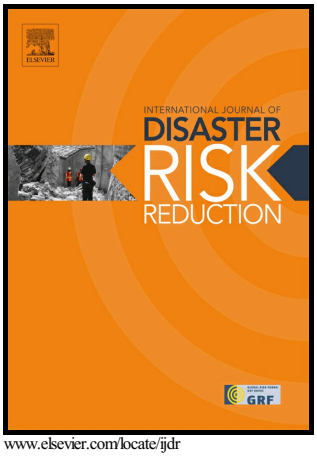
BUILDING RESILIENCE: KNOWLEDGE, EXPERIENCE AND PERCEPTIONS AMONG INFORMAL CONSTRUCTION STAKEHOLDERS

Ksenia Chmutina, Joanne Rose



www.elsevier.com/locate/ijdr

PII: S2212-4209(18)30252-8
DOI: https://doi.org/10.1016/j.ijdrr.2018.02.039
Reference: IJDRR821

To appear in: *International Journal of Disaster Risk Reduction*

Received date: 9 November 2017
Revised date: 23 February 2018
Accepted date: 23 February 2018

Cite this article as: Ksenia Chmutina and Joanne Rose, BUILDING RESILIENCE: KNOWLEDGE, EXPERIENCE AND PERCEPTIONS AMONG INFORMAL CONSTRUCTION STAKEHOLDERS, *International Journal of Disaster Risk Reduction,* https://doi.org/10.1016/j.ijdrr.2018.02.039

BUILDING RESILIENCE: KNOWLEDGE, EXPERIENCE AND PERCEPTIONS AMONG INFORMAL CONSTRUCTION STAKEHOLDERS

Ksenia Chmutina[a*], Joanne Rose[b]
[a]School of Architecture, Civil and Building Engineering, Loughborough University, Loughborough, LE11 3TU.
[b]Department of Health Science, University of York, York, YO10 5DD, UK
k.chmutina@lboro.ac.uk
jo.rose@york.ac.uk

[*]Corresponding author.

Abstract:

Nepal is considered one of the most disaster-prone countries is the world, with vulnerabilities exacerbated by chronic poverty. Whilst a variety of sound buildings codes and regulations has been introduced in the past decades, a challenge exists in implementing these as the majority of the building stock is constructed by informal construction workers. Based on a case study of Nepal's Banepa Town, this paper aims to explore the role of knowledge, perceptions of and experiences with disaster risk reduction (DRR) measures among informal construction stakeholders. The paper highlights that whilst the level of awareness of hazards and knowledge of the importance of DRR measures among informal construction stakeholders is high, it is also important to consider perceptions and organisational challenges when finding the best solutions for promoting DRR measures. There is still a gap between transforming knowledge into practice, often because of the perceptions (such as trust, experience, and gender) that are predominant in the sector. Understanding these issues is important as this situation is not unique to Nepal: rapid urbanisation in many developing countries has similarly led to a boom in informal construction sectors and construction that has little regard for building codes and regulations.

Key words: disaster risk reduction, informal construction sector, Nepal, built environment

1. Introduction

Nepal is located at the border of the Indian and Eurasian tectonic plates and has a complex geophysical structure and widely varying meteorological conditions due to large altitude differences. Such conditions make the country one of the most disaster-prone countries in the world (Gaire et al., 2015). Whilst impacts of earthquakes in Nepal are widely known (particularly since the 2015 Gorkha earthquake (Shresta et al., 2016)), the negative impacts of floods and landslides (mainly caused by intensive rainfall, glacial lake outbursts, soil erosion, snowmelts, deforestation, water leakage, road construction, and infrastructure failure) on livelihoods and infrastructure are also significant (Khanal et al., 2007; Dahal, 2012). The Government of Nepal (2015) also lists fires, epidemics, windstorms, lightning, hailstorms, avalanches, snowstorms, heat and cold waves, and droughts as hazards the country needs to consider.

Disaster Risk Reduction (DRR) efforts are therefore high on the Government of Nepal's agenda. The Government has been working to reduce risks through mainstreaming DRR into sectoral development for preventing the occurrence of disasters, mitigating their impact and ensuring that there is adequate preparedness to ensure an effective response. However, a number of challenges – including poor construction practices – hinder this process (Dixit, 2004). Despite sound building codes and regulations introduced in the early 1990s, more than 98% of buildings in Nepal are constructed by informally employed local craftspeople. Consequently, most residential buildings are not designed with earthquake resistance in mind. Moreover, although a system of