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EXPLAINING SUSTAINABILITY CRITERIA IN POST-DISASTER TEMPORARY HOUSING

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With growing international concern about the rising frequency and severity of natural hazards and disasters, there has been an increased drive internationally to reduce the destructive effects on the lives and livelihoods of individuals and communities (Disaster Risk Reduction, DRR).

Housing reconstruction programmes play a decisive role on the disaster recovery and providing temporary housing is a crucial step of these programmes. During the recovery, temporary housing allows victims to have a private and secure place to return to their normal life. It has been widely used after the largest scale disasters but it has also been greatly criticized, mainly for being unsustainable and culturally inadequate. For any reconstruction project to be sustainable, the building technologies need to be appropriate to local needs, resources and cultures.

With sustainable approach to decision making, end-user satisfaction, environmental protection and disaster mitigation can be provided and achieved. The study aims to identify the main problems of unsustainablity in temporary housing, their origin and the existing proposals guidelines to avoid them.

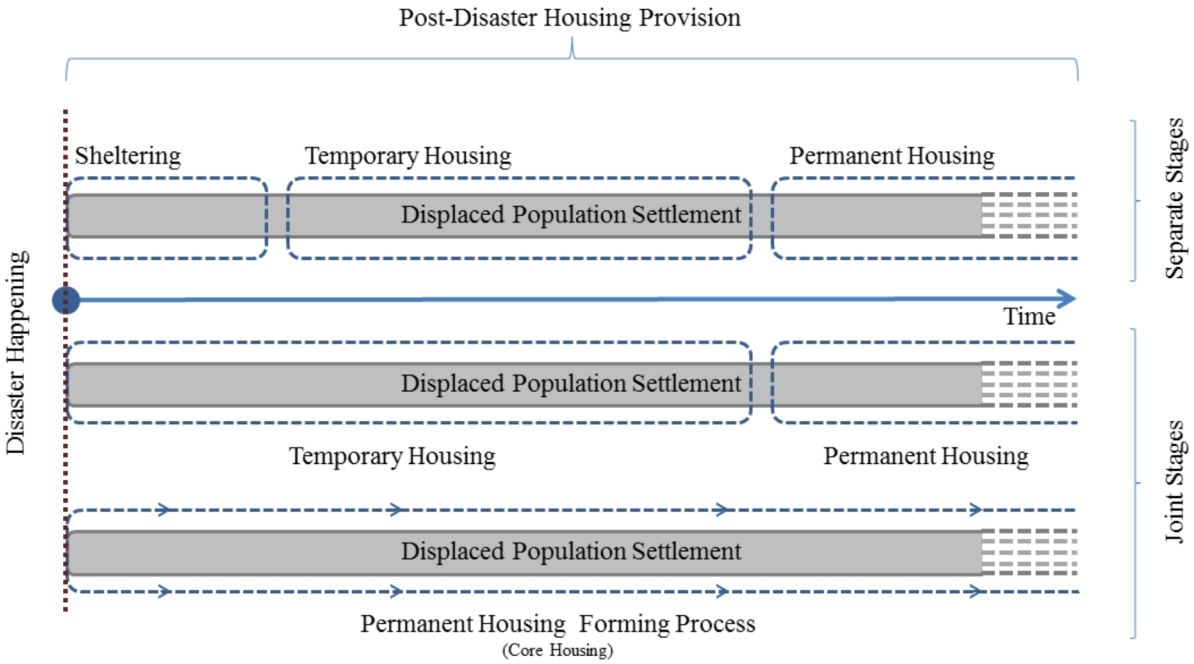

Figure 1. Stages of post-disaster temporary housing approaches (Gharaati & Davidson, 2008).

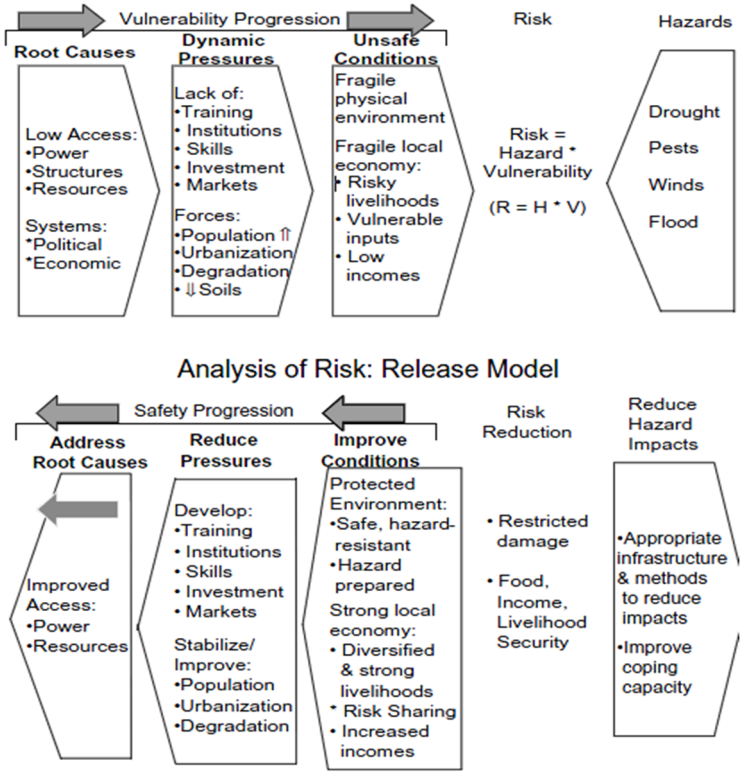

Figure 2. Analysis of risk: pressure and release model (Alexander et al., 2006).

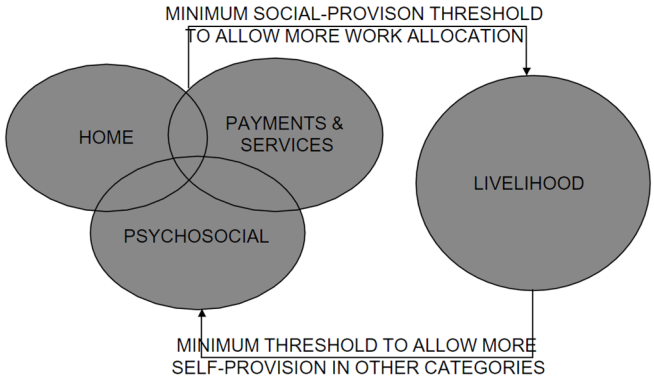

Figure 3. Roles of categories of processes to improve human living conditions (Alexander et al., 2006).

REFERENCES

Abulnour, A.H. (2014). The post-disaster temporary dwelling: Fundamentals of provision, design and construction. *HBRC Journal, 10*(1), 10-24. doi:10.1016/j.hbrcj.2013.06.001.

Alexander, B., Chan-Halbrendt, C., and Salim, W. (2006). Sustainable livelihood considerations for disaster risk Management. *Disaster Prevention and Management*, *15*(1), 31-50.

Chalinder, A. (1998). Temporary Human Settlement Planning for Displaced Populations in Emergencies. *Overseas Development Institute*, London, 33-54.

Gharaati, M. and Davidson, C. (2008). Who knows best? An overview of reconstruction after the earthquake in Bam, Iran. *4th International i-Rec Conference 2008 Building Resilience: Achieving Effective Post-Disaster Reconstruction (TG 63 - Disaster and the Built Environment).*