

Table of Contents

	Page
Acknowledgements	iii
Thai Abstract	vi
English Abstract	ix
Table of Contents	xii
List of Tables	xv
List of Figures and Maps	xvi
Chapter 1 Introduction	
1.1 Disaster and Poverty	1
1.2 The Irrawaddy Delta and Cyclone Nargis	4
1.3 Significance of the Problem	7
1.4 Goals and Objectives of the Study	11
1.5 Structure of this Thesis	12
Chapter 2 Literature Review	
2.1 The Review of the Literature	15
2.2 Subjective Well-Being	16
2.3 Social Capital	23
2.4 Determinants of Well-Being	25
2.5 Poverty	28
2.6 Literature Review on Impacts of Disaster	30
2.7 The pivotal role of agriculture in South East Asian Development	34
2.8 Testable Hypotheses	36
Chapter 3 Methods of Data Collection and Analysis	
3.1 Logic of the Research Design	39

3.2 Research Design	41
3.3 Conceptual Framework of the Study	43
3.4 Methods of Data Analysis	47
3.4.1 Descriptive Statistics	47
3.4.2 Lorenz Curve and Gini Coefficient	48
3.4.3 Incidence, Depth and Intensity of Poverty Foster_Greer_Thorbecke-Schoch	52
3.4.4 Tests of Means	55
3.4.5 Correlation Matrix Analysis	55
3.4.6 Regression Analysis and Final Hypothesis Testing	56
3.4.6.1 Adjusted R Square	56
3.4.6.2 F Statistics and Level of Significance	56
3.4.6.3 Student T- statistics of the Regressors	57
3.4.6.4 Logic of the Signs	57
3.5 The Variables	57
3.6 Questionnaire	62
Chapter 4 Empirical Results	
4.1 Calculations of Food Poverty Line and overall Poverty Lines by Means of the Cost of Basic Needs method	63
4.2 Relative Poverty of the Two Nargis Affected Areas	67
4.3 Constraints in Farming	69
4.4 t-Test between Per Capita Income and Constraints in Farming	70
4.5 Sources of Credit	72
4.6 Determinates of Income	72
4.7 The Intensity of Food Poverty	74
4.8 The Situation of Housing	80
4.9 The Situation of Sanitation	83
4.10 Summary of the Results Presented in this Chapter	85
Chapter 5 Empirical Results with respect to Happiness and Social Capital	
5.1 Introduction	86

5.2 Introduction of the Survey Instruments	87
5.3 Chiang Mai Happiness Scale and Lyubomirsky Happiness Scale	88
5.4 Absolute Unhappiness and Relative Happiness in two Areas	110
5.5 Social Capital of two Nargis Affected Areas	105
5.6 Female Headed Household and Male Headed Household	111
5.7 Health Services	113
5.8 Access to Education	113
5.9 Summary of the Results of this Chapter	115
Chapter 6 Summary, Conclusions, and Recommendations	
6.1 Summary	116
6.2 Goals of the Research	117
6.3 Methods	117
6.4 Questions and Hypotheses	119
6.5 Results of Hypothesis Testing on Income and Tangible Living Standards	121
6.6 Results of Hypothesis Testing on Happiness and Social Capital	122
6.7 Conclusions	123
6.7.1 Implications of the Study for the People of the Irrawaddy Delta	123
6.7.2 Implications of the Study for the Government and NGOs – Implications for Programs and Policy	124
6.7.3 Implications of the Study for those Interested in Disaster Relief	125
6.7.4 Implications of the Study for Social Capital and Happiness Research	125
6.8 Scope and Limitations of the Research	126
6.9 Suggestions for Further Research	127
References	128
Curriculum Vitae	138

List of Tables

Table	Page
2.1 Four Kinds of Being Well	19
3.1 Poverty Maps from Unsatisfied Basic Needs Indicators	47
3.2 Calculation Formulae of the Composite Variables	61
4.1 Calculation of Food Composition and Food Poverty Line	64
4.2 Level of Relative and Absolute Poverty in the Two Study Areas	68
4.3 t- Test between Per Capita Income and Constraints in Farming	70
4.4 t- Test between Sources of Credit	72
4.5 Regression of Net Income Per Capita on Socio Economy	73
4.6 Regression to Explain the Intensity of Food Poverty	75
5.1 Correlations among Overall Happiness and its Dimensions	90
5.2 Test of Significant Differences in Means between the Two Areas	92
5.3 Lyubomirsky Happiness Scale as Determined by Five Components of the Chiang Mai Happiness Scale for the Combined Sample	94
5.4 Lyubomirsky Happiness Scale as Determined by Five Components of the Chiang Mai Happiness Scale for Slightly-Affected Pyapon	97
5.5 Lyubomirsky Happiness Scale as Determined by Five Components of the Chiang Mai Happiness Scale for Heavily-Affected Bogalay	98
5.6 Absolute Unhappiness and the Distribution of relative Happiness in the two Areas	101
5.7 Regression of the Chiang Mai Happiness Score upon a Complete Set of Socio-Economic Factors	104
5.8 Tests of Means and Variances of Overall, Bonding, and Bridging Capital Scores by Nargis-Affected Areas	108

List of Figures

Figure	Page
1.1 Map of Irrawaddy Delta, Myanmar	5
1.2 Map of Cyclone Nargis Affected Areas	7
1.3 The Shift of Occupation Before and After Nargis	9
1.4 Population at State and Division Level of Myanmar	14
3.1 Conceptual Framework and Diagram	46
3.2 Lorenz Curve and Gini Coefficient of Income	51
3.3 Lorenz Curve and Gini Coefficient of Happiness	53
4.1 Food Poverty Line for the Two Nargis Affected Areas	66
4.2 Comparative Lorenz Curve of the Net Income Per Capita	67
4.3 Constraints in Farming	69
4.4 Food Sources in the Slightly and Heavily Affected Areas, Respectively	77
4.5 Expenditure Shares in the Slightly and Heavily Affected Areas, Respectively	78
4.7 Materials for walls in the Slightly and Heavily Affected areas, Respectively	80
4.8 The Housing Materials for the Slightly and Heavily Affected Areas, Respectively	82
4.9 Ways to Treat Drinking Water Before and After Nargis	83
4.10 Latrine Facility Type in the Slightly and Heavily Affected Areas, Respectively	84
5.1 Continuum of the Sub-Components of Happiness by Time Horizon	89
5.2 Highest Educational Attained of Each Household for Pyapon, Slightly Affected Area	114
5.3 Highest Educational Attained of Each Household for Bogalay, Slightly Affected Area	114