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Overview and Post Damage Analysis of Nepal Earthquake 2015

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Abstract : Damage analysis is one of the preliminary activities to be done after an earthquake so as to enhance the seismic building design technologies and prevent similar type of failure in future during earthquakes. This research article investigates the damage pattern and most probable reason of failure by observing photographs of seven major buildings collapsed/damaged which were evenly spread over the region during Mw7.8, Nepal earthquake 2015 followed by more than 400 aftershocks of Mw4 with one aftershock reaching a magnitude of Mw7.3. Over 250,000 buildings got damaged, and more than 9000 people got injured in this earthquake. Photographs of these buildings were collected after the earthquake and the cause of failure was estimated along with the severity of damage and comment on the reparability of structure has been made. Based on observations, it was concluded that the damage in reinforced concrete buildings was less compared to masonry structures. The number of buildings damaged was high near Kathmandu region due to high building density in that region. This type of damage analysis can be used as a cost effective and quick method for damage assessment during earthquakes.

Keywords : Nepal earthquake, damage analysis, damage assessment, damage scales
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