

## Book Review

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### **Challenging Coasts: Transdisciplinary Excursions Into Integrated Coastal Zone Development**

L.E. Visser (ed),  
Amsterdam, Amsterdam University Press, 2004

Leontine Visser's book, 'Challenging Coasts: Transdisciplinary Excursions Into Integrated Coastal Zone Development', very much lives up to its name. It is a book that should challenge many of the rapidly growing number of cross-disciplinary researchers working in the field of marine resource management to think beyond the obligatory 'nod' in the introductory paragraphs to the theoretical gurus of the day. The challenge lies partly in what Visser describes as the 'transdisciplinary paradox' (p. 27) – '... the more one starts thinking along transdisciplinary lines, the more the trajectory provides an incentive to or even demands that one reconsiders one's own disciplinary assumptions and concepts'. Transdisciplinary work in resource management has been undeniably dominated by environmental scientists and economists for most of the past two decades. Perhaps this is due to what Steven Rose calls the 'traditional hierarchy of the sciences', which places the natural

sciences higher up the epistemological pecking order than the social sciences (Rose 1997). As molecular biologist James Watson once rather arrogantly declared: 'There is only one true science, physics: everything else is social work' (Rose 1997: 8). Professor Visser is arguing for a transcendence of this rather blinkered and profoundly unproductive attitude, and the chapters she has assembled in this book provide compelling support for her argument.

In Chapter 2, Visser warns against the dangers of taking a systems approach to the study of fishers and their practices: 'In anthropology, in contrast [to ecology], the concept of system is often regarded as too functionalist and determinist. It gives the misleading impression that all elements within the system are in harmony with each other and contribute to the functioning of the system' (p. 28). She elaborates with pertinent examples of both the internal complexities of fisher societies and their social and economic interactions at multiple scales, invariably including the global marketplace, which inevitably derail attempts to apply a 'virtual fisher' model to a real group of people. Visser's arguments are clearly informed by a large body of empirical data, generated by long periods of fieldwork among fishing com-

munities, as well as by working with biologists and other natural scientists in large multi-disciplinary project teams.

A common symptom of the persistent under-valuing of anthropological input in transdisciplinary research has been that social scientists have been 'added on' to projects that were already designed by natural scientists. As Visser puts it: 'Social data are apparently regarded as mere 'contextual support' for natural and technical data: supplementary but not vital' (p. 26). Thus what is obviously needed is more 'concerted interaction between the social sciences and the natural sciences, in which epistemological differences and conceptual incongruities become transparent in order to be overcome' (p. 27). Many of the other chapters of the book support and indeed strengthen this argument.

Flip Van Helden's chapter about the problems inherent in a conservation and development project in Papua New Guinea that had been conceived and designed by biologists provides one of several powerful cases against the exclusion or marginalization of social scientists from the project design and/or policy process. Van Helden shows how the biodiversity hot-spot approach of conservation biologists, who prioritize their efforts according

to zones on a map based on measurements of beta diversity, becomes utterly irrelevant and unusable in the face of the reality of local tenure systems. The latter are not only central to the way people traditionally negotiate their access to marine resources, but are also enshrined in the national legislation. More importantly traditional marine territories are often fragmented at a scale considerably smaller than the zones constructed from biodiversity or ecological criteria (including for example fish larval dispersal shadows, or migration routes of turtles). This often means that the hot-spot approach forces conservationists to work with people who are not only uninterested in their objectives, but can subvert the efforts of other, more cooperative groups within the same ecological zone. It is clearly a better strategy to determine which social groups can be engaged successfully first, and prioritize funds and personnel accordingly.

The above socially oriented strategy was used successfully in the case of the Parc National du

Banc d'Arguin in Mauritania, documented by Jean Worms *et al.*, in Chapter 4. This chapter is a perfect companion to Van Helden's chapter because it describes a conservation and development project that has largely succeeded because it has chosen to work with the community right from the outset, and through thoughtful planning, diligent communication and the consistency of its program has achieved serious buy-in from the users and stewards of the resources. Moreover, the reduced emphasis on ecological criteria in the design of the project has enabled it to adapt to dramatic changes in resource use, driven by both local and global markets. In a park that was originally established for the protection of migratory birds, this project has facilitated the management of mullet fisheries, and subsequently sharks and rays, as these species were in turn commodified and their populations threatened by overharvesting.

Visser's and her co-authors' arguments resonate strongly with my own experience and that of many of my colleagues (Filer

2004; Foale and Manele 2004; Macintyre and Foale 2004) and I enthusiastically recommend this book to all who are interested in tackling the difficult terrain of transdisciplinary work in marine resource management.

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## References

- Filer, C (2004) *The knowledge of indigenous desire: Disintegrating conservation and development in Papua New Guinea. Development and Local Knowledge: New approaches to issues in natural resources management, conservation and agriculture*. A. Bicker, P. Sillitoe and J. Pottier, pp. 64–92, London, Routledge.
- Foale, SJ and B Manele (2004) 'Social and political barriers to the use of Marine Protected Areas for conservation and fishery management in Melanesia', *Asia Pacific Viewpoint* 45(3): 373–386.
- Macintyre, M and S Foale (2004) *Global imperatives and local desires: competing economic and environmental interests in Melanesian communities. Globalisation and Culture Change in the Pacific Islands*. V. Lockwood pp 149–164, Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Rose, S (1997) *Lifelines: Biology Beyond Determinism*, Oxford: Oxford University Press.