

## BOOK REVIEWS

**CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT**

edited by R. J. Raison, A. Brown, and D. Flinn

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The IUFRO task force on Sustainable Forestry hosted a meeting in Melbourne, August 1998, that laid the foundations for this impressive book. The 21 chapters, contributed by a variety of authors from different backgrounds, cover such diverse topics as legal, economic, and policy frameworks; research requirements; forest inventory and forecasting; criteria and indicators relating to soil, hydrology, carbon, and biodiversity. The quality of scholarship is excellent, but at over 400 pages it cannot be recommended for light bedtime reading. This itself highlights an important issue.

The people at the cutting edge (literally) of practical forestry — especially in developing countries — have no time or inclination to read academic tomes detailing alternative definitions of “sustainability”. They need hard-and-fast criteria and indicators (C&I), which they can use to evaluate their operations in terms of environmental effects. These C&I must be easily understood, comprehensive, relevant, uncontroversial, and easy to implement. Oh, and by the way, they need these C&I *right now*, because big decisions are currently being made that depend on them.

At the risk of quoting out of context, and of emphasising only the negative, I will use one sentence from each numbered chapter to illustrate some of the difficulties in this whole approach:

- Chapter 1 A myriad of challenges face the successful implementation of C&I, and many are unlikely to be quickly resolved (page 2).
- Chapter 2 While the broad rationale underpinning C&I seems straightforward, the application of C&I to improve SFM [Sustainable Forest Management] raises major challenges of both a philosophical (conceptual) and practical nature (page 5).
- Chapter 3 Recent sets of forestry C&I tend to have been “quick fixes” and centralised solutions, and thereby may be predisposed to top-down control and implementation, whether intended or not (page 20).
- Chapter 4 As all definitions of sustainability involve value judgements we advise caution when establishing ‘objective’ and scientifically based indicators, if the assumption thereby is that such indicators might deliver value-neutral information (page 39).

- Chapter 5 As is immediately clear on perusal of these indicators, most remain difficult (and in some cases, impossible) to quantify (page 73).
- Chapter 6 There is a question about the capacity of current institutions to both select indicators and manage forests to achieve sustainability (page 103).
- Chapter 7 Judgements of absolute sustainability are unlikely to be ever possible, due to imperfect knowledge and changing values in society (page 128).
- Chapter 8 For some customers and non-governmental organizations (NGOs), the credibility of government monitoring of the quality of forest management is low because government is not viewed as being independent and impartial, or because its management standards are not sufficiently enforced (page 131).
- Chapter 9 The implementation of C&I is a process that requires constant and repeated testing according to the ecological, environmental, social and economic conditions of countries (page 160).
- Chapter 10 In particular the relationship between wood and non-wood goods and services is not well described, and other processes and sets of guiding principles are often used to supplement the analytical planning process (page 177).
- Chapter 11 Detecting change in forest productive capacity due to changes in site quality between rotations remains difficult due to confounding effects of silviculture, genetic stocks, disease and insects, and climate variability and change (page 183).
- Chapter 12 Adherence to the static evaluation of site factors either in forestry or in nature conservation is unlikely to be useful (page 200).
- Chapter 13 There are clearly a number of problems with some of the indicators being proposed under the different C&I initiatives (page 228).
- Chapter 14 The complexity of the soil system and the large spatial and temporal variation that occurs in important soil processes make it difficult to identify a small number of generic and relatively simple indicators of soil fertility (page 231).
- Chapter 15 Traditional methods of gauging streamflow are costly, long-term enterprises whose precision may be insufficient to detect the impacts of small changes in forest cover (page 259).
- Chapter 16 There are no simple indicators by which to judge whether forests are maintaining their contribution to global carbon cycles (page 334).
- Chapter 17 Some authors have argued that biodiversity of ecosystems is a more difficult concept to understand, communicate and apply to resource management than biodiversity of species (page 345).
- Chapter 18 We do not believe the success of reserve or off-reserve management can be assessed until biodiversity conservation objectives have been agreed and articulated on a bio-regional basis (page 387).
- Chapter 19 Currently, there are few tested and proven indicators for assessing and monitoring the forest fragmentation process (page 391).
- Chapter 20 No set of indicators, whatever its quality, will ever solve all the problems of SFM [sustainable forest management] (page 440).

Chapter 21 There has been a tendency for the expectations of policy makers to exceed the capacity for effective implementation of C&I (page 443).

There is a lot of contemporary talk about “triple bottom line accounting” but the bottom line for this reviewer is that our environment in 100 years’ time is sure to be markedly different, for better or for worse, regardless of any human intervention. During this period, an army of researchers, administrators and lawyers will continue to agonise over the concepts, technicalities, and usefulness of C&I. If the reader is one of these people, this book is strongly recommended.

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## RECREATIONAL AND ENVIRONMENTAL MARKETS FOR FOREST ENTERPRISES

by U. Mantau, M. Merlo, W. Sekot, and B. Welcker

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 2001. 544 pages. ISBN 0 85199 480 6. £75.00 (US\$140.00)

No matter what our personal interests or circumstances, a better understanding of the markets for forest-based recreational and environmental services is probably going to be essential. This need for improved understanding isn’t simply knowledge-for-knowledge’s sake but is much more serious, as it is likely that more and more we are going to be called on to reach for our wallets and pay for these services. So, unless the idea of handing over blank cheques appeals, a sharper understanding of what one could be asked to pay for and how the worth of these “goods” can be determined is warranted. A book about forest environmental and recreational markets is therefore timely.

Timely not just for the consumers but for producers/suppliers too. Although the idea of a blank cheque might appeal, realistically most growers don’t expect to get too many of these — not without a fight. A strong, defensible case quantifying costs and benefits is more likely to ensure adequate compensation for recreational and environmental services, and an adequate income from tree growing. A case is certainly better than hoping that some consumer of tree-based recreational and/or environmental benefits will hand over whatever is asked to justify the investment in tree growing, with no questions asked.

For both growers and consumers then, one of the interesting propositions of this book occurs in the very first paragraph. The proposition is that, for a lot of countries, growing trees simply for wood is uneconomic — *in many countries worldwide, the income received from forestry is insufficient*. Interestingly, the authors imply that this little problem is going to get worse not better — so much for ideas along the lines of “the world is running out of wood” or the hope that the sector can get by on a narrow “creative wood-based solutions” focus, unless of course that is code for some very creative accounting. The authors also tell us that that the economic problem is being aggravated by extra costs incurred in providing