

Employing GIS to Analyze Areas Prone to Flooding: Case Study of Thailand

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Abstract : Many regions of Thailand are prone to flooding due to tropical climate. A commonly increasing precipitation in this continent results in risk of flooding. Many efforts have been implemented such as drainage control system, multiple dams, and irrigation canals. In order to decide where the drainages, dams, and canal should be appropriately located, the flooding risk area should be determined. This paper is aimed to identify the appropriate features that can be used to classify the flooding risk area in Thailand. Several features have been analyzed and used to classify the area. Non-supervised clustering techniques have been used and the results have been compared with ten years average actual flooding area.

Keywords : flood area clustering, geographical information system, flood features

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