We have tended to build a society in which learning through primal intimacies has been removed from the formal streams. The making of a desirable India of the 21st century would need such an amalgam, a seamless connection between the rich and diverse subterranean systems of learning still current in our society and the formal systems we have instituted and recognize. I believe it can happen. It will involve all that Kalam and Rajan have dreamt, and a lot more. After all we are talking of India.

This book by Kalam with Rajan is no ordinary book. It will excite, provoke and even annoy a lot of people. That is why it should be in all libraries and on the desk of everyone who dreams about the future of India. Even the controversy it generates would be valuable.

YASH PAL

11-B, Super Deluxe Flats
Sector-15A, Noida 201 301, India

The International Visibility of Danish and Scandinavian Research 1988–1996. Peter Ingwersen. Centre for Information Studies, Royal School of Library and Information Science, Copenhagen, Denmark. [CIS Report No. 5], 1998. p. 72.

Davidson Frame had suggested a few years ago that if one wanted to measure the volume of significant research performed by different countries, one could count the number of papers indexed in *Science Citation Index* (SCI), but if one wanted to make a more comprehensive survey then one could use comprehensive subject databases. In the early eighties, Udai N. Singh of Birla Institute of Technology, Ranchi, collected publication data from *INSPEC-Physics Abstracts* and citation data from the print version of *SCI* to map the impact of hitech physics research – holography, lasers, liquid crystals and superconductivity – in India, Israel, Canada and Australia. Singh collected the entire data manually! Peter Ingwersen has carried out an online publication analysis for Scandinavian countries, combining comprehensive abstracting services – *BIOSIS, Medline, Chemical Abstracts, Psychinfo, INSPEC,* and *Compendex* – and the three multidisciplinary citation indexes – *SCI, SSCI,* and *A* and *HCI*. Like Paul Bourke and Linda Butler have done for Australia and Steven Katz and Diana Hicks have done for the UK, Ingwersen has provided quantitative publication indicators for Denmark and Scandinavia. While the Australian and the British colleagues devoted much time to standardize data elements, Ingwersen provides two types of publication indicators, viz. the 'Gross International Visibility' (GIV) and the 'Central International Visibility' (CIV) for all of science in Denmark as well as for nine central scientific domains. For Finland, Norway and Sweden he has provided only CIV. The GIV is the annual publication activity relative to the world (or regional) activity monitored by means of the core international bibliographic databases (such as *BIOSIS* for Biology) and citation databases. CIV is limited to publications indexed in ISI's citation databases. Ingwersen has tried hard to isolate entries that may be found both in one of the citation indexes and in the domain-dependent databases, to avoid duplicate counting. He has also compared his data with TemaNord report on science in the OECD countries, published in 1994.

Besides giving data on Scandinavia's share of the world's publications, Ingwersen provides an idea of publication productivity (in relation to expenditure on R and D). Scandinavia is strong in the life sciences, and particularly in biomedicine, with a 30% higher average publication activity, but weak in chemistry. For those who would like to have a quick glance, Ingwersen's two-page summary (Chapter 12) can give a clear idea of the major results. The large number of tables, figures, and bar charts also help. The subjects and subfields constituting the nine central domains (biology, biomedicine, clinical medicine, social medicine, chemistry, geoscience, physics and mathematics, technology, social sciences and humanities) are given in an appendix.

There are some methodological problems. Ingwersen has used Medline as the core subject dependent database for both biomedicine and clinical medicine. But the numbers of Medline entries from Denmark differ: 23,954 in the section on biomedicine (page 26) and 12,969 in the section on clinical medicine (page 30). Besides, not all Medline entries can be credited to either biomedicine or clinical medicine. Physics and mathematics are clubbed and Inspec is used as the core subject database. The author could have tried *Mathsci* or *Compumath Citation Index* as a core bibliographic database for Mathematics.

The book does not explain the data collection and analysis methods in detail, perhaps because the author has described them in the two journal articles given in the references section on page 62. The writing style in general could have been improved with the help of an editor.

I look forward to the author's forthcoming report on international citation impacts of Scandinavian science.

SUBBIAH ARUNACHALAM

MS Swaminathan Research Foundation
Taramani, 3rd Cross Street
Chennai 600 013, India

The Book of Indian Trees. K. C. Sahni. Bombay Natural History Society. Oxford University Press, YMCA Library Building, Jaisingh Road, New Delhi 110 001. 1998. 230 pp. Price: Rs 275.

Trees are the largest, tallest and the longest living organisms that form a continuum from soil to air. Ignoring the wisdom of the tribals and the rural poor, who enjoy the blessings of trees and use them sparingly to meet their necessities, the urban societies have clear-felled trees in forests for economic assets, causing severe environmental damage and rapid extinction of biota. *The Book of Indian Trees* has come at an appropriate time when the immense value of trees is being realized as important renewable resources not merely for economic well-being but also for ecological security, tranquility and aesthetic living.

The author K. C. Sahni is a distinguished botanist, who has done research and has taught generations of Indian Forest Service probationers at FRI, Dehra Dun. He has botanized extensively in Eastern Himalaya, Andaman and Nicobar Islands, Sri Lanka and Sudan and