

Flood-Induced River Disruption: Geomorphic Imprints and Topographic Effects in Kelantan River Catchment from Kemubu to Kuala Besar, Kelantan, Malaysia

Authors : Mohamad Muqtada Ali Khan, Nor Ashikin Shaari, Donny Adriansyah bin Nazaruddin, Hafzan Eva Bt Mansoor

Abstract : Floods play a key role in landform evolution of an area. This process is likely to alter the topography of the earth's surface. The present study area, Kota Bharu is very prone to floods extends from upstream of Kelantan River near Kemubu to the downstream area near Kuala Besar. These flood events which occur every year in the study area exhibit a strong bearing on river morphological set-up. In the present study, three satellite imageries of different time periods have been used to manifest the post-flood landform changes. The pre-processing of the images such as subset, geometric corrections and atmospheric corrections were carried-out using ENVI 4.5 followed by the analysis processes. Twenty sets of cross sections were plotted using software Erdas 9.2, ERDAS and ArcGis 10 for the all three images. The results show a significant change in the length of the cross section which suggest that the geomorphological processes play a key role in carving and shaping the river banks during the floods.

Keywords : flood induced, geomorphic imprints, Kelantan river, Malaysia

Conference Title : ICG 2015 : International Conference on Geomorphology

Conference Location : Singapore, Singapore

Conference Dates : January 08-09, 2015