

Chapter 78

Post Disaster Housing Management for Sustainable Urban Development: A Review

Kanu Kumar Das

Chittagong University of Engineering and Technology, Bangladesh

Nagendra Kumar Sharma

Maulana Azad National Institute of Technology (MANIT), India

ABSTRACT

Developing countries have still shortage of housing due to natural disasters. Houses get destroyed wholly or partly and it causes the increase of lack of housing stock of a country. In disaster management cycle, rehabilitation or reconstruction is an important issue to protect, reduce or mitigate the effect of disasters. For sustainable urban development, disaster consideration is as important as it helps to maintain the development growth rate and tries to make sure that the settlements are in a stable way. The paper describes the natural disasters and issues related to proper disaster housing for sustainable urban development on the basis of literature.

INTRODUCTION

Natural disasters are the complex dynamics of unfavorable events that occur completely beyond the human control and human interventions often indirectly make it worse. Some hazards are known to be more prevalent such as windstorms, floods, earthquakes, volcano, droughts and extreme temperature. Housing is a basic need of human being and the importance of housing is universally accepted from the dawn of history. Since past few decades the poverty of urban dwellers has been increasing, mostly in low and middle-income nations and for that the housing of those countries is of poor quality, overcrowded and has lack of provisions for the basic infrastructure and services which should protect them from environmental health hazards and help prevent disasters (IFRCCS 2010). Poor quality or substandard housing is more

DOI: 10.4018/978-1-5225-5646-6.ch078

vulnerable and during the catastrophe these substandard houses are easily damaged and aggravating the problem of accommodation in those areas. So now to live a safe life it is necessary to protect houses from disaster for sustainable development. The objectives of the study are to make a depth literature research on natural disaster and its effects on settlements, the housing policies and practices in disaster prone areas and to highlight the significance of disaster housing on sustainable development in long term. In order to bring the meaningful outcomes of this paper, the research work has been done in two phases. Initially secondary data and information has been collected by reviewing of the literature from various sources as journal papers, publications by the government, non-government organizations and news articles on natural disaster. In the second step, the guidelines of disaster management and sustainable disaster housing with an example of different countries are explored with the help of reports of different organizations of the United Nations, government and non-government organizations of the various countries. Finally, a compilation of literature survey has been done to draw the meaning of the study.

Natural Hazard

Natural Hazard is any natural phenomenon that has the potential to cause a distraction to people, livestock, and property and settlement's environment. When natural hazard destroys any property or causes death it converts into a natural disaster. John Whittow defined natural disaster as "A hazard is natural event while the disaster is its consequence. A hazard is perceived natural event which threatens both life and property ... A disaster is a realization of this hazard." United Nation (UN) and International Strategy for Disaster Reduction (ISDR) defined Hazard as: "A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include hidden conditions that may represent future threats and can have different origins: natural (geological, hydro-meteorological and biological) or induced by human processes (environmental degradation and technological hazards)." According to UNEP disaster is a serious disruption of the functioning of a community or society, causing widespread human, material, economic or environmental losses and impacts and which exceed the ability of the affected community or society to cope, using its own resources (UNEP 2012). The SAARC Disaster Management Centre (SDMC) describes that natural disaster is a natural hazard event causing serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses, impacts which exceed the ability of the affected community or society to cope using its own resources (SDMC 2007).

Type of Natural Disaster

There are five groups of a natural disaster which are geological, metrological, Hydrological, Climatologically and Biological. All are also dived in subgroups which are showed in following Table 1:

Among all natural disasters landslide is one of the most destructive disasters which is mainly in two categories- Geological and Hydrological. Natural disaster effects on agriculture, forest, human settlements, etc., but when it effects on housing, the damage are more and the number of death and also injured increases. Among them landslide effects on housing in a various way and destroy the wealth and life.

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/post-disaster-housing-management-for-sustainable-urban-development/206078

Related Content

A Case Study of Web-Based Collaborative Decision Support at NASA

Irma Becerra-Fernandez, Martha Del Alto and Helen Stewart (2006). *International Journal of e-Collaboration* (pp. 50-64).

www.irma-international.org/article/case-study-web-based-collaborative/1946

Investigating the Role of Social Media on Student Engagement and Authentic Learning during Post COVID-19

Syed Far Abid Hossain, Reefat Arefin Khan, Md. Ahmedul Islam Sohan, Tanushree Karmoker, Fm. Asikullah, Phonebuson Chakma and Kazi Khaled Shams Chisty (2022). *Virtual Technologies and E-Collaboration for the Future of Global Business* (pp. 68-81).

www.irma-international.org/chapter/investigating-the-role-of-social-media-on-student-engagement-and-authentic-learning-during-post-covid-19/308188

A Comparison of Audio-Conferencing and Computer Conferencing in a Dispersed Negotiation Setting: Efficiency Matters!

Abbas Foroughi, William C. Perkins and Leonard M. Jessup (2010). *Interdisciplinary Perspectives on E-Collaboration: Emerging Trends and Applications* (pp. 254-277).

www.irma-international.org/chapter/comparison-audio-conferencing-computer-conferencing/41554

Mutual Clustered Redundancy and Composite Learning for Intrusion Detection Systems

Thotakura Veeranna and R. Kiran Kumar (2023). *International Journal of e-Collaboration* (pp. 1-25).

www.irma-international.org/article/mutual-clustered-redundancy-and-composite-learning-for-intrusion-detection-systems/316772

An Ontological Structure for Gathering and Sharing Knowledge among Scientists through Experiment Modeling

Luis Casillas and Thanasis Daradoumis (2012). *Collaborative and Distributed E-Research: Innovations in Technologies, Strategies and Applications* (pp. 165-179).

www.irma-international.org/chapter/ontological-structure-gathering-sharing-knowledge/63508