SLURC/DPU Action-Learning Alliance

Understanding urban risk traps in Freetown

MSc Environment and Sustainable Development

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POLICY BRIEF No 6

The Internalisation of Informal Ocupational Risk in Freetown, Sierra Leone

Key points

• The informal sector is an important part of the economy and supports the entire city metabolism, yet the incidence of occupational risks disproportionate falls on those employed within informal industries.

• Risks for informal occupations may vary; however, there are higher risks present in the early stages of the informal sector value chain.

• Self-organised trade unions exists to reduce and mitigate risks for informal workers. However, enhancing their capacity to internalise risk requires both recognition and intervention from the government.

• Exploring site-specific occupational networks in "hotspot areas", such as Kissy, could be key in understanding how and where to mitigate risk traps in Freetown.

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Photo Credit: Tommy Trenchard

Introduction

Informality is pervasive in Sierra Leone, with an estimated 92% of the national labour force working in the informal economy[1]. In Freetown, informal urban occupations are a varied and highly diverse set of economic activities including artisan activities, service provision, and construction[2]. By providing physical and economic services, and helping maintain local livelihoods, the benefits of informality are seen both for the city, and its population[1]. The increasing dependency of developing countries on the informal economy is a trend observed across Western Africa[3,4]; and the high prevalence in Sierra Leone suggests the significant role the informal sector plays in supporting the functioning, or 'metabolism'[5] of Freetown. However, the occupational risks faced by informal sector workers are clear. Others have raised concerns about the growth of informal occupation at the expense of both social protection and working conditions[4,6]. This corresponds to the definition of informal work, as employment "without social or legal protection"[7].

In Freetown, the relationship between formal and informal occupations is less distinct. For example, loose conditions of formal employment require only one of - written contracts, medical insurance, or employer contribution - to be 'formal'. Furthermore, certain informal sector jobs, such as scrap metal collection, provide greater financial income than formal equivalents[8]. We recognise formal and informal occupations existing on a spectrum of risk. We hypothesise that within this spectrum, risk disproportionately falls onto workers in the most basic informal jobs at the initial stages of the value chain.

Therefore, we hope to establish a more constructive diagnosis into environmental and occupational hazards facing informal workers, offering recommendations for both research and interventions. Using a value chain approach, we show the spatial burden of risk for those informal occupations occupying the primary stage of their value chains, and whose activities concentrate in certain areas of Freetown.

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Barriers to Research

The availability of quantitative and qualitative data has shaped our analytical approach. The, problems associated with exploring the informal sector - definitional difficulties, historical events, government relationship to informality - has been widely recognised[3,4].

In Freetown, little data has been collected on participation, risks, and health outcomes for informal occupations. For example, the first labour survey in 30 years (published in 2014) gave little attention to informality. This could be for a few reasons, such as ambiguity over status and mobility of informal workers make data collection difficult or collection problems with disruptive historical events such as civil war and ebola. However, it appears the government's (un)recognition of informality is most important for understanding the limited data on informal occupations, but also how risk may be disproportionately placed on workers at one end of the spectrum through (un)responsibility. Therefore, we have primarily used qualitative data to form a spatial exploration of informal occupational hazards in Freetown, to help identify and locate risks.

Methodology: A Value Chain Approach

As there are many informal occupations present in Freetown, three representative industries were chosen to be the focus of analysis. These are the fishing industry (focusing on artisanal fishing), recycling industry (waste picking and scrap metal collection), and extractive industry (quarrying and sand mining). These industries were chosen as they are each fundamental to the functioning of the city - food commodity (fishing), source of construction material (extractive industry), and waste management (recycling).

To begin the discussion, each industry was first analysed separately. The key areas of interest included the geographical distribution, historical context, value chain operations, and prevalence of occupational hazards (biophysical, mechanical, chemical, social, and environmental). With this background of individual informal occupations, a synthesis of the informal sector was then conducted.

To understand the informal sector as a whole, a value chain approach[9] was applied at a city level. The stages of value chain for the informal sector were defined as:

Stage 1: Harvesting (collection of raw goods),
Stage 2: Distribution (processing and transportation), and
Stage 3: Consumption (utilisation of final product).

The synthesis seeks to understand (i) how various stakeholders are involved in each stage of the informal sector value chain, and (ii) how the value chain of the informal sector are spatially distributed.

Definitions

Informal occupations – a highly diversified set of economic activities without legal or social protection by the state.

Internalisation – occurs when benefits equal or exceed the cost of a risk, indicating the capacity of workers to cope with the risk.

City metabolism – the ecosystem of the city.

Value chain – the process through which value is added to a good/service.

Fishing Industry: Artisanal Fishing

Photo Credit: Tommy Trenchard

Fishing communities in Freetown are predominantly found in coastal areas such as those in Aberdeen, Goderich, Old Wharf, and Portee, amongst others. The civil war in Sierra Leone increased the influx of domestic migrants to the city, and caused the increase of fishermen as a result of limited available occupations[10]. Additionally, it is also common for migrants from Ghana and Senegal to be involved in artisanal fishing activities in the Western Area[11].

There is also a gender division of labour due to cultural and religious perceptions (e.g. menstruating women should not be on a fishing boat). As such, in terms of value chain, the harvesting stage, which is also the most hazardous stage, predominantly involves men, while the distribution stage involves women and children processing and transporting goods to local markets or for distribution further inland. In fact, women account for around 75 percent of postharvest workers[12]. A point to note is that women involved in this stage rarely source their fish from outside the family network[12]. The consumption stage takes place at the household level.

In relation to occupational hazards, frequent and intense storms place the lives of fishermen at risk. Moreover, illegal, unreported, and unregulated (IUU) practices also accentuate mechanical, chemical, and social hazards. For instance, the use of cheap homemade explosives is a big security risk for fishermen[13], as these expose fishermen to chemicals and also cause injuries and even death when they sometimes detonate prematurely. The increase in foreign trawlers and 'agent boats' at sea have also heightened competition and caused conflicts. On the environmental front, IUU fishing practices and overfishing in general have resulted in environmental degradation causing fish stocks to decline[14].

Recycling industry: Waste Picking and Scrap Metal Collection

Photo Credit: BBC

Informal pickers make their living from salvaging and selling reusable or valuable materials[15], such as scrap metal and plastics. While in other African countries, workers in the informal recycling industry are predominantly women, however in Freetown this is unclear[16]. These occupations primarily take place at two landfill sites in Freetown (Kingtom and Granville Brooke landfill), though it also occurs at waste collection points.

Along the value chain, hazards for scrap metal collection and waste picking are more likely to occur in the harvesting but also distribution stages. In fact, major hazards mentioned by scrap metal collectors were related to the transportation of scraps to local agents and the associated risks due to unsafe traffic conditions[8]. Such harvesting occupations have emerged with build up of waste at collection points, and unsorted waste at landfills. A changing ownership of waste management between the government and Freetown Waste Management (FWMC) has been attributed to this[17]. The final stage, namely consumption of the recycled materials, after being selected, are then sold to sorting sites. Some materials are sold abroad for recycling, therefore transitions the value chain loop of this industry elsewhere, reaching further than the city metabolism[8].

Immediate risks facing informal pickers are exacerbated by inadequate protective equipment. High risk of exposure to biological pathogens (infection transmission) and chemical pollutants (inhalation) correlate with the absence of waste collection and classification at dumpsites[18]. Physical and mechanical hazards, such as penetrating injuries, are common in poor working environments coupled with insufficient preventative gear[17]. Furthermore, surveys with respondents living near waste sites indicate that these dangers have been normalised and/or there is a limited concern of hazards by waste pickers themselves[19]. As such, scrap metal collection is one of the most attractive income generating activities tamong the urban poor[8].

Extractive Industry: Quarrying and Sand Mining

Photo Credit: Tommy Trenchard

Stone-granite quarrying and sand extraction (mainly located around coastal areas and Kissy quarry) are an integral part to supplying new construction material. Though informal, quarrying is an important economic activity, with households and business enterprises highly engaged in the extractive industry[20].

Along the value chain, harvesters in the extractive industry are dominated by the urban poor, with a large percentage of youth participation. With this worker profile, harvesting is associated with a high risk of hazards. The second stage, distribution, is regulated by the Ministry of Mines and Mineral Resources, which carefully provides information on the laws, legislation, and mining agreements necessary for both domestic and international trade of the final product[21]. With the exception of precious metals, most materials extracted are used in Freetown for construction, which concludes the value chain's third stage of consumption within the city metabolism. Other precious metals extracted in Freetown are exported abroad, thus finalising the value chain outside its own metabolism, similar to the case of the recycling industry as noted earlier.

Regarding occupational hazards, physical hazards are most prevalent in the extractive industry. Children are exceptionally vulnerable as they are not provided with formal safety training and/or protective gear[22]. As such, these children frequently get injured. The extractive industry also has an adverse impact on the environment. It directly causes depletion of coastal areas, landslides, erosion, and loss of biodiversity.

Synthesis: Informal Occupational Risk at City-level

Looking at the informal sector as a whole, it is evident that the risk trend is similar for all the occupations. Specifically, occupational risks seem to decrease along the value chain - the occupational hazards are most numerous at the harvesting stage and are nearly negligible at the consumption stage [Figure 1]. This phenomenon occurs despite the individual characteristics, market structure, and types of hazards present for each of the occupations under analysis. As such, to understand how this arose and to identify risk mitigating strategies, a stakeholder and spatial mapping of the informal sector value chain was conducted to assess the impact of actor relationships and geographical distribution on risk prevalence.

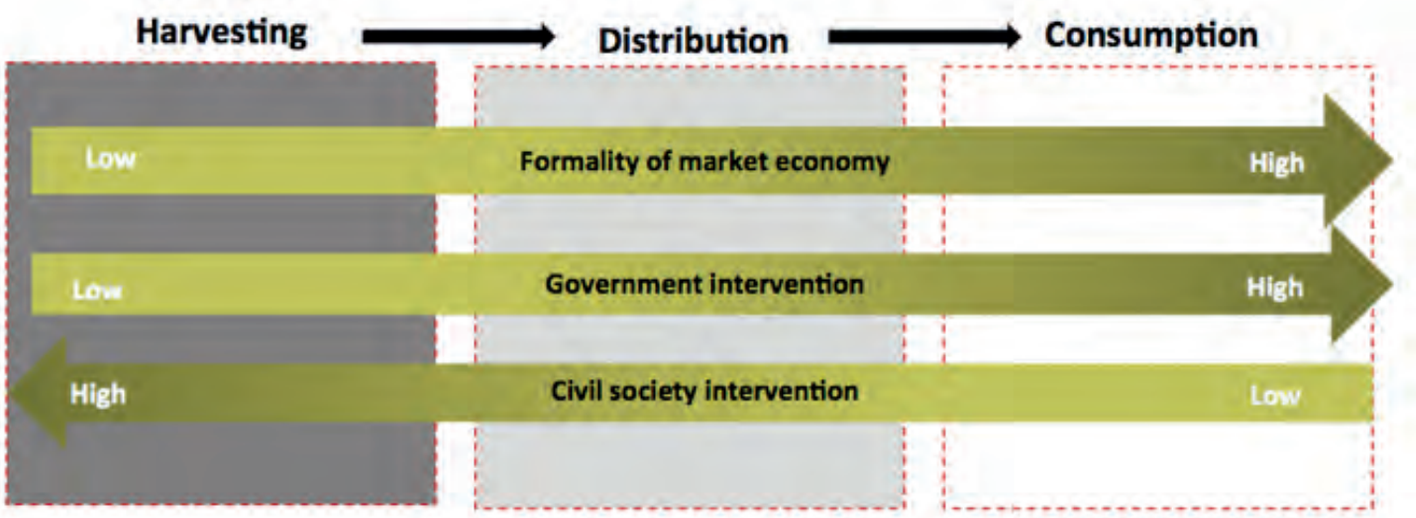

Figure 1. Value Chain Spectrum Diagram

Stakeholder involvement

Government intervention [Figure 1] in the value chain differs for each occupation, and each activity appears to be recognised by the government to a different extent. To this end, there are more regulations within the extractive and fishing industries as compared to the recycling industry. However, across all occupations, the government is more heavily present towards to the later stages of the value chain as compared to the initial stages. For example, within the extractive industry, the Ministry of Mining regulates the distribution and consumption stages as they seek to control the price of purchase of those materials[21]. However, they are not actively involved in the harvesting stage.

This deficit in government involvement gives rise to opportunities for self-organisation where informal trade union movements [Figure 1, Civil Society] have emerged in certain occupations. For example, the Sierra Leone Artisanal Fishermen's Union (SLAFU) was created by fishermen in Tombo in 2001 while the Sierra Leone Amalgamated Artisanal Fishermen's Union (SLAAFU) was also formed to act as an umbrella organisation to maintain safety at sea and monitor sustainable fishing practices[23]. However, the presence of multiple self-organisational structure acting independently in the informal sector does not necessarily mean there is the capacity for these networks to absorb risk, nor to modify their informal value chain.

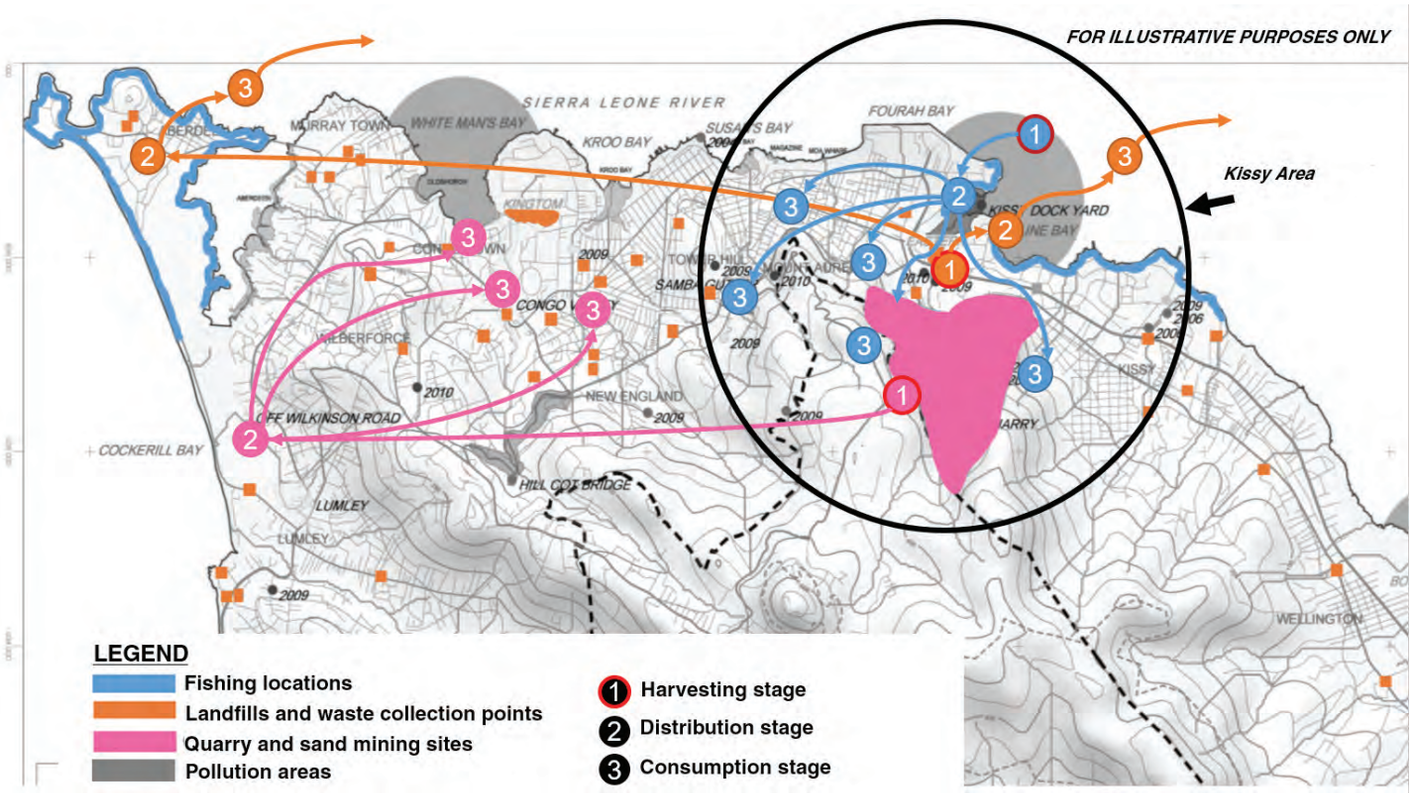

Figure 2. Distributions of the Informal Occupations across Freetown

Spatial distribution

Figure 2 shows that the harvesting stage for informal occupations tend to be site specific: waste picking and scrap metal collection predominantly take place at waste collection points or dumpsites while fishing occurs on sites where fishing communities are based. Quarrying and sand mining are also along coastal or inland sources. The distribution stage, on the other hand, may be site specific (at processing sites) or takes place throughout the city as raw materials harvested are sent directly to markets. The consumption stage occurs throughout Freetown and also internationally due to exportation.

This gradual change from site-dependent to site-independent across the informal sector value chain suggests that risk prevalence may be influenced by geography. To this end, it was noted that all the occupations under analysis have a segment of their value chain taking place in the Kissy area. The Kissy area contains (a) the Granville Brooke Landfill which is used by the recycling industry, (b) the Kissy Dockyard which is used by the artisanal fishing industry, and (c) the Mamba Ridge Quarry which is used by the extractive industry.

At Kissy, the interplay between environmental factors and occupational hazards become more pronounced. For example, leachates from the Granville Brooke Landfill has caused significant pollution in the neighbouring ocean. This contamination affects fish stock which in turn causes the fishermen to resort to harmful fishing practices such as dynamite fishing (chemical and mechanical hazards) to increase catch. Given this relationship between environmental and occupational hazards, it is reasonable to suggest that alleviating occupational risk may require an integrated analysis of the urban ecosystem in addition to the occupation-specific analyses conventionally adopted. For example, improving the recycling industry may present a way forward for mitigating environmental impact which affects the fishing sector.

Recommendations

Based on the aforementioned analysis, we recommend the following:

Stakeholders' involvement

• Encourage government focus on the early stages (harvesting and distribution) of the informal value chains, to help alleviate occupational hazards.

Targeted research going forward

• Explore Kissy, and identify further hotspot areas where basic informal jobs are concentrated and environmental and occupational hazards accumulate.

• Locate informal networks, transportation and distribution channels (such as markets) within Freetown to understand how these (i) enable workers to internalise risks, and (ii) are utilised in the broader economy to support the entire city metabolism.

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