

## REVIEW

J. L. C. H. VAN VALKENBURG: **Non-Timber Forest Products of East Kalimantan. Potentials for sustainable forest use.** Tropenbos Series 16, 1997. 195 pp., 31 fig., 7 col. plates. Distributed by Backhuys Publishers, POB 321, 2300 AH Leiden. ISSN 1383-6811, ISBN 90-5113-030-9. Paperback. Price: US\$ 45, NLG 76.

Non-timber forest products receive, to quote the first words of the introduction (Chapter 1) of this book, "wide attention throughout the tropics." It has repeatedly been said that they could play an important economical and social role in regional development, and it has been implied or stated that developing countries would do wise in furthering such a role and to recognize the sustainable exploitation of non-timber forest products as a preferable alternative for the non-sustainable timber exploitation as practised now in most tropical countries. This is the second publication in the Tropenbos Series on non-timber forest products. It focuses on a part of Borneo and explores the potential value of these products for the area studied.

The vegetation of the area is described in Chapter 2 where also each species found is awarded an 'importance value index'. This is the sum of relative density, relative dominance and relative frequency, and is a measure of the (numeric) importance of the species in the vegetation. Its use in the context of non-timber forest products is not so obvious.

Chapter 3 discusses a number of species known to have commercial value as supplier of some non-timber forest product. Interesting in the area is the fungus-infected wood of *Aquilaria beccariana*, Gaharu, used in perfumes and incense, and of course (as an aromatic substance) medicinally (with unconfirmed results, I suppose). Harvest is destructive, supplies are restricted and although there seem to be investigations going on in Indonesia on the possibilities of artificial infection of trees with fungus, gaharu does not strike me as a valuable product with much future. Illipe nuts (*Shorea* spp.), on the other hand, could be an important commodity, if methods for cultivation in the forest or in plantations can soon be developed, to ensure a more regular harvest.

Trees with edible (table) fruits are plentiful in the island of Borneo and Chapter 4 is dedicated to that category, with more than 100 indigenous species listed, either extracted from the wild or grown in home gardens. The selling prices of some of these fruits in the local market places are also listed. There is of course a long way to go before any of these lesser-known fruits could become a major product on markets further away.

Chapters 5 and 6 are devoted to rattans, the most important non-timber product of the forest in the area, and probably also the one with the best future, provided that cultivation becomes regular practice. In the book growth performance and incidence after forest-felling are reported and the conclusion is that potentially commercial rattan species are certainly present in the area, as well as habitats suitable for rattan cultivation.

Chapter 7 enumerates "possibilities and limitations of non-timber forest products extraction." Economical, ecological and social aspects are discussed. Of some forms of present land use in Kalimantan the economic value is calculated and a balanced conclusion is drawn, as follows: if short-term and local economic gain is the guideline, then extraction of non-timber forest products is not the most competitive form of land use. If, however, watershed protection, erosion control and biological conservation are given a value in dollars, it is a viable option from a national and regional perspective. So the vista of a nicer world, more or less visible throughout the book, is blown to pieces in the conclusion.

It is a well-executed book, with many diagrams and a number of black-and-white drawings and colour plates of rattans and fruits. Throughout the book it is clear that the author/researcher did what he could in vouchering his inventories and species studies with good collections, which is not always the case in publications of this kind.

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