

### Two new FAO books on mangroves: a global assessment...

*The world's mangroves 1980-2005*. 2007. FAO Forestry Paper 153. Rome, FAO.

Mangroves are coastal forests found in sheltered estuaries and along river banks and lagoons in the tropics and subtropics. The term "mangrove" describes both the ecosystem and the plant families that have developed specialized adaptations to live in this tidal environment. Mangroves fulfil important socio-economic and environmental functions: providing wood and non-wood forest products, protecting shores against wind, waves and water currents; conserving biological diversity; protecting coral reefs, sea-grass beds and shipping lanes against siltation; and providing habitat, spawning grounds and nutrients for a variety of fish and shellfish, including many commercial species. High population pressure in coastal areas has, however, led to the conversion of many mangrove areas to other uses, including infrastructure, aquaculture, rice and salt production.

This publication, prepared as a thematic study within the framework of the Global Forest Resources Assessment 2005, provides comprehensive information on the current and past extent of mangroves in all 124 countries and territories in which they exist. It presents both regional and global overviews of mangrove vegetation, species composition and distribution, together with an indication of the main uses and threats in each region.

FAO prepared *The world's mangroves 1980-2005* in collaboration with mangrove specialists throughout the world. It builds on a 1980 assessment by FAO and the United Nations Environment Programme (UNEP), the FAO Global Forest Resources Assessment 2000 (FRA 2000) and 2005 (FRA 2005) and an extensive literature search. Some 2 900 national and subnational data sets on the extent of mangrove ecosystems were collected during the process.

The results indicate that global mangrove area is currently about 15.2 million hectares, with the largest areas found in Asia

and Africa, followed by North and Central America. An alarming 20 percent of mangrove area, or 3.6 million hectares, has been lost since 1980. More recently, the rate of net loss appears to have slowed down, reflecting an increased awareness of the value of mangrove ecosystems, but the annual rate of loss is still disturbingly high.

Removals of wood and non-wood forest products are rarely the main cause of mangrove loss. Human pressure on coastal ecosystems and the competition for land for other uses are the main causes of the decrease in area reported. The relatively large negative change rates that occurred in Asia, the Caribbean and Latin America during the 1980s, for example, were primarily due to large-scale conversion of mangrove areas to aquaculture and tourism infrastructure.

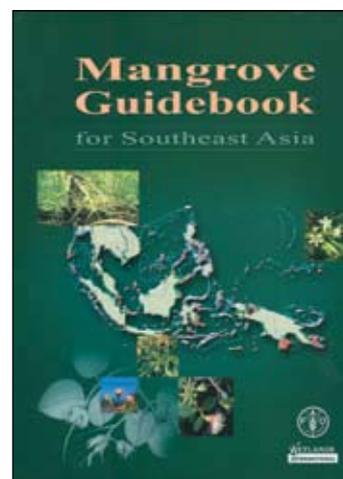
The information highlighted in the report, as well as the gaps in information revealed, will assist mangrove managers and policy- and decision-makers worldwide in ensuring the conservation, management and sustainable use of the world's remaining mangrove ecosystems.

### ...and a species guidebook for Southeast Asia

*Mangrove guidebook for Southeast Asia*. W. Giesen, S. Wulffraat, M. Zieren & L.

Scholten. 2006. RAP Publication 2006/07. Bangkok, Thailand, FAO Regional Office for Asia and the Pacific & Wetlands International. ISBN 974-7946-85-8.

Southeast Asia is endowed with the world's largest expanse of mangroves which are at the same time the world's most biologically diverse and varied in structure. In the past few decades, however, much of the mangrove area has been degraded and destroyed. Many mangrove conservation and rehabilitation programmes have been launched in recent years. In the course of such activities, programme staff have faced continual difficulties in identifying plant species growing in the field. This field guide to the mangroves and associated plant species of the subregion was developed to fill an important gap.





This extensive guidebook – almost 800 pages long – represents the first attempt to cover all mangrove plant species in Southeast Asia. In the first part, it introduces mangroves in general and Southeast Asia's mangroves in particular. The second part provides descriptions of 268 plant species divided in seven groups – ferns; grasses and grasslike plants; other ground-dwelling herbs; epiphytes; vines and climbers; palms, cycads and pandans; and trees and shrubs. Skillfully drawn black-and-white illustrations of the plants greatly enhance the usefulness of the book.

This book will help more people, especially students, learn about mangrove forests in Southeast Asia and will support further advancement of mangrove conservation and rehabilitation programmes. It is a useful tool for mangrove forest managers, foresters, coastal resource managers, scientists, educators, students and interested lay people, not only in Southeast Asian countries, but in all countries where mangroves grow.

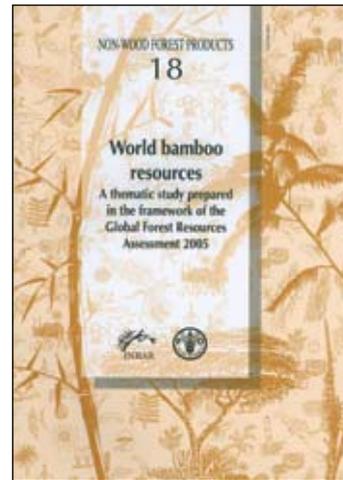
### Global assessment of bamboo resources

*World bamboo resources.* M. Lobovikov, S. Paudel, M. Piazza, H. Ren & J. Wu. 2007. Non-Wood Forest Products No. 18. Rome, FAO. ISBN 978-92-5-105781-0.

Bamboo is a woody grass widely distributed in tropical, subtropical and mild temperate zones in all regions of the world. As a major non-wood forest product and wood substitute, it has always had an important economic and cultural role across Asia. Now the use of bamboo is growing rapidly in Latin America and Africa as well. In some countries, the processing of bamboo is shifting from low-end crafts and utensils to high-end, value-added commodities such as housing, pulp, paper, panels, boards, veneer, flooring, roofing, fabrics, oil, gas and charcoal (for fuel and as an excellent natural absorbent). The bamboo shoot is also a nutritious vegetable. Bamboo is an increasingly important economic asset in poverty eradication and economic and environmental development.

Bamboo is a forest plant but is also widespread outside forests, including on farmlands and riverbanks, along roads and in urban areas. Taxonomists still debate the total number of bamboo species and genera – an estimate is about 1 200 species in some 90 genera.

This study, prepared by FAO jointly with the International Network for Bamboo and Rattan (INBAR), was undertaken as one of seven thematic studies within the Global Forest Resources Assessment 2005 (FRA 2005) process and is a first attempt at systematic reporting of the best available information on bamboo resources and utilization at the global level. The study is the result of a three-year process of data collection and validation involving many partners from participating countries and international organizations, in line with the FRA 2005 philosophy of global partnership. Although data availability and quality are often weak, the main value of the study is that it established a systematic methodology and launched the most comprehensive assessment of global bamboo resources to date.



Sixteen countries in Asia reported a total of 24 million hectares of bamboo resources. Five African countries reported 2.8 million hectares. It is estimated that ten Latin American countries may have over 10 million hectares of bamboo resources, bringing the world total to some 37 million hectares or roughly 1 percent of the global forest area. However, the figures represent only rough estimates. They also include bamboo mixed with other species (in which bamboo is not necessarily predominant) and bamboo on non-forest land (including mixed with other trees or crops).

The publication also reports on species diversity, growing stock, biomass, removals, ownership and health status of the resource, and on bamboo products and trade.

It is hoped that the information and knowledge generated by this study will be useful to national policy processes, and that feedback from users will help improve future global resources assessments.

### Tracing the causes of illegal logging

*Illegal logging: law enforcement, livelihoods and the timber trade.* L. Tacconi, ed. 2007. London, UK, Earthscan. ISBN 978-1-84407-348-1.

Illegal logging is widespread – accounting for more than 50 percent of all timber in some countries – and causes great damage. Once cut, illegal logs feed the great demand for exotic hardwoods in developed and developing countries. The result has been an enormous loss of both revenue and forest resources. Consequently the issue has risen to the top of the global forest policy agenda as one of the major threats to forests, and donors and national governments are starting to develop initiatives to combat illegal logging. Yet considering the magnitude of the problem, surprisingly little is known about the causes of illegal logging and its impacts on biodiversity, people's livelihoods and national economies.

Paradoxically, despite the negative impacts, illegal logging also benefits many stakeholders, including some marginalized



communities. How can illegal logging be tackled without causing poverty in local communities? This book, published with the Center for International Forestry Research (CIFOR), examines the key issues including legislation and law enforcement, supply and demand, governance and corruption, forest certification, poverty, local livelihoods, international trade and biodiversity impacts. It includes key case studies from forest-rich regions in the Americas, equatorial Africa and Asia.

Illegal logging can only be tackled by addressing the underlying economic, political and social causes. While there are clearly no easy answers, this book explores the many dimensions of the causes, impacts and implications of illegal logging for forests, people, livelihoods and forest policy. While much is still unknown about the subject, *Illegal logging* adds to the growing literature, highlighting the key issues that must be understood in order to develop policy that can make a difference.

### Revisiting the state of the environment

*GEO-4: Global environment outlook – environment for development*. 2007. Nairobi, Kenya, United Nations Environment Programme (UNEP). ISBN 978-92-807-2836-1 (paperback), 978-92-807-2872-9 (hardback)

The 1987 report of the United Nations World Commission on Environment and Development report, *Our common future* (also known as the Brundtland Report), is widely credited for introducing sustainable development into the public consciousness. The fourth edition of *Global environment outlook (GEO-4)* takes stock of how far society has come in the 20 years since. The picture is grim, showing evidence of decline almost all across the board: more greenhouse gases, more widespread pollution, declining availability of freshwater, deforestation, degradation of farmland, depletion of natural resources, acidification of oceans.

Compiled and written by hundreds of researchers from a great variety of disciplines, *GEO-4* provides an overview of global social and economic trends and the state and trends of the global and regional environment over the past two decades, as well as the human dimensions of these changes. The publication reminds readers that issues of forestry, freshwater supplies, agriculture, biodiversity and desertification are connected to each other and to climate change. It also explores the links between social trends and environmental decline, examining how increasing population pressure and the increasing divergence between rich and poor influence the environment – resulting for example in more deforestation.

As defined in *Our common future*, “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. *GEO-4* finds, however, that current human society tends to focus on meeting the needs of the present, and in doing so is indeed compromising the ability of future generations to meet their own needs.

The nearly 600 page publication is divided in six sections. The first summarizes the evolution of issues since 1987. The second section describes the state and trends of the environment from 1987 to 2007, with separate chapters devoted to atmosphere, land, water and biodiversity. The state of forests is extensively explored in the chapter on land.

Section C presents the environmental status and trends from a regional perspective. Section D explores the human dimensions. One chapter probes areas of vulnerability and identifies opportunities for improving human well-being, while another examines environmental interlinkages and governance needs. The fifth section looks forward to 2015 and beyond; and the last summarizes options for action, categorizing possible solutions along a continuum from proven to emerging.

*GEO-4* provides an outlook for the future and policy options to address present and emerging environmental issues. It will be of interest to policy-makers, professionals and academics in many sectors, as well as to the wider public.

