

## Contents

	Page
บทคัดย่อ	(iii)
Abstract	(iv)
Acknowledgements	(vi)
Contents	(vii)
List of Tables	(ix)
List of Figures	(x)
Chapter 1 : Introduction	
1.1 Background	1
1.2 Objectives	2
1.3 Literature review	3
Chapter 2 : Methodology	
2.1 Study area	7
2.2 Data sources	8
2.3 Work flow diagram	8
2.4 Data management	9
2.5 Graphical methods	10
2.6 Statistical methods	14
Chapter 3 : Preliminary Data Analysis	
3.1 Description of variables	18
3.2 Tabulation of change in types of land use for each location	27

	Page
Chapter 4 : Statistical Modeling	
4.1 Multinomial logistic regression model	30
Chapter 5 : Conclusion and Discussion	
5.1 Conclusion and discussion	34
References	36
Appendix	39
Vitae	54

*Prince of Songkla University  
Pattani Campus*

## List of Tables

Tables	Page
Table 3.1: Determinant and outcome variables	19
Table 3.2: The determinant variable	21
Table 3.3: Land use and the locations in 1982 and 2000	24
Table 3.4: Type of land use in 1982 and 2000	25
Table 3.5: Distribution types of land use change	27
Table 3.6: Distribution of change in 9 types of land use for each location	28
Table 3.7: Distribution of change in 9 types of land use for each location	29
Table 3.8: Odds Ratio and 95% CI Odds Ratio	30
Table 4.1: Model of association between type of land use change and location	31

## List of Figures

Figures	Page
Figure 2.1: Na Thap sub-district	7
Figure 2.2: Work flow diagrams for determining the relationship between land use change and location	8
Figure 2.3: Conceptual fram work	9
Figure 2.4: Songkhla province and Na Thap subdistrict map	10
Figure 2.5: Land use map in 1982 and 2000 using R program	11
Figure 2.6: Combining area	12
Figure 2.7: Na Thap land use map after combine area	13
Figure 2.9: Contingency Table	14
Figure 3.1: Location in Na Thap	20
Figure 3.2: Land use in 1982	22
Figure 3.3: Land use in 2000	23
Figure 3.4: Land use change in 1982 to 2000	26
Figure 4.1: 95% confidence intervals plot of land use change for each location	32