

Japanese forestry implications and warnings

Review of "Japanese Forestry and its Implications" by R.T. Fenton, Marshall Cavendish Academic, Singapore, 2005. 307 pp. incl. 62 tables, 8 figures, 9 appendices and illustrated with 39 colour plates.

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The unusual title of Dr. Fenton's book tacitly poses the question "implications for whom and for what?" The answer to this question is left until the close of the review since the book examines its own objectives in the final chapter. Those objectives are firstly to describe Japanese forestry, which has evolved in isolation from the traditional scientific origin in central Europe. It is astonishing that the world's second largest economy crams its industrial infrastructure, the dwellings for 127 million people, and sufficient tilled land for self-sufficiency in rice mostly onto slender coastal plains, the 15% of Japan below the 50m contour, while the precipitous interior remains clothed in forest. Over 40% larger than New Zealand, Japan's 67% forest cover is atypical of the OECD, except for the topographically and demographically dissimilar Finland.

Fenton's comment that even in Japanese histories the forests receive little attention is supported by other evidence; for example, Kodansha's 1924 page illustrated English language encyclopaedia of Japan (1994) devotes less than one page to forestry, although readers can also find entries on the main species such as sugi, and on trees with some special quality, such as camphor. Japan's forestry development is such that North American, European and Australasian foresters should each be guaranteed a different kind of shock to their native *Weltanschauungen* from this book.

The second aim of the book is to evaluate the forests' ability to supply mills serving the domestic market, for many centuries a huge consumer of wood, placing the Japanese industry consistently among the world's top four forest products users. This second aim has a subsidiary motive in which the author tackles the conservationist criticism of Japan that the country is "exporting unsustainable forest exploitation" by importing two-thirds of its wood whilst cutting below the increment of its own forest. Dr. Fenton also attempts to predict developments in Japanese forestry practice, and, although described as another "subsidiary aim", this is important and perhaps the first time a foreign forester has seriously addressed this issue.

Bob Fenton has been equipped for the task of writing this book through several missions to Japan over a quarter-century including two long-term sojourns in the eighties, one with the Department of Forest Products at Tokyo University and the second as a special researcher for the former NZ Forestry Council. His background in silvicultural economics of radiata pine has fuelled an insightful approach to Japanese forestry, and his enthusiasm for this country has infused the book with numerous cross-references to other disciplines. Readers unfamiliar with Japan are warned to follow the main text continuously, merely flagging notes of interest, postponing perusal of extensive endnotes to a later moment of leisure.

Initial chapters trace the influence of geographical, climatic and historical factors on the development of

forest tenure, composition and management, especially the effects of no pastoral agriculture, little hunting, the steep topography with its swift, short rivers, very heavy snowfalls in north-western Honshu no foreign invasions, the Tokugawa closed country policy, forests of former possessions like Korea, Taiwan, Manchuria, and the southern half of Sakhalin, and the effects of the Occupation and the rapid aging of the forestry workforce through the outflow of younger labour to the cities.

Japan's biodiversity is high due to a lack of glaciation and a former geological linkage with the Asian mainland, and is greatest among the hardwoods. In the chapter on species hardwoods receive only 10% of the space as the author concentrates on production and matters affecting it, such as genetics (some half a millennium old), pathology, a particular issue for the pines, and *Sasa* spp., the dwarf bamboo, a rampant weed in the warm moist summer. In fact, trials of exotic species failed, and the two main plantation species, sugi - *Cryptomeria japonica* and hinoki - *Chamaecyparis obtusa*, are both important parts of the indigenous flora, together occupying nearly half the chapter.

The natural forest data have a similar emphasis on volumes, areas, age-classes, and increment. However, the author correctly assigns a prime value to their protection role in the context of a country with a high population density on the plains below the forests and one that endures frequent earthquakes, typhoons and volcanic eruptions.

In the chapter on plantations Fenton is really in his element, linking the demand for square housing columns and beams and aesthetically pleasing close rings to "little and often" thinning regimes, a silviculture that has evolved in isolation from central Europe. Fenton's criticism of inflexible silviculture, with its maximum volume ideal and dense stocking leads him to devote a whole chapter to the "thinning problem" i.e. the huge arrears of prescribed thinnings due to falling small wood prices, rising wages and ages of labour, historically unmatched stocking densities in relation to height, a rising yen making imports cheaper, and an obstinacy about pursuing the thinning programme coupled with resistance to new ideas.

This is really the crux of the book, and enables us to see that the "implications" in the title are firstly for Japanese forest managers and only secondly in the ramifications of sub-optimal forest management on import volumes, product profiles, and prices, and hence for the management of forests overseas. The reader might expect the chapter on forest labour, roading, and machinery, and that covering plantation costs to have succeeded the one which addresses the thinning problem in order to add weight to the arguments advanced for reform, but the chapter on the overlapping issues of forest protection, environment and conservation is interpolated here. Still, these roles are vital; they are enshrined in an astonishing estimate of US\$625

billion in annual non-wood values, and enable Fenton to marshal other evidence against the conservationist critique, noting that hardwoods already supply most pulp chips at very high cost, are nearly exhausted, and low-yielding.

Dr. Fenton concludes that Japan's pulp, ply and sawlog needs cannot be met by the domestic forest for at least two decades, which is sombre fare for local forest managers whose billions of expensive softwood logs will be too small and too late, a situation bluntly but accurately described as "managerial

failure on a grand scale". The author outlines an alternative strategy at the close of the book, comprising a mix of total protection, thinning to waste, an end to thinning larch and pine, changes to spacing and nursery techniques, and laminated instead of solid wood building components. Despite the fact that these proposals can be logically deduced from evidence they themselves have gathered, strong traditions may still prevent Japanese foresters from establishing the necessary trials.

The great NZ forestry bungle explored

The Great Wood Robbery? Political bumbling ruins New Zealand Forestry

Hamish Levack, Lindsay Poole and Julian Bateson. Bateson Publishing Ltd, Wellington. 2006. pp 71, 41 refs. 8 photographs. ISBN 0 958 248621.

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The authors commence by asserting that no other country has a system of governance of its forests as peculiar as that found in New Zealand. They point out that forest governance is at odds with that of most other developed countries and is quite inconsistent with recommendations made at the 13th Commonwealth Forestry Conference held in New Zealand in 1989 when it was recommended that 'governments ensure the existence of an effective, unified, institutional framework for forestry' and that 'governments raise the level and effectiveness of investment in forestry to recognise more fully the importance of multiple social, economic and environmental benefits conferred by forests'. In particular, the authors argue in several places through the book how important it is for government to be closely involved in providing direction and encouragement of forestry because it can take a long-term view of the role of forestry and that it is in the national interest to do so.

Building on this position the authors proceed to explore the significant and mostly negative effects of unrealistic and poor forest-related policies that have been formulated over the past 15 or more years. The authors review the role of wood to mankind in an historical, well as a contemporary context, and go on to describe the wide range of values and uses that wood and forests have now and will continue to provide in the future in a modern progressive society and economy. Their review provides the background to an accurate and engaging historical account about the shaping of forestry in New Zealand, commencing from the time of European exploration and settlement of the country. The conflicts between settlement and agriculture on the one hand and conservation on the other at various times over a period of nearly 200 years, and the influence of these positions on policy-making, are portrayed in an unambiguous manner.

The role of forestry as being a long term use of land having a diverse range of social, economic and environmental values emerges often and the authors lament the loss of recognition of these values by several recent governments which they see as being short-sighted and mostly politically motivated. Lost too is recognition of the fundamentally important concept of sustainability that was first expressed by the early foresters, ecologists and botanists that provided direction for forestry early in the 20th century and of the

need to plan and manage forest resources with a long-term perspective in mind. It is these fundamentally important features that, to its shame, continues to set New Zealand apart from most other countries in forest policy formulation and in forest management.

The authors summarise effectively and logically the many changes that have influenced how different sections of New Zealand society have viewed forests and forestry, especially from the 1970s, the revolution in forestry governance of the 1980s and 1990s, the locking up of Crown indigenous forests, the sale of plantation forests and the deterioration of Crown forests and government services. A short but poignant chapter discusses the bungled climate change policy of recent years and of the amendments that are needed, sooner rather than later, including the incentives to encourage new forest plantings that will contribute to the role of forests as carbon sinks thereby helping reduce the risk of climate change as a threat to the world.

In a concluding chapter the authors set out their views on the reforms that are needed to provide a more significant and meaningful future for forestry in New Zealand. They argue that the formation of a new forest service, possibly modelled on public forestry institutions that manage and protect forests in the United States, or in the UK would be a possible basis for providing improved government leadership of forest policy and management.

The Great Wood Robbery? Political bumbling ruins New Zealand Forestry can be firmly recommended as essential reading by all who are actively involved in forest and land policy formulation, by politicians, students, forest managers, forest investors, by those having an interest in the sustainable management of the natural environment, and by readers who are simply interested in the recent history of New Zealand forestry. The authors use facts derived from a range of official sources as well as their own knowledge and set out their arguments in a relaxed and easily readable style that is likely to appeal to a wide range of readers. The book provides a novel and positive perspective based on the collective experience of three people who write with first-hand knowledge and who have contributed greatly to the development of the forestry sector through much of the 20th century.