

Book review

Towards Forest Sustainability

David Lindenmayer and Jerry Franklin (editors)

CSIRO Publishing, Melbourne, 2003
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This book presents essays written by participants in a 'Forestry Roundtable Meeting' hosted by the Centre for Resource and Environmental Studies (ANU) in August 2002 at Marysville, Victoria — with funds provided by the Myer and Poola Foundations. There were 34 participants in the Roundtable, 8 from overseas countries. Of the 26 Australian participants there were only 3 from Australian forest services (Tasmania and Victoria), and none from academic forestry departments.

The Roundtable was designed to share 'ideas and experiences of transitions in native forest policy and management' within a small number of developed countries (US, Canada (British Columbia), Finland, Sweden, Australia and New Zealand). The 12 essays focus primarily on the status of biodiversity conservation through protected reserves and silvicultural practices. There is some reference to codes of practice, monitoring and certification.

Protection of forest in reserves appears to be more advanced in Australia than in British Columbia (F. Bunnell and L. Kremsater), Finland (J. Niemala) and Sweden (P. Angelstam). In the latter countries a high proportion of reserved forest is in the alpine and subalpine zones, and only a small proportion in the more productive southern forests (e.g. 1–2% in Finland and Sweden). Biodiversity conservation is sought primarily through land use planning, forest practices codes and translating public concerns into new silvicultural approaches. This means discouraging clearfelling, and adopting tree and patch retention systems 'customised to particular vegetative communities with a landscape of varying fires frequencies and intensities' (J. Niemelä). Several authors refer to this as the 'Variable Retention Harvesting System'.

Australian case studies relate only to the tall wet sclerophyll mountain ash and messmate forests of Victoria and Tasmania. David Lindenmayer presents the case for retaining a range of elements in otherwise clearfelled mountain ash forest (living and dead trees, intact thickets of understorey vegetation, logs on the forest floor), longer rotations, and the creation of more stands of truly multi-aged forest. Higher levels of structural retention are seen to be particularly appropriate where natural disturbance regimes (notably, fire) have tended to result in multi-aged stands of trees exhibiting higher levels of structural complexity. While difficulties in implementing such regimes are acknowledged, Lindenmayer calls for testing the effectiveness of new silvicultural methods based on variable retention harvesting.

This is, in fact, being done in Tasmania through the Warra silvicultural trial (J. Hickey and M. Brown). The trial involves retention of understorey islands, strip and patch felling, and aggregated retention and single tree/small group selection. However, the authors recognise that 'ecologists, environmentalists, certification schemes, and timber markets would need to recognise variable retention as a significant improvement over clearfelling to provide sufficient incentive for forest growers to widely adopt it'.

As a concept, sustainability is about much more than conserving biodiversity. It is also concerned with maintaining or increasing the productive capacity and sustainability of forest ecosystems, maintaining ecosystem health and vitality, protecting soils and water, ensuring a positive contribution of forests to global geochemical cycles, and restoring the suite of attributes (ecological condition, species composition, structure, stocking) where health and vitality have been degraded. These are all matters of great significance in many eucalypt forests, particularly uneven-aged and mixed-species forests where there may be a sensitive balance between species, stand structure, environmental factors and susceptibility to insect and disease organisms. It is a pity a work on forest sustainability has such a limited subject cover, and the Australian component was restricted to a single forest type.

A number of chapters address the future role of native forests in wood production. New Zealand has already withdrawn wood production from public forests (D. Norton). J. Clarke believes all Australian wood production can come from plantations, and even in British Columbia, Bunnell and Kremsater refer to 'the awkward position of producing wood nobody may want' — other regions may do it more cheaply and quickly through short-rotation plantations.

The Jerry Franklin essay addresses the way corporate forestry is moving to an agronomic model of wood fibre production and away from traditional forestry models. However, he argues that a 'solution' to forest conflict that divides the world's forests into fibre farms and native forests (the latter 'preserved' from active management) may be potentially dangerous for the temperate native forests. Society will need to be continuously engaged in active management of many native forests, even if no longer used as a source of wood products. This will involve, among other things, management of fire regimes, responding to consequences of climatic change, protection against exotic organisms,

maintaining biodiversity within fragmented landscapes, and restoring and maintaining damaged ecosystems. A US paper (M. Soulé) even argues the case for re-introducing large carnivores to US forests in order to limit damage to forests through increasing populations of browsing animals!

Perhaps we should be asking whether we can afford active management of the Australian forests without some financial return from the forests, and on this basis just how we might approach wood production management in the future.

This work may not advance very far our understanding of ecologically sustainable forest management. However, there is a good practical orientation in the essays; they are, for the most part, well written, and we can all benefit from an appreciation of how other countries are coping with changes in social thinking on the role and management of native forests.

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Publications received

State of the World's Forests 2003. FAO (2003). 151 pp;
ISBN 92-5-1048657.

This is a biennial report on the state of forests, recent policy and institutional developments, and key issues concerning the way the forest sector must work in today's environment.

The first part of the report looks at the international forest policy dialogue, and current issues in forest resources and their management, conservation and sustainable development. The report also summarises information covering over 200 countries on land area; population statistics; economic indicators; forest area and forest cover change; forest types, volume and biomass; production, trade and consumption of forest products; and the status of ratification of international conventions and agreements.

The second part consists of five papers addressing a number of subjects in more detail. These are (i) links between forestry and poverty alleviation; (ii) the importance of forests in managing freshwater resources; (iii) the way the sustainable use of forests contributes to conservation of biological diversity; (iv) imbalances

in science and technology capacity between developing and developed countries and among different segments of the forestry sector; and (v) the plight of Africa as it relates to trends in fiscal policies in forestry.

Forests and Forestry: FAO and its Work

This publication is a package of 28 individual sheets summarising FAO's key work in forestry. Taken together, they form a compendium of the most critical forest-related issues affecting foresters, policy makers and the public today — and a composite picture of the breadth and depth of FAO's work in support of the world's forests and trees and the people who depend on them.

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