

Title: Consider flood risk areas in Uthai Thani Province. with spatial autocorrelation techniques

Case Study: Uthai Thani Province

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Abstract

The objective of this study is to examine flood risk areas in Uthai Thani Province using the spatial autocorrelation technique with ArcMap software. The study involves collecting rainfall data from each year to compare the annual rainfall amounts. Data was gathered and compiled correctly for each year and used to assess the relationship between the boundaries of the area and the volume of rainfall. The spatial estimation was performed using the IDW (Inverse Distance Weighting) method for the years 2017 and 2021. The accuracy of the temperature results from the model was then tested to evaluate the effectiveness and minimal error of the method, expressed in percentage.

The analysis results will be used to gather data and perform spatial analysis to determine the flood risk in specific areas. The gathered data will help classify areas based on their risk of flooding, applying weighted values, statistical spatial analysis, and identifying critical risk points. This analysis aims to determine the size and severity of flood risk in different areas.

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