

A Situational Awareness Map for Allocating Relief Resources after Earthquake Occurrence

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Abstract : Natural disasters are unexpected events which predicting them is difficult. Earthquake is one of the most devastating disasters among natural hazards with high rate of mortality and wide extent of damages. After the earthquake occurrence, managing the critical condition and allocating limited relief sources requiring a complete awareness of damaged area. The information for allocating relief teams should be precise and reliable as much as possible, and be presented in the appropriate time after the earthquake occurrence. This type of information was previously presented in the form of a damage map; conducting relief teams by using damage map mostly lead to waste of time for finding alive occupants under the rubble. In this research, a proposed standard for prioritizing damaged buildings in terms of requiring rescue and relief was presented. This standard prioritizes damaged buildings into four levels of priority including very high, high, moderate and low by considering key parameters such as type of land use, activity time, and inactivity time of each land use, time of earthquake occurrence and distinct index. The priority map by using the proposed standard could be a basis for guiding relief teams towards the areas with high relief priority.

Keywords : Damage map, GIS, priority map, USAR

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