Design of Adobe Post-Disaster Shelter Areas

Hatice Hasbora, Duygu Yakupoğlu
Nişantaşı Üniversitesi Merkez Kampus, Abdi İpekçi Cad.
No:89 Bayrampaşa İstanbul
haticehasbora@gmail.com; duyguyakupoglu@gmail.com

ABSTRACT

Immediately after a disaster, the core recovery capability for housing is the ability to implement housing solutions that effectively support the needs of the whole community and contribute to its sustainability and resilience. Like infrastructure and safety services, housing is a critical and often challenging component of disaster recovery. In Turkey, the common approach for providing shelter after a disaster is in the order of establishment of tent cities followed by installation of prefabricated units and gradually phasing into permanent dwellings. Unfortunately such arduous process has serious implications on the communities who have gone through a devastating experience, both emotionally and economically. Local economies cannot recover from devastating disasters without adequate housing, especially affordable housing. Reconstruction and new construction often need to occur at an accelerated pace at its earliest after a disaster. This study we propose a model for expedited housing construction for sustainable communities. The proposed model leverages many unique characteristics of adobe and incorporates a multidisciplinary approach design concept in reviving communities. As two pronged process, the proposed model, taking in consideration the social makeup, natural settings, and economical characteristics of the disaster struck region, deploys an adaptive design approach. Second prong of adaptive design approach is the incorporation of traditional architectural design and rendering processes, construction plan, section, and elevation alternatives. Since the proposed model incorporates every essential input for the design and development consideration the necessary outputs for financing and the management of the project would be readily available. The proposed model's design process is constraint by adobe, a very eco-friendly, economic, readily available, and most of all, sustainable.

Keywords: Adobe, Natural Disaster, and Housing