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The possibilities and limitations of community-based disaster risk reduction and climate change adaptation; findings across the city studies

Community-based organisation and action can contribute greatly to disaster risk reduction, and interlinked to this, to building resilience to the impacts of climate change. However, as the case study cities from the Urban Africa: Risk Knowledge (Urban ARK) programme show, community action needs to be oriented towards working with local government, and not become a substitute for local government inaction. This is the case even when local government lacks the capacity to act, since it can still encourage and legitimate (or constrain and repress) community-based action. The city studies also show how attention to the full spectrum of risk highlights the synergies between risk reduction from everyday small and large disasters. In addition, community-led data collection on conditions in informal settlements can inform and strengthen community-local government partnerships for risk reduction.

Introduction

A fundamental change in response to disasters that include a strong focus on disaster risk reduction was largely driven by assessments of risks in urban centres in Latin America. It was also much influenced by the development and application of the *DesInventar* methodology¹ that widened and made more comprehensive the recording of disasters. Many city governments have reoriented their plans and investments in response to this.

This change in approach has also been influential in other regions – as shown by the use of the *DesInventar* methodology in Ibadan.² However, local government in Ibadan, as in the other Urban ARK case study cities

in Africa, has little capacity and funding for disaster risk reduction, and less capacity to act than Latin American cities. There are huge gaps in the provision of infrastructure and services which underpin disaster risk reduction and climate change adaptation, and which should be the responsibility of local government. Even though Ibadan is an important and rapidly growing city, local governments are seriously constrained by the inadequacy of funding from state and federal government – as seen in the dramatic fall in funding for social services, the rapid increase in debt, and the non-payment of civil servants' salaries. Here, the greatest driver of risk, whether for disasters or the outcomes of everyday risk, is the inability of local government to meet its responsibilities.

Policy Pointers

- Community-based organisations, set up by the inhabitants of informal settlements, can contribute much to disaster risk reduction – but their efforts can only go to scale if they work with local government.
- Even if local government lacks the capacity and resources to address its responsibilities for providing risk-reducing infrastructure and services, it still has a key role to play in authorising and encouraging community action, particularly in informal settlements.
- National federations of slum/shack dwellers can contribute to filling data gaps on the full spectrum of risk in informal settlements, covering everyday, small and large disaster risks.
- Attention to documenting and acting on everyday small and large disaster risks provides the foundation for climate change adaptation, taking into consideration how climate change impacts are changing, or will change, the risk spectrum.

This is also the case in Karonga, another of the Urban ARK case studies.³

When local government lacks the capacity to act on risk, individuals, households, and communities are forced to take on roles such as organising for water provision and home treatment, and disposing of household and toilet waste. Households are left with the responsibility of ensuring that their residences are resilient to extreme weather and accidental fires, and organising their own schemes to protect their homes and other assets. Praising community organisations for their ‘resilience’ can also be used to deflect criticisms of local government inaction.⁴

Reducing risk in low-income communities

Research in Niamey assessed the resilience of 300 low-income households living in a range of flood-prone neighbourhoods during floods in 2015. Hazard exposure was similar across the different locations with 6 to 8 days of household flooding; however there were stark differences in the number of days household members lived outside of their dwelling because flooding had made their homes uninhabitable. For the moderate and high resilience classes, no relocation was reported, while for the very low and low resilience classes, the average time spent away from home was 15 and 19 days respectively. Household interviews indicated that strong relationships had been built between at-risk households and local organisations (neighbourhood associations and mosques), and this included giving and receiving support during shock events, such as floods. However, there were lower rates of this social component of resilience post flooding. Many households reported being resigned to flooding and having no strategies to address these shocks. A need was therefore identified for local authorities to take measures to engage with and support low-income households at risk.⁵

There is generally a lack of data on disaster risk (and other risks) to inform government action in cities in sub-Saharan Africa. However, in cities where ‘small’ disasters are documented, the scale and range of local government inaction becomes apparent – as illustrated by the case studies in Ibadan and Karonga.⁶ Local governments have the responsibility of maintaining city-wide drainage that prevents ‘small’ as well as large floods. They should also ensure that legal land plots are available for housing to avoid settlement on slopes which are at risk of landslides or are situated on watersheds. Other responsibilities include implementing building codes that take account of disaster risk (preventing damage or destruction by earthquakes and extreme weather events), ensuring disaster resilient systems for water, sanitation, solid waste collection, health care and emergency responses (including fires

and floods), managing traffic to reduce accidents, introducing systems to inform all inhabitants of approaching disaster risks (eg extreme winds, heatwaves) and of appropriate responses. Local government action is more than just putting in place and legislation and policies. In Nairobi, there is no shortage of policies on solid waste management, but there is a marked deterioration in waste collection.⁷

Community-led action

Community organisations can play an important role in risk reduction in informal settlements, especially where local government meets little, if any, of its responsibilities for infrastructure, services, and land use management. However, to what extent can community organisation and action replace local government action on disaster risk reduction? In taking on these tasks, do community organisations risk absolving local governments of their responsibilities?

The Urban ARK case studies include examples of community-based organisation and action – for instance the role of the Kenyan slum dwellers’ federation, *Muungano Wa Wanavijiji* in mapping and profiling informal settlements, and in managing a successful resettlement programme rehousing those that live close to the railway track in Nairobi.⁸ The case study in Freetown describes the work of a range of community organisations and structures, including the Federation of the Urban and Rural Poor. It shows how the pre-existence of community governance structures is a major determinant of disaster risk reduction capacity. When these structures are in place and functioning, residents are more likely to be organised into committees and trained. Very effective responses take place when there are joint initiatives by the residents and the city council or other public agencies (eg fire awareness and hazard monitoring in Cockle Bay).⁹

There are many examples from informal settlements where community organisations have taken autonomous action because of the lack of local government capacity, and there have been successful cases of household and community-level coping and adaptation.¹⁰ However, community organisations can only act on risks in their community – they cannot put in place city-wide systems for risk reduction. They cannot build the trunk infrastructure (for piped water, sewers, drains, and all weather roads), or take action to reduce the risks of flow on watersheds. Policies that promote interventions at an individual level are not able to respond to the underlying structural causes of risk cycles.¹¹ In addition, autonomous adaptation at any scale tends to include redistributing risks to others, such as improved drains within a neighbourhood to decrease flood risks to other neighbourhoods downstream.

Therefore, most of the reduction of everyday and disaster risk in urban areas is not possible if local governments fail to meet their responsibilities. This inaction by urban governments, including their failure to address underlying causes, is the single most important factor in determining the level of most life- and health-threatening risks. This is also underpinned by the lack of support from higher levels of government and international agencies. The assessment of solid waste management practices in Nairobi and Mombasa points to complex and difficult governance issues, including the need for a stronger institutional capacity to enforce regulatory frameworks, and action to address patronage, corruption, and criminal cartels.¹²

Drawing on risk data collected by grassroots organisations

Research in each of the case study cities included allowing sufficient space for low-income households, community organisations, and other civil society groups to contribute to the documentation of risk. This included setting priorities for action – for instance through focus group discussions, participatory mapping, and interviews with community leaders.

Community profiling and mapping is important for identifying and acting on disaster risk and fill a large data gap at local government level. There are now over 12 national federations of slum/shack dwellers in sub-Saharan Africa – including Malawi, Tanzania, Nigeria, Kenya, and Sierra Leone – where Urban ARK teams are at work. These are federations of savings groups set up and managed by the inhabitants of informal settlements, with most savers and savings group managers being women. One of the methods these federations use to engage the state is to prepare detailed profiles and maps of all informal settlements in cities; prior to this, local governments had little or no data – or even maps – of these settlements.¹³

These profiles include reports from residents in each informal settlement on the everyday and disaster risks that they face, as well as detailed maps with boundaries and GPS coordinates. If local governments agree to support upgrading, then a more detailed enumeration (in effect a census) is undertaken in each informal settlement with data collected for each house and plot. The fact that all data are collected by community members means that the information is returned to the residents to stimulate and support their plans and priorities. This kind of detailed community-driven data collection has been a key underpinning of the resettlement programme in Nairobi.

The informal settlement profiles and community-driven censuses contain a lot of detail on the risks that the inhabitants report – including risks from

inadequacies in the provision of water, sanitation, solid waste collection, healthcare, and emergency services. Data are also collected on disasters and on what the inhabitants consider to be the most serious risks. This information can also be used for comparisons between cities, as the same set of questions is used for each survey.

Avoiding forced eviction

From the perspective of many low-income communities, the greatest disaster risk they face is forced eviction – without consultation, without the provision of alternative accommodation, and without warning. Recent reports from Lagos give a powerful example of forced evictions, both in their scale and in the community responses.¹⁴ Here too, the quality of the relationship between the residents of informal settlements and local government is key. The slum/shack dweller federations in sub-Saharan Africa and elsewhere were formed partly to resist evictions, and partly to develop better relations with local governments so evictions would be avoided. If the eviction cannot not be avoided, they engage with the residents on how to make resettlement plans serve their needs.¹⁵

Governments may also justify and implement forced eviction as part of their disaster risk reduction or climate change adaptation policies. In Freetown, the residents of informal settlements have long been faced with persistent (annual) threats of eviction. The justification for this can be a formal designation of the area as risk prone (mainly due to floods and disease outbreaks), or earmarked for ecological conservation. The case study on Freetown notes how such threats and the uncertainty they produce undermine community collective action to address known risks and residents' individual investment in housing, which further increases the risks. This makes residents wary of discussing risk openly with external agencies, as this may additionally increase the threat of eviction.¹⁶

Community-driven informal settlement profiles are also an important means of preventing eviction. As well as information on land tenure, eviction threats, and disaster risk, they also provide detailed data on livelihoods and businesses to demonstrate the economic importance of informal settlements to the city, and the large costs to the city if they were to be bulldozed.

In conclusion, in most urban contexts, one key role for community organisation and action on risk reduction is to gain local government engagement and support. This calls for more collective and participatory efforts that take on board local knowledge and the resources of ordinary citizens and public actors.

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Urban ARK publications

Urban ARK publications include journal articles, working papers and briefs – that can be accessed and downloaded from <https://www.urbanark.org/publications>

The December 2017 issue of the *International Journal of Disaster Risk Reduction* (Volume 26) is on **Africa's urban risk and resilience** and was produced in collaboration with Urban ARK. Many of the papers are open access. <http://www.sciencedirect.com/science/journal/22124209/26>

The April 2017 issue of *Environment and Urbanization* (Vol 29, No 1) was on **Understanding the full spectrum of risk in urban areas** and was produced in collaboration with Urban Ark. Many of the papers are open access. <http://journals.sagepub.com/toc/eaau/29/1>

References

1. See <http://www.desinventar.net/methodology.html>
2. Adelekan, IO (2017) Urban dynamics and vulnerability to everyday hazards and disasters in Ibadan, Nigeria, *Environment and Urbanization* 30(1) (forthcoming).
3. Manda, M and Wanda, E (2017) Understanding the nature and scale of risks in Karonga, Malawi. *Environment and Urbanization* 29(1), 15-32.
4. Kaika, M (2017) 'Don't call me resilient again!' The New Urban Agenda as immunology ... or ...what happens when communities refuse to be vaccinated with 'smart cities' and indicators. *Environment and Urbanization* 29(1), 89-102.
5. Boubacar, S, Pelling, M, Barcena, A and Montandon, R (2017) The erosive effects of small disasters on household absorptive capacity in Niamey: a nested HEA approach. *Environment and Urbanization* 29(1), 33-50.
6. See note 2.
7. Haregu, TN, Ziraba, AK, Isabella Aboderin, I, Amugsi, D, Muindi K and Mberu, B (2017) An assessment of evolution of solid waste management policies and their implementation in Nairobi and Mombasa, *Environment and Urbanization* 29(2). Available online at <http://journals.sagepub.com/doi/full/10.1177/0956247817700294>
8. Mitra, S, Mulligan, J, Schilling, J, Harper, J, Vivekananda, J and Krause, L (2017) Developing risk or resilience? Effects of slum upgrading on the social contract and social cohesion in Kibera, Nairobi, *Environment and Urbanization*, 29(1), 103-122. See also Lines, K and Makau, J (2017). *Muungano nguvu yetu* (unity is strength): 20 years of the Kenyan federation of slum dwellers. IIED Working Paper, London.
9. Adriana, A, Koroma, B, Osuteye, E and Rigon, A (2017) Urban risk in Freetown's informal settlements: making the invisible visible, UrbanArk Briefing 6. <http://pubs.iied.org/G04141>
10. See for instance Stephens, C, Patnaik, R and Lewin, S (1996) *This is My Beautiful Home: Risk Perceptions towards Flooding and Environment in Low Income Urban Communities: A Case Study in Indore, India*, London School of Hygiene and Tropical Medicine, London, 51 pages; Douglas, I, Alam, K, Maghenda, M, McDonnell, Y, Mclean, L and Campbell, J (2008) Unjust waters: climate change, flooding and the urban poor in Africa, *Environment and Urbanization* 20(1), 187-205; Huraera, J, Allen, A and Johnson, C (2010) Built-in resilience: learning from grassroots coping strategies to climate variability. *Environment and Urbanization* 22(2), 415-431; Odemhero, F (2015) Building climate change resilience through bottom-up adaptation to flood risk in Warri, Nigeria, *Environment and Urbanization* 27(1), 139-160; Kiunsi, R (2016) Dar es Salaam, Tanzania. In Bartlett, S and Satterthwaite, D (eds) *Cities on a Finite Planet: Towards Transformative Responses to Climate Change*, Routledge, London, pp 81-95; and Isunju, JB, Orach, CG and Kemp, J (2016) Community-level adaptation to minimize vulnerability and exploit opportunities in Kampala's wetlands, *Environment and Urbanization* 28(2), 475-494.
11. See note 8.
12. See note 6.
13. See <http://knowyourcity.info/>
14. See www.justempower.org/
15. See note 7.
16. See note 8.

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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.

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