Anthropogenic land use patterns in the Malay peninsula during the British colonial era

Nor Rasidah Hashim Senior Lecturer, Faculty of Environmental Studies, Universiti Putra Malaysia, 43400 Serdang, Selangor Malaysia rasidah@env.upm.edu.my. Mohd. Shahrudin Abd. Manan Graduate Student, Faculty of Environmental Studies, Universiti Putra Malaysia, 43400 Serdang, Selangor Malaysia sharchputra@yahoo.com

Abstract

Due largely to its strategic location, the Malay peninsula had attracted several power houses during the last few centuries. In this study we focus on the British period, that is, before and through World War 1 and right before World War 2 (1907-1938). This period coincided with a mature phase of the British rule in the peninsula so we traced the physical development of the landscape by studying land use maps made by the land and survey department at the time. Our study is located around the site of an ancient land portage called Penarikan, in the southern inland section of the peninsula.

Firstly, among the findings from the map analysis using common GIS techniques (patch analysis, buffer analysis), are as follows: 1. Between 1907 and 1938, forest area declined by 31% but existed in a greater number of patches in the later years. 2. Along the main rivers, forests were cleared to make way for rice paddies, that is, two-fold increase between 1907 and 1938. 3. The total length of transportation roads increased from 114km in 1907 to 272km in 1938. 4. Since less than 2% of land area was at high elevation (above 300m above sea level), virtually all of land development was taking place in the lowlying areas. Secondly, we note with interest that on the 1907 map the Penarikan site was indicated with "Penari" but that the 1938 map was visibly silent on this historical site. In this paper we include the historical explanation for these land use patterns. We believe that historians would welcome the additional knowledge generated from our GIS map analysis because it augments the written records of the study area.

Keywords: Historical GIS, Malay Peninsula, Colonial Era