

## TABLE OF CONTENTS

MAPS AND FIGURES	X
LIST OF TABLES	XI
PREFACE	XIII

EINFÜHRUNG UND DEUTSCHE ZUSAMMENFASSUNG (TEIL I) SPONTANE UND GEPLANTE NEULANDERSCHLIESSUNG - EIN ÜBER- BLICK ÜBER DIE GEGENWÄRTIGE RODUNGSKOLONISATION IN DEN ASEAN-LÄNDERN	1
---	---

### Part I

I.	SPONTANEOUS AND PLANNED AGRICULTURAL SETTLEMENT - A GENERAL VIEW OF THE PRESENT CLEARING-COLONIZATION IN THE ASEAN COUNTRIES OF SOUTH EAST ASIA (by <i>H. Uhlig</i> )	
I.1	Introduction to the Problems	6
I.2	New Agricultural Lands in South East Asia: More 'Rice-Bowls' or Commercial Agriculture by Dryland ('Upland') Cultivation?	
I.2.1	Tradition, Modernization and Extension of Rice-Lands - the Base of Agriculture	11
I.2.2	A Century of Transformation of South East Asia's Agriculture	12
I.2.3	Further Extension of Rice-Lands into Tropical Swamps and Intensification	14
I.2.4	Recent Schemes and Spontaneous Clearing in Tropical Swamps	15
I.3	Clearing New Lands - A Revival of Swiddening? Tropical Soils under Permanent Dry-Field Cropping?	
I.3.1	Integrated, Partial and Initial Shifting Cultivation	17
I.3.2	Swiddening in Indonesia and North Thailand, as Compared by <i>Karl Pelzer</i>	18
I.3.3	The Revived Swiddening by Lowland-Farmers: The Tractor and the Motor Saw	19
I.3.4	Pro and Contra Shifting Cultivation	21
I.3.5	The Chances for Permanent Dryland Cropping on Tropical Forest Soils - a Matter of Ecological Differentiation and Appropriate Technology	22
I.4	Spontaneous and Government-Directed Land Clearing in Thailand	
I.4.1	Traditional and Recent Land-Clearing and the Relation of Spontaneous to Planned Colonization	27
I.4.2	New Agricultural Land and Crops in SE Thailand	41
I.4.3	Clearing and Settlement into the Highland-Lowland Transition Zone of Northern Thailand	46
I.4.4	High-Altitude Market Gardening	47
I.4.5	The Growing Stabilization of Former Shifting Cultivation by Permanent Settlement of Hill-Tribes	48

I.5	Malaysia	
I.5.1	The Economic and Political Aims	52
I.5.2	The Early Phase of the "Emergency-Settlements"	52
I.5.3	New Settlements and Wet-Rice Schemes of the Coastal-Lowlands	53
I.5.4	Pioneering into the Interior: "FELDA" Changes the Structure of the Country	54
I.5.5	Upland Development and Settlement Schemes in East Malaysia	64
I.6	The Philippines	
I.6.1	Colonial Attempts, Resettlement and Land-Reform; Political Implication	67
I.6.2	The Recent Revival of Settlement Schemes Connected to Land-Reform	69
I.6.3	Impacts of Recent Development: Mechanization, New Rice-Technologies, 'Agro-Business' and Agrarian Credit	75
I.7	Indonesia	
I.7.1	Early Replacement of Shifting Cultivation	77
I.7.2	'Transmigrasi' - State-Directed Settlement, a Long-Standing and Ambitious Political Programme	78
I.7.3	Can Indonesia's Demographic Problems be Solved by Transmigration?	80
I.7.4	Objectives and National Aims of Present-Day Transmigration	82
I.7.5	Extent and Meaning of Spontaneous Settlement in Indonesia	83
I.7.6	The Regional Impact of Transmigration: 'Little Java' in Lampung	87
I.7.7	Ethnic Diversity and 'Nation-Building' by Transmigration	88
I.7.8	Moving to Distant Islands: A Drastic Change of the Natural and Cultural Environment! Improvements of Recent Settlement Processes	90
I.7.9	The Increasing Importance of Kalimantan	91
I.7.10	New Rice-Bowls by 'Tidal Irrigation' of Delta-Swamps in Kalimantan and Sumatra	94
I.7.11	Land Conflicts with Local Population and Wild-Life Protection	100
I.7.12	The Transmigration to Irian Jaya	101
I.7.13	Local and Intra-Provincial Resettlement	102
I.8	Government-Sponsored versus Spontaneous Settlement?	105
	References Part I	110

Part II  
 SPONTANEOUS LAND CLEARING IN THAILAND  
 THE KHORAT ESCARPMENT AND THE CHONBURI HINTERLAND  
*(R. Riethmüller, U. Scholz, Napat Sirisambhand, A. Spaeth)*

II.0	Some Methodological Remarks	119
II.	THE EXTENSION OF DRYLAND AGRICULTURE IN THAILAND	
II.1	Reasons and Conditions of the Extension of Dryland-Farming	123
II.2	Cultivation, Processing and Marketing of Main Dryland Crops	127
	- Maize	127
	- Sugarcane	129
	- Cassava - Tapioca	133
II.3	Administrative and Legal Framework of Spontaneous Land Clearing	138
	- Administration	138
	- The Settlement Structure	140
	- The Land Code	141
III.	SPONTANEOUS LAND CLEARING OF SMALLHOLDERS IN THE KHORAT ESCARPMENT	
III.1	Natural Conditions and Historical Background	
III.1.1	The Natural Regions of the Khorat Escarpment	142
	- Topography	142
	- Climate	144
	- Soils	145
	- Vegetation	146
III.1.2	The Settlement History	146
	- Pioneer Settlers and Forest Exploitation	146
	- The Main Clearance Phase	149
III.1.3	Settlement Pattern and Infrastructure	151
III.2	Agricultural Systems and Types of Spontaneous Land Clearing	
III.2.1	Fringe Expansion of Farmland by Local Peasants	156
	- Nong Samong - A Northeastern Village at the Edge of the Khorat Plateau	156
	- The Thap Lan Basin - A Peculiar Settlement Area in the Southern Khorat Escarpment	159
III.2.2	The Clearing Zone of Km 79	161
	- The Origins of the Settlers and the Reasons for Migration	162
	- Legal Aspects and Sizes of Landholdings	165
	- Agricultural Production and Landuse	166
	- Rural Settlements and Field Patterns	169
III.2.3	Farm Types in the Km 79 Area	170
	- A Seasonal Farm	170
	- A Large Farm	170
	- Perennial Cropping Around the Market Village of Km 79	170
	- Slash and Burn Farming in Secondary Forests	171
	- Smallholdings with Subsistence Rice Production and Maize Cash Cropping	171
	- Thai Sammaki - A Planned Resettlement Village	172

III.3	Development of a Central Market Place in the Khorat Escarpment (The Market Village of Km 79)	
III.3.1	History and Development of the Village	173
III.3.2	Settlement Pattern of Km 79	175
	- Size and Location of Settlement	175
	- Building Characteristics	177
III.3.3	Market and Service Functions	178
	- The Structure of the Retail and Service Business	178
	- The Market Stalls and Street Restaurants	181
III.3.4	The Agricultural Trade and Mechanization	182
	- The Structure of the Agricultural Trade	182
	- Agricultural Mechanization and Contract-Ploughing	186
III.3.5	The Infrastructure	188
	- The Supply of Drinking Water and Electricity	188
	- Health Care	188
	- Transport	189
III.3.6	Prospects of Future Development	190
IV.	SPONTANEOUS LAND CLEARING OF LARGE-SCALE FARMERS IN THE CHONBURI HINTERLAND	
IV.1	Natural Conditions and Historical Background	
IV.1.1	The Natural Regions of the Chonburi Hinterland	192
	- Topography	192
	- Climate	194
	- Soils	194
	- Vegetation	195
IV.1.2	The Economic Development of the Chonburi Hinterland	195
IV.2	Social and Economic Situation	201
IV.2.1	The Rural Population of the Chonburi Hinterland	201
	- The Ethnic Chinese Entrepreneurs	202
	- The Ethnic Chinese Sugarcane Farmers ('Long-Ju')	202
	- The Labourers (Contract Farmers and Itinerant Workers)	202
	- The Independent Smallholders	204
	- The Land-Ownning Traders	205
IV.2.2	The Sugar Industry	205
	- The Brownsugar Mills	205
	- The Modern Refined Sugar Mills	205
IV.2.3	The Agricultural Production Zones	207
IV.3	Spontaneous Land Clearing in the Sample Area of King Amphoe Bo Thong	
IV.3.1	The Settlement History of King Amphoe Bo Thong	209
	- Forest Gathering and Pioneer Settlers	209
	- The Timber Exploitation Phase	211
	- The Period of Large-Scale Clearing for Sugarcane Farming	212
IV.3.2	Farm Types in the Sugarcane Monocropping Zone	213
	- The Large-Scale Sugarcane Farms ('Long-Ju'-Farms)	213
	- The Contract Farms ('Luk-Rai'-Farms)	215
	- Smallholdings of Former 'Forest Farmers'	215
	- Market Gardening	215

IV.3.3	The Process of Spontaneous Land Clearing on the Pioneer Front of Today	216
IV.3.4	Farm Types Along the Pioneer Front	218
	- The Farmers with Clearing Contracts ('Pa-Boei')	218
	- The Farms in the Isolated Clearings	219
	- The Forest Village Project	220
IV.4	Om Panom - A Market and Administrative Centre in the Chonburi Hinterland	
IV.4.1	Growth and Development of Om Panom	221
IV.4.2	Settlement Pattern of Om Panom	224
	- The Layout of the Settlement	224
	- Architectural Characteristics	226
IV.4.3	Market and Service Functions	228
	- Development and Size of the Market Service Area	228
	- Market and Service Structure	229
IV.4.4	Infrastructure	231
	- Importance of the New Administration Centre	231
	- Water, Energy, and Public Transport	232
	- Education and Health Service	233
IV.4.5	Prospects of Future Development	234
V.	VILLAGE STUDIES IN THE SPONTANEOUSLY CLEARED AREAS OF THE KHORAT ESCARPMENT AND THE CHONBURI HINTERLAND	
V.1	The Sample Villages	236
	- The Villages in the Khorat Escarpment ('Km 79' area)	236
	- The Villages of the Chonburi Hinterland in King Amphoe Bo Thong	237
V.2	Population and Community Structure	238
V.3	Migration and Change of Landuse Systems	240
V.4	Land Tenure	246
V.5	Conclusion	247
	English Summary (Part II): Spontaneous Land Clearing in the Khorat Escarpment and in the Chonburi Hinterland	249
	- The Areas of Spontaneous Land Clearing and the Implications on National Development Policies	252
	Deutsche Zusammenfassung:	
	(Teil II): Spontane Neulanderschließung im Khorat-Randgebirge und im Hinterland von Chonburi, Südostthailand	254
	- Die spontane Neulanderschließung als Problem nationaler thailändischer Entwicklungspolitik	258
	Notes	260
	References (Part II)	262

APPENDIX	
Pedological Investigations in the Sample Regions	267
- Description of the Catenas in the Chonburi Hinterland Area	267
- Description of the Catenas in the Khorat Escarpment Area	269
Migration and Nutrition in Thailand (by <i>M. Schnetz</i> and <i>C. Leitzmann</i> )	277
Glossary Part I and II	284
Thai Summary	286
Photos	305
The authors	331