

Parrotta, J.A. and R.L. Trosper (eds.). *Traditional forest-related knowledge – sustaining communities, ecosystems and biocultural diversity*. Dordrecht: Springer. 2012, xxvi + 621 pp. Hardcover, ISBN 978-94-007-2143-2 169.95 € pp. 77 illus., 58 in color.

Getting to Grips with Global Traditional Forest Knowledge

Reviewing the world's traditional knowledge (TK) relating to forest use and management ("traditional forest-related knowledge" or "TFK") is a vast undertaking. This book, edited by John Parrotta and Ronald Trosper and drawing on the expertise of 76 authors world-wide, makes an important contribution to pulling this neglected topic out of the shadows.

At present the information, practices and value systems labelled TFK, seem to play, at best, a minor role in mainstream forestry and environmental sciences. The extent to which this matters and how it might be improved, are neither obvious nor widely agreed. There are challenges to reaching any well-founded conclusions or even to deciding how such conclusions might be sought. Obstacles include disciplinary differences, debates about validation, and the ethics and the politics of information ownership (e.g. Sheil and Lawrence 2004). The greatest challenge may be the unwieldy breadth of the topic itself. TK is a body of diverse information. It is hard to define but can be argued to span a range of disparate topics including history, folklore, uses, practices, traditions, institutions, governance principles, cosmologies and the sacred. Without accepted principles to systematize it, TK appears to be a jumble of beliefs, narratives and practices. What matters then is how we assess, sift and use it. We, as scientists, need specific questions where we can apply scientific methods to the relevant TK claims and potentials. We, as practitioners, need ways to recognise how TK can inform practices and improve outcomes.

There is little doubt that TK can provide valuable insights. The best known cases are found in drug discovery. For example, the anti-malarial treatments based on once obscure TK herbal remedies led to pharmaceutical preparations that have since saved millions of lives (such as quinidine and quinine from the bark of South American *Cinchona* trees and artemisinin from *Artemisia* shrubs found in China and elsewhere). There are comparable examples in the environmental realm. One candidate is perhaps the set of principles governing traditional marine fisheries in various Pacific islands that have now been widely reinstated (Johannes 1978, 2002). Aside perhaps from efforts to distil principles from broad scale comparisons of traditional governance systems (e.g. Ostrom et al., 1999), and a few assessments of their effectiveness (e.g., Sheil et al., 2015), I am not aware of examples where insights from some previously obscure and specific local TK insights have suggested broadly relevant conclusions for forest science, management or governance. However, I don't think such outcomes are impossible, especially if we consider general

synthetic principles such as might be proposed based on the role of taboos and sacred areas in facilitating conservation outcomes (Colding and Folke 1997, Vermeulen and Sheil 2007). Such principles can offer useful insights to those seeking ways to balance different users and their needs and aspirations in future landscapes (see, e.g. Sayer et al., 2013). In any case, for the moment, examples in forest management are typically local and likely to remain rooted in specific landscapes and cultures. Thus, efforts to review and synthesise TFK must give attention to context.

Returning to the book, its approach to Traditional Forest-Related Knowledge (TFK) is to consider and assess the subject from a variety of angles. The book's 15 chapters are packed with fascinating ideas, facts, comments and insights.

The initial chapter introduces and reviews key TFK concepts and contexts. The definition of TFK alone requires nearly two whole pages of tightly argued discussion – but the resulting definition remains broad and loose. The next ten chapters consider the TFK world in ten regional and continental chapters (covering Africa, Latin America, Amazonia, North America, Europe, Russia and Central Asia, Northeast Asia, South Asia, Southeast Asia and the Western Pacific). Inevitably, given the range of topics and examples, there is little real hope for a coherent synthesis in any but a few of these regions. These chapters reflect the authors' expertise and interests and are rich in information, context and comment. Brevity is generally compensated by numerous citations.

Though most authors try and focus on general themes and issues there are plenty of specific examples to reward the casual reader. Notable examples will vary with interests. Here are three that I found intriguing: I had previously been unaware of the extent of ancient Roman texts on forest management and their sophisticated appreciation of how a tree's growing conditions can influence wood properties (chapter 6, Europe). I was fascinated by the inter-tribal sharing of fire management practices seen in parts of Uganda (chapter 2, Africa). I had also been unaware of the degree to which some Amazon peoples manipulate flood water sediments by digging channels and laying down palm fronds in shallow water to encourage deposition and improve soils for cultivation (chapter 4, Amazonia).

Following the geographically themed chapters are four final chapters, three of which consider specific themes. The first considers the legacy of colonialism and the ongoing impacts of globalisation and how these have impinged on forest people. This chapter highlights many concerns but also offers positive examples of successful community managed forests as offering a better future. The second chapter examines the

various ways in which people have coped with the challenges posed by climatic variability and extreme climate events and the lessons that these offer in the context of future climate change. It also briefly reviews the implications of TFK for climate mitigation schemes. The penultimate chapter on ethics is the most practical: it examines key elements of good practices for all those involved in the study and use of TK and TFK. The final chapter attempts to synthesise some of the challenges raised elsewhere in the volume. Notably, it revisits the slippery definition of TFK once-more: this time it requires four and a half pages and highlights the difficulties rather than offering a clear resolution. The chapter looks ahead and considers challenges to exploring and safe-guarding TFK and summarises several cases where TFK has been, or might be useful.

Overall I find the book impressive for its ambition, breadth and clarity. There is a lot of valuable material. The book would make an even more useful reference if there was a detailed subject index – unfortunately there isn't. Such encyclopaedic text also makes for heavy reading. The pictures, 77 in total with 58 in colour, help but the fact-dense text remains best read in short bursts.

The systematic study of TFK remains in its infancy. This book propels the topic forward and deserves a wide readership. With this book in mind, let me suggest three wishes for future contributions in this field. The book is primarily by and for TFK professionals so my first wish is for a powerful and persuasive account of why TFK matters that can target a more general audience. We need to persuade others, notably including students and forest professionals, of the importance of these topics.

Second, a more general concern about TK and thus TFK is that despite the focus on broad definitions we still appear preoccupied with “knowledge” in a narrow sense. Ninety percent of the focus seems to be on what people know in terms of uses and practices. We need to focus also, indeed more so, on what people care about. The justifications for TK related work often reflect a consideration of local people's views and values: their preferences, concerns and ethical outlooks. Yet these local perceptions are too often treated as side-issues. In fairness, the book explicitly recognises the importance of these normative issues, Chapter 1, for example, raises the “vital issue of how the interests and knowledge of all people can be incorporated in forest management” – but these interests are nonetheless little considered in most of the book. Much could be said about this, but my wish here is to call for systematic attention to the specific preferences, concerns and values associated with local forest users. This should not be merely an optional and ill-defined component of knowledge or TFK: it should be a central principle.

Finally, this book has much to offer students, researchers, policy makers and many more. While it merits a broad readership the hefty cover price is an obstacle. If TFK is to become main-stream then quality texts must be widely

accessible. Few locally based researchers in the tropics are likely to see, let alone buy, a book as expensive as this – and I am concerned about that. For that reason, in closing, I note that significant amounts of the material covered in this book are freely available online via IUFRO <http://www.iufro.org/science/task-forces/traditional-forest-knowledge/> and in journal articles (see Parrotta and Agnoletti 2007).

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