Key messages

- The labour intensive livelihood systems of informal settlement residents contribute to their wellbeing and provide economic contributions to the city, allowing ‘formal’ economic activities to be viable.

- Livelihood systems are bound up in the histories and identities of communities and provide employment and basic income security to a significant number of residents (women and men), especially open access livelihood activities which can be exploited by those with limited assets - cockle picking, trading, sand mining, stone quarrying and fishing. Earnings from these fill gaps left by the absence both of large formal job markets and social protection.

- The value chain analysis of livelihood systems shows distinctively ‘male’ and ‘female’ nodes. Women often combine household care tasks with income generation, and these are also usually the lowest paid, least powerful parts of the value chains. Women in more powerful and lucrative roles normally have family members with influential roles in the sector.

- While providing basic income security, some livelihood activities are linked to environmental risks in densely populated neighbourhoods. Policy and regulatory interventions should provide better alternatives, rather than undermining existing livelihoods.

- Local NGOs should work together with people working in the sectors, and the state, to identify adaptation strategies for livelihoods that need to thrive in changing contexts.

Introduction

This policy brief contributes to the understanding of the importance of livelihood systems in informal settlements in Freetown for the women and men who participate in, and benefit from them, as well as for the wider settlements and the city. It is based on research undertaken in Cockle Bay, Dwarzark Farm, Moyiba, and Portee-Rokupa as case study informal settlements in Freetown. This was undertaken through six months of qualitative data collection in these settlements focusing on key livelihood sectors of stone quarrying, sand mining, cockle picking, trading and fishing. It documents the realities of livelihood strategies of men and women living in informal settlements. This was done with the overall aim of informing policy formulation processes that build on the capabilities, needs and priorities of informal settlement dwellers, and assist urban actors and stakeholders to develop appropriate, effective and practical interventions that strengthen the livelihoods of the informal settlements residents and their contribution to both their wellbeing and the wider urban economy.

Understanding Urban Livelihoods in Freetown’s Informal Settlements.

In the urban areas of Sierra Leone, about 70% of the population is self-employed and largely engaged in petty trading. Many of the women and men involved in informal trading do so on a survival consumption basis, to sustain the welfare and basic consumption of their households. While there is no data on the proportion of Freetown’s economy that is informal, in Sierra Leone more generally, the informal sector accounts for 70% of the labour force (GoSL, 2015). The majority of inhabitants of informal settlements also work within the informal labour market. But what is less understood is what forms of work are carried out in the specific value chains, who are involved, the labour conditions, or how different forms of livelihood relate to specific areas of the city and are intrinsically interconnected with a broader range of formal and informal economic activities. In addition, there is a lack of clarity on the capacity of informal markets to absorb more entrants and which sectors offer greater potential for growth.

In Sierra Leone, nearly 41% of the population lives in urban areas. Given this urbanization process, there is a significant knowledge gap on how different livelihoods relate to different areas within the city. This livelihoods study therefore seeks to fill an important empirical gap concerning the life experience of those in informal settlements in the context of Sierra Leone being a least developed country with widespread poverty and inequality.

In addition, given the lack of interventions that support informal settlements, and the nature of factors that affect their livelihoods, there was the need to document the importance of livelihoods, understand what threatens them, and understand how these livelihoods opportunities translate into sustainable and dignified lives.

Key findings:
Value chain analysis of livelihood sector

The research included value chain analysis of the key livelihood sectors to identify the flows of goods and services, the actors involved, and their functions, degrees of power and relationships. Visualizing the stages of production and the flows between them enables an exploration of the livelihood system beyond its core value chain to include a wider set of relations, including regulations and connections to other sectors and dimensions of people’s lives. This provides a comparative dimension between different groups of women and men engaged in the livelihood sector, and reveals the ways that relations between them are structured. A key focus of value chain analysis is to identify inequalities between nodes in value chains (i.e. decision-making power or profit generated), and to highlight that high- and low-value nodes are often associated with different categories of people.

Case study 1: The cockle picking value chain in Cockle Bay

Cockle picking is a livelihood activity linked with the history of Cockle Bay. Previously an attractive income source for women and men who had few alternatives, cockle picking has declined significantly due to overexploitation of the natural mangrove habitat which supported the ecosystem in which the cockles thrived. Cockle picking and production are predominantly female and child activities. Better harvests in the rainy season means that it is not a year-round stable source of income. Cockle picking as a trade is vulnerable to environmental changes – for example, interviewees noted that “for a period of a couple of years the cockles became bitter and could not be sold, although they were plentiful at the time”. Cockle picking is not a ‘value chain’ as the entire process, from picking cockles out of the sand to cleaning, cooking and selling the cockles, is typically done by the same individual women. The cockles are generally sold within the community or in neighbouring areas (such as Aberdeen Road Market, Murray Town, Thompson bay, Wilkinson Road and Lumley) as the cockles are an open access resource.
Case study 2: The stone quarrying value chain in Moyiba

The stone quarrying value chain in Moyiba links several actors and activities, starting with the initial rock extraction and ending with the use of the stones and gravel in local and citywide construction projects. Connections between nodes in the chain are not arranged in a standard form, nor a linear structure. Nodes may be bypassed as a result of direct local demand, or extra nodes may arise as a result of fluctuations in demand. For example, rock extractors and breakers may at times sell directly to local builders or households involved in self-construction at a higher price rather than via middlemen or contractors. On the other hand, when demand is low they may sell rock to local middlemen who stockpile rocks to sell when demand increases.

The main ‘flows’ in the value chain are of rocks, labour (e.g. the work of loaders) and money between actors, though money flows are often delayed, or indirect, through systems of trust, credit and agreed shares of processed rocks. The value chain is more complex as different nodes may be undertaken by different groups, or a range of processing phases may be undertaken by the same person (e.g. a rock extractor may also break down rocks into fine building gravel).

Both men and women are involved in quarrying, with clear gendered division of labour at every stage. Rock extraction is carried out exclusively by men, justified by men’s physical suitability for the hard manual work involved. Women and children are involved lower down the value chain – smaller rock breaking, and sometimes petty buying – though generally only in collaboration with male partners.

While mining activities are non-licensed, they are somewhat regulated by the authorities. There are some occupational associations, manage disputes and have set up mutual welfare societies. Some police-enforced bylaws also exist.

Case study 3: The stone quarrying value chain in Dwarzark

Due to the historic availability of rocks as an open-access resource, stone quarrying is an established livelihood in the hillside settlement of Dwarzark. Yet stone quarrying here is distinct from Moyiba - over the past decade, due to the increasing population density, stones have ceased to be an open access resource and are now considered to be ‘owned’ by the owners of the land on which they sit.

Along with city government restrictions on stone mining in public spaces and banning ‘street mining’, this has resulted in changes to stone quarrying activities. Where stone is quarried within the community, the ‘crack-crack’ workers who do initial stone extraction may sell it to the site’s landowner at a discounted price, or buy the stone from landowners or caretakers. Also, Dwarzack residents increasingly mine stones outside of the settlement in areas where stones remain an open-access resource.

As in Moyiba, men, women and children all work in the sector, but in distinct nodes of the value chain. Extractors and initial breakers are mostly young men, while the transferring of stone to breaking sites and breaking into smaller sizes is largely done by women and children.

No formally registered occupational associations in Dwarzarck were mentionend, though workers in different stages of production have collective arrangements for mutual support and loans amongst themselves.
Case study 4: Fishing Livelihoods in Portee-Rokupa

Fishing is a key component of livelihoods in the coastal settlement of Portee-Rokupa, which has good access to fish markets due to its proximity to the Bai Bureh Road. People come from all over the city and other provinces to buy fish from Portee-Rokupa, and fish sellers from the community also sell fish in the main markets elsewhere in the city.

Many involved in fishing and its associated activities were born or married into fishing families, and the sector often employs entire households with members involved in different nodes of the value chain (for example, female fish agents or processors are likely to have boat owning or fishermen husbands.

Labour is gendered throughout the value chain, with women predominantly involved in selling and processing nodes.

In Sierra Leone, the Ministry of Fisheries and Marine Resources has sole jurisdiction over managing and conserving fishery resources. Yet governance of fishing and granting of licenses is split between central government for larger boats (classified as semi industrial) and local councils for smaller artisanal boats. The main formal governance initiatives that respondents mentioned as affecting their work were the requirement to take fine nets (which caught juvenile fish) out of use, new safety gear requirements, and the designation of a bay near Portee-Rokupa as a marine reserve for fish breeding. These have been variably enforced.

Case study 5: Sand Mining in Cockle Bay

As Cockle Bay's main livelihood sector of cockle picking has decreased due to overexploitation of the cockles' mangrove habitat, sand mining has become one of the area's main subsistence livelihoods. This is mainly a male activity, whereas cockle picking is predominantly a female one. Women tend to be involved only where sand is collected for household construction, rather than for sale.

The sand mining sector of Cockle Bay is based on mining sand exposed during low tides in the lagoon of Aberdeen Creek, which is then transported and sold for use in the Freetown building industry. People from other communities also mine sand in Cockle Bay, although selling sand mined here to other communities is prohibited.

Due to over-exploitation, there is less sand available close to the settlement and increasing restrictions on where it can be mined (with sand miners respecting community restrictions on mining near the tidal football field and the bridge). As a result, sand mining now occurs in more distant sites and is transported by boat. Yet demand has increased due to greater use of concrete building in the settlement.

Responsibility for environmental protection lies with the Ministry of Lands, but sand mining licencing lies with local councils. There is limited coordination at local level among the chief and local council officials on granting sand miners licenses and daily clearance, and regulations to ensure the protection of the environment in these communities are sporadically enforced.

The environmental protection agency has defined Aberdeen Creek (including Cockle Bay) as a Ramsar site meaning that activities like sand mining should not be encouraged. Increased regulation has not stopped sand mining, but is regarded as an additional cost to miners who need to pay off officials.
The Livelihood Systems: Patterns and Themes

The livelihood systems in informal settlements are structured value chains, with a complex organization of relationships that have developed and evolved over time and space. Systems involve highly labour intensive production processes that offer fundamental social functions supporting the wellbeing of an expanding urban population.

The value chain analysis of livelihood systems shows mixed gender participation with distinctively ‘male’ and ‘female’ nodes. For example, men do not engage in cockle picking and women only engage in sand mining for household use, but not for sale. In the livelihood systems which involve both women and men overall (fishing and quarrying), many stages are characterized by a clear gender division of labour. The rationale for sex segregation is influenced by the physical strength, for example stone quarrying, men are engaged in the most strenuous but most income generating activities such as clearing of soil materials to expose the rock, cracking of boulders, lifting and loading of the boulders onto trucks to earn a living. The ability of labour power in this case is an asset that they used to realize their livelihood outcomes. Women tend to work in stages which are characterized as less strenuous and those in which they can combine household care and income generating work, but also less profitable sectors or less profitable stages of the chain. Women occupying more powerful and lucrative roles normally have family members with influential roles in the sector (for example women fish agents are often related to fishermen or boat owners). This suggests that men have more options to engage in more profitable activities. This gender division of labour has caused variation in the financial outcomes realized by those involved in the livelihoods sector value chains.

In the case study settlements, all of the livelihoods value chains are based on the exploitation of finite natural resources which are already under stress because of increased demand due to city growth. As a result, these livelihoods systems have little room for expansion, or, with the possible exception of fishing, the ability to provide livelihoods for the growing populations of the case study settlements.

Livelihood strategies: Patterns and themes

Both men and women undertake diverse livelihood activities in the communities. The motivations for this were usually influenced by changing personal circumstances such as dropping out of school, teenage pregnancy or parental death(s). Many women sought to secure an income to complement the low income of their partners if their partners had low incomes. In contrast, most men entered the livelihood activities due to business failures, their intention to open a business, as a route to complete their studies, or to raise income to supplement other activities such as working as a security guard. Others entered the livelihood sector with the sole aim of accumulating financial capital in order to buy productive assets such as land to construct a house for dwelling and rental purposes.

In terms of age, older men with family responsibilities mainly focused on providing for other family members through their work. Young men often worked in the sector to invest in assets for strengthening their livelihoods, such as education or financial capital.

At the level of the settlement or city, livelihood strategies involve interlinked processes such as environmental change/natural resource use, population growth, governance interventions (evictions, sector regulations), and the absence of state social protection. As the population grows, demand for goods increases which in turn stimulate the growth of the livelihood sector and its more complex organisation. For example, the city’s expansion has increased the construction industry’s demand for stones. At the same time, population growth in Dwarzark has created competition over land use for housing versus stone extraction.

With regards to fishing in Portee-Rokupa, the benefits of regulation of the sector appear relatively clear and well accepted by those working in it. In this case regulation focused on protecting marine resources and on worker health and safety, with state authorities covering some of the costs of compliance. While interviewees highlighted the costs of formalization, they were nonetheless committed to its benefits. In other cases such as stone quarrying, where there is little external governance, articulated systems were established within the settlement:

“We do not have licenses to operate as stone contractors but we do have laws guiding our operations in the quarry as contractors which are enforced through our association. [...] The fees from the fines are used for road maintenance, building of toilets and construction of drainage.”

Small-scale saving groups are often the only form of self-support for people involved in these sectors and they help to build trust which improves the overall functioning of the sectors:

“Osusu (saving group) is the only strong bond that brings the women together as we do not have any association used to bring us together” (FGD traders Cockle Bay).
Livelihoods outcomes

Individual and household

The most obvious outcome of urban livelihoods is the material aspect of income, but this is insecure and fluctuating. The seasonal nature of earnings meant respondents’ estimates of monthly income may not have reflected overall annual averages, but estimates of earnings do not factor in costs, thus often expressing gross revenues. However, while it is not possible to capture an accurate picture of earnings, women tend to work in less profitable sectors (e.g. cockle picking) or stages in the chains, with the result that they earn less than men do. For example, in stone quarrying women earn about 60 percent less than men. In households composed of a heterosexual couple, women’s income was seen as supplementing the men’s.

Some actors sought to accumulate different forms of capital. Even in the labouring parts of the systems, some mostly male workers were able to save and invest in education, tools, housing and land and health. These assets provided them with additional income, reducing their vulnerability to shocks in the long term. However, for others - mostly women - their work only contributed to their own and their families’ daily consumption and survival. In the absence of state social protection with few programmes available vis-à-vis the number of citizens living in poverty, these livelihoods represent a crucial last resort for many informal settlement households. As a result, informal networks of social protection, trust and mutual assistance play a critical role in the livelihoods strategies of most people.

The negative outcome of work in the livelihood sectors include increased health risks such as eye and ear infections, respiratory tract infections, muscle pains, changes in social ethics, land degradation, and noise and dust pollution, particularly in stone quarrying.

Settlement level

At the settlement level, livelihood systems appear to strengthen community systems of trust and reciprocity, by establishing multiple relationships of interdependence between different actors in the value chains. These include consolidated trust relationships built over time, which allow value chains to function with little cash. In addition, workers frequently reported relationships with community members that went beyond financial arrangements to encompass wider solidarity and the interests of community development.

The formal and informal associations that often regulate the sectors also provide the basis for informal regulation of social interactions in the settlements. Most times fines imposed are used for road improvement projects in the community.

However, particularly with regards to stone mining, the use of natural resources competes with pressure on the land resulting from growing populations, potentially causing hazards and conflicts over whether land should be used by the livelihood sector or for residential purposes. These tensions are mediated to some extent by local governance structures with complex self-regulation mechanisms.

Spatial Analysis of Livelihood Sectors in Freetown

Spatial analysis of the livelihood sectors studied shows a strong connection of these sectors with other parts of the city, and thus the connections between the economy of informal settlements and the wider city economy (see figure 6). They employ large numbers of young people who might not have alternatives, offering them a coping strategy, positive socialisation and mitigating the potentially critical impact of large youth unemployment, which in some contexts may increase urban violence and conflict (Finn and Oldfield, 2015). Some young men work in these sectors to pay for their school fees which mean their individual investments also contribute to improve the city’s human capital, bridging gaps in public funding of education.

Insecurity of livelihoods

A range of factors contribute to the insecurity of these livelihoods and inform individual and households coping strategies. These include:

Figure 6: Relationships between livelihood sectors of informal settlement residents and the city
**Seasonality:** Environmental changes affect the security of livelihoods in different sectors. Demand for stones collapses during the rainy season as construction work in the city stops, plus extraction is more difficult. Fish stocks and weather conditions also affect the fishing chain, with periods of oversupply which strongly affect the weaker sellers.

**Competition:** Increased competition, sometimes linked with people moving from other no longer viable sectors, is also an important factor. This can lead to insecurity, particularly in parts of the sectors to which there are few entry barriers. Competition increases at particular moments when other opportunities close and people crowd into specific livelihood sectors, or at times of low demand/oversupply. The lack of a predictable income linked to the subsistence or hand-to-mouth nature of the livelihood further increases the impact of insecurity.

**Regulations:** These may have a huge impact on the sector. For example, when changes to the permitted net sizes were enforced to protect the sustainability of the fish stock, women and men working across the fisheries value chain in Portee-Rokupa were affected because many boat owners could not afford new nets.

**Coping strategies**
People cope with this high level of insecurity by engaging in multiple simultaneous activities or through systems of mutual social protection: saving groups (horizontal), and advances from brokers (vertical). Some of the issues that generate insecurity at the individual/household level may have a wider impact at the settlement and city scales.

**Conclusions and Policy Recommendations**

The livelihood activities of informal settlement residents make an important contribution to the settlements and the wider city. They provide livelihoods for the wellbeing of large number of people, with limited capital, while contributing to key sectors of the city economy. These are based on trusted relationships cultivated over long periods of time, and informal institutions. The latter regulate local economic activities by filling a governance gap left by city and central government authorities.

These sectors function as an employment of last resort open to most people, and have mechanisms of mutual assistance. Therefore, they help compensate for the lack of social protection services from the state. However, some of them contribute to environmental degradation and workers may be subject to exploitative conditions. They also have little potential for expansion due to their dependency on limited natural resources.

However, any disruption to these sectors may affect the supply of key goods to the city and cut the livelihoods and social protection to a large number of people. Therefore, similar labour intensive alternative livelihoods need to put in place before pushing people away from livelihoods that are not sustainable in the long term, otherwise, there may be increasing unemployment, poverty, and potentially social conflict. The Agenda for Prosperity (2012-2018) acknowledges the importance of activities in informal settlements and calls for improving working conditions and social protection, particularly for informal businesses operated by women. It is important that national policy and regulations interventions in these sectors should be carefully consider all stakeholders to ensure the most vulnerable are not adversely affected by proposed changes.

Most NGO support focuses on the individual, often promoting micro-enterprises through capacity building, credit, or equipment. This makes a crucial contribution, but misses strategic settlement and city scale interventions. NGOs could also participate in developing alternative labour intensive sectors that are not reliant on finite natural resources; supporting settlement-scale governance of livelihoods and the use of natural resources; and engaging informal settlements in city-scale economic planning.

In Freetown, those most at risk often rely on livelihood sectors based on exploitation of finite natural resources (e.g. sand mining, quarrying and fishing) facing stress and increased demand due to city growth. Risk production and impacts travel through the value chains of these systems with differential impacts upon women and men. This calls for an in-depth interrogation of how different livelihood systems affect and are affected by risk accumulation.
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