

Urban Resilience in Nairobi: Civil Society's Role and Interaction with Climate and Risk Science under Devolution

Working Paper #2

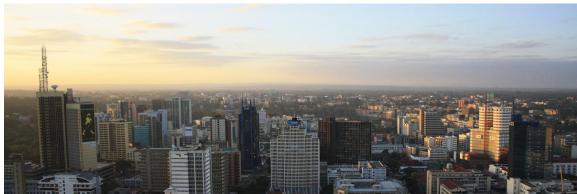
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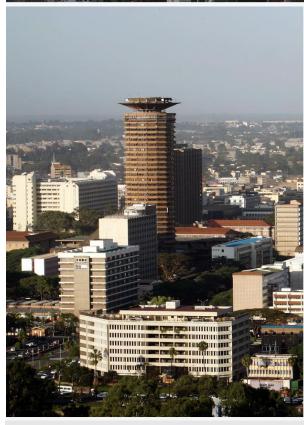




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This Working Paper is based on a dissertation submitted as part of a Master of Science degree in Disasters, Adaptation and Development at

King's College London

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Abstract

This Working Paper examines the role of civil society in urban resilience policy and practice in Nairobi, Kenya, within the transition period to a new devolved governance system. It explores how the civil society interacts with climate and risk science, and evaluates how devolved governance in Kenya has affected the capacity of the civil society to perform its role. Through key informant interviews with leaders of the civil society, the private sector and the government, the study identifies eleven roles of the civil society in urban resilience. It concludes that a robust legislative framework alone is not adequate to enable the participation of the civil society in urban resilience building. It argues for building the civil society's capacity to engage with both the concept or urban resilience and the new devolved system of governance.

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List of Acronyms and Abbreviations

APHRC: African Population and Health Research Centre

ASALs: Arid and Semi-Arid Lands

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CBO: Community-Based Organization

CGA: County Government Act

CGA: County Government Act, 2013

CoK: Constitution of Kenya, 2010.

CRA: Commission on Revenue Allocation

CRF: City Resilience Framework

CS: Civil Society

CSOs: Civil Society Organizations

DFID: Department for International Development

DRR: Disaster Risk Reduction

EIA/EA: Environmental Impact Assessment/Audit

EMCA: Environmental Management and Co-ordination Act, 1999

FBO: Faith-Based Organization

GDP: Gross Domestic Product

GES: Global Entrepreneurship Summit

GHGs: Greenhouse Gases

GNDR: Global Network of Civil Society Organisations for Disaster Reduction

GoK: Government of Kenya

HFA: Hyogo Framework for Disaster Risk Reduction

HIEP: Humanitarian Innovation and Evidence Programme

ICT: Information and Communication Technology

IDSUE: Indicator Development for the Surveillance of Urban Emergencies

INGOs: International Non-Governmental Organizations

IRC: International Rescue Committee

KCBO-NET: Kamukunji Community Based Organizations Network

KCL: King's College London

KNBS: Kenya National Bureau of Statistics

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KNCHR: Kenya National Commission on Human Rights

KRCS: Kenya Red Cross Society

MDGs: Millennium Development Goals

MSF: Médecins Sans Frontières

NCCAP: National Climate Change Action Plan, 2013

NCCG: Nairobi City County Government

NDFW: Nairobi Devolved Funds Watchdog

NDFW: Nairobi Devolved Funds Watchdog

NEMA: National Environmental Management Authority

NGOs: Non-Governmental Organizations

NIUPLAN: Nairobi Integrated Urban Development Master Plan

NSAs: Non-State Actors

NUDP: National Urban Development Policy

OFDA: Office of Foreign Disaster Assistance

SDGs: Sustainable Development Goals

SFDRR: Sendai Framework for Disaster Risk Reduction

TISA: The Institute for Social Accountability

UACA: Urban Areas and Cities Act, 2011

UN: United Nations

UNDP: United Nations Development Programme

UNEP: United Nations Environmental Programme

UNISDR: United Nations International Strategy for Disaster Risk Reduction

Urban ARK: Urban Africa Risk Knowledge project

USAID: United States Agency for International Development

VSF: Vétérinaires Sans Frontières

WASH: Water Sanitation and Hygiene

Introduction

The growing interest in resilience comes at a highly propitious time in history when climate change is seen as a top global threat and concern (Carle, 2015; Judge, 2015) and the urban population highest at over 54%, but expected at 66% by 2050 (UNDESA, 2014). The IPCC defines resilience as:

"The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organisation, and the capacity to adapt to stress and change" (IPCC, 2007).

The impacts of climate change on cities amplified both this interest and the urgency of the need to build urban resilience (Pelling, 2003; Wisner *et al.*, 2004; Pelling and Wisner, 2009 Huq *et al.*, 2007). Thus, urban resilience has over the years been studied in relation to climate change and attention given to especially coastal cities and flooding (Pelling, 2011; Pelling and Blackburn, 2014). However, increased concentration of people and assets/possessions in cities increases potential vulnerability to many other risks including terrorism (Godschalk, 2003; Serre *et al.*, 2012). Thus, even without climate change, urban resilience remains a genuine concern (Balk *et al.*, 2009; Satterthwaite *et al.*, 2007; Wilbanks *et al.*, 2007). Consequently, the concept has moved beyond the academy to become a public policy, business and civic concern, for it relates with the quality of human life and development now and in the future (Lerner *et al.*, 2000).

Understanding the dynamics and stakeholders that shape and influence urban resilience is critical (Adelekan *et al.*, 2015). The discourse of urban resilience is especially concerned with and often concerned "institutions, policies and techniques" (Pelling and Wisner, 2009:46).

Whereas there have been increased calls for civil society involvement in building urban resilience (Pelling and Wisner, 2011; Adelekan *et al.*, 2015) less understood is the role they play besides 'participation' and 'putting pressure' on the government, especially in developing countries undergoing political transition. Additionally, the extent to which the civil society organizations (CSOs) in developing countries use science in their urban resilience interventions is not well-understood. Owing to the uniqueness of each city (and even different locations within each city) a genuine need to understand the stakeholder roles and urban resilience dynamics in contemporary cities has been identified. (Adelekan *et al.*, 2015:34) for instance, argue for a "focus on institutions as objects and partners for co-produced research, including local government as the focal point for risk reduction and new roles for civil society and the private sector."

This study responds to this call by studying the civil society as a critical stakeholder in urban resilience. Its overall object is to understand the role of the civil society in urban resilience policy and practice in Nairobi, Kenya. It aims to:

- i. Examine the role, positioning and strategy, and influence of the civil society in building urban resilience;
- ii. Understand the science-civil society interaction in urban resilience;
- iii. Evaluate how the devolved governance affect civil society action on urban resilience.

It, therefore, addresses three broad research questions:

- i. What is the role of the civil society, their positioning and strategy, and influence in building urban resilience in Kenya?
- ii. How does the civil society interact with climate and risk science urban resilience building? (Do they use this science/knowledge? Do they enrich it? Are they excluded by it? Or do they just move along with it because 'Science has spoken and we argue'?
- iii. How has devolution affected the civil society's role in urban resilience planning?

The topic, objectives and questions were identified after extensively consulting literature, academics (including my supervisor) and practitioners. The main target for examination in this research were CSOs based and operating in Nairobi. Civil societies based within the city but whose initiatives are elsewhere were excluded from the study.

This paper contends that the importance and effectiveness of participatory urban resilience planning (Brownill and Parker, 2010; Healey, 2012; Moser and Satterthwaite, 2008, Pelling, 1998) are realized when the stakeholders understand well what they are participating in. It argues that it is inadequate to give people and their organizations power through robust legislation without building their capacity (knowledge, tools and techniques) to engage. Thus, it supports building their capacity to understand and exercise this power, and capacity to understand situations and processes where they are required to engage.

It reviews existing literature relevant to urban resilience and the civil society in Chapter 2, before describing the study site and the policy background in Chapter 3. The research design and methodologies employed in this study are discussed in Chapter 4. The findings of this study are presented and discussed in Chapter 5 before a review of the main findings and the research itself, and recommendations in Chapter 6.

1.0 Literature Review

This chapter begins by revisiting literature on the concepts of resilience, urban resilience and civil society, before exploring civil society's contribution in urban resilience. It then discusses the science-civil society interface in urban resilience, situating science's role as a catalyst to civil society's influence, and civil society's role in facilitating the impact of science. Additionally, it explores the links between legislation and urban resilience. Furthermore, it summarises urban resilience in Africa from the literature, research and development perspective and describes the CRF framework used for analysis.

1.1 The concepts: Resilience, Urban Resilience, and Civil Society

1.1.1 Resilience: Origin and Evolution

The term *resilience* has become a fashionable "buzzword" (Comfort *et al.*, 2010) in research, public policy, development and the civil society (Reghezza-Zitt *et al.*, 2012). 'Resilience' originated from research studying predation processes in ecology in the 1960s and 1970s ((Holling, 1961; Morris, 1963; Lewontin, 1969; Rosenzweig, 1971; May, 1972, Holling, 1973). Using it in this context, C.S. Holling defined resilience as "a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables" (Holling, 1973:14).

The concept has influenced many fields (Folke, 2006) including human geography (Zimmerer, 1994), behavioural research (Campbell-Sills, *et al.*, 2006), psychology (Luthar, 2006),



Figure 1. The multidisciplinary dimensions of resilience (Source: Reghezza-Zitt et al., 2012)

engineering (da Silva 2012), urban planning (Eraydin *et al.*, 2013), business studies (Coutu, 2002; Sheffi, 2005) and social sciences (Scoones, 1999; Davidson-Hunt and Berkes, 2003) as shown in Figure 1. Consequently, resilience is widely debated and interpreted. Resilience is

often used to mean 'to bounce back', referring to a system's recovery and return to predisturbance state. This can be traced to its Latin root, *resiliere*, literally meaning "to jump back" (Paton and Johnston, 2006). This meaning is common in health and psychological studies (Richardson, 2002; Smith *et al.*, 2010).

Extensive discussions of resilience (e.g. Carpenter *et al.*, 2001; Pelling and Uitto, 2001; Folke, 2006; Manyena, 2006; Paton and Johnston, 2006; Alexander, 2013) have demonstrated that there is more to resilience than simply 'bouncing back'. Resilience's association with concepts such as adaptation, resistance, vulnerability, sustainability, transition and transformation (Walker *et al.*, 2006; Folke *et al.*, 2010; Pelling, 2011; Eraydin *et al.*, 2013) has also been explored. Initially, Pelling, (2011) used resilience alongside stability but later distinguished the two following Holling's original guidance that distinguished '*resilience*' and '*stability*' (1973:17).

The above literatures mainly emphasise on system function and structure, and imply a change-causing 'disturbance'. However, as Scheffer (2009) contends, systems change with or without any disturbance, consistently with Walker and Salt's (2006) definition of resilience. Folke *et al.* (2010), Carpenter *et al.* (2005), and Berkes and Folke (1998) recognize that complex systems such as cities can undergo change without malfunctioning. Accordingly, a resilient system *learns*, *reorganizes* and *adapts* to the change. It is reordered, not disordered.

From above literatures, three critical ideas underlying resilience emerge besides the general idea of tenacity: *learning*, *adaptation* and *self-organization* (Folke, 2006; Cutter *et al.*, 2008; Hudson, 2010; Wardekker *et al.*, 2010; Pelling, 2011). These have influenced discussions of resilience especially in the social sciences, and situated resilience at the heart of human-related systems.

Thus, resilience has been used differently in different fields. Three identifiable facets of the concept have accordingly emerged (Folke, 2006). These are summarized in Table 1 and clearly explained by their characteristics, focuses, and context.

Table 1. Facets of resilience, their characteristics, focus and context (Source: Folke, 2006)

Resilience concepts	Characteristics	Focus on	Context
Engineering resilience	Return time	• Recovery	Vicinity of a stable
	 efficiency 	 Constancy 	equilibrium
Ecological	 Buffer capacity 	 Persistence 	Multiple equilibria,
resilience/Ecosystem	 withstand shock 	 Robustness 	stability landscapes
resilience/Social resilience	 maintain function 		
Social–ecological	 Interplay 	 Adaptive capacity 	Integrated system
resilience	disturbance &	transformability	feedback, cross-scale
	reorganization	 Learning 	dynamic interactions

 Sustaining & 	 Innovation 	
developing		

Other terms adopting the resilience nomenclature include development resilience (Barret and Constas, 2014) and economic resilience (Rose, 2007) and use resilience as a theoretical foundation.

2.1.1 Framing resilience: From systems to urban resilience

Resilience in cities is discussed in relation to climate change, 'natural' disasters and terrorism (Pickett *et al.*, 2004; Coaffee, 2008; Leichenko, 2011). Resilience has been adopted in urban studies and has become an important idea in urban policy discourses (Evans, 2011). Therefore, understanding 'resilience' and its evolution is essential to understanding "urban resilience" (Eraydin and Tasan-Kok, 2013). Like *system resilience*, urban resilience has numerous definitions (e.g. Alberti *et al.*, 2003; Godschalk, 2003; Campanella, 2006; Davoudi *et al.*, 2012; Ove Arup & Partners; 2014).

Although resilience is relatively new in urban research (Lagendijk, 2003; Eraydin and Tasan-Kok; 2013), numerous studies (e.g. Pelling, 2003; Bicknell *et al.*, 2009; Pelling and Wisner, 2009; Eraydin and Tasan-Kok; 2013; Adelekan *et al.*, 2015) have promoted its understanding. Resilience attributes and sustainability attributes have been differentiated, and the evolution path of resilience in urban studies summed into three phases: *system resilience*; the *resilience of cities* and principles to plan for a resilient city (Eraydin and Tasan-Kok; 2013). This connotes a shift from 'coping' with hazards to a more comprehensive, systems approach that incorporates a city's socioeconomic and ecological dimensions (Crichton, 2007, Muller, 2007 Sanchez-Rodriguez, 2009; Pelling, 2011).

There is general consensus in literature on city resilience that urban resilience is fundamentally about adaptation and mitigation. Some like Pelling (2011) are moving the discussion from resilience to transformation. However, the general 'procedure' for resilience remains unaltered: *planning*. Therefore, what resilience brings in the urban studies is a basis for *critical*, *alternative planning approach* (Swart and Raes, 2007; Fleischhauer, 2008; Stead and Taşan-Kok, 2013), described as 'resilience thinking' in urban planning Eraydin and Tasan-Kok (2013). This is a decent way of summing the object of urban resilience. The table 3 compares this kind of planning with the traditional planning paradigms. From this literature, the concept of resilience is rather a tool for better planning than an end in itself.

2.1.2 The Civil Society Concept: Its Utility in Urban Resilience

This project studies urban resilience through the 'civil society' concept. The concept of civil society has recently resurfaced into prominence in academic circles (Matanga, 2000; Ilal *et al.*, 2014). The concept has a rich history (Ferguson, 1980; Tester, 1992; Keane, 1998; Kaviraj, and Khilnani, 2001), and its nature is well-documented (DiMaggio and Anheier, 1990; Taylor, 1990; Shils, 1991; Seligman, 1992, Cox and Weir, 1995; Keane, 2003; Chandler, 2005). However, much of focus has been in socio-political contexts (see Arato, 1981; Taylor, 1990; Shils, 1991; Cohen and Arato, 1992; Lewis, 992; Tester, 1992; Bratton, 1994; VonDoepp, 1996; Keane, 1998; Matanga, 2000; Jalali, 2002; McLaverty, 2002; Mercer, 2002; Keane, 2003; Brysk, 2005; Chandler, 2005; Phatharathananunth, 2014). The concept also been used in many other fields including development studies (Putnam *et al.*, 1993; Hyden, 1997; Eade, 2000; Fukuyama, 2001; Pearce, 2002; Kaldor, 2003), disaster-related studies studies (e.g. Drury and Olson, 1998; Rieff, 2002; Jalali, 2002; Kubicek, 2002; Keane, 2003; Brysk, 2005; Özerdem and Jacoby, 2006; Mathbor, 2007; Aldrich, 2008; Pelling and Dill, 2009; Birkmann *et al.*, 2010), and urban studies (Mitlin, 2001; Gerometta *et al.*, 2005). This shows the concept is widely appreciated and interests many scholars from diverse backgrounds.

Despite its extensive use, the concept is not an easy one to define. Bebbington and Riddell (1997:108-109) describe it as "a notoriously slippery term... used in different ways by different people and those uses are not always consistent." Therefore, numerous definitions of civil society exist (e.g. Tester, 1992; Hadenius and Uggla, 1996; Kaldor, 2003; Nickel and Eikenberry, 2007; Garton, 2009; Stilgoe, 2009; Counterpart International, 2015). General consensus exists in literature that civil society organizations operate outside the public sector (governments), private sector (market) and the family unit (individuals). It is also agreed that the civil society implies a common purpose, although it is multifaceted and heterogeneous. The activities of a civil society depend on its mission (Kaldor, 2003, and Table 2.) Further, these roles are discussed by Garton (2009) from sociological and economic perspectives.

Table 2.Typical categories of civil society actors in Kenya (Kaldor, 2003)

Civil Society	Civil Society Actor Category				
aspects	Social movements	NGOs	Social organizations	Nationalist and religious groups	
Mission	Emancipation of the poor, vulnerable and marginalized	Development and humanitarian relief	Protection and promotion of members' interests,	Empowerment of national and religious groups	

Activities	Protests,	Service	Service provision,	Mobilization	
	demonstrations,	provision and	lobbying	through media,	
	mediatique events	advocacy	, 0	religious	
	,	,		organizations,	
				and sometimes	
				violence	
Social	Activists, committed	Professional	Workers, farmers,	Newly	
composition	individuals, students	staff	employers, local	urbanized	
			communities,	groups,	
			displaced persons	peasants	
Forms of	Loose horizontal	Ranges from	Ranges from	Vertical and	
organization	coalitions, network	bureaucratic	vertical and	hierarchical but	
		and corporate	hierarchical to	can also involve	
		to small-scale	informal networks	networks of	
		and informal		tightly	
				organized cells,	
				charismatic	
				leadership	
See Kaldor (2003) for an analysis of each of the above types of civil society actors					

The concept is useful in social inquiry. Tester (1992:4) considers it as "a point of entry into wider questions on the nature of the social world." Similarly, Keane (1998:37) views it as "an *idealtyp* to describe, explain, clarify, and understand ... complex reality..." (*emphasis in original*) and to "develop an explanatory understanding of a complex sociopolitical reality by means of theoretical distinctions, empirical research and informed judgment about its origins, patterns of development and (unintended) consequences." The civil society concept is, therefore, appropriate to understand resilience issues, since disasters have a social nature (Özerdem and Jacoby, 2006). Furthermore, critical resilience ideas such as social capital, social memory, learning, adaptation and reorganization (Olick and Robbins, 1998; McIntosh, 2000; Folke, 2006; Cutter *et al.*, 2008; Hudson, 2010; Wardekker *et al.*, 2010; Pelling, 2011) are grounded in the civil society.

2.2 Civil society organizations' contribution in urban resilience

Literature that recognizes the government as the focal point for urban resilience and risk reduction also argue for augmented and new roles of the civil society (Wisner *et al.*, 2004; Özerdem and Jacoby 2006; Neeraj *et al.*, 2009; Pelling and Wisner, 2009; Serre *et al.*, 2012; Adelekan *et al.*, 2015). This perspective has been influenced by globalization, ICT and increased democratization especially in developing countries (Monga, 1996; Ottaway and Carothers, 2000; Newton, 2001; Mercer, 2002). How CSOs facilitate the negotiation of the 'social contract' and claiming of the rights is also documented (O'Brien *et al.*, 2009). How CSOs contribute to social capital necessary for resilience is well understood too (Olick and

Robbins, 1998; McIntosh, 2000; Folke, 2006; Cutter *et al.*, 2008; Hudson, 2010; Wardekker *et al.*, 2010; Pelling, 2011). The focus of such literature has largely been on rural areas, or cities in developed countries and usually under stable or established governance systems (Tyler and Moench, 2012).

2.2.1 In Urban Policy and governance

The civil society's influence on both the processes and outcomes of political transitions and actions is a widely studied area (Cohen and Arato, 1992; Lewis, 1992; Bratton, 1994; VonDoepp, 1996; Keane, 2003; Brysk, 2005; Chandler, 2005). The role of civil society for democratic stability and performance has also been increasingly stressed (Hadenius and Uggla, 1996; Foley and Edwards, 1996; Gyimah-Boadi, 1996). In addition, civil society's role in advocating for proper urban policy that addresses socioeconomic polarisation and social exclusion processes that mark contemporary cities is well studied (Mitlin, 2001; Gerometta et al., 2005; Mitlin, 2012). Despite the countering arguments about the vagueness of the role of the civil society in rebuilding governance relationships (McLaverty, 2002; Scholte, 2002; Zetino Hernandez, 2015), it has been established that under certain conditions the civil society can contribute invaluably towards "more cohesive cities and governance arrangements that promote them." (Gerometta et al., 2005:2007) describe such conditions as involving "...the existence of a multiscalar democratic governance regime that favours public deliberation and social economy initiatives". Issues relating to power relations and negotiation of the 'social contracts' are explored O'Brien et al. (2009). In doing so, the civil society has a role in negotiating governance structures, and reducing "antagonism and hegemony of power on urban systems" by facilitating a development of a value system (Eraydin, 2013:33). The importance of urban governance and policy is discussed by Eraydin and Tasan-Kok (2013). They recognize the civil society as stakeholders in urban governance. Perspective is generally accepted. What remains unclear is the extent to which the civil society influence urban policy and governance, and the capacities required to effectively do this (Scholte, 2002, Coaffee and Healey, 2003).

2.2.2 In Urban Planning and Development Projects

Urban planning and development is central in urban resilience thinking (Vale and Campanella, 2005). Theoretically, urban planning is a participatory process (Taylor, 1998) where the civil society and other interest groups and stakeholders take part (Eraydin and Taşan-Kok, 2013). Differentiated spatial development of cities cause or aggravate certain vulnerabilities in cities, and the poor and the marginalized usually are the most vulnerable because they usually inhabit slums (Pelling, 2003; Taşan-Kok, and Stead, 2013). The civil society's role in the planning

process is typically to ensure the planning process considers social equity, access to resources and services for these vulnerable populations- important aspects of resilience (Elmqvist, in Montenegro 2010).

In addition, CSOs may directly participate in implementing, for instance, slum upgrading and waste management (Pelling and Wisner, 2009:46). The role of the civil society in sustainable development in diverse contexts is widely studied (Putnam *et al.*,, 1993; Hyden, 1997; Eade, 2000; Fukuyama, 2001; Pearce, 2002) and further include advocating for environmental health considerations in economic and infrastructural development. While communicative/collaborative planning has participation of citizens factored, resilience planning puts the citizen groups at the centre of planning and adopts a systems approach (Eraydin, 2013). Look at the Table 3, the *bold italicised* items involve, of have high significance for, local people.

Table 3. The resilience planning paradigm and its major characteristics in comparison to rational and communicative planning paradigms (Eraydin, 2013)

	Rational Comprehensive Planning*	Communicative/ Collaborative Planning*	Resilience Planning
Rationality	Instrumental rationality	 Communicative rationality 	 Integrative rationality A framework that combines instrumental and communicative rationality
Actors	 Individuals/technicians 	 Individuals in interactive groups 	 Interdisciplinary groups with technical expertise Social groups as learning agents of change
Relations between actors/issue of power	Defining goals for all	• Consensus generation	Commitment
Time perspective	Medium to long term	Short term	 Long-term perspective, systems approach and immediate action
Concern	Problem solving	 Collective agreement/decision 	 Issues raised under the instrumental rationality act as constraints
Aim	 Defining the most effective actions/to achieve goals 	 Consensus, mutual understanding 	 Defining <i>priorities</i> for a noregret situation Preparedness for both slow and major disturbances
Output	Decisions: based on technicalknowledge	 Collective decision based on socially constructed values 	 Flexible solutions depending upon spatial heterogeneity, function and temporal change
Context/substance	Comprehensive decisions	 Context as an outcome of process 	Red tape and <i>priorities</i>

Value systems	Individual values	 Socially constructed values 	 Universal values for common benefits 	
Bases of evaluation of outputs	Efficiency	 Consensus-based values 	Resilience attributes	
*See Faludi (1973); Paris (1982) Healey, P. (1997), Taylor, 1998 for more on planning paradigms				

2.2.3 In Crisis Management in the city

There is a huge literature discussing the civil society in relation to humanitarianism and disaster relief (Rieff, 2002; Jalali, 2002; Kubicek, 2002; Keane, 2003; Brysk, 2005; Mathbor, 2007; Aldrich, 2008; Pelling and Dill, 2009). This literature highlights the role of the civil society during times when systems are broken, and the role of the state reduced (Özerdem and Jacoby, 2006). Paton and Johnson's (2006) 'integrated approach' includes the civil society considerations and participation. Nickel and Eikenberry (2007) consider the 'ethical implications' of the civil society. In crisis, the CSOs are usually the first 'responders' before the formal and international actors arrive. Other initiatives for the civil society are highlighted in Benson *et al.*, 2010). In all this literature, the role and capacities of local CSOs in urban resilience especially in Africa is mostly ignored, and this study addresses it.

2.2.4 In Citizen Representation

Urban resilience is very much concerned with securing and protecting the poor, vulnerable and marginalized. There is adequate literature associating the civil society with representation of these populations (White, 1999; Houtzager, 2002; Acharya *et al.*, 2004; Hickey and Bracking, 2005) today, a time described as "an era that has wrongly declared their [most marginalized populations'] wellbeing to be a matter of choice" Nickel and Eikenberry, 2007:534). Eraydin (2013) and Eraydin and Taşan-Kok (2013) describe how this happens in contemporary cities through an "entrepreneurial logic" that has little concern for the public and more on entrepreneurialism, consumerism and development led by property ownership. Under such, the poor and marginalized urbanites that are entrepreneurially uncompetitive and who end up inhabiting high risk locations (Pelling 2003; Riddell 1997) easily find friends in the civil society than elsewhere. Haus *et al.* (2004) and Mitlin (2012) have explored how the community gets involved in urban governance and democracy.

2.3 Science-civil society interface in urban resilience

2.3.1 Science

Many descriptions of what science is exist (see for instance Funtowicz and Ravetz, 1993; Ziman, 2000, Stilgoe, 2009, Science Council, 2015). As defined by the Science Council,

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"Science is the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence." Whatever description, science involves *evidence* that is acquired and analysed *systematically* to *understand* (and apply this knowledge).

Science's role in the society has increasingly been questioned (Ziman, 2000; Hazen, 2005; Maxwell, 2005). How science is 'done' has also been discussed and 'new modes of knowledge production' that are more robust (Böhme *et al.*, 1983; Gibbons *et al.*, 1994) such as Gibbons *et al.*'s (1994) 'Mode 2', Etzkowitz, and Leydesdorff's (2000) 'triple helix', Funtowicz and Ravetz' (1993) 'post-normal science' and Rip' (2004) strategic research suggested. Funtowicz and Ravetz (1993:85) explain how science has evolved "in response to its changing circumstances, in its objects, methods and social functions..." Thus, science remains a critical aspect of the modern society which is largely enabled by science and technology.

2.3.2 Role of science in Urban Resilience

Science-based decision-making is emphasised especially in resilience discourses (See Neeraj *et al.*, 2009; UNISDR, 2015). Frameworks such as the SFDRR 2015-2030 have placed science at the heart of resilience building, and also called for greater collaboration of science and other community of 'professionals'. What has not been adequate is the role of these groups which include the civil society. But some roles suggested in earlier literature can form a basis for exploring the 'new roles of the civil society' suggested by (Adelekan *et al.*, 2015) in response.

Planning is key in building urban resilience (Vale and Campanella, 2005; Elmqvist, in Montenegro 2010; Eraydin and Taşan-Kok, 2013). The role of science in urban planning and development acknowledged (Taylor, 1998, Pelling, 2003; Neeraj *et al.*, 2009; Adelekan *et al.*, 2015). How science can facilitate urban resilience is further highlighted by Pelling (2003; 2011), Lerner *et al.* (2000), Wisner *et al.* (2004), Bicknell *et al.* (2009), Kithiia (2012). There is a general consensus on the role of science is at the centre of resilience building.

2.3.3 Science-Civil Society Relationship: Challenges and opportunities

The civil society and science present opportunities and challenges to each other (Ziman, 2000; Stilgoes, 2009). The science-civil society relationship has not always been good due to a 'crisis of trust' (Stilgoe, 2009). It is not in its best today but has improved over time, science-civil (Folke, 2006; Hartmut Fünfgeld, in Otto-Zimmermann, 2010). Consequently, there have been research collaborations between scientific research organizations and the civil society on urban resilience issues (Folke, 2006). Such include IDSUE (Chaudhuri *et al.*, 2014) and Urban ARK

(Adelekan *et al.*, 2015) and work by AURAN (Satterthwaite, 2006). Science and civil society need each other in resilience building (GNDR, 2015; UNISDR, 2015). While research partnerships between research organizations and the civil society are evident, what is less understood is the extent to which the CSOs are involved in shaping the research agenda; their role in the research process; how much of the research outputs they incorporate in their resilience programming and how much CSOs learn to boost their research capacity.

2.4 Legislation-Urban Governance-Urban Resilience Link

Although how legislations influence urban governance well documente (Fuller and Geddes 2008; Hudson, 2009), and how new legislation may impact on governance well documented (Allmendinger 2009; Fuller and Geddes 2008). Literature on the effect of legislation on governance institutions and structure also exists (Rhodes 1997; Newman 2001; Fuller and Geddes 2008). In addition, how urban governance relates to resilience is highlighted (Eraydin, 2013; Taşan-Kok, and Stead, 2013). However, little is understood of dramatic legislation changes, and how they upset urban governance when it results to drastic institutional changes-and creating some totally new. Brenner (2009) and Allmendinger and Tewdwr-Jones (2000) attempts are limited to a political party and not necessarily large, national institutional changes. Additionally, Allmendinger' (2001), Geddes (2006) and Sweeting (2002) also focus on developed countries. Thus, little exists on this regarding developing countries that have undergone dramatic legislation changes that review not only the urban, but their governance systems of a country. How the civil society is impacted under such circumstances is also less understood.

2.5 Urban Resilience in Africa: Literature, Research and Development

Africa is one of the fastest urbanizing regions in the world (UNDESA, 2014). It is also home to some of the poorest communities in the world (World Bank, 2015) many of whom live in the urban informal settlements. Despite such statistics, the continent's urban areas have long been understudied. This is, however, changing through the works of practitioners and scholars such as Chaudhuri *et al.* (2015) Kiunsi (2013), Adelekan (2012), Kithiia (2011), Lwasa (2010) and Pelling and Wisner (2009). Training and research networks such as the African Urban Risk Analysis Network, (AURAN), and PeriPeriU have significantly contributed to African urban research (see for example Satterthwaite, 2006 and Baker, 2012). Further research on urban areas in Africa is being undertaken under DFID-ESRC funded project, Urban Africa Risk Knowledge (Urban ARK) to improve understanding of the

dynamics of urban risk in. Thus, African governments, private sector and the civil society now have a growing variety of sources of information on urban areas for decision-making.

Evidently, the recognition of the critical data poverty that has plagued Africa's fast growing cities and urban areas and the urgency of brought by climate change has increased more interest in the continent. Initiatives such as the Urban ARK and Climate Change and Urban Vulnerability in Africa (CLUVA) (see http://www.cluva.eu/) projects are important partnerships meant to boost the understanding and development of relevant tools to ensure the resilience of urban Africa. While defining the DRR 'agenda for urban Africa', Adelekan *et al.* (2015) identify 'local capacity to act', better understanding of the accumulation, distribution and spectrum of risk in the urban areas as some of the critical agenda for African research. They also make a critical call, arguing:

"...for the interdependence of risk and urban development policy, and a focus on institutions as objects and partners for co-produced research, including local government as the focal point for risk reduction and *new roles for civil society* and the private sector." Adelekan *et al.* (2015:33) [*emphasis added*].

This recommendation encompasses the critical aspects of urban resilience in African cities including the roles of difference actors-government, private sector and CSOs-, governance and policy as well as recalling the role science in all this. It also recognizes that in Africa, DRR, adaptation and good development initiatives are highly analogous (Kithiia, 2012:178; McGray *et al.*, 2007). Indeed, this is a decent summary of what needs to be the focus for the research, policy and practice of urban resilience in Africa.

2.6 The Analytical Framework: City Resilience Framework

This study employs the City Resilience Framework developed by Over Arup & Partners (2014) in collaboration with Rockefeller Foundation. It looks at city resilience using 12 indicators grouped under four categories as shown in the table 4. This framework was chosen after literature review as it was found increasingly consistent with the literature on theory and practice of resilience, and structure along the key ideas underlying resilience that emphasize on learning, reorganising, adapting

Table 4. Core components of the City Resilience Framework (after Ove Arup & Partners, 2014)

Categories	Focus	Indicators (factors that matter most)	Qualities (of a resilient City)	
Leadership &	Knowledge	Empowered stakeholders	✓ Reflective	
strategy				

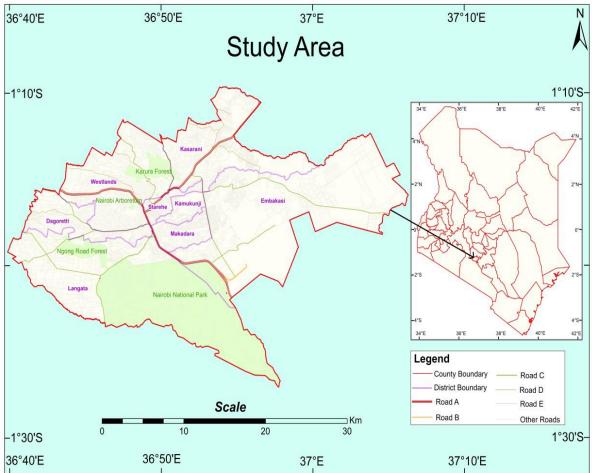
			- 3 -1
		Effective leadership &	✓ Robust
		management	✓ Redundant
		Integrated development	√ Flexible
		planning	▼ Flexible
Health &	People	Minimal human vulnerability	✓ Resourceful
wellbeing		 livelihoods & employment 	✓ Inclusive
		 safeguards to human life & 	√ Integrated
		health	✓ Integrated
Infrastructure	Place	Reliable mobility &	
& environment		communications	
		Continuity of critical services	
		 reduced physical exposure 	
Economy &	Organisation	Finance including contingency	
society		funds	
		Social stability & security	
		Collective identity and mutual	
		support	
1	ı		

Context and Policy Background: Nairobi City, Kenya.

This section introduces the context and policy background within which the study takes place in light of literature reviewed in Chapter 2. It introduces the study area/site, by first outlining the study site's geography and history, demographic, socioeconomic and disaster data/information relevant to the study, before exploring the legal context within which this study happens.

Study Area: Nairobi City, Kenya

36°50'E 37°E



Map 1. Map of the Study Area: Nairobi City (Source: JICA: 2014)

3.1 Geography and History

Nairobi was founded in 1899 by the British as a railway supply depot, and became the capital of Kenya. It has an altitude of about 1,680 metres and situated on a land that was once a swamp. It is located at 1°17′S 36°49′E, about 140 km south of the Equator and covers land area of 695.1 km².

3.2 Demographics

The population of Nairobi has grown steadily over the years (see Figure 2). The population of Nairobi City County was 3,138,369 according to the 2009 census (KNBS, 2015) accounting for 8.12% of Kenya's total population. The current population is expected to be higher than his. The average population density of 5,429 (excluding the national park that covers almost 17% of the total area of the city), although it is as high as 20,000 in some regions (JICA, 2014). As a result, it is the most densely populated city in the country. 100% of the county is urban against a national average of 29.9% (CRA, 2013). That notwithstanding, the City County's annual population growth rate (1999-2009) was 3.81% against the national average of 3.14%.

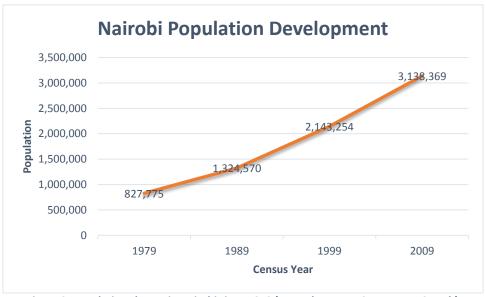


Figure 2. Population change in Nairobi since 1979 (By Author. Data Source: KNBS, web)

In addition, Nairobi alone provides about 50% of Kenya's formal employment and generates more than 50% of GDP (JICA, 2014). Despite this, it ranks higher than the rest of the country in terms of social indicators. But, as shown in the next subsection, the city has concerns for disaster risks.

3.3 Civil Society Presence

There are many active interest groups that operate within Nairobi. These include international, national, and local CSOs that:

- i. operate within the City County and have initiatives in the county;
- ii. have offices in the City but have their initiatives in other counties
- iii. are based and have initiatives outside the City but converge here for different reasons such as to seek state or donor attention and intervention

This research targeted and examined the first two categories.

3.4 Disasters, Disaster Policy and Climate Change

Nairobi experiences a wide range of hydro-meteorological (e.g. floods), technological (e.g. accidents), human-induced (terrorist attacks) disasters ranging from time to time. The city experienced floods in May 2015, less than two months before this study. Table 5 provides a compilation of selected disasters that have affected Nairobi City County over the last four decades. This compilation is not exhaustive since there are many undocumented 'everyday disasters' in urban areas (Bull-Kamanga *et al.*, 2003). As evidenced in the table, the most common disasters in Nairobi City are not related to climate change or natural hazards. Fires are the most frequent and destructive (UNOCHA, 2011; IFRC, 2011). But NCCAP (2013) recognizes that climate risks in Nairobi *will* increase.

A study by Shisanya and Khayesi (2007) indicated that climate change was not perceived as a serious threat in Nairobi as fires, collapsed buildings and terrorist attacks. This study did not find any published literature to show whether this perception of climate change has changed especially since the May floods that affected many residents, and in the imminent *El Niño* phenomenon.

Table 5. Selected Disasters in Nairobi since 1970 (Sources: EM-DAT, Newspapers, and online databases

Hazard/Disaster	Description	Year of	Impact
	·	Occurrence	·
Floods/Building collapse	-A mosque wall collapse	2015	Estimated 11 people dead
	in Mukuru Fuata Nyayo		Unknown value of property
	area of South B		damaged
	-Various areas of the city		
Explosions	Eastleigh	2014	6 dead, several injured
Explosion (car bomb)	Pangani	2014	4 dead
Explosions	Twin explosions at	2014	Over 10 dead, unknown value of
	Gikomba Market		property damaged
Terror attack (explosion)	Thika Superhighway	2014	Over 3 dead and more than 62
	attack on buses		injured
Terror attack (siege and	Westgate Mall	2013	67 dead, over 175 injured
shooting)			
Transport accident	Nairobi	2013	12 dead; 24 affected
(road)			
Grenade attack	St Polycarp's Church	2012	1 (child) dead
Industrial accident	Sinai, Nairobi	2011	119 dead; 100 affected
(explosion)			

Fire	Mukuru Fuata Nyayo, Kayaba and Marigoini	2011	Over 1 dead; 1800 households (8,969 people) homeless
Explosion	estates A Nairobi church	2010	5 dead, 75 injured
Fire		2009	
	Nakumatt Downtown		30 People died
Fire	Libra House	2006	11 people (workers) dead 3 missing (unidentified bodies)
Building collapse	Along Ronald	2006	14 people dead
	Ngala Street		197 people injured
Fire	City Hall, Nairobi Entire	2004	and valuable documents and
	3rd floor		property worth
			KES.70 million destroyed
Flood (riverine)	Nairobi	2001	4 dead
Fire	Free Market (Uhuru	2001	Entire market and property
	Park)		destroyed by fire
Industrial accident	Poisoning	2000	100 dead; 400 affected
Terrorist attack (bomb blast)	US Embassy, Nairobi	1998	214 people killed and 5,600 injured
Floods (El Niño)	Widespread	1997/8	1.5 million people affected
Transport accident (Road)	Nairobi	1989	54 people dead
Fire	Mathare	1982	10,000 people affected
Terror Attack (bomb blast)	Norfolk hotel	1980	20 dead, 80 injured
Terror attack (bomb	OTC Bus Terminus	1975	30 people dead
blast)			60 injured
Transport accident (air)	JKIA	1974	About 60 people dead

3.5 Devolution: On Urban Planning, Governance and development

3.5.1 The Constitution of Kenya 2010

This study occurs during a critical transition period in Kenya, when the country is shifting from a centralized to a devolved system of governance. This transition was occasioned by the promulgation of the new Constitution of Kenya (CoK) in August 2010, after over two decades of attempts to change the colonial constitution. This process, mainly championed by the civil society constitution that incorporated a comprehensive 'Bill of Rights' (Constitution of Kenya, 2010). The promulgation of CoK "heralded the deep desire of Kenyans, as individuals and communities, to live in a society that respects and protects their liberties and livelihoods without discrimination" (Akech, 2010:5).

3.5.2 CoK and Legislation Related to Urban Planning and Development

The CoK heralded radical changes in Kenya's national and local governance. All laws and regulations existing before the CoK 2010 had to be reviewed accordingly. Laws and regulations related to urban development in Kenya were reviewed, and others are still under review. Accordingly, these laws and regulations can be grouped under three categories:

i. governmental management laws: CGA 2012 and NGCA 2013

- ii. urban and physical development laws: PPA 1996, UACA 2011, the draft NUDP, and NLCA 2012 and
- iii. The environment management and protection laws (i.e. EMCA, 1999).

Figure 2 illustrates this structure. The NUDP is under discussion. Kenya's Ministry of Land, Housing & Urban Development hopes that once completed, the policy will render "support to devolved governance" and protect "the rights of the vulnerable and marginalized groups."

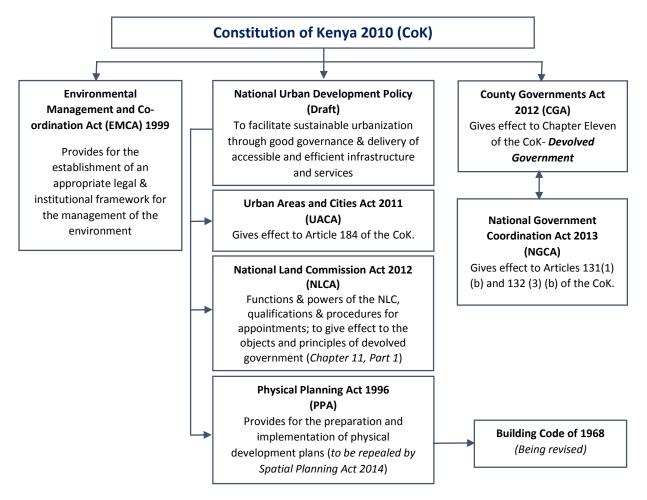


Figure 3. Structure of Laws and Plans Concerned with Urban Planning, Development and Governance in Kenya. (Data Source: Respective texts).

3.6 The Nairobi City Master Plan (NIUPLAN)

Nairobi's urban development has for a long time lacked clear definition. The city has been growing haphazardly, since the urban development plan used in the city till 2015 was not updated since 1973 (JICA, 2015).

The Integrated Urban Development Master Plan for the City of Nairobi (NIUPLAN) was completed in 2014 and the draft plan is available. It identifies urban challenges in Nairobi to include *perennial traffic congestion, expansion of slum area, and environment deterioration* (JICA, 2015). The NIUPLAN is positioned alongside the Kenya Vision 2030, the country's

development blueprint potential impact on Nairobi is mixed impact (Linehan, 2007; Kithiia, 2012).

Table 6. Laws and regulations related to urban development management and their characteristics

Policy/Act	Scope/Coverage	Relevance in urban (resilience) planning/building
County Government Act	County	Part XI County Planning:
2012		Governance
National Government Coordination Act, 2013	National government responsibility and county government	 To establish and administrative and institutional framework for coordination of national government functions at the national and county level of governance. Chapter IV: Collaboration and dispute resolution between the national and county governments on issues of apparent concurrent mandate
National Urban	"Umbrella policy" for	County urban planning (see Chapter 5)
Development Policy (Draft)	management of cities and urban areas	Governance
Urban Areas and Cities Act, 2011	Classification, governance and management urban areas and cities; and provide	Planning (see Part V & third schedule) ➤ Integrated development planning Controlling (See Part v)
		 Integrated development plan will be "basis for development control" (See section 36(1)(g)) and "disaster preparedness and response" (see section 36(1)(d)) Citizen (resident) participation (see second schedule)
Physical Planning Act,	Physical development for the	Planning (see Part IV)
1996 [soon to be	selected area and selected	Physical development plans
repealed by Physical	purpose for the concerned an	Controlling (See Part V)
Planning Act, 2014, currently on Attorney General)	administrative unit	 Control of development: physical development: building construction control, development control (change of users, extension of user, subdivision)
National Land Commission Act, 2012	Land management mechanism	Land management by the National Land Commission and devolved government in land management and administration
Building Code, 1968 (under revision)	Building construction control	Supplement the control of development stated in the Physical Planning Act, 1996
Environmental Management and Coordination Act, 1999	Environmental management	Describes the legal and institutional framework of environment management.

4.0 Methodology

This chapter discusses the research methods employed during this research. While it mainly focuses on data collection, the chapter also recognises the techniques used for the other study-related activities (such as literature search, sampling and site selection) and revisits the research objectives.

4.1 Research objectives

This study sought to achieve three key objectives concerning urban resilience and civil society in Nairobi, Kenya: to examine the role, positioning and strategy, and influence of the civil society in building urban resilience; to understand the science-civil society interaction in urban resilience; and to evaluate how the devolved governance affect civil society action on urban resilience.

4.2 Sampling and site selection

4.2.1 Site selection

Nairobi was chosen for significance in Kenya's socioeconomic and political development as well as because of its size and population concentration. In addition, Nairobi has a range of international organizations, and this was an important aspect of the study.

5.1.1 4.2.2 Sampling

This study relied on people for knowledge and information. Informants in the study were identified having the specific knowledge and information relevant to the study. Thus, they were selected through purposive sampling, a technique that has been used for many years in research (Campbell 1955, Godambe 1982). As a technique for selection of informants, purposive sampling (also known as judgment sampling) is:

...the deliberate choice of an informant due to the qualities the informant possesses. It is a non-random technique that does not need underlying theories or a set number of informants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience ... [It] is especially exemplified through the key informant technique (Tongco, 2007: 147).

This sampling technique works well with both qualitative and quantitative research methods, and despite it being a non-probability technique, purposive sampling "stays robust even when tested against random probability sampling" (ibid.). This study utilized

key informants, and thus worked well with the purposive sampling technique. The kind of knowledge and information needed for this study found among particular people within the studied sector, the civil society.

4.3 Data collection and Methods

The data used in this study were collected from 2 July through September of 2015. The study employed a mixed methods approach comprising of key informant, semi-structure interviews; observation; and group discussion. Participants in the study were interviewed in different locations in Nairobi, Kenya, and London, United Kingdom.

5.1.2 4.3.1 Semi-structured interviews

Semi-structured interviews were conducted with key informants drawn from amongst the leaders of the civil society. The selection of the key informants was based on their contribution and experiences in the civil society, that is, they were "well-posted" (Whittlesey, 1927:77). All but one interview were recorded. Consent from respondents was obtained first. Due to distances and/or unavailability of the respondents for face-to-face interviews, some interviews were conducted through Skype calls. This, however, was only limited to a few interviews and conducted upon a mutual agreement between the researcher and the would-be respondents.

5.1.3 4.3.2 Observation

The researcher also observed over a civil society meeting and discussion with President Obama, the President of the United States of America, who was visiting and attending the Global Entrepreneurship Summit 2015. This took place on the afternoon of July 26, 2015. This observation was critical in the study for several reasons. It helped triangulate the data collected from the other organizations involved in urban resilience. It also helped in identifying general issues regarding the civil society that were not particular to the urban civil society, but generally relevant to all civil societies. Finally, it provided an opportunity to hear from other organizations based outside Nairobi.

5.1.4 4.3.3 Group Discussion

One group discussion was carried out in Nairobi. Four persons participated in this discussion. The group was relatively homogenous and no structured questions were used as advised by Goss (1996). The researcher moderated the discussion after a brief introduction of the topic. This benefitted the research in a different way, where useful interactions were directly observed between and among participants (Cloke *et al.*, 2004).

5.1.5 4.3.4 Data Triangulation

Triangulation is "the combination of methodologies in the study of the same phenomenon" (Denzin, 1978: 291). This study employed different qualitative methods and interviewed different groups of people outside the civil society. Data collected from CS leaders and observation of the civil society organizations were triangulated with in-depth interviews with key leaders from the private sector and the government. This enabled the researcher to study the civil society from different perspectives and including perspectives 'outsider perspectives' to improve the accuracy during analysis (See Jick, 1979).

4.4 Constraints and limitations

4.4.1 Negotiating access and number of civil society organizations

Challenges were encountered in negotiating access to some relevant agencies. Some interviews took a painfully long time to arrange. This posed a particularly difficult challenge due to the limited number of organizations identified as directly relevant to the study topic. Due to the limited time allocated for data collection in this study, some organizations deemed important were left out of the study as they. This is done comfortably after the researcher felt that enough data was collected and any further interviews would not yield much different data from what had been collected.

4.4.2 Interview schedule and Internet connectivity

As hinted in the 'data collection' section, there were challenges organizing face-to-face interviews with some respondents. This was mainly because of the respondents' busy schedules. Sometimes, the respondents were in the 'field' away from their offices. This necessitated use of Skype calls to interview them. Under some circumstances, there were challenges with internet connectivity- which made some interviews to be interrupted several times, and thus run longer than planned.

The study was conducted during a time when Nairobi organizations were very busy organizing the 2015 Global Entrepreneurship Summit (GES) and the welcoming 'home' of the USA president Barrack Obama. Although the US president came to attend the GES 2015, Obama's presence in Kenya was viewed as 'homecoming', and this caused a lot of euphoria. Some civil society organizations could not have the 'right' representative for the interview as they were involved in the preparation for Obama's meeting with the civil society that was scheduled for 26th July, 2015. Government agencies too were busy during this period. Due to the security

arrangements in Nairobi during the GES 2015, accessibility to the Central Business District was limited. Only authorized vehicles were allowed access in certain parts of the city throughout the period of the global event. It was almost impossible to access some organizations during this time.

4.4.3 'Resilience' terminology

Many organizations were not confident talking about urban resilience. Whereas it was clear they were doing something about urban resilience, some of these agencies felt that they did not know 'urban resilience' to speak 'authoritatively'. Respondents, including professionals in the same field, interpreted resilience differently. To resolve this, a brief introduction was done by the researcher. Throughout the interviews, it was sometimes necessary to reiterate the intended meaning.

4.5 Ethics and possible bias

This research was approved as 'Minimal Risk' research under the guidelines of King's College Research and Ethics Committee. The approval for this study was obtained on 2nd July, 2015, under Research Ethics Number MR/14/15-371. This study was conducted within the guidelines provided by King's College London and the British Sociological Association (2002). Consent was obtained from all respondents before the interviews.

The sampling technique used meant an inherent bias in participant selection. However, this was not a bad bias since, as notes Tongco (2007: 147), "The inherent bias of the method contributes to its efficiency, and the method stays robust even when tested against random probability sampling. Bias and positionality of the researcher was controlled by constant awareness but among respondents, it was controlled through deeper probing (Berg, 1989).

4.6 Data and data analysis

Data analysis for this study was done qualitatively, and manually. There number of respondents was small enough to be analysed manually. In total 16 interviews averaging 50 minutes long were conducted. Notes from each interview were reviewed and written shortly after each interview session when the interview was still fresh. The audio recordings were transcribed accordingly. Thematic areas for analysis were determined by literature and research objectives. The most recurrent issues emerging from the key informant interviews also formed an 'emerging theme' (see discussion).

The small sample in this study allows only main conclusions to be drawn from the interviews. The type and amount of data does not allow the study to make grand claims or sweeping judgments. However, due to the mixed methods employed and the selection of key informants, the main conclusions made are adequately reliable within the scope of this research project.

4.0 Results and discussion

This section presents the results of this study and discusses their implications. It is organised thematically based on four themes: *i) civil society and urban resilience; ii) science-civil society interface in urban resilience iii) devolved governance: implications on Urban Resilience and Civil Society action; and iv) entitlement and rights approach to resilience building.* The last theme emerged from interviews with the participants as a recurring theme. The City Resilience Framework (CRF) is used to structure the analysis. The section ends with a synthesis of the roles of civil society compiled from data analysis and as discussed under the four themes.

2.7 Civil Society and Urban Resilience

5.1.6 Urban resilience terminology and concept: Extent of penetration

'Resilience' terminology is uncommon in Kenya. The concept is not new in Kenya. Urban resilience projects by the government and international development organizations such as DFID exist in Nairobi. However, these projects are not known as 'urban resilience' projects:

"The level of understanding of the concept of urban resilience is very low in Kenya. Low in the terms that it is not a term talked about at all...It's not that people aren't aware of the need to try and make the city more resilient in terms of its infrastructure...but I don't think it's a terminology that they'd use" (R3)

The Nairobi City masterplan, NIUPLAN 2014-2030, supports this assertion. Whereas the term 'resilience' is not used at all, 'resilience' terms like 'energy', 'transport', 'waste', 'water', 'environment', and 'infrastructure' are extensively used. Some respondents wondered whether the concept had ever been introduced to the stakeholders.

A respondent working with the Government of Kenya (GoK) and the World Bank observed: Generally, people are not using those terms: resilience, climate risks ...but they understand the impact (R6).

The terminology mainly limited to academic, research and international organizations. It is uncommon term even in government-led discussions of making the city safer and less vulnerable to risks.

Some national CSOs had started using the terminology, especially referring to resilience in rural contexts. These were organizations involved in climate-related resilience initiatives particularly in arid and semi-arid lands (ASALs). This is likely to be influenced by partner international organizations like Action Aid and World Vision.

A mismatch between the 'urban resilience' language used in the international and academic arenas and the 'development', 'risk reduction' and 'governance' language used locally was evident. One respondent working as a Programs Manager with a local NGO focusing on housing and good governance issues remarked about urban resilience, "That might as well be a new civil society sector concern." Like many other local CSOs active in sectors like livelihood and employment; health promotion; WASH; waste management; and human rights, he didn't immediately think that his organization was addressing urban resilience.

5.1.7 Urban resilience policy: CSO participation and climate information

The civil society in Kenya knows the power of a 'policy'. CSOs' operations had seen government policies curtail their operations (R6) or transform a given sector like education. Indeed, the civil society in Kenya contributed to the realization of CoK (R12). Policies, plans and laws related to urban planning and development were significantly affected by the new constitution (Figure 3). Nairobi CSOs know they have a large democratic space to participate in the policy process. However, their participation in urban resilience is limited (R6, R11, R12, R13).

5.1.8 Climate data and information in policy process

Inadequate data on climate risks and disasters in a usable form practically undermines the civil society's capacity to influence policy in urban resilience. One participant admitted:

"[There is inadequate information in the right] form and template: packaging the information in the right package to inform civil society action and to enable their participation in climate change and urban resilience discourse" (R6).

Most of the available data are too general and focused on long-term scenarios, thus making them immaterial to CSOs and policymakers who focus on short terms- usually five years.

Box 1: The Policy Process

The policy process is the sequence of events that eventually turns public interests into public policy. The stages or sequences of the policy process are provided along with analytical questions pertinent at each stage (for a general discussion of the policy process, see Anderson, 1984; Jones. 1984; for an urban example see Morgan, 1989, p. 69; Waste, 1989; for doing policy analysis see Hogwood & Gunn, 1984; Lerner & Lasswell, 1951).

Each stage has a "feedback loop" that channels new information back into the policy process, influencing future policy development.

Issue Creation: What gives rise to the issue? How does the issue become defined as a public matter?

Agenda Building: How does the issue reach public decision makers? Who participates in the agenda-building process and how? What keeps problems off the public agenda?

Issue Resolution: How do public officials respond to demands for problem resolution? How is the final policy choice made?

Policy Implementation: Who is involved? How is the policy affected or perhaps changed in this stage of the process?

Policy Impact: What is the result of the policy? Who has benefited? Who has been harmed? How is this assessed?

Source: Andranovich and Riposa, (1993). Doing Urban Research (Applied Social Research Methods Series (vol. 33). Page?

Without it, civil society's input to influence urban resilience policy process is undermined (See Box 1 for the general outline of the typical policy process in Kenya).

Figure 4 highlights the current and potential roles of the civil society in the urban resilience policy process. Accordingly, the CSOs need enough information to better understand the relevance and urgency of urban resilience as well as the required policy interventions. As mentioned earlier, few organizations in Nairobi understand this concept.

If urban resilience is not identified as an (or 'the') issue, the urban resilience policy process is unlikely to take off and the urban issues likely to remain fragmented. CSOs require climate data/information to demonstrate to the policy makers that urban resilience is a critical public policy agenda (that facilitates socioeconomic development and ecological health). With well-tailored information, the CS can engage with the decision/policy makers (e.g. governors and Members of County Assemblies) to ensure a strong urban resilience policy. Climate and disaster data are likewise critical in policy implementation and policy assessment phases.

A public policy is characteristically a "principle or rule to guide [government] decisions and achieve rational outcome(s)" (Nabutola, 2012:3). After ensuring that relevant policies are in

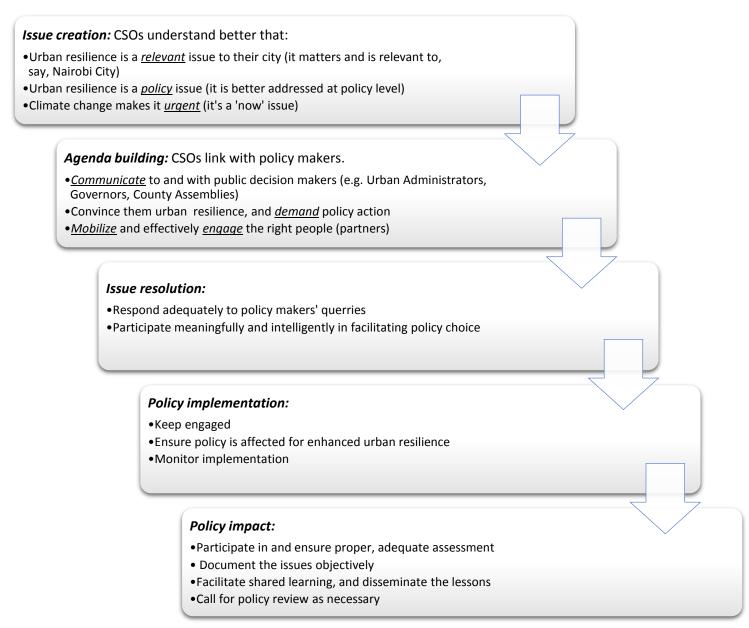


Figure 4. Typical urban resilience policy process and role of CSOs (after Andranovich and Riposa, 1993)

place, CSOs need to participate in translating these policies into practical projects that directly

affect the vulnerable and marginalized populations. Their partnership with the government and the private sector is critical in this regard.

5.1.9 CSOs and urban resilience: in practice

Understanding CS interventions is necessary in evaluating their influence in urban resilience. The focuses of Nairobi CSO interventions were examined against CRF's and Table 7 illustrates this analysis.

Table 7. Main focus of CSO interventions in urban resilience in Kenya

Urban resilience component	Main CSO interventions' focus		
Leadership and strategy: Empowered stakeholders; Effective leadership & management; Integrated development planning	 Participation in integrated urban planning 'Capacity building' initiatives Advocacy campaigns (anticorruption, 'good leadership') Monitoring and checking government 		
Health and wellbeing: Minimal human vulnerability; livelihoods & employment; safeguards to human life & health	 Livelihoods provision and development Youth skills development (entrepreneurship etc) Advocacy and awareness creation Monitoring (government operations) 		
Infrastructure and environment: Reliable mobility & communications; Continuity of critical services; reduced physical exposure	 Participation in the EIA/EA process and budgeting-making processes (consultation and public hearings) Waste management Monitoring of infrastructural projects 		
Economy and society: Finance including contingency funds; Social stability & security; Collective identity and mutual support.	 Participation and lobbying in the budget-making process; 'Social' projects (e.g. conflict resolution, 'community dialogue' forums, peacebuilding) Tax payments (and contribution to social security) Monitoring (government operations) Civil society enterprises 		

5.1.9.1 Leadership and strategy

A CSO's focus on stakeholder empowerment was determined by its mission (Table 2). There was no evidence of direct interventions by local CSOs on effective city leadership and management. However, initiatives related to 'good governance' and 'leadership' existed and were characterised by 'trainings', short-term campaigns and initiatives themed especially 'civic education' and anticorruption'. CSOs were not actively involved in urban development planning. The process is usually viewed as 'technical' while CSOs are not always considered technical (R12). There was no evidence of substantial participation by CSOs in the making of NIUPLAN. One participant in this study who participated in the NIUPLAN process observed that "the process was considered technical" and thus public participation not expressly necessary. The participant remarked, "Public participation is expensive" (R12), and the deliberate omission of CSOs was likely to cut costs. After some participants' insistence (citing CoK) some NGOs were called to participate. These NGOs provided the process with some

information and material resources and facilitated some sessions. Usually, these are national and international CSOs with the 'capacity' to contribute.

5.1.9.2 Health and wellbeing

Human vulnerability especially in informal settlements (slums) is a big issue. Yet, not much local CSO intervention was evident. Probably the local, resource-deprived CS felt less self-efficacious. CSOs thus focus on what they are able to do like skills training and limited livelihood opportunities (R2, R16). Water is scarce and energy limited. Most A few CSO had especially WASH initiatives, (R8). National and international NGOs are more involved during crises and imminent threats such as the predicted El Niño phenomenon. In the GoK's El Niño Contingency Plan 2014-2018, local civil society organizations do not feature much while international organizations and INGOs such as Care International, MSF, GOAL Ireland, VSF, IRC and Merlin feature prominently. National NGOs and local CSOs are usually excluded in such 'contingency planning' for their 'incapacity' to contribute or commit resources.

5.1.9.3 Infrastructure and environment

In most cities, infrastructural resilience forms a critical dimension of urban resilience and strong emphasis is usually on infrastructure development. In Kenya, this is evident in the national and urban development plans such as Kenya's Vision 2030, draft NUDP and the UACA. A participant acknowledged, "[In Nairobi] there is more emphasis on infrastructural resilience [than any other form of resilience]" (R3). This emphasis is also evident in the NIUPLAN in which 'infrastructure' appears over 320 times. As mentioned earlier, urban infrastructural resilience is largely a 'technical' affair mainly governed engineering and architectural principles and conventions. This possibly explains why the civil society was not initially considered important partners. The CSOs are involved at the public hearings and consultation meetings required by NEMA's EIA process. However, this remark captures the typical scenario in the Kenyan EIA process:

"The NEMA process requires that there is a public consultation which takes place before the NEMA report can be submitted, and so in theory, that is the way for[everyone] to have their views heard and potentially incorporated into the design... But in reality (I have attended those sort of meetings) it's unlikely that they [civil society] will have significant influence over something. So ... the only other sort of reaction ... from the civil society would be demonstrations or trying to stop some work ... physically trying to disrupt wok until their voices [are] heard...taking the law into their own hands to a certain extent in order to make your [their] point." (R3)

Many private developers are apprehensive of public participation. It is usually considered as an expense and activity that stalls some and stops other projects. One participant observed that "sometimes the civil society does not see the bigger picture...and end up stopping even good projects" (R11). The participant noted that the public participation is something that many developers would want to do away with: "I have heard some even say that public participation is the worst thing that ever happened" (R11). This perspective is contrary to others who think the public should be involved given that many private sector developers profit focused and would, therefore, be happy to reduce costs, including using shortcuts and sponsoring unethical projects (R3, R9).

5.1.9.4 Economy and society

Local CSOs provide 'spaces' and facilities for social practices. Communal facilities like social halls managed by local organizations exist in different areas in Nairobi. Meetings, concerts, arts exhibitions, festivals, and community dialogue forums take place here.

Community organizations were also involved in initiatives aimed at advancing peace, social integration and cohesion. Local NGOs also managed several open public spaces in the city (R12). These promote and enhance social networks and relationships, thus cultivating the necessary social capital for more integrated and resilient communities. This is however undermined by the transient nature of the city population, especially in slums (R5).

The CS is increasingly being involved in security management and crime prevention (R6). The community policing initiative and the *Nyumba Kumi Initiative* are two main initiatives where CSOs have partnered with the government to reduce and deter crime (R6). These initiatives were met with various challenges including funding shortages and management and trust problems. The Nairobi CS was vocal in speaking against corruption, and promoting access to justice. For instance, there were Community Justice Centres in Kamukunji and Kibera run by Kituo Cha Sheria in partnership with Kamukunji Community Based Organizations Network (KCBO-NET) and Nairobi Devolved Funds Watchdog (NDFW) respectively. These centres served as legal and human rights resource centres and provided a wide range of services including training paralegals and human rights monitors.

There was little evidence of CS contribution under the 'financing and contingency' funds indicator. This is an area still dominated by the private sector and the government. The more prominent role of the civil society (e.g. The Institute for Social Accountability-TISA, Youth Agenda and NDWF) in this regard was their participation in the city budget-making process; monitoring the government to ensure sound financial and fiscal management; and ensuring

good governance through advocacy, lobbying and capacity building. Direct and inward investments by the civil society was insignificant.

2.8 Science-civil society interface

5.1.10 The relationship: Tense?

The study did not detect any strained relations or tension between the civil society and science (or the scientific communities). This could be indicative of three possible scenarios. Firstly, it could mean that the civil society in Nairobi absolutely trusted science. Secondly, it could also mean that the scientific community absolutely trusted the civil society in Nairobi. Thirdly, it could mean that the relationship between the two did not exist or was very weak. In all these scenarios, there would be no cause of tension.

Whereas there was not enough data collected to ascertain the first scenario with significant level of confidence, the very nature of science rules out the second scenario. Evidence collected in this study rules out the third scenario. There were well-known, urban-based, research initiatives that involved the academic/research entities and the civil society. One such research programme was a project known as 'Urban ARK' which was mentioned by almost 50% of the key informants. This (Urban Africa Risk Knowledge) was a three-year programme (starting 2015) jointly funded by the ESRC and DFID under its Humanitarian Innovation and Evidence Programme (HIEP). Although the lead agency was an academic institution (King's College London, KCL), the project anticipated to engage the private sector, and work with community organisations and local research partners 'to break the cycles by which vulnerability and the incapacity to cope with hazards accrue in society'. The other reported urban-based research initiative is IDSUE, a study funded by USAID's Office of Foreign Disaster Assistance (OFDA) and implemented by Concern Worldwide Kenya (Concern) (R5, R10). IDSUE sought to help predict and avert urban food security crises. Many other organizations in Nairobi do their research according to their thematic areas.

5.1.11 CSOs and climate/risk research

Evidence suggested that such research initiatives as highlighted above were rare and often involved the more established national or international organizations. Such organizations had the capacity to mobilize enough resources to regularly undertake and effectively manage research projects. Local CSOs lacked this capacity and, therefore, undertook research with the least frequency. Table 8 highlights the relative frequency of research initiatives by international, national and local CSOs. Additionally, the role of local CSOs in collaborative research initiatives typically involved participation (as respondents or observers monitoring

scientist's 'ethical sensitivity' or 'social responsibleness') and labour-related work such as data collection (especially participant mobilization and questionnaire distribution).

Table 8. Nairobi CSO types analysed by their research involvement, use of research outputs and research capacity.

Type of	Collaborative	Own scientific	Use of scientific	Research
Organisation	research	research	research outputs	Capacity
International	Frequent	Frequent	Regular	High
CSOs				
National CSOs	Less frequent	Less frequent	Irregular	Low
Local Civil Society	Rare	Very rare	Very rare	Very low
Organisations				

In collaborative research especially with international and academic institutions, local CSOs did not have direct influence over the research agenda. Consequently, useful research outputs and tools remained 'inaccessible' to the local CSOs (despite participating in their development) but accessible to organizations of the same calibre as the lead agencies. Thus, the opportunity to make science even more relevant and less distant to Nairobi City policy makers was undermined. Additionally, local CSOs did not utilize the research findings to develop strong policy positions. This also applied to results from studies undertaken by student researchers on placements. The local host organizations rarely used outputs from such studies in their work. It seemed that building the research capacity of the local 'partner' CSOs was usually not a central issue for many national, international and academic organizations and individual researchers, although they may have indicate otherwise (probably to access the funds from their donors).

5.1.12 Partnership with CSOs in urban resilience research: Potential benefits

The CSOs in Nairobi could boost science through a number of ways. They may act as 'intermediary' or 'boundary organizations' between scientific and research communities on one hand and practitioners and policy makers on the other. As participant R12 remarked, "The civil society....interpret difficult concepts and unpack complex plans for easier understanding..." It also has the potential to provide feedback to both the science and policy communities to increase relevant knowledge production. Indeed, as experienced collectors and collators of local data and indigenous knowledge, the CS could help bridge the divide between the local and scientific knowledges for resulting into more robust and policy-relevant knowledge. Tools to do this, however, ought to be honed all the time as more climate and risk information becomes available. The CS can also seek and interpret information through own or collaborative research, since this has already been observed in Kenya through IDSUE led by Concern Worldwide and supported by APHRC.

Partnerships between CSOs and research organizations can make policy alternatives visible contest prevailing norms, and broaden perspectives beyond usual technological approaches in urban areas. They also spark dialogue on local resilience issues and result to better quality projects and results. Additionally, such partnerships would help contextualize research even further, thus making it policy-relevant and the results better understood. It would also increase the CSOs capacity to use the research output.

5.1.13 CSOs and climate/risk data

Comparatively, the CSOs in Kenya's rural areas were probably better users of information related to climate and data owing to their experiences in projects related to disaster risk and climate resilience. They used this information to manage their agricultural activities.

Although relevant data and information on urban disaster and climate risks were scarce, the little available were used by some CSOs for particular, wide-ranging purposes. They (selected NGOs) in collaboration with the GoK used data on, for instance, floods, diseases, landslides and WASH to develop a contingency plan for the predicted El Niño phenomenon in Kenya. Consequently, they were using the plan to mitigate the anticipated impacts of El Niño. CSOs, therefore, could use the available information to identify what was required and what their contribution was in disaster preparedness, response and recovery.

Evidence suggested that CSOs used scientific information related to climate and disasters at different times for a wide range of activities: early warning; designing recovery interventions; education and public awareness campaigns; advocacy; training and capacity building; lobbying; fundraising; policy development; environmental protection and stewardship; project design improvement; impact assessment; monitoring; and innovation. Inadequate data on disasters and climate risks is likely to have limited CSO's capacity to influence urban resilience policy process to make Nairobi even more resilient.

5.1.14 CSOs and 'science' of urban planning

The 'engineering' language used in urban planning process excludes the majority of local CSOs. As a result, even when CSOs are included, their contribution in process is likely to be low. One participant admitted that the civil societies "do not understand some projects ... they do not see the bigger picture..." (R11). The participant confessed:

"I have heard some [government officials, urban planners and consultants] say that public participation is the worst thing that have happened [under devolution] ...since you'll see them opposing good projects for the wrong reasons."

These sentiments were echoed in the group where public participation was termed as 'dangerous' sometimes. One participant said, "... [Some] developers are not sure how to handle rejection", referring to the rejection of a proposed project by the public. Consequently, developers seek 'minimal participation' for fear of their projects being stalled or stopped altogether. Where participants in a public hearing do not understand English (the common language by planners and consultants), translating the concepts into another language such as Swahili is usually a difficult task to the moderators. Indeed, even while in English, the engineering and architectural language and concepts of energy, and greenhouse gases (GHGs) may not be very clear to the public. In such cases, if they do not oppose a 'bad project', their participation would not have been meaningful, and they would have been excluded literally.

2.9 Devolved governance: Implications on Urban Resilience and Civil Society action

Devolution has critical implications on both urban planning and development, and the extent to which the civil society can influence this. Figure 3 illustrates the resultant legal environment after CoK came into effect. Clearly and as explained throughout this document, Kenya's current legal framework provides the civil society with a critical role and huge space to contribute to urban resilience. Devolution especially provides opportunities for civil society to determine what the Nairobi City County Government (NCCG) can spend money on (R3, R6, R7); to influence budgetary allocations (R2, R3, R12); to determine the priority 'resilience projects' (R3, R4, R10, R11); to develop new innovative tools to engage; and makes lobbying the government much easier (R3).

However, the study did not find any proof of a dramatic CS influence resulting from the dramatic legal framework. The CS was thus not adequately utilizing the space it gave itself in the constitution. As one respondent noted, "the voices of the civil society are somewhat silent. The civil society is not as active today as it used to be then [before devolution]" (R12). Evidently, the legal framework was not by itself a panacea to CSO participation in building.

The extent to which such a framework is useful in this regard is influence a number of factors. Firstly, the civil society's masterly of the framework and how it works is essential. CSOs must clearly understand the available platforms and mechanisms to claim rights. Secondly, the CS needs the capacity to utilize these platforms adequately. Thirdly, it requires enough creative capacity to develop new tools to engage within the new framework, adapting according to the resultant institutional terrain. Fourthly but importantly, the CS requires a proper understanding of the concept or urban resilience itself and the opportunities it provides especially for socioeconomic development. This would then help the CS to situate itself conveniently within the intersection of the concept and the legal framework.

A disempowered civil society- meaning one that does not have the capacity for the above four items- may not significantly influence urban resilience even within a robust legal framework. This is the situation the local CSOs in Nairobi found themselves in. The territory (made of the urban resilience concept, devolution and the urban planning and development legal frameworks) was unfamiliar, yet nothing much had changed in terms of the tools and strategies the CS used. Traditional strategies of the CS, 'passion-driven' protests, civil disobedience, picketing, and 'occupy' may not be effective because of the futuristic and abstract nature of resilience. These strategies work for the visible, 'now' concerns. This probably explains why the activity of the CS in disaster response and its passivity in disaster prevention and mitigation.

The new and 'complex' governance system seems to have dumbfounded both the local civil society as well as the donors (R12). The study learnt that donor funding had reduced and some participants alleged that the donor community had adopted a 'wait-and-see' stance, trying to observe and understand how the system worked and where to channel their financial resources for maximum value for money. The CS may also have been figuring out what worked and what did not in the new dispensation. This view may hold true for urban resilience as the legal provisions were clearly articulated as discussed earlier. The passivity is then likely to be as a result of limited capacity to relate the concept of urban resilience to the devolved governance system.

2.10 Entitlement and rights approach to urban resilience building

5.1.15 Centrality of the 'human' aspect in urban resilience

CSOs in Kenya used the 'entitlement' or 'rights' approach to demand action on disaster risks. Thus, their approaches are fragmented and focus on mission-depend issues like health, housing, and livelihoods. Urban resilience is largely a concept that arises from concern about the welfare of the large populations living in urban areas. Generally, disasters are of concern to the world mainly because of their impact on the human system. Without negative implications to the human system, it is less likely that any event/phenomenon would be of significant concern. In fact, the very definition of 'disaster' is based on the 'human' component (see for example UNISDR's and EM-DAT's definitions). The human-rights perspective thus appeals more to both the government and the international community.

5.1.16 "According to the new constitution, it is our right. We are entitled!"

There was a high reference to the 'New Constitution' by all respondents. Many respondents still felt that there was a lot not being done by the CSOs to claim the rights provided for in the

supreme law. For some, according these rights (safe housing; healthcare; livelihoods; security; good governance; proper administration of public funds/resources etc) to people is the ultimate urban resilience. This perspective probable influenced the approach and the terminology the CS used in the urban resilience discourse.

Using terms like healthcare, poverty eradication and education, probably made it easier for the CS to claim the 'rights' from the government it also uses similar key policy documents (Kenya Vision 2030, NUDP, UACA, EMCA, CGA). Thus, it is a terminology that builds on the aspirations and 'vision' of the people of Kenya as encapsulated in the existing plans. With this understanding, the developers of the NIUPLAN may not be entirely 'irresponsible' for avoiding the lingo.

5.1.16.1The challenge to rights approach to urban resilience

The 'rights approach' to urban resilience was not entirely helpful in the CS-government relations. The CS spoke against government violations of the civil rights. Some government operations, especially those related to dealing with insecurity and terrorism, were criticised by the CS for allegedly violating people's rights as Box 2 illustrates.

Thus, the 'human-rights' approach to urban resilience appears to be inhibiting some government operations, and sometimes contradictory. A participant observed of this approach:

"It can be inhibiting, and sometimes security operations may overlook human rights.

For example if you have access intelligence [it] may mean violating [the] right to

Box 2 The Error: Fighting Terror with Terror

When Nairobi experienced heightened terror threats, the government response involved arresting people (those alleged to have something to do with the Somali-based Al Shabaab terror group) for 'questioning'. The civil society supported the government's need to decisively deal with insecurity and terror threats in Nairobi and elsewhere. However, they civil society felt there was stigmatization, and serious human rights violations (including harassment, arbitrary arrest and detention, torture and ill-treatment, extortion, and forcible relocation) in the hands of security forces during counter-terrorist operations, notably the 'Operation Usalama Watch' that began in April 2014 (see Amnesty International, 2014; Buchanan-Clarke and Lekalake, 2015). This operation mainly targeted Nairobi and Mombasa, top-two largest cities in the country, but later spread to other urban areas including Nakuru, Thika, Eldoret, Lamu, Malindi, Garissa, Mandera, and Kitale. Whereas the civil society held that the government had a legitimate reason to undertake the operation, it was opposed to the methods of doing that that violated human rights. In a recent report entitled "The Error of Fighting Terror with Terror", the KNCHR (2015) highlights some of these violations of the law and human rights. In this report, the human rights watchdog documented 'over one hundred and twenty (120) cases of egregious human rights violations that include twenty five (25) extrajudicial killings and eighty one (81) enforced disappearances' (KNCHR, 2015).

Compiled by author.

privacy to save lives. It is not clear-cut that when undertaking sec operations you will actually observe human rights." (R6)

2.11 Role of the civil society in urban resilience

CSOs in Nairobi are diverse, and so are their current and potential roles in urban resilience policy and practice. This subsection identifies ten of the most important roles sifted from this discussion.

Table 9 identifies these roles against the CRF's four resilience aspects. These roles are filtered from the discussion under 5.1.4. Evidently, the CS performed better under 'economy and society. This is likely due to the 'Social stability & security' and 'Collective identity and mutual support' indicators more than the 'finance' indicator. It is highly like that a given civil society organization succeeds in each of the above roles with varied levels of success. The table draws from the analysis of data collected during the study.

Table 9. Summary of Role of CSOs in Urban Resilience in Kenya

	City Resilience Aspects				
	Leadership & strategy:	Health & wellbeing:	Infrastructure &	Economy &	
Role of the Civil Society	Empowered	Minimal human	environment: Reliable	society: Finance	
	stakeholders; Effective	vulnerability;	mobility &	including	
	leadership &	livelihoods &	communications;	contingency	
	management;	employment;	Continuity of critical	funds; Social	
	Integrated development	safeguards to human	services; reduced	stability &	
	planning	life & health	physical exposure	security;	
				Collective identity	
				and mutual	
				support.	
Implementer		Х		Х	
Knowledge broker	Х			Х	
Capacity builder	Х	Х		Х	
Connector	Х	Х		Х	
Mediator	X			х	
Advocate	х	х	Х	Х	
Monitor	X	х	Х	х	
Negotiator	X	Х	Х	Х	
Investor		Х		Х	
Innovator			х	х	
Facilitator	Х	х	х	х	

5.0 Conclusion

This study established that a robust legislative framework (such as devolution) alone is not adequate to boost urban resilience and participation of the citizens. It learnt that dramatic changes in the legal framework such as those heralded by the CoK may not only upset urban governance system but also the civil society's understanding of it and capacity to make the most out of it. This could possibly result in civil society's passivity as they learn the new system, and as their donors also hold back to see how the new system works.

2.12 Citizen Participation and Resilience assets

The civil society in Kenya could potentially contribute to urban resilience by facilitating development and use of both soft and hard 'resilience assets'. Soft resilience assets include social capital, labour, stewardship, knowledge (both scientific and indigenous knowledge) and information (especially intelligence to combat terrorism, crime, and insecurity). Hard resilience assets include tangible resources as land (e.g. for open spaces, construction of critical facilities such as community health centres), other materials, financial resources (e.g. following the old Kenyan spirit of *Harambee*, that is 'pull together'), food products. Despite CSO's insignificant influence on infrastructure in urban areas that undermine their contribution in the construction industry, their input in housing (or slum) (re)development, risk identification and early warning as well as rescue and evacuation could be harnessed to increase urban resilience.

2.13 Thoroughness versus holism (systems approach)

Urban resilience requires a deeper appreciation of the connectedness of everything to everything else within and without the particular urban area, and even outside the country where the city is located. Lengthy city (resilience) masterplans such as the NIUPLAN are largely developed through technical and technocratic approaches that often inhibit CSO contribution. The urban plans, whereas necessary for controlled development, they may not be the solution to improving the urban conditions in Nairobi and the rest of Africa. There development mainly involves international consultants who may lack a cultural and local appreciation even with citizen participation. The resultant plans are 'thorough' but convoluted technical manuals that are difficult to understand and follow, thus leaving the majority of the citizens out. This study proposes establishment of creative links must be established among the different NSAs and between them and the state, each drawing from its competitive advantage to harmoniously work together for the general resilience of the urban areas. This includes appreciating the role of science, local knowledge, the diversity and capacity of NSAs. Of course this requires a particular value-based approach, which the civil society could help establish by

consensus. A legislative framework is important, but alone it is not adequate. An environment supporting and enabling creativity may, thus, be better to facilitate community participation in urban resilience build than a rigid, prescriptive resilience 'plan'.

2.14 Business-as-usual ('stability') versus ingenuity (learning, reorganizing)

State-led urban resilience building efforts have a tendency to rely heavily on technocratic wisdom that cultivates business-as-usual scenarios. Such efforts often protect the status quo, with a few efforts to make lives of the urban poor more bearable. The CSOs in Kenya on the other hand, have a reputation for radicalness, and thus possess potential to approach urban resilience from a radical perspective. This usually involves upsetting the power relations and exposing systemic causes of urban vulnerability. The CoK literally affords the citizens a room for this. However, as observed in this study, this requires strong civil society leadership that can mobilize social capital, available knowledge and information to effectively negotiate with the local government and donors. The urban resilience agenda in Nairobi, the study established, lacks this input currently, probably signifying a capacity gap especially in the understanding of the new legal environment and how to navigate through it. Additionally, while state departments are inherently designed to be loyal to the system that established the, the CSOs have the leeway to be creative and experiment different innovations without causing much damage in case of failure, and without much of loyalty sacrifices to their clients. They generally have the role of challenging established vices (such as corruption, abuse of office/power, misuse of public resources etc.) without risking political loss or damage. This is a critical quality of CSOs that makes them more daring than their state counterparts in innovating and experimenting new approaches. For this to be utilized, the CSOs may require adequate capacity building and resources besides a robust legal framework such as devolution

2.15 Future research recommendations

There is need to understand better how the civil society can engage with 'abstract and futuristic' issues such as resilience. The civil society in Kenya has been known to confront 'visible' issues. Resilience and climate change are not. There is also a genuine need to understand the effectiveness of such approaches as 'social enterprise development' and how the civil society can employ such to be to be able to contribute in urban resilience in highly capitalistic cities that employ 'entrepreneurial logic' and property-led development. There is potential in such an approach to enhance the sustainability of the civil society and overdependence on external funding, mainly from developed countries which depends on such countries foreign policy and who is in political in the recipient developing country.

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