UNIVERSITI TEKNOLOGI MARA

STUDIES ON PADDY LAND USED CHANGES AREA FOR DISTRIBUTION CROP FERTILIZER MANAGEMENT UNDER LEMBAGA KEMAJUAN PERTANIAN MUDA (MADA) ADMINISTRATION IN ARAU PERLIS.

MOHD SALAHUDDIN BIN MOHD ZALI

Thesis submitted in fulfillment of the requirements for the degree of **Bachelor of Surveying Science and Geomatics (Hons)**

Faculty of Architecture, Planning and Surveying

JANUARY 2019

AUTHOR'S DECLARATION

I declare that the work in this thesis/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student : MOHD SALAHUDDIN BIN MOHD ZALI

Student I.D. No. : 2015104129

Programme : Bachelor of Science in Geomatics

Faculty : Architecture, Planning & Surveying

Thesis Title : Studies on Paddy Land Used Changes Area

for Distribution Crop Fertilizer Management under Lembaga Kemajuan Pertanian Muda (MADA) Administration in Arau Perlis.

Signature of Student :

Date : January 2019

ABSTRACT

This study was carried out to determine the area of land use which was registered under MADA management. Registration of land use is an important part for MADA administration. This is because land use registration is to manage all matters relating to agricultural management of land. In this study, to overcome the problem faced by the Muda Agricultural Development Authority to find out the land use area that has register in MADA management. The study area is in the area of Region 1 which involves at PPKA1 Guar Sanji Arau Perlis Area. In this study, the number of samples lot has selected by the MADA involved 21 lots. Data used in this study are data from online base map GIs, data NDCDB and fertilizer records to the sample lot. The purpose of this study was to determine the extent of rice land use to validate the management of fertilizer distribution plants in MADA area by using GIs application. The methodology has use to obtain the aim in this study using the ArcGIS software to identify land use in selected sample lot. By using the land use analysis method for the selected sample lot can be made accurately. In the end of study has shown the land use map for sample lot for PPKA1. From this study is to help MADA administration in determination land use area for paddy field and for distribution crop fertilizer.

TABLE OF CONTENT

CONE	IRMATION BY PANEL OF EXAMINERS	Page ii		
AUTHOR'S DECLARATION				
	AUTHOR'S DECLARATION ABSTRACT ABSTRAK ACKNOWLEDGEMENT			
TABLE OF CONTENT				
	OF TABLE	vii ix		
	OF FIGURE	X		
	OF ABBREVIATION	xi		
СНАР	TER ONE INTRODUCTION	1		
1.1	RESEARCH BACKGROUND	1		
1.2	PROBLEM STATEMENT	2		
1.3	AIM	3		
1.4	OBJECTIVES	3		
1.5	RESEARCH QUESTION	3		
1.6	EXPECTED OUTCOME	4		
1.7	SIGNIFICANT OF STUDY	4		
1.8	STRUCTURE OF THESIS	5		
СНАР	TER TWO LITERATURE REVIEW	6		
2.1	INTRODUCTION	6		
2.2	LAND USE	7		
2.2	2.1 CATEGORIES LAND USE	7		
2.3	PADDY LAND USE	8		
2.4	GEOGRAPHIC INFORMATION SYSTEM (GIS)	9		
2.5	GIS TECHNOLOGY	10		
2.6	FUNCTION OF GIS TECHNOLOGY	10		
2.7	APPLICATION GIS IN DETECTING LAND USE PADDY AREA	11		
2.8	DISTRIBUTION CROP FERTILIZER	12		
2.9	MADA ORGANIZATION	13		

CH.	APTER TH	REE METHODOLGY	14	
3.1	INTROD	UCTION	14	
3.2	RESEARCH METHODOLOGY			
3.3	PRELIMINARY STUDIES			
3.	3.1 STUI	DY AREA	16	
3.4	DATA A	CQUISITION	18	
3.	4.1 DAT	A COLLECTION	18	
3.	4.2 SOF	ΓWARE USED	18	
3.5	DATA PI	ROCESSING	19	
3.	5.1 PERS	SONAL GEODATABASE	19	
3.6	DATA A	NALYSIS	22	
3.7	CONCLU	JSION	22	
CHAI	TER 4 RES	SULT AND ANALYSIS	23	
4.1	INTROD	UCTION	23	
4.2	SELECTI	ON OF SAMPLE LOT	23	
4.3	ANALYSIS OF LAND USE – OBJECTIVE ONE			
4.4	ANALYSIS OF FERTILIZER TO SAMPLE LOT- OBJECTIVE TWO 3			
4.5 THI		THE TOTAL FERTILIZER PROVIDE BY MADA- OBJECTI	VE 35	
4.6	CONCLU	JSION	39	
4.7	SUMMA	RY	39	
CHAI	TER FIVE	CONCLUSION AND RECOMMENDATION	40	
5.1	INTROD	UCTION	40	
5.2	CONCLU	JSION	40	
5.3	RECOM	MENDATION	42	
REFE	REFERENCE			
APPE	APPENDICES			