LAND COVER MAPPING OF SETIU DISTRICT, FROM SETIU WETLAND TO HULU SETIU FOREST RESERVE

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LAND COVER MAPPING OF SETIU DISTRICT, FROM SETIU WETLAND TO HULU SETIU FOREST RESERVE.

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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: **Land Cover Mapping of Setiu District: From Setiu Wetlands to Hulu Setiu Forest Reserve** oleh **Wan Nurzalia Wan Saelan,** no. matrik: **UK 7271** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi **Ijazah Sarjana Muda Sains Gunaan Pemuliharaan dan Pengurusan Biodiversiti, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.**

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TABLE OF CONTENTS

		Page
ACKNOWLEDGEMENTS		ii
LIST OF TABLES		v
LIST OF FIGURES		vii
LIST OF ABBREVIATIONS		ix
ABSTRACT		xi
ABSTRAK		xii
CHAPTER		
1	**INTRODUCTION**	1
1.1	Introduction	1
1.2	Objectives	3
1.3	Scope	4
2	**LITERATURE REVIEW**	5
2.1	Introduction to Land Cover	5
2.2	Land Cover Classifications	6
2.2.1	USGS (United States Geology Survey) Land Cover Classification Criteria	6
2.2.2	AFRICOVER Land Cover Classification (FAO, 1997)	11
2.2.3	South African National Land Cover	23
2.2.4	Department of Agriculture, Malaysia. Land Cover Classification Scheme	25
2.3	Remote Sensing in Land Cover Mapping	26
2.3.1	*Remote Sensing*	26
2.3.2	*Advantages*	30
3	**METHODOLOGY**	33
3.1	Description of Study Area	33
3.2	Materials and Method	35
3.2.1	General Methodology	36

3.2.2 Remote Sensing Methodology 37

4 RESULTS 47

4.1 Ground Truth 47
4.2 Land Cover Map 2005 54
4.3 Accuracy Assessment 55
4.3.1 Classification Error Matrix 55
4.3.2 Accuracy Statistic 59

5 DISCUSSION 60

5.1 Land Cover and Land Use 60
5.1.1 Methods in Deriving Land Use and Land Cover Mapping 62
5.1.2 Characteristics of Land Cover Classes based on the USGS (United States Geology Survey) Land Cover Classification Criteria 64
5.2 Remote Sensing Technique Consideration 70
5.2.1 Accuracy Assessment 70

6 CONCLUSIONS 73

BIBLIOGRAPHY 74

CURRICULUM VITAE 80

Perpustakaan
Kolej Universiti Sains Dan Teknologi Malaysia (KUSTEM)

LIST OF TABLES

Table		Page
2.1	USGS Land Use/Land Cover Classification System for Use with Remote Sensing Data	7
2.2	Representative Image Interpretation Formats for Various Land Use/Land Cover Classification Levels	10
2.3	Minimum Sizes of Land Cover Units Mapped at Various Classification Levels	10
2.4	Land Cover Classifications from the South African National Land Cover	24
2.5	Malaysian Land Use Classification Legend	25
2.6	Several common analyses with combination of bands using Landsat TM	30
3.1	Field checking points for land cover training area	41
4.1	List of Land Cover classes defined from ground field checking	47
4.2a	Classification error matrix for the 1997 Land Cover Map (Unclassified, Clear Area for Development, Associate Mangrove and Swamp classes).	55
4.2b	Classification error matrix for the 1997 Land Cover Map (Mangrove, High Vegetation, Oil Palm (mature) and Clear Area for Agriculture classes).	56
4.2c	Classification error matrix for the 1997 Land Cover Map (Low Development and Shrub, Peat Swamp, Cloud Cover and Water Bodies classes).	57

4.2d	Classification error matrix for the 1997 Land Cover Map (Cloud Shadow and Rubber classes).	58
4.3	Accuracy Statistics for the 1997 Land Cover Map	59

LIST OF FIGURES

Figure		Page
2.1	Interaction of Land Use and Land Cover to other environmental disciplines.	32
3.1	The study area	34
3.2	General methodology flow diagram	36
3.3	Digital Image Processing flow diagram	37
3.4	Ground Checking Points for supervised classification overlay with Landsat TM 1997 imagery	43
4.1a	Photograph of Clear Area (Development) class	48
4.1b	Photograph of Associate Mangrove class	48
4.1c	Photograph of Swamp class	49
4.1d	Photograph of Mangrove class	49
4.1e	Photograph of High Vegetation class	50
4.1f	Photograph of Oil Palm (Mature) class	50
4.1g	Photograph of Low Development and Shrub class	51
4.1h	Photograph of Peat Swamp class	51

4.1i	Photograph of Water Bodies class	52
4.1j	Photograph of Rubber class	52
4.1k	Photograph of Clear Area (Agriculture) class	53
4.2	Land Cover Map from Landsat TM 1997	54

LIST OF ABBREVIATIONS

AFRICOVER	-	Africa Land Cover
DN	-	Digital Number
ESRI	-	Environment System Research Institute
FAO	-	Food and Agriculture Organization
FAV	-	Average Filter
FELDA	-	Federal Land Development of Authority
GCP	-	Geometric Correction Point
GCPs	-	Ground Control Points
GIS	-	Geographical Information System
GPS	-	Global Positioning System
GUI	-	Graphic User Interface
IFOV	-	Instantaneous Field of View
IADP	-	Integrated Agriculture Development Project
ID	-	Identification
IT	-	Information Technology
MACRES	-	Malaysian Center for Remote Sensing
MLT	-	Mean Low Tide
MSS	-	Multi Spectral Scanner
NLC	-	National Land Cover

NOAA	-	National Atmospheric and Oceanic Administrative
RMSE	-	Root Means Square Error
RSO	-	Rectified Skew Orthomorphic
PAT	-	Polygon Attribute or Point Attribute
SPOT	-	Systeme Pour I' Observation de le Terre
TM	-	Thematic Mapper
USGS	-	United States Geological Survey
Veg RIS	-	Vegetation Resource Information System
API	-	Aerial Photography Interpretation
MSSI	-	Multi Spectral Satellite Imagery
OTG	-	On The Ground

ABSTRACT

A study of land cover was conducted in the District of Setiu, Terengganu. The study area covered from Setiu Wetlands until Hulu Setiu Forest Reserve. The total area was approximately 34713.63 ha. The objectives were to produce a Land Cover Map and to gain updated information of land use within the study area. Landsat TM 1997 satellite imagery with the resolution of 30m X 30m was being used. Digital image processing was conducted to get 13 classes of land cover. The general methodology of remote sensing technique being used was; geometric correction, classification, ground truth, filtering and accuracy assessment. The 13 classes of land cover were being explained further in Chapter 4 and 5. Accuracy assessment was being discussed in Chapter 5, as it was an important aspect in remote sensing. In order to gain accurate information of land cover the accuracy must be between 85 to 90%. A Land Cover Map 2005 with 13 classes altogether had been produced.

PEMETAAN LITUPAN TANAH DAERAH SETIU: DARI SETIU WETLANDS HINGGA HUTAN LIPUR HULU SETIU

ABSTRAK

Kajian mengenai litupan muka bumi telah dijalankan di Daerah Setiu, Terengganu. Kawasan kajian meliputi Setiu Wetlands hingga ke Hutan Simpan Hulu Setiu. Kawasan kajian merangkumi kawasan seluas 34713.63 ha. Objektif kajian ini adalah untuk menghasilkan Peta Litupan Tanah kawasan kajian serta untuk mendapatkan data terkini penggunaan tanah di kawasan kajian tersebut. Imej satelit Landsat TM 1997 dengan resolusi 30m X 30m telah digunakan. Metodologi umum dalam teknik Penderiaan Jauh yang telah digunakan adalah; pembetulan geometri, klasifikasi, kebenaran di bumi, proses penurasan dan piawai ketepatan. 13 kelas litupan tanah yang telah diperolehi akan dibincangkan lebih lanjut di Bab 4 dan 5. Piawai ketepatan adalah satu aspek yang penting dalam Penderiaan Jauh dan ia akan dibincangkan lebih lanjut di Bab 5. Piawai ketepatan untuk mendapatkan data yang tepat, kadar mestilah di antara 85 hingga 90%. Satu Peta Litupan Tanah 2005 dengan 13 kelas telah berjaya dihasilkan.