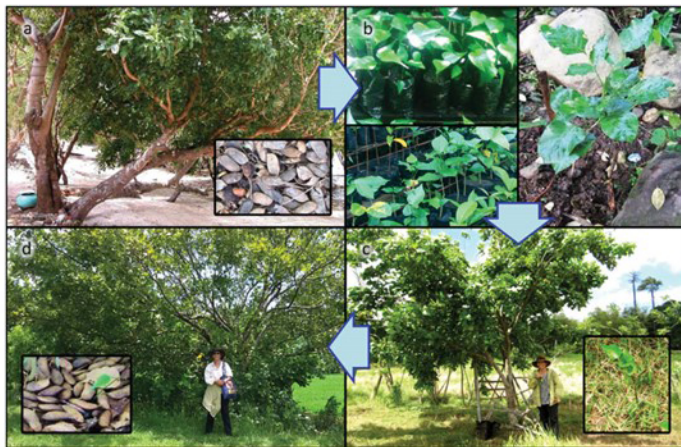


**JH Primavera, AM Palijon, WG Granert,
EL Cercado, ME Barillo, AM Tungol,
RTM Avila, MJM Bande, ED Buduan,
JD Coching, RJA Loma, and CL Montilijao**

Beach forests are important coastal greenbelts which help protect communities from typhoons, storm surges, and tsunamis. They also have numerous medicinal and traditional (food, construction, ornamental) uses. Above all, their colonizing characteristics of tolerance to harsh environmental conditions, early reproduction and fast growth make ideal lowland reforestation species.



Beach forest species are ideal for rehabilitation of barren and degraded lands because of their wide dispersal, early reproduction, and fast growth rates. *Millettia pinnata* (bani), for example, was propagated from seeds, outplanted, and produced the F2 generation within only 4 years (photo collage by J.H. Primavera).

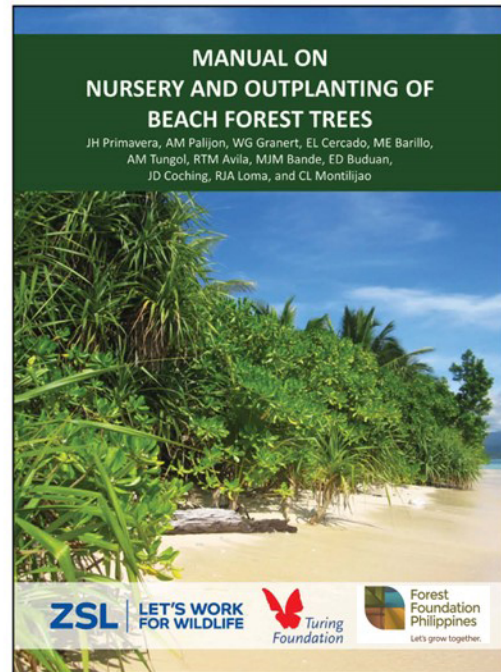
OUTLINE

- I. Introduction
- II. Background to beach forests
- III. Beach forest rehabilitation
 - A. Objectives of beach forest rehabilitation
 - B. Socio-cultural and legal considerations
- IV. Nursery
 - A. Types of nursery
 - B. Criteria for selection of nursery site
 - C. Layout and facilities
 - D. Equipment
 - E. Fruit and seed collection
 - F. Seed processing
 - G. Germination system
 - H. Sowing
 - I. Post-sowing activities
 - J. Potting and bagging of seedlings
 - K. Wildlings
 - L. Wildling recovery chamber
 - M. Care and maintenance
 - N. Hardening
 - O. Record keeping and management
- V. Outplanting
 - A. Outplanting sites
 - B. Site-species matching
 - C. Outplanting of beach forest species
 - D. Maintenance and Protection
 - E. Monitoring of outplanted materials

References

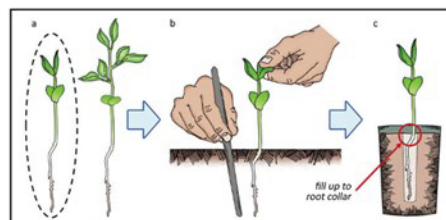
Glossary

Appendices



Based on the collective experiences of ZSL, academic experts, nursery operators, and native tree growers, the Manual documents the protocols on nursery and outplanting of beach forest species.

The manual aims to (1) increase the awareness of the general public on beach forest species, (2) encourage collaboration and networking among interested groups, and (3) enhance beach forest conservation initiatives.



Proper potting and bagging techniques to enhance survival rates and improve the quality of produced seedlings are discussed (photos by ME Barillo and ZSL)



Illustrated step-by-step protocols on outplanting of beach forest species are presented from site selection, clearing, hole digging, planting, maintenance, and monitoring (photos by WG Granert).