



Towards resilient cities in Ghana: Insights and strategies

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ABSTRACT

This article reports on a research conducted in major Ghanaian cities of Accra and Kumasi that explored urban planners' perspectives on the urban resilience philosophy, and evaluated the available strategies for absorbing disturbances (e.g., floods, rapid population growth, and slum development) while retaining the identity, structure and functionality of Ghanaian cities. Using social science research methods including in-depth interviews with urban planners, and document reviews, findings indicate that despite global urgency towards urban resilience and some level of understanding amongst urban planning professionals, there is no consideration for resilience philosophy in urban planning practice in Ghana. The policy implications of these findings are further presented.

1. Introduction

Since the concept of resilience was first used in urban planning in the late 1990s (Mileti, 1999), the term has emerged as a major focus of research and policy in urban planning practice and in the field of urban studies, sometimes under synonymous terms such as sustainable urban development or sustainable development (Adger, 2003; Brand & Jax, 2007; Davoudi et al., 2012; Perrings, 2006). The proliferation of recent publications illustrates this development, as does the growing number of specialised policy programmes (Adger, 2003; Campanella, 2006; Folke et al., 2002; Perrings, 2006; Prasad et al., 2009; United Nations (UN), 2012; United Nations International Strategy for Disaster Reduction UNISDR, 2010, 2013; Wallace & Wallace, 2008). Evidence of its formalisation and institutionalisation includes organisation of International Council for Local Environmental Initiatives (ICLEI) conferences since 2010 such as the 'Resilient Cities 2012 Congress' in Bonn, Germany (ICLEI, 2012), the United Nations International Strategy for Disaster Reduction [UNISDR] campaign in 2010 entitled 'Making Cities Resilient' (UNISDR, 2010), and publications in a number of reputed peer-reviewed journals addressing urban resilient issues such as *Habitat International*, *Cities* and *International Journal of Disaster Resilience in the Built Environment*. Within the African continent, the recognition of the concept in the urban planning regime is reflected in the formation of resilience research based initiatives including *Urban African Risk Knowledge (Urban ARK)*, *Weathering the Storm* and *PeriperiU*.

Consensus indicates that the urban resilience concept, when applied, is an appropriate approach for effective and efficient management of cities in this era of rapid urban population growth and severe climate change impacts especially in developing countries (Poku-Boansi & Cobbinah, 2018). Nevertheless, urban planning regimes and systems in developing countries particularly Africa are ineffective (Cobbinah, Erdiaw-Kwasi, & Amoateng, 2015). In fact, several studies (Cohen, 2006; Simon, 2007; United Nations (UN), 2012; Waters, 2012) have reported on the weaknesses of, and criticised the urban planning regimes in many African cities, basically exposing their lack of improvement in welfare and loss of focus on community aspirations, contrary to their purpose. As a consequence, there are increasing calls by both practitioners and academics for their revision and adoption of resilient strategies,

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especially at a time when the world, particularly developing countries, is faced with complex urban planning and management challenges such as climate change impacts (e.g., floods) and rapid urban population growth (Cobbinah et al., 2015; Cohen, 2006; Darkwah & Cobbinah, 2014; United Nations (UN), 2012). In fact, some local level context specific governance approaches necessary for planning resilient cities, such as adaptive management capacity and the ability to foster flexibility of planning agencies, are even being promoted by international and donor agencies and researchers (Evans, 2011).

At any rate, there is limited knowledge on the understanding of the resilience concept, and approaches for building resilient cities in Africa and other developing countries (Poku-Boansi & Cobbinah, 2018; Waters, 2012). This situation suggests the need for an in-depth local level research that provides evidence of the extent of appreciation of the urban resilience concept, and how insight from the concept is guiding planning and development approaches and interventions at the local level. This, of course, is not to say that no study has ever been conducted on resilience in African cities. A number of urban resilience studies in the region have been undertaken; for example Darkwah and Cobbinah (2014) and Cobbinah and Darkwah (2016c) found that the concept of urban resilience, when applied, is relevant and necessary in recovering depleted green spaces in African cities. Also, Poku-Boansi and Cobbinah (2018) found that urban planning policies in Ghana advance some principles of resilience more than others, a situation that has contributed to limited capacity of Ghanaian cities in terms of building resilience. Similar findings in terms of limited resilience capacity were reported in Kampala (Uganda) by Waters (2012).

However, the aforementioned studies often focus on an aspect of the urban resilience concept (e.g., urban greenery, planning policies). There are several aspects of the resilience concept which are germane to urban planning and management regimes in Africa, including inter alia: local understanding of the concept; the integration of urban resilience philosophy into local planning interventions; and the acceptance of the concept as a sustainable development path. Meanwhile urban planning literature on Africa tends to focus largely on the challenges of unplanned urbanisation, and climate change impacts, as well as ineffective urban planning regimes (see for example, Cobbinah et al., 2015; Cohen, 2006; Pieterse & Simone, 2013). Compounding the problem is the growing amount of case-study research reporting on the failure of cities, particularly in developing countries, to achieve the ideal goal of urban resilience (Cohen, 2006; United Nations (UN), 2012; Waters, 2012). For example, many cities in developing countries such as New Delhi (India), Nairobi (Kenya), Accra (Ghana) and Kampala (Uganda) are increasingly finding it difficult to respond to and recover from the risks imposed by rapid urban population growth and climate change such as flooding and mushrooming of slum settlements (Cohen, 2006; Pelling & Wisner, 2012; Simon, 2007; United Nations (UN), 2012; Waters, 2012). Regrettably, in many African cities, the concept of urban resilience is being advocated in the absence of widespread recognition of the practical city-level conditions under which it may be best promoted, managed and evaluated (see Poku-Boansi & Cobbinah, 2018; Waters, 2012). This requires that more research be conducted to understand, and analyse the benefits and conditions of the urban resilience concept in African cities.

This present study contributes to addressing the growing gap between urban resilience as espoused by its advocates and its application from urban planners' perspective in Africa, using Ghana as a case study. The aim is to provide local level evidence of understanding of the urban resilience concept from the perspectives of urban planners in Ghana, and evaluate their strategies for advocating the concept, with the view to contributing to the debate in the literature and also to aid planning and management of cities. It is argued that urban resilience concept, when applied, can generate urban planning and management benefits for Ghanaian cities. However, these benefits should be evaluated and be based on local situations and reflect community aspirations to provide a more convincing basis for analysing the appropriateness of the concept. The paper is organised as follows: Section 2 presents literature on the importance of planning for resilient cities in Africa. Section 3 discusses the case study area and further examines the research methods used. Section 4 presents the results of the study while Section 5 presents the discussion of the results. Section 6 presents the conclusion of the research.

2. Literature review: understanding urban resilience in African cities

The concept of resilience is multidisciplinary in nature, and often considered as a potential strategy to address issues relating to shocks and rebounding mechanisms in the environment (Chelleri & Olazabal, 2012). Yet, resilience is defined in many ways in ecological and planning literature (Brand & Jax, 2007; Brown, 2012; Jabareen, 2013). Generally, it focuses on “the capacity of a system to experience shocks while retaining essentially, the same function, structure, feedbacks, and therefore identity” (Walker et al., 2006, p.2) and “the magnitude of disturbance that can be absorbed before the system changes its structure by changing the variables and processes that control behaviour” (Gunderson & Holling, 2002, p.4). In the context of urban planning, Lu and Stead (2013) report that Mileti (1999) was first to study urban resilience, focusing on physical infrastructure improvement to address environmental threats of, and to prevent disturbances resulting from adjusting social and institutional frameworks. It is however worth noting that the whole idea of resilience in urban planning was borrowed from ecological research, which is believed to be the first discipline to have used the concept (Jabareen, 2013).

Given its foundation in ecological research, Chelleri and Olazabal (2012), p.11) describe urban resilience within the framework of “risk and vulnerability assessments, institutional and social governance structures, resilience in (or of) different sectors (e.g., ecosystems, economy), and transformations of urban areas”. Others (Adger, 2003; Campanella, 2006; Perrings, 2006) perceive urban resilience as a function of resilient and resourceful citizens necessary to achieving sustainable development – fostering adaptive capabilities and creating opportunities to maintain or achieve desirable social, economic and ecological systems (Folke et al., 2002; Holling, 2001) – through precautionary urban policy and planning regarding resource use, the reduction of vulnerability and the promotion of both present and future ecological integrity (Darkwah & Cobbinah, 2014).

Presently, cities in Africa and many other developing regions are at the crossroads of emerging global challenges including

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