

CONTENTS

PREFACE	v
INTRODUCTION	ix
CHAPTER 1: FACETS OF DIPTEROCARP FOREST ECOLOGY	1
SCHULTE, A. Dipterocarp Forest Ecosystem Theory Based on Matter Balance and Biodiversity	3
OHTA, S. and E. SYARIF Soils under Lowland Dipterocarp Forests — Characteristics and Classification	29
MALMER, A. Nutrient Losses from Dipterocarp Forests — A Case Study of Forest Plantation Establishment in Sabah, Malaysia	52
KESSLER, P.J.A. Not only Dipterocarps ...: An Overview of Tree Species Diversity in Dipterocarp Forest Ecosystems of Borneo	74
FIALA, B. Ants Benefits Pioneer Trees: The Genus <i>Macaranga</i> as an Example of Ant-Plant Associations in Dipterocarp Forests	102
MARGRAF, J. and P.P. MILAN Ecology of Dipterocarp Forests and its Relevance for Island Rehabilitation in Leyte, Philippines	124
GOLDAMMER, J.G., B. SEIBERT and W. SCHINDELE Fire in Dipterocarp Forests	155

CHAPTER 2: TOWARDS SUSTAINABLE MANAGEMENT — FOREST REGULATION	187
WHYTE, G. Multi-Criteria Planning and Management of Forest Sustainability	189
KUNTZ, S. and F. SIEGERT Dipterocarp Forest Mapping and Monitoring by Satellite Data — A Case Study from East Kalimantan	206
ONG, P.C. and M. KLEINE DIPSIM: Dipterocarp Forest Growth Simulation Model — A Tool for Forest-Level Management Planning	228
CHAPTER 3: TOWARDS SUSTAINABLE MANAGEMENT — SILVICULTURE, COMMUNITY AND AGROFORESTRY	247
WEIDELT, H.J. Sustainable Management of Dipterocarp Forests — Opportunities and Constraints	249
ONG, P. C., P.M. LAGAN, R. GLAUNER, M. KLEINE and K. UEBELHÖR Examples of Sustainability Criteria for Dipterocarp Forest Management	274
MARSH, C.W., J. TAY, M.A. PINARDI, F.E. PLITZ, and T.E. SULLIVAN Reduced Impact Logging: A Pilot Project in Sabah, Malaysia	293
MOURA-COSTA, P. Tropical Forestry Practices for Carbon Sequestration	308
SORENSEN, K.M. Traditional Management of Dipterocarp Forests: Examples of Community Forestry by Indigenous Communities	335
SARDJONO, A. The Lembo System: A Model for Agroforestry in Dipterocarp Forest Ecosystems of East Kalimantan, Indonesia	354
GOUYON, A. Ecological and Socio-Economic Conditions of Rubber Agroforestry in the Dipterocarp Ecosystems of Indonesia	369

CHAPTER 4: REHABILITATION AND REFORESTATION OF DIPTEROCARP FOREST ECOSYSTEMS	389
ADJERS, G. and A. OTSAMO Seedling Production Methods of Dipterocarps	391
APPANAH, S. and G. WEINLAND Experience with Planting Dipterocarps in Peninsular Malaysia	411
NUSSBAUM, R. and A.L. HOE Rehabilitation of Degraded Sites in Logged-Over Forest Using Dipterocarps	446
OTSAMO, R., A. OTSAMO and G. ADJERS Reforestation Experiences with Dipterocarp Species on Grassland	464
CHAPTER 5: UTILIZATION POTENTIAL OF DIPTEROCARP FOREST ECOSYSTEMS — MAJOR AND MINOR FOREST PRODUCTS	479
CHOONG, E.T. and S.S. ACHMADI Utilization Potential of the Dipterocarp Resource in International Trade	481
RICHTER, H.G. and H. GOTTWALD Wood Structure and Properties Diversity in Commercial Dipterocarp Timbers of Southeast Asia	526
BOSMAN, M.T.M. and P. BAAS Wood Structure and Properties of Naturally and Plantation Grown Light Red Meranti	578
SULISTYO BUDI, A. Properties and Utilization of Sapotaceous Timber from Dipterocarp Forests	591
MULADI, S. Quantification and Use of Dipterocarp Wood Residue in East Kalimantan	603
SEIBERT, B. Food from Dipterocarps: Utilization of the Tengkawang Species Group for Nut and Fat Production	616

WEIDELT, H. H.

Rattan — Distribution, Morphology, Use and Ecologically Well Adapted
Cultivation

627

INDEX

649