide range of practitioners and government employees engaged in a number of different fields. Furthermore, there is an admirable mixture of both Western and native Russian contributors.

As a comprehensive and informative synthesis of statistical and visual material, the book is a clear success. In order to reflect on the book's value in respect of more substantive issues and concerns, it is perhaps appropriate to start with its overall regional focus. The RFE accounts for a substantial percentage of the Russian Federation's land area (approximately 40%) and is a region that embodies

marked climatic and ecological diversity ranging from the arctic conditions of the Republic of Sakha (Yakutia) in the north to the monsoon climate of the Amur basin in the south. The RFE is also characterized by extensive reserves of natural resources and minerals including fish and timber resources as well as coal, lead and precious metals such as gold. Its substantial hydrocarbon resources are likely to play an increasingly important role within Russia's energy production profile over the course of the next decade. During the Soviet period, the region functioned as a resource periphery helping to support the industrial and military might of the USSR. At the same time, Gorbachev had apparently intended to encourage the development of a more complex regional economy based on the expansion of local industrial processing capacities (e.g. see Rodgers, 1990). Such plans, however vague, were fundamentally undermined by the collapse of the USSR, an event which served to sever many of the region's linkages with the rest of the former empire and forced the RFE to look eastwards towards the expanding South-East Asian and Pacific-rim markets. The economic, social, political and environmental consequences of such a marked shift in the orientation of the region's economy forms the backdrop to the current book.

The combination of the region's considerable size, substantial natural resource endowment and comparative importance to the Russian domestic economy make it an important focus for study. The relatively limited critical engagement with the RFE within contemporary Western social science literature reinforces this conclusion. At the same time, this should not deflect attention away from the regionally-focussed work published by geographers, together with other social scientists, during the course of the last decade or so. This includes Bassin's (1999) historical account of Russia's expansion into the Far East during the mid-nineteenth century in addition to Bradshaw's examination of the RFE's hydrocarbon resources, particularly with respect to those lying off the coast of Sakhalin Oblast (e.g. Bradshaw, 2003). More generally, there has been a critical assessment of the region's potential to utilize its extensive natural resource base in order to underpin medium – to long-term growth (e.g. Bradshaw and Lynn, 1998; Bradshaw, 1999). Allied to this, scholars such as Wilson (2003) have carried out detailed ethnographic work in order to explore the conflict between ongoing development projects, changing political situations, and the local socio-environmental situation (see also the work of Crate, 2003; Fondahl and Sirina, 2003; among others).

Newell's book presents a useful addition to this literature with its emphasis on the friction between conservation and development goals. The notion of

sustainable development is employed in a general sense throughout the book in order to draw attention to this conflict. The narrative is particularly effective at highlighting the way in which the region has fallen back on its resource base during a period of social, political and economic uncertainty with limited opportunities to develop a more sophisticated industrial base. This dovetails, at least in part, with observations made in other former socialist countries (e.g. see Staddon's work on Bulgaria, 2001). More specifically, the book's detailed focus on natural resource sectors such as forestry and hydrocarbons helps to expose the potentially deleterious influence of foreign capital on the region's largely unregulated natural resource sector and connects with critiques in the more general development literature. Indeed, it is clear that the varied and complex nature of the region's societal issues coupled with the limited policy development and associated implementation capacity of local government infrastructure are undermining medium to long-term planning. Under such conditions, foreign assistance in areas of conservation and development takes on an added importance and meaning.

The regionally-based case studies detailed in the book are therefore effective in highlighting a range of intractable problems repeated across the RFE which promise to exercise a considerable influence over the nature of the region's medium, and long-term development. These include the ambiguities of local political activity, corruption within administrative and regulatory structures, weak regulation of economic activity, and the aforementioned involvement of foreign capital from countries such as China and South Korea as well as further afield. Newell's genuine concern for the integrity of the region's natural environment, grounded in his own extensive fieldwork during the course of the last decade, provides the main driving force behind the book. Furthermore, this concern has resulted in a publication that provides a much-needed focus on the development issues faced by a large, but oft overlooked, region of Russia.

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Political Ecology: a Critical Introduction. By PAUL ROBBINS
Blackwell, Oxford, 2004, 242 pp. £19.99 (pbk). ISBN 1 405 10266 7

I enjoyed reading this book. It is lucidly written and thoughtful and has two central aims. The first is to outline some of the key literature and debates over the term *political ecology* and fulfils the traditional role of a good, academic textbook. The second seeks to go beyond this to 'show political ecology as something people do' (p. xviii) as a form of active, political practice. The text uses detailed case studies to assess how and why debates over political ecology have changed and with what outcomes. The book's core argument is that these debates have become too polarized between social constructivists on the one hand and those who concentrate on environmental destruction on the other. In their place there should be more emphasis on 'the production of nature by human and non-human actors – and a broader examination of *all* producers of nature' (*ibid*). A weak form of actor-network theory is deployed as a way of enhancing knowledge on environmental change and environmental politics.

The book is divided into four parts concentrating on: what is political ecology?; conceptual and methodological challenges; the state of contemporary political ecology; and the direction of future agendas. Within these sections chapters are sub-divided with a structure provided in the introduction.

Whilst this gives good signposting for the (inexperienced) reader, it also breaks up the text and sometimes loses the flow. Sometimes the writing style is unnecessarily 'informal' in tone and some of the boxes on 'theoretical topics', such as the discussion of Piers Blakie's work seem to discuss the significance of the writer without saying much about what they actually argued and why. That having been said there are some excellent summaries of the key debates in the field and some particularly helpful time-line tables that help put the various perspectives in a longer context of change.

The book is perhaps less successful in meeting its second aim on political ecology as political experience. The case studies are a little too heavily weighted to Less Developed Countries (a criticism Robbins himself makes of the wider literature) and it would have been good to see more reference to what is happening in western Europe and north America, if only to demonstrate to students how their own lives are directly connected to these issues. Despite this, the book is an ideal introductory textbook to the topic and will be an excellent reference for first and second year undergraduate students. I thoroughly recommend it for those teaching on this broad theme as it is a most enjoyable and informative read.

MIKE RACO, *University of Reading*

Cumberland Island National Seashore: A History of Conservation Conflict. By LARY M DILSAVER

London: University of Virginia Press, 2004, 323 pp. US\$35.00. ISBN 0 98139 2268 2

It has been twenty years since the first time I left Cumberland Island National Seashore to return to the mainland. The place made such an impression on me that I vowed to return as soon as I could. I did, and have many times since then. Indeed, the island is a special place and it has captured the imagination of many people. One of those people is Professor Lary Dilsaver, and this book reveals his knowledge, concern, and commitment to understanding the island as a physical place and as a contested resource.

This 323 page book contains eight chapters, along with an introduction, conclusion, and two appendices of historical information. A thorough set of end notes and index are also included, as are helpful maps, photos, and illustrations interspersed throughout the body of the work. The first three chapters focus on periods in the island's history, while Chapters Four to Seven comprise discussions of legal and management issues. The final chapter investigates Cumberland Island's future prospects in a hopeful tone, despite continued challenges to the area's ecological integrity.

The introduction sets the tone and rhythm for the book as the author suggests that it is at once a historical geography (or a 'biography of a place') and a history of the National Park Service and its struggles to live up to a mission which charges it to manage for both public recreation and the conservation of resources. It is here that Dilsaver recalls a public meeting on the island where people representing competing interest groups ended a potentially rancorous meeting by expressing empathy and understanding for their opponents – seemingly drawn together, even in their opposition, by a shared love of the island.

The first chapter offers a brief synopsis of the barrier island's physical geography and ecology, and then provides an early history of human habitation, beginning with the island's use by several native American groups starting around 4,000 B.C. and continuing through early American plantation-style agriculture ending in the third quarter of the nineteenth-century.

Chapter Two focuses on the modern history of the island, principally during the period of 1881–1965, when it served as private resort and vacation estate for several rich American families (notably the Clanders and the Carnegies, whose heirs retain some private property rights on the island even today). The history of the National Park Service's (NPS) first contacts with the island and the heirs of the main property owners is documented in Chapter Three, as are the initial steps of creating Cumberland Island National Seashore.

The second group of chapters (Chapters Four to Seven) detail the technical aspects of land acquisition and resource management in a complex legal environment where private interests compete with public, and where the City of St. Marys, Camden County, the state of Georgia, and the federal government all manoeuvre for influence and control. The evolution of NPS natural and cultural resource management practices from the 1970s through the 1990s is also studied, as is the genesis of the island's controversial wilderness management areas.

The shortest and final chapter, *Hope for the New Century*, details NPS's attempts to manage the natural and cultural resources in the face of ongoing battles ranging from small (challenges to residents' rights to drive on the beach) to grand (pressure from developers and politicians to alter the island's management), and details some of the proposed compromises and plans for the future. Interestingly, the timing of the mid-2004 release of this book prohibited the inclusion of recent information on *U.S. Senate Bill 1462*, which proposed sweeping changes to the island's designated wilderness areas and management plan. (*S.B. 1462* was reportedly subsumed into a larger Omnibus budget bill and

passed in late 2004, once again putting Cumberland's long term future in doubt.)

Like many island environments, Cumberland Island has served as both ecological laboratory and socioeconomic microcosm, and that is made clear in this book. However, while the author accurately records Cumberland Island's ecological evolution from its more pristine origins to its modern state, it is done briefly and in a way that tends to gloss over the more subtle transitions between these periods. The physical geographer may be left wanting for a bit more, but those interested in culture, history, and the political dimensions of natural resource management will not be.

Overall though, this book transcends a singular disciplinary perspective and could prove to be one of the more important insights into the forces which have shaped a modern national park since Alston Chase's *Playing God in Yellowstone*. Where Chase's tone was more polemic, Dilsaver is measured and understanding. And in that sense, this book reads not only as history, but also as tribute. I recommend it for researchers and interested laypersons alike.

DAVID MATTHEW ZUEFLE, *University of Mississippi*

Oil and Gas: Crises and Controversies 1961–2000 (Volume 2): Europe's Entanglement, Studies and Commentaries. By PETER R. ODELL

Brentwood: Multi-Science, 667 pp. £55.50 (pbk). ISBN 0 906522 18 8

Energy and Environment: Multiregulation in Europe.

Edited by PIOTR JASINSKI and W. PFAFFENBERGER

London: Ashgate Studies in Environmental Policy and Practice, 2000, 179 pp. £37.50 (pbk). ISBN 0 75461311 9

At a chance meeting, Peter Odell, Professor Emeritus of International Energy Studies at Erasmus University, now retired in Britain, promised to make my task easier by sending me a Canadian review of this book. Unfortunately, this help has not arrived and I had to rely solely on my own judgement in a field in which I am neither expert nor – until recently, and only in relation to 'global warming' policy responses – well read. The story of oil and gas in Europe combined with Odell's steadfast refusal to make any links with environmental politics and policy, invite a lengthy review.

Odell was closely involved in the policy-making process for oil and gas for several decades, initially at Shell where he gained his reputation for independent thought, and later when working in the Netherlands on the same subjects. This review is to remind geographers of a field of enquiry and analysis they may well be neglecting. Studying

privatized and liberalized firms is not easy; matters were relatively easier for Odell for he was still able to study an energy sector closely linked to government and hence public policy based on physical, economic and political considerations only. Public policy could do without 'the environment', and the electricity sector at least was neither in private hands nor encouraged to be as competitive as possible. Today, green 'sustainability' is one of few regulatory themes left to officialdom and is increasingly used to justify a new form of interventionism in the public, or rather planetary, interest. How credible is this conversion? Hindsight allows some insights. The current effort to improve Europe's energy security with reference to 'sustainability' is not likely to succeed in the near future and both books serve as evidence. Only the Odell book is readable, however.

Geographers should be more aware than most of what many still forget: that the geographies of consumption, leisure and culture depend on cheap and reliable (uninterrupted) energy supply and that serious price fluctuations and growing dependence on imports and/or highly subsidized 'renewables', with often major local environmental impacts, will generate new geographies and policy issues. Energy (and transport) requires public policy intervention even when in the hands of competitive and largely privatized companies, remaining an obligation of the government and being increasingly subject to 'competence stealing' and geographical expansion by EU institutions. Today the regulation of energy prices, the taxation of fuels for the benefit of the public purse, ensuring supply security or even managing demand all take place increasingly through the back door of emission constraints, that is by using 'environmental' standards, taxes, new subsidies, 'voluntary' agreements, targets and permits to promote a transition to the low carbon economy. Old and new 'instruments' are used to intervene in so-called free markets for the sake, it is argued, of environmental precaution and regulation-driven technological innovation. These instruments are being negotiated between private actors and the government, urged on by non-governmental bodies often funded by the government. The latter group claims to represent the 'global' societal interest but *de facto* acts to provide the other two parties with immediate benefits (Kellow and Boehmer-Christiansen 2002). Thus, energy policy has become less rational, more politicized and underpinned by environmental ideology than in the decades when Odell advised governments and companies. The Ashgate book provides a poor example of this change.

Yet national energy security is again a desirable objective, as it was for Odell, as advisor to the UK

Secretary of State for Energy 1977–9, who worried about the oversupply of oil and declining benefits for the UK. This volume helps the reader to understand how we got to where we are in Europe on energy issues (in a mess?) and why a brief period of (North Sea) oil and gas wealth ended rather rapidly. The period covered is largely that of the Cold War, the end of which has not of course changed the geographic distribution of natural resources, though access to the East has become easier but problematical. The geopolitics of the world, so important to Odell's analysis, has altered and the consequences for oil and gas are not yet clear. Debates about depletion continue and the promised wealth from the former Soviet 'North East' and the role it is to play in supplying Europe is still being negotiated; tackling 'global warming' clearly serves as a fall-back strategy in the case of failure. Should Europe and above all the UK worry about their future energy supplies given past experience, or has the past nothing to teach us? This was one question with which I approached the book, and was well rewarded.

The initial help given by the author in a rather brief introduction written in May 2002 proved important, for as he points out there has been no revision of his former views and opinions. The reader can benefit from hindsight. Odell again appears to be an optimist, for to him the end of the Cold War, in 2002, appeared to 'have led to level of energy security which would have been impossible to contemplate in the dark days of the Cold War and of dependence on oil imported from OPEC member countries, especially the Middle East' (p. xviii).

His book is divided neatly into four sections. The first section is entitled 'The oil and gas take-over of the European energy economy'. This process was completed by the mid-1970s when it became clear that nuclear power would not become as serious a rival as once feared, and also that the expected demand growth for fossil fuels had been much exaggerated. The second section, 'The exploitation of Europe's indigenous hydrocarbons' concludes with an assessment in 2001 of Dutch natural gas production when signs of depletion were beginning to show, though remaining reserves were judged as large as they were at end of 1995. The growing involvement in policy (now based on competition) and regulation by the EU institutions is documented. Odell concludes that 'the continuing magnificent low-cost supply potential of the Groning field' may not be threatened by liberalization, as exports to the wider European market should no longer be restricted as they were in the 1980s. Third-party access to the entire gas supply system still needs to be decided, with control over storage

facilities a major factor. He talks only about the potential benefits of liberalization, yet worries whether these will become available to the small and medium-sized Dutch consumers who in the past were told that there was no supply scarcity and that Dutch gas could freely be sold to international customers. Cheap indigenous gas had been promised to Dutch voters far into this century.

Even in the late 1960s, gas, while available in a highly favourable way geographically, was still not expected to make a major contribution to Western Europe's energy supply, though export from the Netherlands was planned for the future. This was not encouraged, however, by the subsequent general EEC prohibition of its use in power stations. So the Dutch government implemented a slow rate of depletion policy and the Germans continued to protect their coal. Odell predicted correctly that this protection would eventually fail as more gas became available from under the North Sea and was brought ashore by pipelines. In the UK, Odell encouraged competition against foreign oil and gas products by the Gas Council, which had been set up as the sole purchaser of gas with an incentive to sell to the CEGB. The early stage of a 'dash to gas', as yet unsupported by the acid rain scare, petered out, however, but could have started as early as 1971 had the pressures for the extended protection of coal been overcome earlier. Odell knew that gas was a far more serious competitor to coal than nuclear power, but he surprisingly ignores how environmentalism came to aid the transition to gas, though he does recognize the high social costs arising from the decline of coal, especially in South Yorkshire and the East Midlands. The substitution of gas for oil by regulation was a possibility that he discussed at the time, but this did not at the time appeal to policymakers, least of all the new Conservative government. Should British gas be sold to the Continent? Odell recommended a pipeline to North Germany where it would have had a chance to compete successfully with Dutch gas, while reducing the threat to coal at home. This did not happen quickly, but the UK still exports gas to the continent, although apparently expecting depletion at home in a few years.

By 1972, the Groningen gas field had become Western Europe's second largest source of indigenous energy (the first being Ruhr coal), with a much smaller labour force and the potential for reducing Europe's unwanted dependence on imported oil. Only in the Netherlands was gas being substituted for other fuels wherever possible, something which the first 'oil crisis' – or rather the rapid rise in oil prices on political grounds – would encourage. By 1975, the Dutch were already discussing the adequacy of their natural gas resources and significantly

underestimating these supplies. This was based, according to Odell, on the motive of price maintenance. As this motive disappeared, a fundamental reappraisal became possible from which gas emerged as the primary potential European energy source.

In the winter of 1971/2, only the UK suffered from high oil prices (with the oil companies enjoying 'their profit bonanza' (p. 339)), in large part because oil and gas prices had remained closely linked. Strikes were looming and Odell correctly foresaw Western Europe's energy future as the outcome of the coal industry's and its regulators' response to the gas challenge. The human factor – rising labour costs – alone may have condemned the defence of coal to failure, but in the 1980s defeat came cloaked in the green mantle of environmentalism, something Odell did not anticipate. Acid rain hysteria spread across Europe, fanned by Norway and Germany for rather different reasons. At least until 1980, while estimates of indigenous supplies of coal showed a gently downward trend, those of gas and oil rose steeply, and indigenous energy supplies remain significantly higher than imports.

Odell argued against a pessimistic future for European gas and chided the UK Labour government for insisting that the development of a multi-user pipeline system in the North Sea should remain partly in government hands, thus leading to insecurity about returns on heavy investments. Perhaps he did not stress adequately that the enthusiasm of oil companies for investing in the energy resources of the North Sea, and especially gas exploration, would to a significant degree depend on the world price of crude oil, and that this would be anything but stable. And as far as oil was concerned, Odell wanted to see less reliance on imports, but why this should lead to a 'much healthier position for Europe in its relationship vis-a-vis to the oil producing world' (p. 345) is not clear to me. Europe has rarely cared about the demand security of suppliers, but remains clearly in search of energy 'autarky', perhaps not a wise objective in a globalizing world whose overall prosperity is to be based on trade.

In 1975 the UK government refused British gas to be sold to mainland Europe, and Odell foresaw in 1977 that the potential for natural gas production from UK wells would remain restrained 'largely for institutional, rather than sound economic or strategic reasons' (p. 365). Instead, supplies from Norway burst upon the scene, sold almost reluctantly at first by Norway, which adopted a production quota that was soon relaxed. Odell argued, 'in the context of a western Europe whose political and economic future is dependent on its success in reducing dependence on oil from the Middle East'

(p. 367). This aspiration is now supported by the 'global warming' threat as well. By 1985, Odell could still comment on constraints placed on gas and oil exploitation in the North Sea by government, with output little more than 50% of what even the OECD had anticipated.

Unmentioned by Odell, a new incentive to replace coal had emerged. In 1986–7, the IPCC was being set up, the clean-up of acid rain was approaching completion, at least in Germany, and a 'major expansion' of gas had indeed begun. In Chapter 4 of this section, the gas industry's history of regulation and control is outlined and is directed, in part, against gas imports from the USSR and Algeria which had doubled since 1980, although there is not a word of environmental pressures. Perhaps this silence is a reflection of what I have long suspected, that even acid rain was a cover of other more basic commercial and political motives. Odell reports that tension in Europe between producers and importers became 'increasingly acrimonious', and in such a situation green ethics would have aided the importers in their attempts to replace imports. Pricing policies had to change and gas was eventually admitted into the market for power stations. The deregulation of gas was under way as Britain, Norway and the Netherlands increased their reserve estimates and most EEC countries started exploring for gas inside their borders. Odell was hopeful that exploration would bring success, noting, however, that the 'indigenous natural gas supply industry has to fight off increasingly virulent competition from imports' (p. 381).

So the penetration of gas into the energy markets in EEC proceeded, but slowly, considerably more so than in USA; high transport costs by pipeline or tankers remained a constraint, especially when gas was competing with oil products. Yet the expected continuing relative decline in the role of oil in Europe was predicted (p. 385), as was the arrival of imported gas in competition with coal. The scene was now set for fundamental changes, one of which would be the full acceptance of gas into the power-generating sector. As Odell predicted, 'a competitive, expanding and declining real price gas market in Western Europe' had come about (p. 386) and the fear that resources were inadequate was shown to have been misplaced: future gas would not be more valuable than gas used today. The view that gas was a 'premium fuel' was rejected. The sole remaining argument for the expansion of nuclear power was also severely weakened: after Chernobyl in 1986, nuclear power in Western Europe was probably at its lowest ebb. It too would soon seek rescue with the aid of environmentalism.

The fourth section, 'Politics, policies and structures', generalizes the whole period from an institutional

perspective. The author takes us back to 1912, when the UK government decided to invest in the Anglo-Persian oil company then exploring in Russia! For the next 50 years or so, government intervention in the oil industry proved unnecessary. The huge oil potential of the Middle East was revealed in the late 1930s. After the Second World War, the US took over as dominant power in the Middle East and the oil security of Europe remained assured thanks to this not entirely applauded US presence. Writing before 2003, the invasion of Iraq was not foreseen by Odell, perhaps giving some support to the view that the most recent Anglo-American adventure in the Middle East was not primarily based on the politics of oil. The military presence of both the US and the UK (against French and German wishes) in Iraq and the debate whether intervention there relates mainly to oil, the wish to create a new geo-political regime directed against Islamist terrorism, or the wish to destroy the alleged presence of WMDs continues.

Embedded in this large section are many other points of interest. I would like to select only a few: the changing dependence on oil in Europe and European oil dependence. Apart from the slow growth in demand for 'gasoline' for cars, the energy economies of Europe remained dedicated to coal until after the Second World War, making any interruption of oil supplies unimportant until the early 1950s. Oil dependence only began in the late 1960s, though not equally throughout Europe, and the protection of coal gradually declined, but by the late 1960s the price differential between oil and coal had increased enough to spell the end of coal in some sectors at least, and with it came the growing dependence on imported oil. Oil companies became a part of national strategy as crises in the Middle East made 'oil politics' vitally important. US companies then, as today, were the main international actor in the oil business. The main concern to Europeans, however, was their reliance on politically unstable source countries, with the USA becoming a major importer itself after 1950. By the late 1950s, Europe and the USA were depending on Arab oil, and did not like this dependence, by now a well known theme.

In 1951 Iran nationalized its oil, initiating a shift of oil refinery capacity to Europe (surely short-sighted) and making the import of crude oil the main trading activity between Europe and the Arab world and, I would guess, thereby adding to the dissatisfaction in the Arab world and the eventual rise of Bin-Laden. Two Middle East crises related to Israel, 1957 and 1967, further affected the politics of oil, with Europe's supply saved only by a half-hearted boycott by the Arab oil producers. (In 1957 the USA had saved Western Europe.) In

1970, Europe's 'dependence on Arab oil remained as high as ever' (p. 483), but the Arab world was changing. Instead of wanting to use oil as a weapon, they began using it as a means for achieving economic growth, which in turn spelt the end of cheap oil for Europe and based supply security on gentlemen's agreements. Imported oil became more expensive because of taxes imposed by the producers who had 'newly found collective strength successfully to secure control over the supply and price of oil'. Europe feared their refusal to sell. 'The outlook is bleak' wrote Odell in 1972, but relieved by the already described gas and later oil discoveries in the North Sea and the Netherlands.

The book on energy and environment, while it deals with the post Odell era and provides some insights into the current energy scene and especially the role of environmental regulation, is no match for the Odell book. Not only is the book extremely badly edited, with some chapters written in very poor, uncorrected English, it also lacks coherent themes and analysis. It is, in my opinion, a product of the current pressure to publish at any cost as cheaply and quickly as possible, and to include as many eastern European countries as possible. Much that is presented is poor and rather dull, with only the contributions by McGowan (on reconciling EU energy and environment policy, and so far producing 'a limbo' in which turf wars continue) and Ross, arguing that more could have been done for renewables in Wales in spite of some progress – 'if one accepts that there is a case for government support – on positive externality grounds' (p. 96), worth reading by the general reader. Schulz begins with the claim that 'Also (sic) it is now better known that the biosphere reacts much more to the disregard of ecological principles than was believed before', draws attention to the role of anaerobic processes and the use of rape for fuel oil, and concludes that 'power production from renewable energy will only have a perspective if its gets priority or a financial bonus': the 'legal fixation of electricity price' and 'quota for power from renewable energy' are suggested. In Germany, legal reform was still in progress at the time of writing, which appears to have been about 1998. I rest my case. Why did Ashgate publish?

Energy policy, to the extent that we still have it, will continue to cause much agony to the UK government and the EU, requiring 'hard choices' and generous treasuries, especially if popular opposition to nuclear power continues and Europe has to learn to accept its fossil fuel 'depleted' status, something the UK will face for the first time in its history for fuels required for both transport and electricity generation. While companies invest private fortunes in Russia and worse places, officialdom is

increasingly worried about energy supply security, something it is now trying to 'tackle' with emission standards and carbon dioxide caps and trading. Environmental threats are needed to manage the new, still emerging energy regimes created by (foolish) privatizations and de-regulation. All this is post Odell, but he tells the story of how and why we got to where we are.

As late as 1990, Odell wrote:

Europe's energy sector policy makers, in spite of all evidence to the contrary, remain generally besotted with the concept of supply scarcity and thus believe it to be more important to continue working and planning mainly in for ways in which to protect the EC against future oil supply crises. This is perhaps a clear example of the way in which policy-makers show that they are rather like the proverbial generals who concentrate their efforts on fighting the last war (p. 267).

This war is still taking place, now under the banner of the Kyoto Protocol. It promises to be very expensive with very little, if any, effect on the 'global' climate.

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Understanding Environmental Policy Processes: Cases from Africa. By JAMES KEELEY and IAN SCOONES
London: Earthscan, 2003, 224 pp, £17.95 (pbk). ISBN 1 85383 975 2

Since the late 1990s, there has been an explosion of literature examining mainstream perspectives or 'conventional wisdoms' on environmental trends and management in Africa. Keeley and Scoones' text builds on this literature by analyzing 'the linkages connecting knowledge, power and politics' as it relates to land management policy in Africa (p. 1). The volume's findings are based on 250 interviews with policymakers in Ethiopia, Mali and Zimbabwe, as well as Nairobi, Rome, Washington, DC and London. The book employs an 'eclectic bricolage' (p. 17) of conceptual approaches, frequently invoking three main perspectives to understand policy persistence or change in Africa. The first approach suggests that policy change is primarily a reflection of political power and group interests, the second emphasizes the power of individual actors and networks in the policy process, while the third approach examines policy as discourse.

Following an introduction, the book's second and third chapters outline different disciplinary approaches to understanding policy change in Africa, as well as the connections between local and global environmental policy. These introductory chapters are followed by the volume's three core chapters detailing case studies in Ethiopia, Mali and Zimbabwe. In the first of the case study chapters, the authors examine Ethiopia where environmental policy debates have been dominated by green revolution discourses as well as Malthusian inspired concerns about environmental degradation. The resurgence of green revolution discourses is supported by a case study of the Sasakawa Global 2000 project. In Mali's cotton-producing zones, productionist and land management narratives have dominated soil fertility discussions. The tension between these two competing perspectives ultimately derailed World Bank support for the Soil Fertility Initiative. Finally, in Zimbabwe, the power of the state and the use of 'science' by technical agencies to assert authority are emphasized. Calls for increasing local participation, coupled with the declining power of the Zimbabwean state, have led to changes in the policy formulation landscape.

This well-written and affordable text clearly has more strengths than weaknesses. The Ethiopian, Malian and Zimbabwean case studies are the most impressive sections of the book because they ground abstract notions of policy formation and persistence in real situations. My concerns with the book are fairly limited. The authors seem to intimate at times that environmental policy in Africa is dominated by local political battles as well international players who enter the fray as merchants of particular world views. I would argue that global actors often have more at stake than ideas. One approach that might address this lacuna is political ecology, a perspective increasingly prevalent in the geography, anthropology and environmental history literatures. Political ecology suggests that global actors not only impinge on local policy discussions at the level of ideas but as players with tangible political economic interests. In sum, this book would be excellent reading for development professionals as well for students in upper level undergraduate and graduate seminar style courses dealing with environmental management in Africa.
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The Vulnerability of Cities: Natural Disasters and Social Resilience. By MARK PELLING.

London: Earthscan, 2003, 224 pp, £17.95 (pbk). ISBN 1 85383 830 6

Pelling has provided another compelling argument against the naturalness of natural disasters. At the

heart of this well-crafted study is the affirmation that urban disasters (naturally) hit the poor, the marginalized, the excluded with disproportionate force. It is clear that there are no solutions, as such, but there are approaches, and Pelling here recommends a position that 'integrate(s) agency and structure in examinations of the production of vulnerability, in specific places, whilst also acknowledging the importance of physical systems in generating hazard that can trigger disaster' (p. 47).

The Vulnerability of Cities is divided into three sections. The first is the longest and constitutes a review of theoretical positions, of institutional roles and activities, and of differing approaches to the problem of vulnerability to disaster. There is a recognition here both of the fact that so many cities in the global South were colonial foundations, inappropriately located at exposed sites along sea coasts. Equally, attention is paid to the implications of structural adjustment programmes and of neoliberal developmental regimes on issues of marginalization and vulnerability.

Pelling's three case studies, about which he has written in more detail in a number of journal papers, provide an array of contradictions and are each in their way fairly awkward customers. On the face of it, Bridgetown, Barbados, should be the least problematic. But the picture Pelling presents is one of government torpor and an impasse in community mobilization by civil society groups. Georgetown, Guyana, presents a less paradoxical case. Here, Pelling concludes, 'disaster management remains reactive, possibly reflecting the political dangers and resource expenditures that come with moving towards community involvement' (p. 137). The picture in San Domingo, capital of the Dominican Republic, leaves more room for optimism, as NGOs have successfully extended their fields of activity during the slow transition to a more democratic stamp of government.

The third section of the book points guardedly towards future strategies. And while the emphasis here as elsewhere is on the transformative potential of community organization, there is no sense in which Pelling is uncritical, or unaware of the dangers of a retreat into the shadows by municipal government. In sum, Pelling has produced a study that is both comprehensive in its review of theory, varied in its selection of case studies, and concise in their representation on the printed page.

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The Global Casino: An Introduction to Environmental Issues (third edition). By NICK MIDDLETON

London: Arnold, 2003, 433 pp, £19.99 (pbk). ISBN 0 340 80949 3

The third edition of Nick Middleton's 2003 book on environmental issues is 55 pages longer than the second edition (1999). As the original edition was published in 1995, this increasingly established textbook is taking on a 4-year cycle much like the Olympics, though that is one global issue not covered. Practically all the chapters are longer by three or four pages, but most of the photographs, tables and figures are the same as in the second edition, as indeed is the bulk of the text. The over-enthusiastic publisher's blurb on the back cover claims that 'this new edition has been thoroughly revised and updated', but closer inspection reveals that most paragraphs are word for word the same. But why alter what was already a wide-ranging and, at times, inspirational coverage of major issues such as climatic change, desertification and acid rain. The publishers further claim that *new* features include 'lists of exercises, essay questions and topics for discussion'. These items are not new but have been shifted usefully to the end of each chapter, rather than being located at the end of the book, and some questions have been supplemented but generally not changed. All chapters have a few new references and, especially, further web sites, a useful source of supplementary information which will appeal to student readers perhaps more than to their teachers.

Three initial chapters cover the background contexts of the physical and human environments and introduce the concept of sustainable development. Then follow 18 chapters on key environmental issues. The reviewer can confirm that each chapter can form the basis of a useful tutorial, having gratefully used the second edition in his role as a human geographer obliged to try and cover some physical geography topics by way of introducing some balance to a tutorial programme. Indeed, the author claims that the book emanates from his own tutorial courses at Oxford. The casino metaphor in the title derives from 'the global scale on which many of the issues occur' and which 'represent humankind gambling on the very future of the planet itself'.

The initial chapter on the physical environment appropriately starts with a table of annual net primary production of carbon by major ecosystems. Other natural cycles are then introduced, as are time and space scales and concepts of feedbacks and thresholds. Similarly, the introduction to the human environment starts with a very relevant discussion of resources and how different societies perceive them. Human forces behind environmental issues include population growth, technology and its consequences, value systems, the contrast between rich and poor and the problem of imbalanced ownership of resources. The range of Western

environmentalism from 'cornucopians' to 'deep ecologists' concludes this useful and concise introduction. Conventional thinking on economics is especially challenged in the third introductory chapter on sustainable development, which contains a nice definition of the concept as 'development without growth in throughput beyond environmental capacity'. Some new material from the World Summit on Sustainable Development in Johannesburg in 2002 and on the 'Precautionary Principle' and its advocacy of erring on the side of caution are incorporated in this new edition. The omission from the bibliography of geographer Jennifer Elliott's book on sustainable development seems an oversight.

The rich and varied set of global issues in stand-alone chapters, if so required by hard-pressed organizers of tutorials, cover both expected environmental topics such as coastal problems, soil erosion and climatic change, and more interdisciplinary issues such as big dams, waste management, tropical deforestation and war. Generally these issue-based chapters comparatively assess varied information and opinions in a well-balanced appraisal. In this respect the author has refrained from 'going to extremes'. Specialists in any one topic might take issue with a chapter's content, but the generalist

geography tutor will be thankful for the range of views covered and the bibliographic and web site opportunities for students to research each issue further. A concluding chapter endeavours to look at strategies, both global and local, which might start tackling environmental problems. The world can learn from indigenous cultures. The North needs to reduce its long history of environmental damage. The South needs to stabilize population growth. The (ex-communist) East needs to modernize its wasteful and polluting technology. This all requires technology transfer from the North and the resolution of poverty and ownership issues. The Netherlands and its National Environmental Policy Plan is suggested as a framework for putting into effect the recommendations of the UN Conference on Environment and Development. Finally, it is advocated that economic growth must be replaced by an emphasis on sustainable development. Hopefully, the related changes in values, beliefs and behaviour might be found in the impressive concluding list of national environmental web sites covering many countries together with international agencies. Can one dare to hope for some results and solutions in the anticipated fourth edition of this increasingly impressive book?

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