

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
ABSTRACT	vi
THAI ABSTRACT	viii
LIST OF TABLES	xiv
LIST OF FIGURES	xvi
ABBREVIATIONS AND GLOSSARY	xvii
CHAPTER I INTRODUCTION	1
1.1 Background and Rationale	1
1.2 Problem Statement	1
1.3 Research Objectives	3
1.4 Literature Review	4
1.4.1 Pwo Karen People in Northern Thailand	4
1.4.2 Shifting Cultivation Practice in the Highland Community	8
1.4.3 Agricultural Transformation and Decision-making Process	15
1.5 My Involvement in the Pwo Karen Community	25
1.5.1 First and Second Visits to Ban Mae Chang: Preliminary Field Surveys	25
1.5.2 Third Visit to Ban Mae Chang and Afterward: Closer Relation with Villagers	26
1.5.3 Perceptions of Villagers towards Me	29
1.5.4 Perceptions of Outsiders of the Village towards the Pwo Karen	30
1.5.5 Analytical and Methodological Approaches	33
1.6 Structure of This Thesis	34
CHAPTER II TRANSFORMATION OF HIGHLAND SWIDDEN SOCIETY	35
2.1 Population Growth and Economic Development in Modernization	35
2.1.1 Discussions of Population Growth	35
2.1.2 Modernization of the Pwo Karen in My Research Site	42
2.2 Policies for Forestry	49
2.2.1 History of “Scientific Forestry” in Thailand	49
2.2.2 Impacts and Response of Forestry Policy in the Pwo Karen Community	52
2.2.3 Local Situation and Resource Management	55
2.3 Market Economy and Technology in Local Subsistence	57
2.3.1 Mono-cultural Cash Cropping and the Market Space	61
2.3.2 Economic Development and Environmental Preservation	67
2.3.3 Consumerism and Economic Inequality in the Community	70
2.4 Summary	71

CHAPTER III LOCAL CONTEXT OF THE RESEARCH SITE	75
3.1 Historical and Geographical Context	76
3.1.1 Ban Mae Chang	76
3.1.2 Ban Dong Luang	81
3.2 Dynamic Changes in the Past Forty Years: Ban Mae Chang and Ban Dong Luang	85
3.2.1 1960s – 1970s: Period of Subsistence-oriented Economy	85
3.2.2 1980s – 1990s: Period of Introduction of Cash Cropping	87
3.2.3 2000 – Present: Period of Market Economy and Its Related Public Policies	89
3.3 Social and Economic Context: Ban Mae Chang and Ban Dong Luang	91
3.3.1 Social Institutions: Village Administration, Marriage and Belief	91
3.3.2 Economic Activities: Analysis of Income-class Differences	95
3.3.3 Labour Job Opportunities Created by Cabbage Cultivation: Inter-and-intra Ethnic Relationships	104
3.4 Changing Natural Environments and Criteria for Farming	108
3.4.1 Soil Evaluation	108
3.4.2 Seed Selection	110
3.4.3 Utilization of Non-timber Forest Products	111
3.4.4 Scale of Livestock Farming	114
3.5 Summary	116
CHAPTER IV DYNAMISM OF SWIDDEN FARMING: LOCAL ADAPTATION TO CHANGE	128
4.1 Strategies for Land Use: Over Swidden and Terrace	129
4.1.1 Land Tenure System	129
4.1.2 Irrigated Terrace: Strategic Option (1)	130
4.2 Changing Agricultural Production System	146
4.2.1 Case of Ban Mae Chang: Four-to-Five Year Rotational Fallow Farming System	147
4.2.2 Case of Ban Dong Luang: “Two-place Rotational Rice Farming System Mixed with Cabbage Cultivation” and “Three-place Rotational Fallow System Mixed with Cabbage Cultivation”	153
4.3 Summary	158
CHAPTER V HIGHLANDERS’ CRITERIA AND CHOICE	166
5.1 Risk of Cash Cropping for Highlanders	166
5.1.1 Introduction of New Technology in Highland Farming	167

5.1.2	Benefit or Liability: Impacts of Agricultural Technology	171
5.1.3	Changes in Values and Economic Security	176
5.2	Choices and Strategies of Highlander in Agriculture	181
5.2.1	The Theory of “Real-life Choice” in Practice	182
5.2.2	Case Studies of Ban Mae Chang	183
5.2.3	Case Studies of Ban Dong Luang	195
5.3	Expectations of the Future	199
5.3.1	Agriculture Issues under the Market System	199
5.3.2	Possible Alternatives and Options for the Pwo Karen	201
5.4	Summary	204
CHAPTER VI CONCLUSION		207
6.1	Main Findings of the Fieldwork Study	207
6.1.1	Risk of Agricultural Technology and Economy in Highland Society	207
6.1.2	Factors that Have Shortened the Fallow Period	211
6.1.3	Limited Choices to Changes under Development Scheme	212
6.1.4	Dilemma in Agricultural Transformation for Highlanders	215
6.2	Analysis of the Findings	216
6.2.1	Population Changes and Economic Development: Theories in Local Context	216
6.2.2	Local Technical Knowledge in Development Scheme	219
6.2.3	Local Decision-making under Constraints	222
6.3	Finalization: Towards Sustaining Development for the Local Community	224
6.3.1	Policy Implications from Research Outcomes	224
6.3.2	Future Research Agenda and a Related Closing Remark	227
BIBLIOGRAPHY		229
CURRICULUM VITAE		244

LIST OF TABLES

Table	Page
2.1 Population and Household Changes in the Pwo Karen Villages	74
3.1 Cash-income Classification of Households: Four-group and Two-group Classifications	125
3.2 Per-household Income (Accruing from All Income Sources), Landholding, Rice Yield and Crude Rice-productivity: By Income Class for Ban Mae Chang (in 2002)	126
3.3 Per-household Income (Accruing from Cabbage Cultivation), Landholding, Rice Yield and Crude Rice-productivity: By Income Class for Ban Dong Luang (in 2002)	127
4.1 Pwo Karen Terrace Ownership and Area Size for the Period 1968-1969	161
4.2 Gross Yield of Swidden Rice (Dry Rice) and Terrace Rice (Wet Rice) in 2002: By Income Class for Rice-sufficient and Rice-insufficient Households	162
4.3 Per-household Yield of Swidden Rice (Dry Rice) and Terrace Rice (Wet Rice) in 2002: By Income Class for Rice-sufficient and Rice-insufficient Households	163
4.4 Per-household Actually Cultivated Area in <i>Rai</i> (For Dry Rice and Cabbage) and <i>Naa</i> (For Wet Rice) for 2002: By Income Class	164
4.5 Pwo Karen Agricultural Calendar: For Ban Mae Chang and Ban Dong Luang	165
5.1 Introduction of New Technology in Highland Farming	167
5.2 Benefit or Liability: Impacts of Agricultural Technology	171
5.3 Changes in Values and Economic Security	176

LIST OF FIGURES

Figure	Page
1.1 Conceptual Framework	24
3.1 Location of the Villages of Ban Mae Chang and Ban Dong Luang and Their Surrounding Area	119
3.2 Residential Area of the Village: Ban Mae Chang (The Major Part)	120
3.3 Residential Area of the Village: Ban Mae Chang Bon (The Satellite Part)	121
3.4 Natural Resources and Land Use in Ban Mae Chang (Remarks for Figure 3.4)	122 123
3.5 Residential Area of the Village: Ban Dong Luang (The Major Part)	124

ABBREVIATIONS AND GLOSSARY

ACA	: Actually Cultivated Area
CRCDP	: Crop Replacement and Community Development
GONGOVA	: Gakushuin Overseas NGO Volunteer Activity Programme in Gakushuin University, Tokyo, Japan (NGO)
HAMP	: Highland Agricultural Marketing and Production
HTWCM	: Hill Tribe Welfare Centre at Mae Ho, Mae Sariang, Mae Hong Son
ICTA	: Institute of Agricultural Science and Technology
LTK	: Local Technical Knowledge
MHEIP	: Maehongson Hilltribe Extension & Improvement Programme, Mae Hong Son, Thailand (NGO)
NGO	: Non Governmental Organization
ODA	: Official Development Assistance
ONCB	: Office of the Narcotics Control Board
RFD	: Royal Forest Department
TA-HASD	: Thai-Australia Highland Agricultural and Social Development Project
TDWU	: Tribal Development and Welfare Unit, Ban Mae Chang, Mae Ho, Mae Sariang
TWT	: Thai Woman of Tomorrow Project in Chiang Mai University, Chiang Mai, Thailand (NGO)
UN	: United Nations
UNDCP	: United Nations International Drug Control Programme
UNPDAC	: United Nations Program for Drug Abuse Control
USAID	: United States Agency for International Development

[Thai]

<i>Tambon</i>	: sub-district
<i>O. Bo. To.</i>	: tambon (sub-district) administration organization (<i>oŋkaan boorihāan sūan tambon</i>)
<i>Matthayom</i>	: junior-and-senior high school grades in formal education
<i>Rai</i>	: wet rice field
<i>Naa</i>	: dry rice field

[Weights and Measures]

<i>rai</i>	: Thai unit of land equivalent to 1,600 square meters or 0.16 hectare
<i>thang</i>	: Thai unit of capacity equivalent to 20 kilograms