

Multi-temporal Land-Cover Classification of Kinabalu Eco Linc Site and the Protected Park Areas

ABSTRACT

The Crocker Range Park and Kinabalu Park are Sabah's largest terrestrial parks physically separated by approximately 10 km. Both parks are involved in a set up plan of ecological linkages to connect and further strengthen the biodiversity conservation efforts in the State of Sabah. The part of ecological linkages project is known as Kinabalu Eco-Linc (Kinabalu Ecological Linkage). This study is designed to monitor the land use change of the area between year 1991 - 2018 using Landsat imagery. Maximum likelihood classifier was used to create the land cover change map of both protected areas. Seven land cover type were identified in the area which comprises of primary forest, secondary forest, shrubland/grassland, barren land, agriculture, plantation, and river. The result illustrated a drastic declined of primary forest and increased secondary forest and agricultural over the period of 28-years assessed. The spatial changes that occur throughout the period within state park and KEL area is drives by natural and anthropogenic activities. To support the increase in local population and their demand, the natural environment underwent changes for their welfare improvement. It is concluded that, monitoring protected area using remote sensing technique provide useful spatiotemporal data to locate key areas that are vulnerable to threat and can be utilized for better management of both protected areas and human use resources in adjacent area.