APPLICATION OF GIS & RS TO WETLAND INVENTORY – A CASE STUDY IN BINH PHUOC PROVINCE

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ABSTRACT

Nowadays, GIS and RS techniques have been developing rapidly and played an important role in implementing environment and resources. One of its advantages is rapid assessment and relative accurate. In this research, we applied GIS and RS tool to inventory wetland which is significant natural resources.

First, we used Landsat - ETM imagery at 2 periods: rainy season in December 1999 and dry season in April 2001 to interpret soil moisture by Envi 4.4 software. Then, using GIS technique to overlay layers the geomorphological map, digital elevation model (DEM) and the information layer of soil moisture to extract the wetland areas which are in lowland and high moisture index.

The result of wetland area was 7.3% of 50,058ha in Binh Phuoc Province and its classification was based Hydro-Geomorphic system (Mark M.Brinson, 1993). This result had high accuracy when checking with field trip data. Therefore this method is very useful, quick tool and has low cost to map the wetland especially in difficult condition areas.