

# SIURC

## SIERRA LEONE URBAN RESEARCH CENTRE POLICY BRIEF

### Urban Risk in Freetown Informal Settlements: Making visible the invisible vol 1: March, 2017



#### Key messages:

- While major floods and epidemics draw great attention from government and aid agencies, people are also vulnerable to invisible everyday risks and small scale disasters (e.g. fire, landslides/rock falling) which have a high frequency and therefore cumulative and significant impacts on the life and assets of low-income households.
- Risk accumulation cycles can be made visible by capturing spatially and over time who is affected, how and why. The external designation of an area as risk-prone represents a major risk for residents and their livelihoods because such designation is often used to justify eviction threats. In turn, uncertainty linked to eviction threats undermines the collective and individual capacity to act of those most vulnerable to everyday risks and small scale disasters.
- Disasters (particularly flooding) and spread of disease are strongly linked. Therefore, disaster risk reduction strategies should be designed in conjunction with those addressing public health.
- The urban poor have significant capacity to mitigate everyday risks, but their efforts need to be acknowledged and rights recognised. Shifting from risk-mitigation to risk reduction and prevention requires vigorous and concerted action between community organisations, public institutions and external support actions.

#### Introduction

Urban development and a rising population growth rate in Freetown over the last few decades have led to significant changes in Freetown. On one hand, whilst this has bolstered its status as the nation's economic heartbeat, the growth and sprawl of informal settlements and continuous lure of rural-urban migration has led to the production of a range of risks (including both episodic and the 'everyday'), which are particularly more concentrated in these pockets of informal settlements; becoming progressively embedded in the way of life of residents. It is imperative to re-examine the city within this lens of urban risk to literally "make visible" and capture the hidden vicious cycles of risk accumulation and risk traps that have adverse effects on life in the city. Working with a range of city actors (including civil service, NGO and government) and selected community residents from two informal settlements, this policy brief reflects on the participatory approach adopted, both conceptually and methodologically, to improve knowledge on urban risks (especially the small-scale and everyday). Urban risk traps in Freetown were "captured" through the use of settlement timelines, mapping and the collective construction of urban Disaster Risk Management (DRM) wheels to assess what is being done by those living in informal settlements and by the state and other external agencies – and through that process revealing what the embedded "capacities to act" on the captured risks are.



Settlement on a flood-prone area. Photo credit: A Allen (2016).

**Keywords:** Urban risks, extensive risks, risk profiling methods, risk accumulation cycles, Freetown, Sierra Leone

## Urban risk in Freetown

The city of Freetown has seen rapid urbanisation and a significant growth rate of about 3.07% since 1985. The over a million residents makes it the most populous and densely settled city in the country. Rapid urbanisation has contributed to the creation of pockets of informal, unplanned settlements in

Freetown. Internal displacement during the civil war (1991-2002) and migration in search of employment to Freetown contributed to its population growth. Today, rapid urbanisation and growth of informal settlements are underpinned by a number of factors, notably, the local economy, which is dominated by small-

scale and informal businesses (mainly petty trade) and a growing demand for proximal living to business centres and markets, coupled with unaffordable land and housing in formalised areas.

The topography of Freetown, a peninsula constrained between the sea and the



Administrative Map of Freetown. Source: UN Office for the Coordination of Humanitarian Affairs (2014) [www.unocha.org](http://www.unocha.org)

hills, limits the spatial expansion of the city, forcing low-income groups to settle mostly on marginal lands. The city has developed in three geographic areas: coastal settlements along rocky beaches of the Atlantic Ocean; sprawling inland settlements along the Sierra Leone river estuary; and thirdly, hillside settlements in the steep hills of the city, which are rapidly encroaching into vital forestland. In these settlements, flooding, rock-falls, building collapse, and landslides are common phenomena, which result

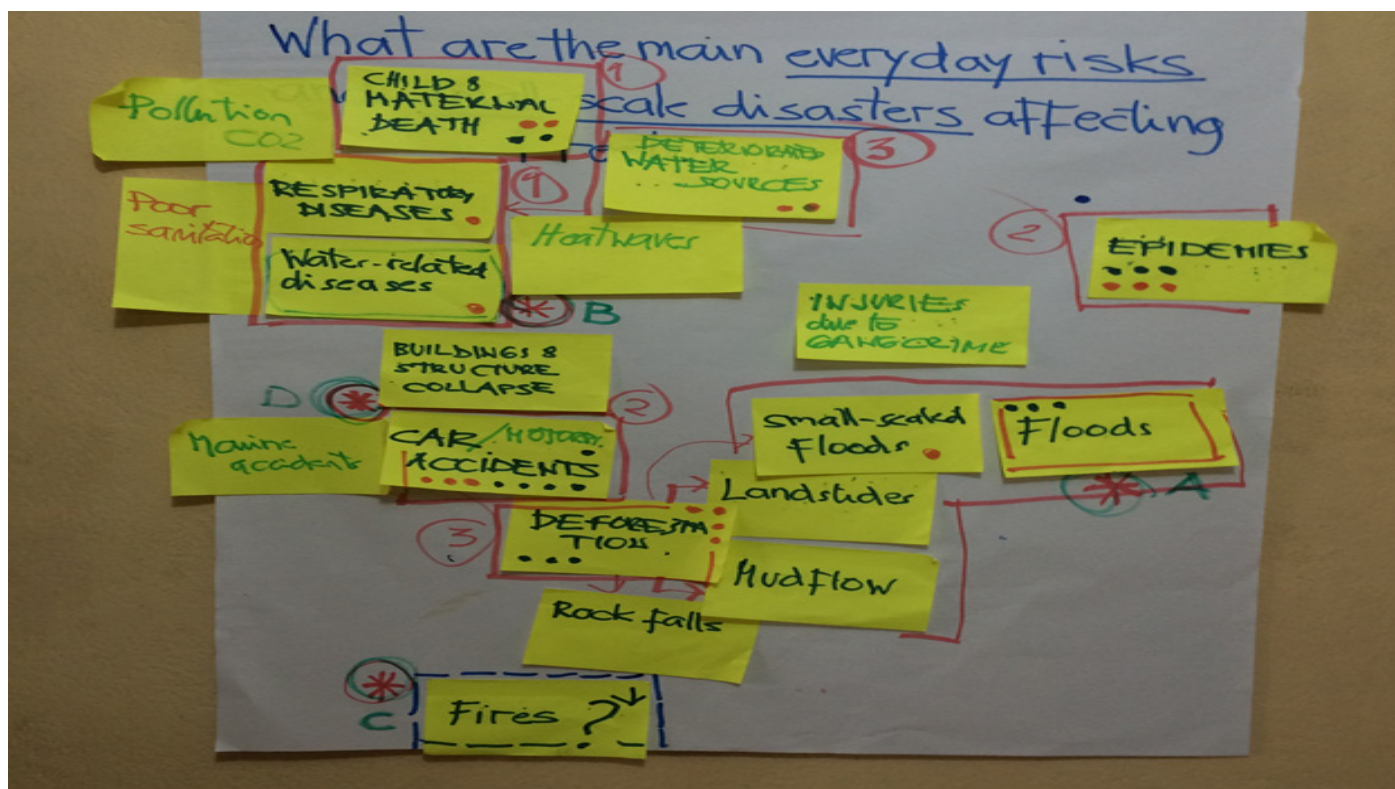
in significant economic and other losses such as the destruction of property and infrastructure and can include injuries, diseases and fatalities. The incidence of disease epidemics, especially those that are water borne is significantly high.

Urbanisation in Sub-Saharan Africa is increasingly coupled with the production of risk accumulation cycles or urban 'risk traps', which are not exclusively driven but exacerbated by climate change.

There is a variation in the perception, experience and understanding of risk amongst the residents in the various informal settlements, as well as an unequal distribution of the burdens of risks with some women and men are disproportionately more affected than others. This inequality seems to affect the capacity of local communities to work collectively to harness coordinated multi-stakeholder action to disrupt risk accumulation cycles.

**'Risk traps' are here defined as the sum over time of the articulation and reproduction of vulnerability and daily and episodic dangers or threats coupled with eroded capacity to act.**

## A fresh look at urban risk: co-learning the city through the lens of risk



Hazard profile of Freetown drawn from contributions of workshop participants. Photo credit: A. Allen (2016)

In an attempt to delve deeper into the understanding of the risk burdens and coping capacities of informal communities in Freetown, a pilot workshop was jointly organised in July 2016, by the Sierra Leone Urban Resource Centre (SLURC) and The Bartlett Development Planning Unit (DPU) at University College London, to

explore methodologies of community-led risk assessment and the co-production of risk knowledge.

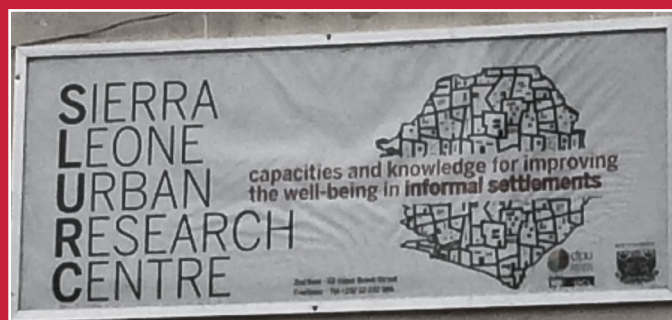
This pilot workshop was also the initial engagement of a SLURC – DPU partnership under the Urban ARK research project. Participants were drawn from various backgrounds and

disciplines and comprised academics, researchers, government officials, NGOs and development practitioners, as well as community residents from the two target field locations where further in-depth studies would be conducted: Cockle Bay and Dwor Zack.

### Box 1: About SLURC

The Sierra Leone Urban Research Centre (SLURC), based in Freetown, is a globally connected research centre created through a partnership between the Bartlett Development Planning Unit (University College London) and the Institute of Geography and Development Studies (Njala University) with funding by Comic Relief. SLURC aims to strengthen the research and analysis capacities of urban stakeholders in Sierra Leone; make urban knowledge available and accessible to those who need it, prioritizing residents of informal settlements; and, deliver world-leading research in order to influence urban policy and practice.

For more information about SLURC, please visit: <http://www.slurc.org/>





## Box 2: About Urban ARK

Urban Africa Risk Knowledge (Urban ARK) is a research and capacity programme funded by the UK Department for International Development (DFID) and the UK Economic and Social Research Council (ESRC). The work seeks to open up an applied research and policy agenda for risk management in urban sub-Saharan Africa. The main objective is to contribute to the reduction of disaster risk in urban sub-Saharan Africa by breaking cycles of risk accumulation. This is being achieved by:

- Building a community of practice including sub-Saharan, African and international researchers and practitioners that can provide a structured assessment of risk accumulation and reduction dynamics
- Developing a detailed understanding of underlying factors driving risk accumulation
- Fostering a deep understanding of risk to women, men and children in a diverse range of urban contexts in low-income countries in sub-Saharan Africa
- Understanding how the nature and scale of these risks are changing in the context of urban growth and change, poverty and climate change.
- Identifying strategic and grounded actions to tackle risk accumulation cycles in the urban sub-Saharan context that benefit poor women and men.

In-depth research is undertaken in the following cities – each presenting different development and hazard contexts: Ibadan (Nigeria), Karonga (Malawi), Nairobi and Mombasa (Kenya), Niamey (Niger), Dakar, (Senegal) and Freetown (Sierra Leone). The cities offer broad regional coverage, a range of city population sizes and in-land and coastal locations.

For more information about Urban ARK, please visit: <https://www.urbanark.org/>

In the last decade, Sierra Leone, like many other African countries, has adopted a framework that promotes a decentralised governance approach to Disaster Risk Management (DRM). While this approach seeks to enhance the capacity of local authorities and local dwellers to mitigate those hazards that are frequently documented and monitored – such as large-scale floods

– it still does not fully address the combined impacts of everyday risks and small-scale episodic disasters. The workshop offered an opportunity to contrast the officially established framework that governs DRM with the actual practices deployed by ordinary citizens, state-agencies and external support agencies, such as donors and NOGs to mitigate, reduce and

prevent risk. In order to achieve this, specific participatory methods were adopted to capture where and when risk accumulation cycles manifest, and what actions or practices are taken by local communities and public organizations through the application of participatory mapping, the construction of settlement timelines and of disaster risk management (DRM) wheels.

## Capturing urban change trajectories: Participatory methods



Workshop participants discussing concepts of risk, vulnerability and hazards in a breakout session (Photo: A. Allen, 2016).

Several methods can be applied and articulated to capture different trajectories of urban change, where change happens, why, who is affected and how. Co-producing this information with those who experience negative trajectories of change is essential to reverse such processes.

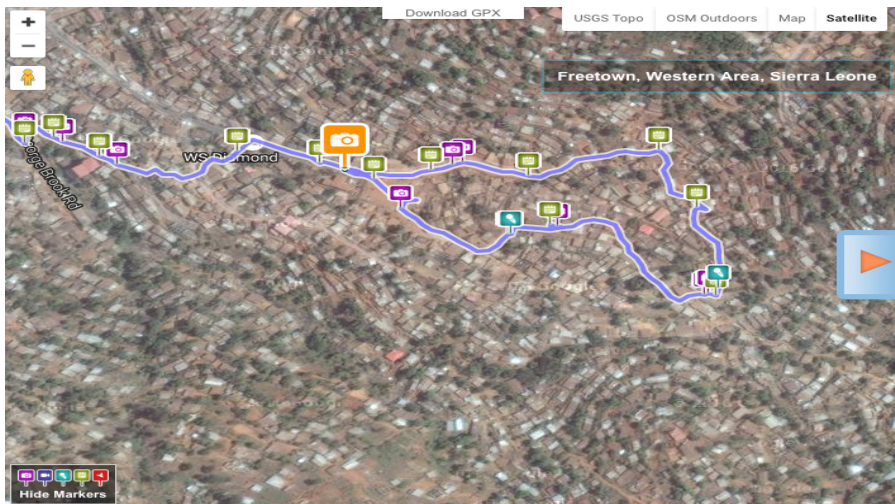
**Settlement timelines** – This method is useful to outline demographic changes, the efforts deployed by local communities to improve housing, service and infrastructural conditions and to cope and mitigate disaster events in a settlement over time.



Drawing settlement timelines based on the accounts of community residents (photo: E. Osuteye, 2016).



**Community-led mapping:** The production of the settlement timelines are integrated into the processes of transect walks, with external participants and community residents engaging in a focus group discussion prior to the walk, to share and fine-tune their experiences, knowledge and perceptions to build a risk-profile of the area. The process of transect walks to document known risks are further enhanced through the use of open-source mobile phone applications such 'Ramblr', which participants were trained to use. Ramblr allowed participants to track their location on a map and document points of interest (e.g. hazards, risk mitigation interventions, sites of previous disasters etc) as media files (photographs, audio, video and text).



Map of the 1.4 mile transect walk through Dwozark community generated using Ramblr, showing points of interests for the risk profile as markers of photographs taken. (E. Osuteye, 2016)

**Disaster Risk Management wheels: Understanding and assessing risk-mitigation actions**

This method is useful to identify and evaluate collective and individual responses to risk by ordinary citizens, state-agencies and external support agencies. The discussion and creation of the wheels are centred on what is done to confront small-scale and episodic hazards (such as fire, accidents, flooding and water related issues), by whom and with what resources. This is therefore a useful tool to assess the capacity to act of different actors, to evaluate the impacts of concrete actions, projects and programmes and to design more effective and collaborative interventions.



Risk wheel on floods in Freetown drawn by workshop participants (Photo: E. Osuteye, 2016)



Workshop participants preparing a risk wheel on coping and mitigation practices for the risk of water-borne diseases in Freetown (Photo Credit: E. Osuteye, 2016)



## Main findings

Residents of informal settlements are prone to multiple hazards and risks, and although this general statement holds true for most informal city dwellers, a closer examination reveals a different set of challenges depending on the geographic location and spatial distribution of informal settlements, as demonstrated by the case studies of Dwozark and Cockle Bay (hillside and coastal communities respectively), purposively sampled for the study.

### Urban risk in hillside informal settlements - The case of Dwozark



Houses in Dwozark constructed on one of the Hill faces in Freetown (Photo E. Osuteye, 2016)

Dwozark is a typical hillside settlement, which has been populated since the 1940s. However, since the 1980s rapid urbanisation has outstripped investments in social infrastructure. Estimated to host 32,000 residents, Dwozark is characterised by poorly constructed housing structures (mainly mud bricks and corrugated iron sheets), poor road networks, and sanitation facilities. Land ownership in the settlement is contested and this hinders investment in improved housing.

The settlement characteristics and

location make it prone to fire outbreaks (12 outbreaks between 2010 and 2016 mainly from domestic fuel use and faulty electrics), floods (especially for residents living along the edges of the George Brook Stream), rock falls (exacerbated by erosion and construction on steep hillside) and outbreaks of waterborne diseases (from inadequate supply of treated water and solid waste disposal in drains and stream). Although the number of fatalities from these risks appear to be relatively low (barring the recent 2014 ebola outbreak), the full extent of the vulnerability in this hillside informal

settlement is significant when the cumulative effect of losses from these disasters is taken into account.

Although there is some community organisation, including the establishment of a Community Disaster Management Committee (CDMC) and a system of Community Health Workers (CHWs), these were established in reaction to crises. More proactive and coordinated collective action at community level regarding the management of risks and disasters (including prevention and community preparedness) is not yet in place.

## Urban risk in coastal informal settlements - The case of Cackle Bay



Large open drain running through the settlement in Cackle Bay, Freetown (Photo E. Osuteye, 2016).

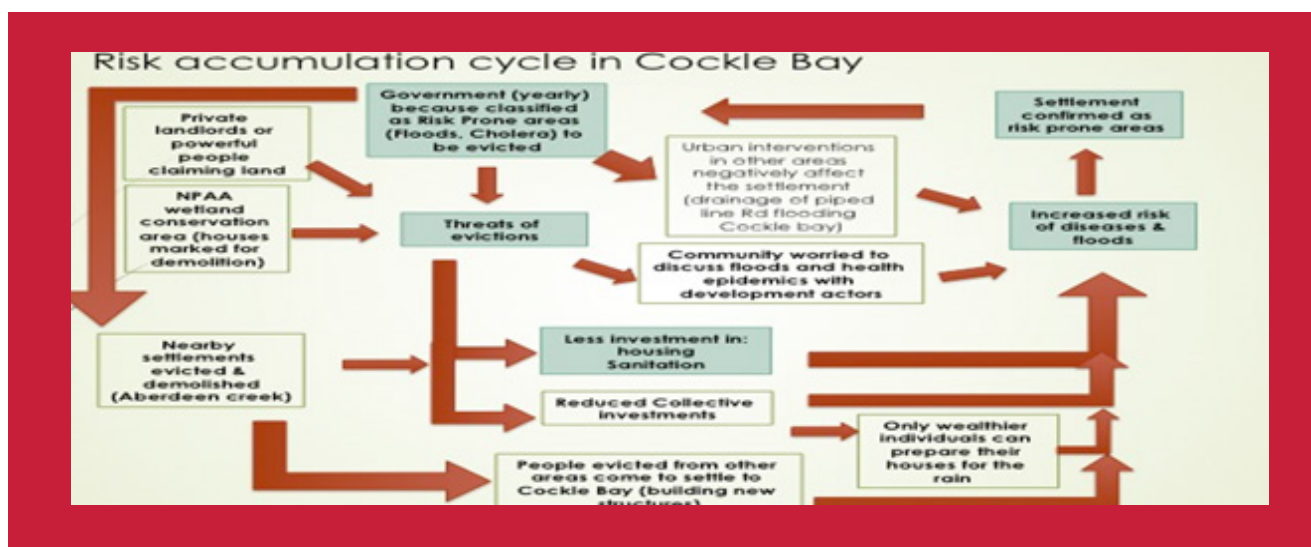
Cackle Bay is an informal settlement located along the Aberdeen Creek in the Western Coast of Freetown. The land is largely owned by the municipality and at present is home to an estimated 540 households. The settlement is characterised by poor infrastructure and lacks basic services (electricity, waste management, healthcare, potable water and sanitation).

Vulnerability in coastal informal settlements as Cackle Bay is evident through cumulative losses from

seasonal flooding, water-borne diseases and lacking domestic and community infrastructure.

Residents are faced with persistent (annual) and long-standing threats of eviction on the basis of both a formal designation of the area as a risk prone (mainly due to floods and disease outbreaks) and an area earmarked for ecological conservation. Residents are therefore wary of discussing openly about risk with external agencies as these may further increase the eviction

threat. This blanket designation is applied without a systematic analysis of what parts of the settlement can be safe or unsafe for housing. The politics of using risk as a justification for evictions is a major contributor to the uncertainty, which increases the vulnerability of the residents. Such threats and the uncertainty they produce undermine community collective action to address known risks and residents' individual investment in housing, increasing even further the risk vulnerability of the residents.





## Community Responses:

Residents of informal settlements have the capacity to respond to disasters and risks through: sensitization, self-help initiatives to support to affected people, establishment of structures such as Community Disaster Management Committees (CDMC), Community Health Workers (CHWs). Settlements present different response capacity to risk. A major determinant of this capacity is pre-existing community governance structures. When these are in place and functioning, it is more likely to find residents organised in committees and trained.

Very effective responses take place when there are joint initiatives of the residents and the city council or other public agencies (e.g. fire sensitisation and hazard monitoring in Cockle Bay).

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