



Flood Inundation Analysis Considering Mega Floods

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Recently, abnormal climate has been shown around the world by global warming and disasters are becoming more severe. In Korea, more than 90% of damages due to natural disasters is caused by typhoon and heavy rainfall storm and consecutive typhoons or heavy rainfalls had been occurred. Therefore, the studies for the flood damage due to the continuous typhoons or heavy rainfall events should be considered and we call mega flood here for this type of flood which occurs by the continuous hazards.

In this study, we produced a continuous rainfall to create a mega rainfall scenario. Through this, we simulated flood discharge called mega flood and stage. Then we analyzed the inundation area by mega flood. Also we selected the appropriate locations which can be optimal shelters against mega flood using Multi-Criteria Decision Making (MCDM). The results of this study are expected to minimize human casualties from the mega flood and to be an important guideline for establishing nonstructural measures for mega flood which can be occurred in the future.

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