

Land use changes in Perak catchment zone using remote sensing and GIS technique.

ABSTRACT

Efficiency use of land parcel in forest catchment area is becoming a major concern as the disparity between the demands by population growth to these resources is widening. Thus the competition over land use and water resources has sometime lead to conflict among different users. Societies pay a lot of attention to the problem of land use and environmental planning. From this view's point an understanding of the hydrological zone in catchment area is necessary in the sense that it is important step toward management of water resources in this country. Information about changes and current land use in catchment areas is important for the management and planning. Remote sensing and GIS application nowadays are expand widely, specifically in dealing with several geography data and interpretation of broad area on earth surface. For instance, water catchments zone need a wide surface consist of steep slope to assemble precipitations before it is discharge to the reservoir through the tributaries cause by the gravity factor. Each of the tributaries which are discharge to the reservoir is include in the area of water catchments zone. The objective of this study are two folds: (i) to identify and delineate a catchments zone at Hutan Simpan Pondok Tanjung (HSPT) and (ii) to map land use changes using remote sensing data and GIS from 1989 to 1999 inside the catchment zone. Result showed that by using GIS, a catchment zone at HSPT Perak can be delineated, which was covering an area about 10,945.8 ha. Meanwhile, a total of 10 land use classes were mapped within the catchment zone and the changes of the land use area were analysed.

Keyword: Land use change; GIS; Remote sensing; Catchments zone.