LAND COVER CLASSIFICATION USING SATELLITE IMAGE AT KUANTAN, PAHANG AND SEKUL WETLAND

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Land cover classification using satellite image at northern of Setiu wetland / Irni Ismail.

Lihat sebelah

LAND COVER CLASSIFICATION USING SATELLITE IMAGE AT NORTHERN OF SETIU WETLAND

By

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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: **LAND COVER CLASSIFICATION USING SATELLITE IMAGE AT NORTHERN OF SETIU** oleh **IRNI BINTI ISMAIL**, no. matrik: **UK 6882** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah **SAINS GUNAAN (PEMULIHARAAN DAN PENGURUSAN BIODIVERSITI)**, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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LIST OF ABBREVIATION

TM	Thematic Mapper
GPS	Global Positioning System
SPOT	Satellite Probatoire d' Observation de la Terre.
MSS	Multispectral Scanner
ETM	Enhanced Thematic Mapper
MACRES	Malaysia Center For Remote Sensing
GIS	Geographical Information Systems
FELDA	Federal Land Development Authority
FELCRA	Federal Land Consolidation and Rehabilitation Authority
RGB	Red, Green and Blue (false colour composite)
ERTS	Earth Resources Technology Satellite

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ABSTRACT

A study on land cover classification was conducted at North of Setiu, Terengganu. The study on land cover classification is to generate the information on land use and land cover that were required in many aspects of sustainable management of land resources and policy development. For these propose, objective for this study are to identify land cover classes in Northern of Setiu and the watershed and to produce the latest land cover map of North of Setiu. The image processing techniques employed in this study were conducted using ERDAS version 8.7 image processing software. ERDAS is a raster based software package with advanced vector capabilities. Nineteen classes of land cover were successfully classified from Landsat TM. The classes of Northern Setiu can divide into rubber class, paddy class, coconut class, water bodies, primary forest, Melaleuca forest, lowland forest, sand-casuarina class, freshwater vegetation, hill forest, agriculture class, oil palm, grassland and shrub, mix forest and agriculture, settlement area. *Nypa – Rhizophora* class, mixed dry mangrove class, mixed mangrove class and *Rhizophora – Avicennia* class.

KLASIFIKASI LITUPAN TANAH MENGGUNAKAN IMEJ SATELIT DI UTARA SETIU

ABSTRAK

Suatu kajian ke atas klasifikasi litupan tanah telah dijalankan di utara Setiu, Terengganu. Kajian yang dijalankan ini adalah untuk membina informasi mengenai litupan tanah dan penggunaan tanah yang merupakan aspek diperlukan dalam pembangunan sumber tanah yang terancang juga dalam pembangunan polisi. Untuk mencapai tujuan tersebut, objektif kajian ini adalah mengenalpasti kelas-kelas litupan tanah di utara Setiu serta saliran air serta menyiapkan satu peta litupan tanah di utara Setiu. Proses imejan teknik untuk kajian ini menggunakan perisian ERDAS versi 8.7. Erdas merupakan perisian yang lengkap dengan kelebihan vektor yang terkini. Sembilan belas kelas litupan bumi telah dikenalpasti dari imej Landsat TM. Kelas-kelas tersebut adalah getah, padi, kelapa, air, hutan primer, hutan Melaleuca, hutan tanah rendah, kelas pasir-casuarina, vegetasi air tawar, hutan bukit, kawasan pertanian, kelapa sawit, padang rumput dan pokok renek, hutan-pertanian kelas, kawasan tempat tinggal, kelas *Nypa – Rhizophora*, kelas campuran hutan vegetasi kering paya laut, kelas campuran paya laut dan kelas *Rhizophora – Avicennia*.