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African urbanisation: Implications for risk accumulation and reduction

The extent to which cities in Africa face climate change and natural hazard related disaster risks is shaped by much more than just their exposure to hazard. Past and current patterns of urban growth and development have shaped the context of risk in multiple ways. The economies, spatial form, societies, and governance of African cities all create the circumstances in which particular threats turn into disasters. By taking these underlying circumstances more fully into account, policy makers and planners can intervene in ways that will reduce risk to cities and their inhabitants.

Introduction

SAfrican cities are among the most vulnerable in the world to disasters, and the risks are being compounded by climate change and demographic shifts. Yet effective risk reduction strategies are still limited. There have been very few explicit examinations of how the specific characteristics of African urbanism drive risk, and how these can be accounted for in preparing for and responding to risks.

This briefing presents key messages from a critical review exploring the distinguishing features of the African urban experience and the implications for risk and risk reduction. These traits require central attention for achieving the eleventh Sustainable Development Goal (SDG11): inclusive, safe, resilient, and sustainable cities. Going beyond the often-cited scale and pace of urban growth, this brief considers the broad features of urbanism (demographic, spatial, connectivity), the social dimensions (including those shaped by gender and age), the economic dimensions (particularly the scale of poverty and informality), and the over-arching governance processes that both reflect and shape these other elements. The analysis suggests that the distinctive traits of towns and cities in sub-Saharan Africa including

fragmentation, violence, and fragility play a significant role in creating risk, but also offer considerable opportunity and potential for addressing it and breaking cycles of risk accumulation.

African urban economies and risk

The extent of urban poverty in Africa is frequently under-estimated because most assessments fail to take into account the non-food costs associated with living in urban areas (Mitlin and Satterthwaite, 2013). Poverty additionally and perversely increases the cost of meeting basic needs, particularly food and water. Low-income residents often having to purchase food and water from informal vendors at higher costs and more variable quality, with negative consequences for their health and resilience.

While poverty increases the cost of meeting basic needs, the cost of living is also higher in real terms in urban Africa than in cities in other low- and middle-income countries. A conservative estimate suggests that, controlling for per capita GDP and other factors, urban dwellers in sub-Saharan Africa pay 11 to 18 per cent more overall than comparable cities worldwide (Gelb and Diofasi, 2015). This means urban residents have

Policy Pointers

- Urban centres in Africa are diverse, but share many common features that can increase the likelihood of loss of life, reduced economic output, and damage to property as a result of disasters.
- Risk management needs to be taken into account in all urban development and policy efforts for African cities, not just in those specifically addressing climate change or disaster risk reduction.
- Making African cities safer will require understanding and engaging with the social, economic, spatial, and governance factors that create risk.

Box 1: Everyday risks

The combination of informality and urban sprawl exposes urban dwellers to both everyday hazards and catastrophic events. Not only are informal settlements more likely to be in hazardous parts of the city such as steep hillslopes or floodplains (where development may be formally prohibited), but these residents are less likely to be served by risk-reducing infrastructure. Inadequate access to safe drinking water and adequate sanitation is particularly significant: diarrhoeal diseases are the fourth most significant cause of death in sub-Saharan Africa (IHME and the World Bank, 2013). The prominence of these everyday cumulative risks in urban centres reinforces the importance of working at boundaries between public health, critical infrastructure, emergency response and other sectors.

to spend a larger proportion of their income to meet basic needs, reducing their budget for risk reduction strategies such as upgrading their homes.

The large informal sector of most African urban economies has the potential to exacerbate environmental degradation and other sources of risk. Because informal providers operate 'in the shadows', they lack formal state oversight and it is difficult to enforce regulation, such as water treatment standards or minimum wages. Yet a vibrant informal sector also allows urban residents to find alternative livelihoods in the absence or decline of formal employment opportunities. Informal businesses and networks also frequently assume responsibility for risk mitigation and management, for example through savings groups that act as informal insurance schemes. Successful risk reduction strategies must recognise the significance of the informal sector in African cities, and collaborate with informal operators in sensitive sectors such as food, water, and housing (Ziervogel *et al.*, 2017).

African urban forms and risk

The majority of urban Africans live in small- and medium-sized cities and towns of fewer than 0.5 million inhabitants, many of which are growing rapidly (Satterthwaite, 2016). While there are exceptions, the prevalence of small urban areas contributes to lower economic productivity and therefore lower per capita incomes. Local authorities in smaller urban areas typically have revenue bases and less well-developed technical, institutional and financial capacities than larger cities. They therefore struggle to provide risk-reducing public infrastructure and services.

Inadequate land use planning and rapid population growth in sub-Saharan African cities have led to large scale urban sprawl, which comes with significant costs. Urbanites must spend more on transport due to dependence on private, motorised options, while suffering lower air quality and road safety. Lower population density also means that it is more expensive to provide infrastructure and services,

such as roads, sewer networks and health care. Much of this urban spatial expansion is also taking place in low-elevation coastal zones and mega-deltas, where residents are more exposed to environmental risks such as storm surges and flooding.

The uneven condition of urban infrastructure in urban Africa dates back to colonial times. Despite recent initiatives such as the International Drinking Water Decade and the Millennium Development Goals, African governments have largely proven unable or unwilling to meet the demand of the growing urban population. Indeed, the proportion of the urban population with water piped to premises and/or access to improved sanitation decreased in Eritrea, Malawi, Namibia, Nigeria, Rwanda, Sierra Leone, Zambia and Zimbabwe between 1990 and 2015 (Satterthwaite, 2016). This creates significant *everyday* risks for urban populations (see Box 1).

African urban societies and risk

Urban residents experience climate and disaster risk in different ways, shaped by multiple interacting factors such as location, income, gender, age and disability. Yet, a few common characteristics can be identified across urban Africa.

Most African cities have a large majority of young people. Children under age 15 accounted for 41 per cent of the total African population in 2015, and young persons aged 15-24 accounted for a further 19 per cent (UN-DESA, 2015) (although figures specifically for cities are difficult to obtain). This age profile has important implications for risk and resilience. Children and young people are physiologically and psychologically vulnerable to a range of shocks and stresses, with girls and boys who live and work on the streets or in low-income informal settlements being particularly susceptible to harm. The financial costs of providing this large young population with adequate education and healthcare are also significant. Yet there is the potential for African economies and societies to enjoy a 'demographic dividend', as this youth bulge progresses into the economically productive age bracket.

African urbanism and urbanisation also has significant implications for gender dynamics. While women's experiences in urban areas are highly varied, gender norms and discrimination mean that women in African cities are likely to face a range of additional challenges to men. For example, although men are more likely to be killed in urban Africa, women are twice as likely to experience physical **violence** (UN-Habitat, 2006; in Chant, 2013) and their health care is often deprioritised within family units and wider societal groups relative to that of male family members. Quality of life is mediated by factors such as income, religion and ethnicity: low-income women living in informal settlements, for example, are more likely than low-income women in rural areas to have an unmet need for family planning (Ezeh *et al.*, 2010). Attention therefore needs to be paid to the ways in which urban settings can generate high levels of risk (particularly

related to natural resource scarcity and sexual abuse) for the women who live in them.

Sub-Saharan Africa has recently seen an ‘urbanisation of violence’, characterised by political militias and intimidation, communal violence and riots by civil society (Raleigh, 2015). Often, this is a response to weak capacity and governance in African urban contexts. Xenophobia and anti-migrant sentiments have further fuelled violence in some cities, notably against Nigerian and Zimbabwean migrants in South Africa.

Urban violence is characterised by a range of intensities and is underpinned by diverse actors with multiple goals. Whether violence is political or personal, it affects political legitimacy, social cohesion, and economic productivity. This is a major threat to human development, security, and resilience in African cities (Fox and Hoelscher, 2012). Stress from social division through to physical violence are important dynamic pressures shaping the context of vulnerability and risk production and reduction in African cities.

Further, while recognising these tensions and inequalities, African urbanisms can offer new and empowering opportunities: for instance, women who are not traditionally permitted to inherit land can acquire property through the market (Chant, 2013). African urbanisms may thereby help to reduce risk for marginalised groups such as women, children, and minorities. It is uncertain whether and which cities will realise these opportunities to ameliorate the social and political drivers of risk. Certainly, appropriate economic and social policies and the full participation of marginalised groups in urban governance and economies will be major determining factors.

African urban governance and risk

Weak governance capacities and exclusionary planning systems, many of them relics of the colonial era, have resulted in much urban development occurring outside the parameters of official spatial plans, land, and property markets or building codes (Watson, 2009). Inadequate revenue bases mean that large investments tend to be shaped by the availability of funds from other sources, including development finance and loans from international development banks. At the same time, the absence of effective and inclusive governance structures creates a vacuum in which other actors initiate projects. Taken together, this means that investments in African cities are frequently governed by ‘projects’ rather than by ‘planning’. The disjointed and fragmented approach to infrastructure investment is likely to exacerbate exposure to risk, not least because power relations dictate that the interests of high-income households and businesses will typically be protected and prioritised over those with lower levels of adaptive capacity. For example, it is not sufficient to engineer or maintain one stretch of a urban river if this only moves flood water into a less well maintained area where risk accumulates.

Box 2: Fractured governance and fragmented land use

The roles and responsibilities of local government, traditional authorities, and emerging actors such as community-based organisations are often ambiguous and contested. Decisions within and about cities may therefore be driven by fractured decision-making systems (Leck and Roberts, 2015). Over time fractured decision making is transferred onto the physical fabric of the city as fragmented land use making systematic vulnerability and hazard reduction difficult. Supporting local government to coordinate land use and infrastructure planning is a key element of risk reduction.

The complexity of governance is exacerbated by rapid population growth, which compounds historical deficits in urban infrastructure and institutions, and the scale of informality, which means that new developments may not comply with official plans and regulations. Managing the interplay between formal and informal land use and planning lies at the heart of urban risk reduction in Africa.

Conclusion

Breaking cycles of risk production in African urban centres is complex. Building capacities and addressing data gaps to develop understandings of the nature and scale of urban risk in often fragmented and fragile contexts characterised by compounding every day risks is challenging. It is not sufficient to look only at hazards and vulnerability: urban planners and policymakers must also consider the multiple intervening processes through which hazards are created (notably through urban expansion into exposed locations and through failures in infrastructure provision). They must also understand the dynamic ways in which multiple hazards interact and vulnerability is shaped, particularly the socio-political norms that determine access to opportunity and resources. Yet, despite these challenges, considerable opportunity for risk reduction and capacity building lies in the extensive urban growth and development anticipated in sub-Saharan Africa.

Engaging with this in practice is difficult, but innovative indications of how this might be successful can be seen in neighbourhood-level responses to particular hazards that have re-shaped citizen-state relationships. The co-production of housing and infrastructure not only directly addresses specific risks, but also demonstrates that creating space for joint action by civil society and governments enables both to prepare for and respond to shocks and stresses more effectively. Examples include the construction of community sanitation blocks to reduce disease in Kampala (Dobson et al., 2015) and the enumeration of informal settlements in Nairobi to equip organised communities with the evidence base to negotiate effectively with local authorities (Weru, 2004).

Three specific implications can be drawn from this review:

- First, the ways that the distinctive characteristics of African urban development create and manage risk

are poorly understood and there are few explicit efforts at generating or analysing empirical data that speak to the generation or reduction of risk at the city scale.

- Second, the complex inter-relationships described above indicate that risk management needs to be taken into account in all urban development and policy efforts in the continent. Efforts to drive urban economic growth, reform urban planning, and enhance human well-being will all need to be seen through a lens of hazards and vulnerabilities to avoid being undermined by shocks and stresses.

- Third, and related to this, the risk reduction community must not confine its efforts in African cities to narrow sectoral activities. Risk reduction practitioners and policy makers need to understand and engage with the multiple dimensions of urban development – spatial forms, societies, economies, and governance structures – if they are to achieve their goals of reducing human suffering and maintaining and enhancing development gains.

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Authors

David Dodman, Director, Human Settlements Group, International Institute for Environment and Development (IIED)
David.dodman@iied.org

Sarah Colenbrander, Researcher, Human Settlements Group, International Institute for Environment and Development (IIED)
sarah.colenbrander@iied.org

Hayley Leck, Research Associate, Geography Department, King's College London hayley.leck@kcl.ac.uk

Maria Rusca, Marie Skłodowska-Curie Research Fellow, Department of Geography, King's College London maria.rusca@kcl.ac.uk

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Urban Africa: Risk Knowledge (Urban ARK)

breaking cycles of risk accumulation in sub-Saharan Africa

A three-year programme of research and capacity building that seeks to open up an applied research and policy agenda for risk management in urban sub-Saharan Africa. Urban ARK is led by 12 policy and academic organisations* from across sub-Saharan Africa with international partnerships in the United Kingdom.

* Abdou Moumouni University; African Population and Health Research Centre; Arup; International Alert; International Institute for Environment and Development; King's College London; Mzuzu University; Save the Children; UN-Habitat; University of Cape Town; University College London; University of Ibadan

Contact: Mark Pelling
mark.pelling@kcl.ac.uk



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