

Evaluating the Various Methods of Temporary Accommodation in the Crisis against Threats Using AHP Hierarchical Analysis Method

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Abstract:

The issue of life safety during crises has always been important for human being throughout history and has been one of the most crucial needs of mankind. The occurrence of natural threats leads to the destruction of residential houses, the forced abandonment of destroyed dwellings, and the homelessness of people in the disaster areas. The lack of a place to comfort and protect injured people from the destructive effects of accidents and the absence of the sense of security creates the necessity of providing shelter for them. In this paper, firstly, the indicators related to choose the best way of temporary housing during an effective crisis are determined by using the opinions of experts in the fields of architecture, civil engineering and crisis management; in the following, the rate of their influence and importance should be obtained in terms of the criteria including the capacity of earthquake resistance, implementation complexity, implementation speed, cost, and the capability of debris removal. The community of experts consisted of 16 people who responded to a questionnaire in order to determine the priority of the indicators and the weight of the options. Next, using the AHP method, the weight of each of primary and secondary indicators (sub-indices) was obtained, and then using the same method, the weight of each of the alternatives in the indices was calculated. Finally, the results indicated that tenting is the most incompatible way of temporary accommodation in crisis conditions, and also the use of vernacular materials is the most appropriate method of temporary housing according to the mentioned goals.

Keywords: Temporary Accommodation, Earthquake, Crisis, Threats, AHP Hierarchical Analysis Method

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