LAND COVER STUDY IN PT SILVAGAMA
USING LANDSAT THEMATIC MAPPER
(Case Study in HPH PT Silvagama Jambi)

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Abstract

Forests in Indonesia have been giving a big benefit for the people welfare. However as the need for the countries revenue and development increase, forest area has to deal with pressure from anywhere and sometime is changing the forest functionality moreover. Some part become industrial planted forest, transmigration area and the other become degraded forest because of opening forest ilegally. PT Silvagama as forest concession holder (HPH) is very concerned to use a certain kind system to monitor the quality and productivity of their concession. Remote Sensing System from satellite along with Geographic Information System as devices to store and retrieve spatial and coordinated data, have ability to identify and analyse forest land cover change and their overlay with forest land use by consensus (TGHK).

The research used Landsat TM digital data in September 15, 1993 covered the PT Silvagama and sorrounded areas. Digital data were analysed with ILWIS 1.3 software, using supervised classification technique and maximum likelihood algorithm. To extract information from vegetation objects we use vegetation index transformation technique. Observation focused in the conssesion area, so it was necessary to separate or masking the concession area for the other with PT Silvagama work area raster map. Masking image was then overlayed with forest land use by consensus. So the forest land cover can be analysed.

The result of the study show that PT Silvagama concession holder in 1993 had 14 class of land cover, and area concession square is 45.776,61 Ha. Theywere dominated mostly by secondary high dense forest about 18.264,24 Ha and secondary low dense forest 14.175,00 Ha. According to forest land use by concession, production forest square is 23.068,80 Ha, conversion forest is 10.893,96 Ha and other land use area 11.813,85 Ha. From 528.871 pixel, 508.630 pixel or 96% can be classified when 20.241 pixel or 4% failed to classified. Overall accuracy for the classification is 92,28%.