

**APPLICATION OF LANDSAT ETM IMAGE TO IDENTIFY POTENTIAL  
LANDCOVER AREA FOR COMMUNITY FOREST  
(Case Study in Regencies of Patuk, Gedangsari and Nglipar, Gunung Kidul  
Residences)**

By:

Mia Indria Pramesti <sup>1)</sup>

San Afri Awang <sup>2)</sup>

Wahyu Wardhana <sup>3)</sup>

**Abstract**

Community forest plays an important role in the community and has good development prospect. In order to optimize the forest management, adequate data are required. One of the information required is land cover that could be obtained using remote sensing data and Geography Information System (GIS).

Aim of the research are to prepare information concerning with the class of land cover to identify potential area for establishing community forest and to explore the ability of remote sensing data (Landsat ETM image) in providing information about the land cover area in the community forest. The research was based on biophysical aspect. The data used was obtained from Landsat ETM Image recorded on September 6, 2002. Image processing steps were geometrical correction, composite image development, masking, image classification, GIS data development (slope map) and integration between remote sensing data and GIS data

The research result was classification class of land cover area which consisted of forest area 211,86 ha, front yard area 6671,34 ha, bare land area 8572,77 ha, *tegalan* area 459,54 ha. The performance of Landsat ETM image could be seen from the accuracy of image classification result which achieved 81,25%

**Keyword :** Community forest, Land Cover Classification, Remote Sensing, Geography Information System

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- <sup>1)</sup> Student of Forest Management Dept., 04432/KT, Faculty of Forestry, Gadjah Mada University  
<sup>2)</sup> Lecture of Forest Management Dept., Faculty of Forestry, Gadjah Mada University  
<sup>3)</sup> Lecture of Forest Management Dept., Faculty of Forestry, Gadjah Mada University

**APLIKASI CITRA LANDSAT ETM UNTUK IDENTIFIKASI KAWASAN  
POTENSIAL TUTUPAN LAHAN HUTAN RAKYAT**  
(Studi Kasus Di Kecamatan Patuk, Gedangsari dan Nglipar  
Kabupaten Gunung Kidul)

Mia Indria Pramesti <sup>1)</sup>

San Afri Awang <sup>2)</sup>

Wahyu Wardhana <sup>3</sup>

**Intisari**

Hutan rakyat memegang peranan penting bagi kehidupan masyarakat dan memiliki prospek perkembangan yang sangat baik. Agar pengelolaannya dapat optimal diperlukan informasi, salah satunya mengenai kondisi tutupan lahan yang dapat diperoleh melalui data penginderaan jauh dan Sistem Informasi Geografi (SIG). Penelitian ini menggunakan tinjauan dari aspek biofisik.

Tujuan penelitian ini adalah, untuk menyiapkan informasi mengenai kelas tutupan lahan sehingga diketahui kawasan potensial untuk pengembangan kawasan hutan rakyat serta mengetahui kemampuan data penginderaan jauh (Citra Landsat TM) dalam menyajikan informasi mengenai kondisi tutupan lahan di hutan rakyat. Penelitian ini menggunakan data Citra Landsat ETM rekaman 6 September 2002. Langkah – langkah pengolahan meliputi koreksi geometrik, pembuatan citra komposit, pemotongan citra, klasifikasi citra, pembuatan data SIG (peta lereng) serta integrasi data penginderaan jauh dengan data SIG.

Hasil penelitian ini berupa klasifikasi kelas tutupan lahan dengan luasan alas 211,86 ha; pekarangan 6671,34 ha; tanah kosong 8572,77 ha; tegalan 459,54 ha. Kemampuan Citra Landsat TM dapat dilihat dari akurasi hasil klasifikasi citra sebesar 81,25%.

**Kata kunci : Hutan Rakyat, Klasifikasi Tutupan Lahan, Penginderaan Jauh, Sistem Informasi Geografi,**

1) Mahasiswa Jurusan Manajemen Hutan, 04432/KT, Fakultas Kehutanan, Universitas Gadjah Mada

2) Dosen Jurusan Manajemen Hutan, , Fakultas Kehutanan, Universitas Gadjah Mada

3) Dosen Jurusan Manajemen Hutan, , Fakultas Kehutanan, Universitas Gadjah Mada

