

## A Proposal for a Comprehensive Approach to Safer Non-engineered Houses

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**Keywords:** Earthquakes, Disaster reduction, Non-engineered houses, Comprehensive approach

### SUMMARY

Reducing earthquake disasters in non-engineered houses is an acute issue because they are a main cause of human casualties worldwide. Since non-engineered houses differ from engineered houses in many respects, the authors conducted a comparative study and clarified the characteristics of the former. Based on this study, they found that reducing disasters in non-engineered houses would require appropriate seismic technologies to be adopted by communities and effective channels to disseminate technical knowledge. Further, a comprehensive approach covering a wider field of activity and effort was found to be necessary as users/dwellers of non-engineered houses are low/middle-income people and a professional housing supply sector usually does not exist for such houses. This paper reports on the characteristics of non-engineered houses, indicates the items to be tackled in reducing earthquake disasters in such dwellings, and proposes an approach to safer non-engineered houses consisting of key issues and a comprehensive approach.

Comparison of Non-engineered and Engineered Houses

Items	Non-engineered	Engineered
Materials	Available in the area No control in quality etc	Usually controlled in size, quality etc
Construction Workers	Non- or semi skilled workers	Skilled workers
Technical Intervention	Little or no intervention	Intervention in design, construction procedures
Users/dwellers	Low or middle income	Middle or high income

Relations between Relevant Items in Comprehensive Approach to Safer Non-engineered Houses

