

LAND COVER MAPPING (FROM KAMPUNG PEMBAK
TO KAMPUNG BAKI BESAR)

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LAND COVER MAPPING (FROM KAMPUNG PENARIK TO KAMPUNG BARI
BESAR)

By

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LIST OF ABBREVIATION

ERDAS	- Earth Resources Data Analysis System
GCP	- Ground Control Points
GIS	- Geographical Information System
GPS	- Global Positioning System
HRV	- High Resolution Visible
IIFOV	- Instantaneous Filed of View
ISODATA	- Iterative Self-Organizing Data Analysis Technique
LANDSAT	- Land Satellite
MACRES	- Malaysian Center for Remote Sensing
MRSO	- Malaysian Rectified Skewed Orthomorphic
MSS	- Multi-Spectral Scanner System
NOAA	- National Atmospheric and Oceanic Administrative
RMSE	- Root Means Square Error
RSO	- Rectified Skew Orthomorphic
SPOT	- Spatial Database Engine
TM	- Thematic Mapper
USGS	- United State Geological Survey

ABSTRACT

Remote sensing technology can successfully increase the performance in various type of study such as forestry, agriculture and managing development of certain area. In this study, this technology was used to detect land cover area and type of land cover. The study area is an area rich with diverse types of vegetation and some rural residential. Satellite image (Landsat TM) captured 14th July 2002 was used for the land cover determination and was analyzed and classified using 'Maximum Likelihood Classifier (MLC) with overall accuracy of 85%. From the results, 15 classes of land cover were differentiated with band combination of 4,5,3. There are 'Gelam', 'Water Bodies', 'Coastal Forest', 'Bareland', 'Palm Oil and Rubber', 'Palm Oil', 'Rubber', 'Settlement and Sandy Area', 'Swamp Forest', 'Non-Tree Land', 'Agriculture Land', 'Hill Mixed Forest', 'Mixed Mangrove', 'Primary Forest' and 'Shrub'.

PEMETAAN LITUPAN TANAH DARI KAMPUNG PENARIK KE KAMPUNG BARI BESAR MENGGUNAKAN TEKNIK PENDERIAAN JAUH

ABSTRAK

Teknologi Penderiaan Jauh telah berjaya meningkatkan kemampuan kajian dalam pelbagai bidang seperti perhutanan, pertanian dan pengurusan pembangunan sesuatu kawasan. Dalam kajian ini, teknologi ini telah digunakan bagi menentukan kawasan litupan tanah dan jenis-jenis litupan tanah. Kawasan kajian merupakan satu kawasan yang masih kaya dengan pelbagai jenis tumbuhan dan sedikit penempatan luar bandar. Imej satelit (Landsat TM) bertarikh 14^{hb} Julai 2002 telah digunakan dalam penentuan litupan tanah di mana ianya telah dianalisis dan diklasifikasi dengan menggunakan 'Maximum Likelihood Classifier' (MLC) dengan ketepatan keseluruhan 85%. Dari keputusan yang diperolehi, sebanyak 15 kelas litupan tanah telah dapat ditentukan iaitu 'Gelam', 'Water Bodies', 'Coastal Forest', 'Bareland', 'Palm Oil and Rubber', 'Palm Oil', 'Rubber', 'Settlement and Sandy Area', 'Swamp Forest', 'Non-Tree Land', 'Agriculture Land', 'Hill Mixed Forest', 'Mixed Mangrove', 'Primary Forest' and 'Shrub' menggunakan Landsat TM dengan kombinasi band 4,5,3.