

Assessing the Adaptive Re-Use Potential of Buildings as Part of the Disaster Management Process

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Abstract : The technological paradigm of the disaster management field, especially in the case of governmental intervention strategies, is generally based on rapid and flexible accommodation solutions. From various technical solution patterns used to address the immediate housing needs of disaster victims, the adaptive re-use of existing buildings can be considered to be both low-cost and practical. However, there is a scarcity of analytical methods to screen, select and adapt buildings to help decision makers in cases of emergency. Following an extensive literature review, this paper aims to highlight key points and problem areas associated with the adaptive re-use of buildings within the disaster management context. In other disciplines such as real estate management, the adaptive re-use potential (ARP) of existing buildings is typically based on the prioritization of a set of technical and non-technical criteria which are then weighted to arrive at an economically viable investment decision. After a disaster, however, the assessment of the ARP of buildings requires consideration of different/additional layers of analysis which stem from general disaster management principles and the peculiarities of different types of disasters, as well as of their victims. In this paper, a discussion of the development of an adaptive re-use potential (ARP) assessment model is presented. It is thought that governmental and non-governmental decision makers who are required to take quick decisions to accommodate displaced masses following disasters are likely to benefit from the implementation of such a model.

Keywords : adaptive re-use of buildings, disaster management, temporary housing, assessment model

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