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Towards measurable resilience: A novel framework tool for the assessment of resilience levels in slums

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Abstract

This paper investigates the need for a generic technique to be applied in the assessment of resilience-related projects in slums - particularly for localised infrastructure at a community level - and proposes a novel framework tool for this purpose. The paper outlines the development of the framework tool, as well as its pilot testing on the Kenya Slum Upgrading Programme in Kibera, Nairobi.

KEYWORDS: resilience / slum / community / framework / indicator / risk reduction

1. INTRODUCTION

Slums are characterised by high densities of low-income populations, dilapidated housing stock, and limited or no access to clean water, sanitation and energy (Gulyani & Talukdar, 2008). UN-Habitat (2013) estimates that 836 million people now live in slum conditions, and that by 2030 over 3 billion people (40% of the world's population) will require adequate housing and access to basic infrastructure. With rapidly increasing global population and urbanisation, the United Nations Department of Economic and Social Affairs predicts that 66% of the world's population will be living in urban areas by 2050 (UN Department of Economic and Social Affairs, 2014). Coupled with this, disasters triggered by hydro-meteorological extremes are becoming more frequent and increasingly severe, costing \$143 billion in 2014 (Urwin, 2014). Between 1980 and 2009 there were an estimated 540,000 deaths and 2.8 billion people affected by floods, with 50% of the flood-related deaths

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