

RESEARCH FOR RESTORING TROPICAL FOREST ECOSYSTEMS: A PRACTICAL GUIDE



**THE FOREST RESTORATION RESEARCH UNIT
BIOLOGY DEPARTMENT, SCIENCE FACULTY
CHIANG MAI UNIVERSITY**



This book is one of the major outputs of the Darwin Initiative Project: "Facilitating forest restoration for biodiversity recovery in Indochina". This project transferred the concepts and techniques of forest ecosystem restoration, developed by the Forest Restoration Research Unit of Chiang Mai University (FORRU-CMU), to China, Laos and Cambodia and adapted them to local ecological and socio-economic conditions. Training programs were held, both at CMU and on-site in the participating countries. Sites for field trials were identified in Laos (top left) and Cambodia (top right) and a research nursery established in China (bottom right), with additional support from the World Agroforestry Centre (ICRAF). National plans for forest restoration research units (FORRU's) were developed and presented to donor agencies at the project's final workshop in Chiang Mai in 2008 (bottom left). This book is a training manual, designed to enable staff at the proposed national FORRU's in China, Laos and Cambodia, to develop the skills and knowledge needed for research programs to restore the unique forest ecosystems found in each country. It is available in English, Chinese, Lao, Khmer and Thai.





How to PLANT a FOREST:

THE PRINCIPLES AND PRACTICE OF RESTORING TROPICAL FORESTS

It is possible to transform largely deforested landscapes into lush tropical forests, supporting rich biodiversity, in just a few years. Based on the work of Chiang Mai University's Forest Restoration Research Unit (FORRU-CMU) since 1994, "How to Plant a Forest" shows how the framework species method of forest restoration has been successfully adapted to re-establish natural forest ecosystems in northern Thailand. It presents background information that enables readers to understand the natural mechanisms of forest regeneration, as well as practical techniques to harness and accelerate them. Richly illustrated with easy-to-follow diagrams, this book provides scientifically tested advice on how to select appropriate tree species; how to grow them in nurseries and how to plant and take care of them in deforested areas. In addition, the logistics of implementing forest restoration projects are explained and, most importantly, how to motivate and involve local people. This book is not just about northern Thailand. The concepts and techniques described in it could be applied equally well to a wide range of different forest types in other areas, so anyone interested in restoring forest ecosystems for wildlife conservation and environmental protection will find it useful. Available in English, Thai, Chinese, Khmer, Lao and Vietnamese. Contact FORRU-CMU for further details.





Aimed at researchers and their supervisors, this technical manual describes how to establish a forest restoration research unit (FORRU) and implement a research program to determine how best to restore tropical forest ecosystems to deforested sites. Based on 15 years experience of running a FORRU at Chiang Mai University (CMU), N. Thailand, the authors describe in detail the fundamental concepts of forest restoration and how to set up and run a research tree nursery and field trial plot system. Techniques for phenology studies, seed germination trials as well as monitoring the performance of tree species after planting out and biodiversity recovery are all described in detail, including data collection, analysis and interpretation. How to use the research results, to implement effective forest restoration programs for biodiversity conservation and environmental protection, is dealt with comprehensively in the final part.



eden project

Wildlife
Landscapes