

Photo: © J.F. Hellio and N. Van Ingen

Contents

Mapping mangroves	. 1
Background	. 2
Mangrove ecosystems	. 3
Mangroves and people	. 7
Regional assessments	13
Management implications	20



Co-editors Chan Hung Tuck, Mark Spalding, Shigeyuki Baba, Mami Kainuma, Alastair Sarre and Steve Johnson

Editorial assistant Kenneth Sato

Design DesignOne

The *Tropical Forest Update* is published by the International Tropical Timber Organization.

Content does not necessarily reflect the views or policies of ITTO. Articles may be reprinted without charge provided the *TFU* and author(s)/editor(s) are credited. **Due to a lack of funding for printing and translation, this issue of the TFU will only**

be available online in English (www.itto.int). This will be the last issue of the TFU produced until such time as funds become available to recommence regular publication.

International Tropical Timber Organization International Organizations Center – 5th Floor Pacifico-Yokohama, 1–1–1 Minato Mirai, Nishi-ku Yokohama 220–0012 Japan t 81–45–223 1110 f 81–45–223 1111 fu@itto.int www.itto.int

Cover image Photo: © J.F. Hellio and N. Van Ingen

Background

The World Mangrove Atlas, an initiative of ITTO and ISME, was published in 1997. This highly acclaimed work supported the development of a new global perception of the extent and status of mangrove ecosystems. It contained world and regional mangrove distribution maps, country-by-country assessments, and case studies on the geomorphology, species composition and socioeconomic condition of specific areas.

The aim of the 2010 World Atlas of Mangroves was to revise and improve the accuracy of the original World Mangrove Atlas through analytical assessments of mangrove forest area and status at the regional and national levels. Published in English in July 2010, the revised Atlas was written by Mark Spalding (TNC), Mami Kainuma (ISME) and Lorna Collins (TNC), with funding from the Government of Japan and the inputs of more than 100 international mangrove researchers and organizations.

The 2010 World Atlas of Mangroves constitutes the first truly global assessment of the state of mangroves, providing recent and reliable coverage of nearly 99% of the world's mangroves and a wealth of statistics on biodiversity, habitat area, loss and economic value. It contains 60 full-page maps—including new maps derived from recent satellite imagery for about 59% of the resource—showing locations of the entire world's mangroves. It includes hundreds of photographs and illustrations together with comprehensive country-by-country assessments.

Supporting countries and organizations

The following organizations provided financial or in-kind contributions to the project: Government of Japan (the major funding source of the project); Thailand Environment Institute; Tokio Marine and Nichido Fire Insurance; Tropical Biosphere Research Center of University of the Ryukyus; Wetlands International; the United States Department of State; and the Government of Spain (the latter two provided funding for publishing French and Spanish versions of the Atlas in 2011 and early 2012, respectively).

Contents

Chapters 1 and 2 of the Atlas provide information on mangrove distribution, biogeography, productivity, ecology, human use, economic value, threats and management approaches. Chapter 3 describes the methodology used in the production of the regional, national and subnational mangrove distribution maps presented in Chapters 4-13, which also contain information at the country level on mangrove distribution, ecology and use. Ten case studies written by regional experts provide insights into regional mangrove issues, including ecology, productivity, biodiversity, traditional use and values, and sustainable management.

The Atlas contains three annexes. Annex 1 consists of range maps for 73 mangrove species; Annex 2 provides a listing of country-by-country species; and Annex 3 presents national-level statistics on various mangrove parameters.

This special TFU summarizes chapters 1–13 of the Atlas and also, under 'Management implications', extends it to address some of the efforts that are being made to ensure the sustainability of the world's remaining mangrove ecosystems.

Map production

FAO and UNEP-WCMC led the mapping effort. A major element of this work was the creation from Landsat imagery of new maps for part or all of 55 countries and territories (representing 57% of the world's mangroves). In addition, high-resolution mangrove maps for the remaining 43% of the global mangrove resource were obtained from other sources, including the 1997 World Mangrove Atlas. The resulting global map is a major milestone, with data of broadly consistent age and resolution for 98.6% of the total global mangrove area. This dataset enables comparisons over geographic space and provides a critical base for assessing future change over time.

International Tropical Timber Organization, International Society for Mangrove Ecosystems (ISME), Food and Agriculture Organization of the United Nations (FAO), United Nations Educational, Scientific and Cultural Organization–Man and the Biosphere Programme (UNESCO-MAB), United Nations Environment Programme–World Conservation Monitoring Centre (UNEP-WCMC), United Nations University–Institute for Water Environment and Health (UNU-IWEH), and The Nature Conservancy (TNC).