

Environments in Transition
Cambodia, Lao PDR,
Thailand, Viet Nam

Asian Development Bank

Programs Department (West)

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Cover design: Ram Cabrera
Cover photograph/ 'Mekong River': Ali M. Azimi
Editing: Joyce M. Mendez/Cynthia A. Diaz
Layout: Ram Cabrera/Wickie Baguisi
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Contents

Foreword	i
Abbreviations	ii
Acknowledgements	v
INTRODUCTION	1
Basic Characteristics	3
ENVIRONMENTAL SETTING AND PRIORITY AREAS FOR ENVIRONMENTAL ACTION	7
Transboundary Issues	7
ADB's Regional Assistance Initiatives	8
Forests and their Utilization	9
Cambodia	9
Lao PDR	10
Thailand	13
Viet Nam	14
Biodiversity and Protected Areas	16
Cambodia	16
Lao PDR	17
Thailand	21
Viet Nam	21
Water Resources	23
Cambodia	23
Lao PDR	26
Thailand	27
Viet Nam	28
Coastal and Marine Resources Management	30
Cambodia	30
Thailand	31
Viet Nam	32
Urban and Industrial Pollution	34
Cambodia	34
Lao PDR	36
Thailand	37
Viet Nam	40
Energy	42
Cambodia	42
Lao PDR	44
Thailand	45
Viet Nam	45
ENVIRONMENTAL POLICIES AND INSTITUTIONAL FRAMEWORK	49
Cambodia	49
Lao PDR	54
Thailand	58
Viet Nam	59
DEVELOPMENT FRAMEWORK FOR ENVIRONMENTAL ACTION	63
Cambodia	63
Lao PDR	67
Thailand	69
Viet Nam	71

APPENDIX

Strategic Implementation Plans for Action 81

Cambodia 83

Lao PDR 89

Thailand 97

Viet Nam 111

Tables

- Table 1: Population Growth in Mainland Southeast Asia ('000) 2
- Table 2: Environmental Regional Technical Assistance: GMS Program 8
- Table 3: Forest Cover in Cambodia, 1969-1997 9
- Table 4: Regional Distribution of Forests in Lao PDR 11
- Table 5: Classification of Natural Forest in Viet Nam 14
- Table 6: Forest Cover by Three Administrative Categories of Forestland, 1995 14
- Table 7: Changes in Forest Cover by Main Forest Type 1976-1995 22
- Table 8: Selected Estimates of Cambodia's Freshwater Fisheries 24
- Table 9: Current Systems of Fisheries Management in the Tonle Sap Area 25
- Table 10: Cultivated and Irrigated Areas by Type, 1997 27
- Table 11: Distribution of Irrigation Command Area by Type of System, 1997 27
- Table 12: Geographic Distribution of Irrigation Command Area, 1995 27
- Table 13: Protected Areas within or Affecting Cambodia's Coastal Zones 30
- Table 14: Institutional Roles in Urban Environmental Management in Cambodia, 1999 34
- Table 15: Key Health and Social Statistics 37
- Table 16: Structure of Energy Consumption, Cambodia, 1995 42
- Table 17: Consumption of Wood and Charcoal, 1995 43
- Table 18: Household Consumption of Wood Energy, 1995 (wood energy equivalents) 43
- Table 19: Potential Hydropower Sites in Cambodia 43
- Table 20: Hydropower Plant in Operation 44
- Table 21: Existing and Potential Institutional Overlaps in Coastal Zone Management in Cambodia 51
- Table 22: Current and Potential Overlaps Among Legal Provisions in Cambodia's Coastal Zone Management 51

Foreword

Countries of mainland Southeast Asia—Cambodia, Lao PDR, Thailand, and Viet Nam—have one of the most diverse biotic and cultural environments in the world today. They provide habitat to exotic species of endemic plants and animal life. Having rich aspirations, these countries are at varying stages of development. They have significant resource endowments, stable political economy, and cordial relationships with neighbors. In the past, rapid economic changes and social conflicts have adversely impacted the region's natural resources. In its assistance program, ADB is keen to identify the key environmental issues in each of the countries and determine how best the donors could assist priority environmental issues.

In addressing this challenge, ADB's Programs Department (West) undertook baseline studies on the state of the environment in Cambodia, Lao PDR, Thailand, and Viet Nam with the assistance of environment agencies of these countries. The country environment reviews (CENRs) are primarily intended for internal use in addressing environmental issues during preparation of operational programs and policies. They are also useful for development practitioners. In this technical

monograph, the CENRs of these four countries are brought together in an attempt to build a subregional environment perspective.

The study provides an overview of environmental issues with a view to enhancing sustainability through improved resource management. The report includes information on issues pertaining to forest and policy issues, biodiversity and protected parks, water resources, coastal and marine resource management, urban and industrial pollution, and energy use. Policy and institutional framework in each of the countries are described, along with the actions needed for their resolution. The Appendix summarizes the key issues and the required investment and technical assistance for each country.

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YOSHIHIRO IWASAKI
Director
Programs West Department

Abbreviations

ADB	Asian Development Bank
APHEDA	Australian People for Health, Education and Development Abroad
ASEAN	Association of Southeast Asian Nations
AusAID	Australian Agency for International Development
BMA	Bangkok Metropolitan Administration
BMR	Bangkok Metropolitan Region
BOD	biochemical oxygen demand
B	baht
COS	country operational strategy
CPAWN	Center for Protected Areas and Watershed Management
DCTPC	Department of Communications, Transport, Post and Construction
DF&W	Department of Forestry and Wildlife
DOF	Department of Forestry
EdC	Électricité du Cambodge
EdL	Électricité du Laos
EGAT	Electricity Generating Authority of Thailand
FAO	Food and Agriculture Organization
FPR	Forest Policy Reform
GDP	gross domestic product
GEF	Global Environment Facility
GMS	Greater Mekong Subregion
GOV	Government of Viet Nam
Gwh	Gigawatt-hour
ha	hectare
HCMC	Ho Chi Minh City
ICAD	integrated conservation and development
IMF	International Monetary Fund
IUCN	International Union for the Conservation of Nature (now the World Conservation Union)
JICA	Japan International Cooperation Agency
km	kilometer
km ²	square kilometer
Lao PDR	Lao People's Democratic Republic
LARREC	Living Aquatic Resources Research Center
LTD	Land Transport Department
m ³	cubic meter
MAF	Ministry of Agriculture and Forestry
MAFF	Ministry of Agriculture, Forestry and Fisheries
MARD	Ministry of Agriculture and Rural Development
MCTPC	Ministry of Communications, Transport, Post and Construction
mg/l	micrograms per liter
MIH	Ministry of Industry and Handicrafts
MIME	Ministry of Industry, Mines and Energy

MOAC	Ministry of Agriculture and Cooperatives
MOE	Ministry of Environment
MOFI	Ministry of Fisheries
MOSTE	Ministry of Science, Technology and Environment
MOWREM	Ministry of Water Resources and Meteorology
MPA	marine protected area
MPI	Ministry of Planning and Investment
MPWT	Ministry of Public Works and Transport
MRC	Mekong River Commission
MRD	Ministry of Rural Development
MW	megawatt
MWR	Ministry of Water Resources
NAREBI	Natural Resources and Biodiversity Institute
NBCA	National Biodiversity Conservation Area
NEA	National Environment Agency
NEC	National Energy Conservation
NEPO	National Energy Policy Office
NESDB	National Economic and Social Development Board
NGO	nongovernment organization
NTFP	nontimber forest product
NWRC	National Water Resources Committee
OECF	Overseas Economic Cooperation Fund
p.a.	per annum
PM ¹⁰	particles of less than 10 microns diameter
PPTA	project preparatory technical assistance
PPWSA	Phnom Pehn Water Supply Authority
PRC	People's Republic of China
RBO	river basin organization
RETA	regional technical assistance
RFD	Royal Forest Department
RGC	Royal Government of Cambodia
RID	Royal Irrigation Department
SIP	strategic implementation plan
STEA	Science, Technology, and Environment Agency
TA	technical assistance
TDRI	Thailand Development Research Institute
TSP	total suspended particulates
ug/m ³	micrograms per cubic meter
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNTAC	United Nations Transitional Authority in Cambodia
WB	World Bank
WWF	World Wide Fund for Nature

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