

Remote sensing applications in the Southeast Sumatra coastal environment

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Abstract

The coastal lowland swamps, rivers and estuarine areas north of Palembang, South Sumatra constitute a resource base likely to be extensively exploited during the next several years. Activities such as swamp forest logging, extensive fisheries, movement of government sponsored transmigrants and Buginese settlers into the area have intensified in recent years. Palembang is an important port which is difficult to maintain at sufficient depth to allow use by deep water ships, thereby creating interest in a coastal port location. In the near future it will be necessary to develop a multiple resource use management strategy based on national priorities, local needs and ecological constraints. Landforms, vegetation patterns, sediment and erosion sites, land use dynamics, settlement patterns and albedo are analysed from a time series of aerial photographs and LANDSAT imagery. The results, correlated with field data, indicate patterns of ecological constraints and resource use dynamics that have implications for development over much of the eastern coast of Sumatra.

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