عنوان مقاله:

The Casualty Model for Multi-Hazard Vulnerability Analysis:Fire Following Earthquake A Case Study of a Part of Shiraz City,Iran

محل انتشار:

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خلاصه مقاله:

The frequant occurrence of damaging natural and technological hazards clearly demonstrates the urgent need of study of multi hazards vulnerability assessment methods to effectively reduce the impact of multi hazards in the builtenvirenment.This study presents the Multi Hazard Casualty Model(MHCM). Two types of hazards will be assessed,namely earthquake,and fire following earthquake. Our objective in this paper is to present the casualty model, to analyze the applicability of casaulty model for theassessment of muli hazards vulnerability of building and human with a GIS-based Analysis.Methods used in this paper are based on theoretical approach and documentation. The approach used for casualty model is based on semi-quantitative and quantitative analysis. The analytical vulnerability model use building damage and consequential triggering hazard (e.g. fire) for the evaluation ofhuman casualities.An attempt to develop casualty model based on interactions among hazards and/or domino effects. Tothis task is to correlate second hazard casualties directly with triggring hazard. The focus is on indicating hazard relations to understand how potential hazards of various degrees and magnitudes might result in (MHCM). It incorporated considerations for multiple and cumulative hazards occurrences into the overall assessment framework andmethodology.Triggering (domino) effects, and building vulnerability are two major factors that can lead to effectedcasualties in (MHCM).The model is applicated with data collected in a part ofShiraz City. The casualty model shows thatstructural failur is the primery cause of earthquake,built environment casualties,and that physical damage potential should be the foundation of estimation fire followind earthquake casualty.Other factors should also be integrated. In the present study has been done to present the casualty model and to analyze the applicability of casaulty model for the assessment ofmuli hazards vulnerability of building and human

کلمات کلیدی:

Multi-Hazard- vulnerability- casualty model- Domino effects- physical damage