

Stream I: Urbanisation and Risk in Africa

Background

Vulnerability in urban areas

Urban areas and their populations are increasingly vulnerable to natural hazards. Since the middle of the last century, there has been a 'much-increased concentration of people and economic activities in low-lying coastal zones or other areas at risk from flooding and extreme weather events.'¹ This has been mirrored by an increase in the number of 'serious injuries and deaths from disasters in urban areas' over the same period.² Looking ahead, the proportion of disaster-related deaths and injuries in urban areas in low- and middle-income countries is likely to grow, both because an 'increasing proportion of the world's population live and work there' and also because 'many successful cities are on sites where part of their population is at risk'.³

Cities are already particularly vulnerable before factoring in the impacts of climate change: 'Even without climate change, economic development and population growth are expected to increase the baseline damages from extreme events over the next century'.⁴ Clearly, the impacts of climate change will exacerbate existing vulnerabilities in urban areas. As Satterthwaite et al. note, 'Most of the risks from climate change in the next few decades heighten other risks that are already present.'⁵

Climate change is not the only hazard, however. Cities are complex environments, and in many cases, alongside physical vulnerabilities, community livelihoods and well-being are challenged by other factors that exacerbate vulnerabilities, such as weak and unaccountable municipal/city governance, lack of adherence to planning codes, low levels of basic services, an absence of legal tenure, poverty and violence. When a natural disaster occurs, these and other factors will impact upon the ability of individuals, communities and authorities to respond and recover.

Evidence gaps around urban disasters in Africa

The vulnerability of many African cities to disasters, compared to other continents, has been recognised in recent years, due to a number of shared characteristics and underlying socio-economic and cultural factors which have led to the accumulation of risks.⁶ However, Latin American, and more recently Asian cities, that share many of these characteristics have

¹ Dodman, D., Hardoy, J. and Satterthwaite, D. (2009) 'Urban Development and Intensive and Extensive Risk', London, International Institute for Environment and Development (IIED), Mimeo.

² Ibid: 20.

³ Ibid: 21.

⁴ UN/World Bank (2010) 'Coming game-changers? Burgeoning cities, climate change, and climate-induced catastrophes' in *Natural hazards, unnatural disasters. The economics of effective prevention* Washington, World Bank

⁵ Satterthwaite, D., Huq, S., Reid, H., Pelling, M., and Romero Lankao, P. (2010) 'Adapting to climate change in urban areas: The possibilities and constraints in low- and middle- income nations' in Bicknell, J, Dodman, D and Satterthwaite, D. (eds) *Adapting cities to climate change. Understanding and addressing the development challenges*. London, Earthscan

⁶ Pelling, M and Wisner, B (2009) (eds.) *Disaster risk reduction, cases from urban Africa*. London, Earthscan

received far greater representation in the literature, and evidence on urban Africa is mostly lacking. This may be partly attributed to the fact that until recently Africa was considered to be largely rural and thus the greatest attention to risk reduction was focused on these areas. The gaps in our knowledge about urban disasters in Africa can be clustered into five broad categories.

The nature and cost of disasters in urban Africa

Many cities in Africa are among those at highest risk to both large- and small-scale disasters, especially with regard to mortality. However, there are large deficiencies in available data about disasters and their costs. The most widely used data source for global or continental statistics – the EM-DAT International Disaster Database – is known to greatly understate the number of disasters, and the lack of detail in recording spatial characteristics of disasters make it difficult to assess which disasters are primarily urban-based or include significant urban components.⁷

The hidden toll of unrecorded disasters

Many of the largest urban disasters are caused by earthquakes and hurricanes, with large numbers of people being killed or injured, and infrastructure damaged, from a single event. But a focus on large disasters has obscured the much more frequent but smaller disasters and their impacts. The United Nations Office for Disaster Risk Reduction (UNISDR) has suggested a need to consider both intensive disaster risk that underpins large disasters, as well as extensive disaster risk that takes account of disaster events where the number of people killed or the extent of destruction falls below the criteria usually set for disasters.⁸ When account is taken of these, the data show that a high proportion of all disaster-related injuries, impoverishment and damage or destruction of housing, infrastructure, schools and health care centres happen in disaster events that usually go unrecorded.⁹

Measuring the impact on urban poverty

The impact of disasters on urban poverty has also likely been underestimated. This is not only because most disasters go unrecorded but also because the metrics used to assess disaster impact do not include those most relevant to low-income groups. This is what more detailed analyses of disasters and their impacts have revealed¹⁰ but, as yet, these are only available for a limited range of nations and urban populations. Clearly, the understanding of the nature and scale of urban risk changes as more detailed local analyses of disasters are undertaken.¹¹

⁷ UNISDR (2011), *Revealing Risk, Redefining Development: The 2011 Global Assessment Report on Disaster Risk Reduction*, Geneva, United Nations International Strategy for Disaster Reduction.

⁸ Ibid.

⁹ Dodman et al. 2009 (op. cit)

¹⁰ UNISDR (2009) *Risk and Poverty in a Changing Climate. The 2009 Global Assessment Report on Disaster Risk Reduction*. Geneva, United Nations International Strategy for Disaster Reduction; UNISDR (2011) op cit.

¹¹ UNISDR 2011, op cit.

Neglected risk in inland urban centres

It is widely recognised that cities inland face different risks to coastal cities, from floods, heat islands, desiccation, desertification, fresh water supply, diseases and food security, and that the impacts of climate change will also differ.¹² However, many of these inland urban centres have been largely ignored in the literature and there is an extreme lack of data regarding risk in these areas. This is particularly apparent in Central Africa where often over 70 per cent of their urban populations live in slums¹³ putting them at an even greater risk. Furthermore, according to the 2007 UN Habitat Report, populations in Abuja and Kinshasa, alongside other cities, will double in about 17 years.¹⁴ Where policies that increase resilience do not exist, very high risk will prevail for a large number of their populations.

Urban disasters and local governance

The scale and nature of risk in urban centres is heavily influenced by the quality and capacity of their governments and their willingness (or not) to work with low-income and marginalised groups. The impact of disasters in urban areas and their relationship to urban governance has been widely recognised in Latin America, and there are a number of good practice examples coming from nations or cities where citizen pressures and political reforms have been making local governments more accountable. While there is growing interest in this area in Asia, there has been little attention to this in Africa and amongst African researchers and urban specialists. Cities in Africa are growing rapidly, and many are expanding from a limited infrastructural and institutional base, which would have had implications for risk even without rapid population growth. There is thus a considerable mismatch between expanding populations and the institutional and governance capacities of these cities.¹⁵

Scope of this funding stream

From the above it is clear that there are priority areas that call for a focussed research strategy to close evidence gaps around urbanisation and risk in an African context. The Joint Fund for Poverty Alleviation Research therefore invites researchers applying under the *Urbanisation and Risk in Africa* stream to develop programme proposals with the overarching aim to map and measure the different dimensions of risk in urban Africa and produce policy-relevant evidence that can inform efforts by national, regional and municipal/city governments, multilateral agencies, Non Governmental Organisations (NGOs) and humanitarian donors, to build urban resilience and manage risk and uncertainty. We understand risk to be reflective of the relative exposure to natural and human-induced hazard, vulnerability and capacity at all levels of society.

It is an expectation that the proposed programme of research will use a variety of methods to analyse existing datasets and generate new qualitative and quantitative data on the types of risks affecting different sized towns and cities. Multi- or inter-disciplinary teams

¹² IPCC (2007) Fourth Assessment Report: Climate Change.

¹³ UN-Habitat (2011) State of the world's cities 2010/11. *Bridging the urban divide*. Nairobi, UN-Habitat

¹⁴ UN-Habitat (2007) Global Report on Human Settlements. Nairobi, UN-Habitat

¹⁵ Blackburn, S and Johnson, C. (2012) *My city is getting ready! A global snapshot of how local governments reduce disaster risk*. Geneva, UNISDR Making cities resilient report 2012

comprising statisticians, earth scientists, epidemiologists, economists and other social and political scientists are encouraged, but applications must be at least 50 per cent social science in disciplinary focus.

The successful programme proposal will be expected to address the overarching aim of this funding stream through research that:

- Covers natural hazards, including extreme weather events caused by climate change, but will also consider 'everyday' hazards and vulnerabilities such as disease, poverty, violence, poor governance and man-made risks.
- Generates evidence on how these multiple hazards and vulnerabilities interact and overlap to exacerbate risk
- Examines the scale of this risk in a range of urban areas in sub-Saharan Africa.

Specifically, the research programme will:

- Generate stronger evidence on the nature and distribution of risk in urban areas in Africa, producing both qualitative and quantitative data on the contribution of hazards and vulnerabilities to levels of risk in under-researched towns and cities
- Generate a better comparative understanding of levels of intensive and extensive risk
- Improve understanding of the types of institutional frameworks and state-citizen interactions that promote resilience and disaster preparedness
- Develop a replicable methodology for assessing and prioritising urban risk.

A major assessment criterion will be the research team's capacity to undertake research in countries where data are most limited, covering fragile and conflict-affected states, as well as in more stable environments. It is also expected that the urban areas to be covered by the research will include towns and cities of different sizes, inland as well as in coastal areas.

The following key questions are a guide to applicants in the context of the evidence gaps identified above and provide illustrative examples, but not an exclusive list, of the scope of work that the funders would be looking to support under this research stream:

- How has the nature and scale of risk in African urban areas changed over the last half century?
- What can emerging models such as those coming from spatial planning, climate change and epidemiology tell us about future risk in African towns and cities?
- What are the comparative risks to urban populations and their environments from intensive versus extensive risk (small versus large-scale disasters)? In which ways do different types of hazards overlap to exacerbate risk?
- Which cities in Africa are most at risk and why?
- What is known about the necessary institutional arrangements at the local government level to respond to risk in African towns and cities?
- What evidence is there of good practice, whereby municipal/city governments work with local populations and civil society organisations to reduce risk and promote resilience?

- Why do some communities, or individuals within those communities, respond better to disaster than others?

Geographical focus

This Research Programme will focus solely on cities in Africa and no comparative work outside Africa should be included.