



# CHANGE BY DESIGN

## Cockle Bay Community Action Area Plan

2018

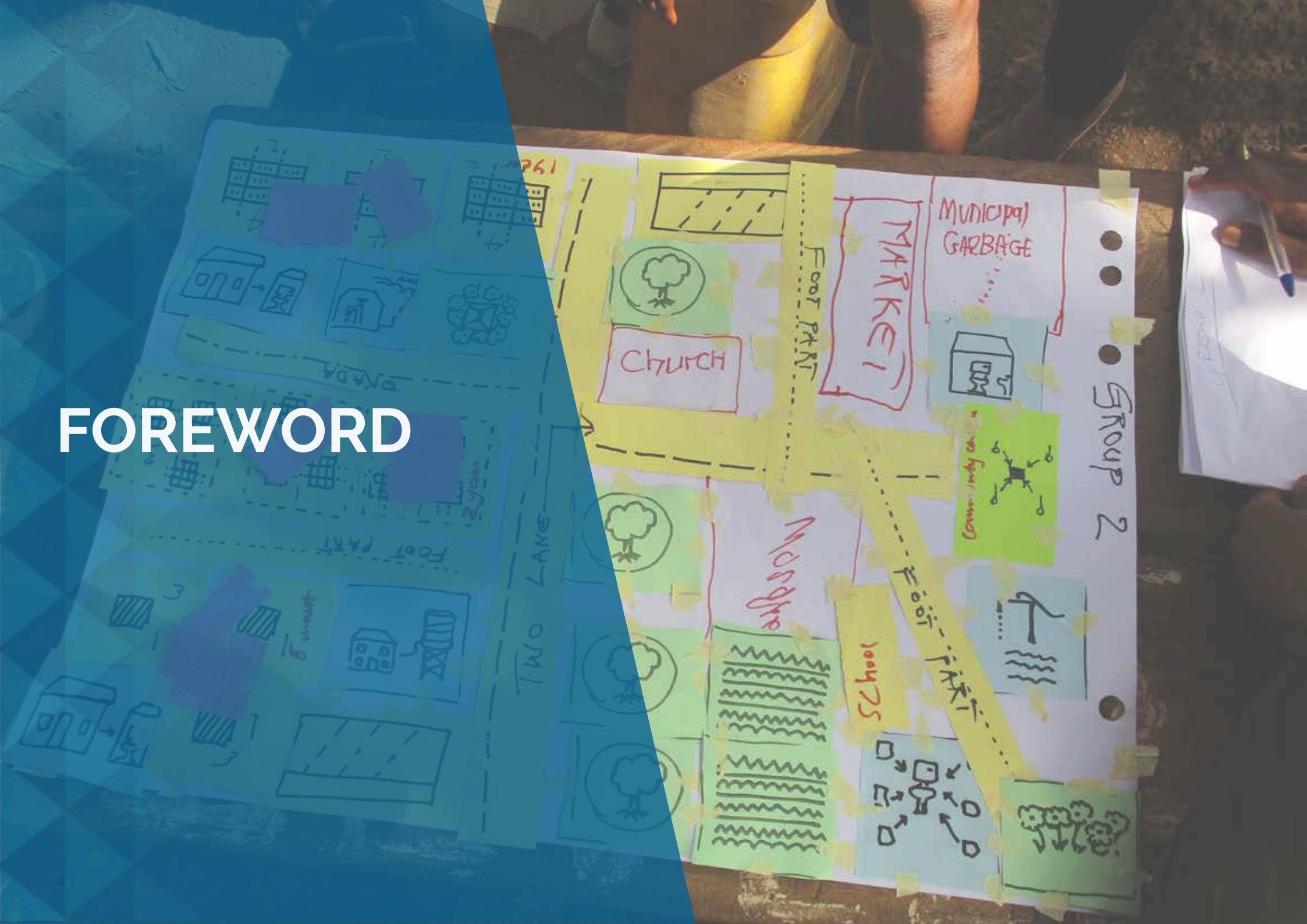




# CONTENTS

	Page			
I	Contents			
II	Foreword	4		
III	List of Illustrations	6		
IV	List of Abbreviations	7		
<b>1</b>	<b>Introduction</b>	<b>8</b>		
1.1	About the Project			
1.2	What is Community Action Area Planning?			
1.3	Structure of Report			
1.4	Limitations			
<b>2.</b>	<b>How the CAAP was Produced</b>	<b>12</b>		
2.1	Description of Change by Design Methodology			
2.2	Who is Involved and why			
<b>3.</b>	<b>Settlement Profile</b>	<b>16</b>		
3.1	Settlement in Context			
3.2	How has the settlement Developed?			
3.3	Urban Character			
3.4	Settlement Demographics			
3.5	Access and Mobility			
3.6	Public and Environmental Health			
3.7	Economy and Livelihoods			
<b>4.</b>	<b>Policy and Planning</b>	<b>32</b>		
4.1	Introduction to planning policy			
4.2	Review of planning documents			
4.3	Key Policies			
4.4	Stakeholder Analysis			
4.5	Entry Points for Community Action Area Plans			
4.6	Principles and Options			
<b>5.</b>	<b>Home Scale</b>	<b>42</b>		
5.1	Diagnosis			
5.2	Dreaming			
5.3	Developing			
5.4	Principles and Options			
<b>6.</b>	<b>Community Scale</b>	<b>54</b>		
6.1	Diagnosis			
6.2	Dreaming			
6.3	Developing			
6.4	Principles and Options			
<b>7.</b>	<b>City Scale</b>	<b>64</b>		
7.1	Diagnosis			
7.2	Dreaming			
7.3	Developing			
7.4	Principles and Options			
<b>8.</b>	<b>Integrated Principles and Options</b>			
8.1	Scale Principles			
8.2	Integrated Principles			
8.3	Refined Option			
<b>9.</b>	<b>Defining; Portfolio of Options</b>			
9.1	Modelling Layouts			
9.2	Planning an Organisation Strategy			
9.3	Drawing Layouts			
<b>10.</b>	<b>Design Guide</b>			
10.1	Guidelines			
<b>11.</b>	<b>Taking the Plan Forward</b>			
1.1	Reflections from the process			
1.2	Future Actions			
	Acknowledgements			
	Bibliography			

# FOREWORD



# FOREWORD

Freetown, like many other Sub-Saharan African cities is characterised by urban sprawl and the proliferation of informal settlements mostly in the form of slums. The slums are generally characterised by sporadic development; are prone to disaster risks, and; are poorly serviced with the worst connections to piped water and electricity. How to contain and manage this undesirable growth still remain a major challenge to the government and other urban actors. Most researchers agree that the way human settlements are organised have implications on how people live, their social interactions and how well they are provided with utilities and services. However, dealing with unplanned growth at the local community level requires that we work with the local residents to proffer answers to the following three questions: what is the nature of the problem? Where do we want to be? And how do we get there? It is also about increasing the participatory spaces for the residents because when local communities are empowered, they are more likely to exert mutual pressure on the city authorities and to hold them accountable for their actions.

This report is based on a study funded by Comic Relief (UK) and carried out jointly by the Sierra Leone Urban Research Centre (SLURC) and Architecture Sans Frontières-UK (ASF) in two informal settlements (Dwarzark and Cockle Bay) in Freetown. The study uses the Change by Design methodology to show case the practicability of working with local residents

to develop Community Action Area Plan (CAAP). In each community, the CAAP process involved holding consultations on some specific attributes about the community and analysing the ideas to generate discussions about a common and desired future and to prioritise actions to achieve that future for the community. The report draws on the perspective and experience of different stakeholders at different scales involving community residents and their groups, civil society and representatives from the local and central government. The approaches are both flexible and generic and so, can be adjusted to fit any local planning situation.

Even though the CAAP can be applied in any community at the local level, this study focuses on informal settlements to describe how rapidly growing communities on insecure land and with limited services can be organised to explore practical and durable solutions to some of the development challenges faced. The study recognises that while conventional forms of planning are the norm in most cities, such approaches do not always meet the needs of the majority of the urban poor who mostly live in informal settlements. As such, the CAAP process has been designed such that the very people who will be affected by the plan are actively involved in the plan preparation process. The report emphasises that local residents are creative agents and are therefore, central to their own development. Therefore, any meaningful

solution to problems in their communities should require their active involvement. The report is intended to help government and other city authorities to support local communities by working creatively with the residents to improve and formalise the places where they live. Apart from showing how to involve and work with a wide range of stakeholders, the report shows how to prepare the CAAP and to successfully outline the development priorities and aspirations of the different localities. It also shows how such a plan can help city authorities to promote social and economic transformation in the communities and thereby, reduce poverty and inequality. It supports the existing guidelines for preparing Action Area Plans by proposing a series of steps to initiate and sustain a more detailed and inclusive CAAP process that reflects the current and future development priorities and aspirations of the people.

Joseph M Macarthy (PhD)  
Executive Director, SLURC



# LIST OF IMAGES/ILLUSTRATIONS

## Section 01

1.1 Collection of images from CbD 2017

## Section 02

2.1 Dreaming Exercise

2.2 Methodology Diagram

2.3 Group photo after developing a portfolio of options in Cockle Bay

## Section 03

3.1 Aerial view of Cockle Bay

3.2 Cockle Bay in context

3.3 Development in Cockle Bay

3.4 Banking in Cockle Bay

3.5 Cross Section of Cockle Bay

3.6 Urban Character of Cockle Bay

3.7 Neighbourhood character areas

3.8 Settlement demographics, tenure & ownership

3.9 Access and mobility diagram

3.10 Public and Environmental Health

3.11 Sanitation

3.12 Economy and livelihoods

3.13 Livelihoods photographs

## Section 04

4.1 Policy Documents

4.2 Stakeholder diagram

4.3 Stakeholder analysis

4.4 Extract from Freetown FSP

4.5 Organisational Options Diagram

## Section 05

5.1 Diagnosis activities at home scale

5.2 Concrete block home layout

5.3 Panbody Home Layout

5.4 Dreaming activities at home scale

5.5 Developing activities at home scale  
5.6 Outputs from home scale developing activities

5.7 Home scale principles

5.8 Home options diagram

## Section 6

6.1 Diagnosis activities at community scale

6.2 Sketch: What is good shared space

6.3 Dreaming activities at community scale

6.4 Dreaming about drains

6.5 Developing activities at community scale

6.6 Developing activity at community scale

6.7 Community principles

6.8 Community options diagram

## Section 7

7.1 Diagnosis at city scale

7.2 Diagnosis at city scale

7.3 Dreaming activities at city scale

7.4 City scale locations

7.5 Dovecot city scale improvements

7.6 Developing activities at city scale

7.7 City options diagram

## Section 8

8.1 Principles and options activities

8.2 Integrated principles sketch

8.4 Refine options

## Section 9

9.1 Modelling layouts

9.2 Modelling activity

9.3 Sketch reflections

9.4 Sketch reflections

9.5 Organisational activity

9.6 Group 1: Community development strategy planning findings

9.7 Group 2: Community development strategy planning findings

9.8 Group 3: Community development strategy planning findings

9.9 Organisational activities

9.10 Community development strategy findings table

9.11 Considerations moving forwards

9.12 Drawing refined layouts

9.13 Group 1: Refined layouts

9.14 Group 2: Refined layouts

9.15 Group 3: Refined layouts

## Section 10

10.1 Design guide diagrams

## Section 11

11.1 Sketch layout

11.2 Photographs from various engagements

# LIST OF ABBREVIATIONS

CAAP	Community Action Area Plan
SLURC	Community Action Area Plan
ASF-UK	Architecture Sans Frontières
FCC	Freetown City Council
MLCPE	Ministry of Lands, Country Planning and the Environment
FEDURP	The Federation of Urban and Rural Poor
CODOHSAPA	Centre of Dialogue on Human Settlement and Poverty Alleviation
NLPSL	National Land Policy of Sierra Leone
TCPA	Town and Country Planning Act
FIA	Town and Country Planning Act



1

# INTRODUCTION



## 1.1 About the project

This document presents the process and findings from an eight-month project that has utilised participatory planning and design to produce a Community Action Area Plan (CAAP) with residents of two settlements in Freetown. This work is part of a wider initiative to explore approaches to inclusive city making in Freetown by including a broad range of stakeholders from government, city officials, civil society and NGOs, as well as residents, particularly those in living in informal settlements.

This project builds on a previous workshop held in Freetown organised by non-profit organisation Architecture Sans Frontières–UK (ASF-UK), with The Bartlett Development Planning Unit of UCL and SLURC; which tested ASF-UK's Change by Design (CbD) methodology for participatory planning and design in Cockle Bay. Workshop participants included community representatives from informal neighbourhoods across Freetown, local built environment professionals, staff from the Ministry of Lands and Freetown City Council, as well as researchers and lecturers from Njala University. The outcome of the workshop was a collective manifesto for participatory neighbourhood planning for a more inclusive Freetown, which has informed this process.

'This project also draws on the relationships and knowledge developed by previous SLURC action research and learning initiatives in Freetown, such as researches on urban livelihoods and health, as well as on urban risk

## Team

The participatory planning activities and production of the CAAP were carried out as a partnership between University College London – The Bartlett Development Planning Unit (DPU), ASF-UK, the Sierra Leone Urban Research Centre (SLURC) as well as the Federation of Urban and Rural Poor of Sierra Leone (FEDURP-SL).

During the eight-month engagement the team worked closely with a variety of stakeholders, supporting the creation of a community steering group and wider advisory group to review the outcomes at every stage of the process. Over 25 workshops were facilitated with community members involving over 300 residents.

## 1.2 What is Community Action Area Planning?

Community Action Area Planning brings together area planning methods focused on spatial design with community action planning methodology which aims to provide groups with a framework in which decisions can be made locally.. It puts communities at the centre of the development process. In Freetown there is an opportunity to create a community-level action plan that considers the needs and aspirations of people living in informal settlements, so they can be included in city-wide visions and advocate their rights to a more just and inclusive city.

The CAAP is an instrument that aims to:

- Support communities to advocate their rights to a more just and inclusive city.
- Provide a decision-making tool to help communities plan for future interventions.
- Provide a framework for testing different scenarios for settlement upgrading.
- Provide a framework to explore and assess different organisational structures and funding mechanisms that will support change.
- Support local and central government to further understand the needs and aspirations of residents living in informal settlements, helping to plan realistic and equitable interventions.

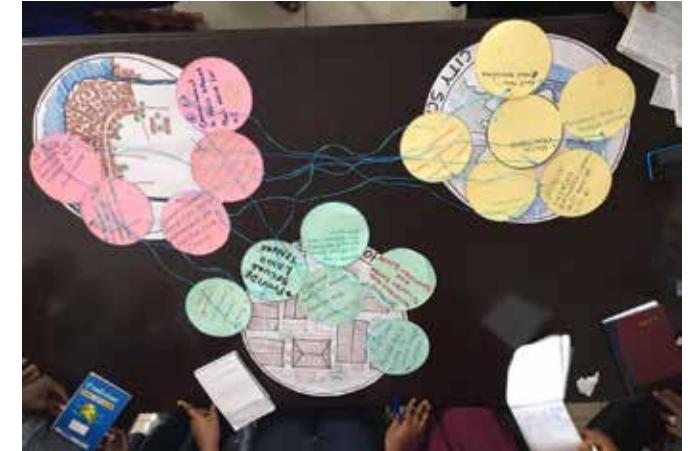
The intention of the CAAP is not to provide a fixed plan to follow. Rather, the focus is on



## CHANGE BY DESIGN

### Participatory Design and Planning

*How can neighbourhood planning bring about inclusive city-making in Freetown?*  
Workshop Report January 2018





building the capacity of communities to use design and planning tools to explore different options for the future in a holistic way. This process considers the regulatory frameworks that exist in the city, but also identifies the need to adapt these to better reflect the conditions on the ground.

The key elements of this document are a series of planning principles and options for change. These have been captured in an accessible design guide that the community can use moving forward.

## 1.3 Structure

The structure of this document follows the different stages and scales of ASF-UK's Change by Design (CbD) approach. The CbD methodology is described in more detail in Section 2, including the details of who was involved in the process. A profile of the settlement describing the current conditions and location in the city is included in section 3. Section 4 provides an overview of the planning and policy conditions in Freetown and proposes how the CAAP could be incorporated into this structure.

A description of activities and outcomes of each scale follow in Sections 5 to 7 and are accompanied by key reflections from residents. Options and principles that have been generated at each scale are integrated in Section 8 to provide the framework for the 'portfolio of options' activities in section 9. The final Section captures the key findings from the process in the form of a design guide.

Alongside this document, a large-scale plan has been provided for the community, exploring how the design guide could be applied based on the collective visions generated during the process.

## 1.4 Limitations

Throughout the process the group has recognised that there is a distinct lack of information about informal settlements in Freetown. Informal Settlement Profiles completed by FEDURP and SLURC, although valuable, are limited. Moving forward, more detailed data is required to enable better-informed decisions about future changes that incorporate social and economic factors as well as environmental and health risks associated to the conditions of the built environment.

A wide range of people were consulted in the process of producing this CAAP. However, it was felt that moving forward more effort should be made to include hard to reach and vulnerable groups.

2

## HOW THE CAAP WAS PRODUCED



## 2.1. Methodology

The development of this Community Action Area Plan was based on the ASF-UK Change by Design methodology for participatory design and planning. The methodology was applied in parallel in two distinct informal settlements, Cockle Bay and Dwozarck, where the Sierra Leone Urban Research Centre has strong community networks and has developed in-depth knowledge of the social and physical makeup of the area.

The ASF-UK Change by Design methodology is structured into four stages: diagnosis, dreaming, developing and defining. The 'diagnosis' stage analyses local realities and urban trends. The 'dreaming' phase uncovers the needs, aspirations and imaginaries of residents. The 'developing' phase aims to outline possible pathways to change. The 'defining' stage is concerned with the definition of concrete plans for action and urban design and planning guidelines. These stages are used to facilitate co-design activities at three different scales (home, community and city) and to conduct research around relevant urban planning policies and procedures—both formal and informal.

The process summarised in this document was carried out over a period of one year, including nine months of field-based research and three months of off-site data processing. In each settlement, fieldwork was divided into four phases. The first phase focused on the Policy and Planning aspects of informal settlement upgrading in Freetown—the



2.1 Dreaming Exercise

outcomes of which are outlined in Section 4 of this report. This phase aimed to examine the context of upgrading processes in Freetown and define how the CAAP would fit within the local urban policy environment. The following three phases each focused on one scale of design: Home, Community and City. Within each scale, activities followed the usual Change by Design cycle, from 'diagnosis' through to 'developing'. The Home phase sought to understand the current housing conditions in Cockle Bay, and to imagine with residents what upgraded housing could be like (Section 5). The Community phase focused on social dynamics surrounding collective spaces—such as streets and community facilities—and infrastructures—including transport, water, sanitation, energy and information (Section 6). The City scale focused on citywide processes, conditions and experiences, with the aim to explore spaces in the city that are relevant to the lives of local

residents, and identify residents' values and aspirations for the city as a whole (Section 7). Findings from these four phases were distilled in a distinctive set of design principles and options for informal settlement upgrading (Section 8). The fifth and last phase of fieldwork consisted of a Portfolio of Options exercise, which brought together the four streams of work and began to explore the kind of negotiation required between various interests in order to achieve a cohesive upgrading plan for the settlement. By the end of the session, participants created a community action plan consisting of a modelled and a drawn layout of the upgraded settlement and a set of organisational strategies (Section 9). Throughout the phases, all activities had a strong focus on social diversity with the aim to reveal and recognise the diverse range of experiences, needs and aspirations present within each settlement.

## CHANGE BY DESIGN IN ACTION

SIERRA LEONE 2018

STAGES

DIAGNOSIS

DREAMING

DEVELOPING

DEFINING

COMPONENTS



HOME



COMMUNITY



CITY



POLICY & PLANNING



PRINCIPLES AND OPTIONS



PORTFOLIO OF OPTIONS  
EXERCISE



COMMUNITY  
ACTION  
AREA PLAN:  
  
PRINCIPLES  
OPTIONS  
DESIGN GUIDE  
DESIGN VISION

2.2 Methodology Diagram

## 2.2. Who was involved

The development of the CAAP in both Cockle Bay and Dwozarcz was led by Architecture Sans Frontières –UK in collaboration with the Sierra Leone Urban Research Centre. All co-design activities were coordinated by an ASF-UK field volunteer who was based in Freetown during the duration of the project. Day-to-day data collection and analysis were aided locally by researchers at SLURC and assisted remotely by the ASF-UK project team. In each of the settlements where this process developed, each co-design activity included approximately thirty residents.

In addition to this team, two stakeholder networks provided crucial support and guidance to the CAAP process. Firstly, an Advisory Committee was set up to provide strategic advice and link the CAAPs to other urban process relevant to informal settlement upgrading. The Advisory Committee comprised of representatives from local and national governments: Freetown City Council, Sierra Leone Ministry of Lands, Sierra Leone Ministry of Housing and Office of National Security; from non-governmental organisations involved in supporting residents in informal settlements: the Young Men's Christian Association—Sierra Leone (YMCA-SL) and the Centre of Dialogue on Human Settlement and Poverty Alleviation (CODOHSAPA); from city-wide grassroots groups: Federation of the Urban and Rural Poor (FEDURP); and from each of the two settlements involved in the planning process. The Advisory Committee met the ASF-UK/SLURC team at the

beginning of the planning process to discuss the strategic value and audience of the initiative; during the process, to monitor direction; and at the end of it, to provide feedback on what had been done and help identify future steps.

Secondly, a local Steering Committee was set up in each of the two settlements, with two primary aims: (i) to inform the development and application of the CAAP methodology step-by-step and (ii) to help ensure that all planning

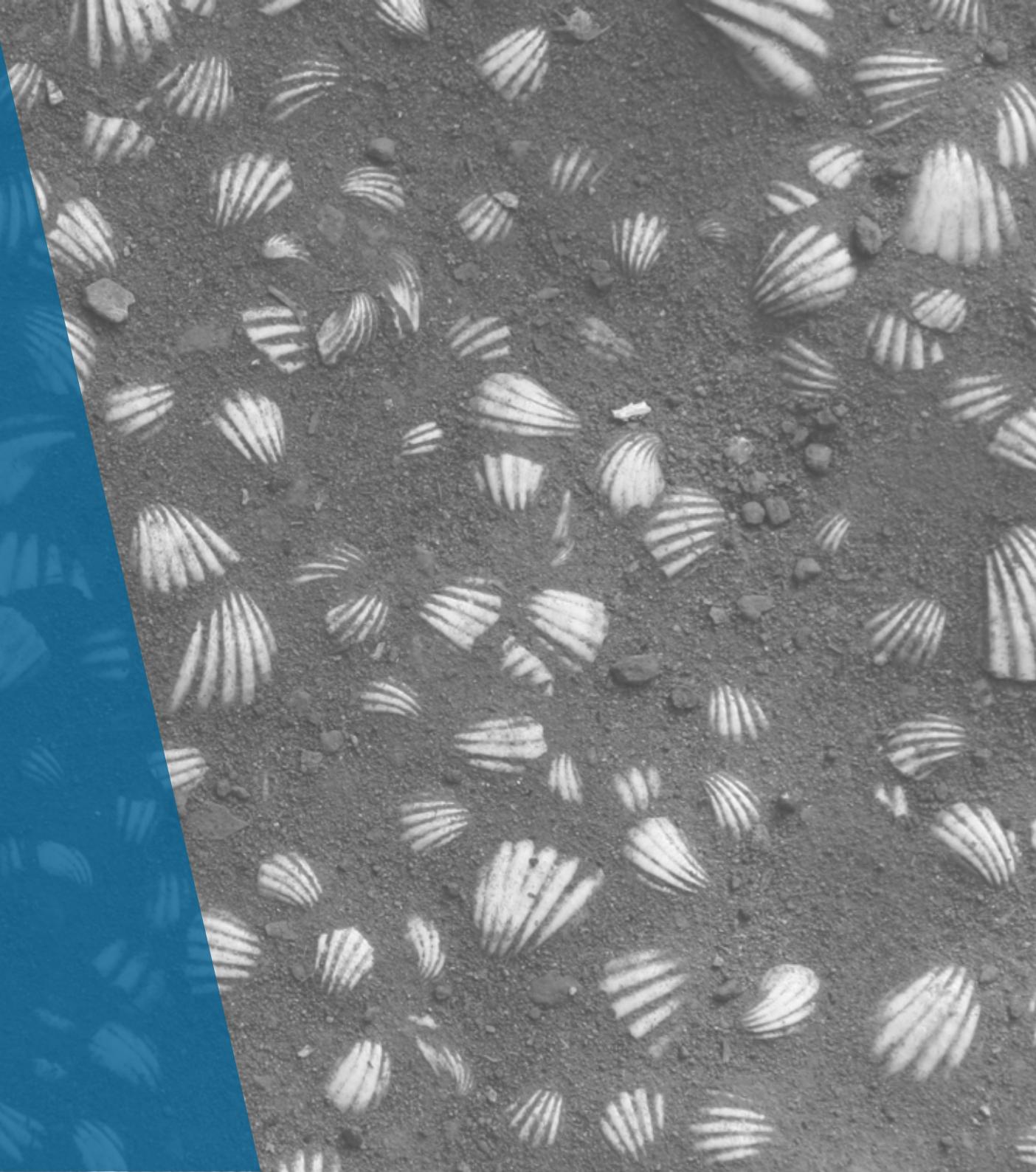
activities would involve a representative sample of the settlement's residents, which included supporting the process of community mobilisation. The Steering Committee met the ASF-UK/SLURC team at the end of each phase of fieldwork, to provide feedback on the process thus far and give advice as to the best ways forward. The Steering Committee also met the team at the end of the whole process, to provide feedback on the CAAP process and on the full draft of this document—as reported in Section 11.

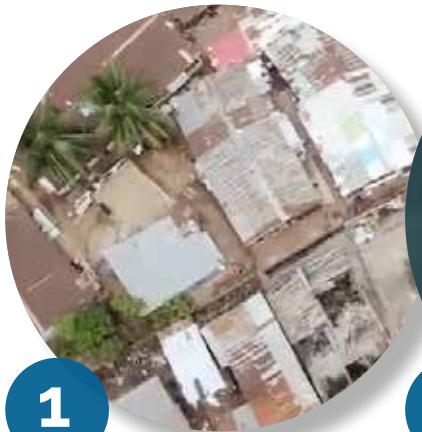


2.3 Group photo after developing a portfolio of options in Cockle Bay

# 3

# SETTLEMENT PROFILE



**1**

### **3.1 Cockle Bay in Context**

The Cockle Bay in Context section explores the site and situation of Cockle Bay , where it is in Freetown, the topography and focal points nearby.

**2**

### **3.2 How has Cockle Bay developed**

This section reveals how Cockle Bay has grown over time, how land is banked into the Aberdeen Creek, and how the settlement changes from West to East.

**3**

### **3.3 Urban character of Cockle Bay**

This section looks at the elements of Cockle Bay which make it distinguished and authentic. Buildings, materials, and housing layouts are explored

**4**

### **3.4 Settlement Demographics**

This section looks at the key statistics in the settlement including density and service provision

**5**

### **3.5 Access and Mobility**

This section explores transport infrastructure also the conditions of roads and paths within the settlement

**6**

### **3.6 Public and Environmental Health**

This section explores literature surrounding the primary health and environmental concerns related to Cockle Bay

**7**

### **3.7 Economy and Livelihoods**

This section looks at the key industries that exist in the settlement



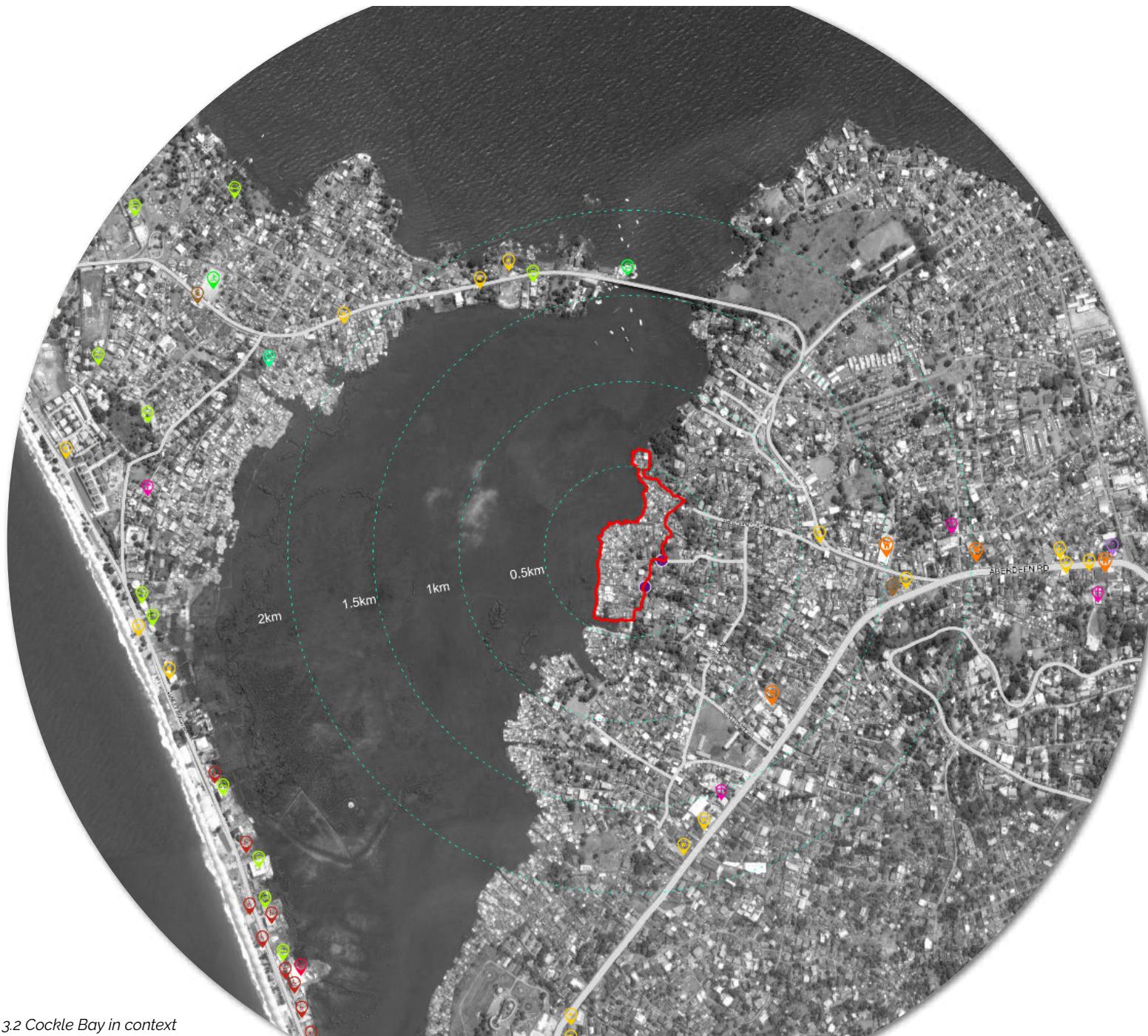
3.1 Aerial view of Cockle Bay

### 3.1 Cockle Bay in context

Located along the Aberdeen Creek on the western coast of Freetown, Cockle Bay is an informal settlement roughly 5 kilometers from the city centre (SDI, 2016: 33). Although Cockle Bay has been occupied since the 1940s, the majority of the current community settled along the shore of Aberdeen Creek as a result of the 1991-2012 Civil War which pushed many rural

inhabitants to relocate to Freetown's fringe areas. Much of the land on which Cockle Bay is built was reclaimed from the sea and was originally covered with mangrove forest, which until recently encircled the intertidal area of Aberdeen Creek. As a result, much of Cockle Bay is built on land that lies between 0-1 meters above sea level and the settlement is highly susceptible to coastal flooding and rising sea

levels. The name Cockle Bay is derived from the cockle production that used to be a key source of income within the settlement, but has recently declined due to the destruction of the local ecosystem. Cockle Bay is split into four neighbourhoods known locally as Jai Mata, Kola Tree, Mafengbeh and Hilet View (Koroma, Rigon et al, 2018: 33).



3.2 Cockle Bay in context

- Supermarket
- Health centre or Hospital
- Bank
- School
- Petrol Station
- Recreational Facilities
- Access to Community
- Public Transport Stop
- Market
- Hotel or B&B
- Cafe, Bar or Restaurant
- Church
- Mosque

## Cockle Bay Context Plan

This plan shows where Cockle Bay is in relation to other key landmarks, amenities and services, as well as its location in the western area of Freetown. The plan highlights that although Cockle Bay is centrally located, the area is not well provisioned with services or access points.

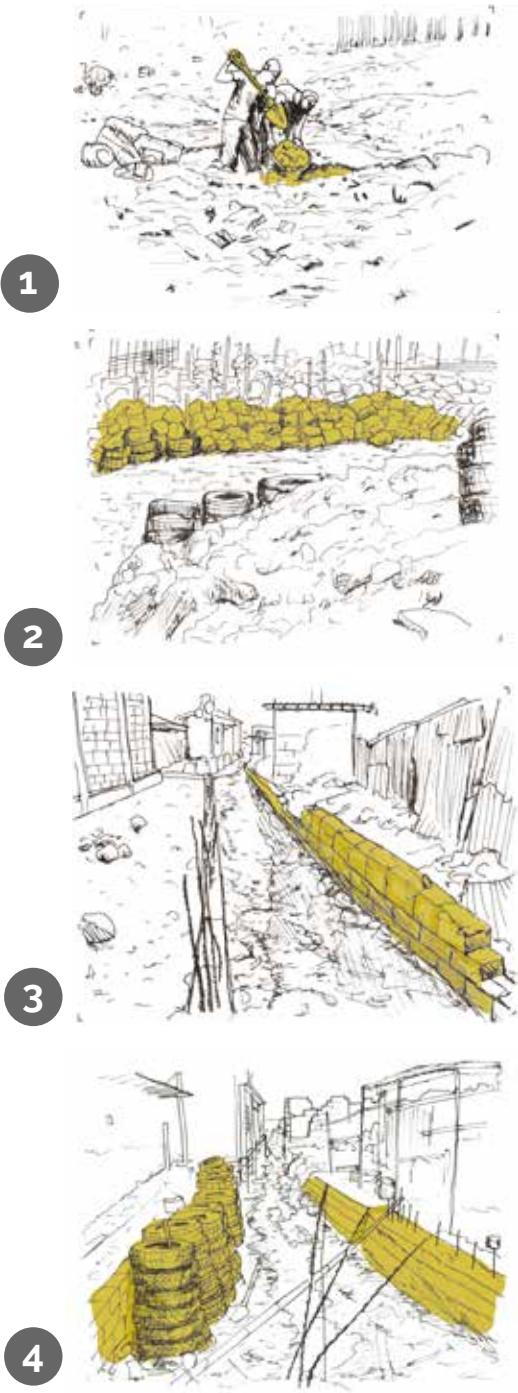
### 3.2 How has Cockle Bay developed

Cockle Bay is a strip of land that has developed along the eastern edge of Aberdeen Creek in Western Freetown. The settlement is roughly 186 hectares in size. Due to the fact that the land has predominantly been reclaimed from the low lying mangrove forest, much of Cockle Bay is built on land that lies between 0-1 meters above sea level. As a result, the settlement is highly susceptible to coastal flooding and rising sea levels.

The settlement's rapid growth from 2002, combined with the lack of planning control, does not have a planned and uniform street pattern or layout of buildings. Presently the settlement is 18.2 hectares in size and the urban density is very high, with often less than half a meter separating houses. Buildings are generally low in height with one to two stories, although in some cases there are higher, more affluent buildings. These tend to be located in areas of the settlement which have more consolidated, secure and solid ground beneath them. The settlement is difficult to navigate due to poor building and street legibility, but the shape and topography of the neighbourhood make it easy to locate important buildings and spaces. The wealthier houses on the ridge to the east of the settlement have views looking out across Aberdeen Creek.



3.3 Development in Cockle Bay



## Banking in Cockle Bay

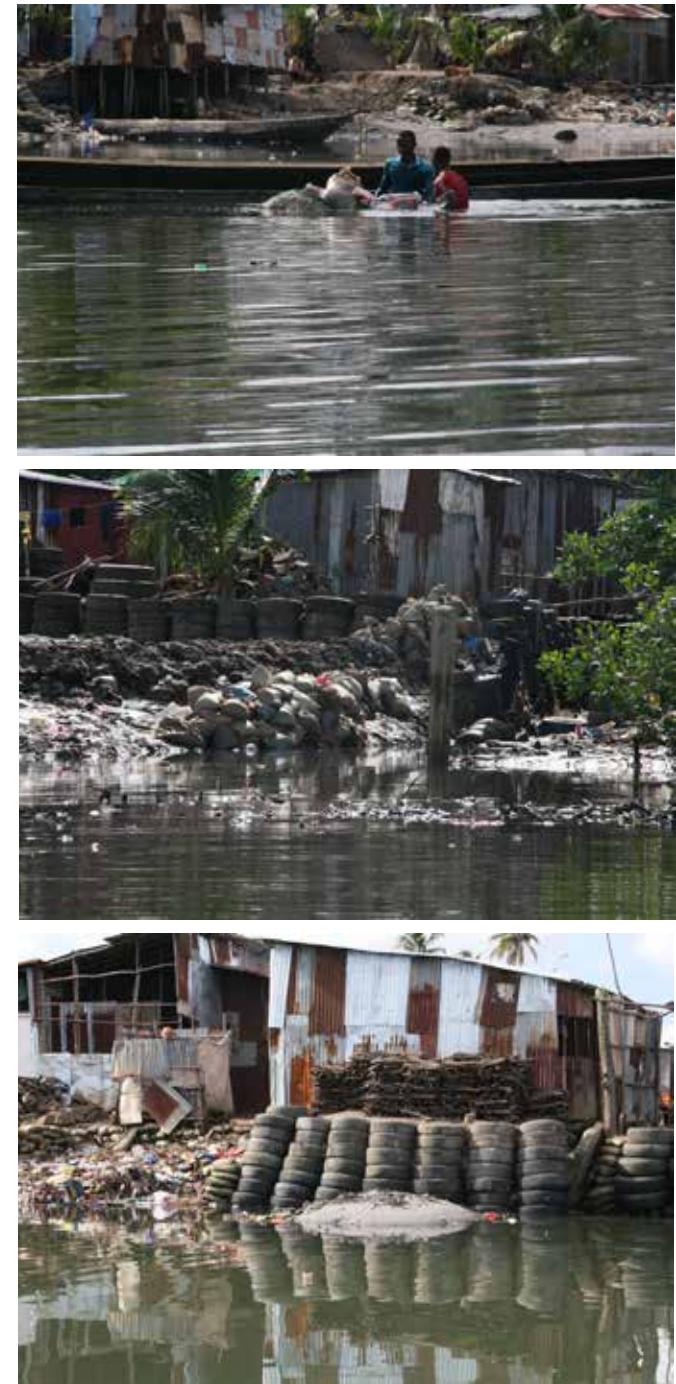
The drawings shown labelled 1-4 illustrate how the residents of Cockle Bay have expanded the settlement into the Creek.

Drawing 1 shows how community workers dredge mud and sand from the creek bed and gather it in bags. The photo to the right reveals how community members use the rising tide to transport bags of mud and sand using rafts.

Drawing 2 displays how the bags of mud and sand are piled up vertically to form step banks. Car tires are then piled in front of the bank of bags and filled with rubble, dirt and rubbish. The car tires face off the banking; an example can be seen in the photos to the bottom right of this page.

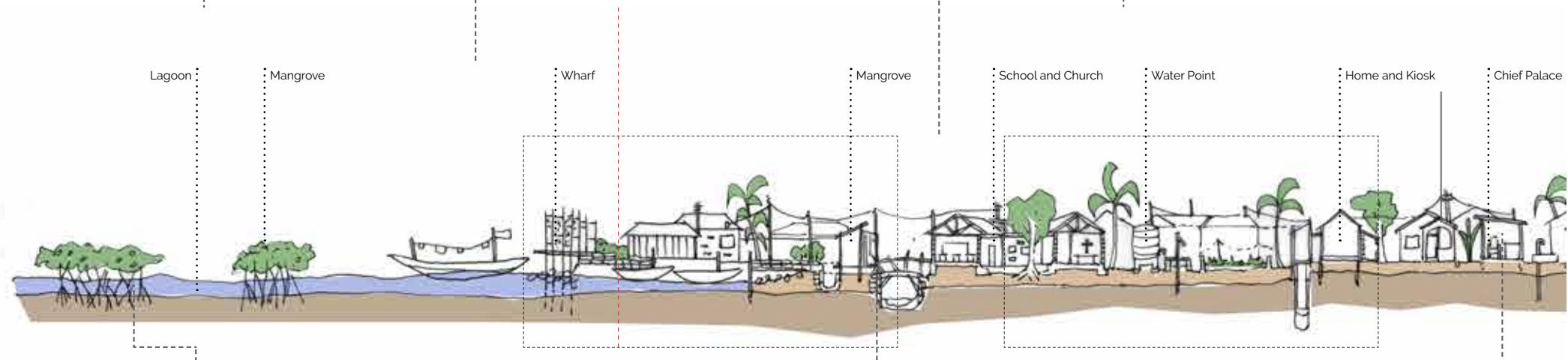
Drawing 3 shows how over time the banks of rubble and tires are consolidated with concrete block walls.

The final drawing reveals how concrete blocks are protected by car tyre and rubble banks until they are all replaced by set concrete and iron rod walls, which are the most robust and long lasting reclamation structures.





The Wharf  
is where the  
community  
plays football,  
collects  
Cockles and  
goes fishing



There are a variety  
of existing streams  
which run through  
the community  
which can flood in  
the rain season



The chief  
Baray is  
where the  
community  
seek justice  
and decisions



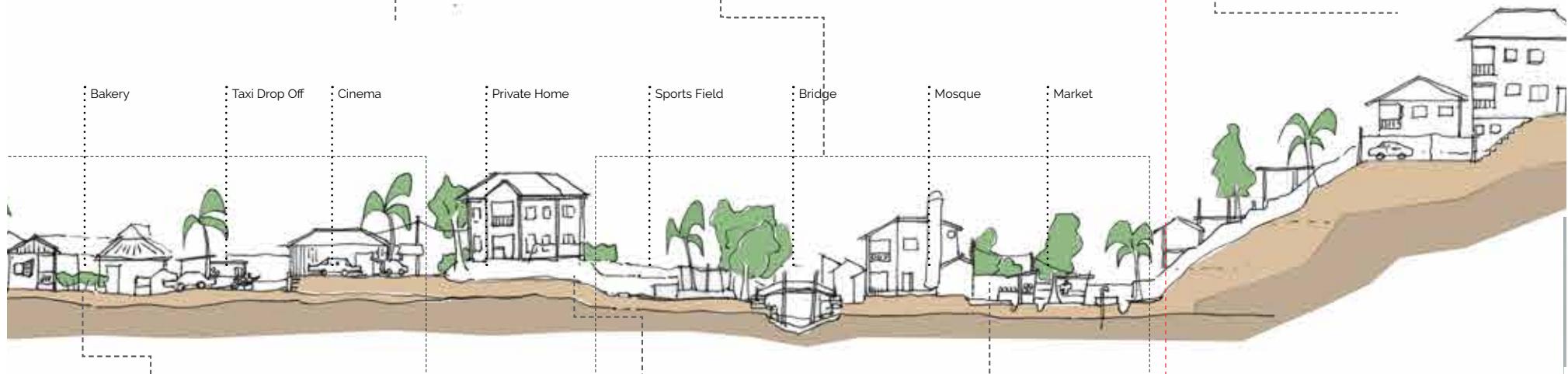
There is a variety of large houses mixed in with informal small houses



Religious spaces in the community are extremely important to the community



Moving away from the coast, properties get larger and more affluent



3.5 Cross-section of Cockle Bay



The bakery was set up by a charity and is an employer in the community



The football field is a major focal point in the community



The market is where the community can buy a variety of goods as well as collect water



3.6 Urban character of Cockle Bay

### 3.3 Urban character of Cockle Bay

The buildings are in many cases poorly constructed and built on an ad-hoc basis so they can be dismantled, moved or expanded to suit the need at the time. Most buildings are pan body constructed (corrugated iron), with other materials being mud bricks, broken stone, zinc, tarpaulin, concrete/cement, car tyres and local timber. Cockle Bay is not well provisioned with basic amenities. Only nine per cent of households have access to electricity, waste management is poor and there is a lack of mains

running water and sanitation (Koroma, Rigon et al, 2018: 33)

In spite of the settlement being outside the formal planning process, Cockle Bay is relatively permeable as walking is the main mode of transport. Most paths are made up of a combination of rubble and dirt, however in some cases cockle shells have been used to decorate paths (SDI, 2016). Access to the site is restricted to Aberdeen Ferry Road and

the lanes that connect to Byrne Lane, where residents can catch a range of public and private transport modes including Poda Podas (public minibus), Keh Kehs (Indian tuk tuk) and Okadas (motorbikes and Taxis) (SDI, 2016).

Cockle Bay also lacks in many basic facilities including medical centres, public parks and community centres. It does however have two schools, furniture shops, religious buildings, food shops, informal markets and communications (SDI, 2016)

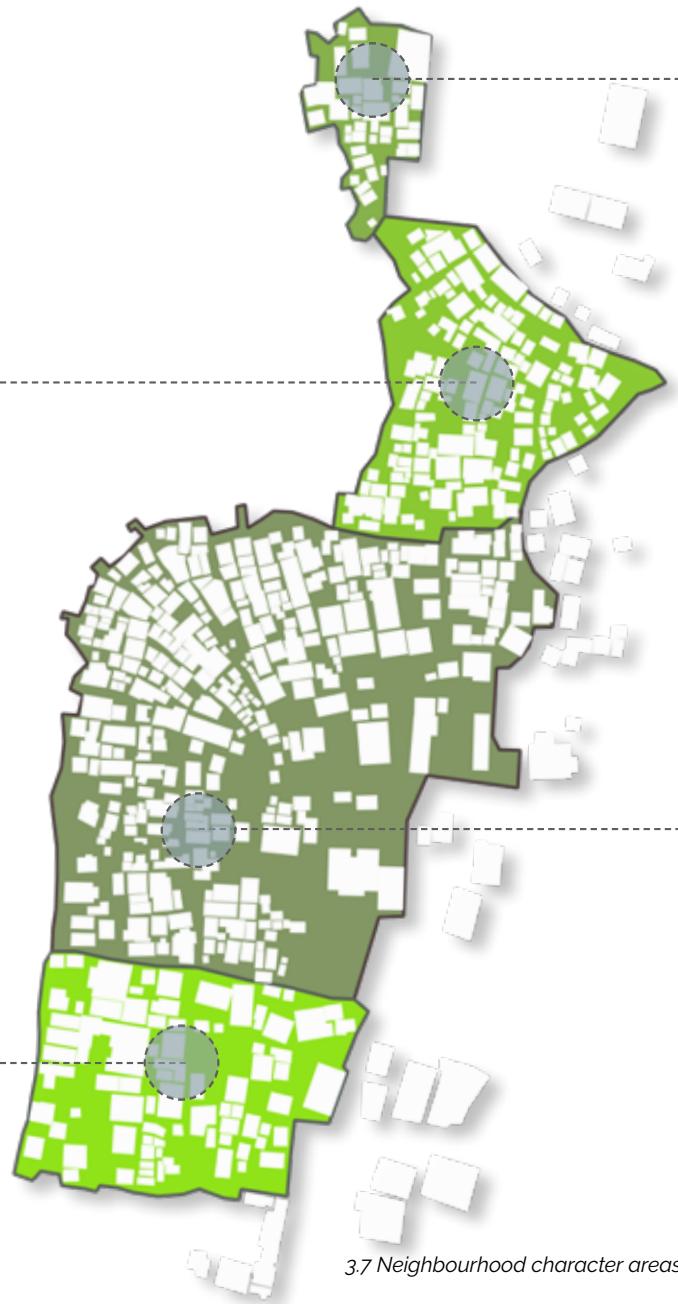
## Cockle Bay Neighbourhood Character Areas

### Cola Tree (Cola Stick)

Cola Tree is located on the most hilly part of Cockle Bay and is the most compact. The community has a focal area which has developed around the church, mosque and access road which runs between them. Another key access route runs behind the mosque, making this the busy area of the community. This area is popular for shopping and extra curricular activities and is one of the first parts of the settlement to develop. Food growing also takes place on the slopes between the informal community and the formal community to the East.

### Hillet View (Inlet View or Ellet View)

Hillet View is most organised and least dense neighbourhood Cockle Bay, with walkable alleyways which motorbikes can fit down, a large number of concrete block homes, and spaces to grow food. Hillet view is the most affluent neighbourhood but is also the area where the majority of land reclamation has occurred. Hillet view has a mosque, playing field, market and water well. Access to the neighbourhood difficult as it has not developed around an existing road like Cola Tree and Mafengbeh, rather, access is taken by a number of small pedestrian footpaths or roads ending in Mafengbeh or Thomson Bay.



### Ja Mata

Ja Mata is one of the smallest neighbourhoods in Cockle Bay and is strongly connected to the informal settlement located immediately north of Cockle Bay which is also named ja mata. Ja Mata is dense and not well provisioned with transport links, but a number of the houses within are quite affluent and well made. Being so close to the sea, Ja mata is often at risk of flooding during high tides which has led to significant efforts to create tidal defences along the area known in the community as the Wharf.

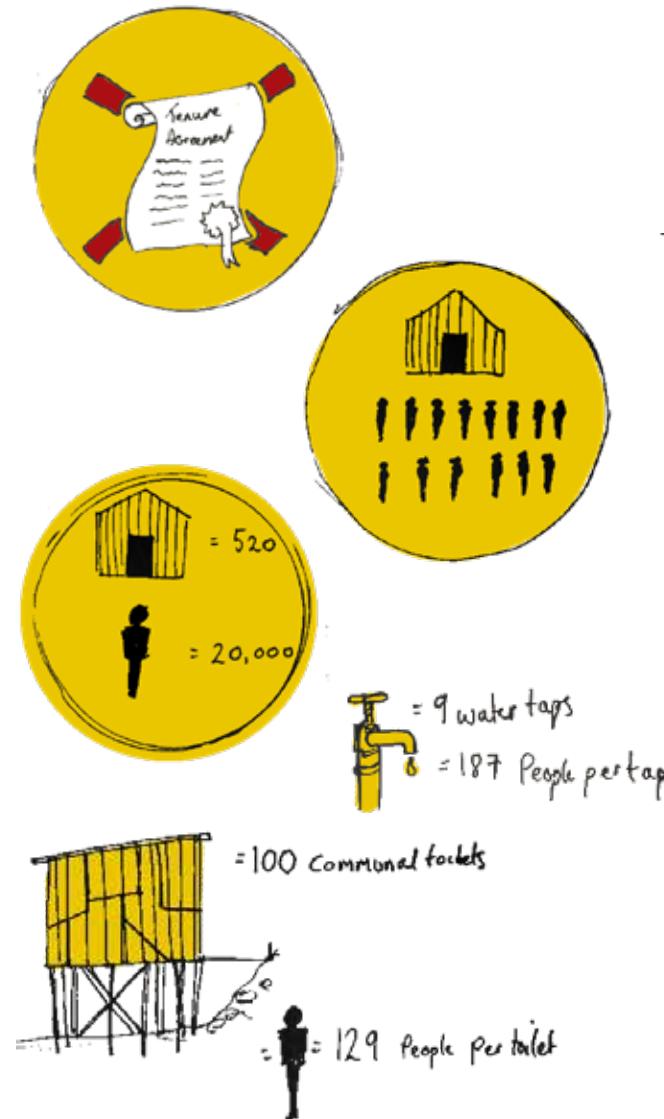
### Mafengbeh

Mafengbeh is the heart of Cockle Bay. This is the most populous area of Cockle Bay and has the largest diversity of community buildings and spaces, including a school, mosque, bakery, cinema, football field and sports bar. Mafengbeh has one key access point which is taken from Byrne Lane at the top of a very steep hill. Mafengbeh has an area for taxis and motorcycles which relay residents to Wilkinson road and beyond. There are a number of established more affluent houses in the neighbourhood but the vast majority are very poor corrugated iron homes.

### 3.4 Settlement demographics, tenure and ownership

A recent survey completed by Slum Dwellers International revealed that Cockle Bay has roughly 20,000 inhabitants and 1,350 households living in 520 structures, 500 of which are in use residential (SDI, 2016). This means that there are approximately fourteen people per dwelling. According to Freetown City Council, the population for the Murray Town and Aberdeen area in which Cockle Bay is situated has a population of 69,000. The rate of population change for the area is projected to fall to 42,800 in the period 2012–2028 (FCC, 2014: 141). This projection has been established due to the Council's own plans to develop the area as a tourist destination—a move which will require the relocation of a large amount of the current population.

Cockle Bay is built on land that is officially owned by the state. The community settled in the area is not recognized by the local government and has no tenure rights or security. Residents are faced with the on-going risk of eviction. There have been annual eviction threats from the local authority, based on the claim that the settlement is located in a high-risk flood area, with subsequent risks for disease outbreaks. Furthermore Cockle Bay is a RAMSAR site, which further restricts tenure rights for the community (Koroma, 2018: 12).



3.8 Settlement demographics tenure and ownership



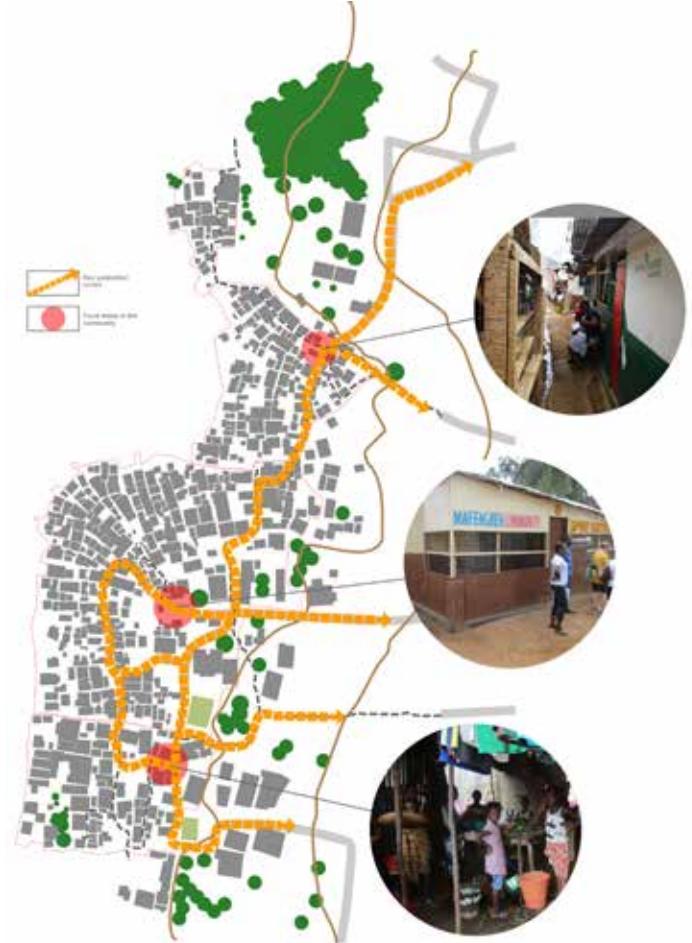
### 3.5 Access and mobility

Cockle Bay is not well serviced with formal access roads and footpaths. The settlement has two key vehicle access points connecting with the wider city through the formal neighbourhoods of Cockle Bay, Aberdeen Road and Collegiate.

The diagram above shows this with outward facing arrows.

Although there is a lack of formal footpaths in Cockle Bay, walking is the predominant mode of transport and the settlement is permeable.

Shown red in the diagram opposite, there are three focal areas in the settlement where access to the wider city is provided and where service buildings and amenities are concentrated. The focal areas are each located in one of Cockle



3.9 Access and mobility diagram

Bay's four neighbourhoods. The southern point is within Hillet View (Inlet View in Krio) the central point is within Mafengbeh, and the final point to the north is located within Cola Tree (or Cola Stik in Krio).



3.10 Public and Environmental Health

### 3.6 Public and environmental health

Public health and environmental management are two important issues within Cockle Bay. The most common illnesses to afflict the community are malaria and typhoid which can both be mitigated against or prevented with good urban planning. Currently the community has 1 communal toilet block with 100 working

toilets across the settlement which is equal to 1 toilet per 129 people. 5% of the population also practice open defecation within the community as well (SDI, 2016). There are 9 water taps in total, or 187 people per tap for the whole site and there is no running mains water (SDI, 2016).

There are also two communal water collection points and two spring water wells (Koroma, Rigon et al, 2018: 33). Slum Dwellers International report that the average cost of water per month 30,000 SLL or roughly \$3.9. (SDI, 2016).

There are currently no 'health facilities within the community which necessitates travel to neighbouring communities for health services (Koroma, Rigon et al, 2018: 33). The average walking distance to nearest health clinic 30 minutes to 1 hour, and the nearest hospital and Aids clinic is over one hour walk from the community (SDI, 2016)

Public health related to the environment and sanitation is an important issue. There have been no major weather events like flooding or mud slides, but the settlement's 'low altitude, poor drainage and weak infrastructure renders several areas and developments at risk of flooding associated with sea level rise', furthermore, the risk posed by localised flooding and poor sanitation infrastructure means there is a higher risk of waterborne diseases such as cholera and typhoid. In 2012 there was a cholera outbreak which affected 40 residents of Cockle Bay (Koroma, Rigon et al, 2018: 33).

To compound this, solid waste and litter is often disposed of into waterways and open spaces in spite of the 2 garbage collections per week and an agreed garbage location common area in the community (SDI, 2016). Solid waste often blocks drainage and increases the likelihood of localised flooding.

Another factor of public health is slum fires which are relatively frequent in occurrence. From 2009 to 2010 there were 3 fire outbreaks which affected 19 houses. These incidences were mainly caused by candles, solid fuel stoves and faulty electricity wiring (Koroma, Rigon et al, 2018: 33).



3.11 Sanitation



3.12 Economy and livelihoods

### 3.7 Economy and Livelihoods

Cockle Bay owes its name to the cockle picking activities that constituted the settlement's primary income stream from the 1990s to the 2000s. Currently the community's economy depends heavily on "sand mining, petty trading structured in self-owned micro- and small enterprises within and outside the settlement,

fishing and cockle production" (Koroma, Rigon et al, 2018: 33). Cockle picking has declined in recent years due to overexploitation of the natural mangrove habitat that supported the ecosystem in which the cockles thrived. These livelihood practices tend to be informal rather than formal. Officially there are no formal

businesses registered within the area, although there are eight mixed-use residential properties hosting small-scale commercial activities (SDI, 2016).



## Sand mining

One of Cockle Bay's key sources of income is sand mining, which takes place at low tides in the lagoon of Aberdeen Creek. Koroma and Rigon explain that the "sand is then transported and sold for use in the building industry across Freetown.". However, the extraction and sale of sand mined in Aberdeen Creek by the residents of Cockle Bay is prohibited by the NPAA, who monitor this and inform local authorities of any violations (Koroma, Rigon et al, 2018: 33).



Sand production was at its height during the 1990s, but due to over-exploitation of the resource, and increasing restrictions on where sand can be mined there is currently less sand available close to Cockle Bay (Koroma, Rigon et al, 2018: 33). The resource has also been made less lucrative over the last five years, as the "Environment Protection Agency of Sierra Leone has engaged communities around the beaches to tackle the issue of illegal and un-authorized sand mining along the coast in the Western Area" and have created designated sand collection areas that will be regulated by the authorities and guided by public sand mining guidelines (Koroma, Rigon et al, 2018: 36).



3.12 Livelihoods photographs

## Cockle picking

During the civil war, cockle picking was an attractive source of income for women and men with few alternatives. However, cockles rely on specific environmental conditions to thrive and much of their environment has been destroyed, leading to them becoming bitter tasting. Picking is also a seasonal activity with better harvests in the rainy season, which means that it is not a year-round stable source of income (Koroma, Rigon et al, 2018: 36). Fishing and crab fishing also take place in Cockle Bay.

# 4

# PLANNING & ENVIRONMENTAL POLICY

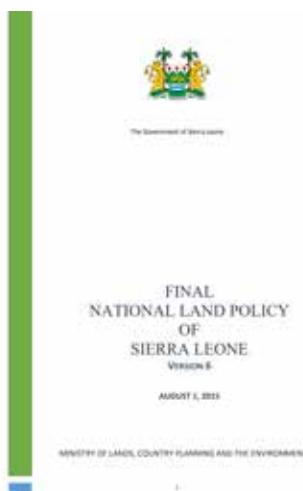
This chapter explores current planning policy as well as emerging planning policy. It also explores policies which relate to the environment. Chapter four also features a stakeholder analysis and discusses where a Community Action Area Plan could fit into the current policy framework for Freetown.



## 4.1 Introduction to urban planning policy

Planning policies are the set of rules agreed by the government, council or intergovernmental organisation which dictate what can and can't be done within geographical area. Some planning policies are mandatory, while some are more advisory. It is often the case that as planning documents look at increasingly smaller geographic areas, they become more specific and detailed to the place they cover. Policy documents usually become more generalised as they cover larger geographic areas.

Planning in Sierra Leone is based on the British discretionary planning system, which means that there is a general set of policies which have been agreed, but these policies have some flexibility or ability to be negotiated to allow decision makers to make decisions which might improve the local area regardless of whether the final decision reflects absolutely what's what policies are written.



## 4.2 Review of Planning Policy Documents

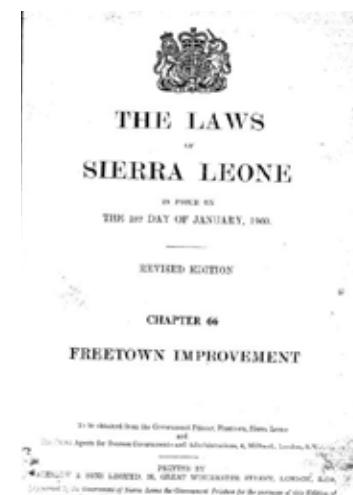
Freetown currently has two officially recognised planning documents which dictate planning control for the city. The Town and Country Planning Act of 1960 (TCPA) is still the primary legislation that provides for town and country planning in Sierra Leone. The TCPA however, is not widely used as a planning document.

The Freetown Improvement Act, (FIA) is used more commonly. Written in 1960, it functions as the basic 'development control' tool for land use and building construction in Freetown. The FIA has had limited success in more affluent and historic neighbourhoods within Freetown with regard to materials, built form and road layouts.

Unfortunately the FIA has proved inadequate at providing regulations and instructions for less affluent communities, especially with regard to the growth of informal settlements. This is due mostly to the fact that most informal settlements

in the city were extremely small or didn't exist prior to the publishing of the FIA. In recent years there has been a strong push internationally for decentralisation of planning. This means that a lot of the planning powers shared from central governmental institutions and ministries to local, regional, municipal and city governmental institutions. Decentralisation also includes increased participation from the general public in some areas of local governance. Sierra Leone has embraced the push to decentralise the functions of many ministries as part of the Local Government Act 2004.

The creation of the 2015 National Land Policy of Sierra Leone (NLPSL) was intended to function in a similar way to the UK's National Planning Policy Framework as set of national policy priorities and conditions which are intended to guide local or municipal plans and policies as part of this decentralisation process. The NLPSL has not



been officially adopted yet by the government so it is non-binding and its policies are not mandatory, however, there is still a strong chance the document will be adopted as it is the most up to date planning document of its type produced in Freetown in over 30 years.

Published at the same time as the Local Governance Act of 2014, the Freetown Structural Plan (FSP) is the planning document which was intended to provide planning direction for the municipality of Freetown. Unfortunately it shares a similar status to the NLPSL and is yet to be officially finalised and adopted into the wider planning policy framework. With support from the office of Freetown's Mayor, the Sierra Leone Urban Research Centre and Freetown City Council, there have been recent initiatives to help formalise the FSP as it is the most advanced planning document of its kind in Sierra Leone and has policies which address the complex set of issues which relate to informal settlements in Freetown.

In 2015 more than 150 world leaders signed the 2030 Agenda for Sustainable Development, which contained the Sustainable Development Goals (SDG's), a set of 17 ambitious global goals which include reducing global poverty, inequality and hunger, by forming a comprehensive list of development targets. SDG 11 focuses on inclusivity of cities, public safety, resilience and sustainability. Sierra Leone is a signatory of the 2030 Agenda for Sustainable Development and is accountable to them.

The New Urban Agenda was also produced by the UN and was adopted as part of the 'Quito Declaration on Sustainable Cities and

Human Settlements for All' during the Habitat III conference in Quito, Ecuador. The new urban agenda functions as more of a framework document focusing on sustainable, equitable cities for all and builds on the SDG's

As the FSP and NLPSL are the most comprehensive plans available and considering their emerging status, this Community Action Area Plan is working towards fulfilling the policy conditions set in those two documents while recognising international policy obligations from the UN.

#### 4.3 Key Policies which relate to Informal Settlements

*Local Governance Act of 2014  
Part XV-Transparency, Accountability and Participation, Section 108 (p.54):*

*The Ministry shall promote **participatory processes** in local councils and encourage citizen's **inclusion and involvement in governance***

*National Land Policy of Sierra Leone 2015  
Section 9.4 improving and relocating.  
Informal settlements (pp.108-109):*

*9.4.A) take an inventory of squatters and people who live in informal settlements;  
9.4.B) determine whether land occupied by squatters is suitable for human settlement;  
9.4.C) where informal tenure to land exists, the Government should acknowledge it in a manner*

*that respects existing formal rights under national law and in ways that **recognize the reality of the situation and promote social, economic and environmental well-being;**  
9.4.D) promote policies and laws to provide **recognition to such informal tenure.***

*9.4.E) The Government should take all appropriate measures to limit the informal tenure that results from overly complex legal and administrative requirements*

*9.4.G) Where it is not possible to provide legal recognition to informal tenure, the Government should **prevent forced evictions that violate existing obligations under national and international law**, and consistent with relevant provisions made with regard to expropriation and compensation in this policy'*

*Freetown Structural Plan 2014  
Housing Policy and Programme  
Section 9.7. (p..87):*

*9.7.1) long-term strategic slum-upgrading '**must involve the Freetown population at all levels and aim at the active participation and co-ordination in the implementation phases of owners, tenants, NGOs, developers and other private sector housing initiatives, as well as government-supported affordable housing schemes.***

*housing policies which aim to mitigate the effects of natural disasters (83):*

*Slum settlements established in risk-prone areas exposed to flooding or landslides will, when funds are available, be transferred to*

resettlement areas within the municipality, following the principles in the FCC Resettlement Manual.

Building and development control will be strengthened and, after the 1st of January 2015, construction of new houses or extensions of existing dwellings in risk-prone areas exposed to flooding or landslides will immediately be demolished.

Houses and residential settlements established after 1st of January 2015 in areas prohibited by the provisions of the National Environmental Protection Act – such as along the coast, in creeks, rivers, and close to water bodies – will be demolished.

FCC will, in cooperation with other local governments, prepare affordable sites and service schemes in metropolitan development areas for voluntary resettlement from natural disaster risk areas in Freetown.

### Freetown Structural Plan 2014 Environmental Policies 4.1.3 Creeks (pp.20-22):

- Local Plans for the Freetown planning areas will have to identify the sensitive creek area to be protected.
- Communities living in the creeks on flooding-prone land must, within the short term, be resettled and the creeks protected from further degradation.
- Communities living close to the creeks on

flooding-safe land must be involved in the restoration of the creeks.

• Urban renewal projects **shall promote drinking-water supply, sanitary facilities and solid-waste collections systems.**

• Awareness-raising, vocational training and introduction of alternative income-generating micro projects shall be introduced to community members in order to stop over exploitation and mismanagement of the resources of the creeks.

### UN-Habitat, 2030 Agenda for Sustainable Development 2016: 2-3):

Target 11.1: By 2030, ensure **access for all to adequate, safe and affordable housing and basic services and upgrade slums.**

Target 11.2: provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention vulnerable individuals in society

Target 11.3: enhance **inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning**

Target 11.5: significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting

the poor and people in vulnerable situations.

Target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying **special attention to air quality and municipal and other waste management.**

Target 11.B: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards **inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters**, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

### UN Habitat III, New Urban Agenda 2017 (Our Vision, pp.5-7)

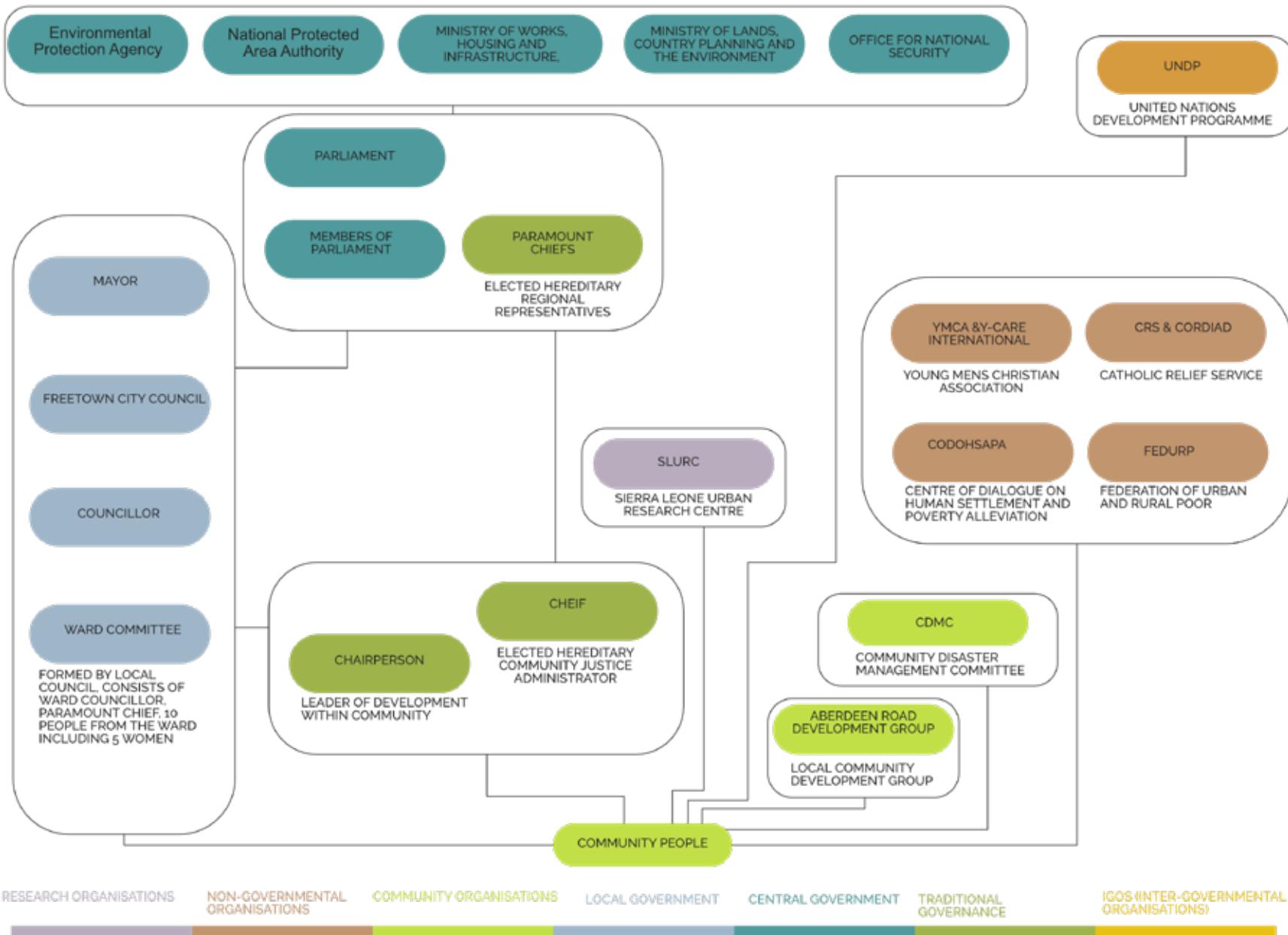
11. **cities for all**, referring to the equal use and enjoyment of cities and human settlements, seeking to promote inclusivity.

12. human settlements where all persons are able to enjoy **equal rights and opportunities**.

13. (a) Fulfil their social function, including the social and ecological function of land, with a view to progressively achieving the full realization of the **right to adequate housing**.

(b) Are **participatory, promote civic engagement, engender a sense of belonging and ownership** among all their inhabitants.

(c) Achieve **gender equality** and empower all women and girls by ensuring women's full and effective participation.



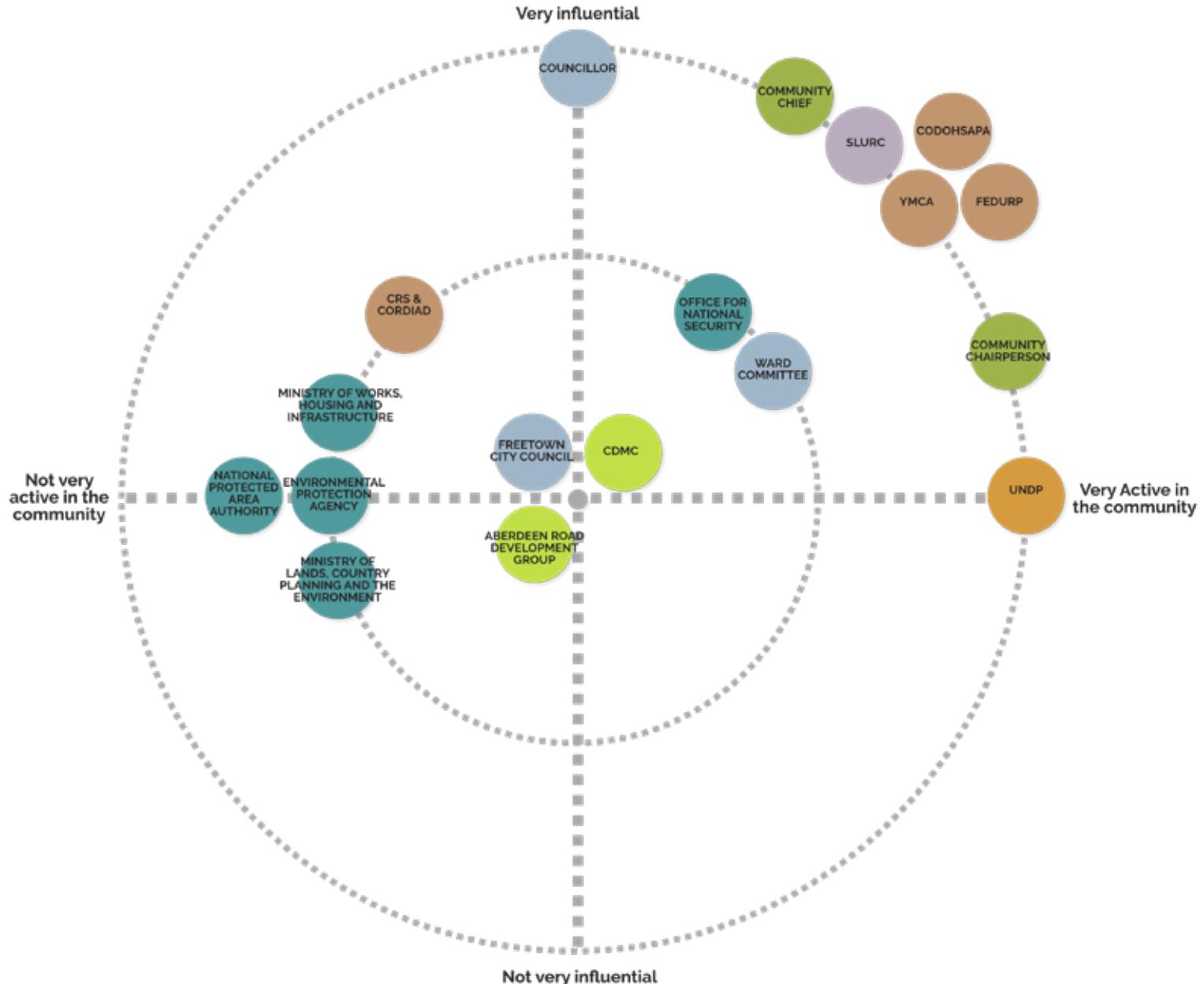
4.2 Stakeholder diagram

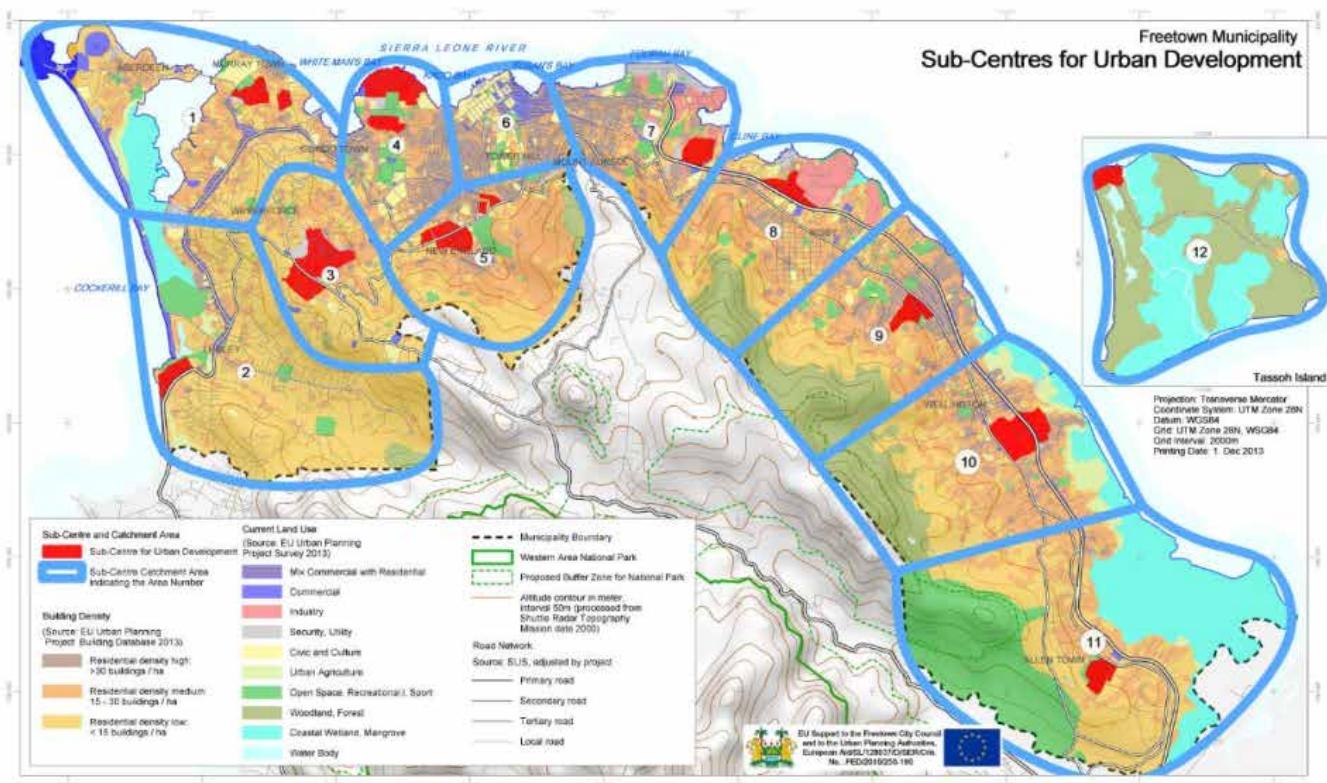
## 4.4 Stakeholder Analysis

The stakeholder analysis diagram shown above illustrates the general hierarchy of urban development organisations, their role in urban planning and how the stakeholders relate to one another.

### Organisational Influence and Presence

The Organisation Influence and Presence diagram charts the perceived influence that organisations have and their presence in the community relating to urban development issues within Cockle Bay, based on discussions with the advisory committee.





4.4 Extract from FSP

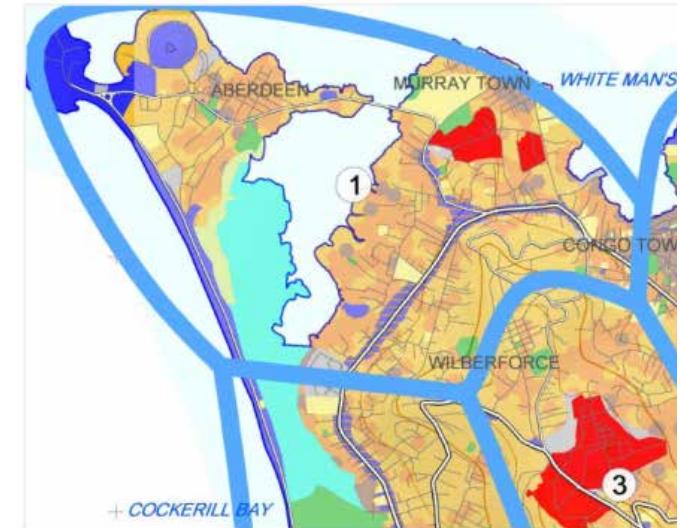
## 4.5 Entry Point for the CAAP

Currently the Freetown Structural Plan has stated that within each area highlighted blue in the plan shown above that there should be a corresponding Action Area Plan.

These Action Area Plans are the most detailed land-use plan type proposed for the land-use plan system in Freetown's FSP. The FSP explains that 'this detailed plan type must follow the planning goals and requirements made in the local plan and the structure plan for the area', furthermore, the it states that 'the area action plan will indicate the precise private and public

use of all land and parcels within the 'action planning area' and indicate areas reserved for utility services, roads and transport systems, recreation, protection, etc.

The area action Plan will indicate street names, parcel numbers, eventual reservation or protection lines, as well as development and building regulations to be followed when using the parcels included in the plan. Development permits as well as building permits will be granted where they do not contradict the information and regulations in the area action plan'.



NATIONAL PLANNING POLICY FRAMEWORK SIERRA LEONE

FREETOWN STRUCTURAL PLAN

ACTION AREA PLAN

COMMUNITY ACTION AREA PLAN

INDIVIDUAL DEVELOPMENTS

Each of the Action Areas neatly parcels geographic areas based on a number of criteria including population density and existing areas of the city' (FCC, 2014: 15-16).

The concept of a Community Action Area Plan is proposed here as a component part of a wider Action Area plan and is more heavily focussed on community participation in the planning process. Looking at smaller community areas whose boundaries are identified by the communities themselves.

A CAAP is a tool that can allow communities to advance their own spatial vision, highlight the areas of the community they which to preserve, and to show their priorities for development. A CAAP could fundamentally advise the section of an Action Area Plan which looks at indicating 'areas reserved for utility services, roads and transport systems, recreation, protection'. CAAP's could also be an extremely important tool for dialogue between local council and community, allowing communities to participate, improve capacity and take ownership in their own development in an officially recognised framework.

This reflects the views put forward by delegates from the Ministry of Lands, Country Planning and the Environment, Freetown City Council, The Ministry for Works Housing and Infrastructure, the Office of National Security, the YMCA, FEDURP and CODOHSAPA during an advisory panel hosted by SLURC before this plan was created.

### Key Quotes from Advisory Group:

*'It will be good for community to lead their own development and to know how their capacity can be improved. It would also be good for communities to learn how they can go about advocating the upgrading the settlements and how they can build up a local labour force which can bring about the change they need.'*  
-Jalikatu Cotey, CODOHSAPA:

*'It will be useful to provide feedback on how to address issues of access routes and roads to the sites. We would also like the process to help communities upgrade their own legal land and planning documents.'*

-Abu Bakarr Jallol, MLCPE

*'We can use report as evidence of conditions to inform policy decisions. The Council want to know exactly what development challenges there are and what people really want'*

-Abdul K. Marah, FCC

*'This study can explore existing structures within the communities to use as a baseline data to deliver plans. There is also potential for different agencies to work together. It could be a Educational experience for residents where they can learn about trade-offs relating to re-blocking and access. There's also the potential to engage communities on implications of residents and communities actions especially with relation to environmental issues which lead to natural disaster events.'*

-Abdul K. Marah, FCC

*'We would like to see the government working with communities in delivering needs and desires.'*

-Francis A. Reffel, YMCA

*'We would like the communities and other parties to lobby, formally and informally for these approaches to be adopted by all. There is good potential for policy makers to deliver and people to comply with the law'*

-Frank S. Williams, ONS



## 4.6 Principles and Options

The policy principles were developed through a continuing dialogue with the Cockle Bay Community Action Area Plan advisory committee. This set of principles explore the important link between current planning and environment policy and how the community can achieve their own accountable, fair and transparent Community Action Area Plan.

*'We can use report as evidence of conditions to inform policy decisions. The Council want to know exactly what development challenges there are and what people really want.'*  
Abdul K. Marah, FCC

*'We would like to see the government working with communities in delivering needs and desires.'*  
Francis A. Reffel, YMCA



### **Community leadership on urban development projects**

Communities take active leadership in all urban development issues in the settlement



### **Proactive community financing options**

Communities seek and apply for financing for community development projects.



### **Improved community organisation**

Build capacity within community to organise and lead development within the settlement



### **Community accountability to upkeep and maintenance**

Communities should be accountable and held responsibly for the upkeep and maintenance of their assets



### **Well managed collaboration with government and private stakeholders**

Community to develop mutual collaborative relationships with key stakeholders outside the community



### **Stronger democratic involvement of community in urban development**

The community should have a stronger say and involvement in the urban development projects and issues which affect them

## Organisation Options

### Central Government:

- Ministry of Lands
- Ministry of Housing
- Environmental Protection

### Local Government

- Mayor
- Freetown City Council

### Traditional Governance

- Chiefs
- Committees

### Non Governmental Orgs (NGO's)

- YMCA
- CRS
- CODESAPA
- FEDURP

### International NGO's (INGO's)

- United Nations (UNDP)

### Research Institutions

- SLURC

### Community Organisations

- Community Committee
- Community Development panel

### Private Sector

- Developers
- Large Business

# 5

## HOME

The Home scale sought to understand the current housing conditions in Cockle Bay, and to imagine with residents what upgraded housing could be like. The aim was to explore a definition of 'home' and to capture residents' diverse values and aspirations for this important component of the settlement. To this end, the team engaged residents through a variety of participatory tools aimed at developing a set of principles and options that could guide future housing interventions.

The exploration into the home scale was organised into four phases.





### 5.1 Diagnosis

This phase sought to investigate current living conditions in Cockle Bay. Activities consisted in mapping existing housing typologies and infrastructure systems and identifying the main challenges that the residents of Cockle Bay face in relation to housing.



### 5.2 Dreaming

This phase aimed to uncover residents' aspirations for improving their living standards. This included exploring possible changes to the physical conditions of space, as well as discussing different types of housing tenure and housing delivery.



### 5.3 Developing

This phase aimed to elicit conversations about a range of housing options developed by the team, based on the outcomes of the previous dreaming exercises.



### 5.4 Options & Principles

The final phase engaged Cockle Bay residents in planning their ideal housing improvements, using the set of housing principles and concrete options emerged from the previous phases.



## 5.1 Diagnosis

### Activity Description

The diagnosis phase consisted of three activities. The first exercise asked participants what their home meant to them. The second activity consisted of visits to various households in the community to gain an understanding of household structures: the key matters discussed in the interviews included layouts and spatial arrangements, patterns of use, and current pressing needs. The final activity encouraged community members to draw their current home environment. The conversation held while drawing attempted to understand further participants' needs and aspirations in relation to their living space.

### Findings

The first concern of most interviewees was tenure insecurity, followed by lack of protection from eviction by landlords, and unaffordable rents for people who are unemployed—with current rents ranging from £650,000-700,000 or £50-70 per annum.

The main housing typology is Cockle Bay is a one-storey, one-room structure either constructed with panbody (corrugated iron), earth blocks and in some cases concrete blocks or a mixture of these materials. Interior spaces are usually free of internal walls and most



homes are organised around two key spaces: a parlour (living room) and a veranda (outside utility and relaxation space). The majority of participants expressed concerns over the lack of privacy at home, due to the poor quality of construction coupled with overcrowding and the settlement's high density of buildings. Most residents also indicated the lack of protection from climate conditions as a key issue affecting them, with structures leaking in the rainy season and overheating in summer. Many reported having to deal with mosquitos and vermin, which can bring disease.

Concerns for safety featured prominently in conversations and most participants strongly related their homes to a sense of security. Comfort was also often discussed: most participants pride the furniture they have but

feel that the interiors of their structures do not provide the level comfort they would like.

Residents often reported that their homes are not well provisioned with basic infrastructures. Most houses share toilet facilities with at least five other families, which residents feel is unhygienic and facilitates the spreading of disease. Residents also feel that shared toilet facilities are unsafe at night when people are most vulnerable. Water provision is another aspect that residents find challenging. Several participants explained that there are too few water points, located too far away from their homes, and that depending on the time of the year, the water becomes less safe for consumption. Finally, electricity provision is unreliable and dangerous and can often cut out or cause fires.

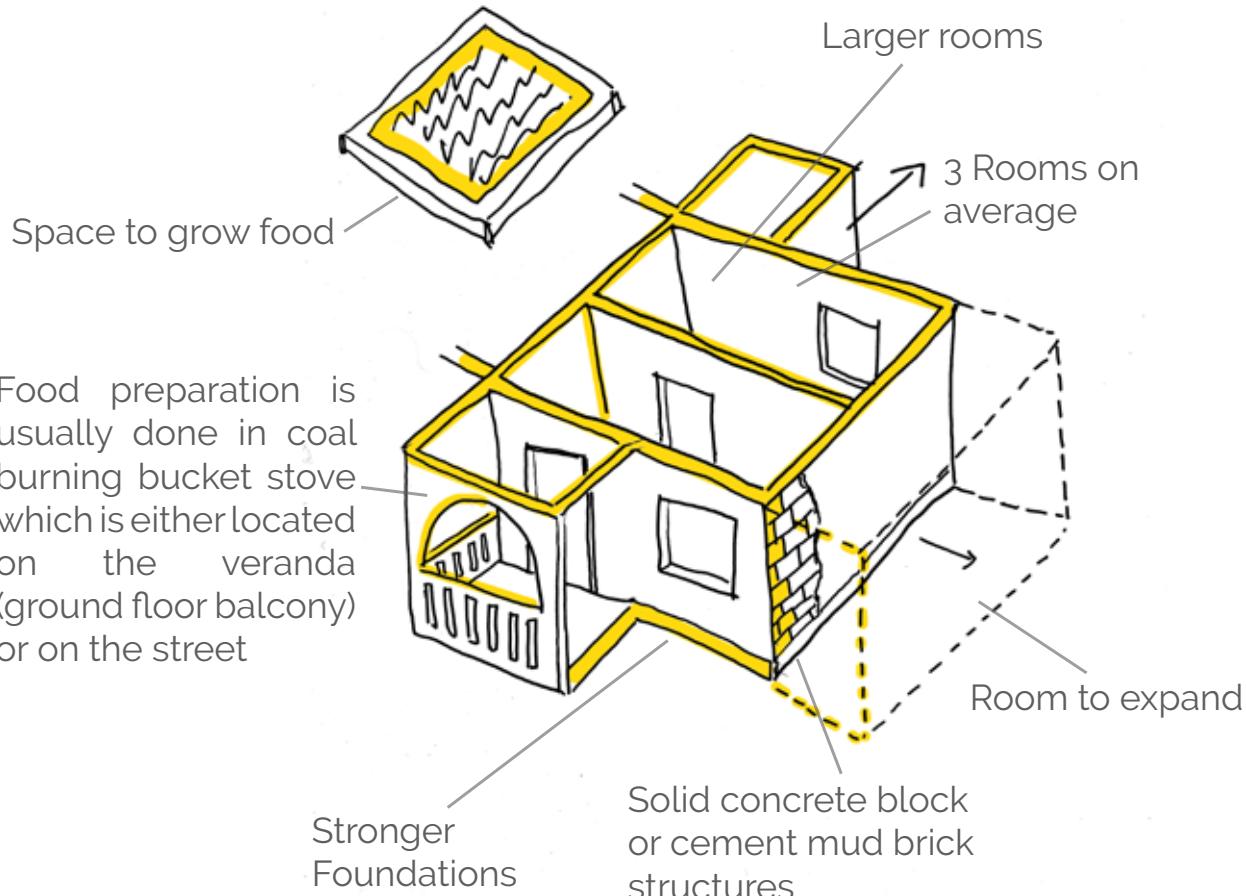


What does your home mean to you...

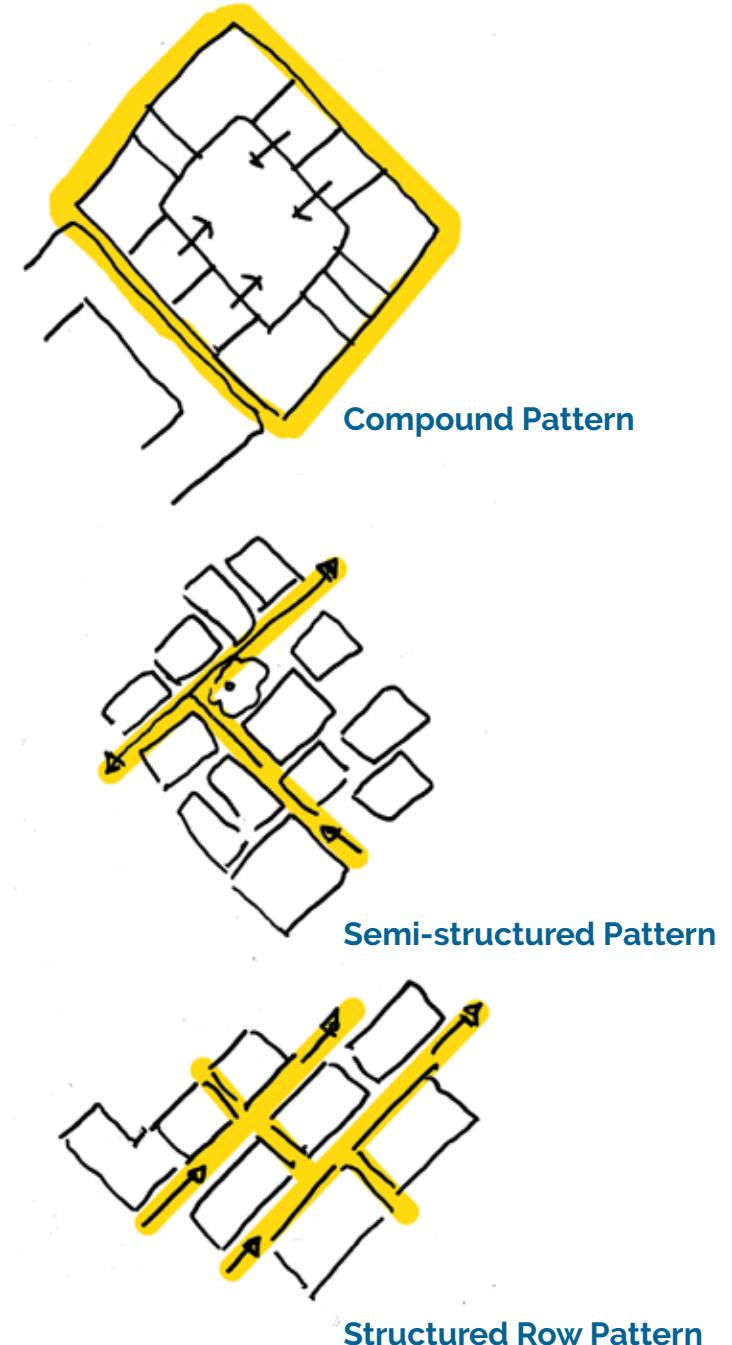
family  
peace ownership comfort  
House  
livelhood secrecy  
safe property security  
peaceful  
resting centre  
owns loving friend  
control work liberty  
freedom secret Privacy  
protection everything feels

## Concrete Block Home Layout

These diagrams highlight the key characteristics of a more established home in Cockle Bay

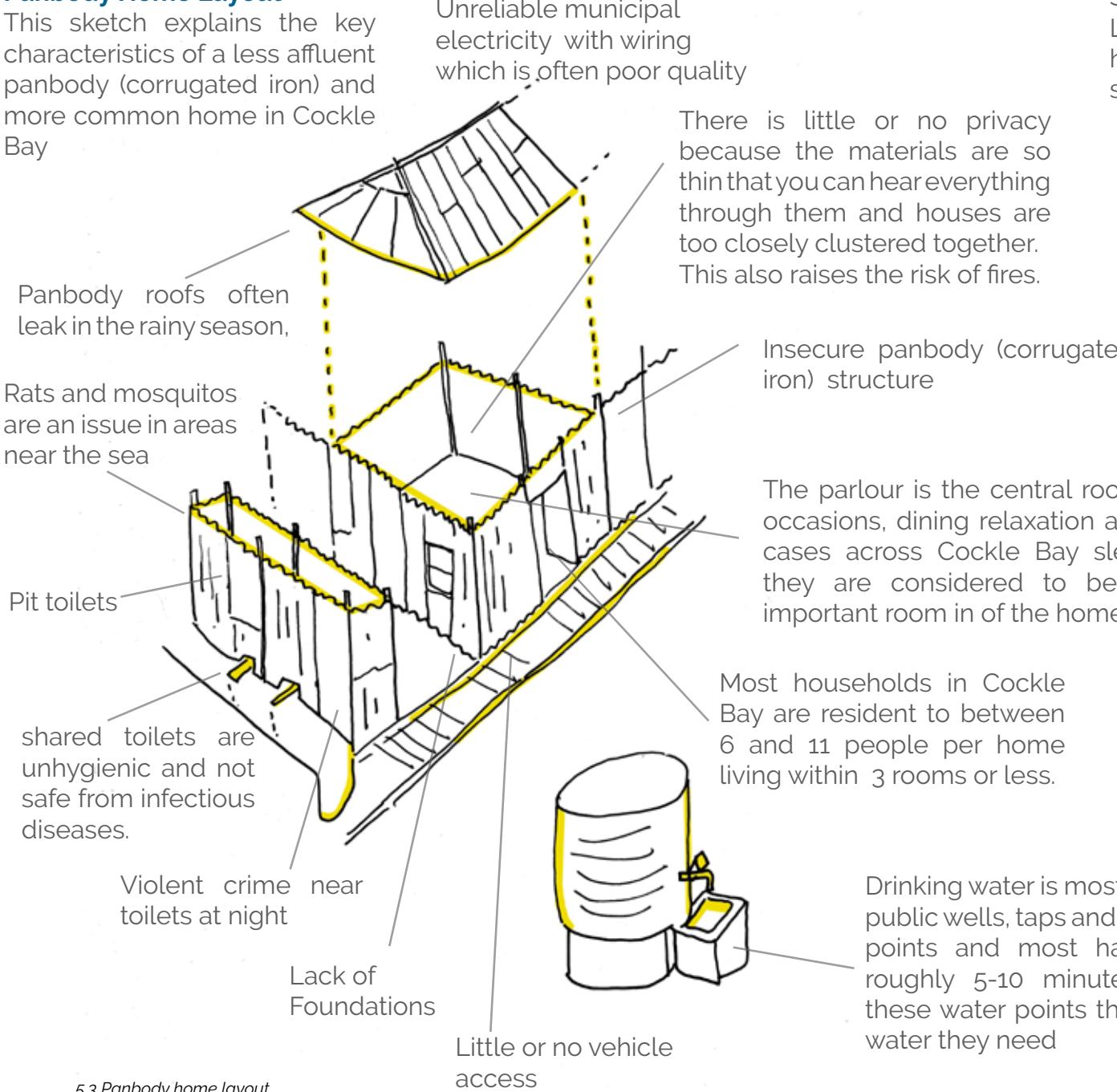


5.2 Concrete block home layout



## Panbody Home Layout

This sketch explains the key characteristics of a less affluent panbody (corrugated iron) and more common home in Cockle Bay



5.3 Panbody home layout

Some renters pay as much as 700,000 Leones per year for rent (roughly £70), and have no protection from eviction from the state and their landlords.



## 5.2 Dreaming

### Activity Description

The group took part in three dreaming activities. The first one identified shared housing aspirations. The second and third activities explored the deeper housing needs and desires of residents through drawing and modelling. The final activity sought to link personal aspirations to form wider collective ones.

### Findings

When describing their aspirational home, most participants focused on a detached house, often two-storey high. Most aspirations were for a similar housing layout centred on a parlour as the central and largest room of the house, linking and providing access to all other rooms. Most participants expressed the desire for at least four rooms (eight on average), including a self-contained interior bathroom and a separate toilet.

Materials were also discussed. Dream homes tended to feature concrete walls and zinc roofs, as they are perceived to be the best building materials for longevity and securing against weather. Defence against flooding from the sea and heavy rainfall are a common concern in the community, which is why a number of participants decided to include retaining walls and gutters surrounding their aspirational homes.



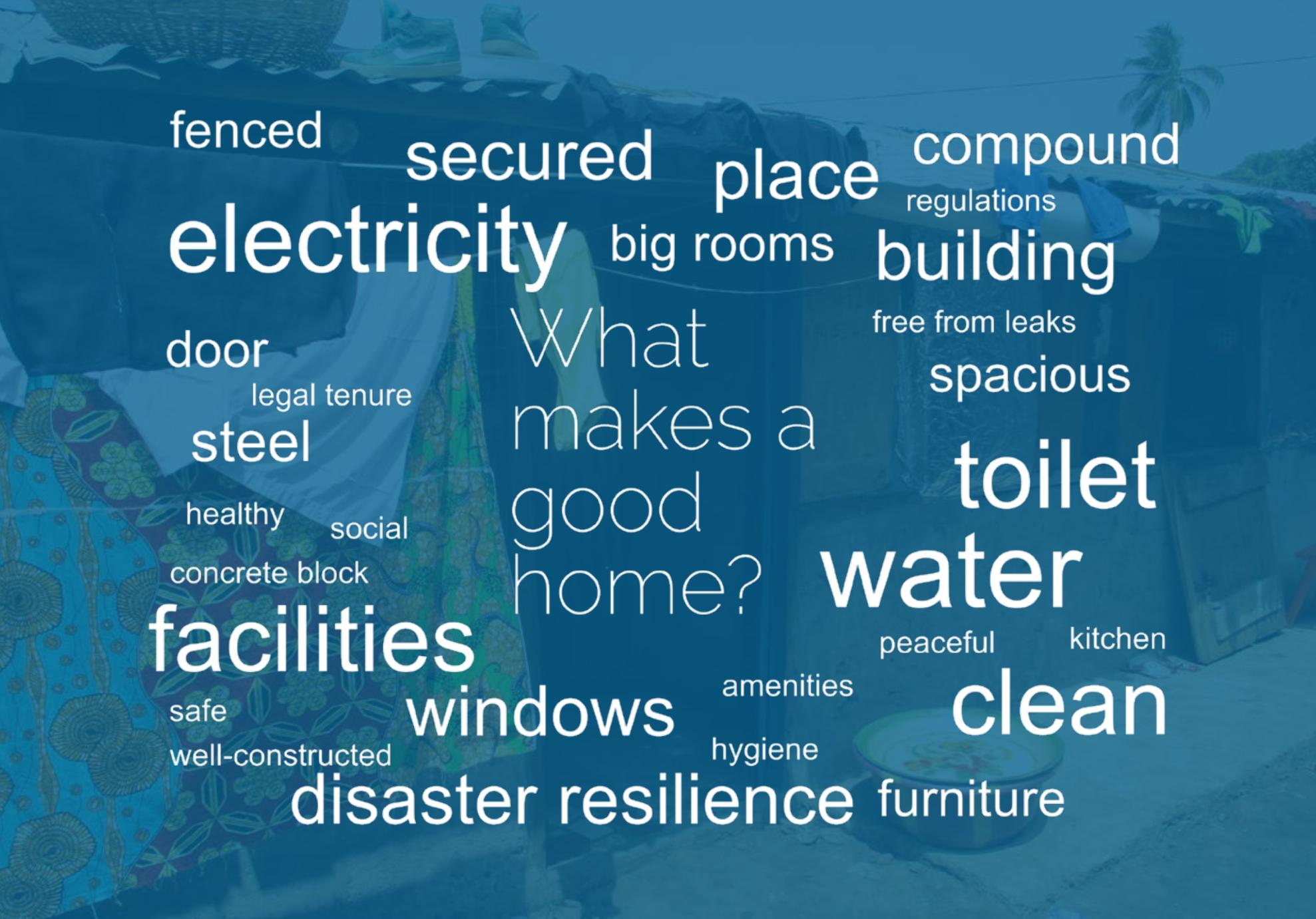
5.4 Dreaming activities at home scale

In addition to the design of the house itself, participants put forward a desire for solid doors, compound walls for security and status, as well as car parking and road access. The majority of participants wanted enough outdoor space for events and subsistence growing. Also featuring prominently were outdoor bathrooms and water points for guests and neighbours, in order to avoid inviting them into their homes for fear of theft and disease spreading.

Connectedness to the city centre, a sense of privacy, and cleanliness are three cornerstones of the ideal home that participants wanted to achieve.

Some of the key development barriers identified were : lack of developable space in

the settlement; lack of finance options to pay for land and materials; lack of tenure security. According to participants, these three barriers hold the community back from developing the settlement in the ways they desire most.



**What makes a good home?**

fenced      secured      place      compound  
electricity      big rooms      building  
regulations  
door      free from leaks  
legal tenure      spacious  
steel      toilet  
healthy      social  
concrete block

**facilities**      **windows**      **disaster resilience**      **clean**  
safe      amenities      kitchen  
well-constructed      hygiene      furniture



## 5.3 Developing

### Activity Description

The developing phase included three activities aimed at generating a set of housing principles and options. The first activity evaluated previous phases to create a portfolio of housing options. Participants were then asked to imagine upgraded housing in the settlement using paper stencils. The third activity aimed to agree a final set of housing principles and options for Cockle Bay.



5.5 Developing activities at home scale

### Findings

The main findings from the developing phase are summarised in 5.4 Home Principles and Options. In addition, a number of priorities emerged from the conversations.

**Housing:** Participants agreed that there should be a variety housing typologies that respond to diverse cultural as well as household needs. A number of suggestions were put forward including: one storey compounds, two storey compounds, apartment blocks and multiple apartment blocks within compounds. Residents discussed that apartment blocks could be used to maximise space in Cockle Bay and that areas where the ground is unstable should be designated for the construction of lower and smaller buildings.

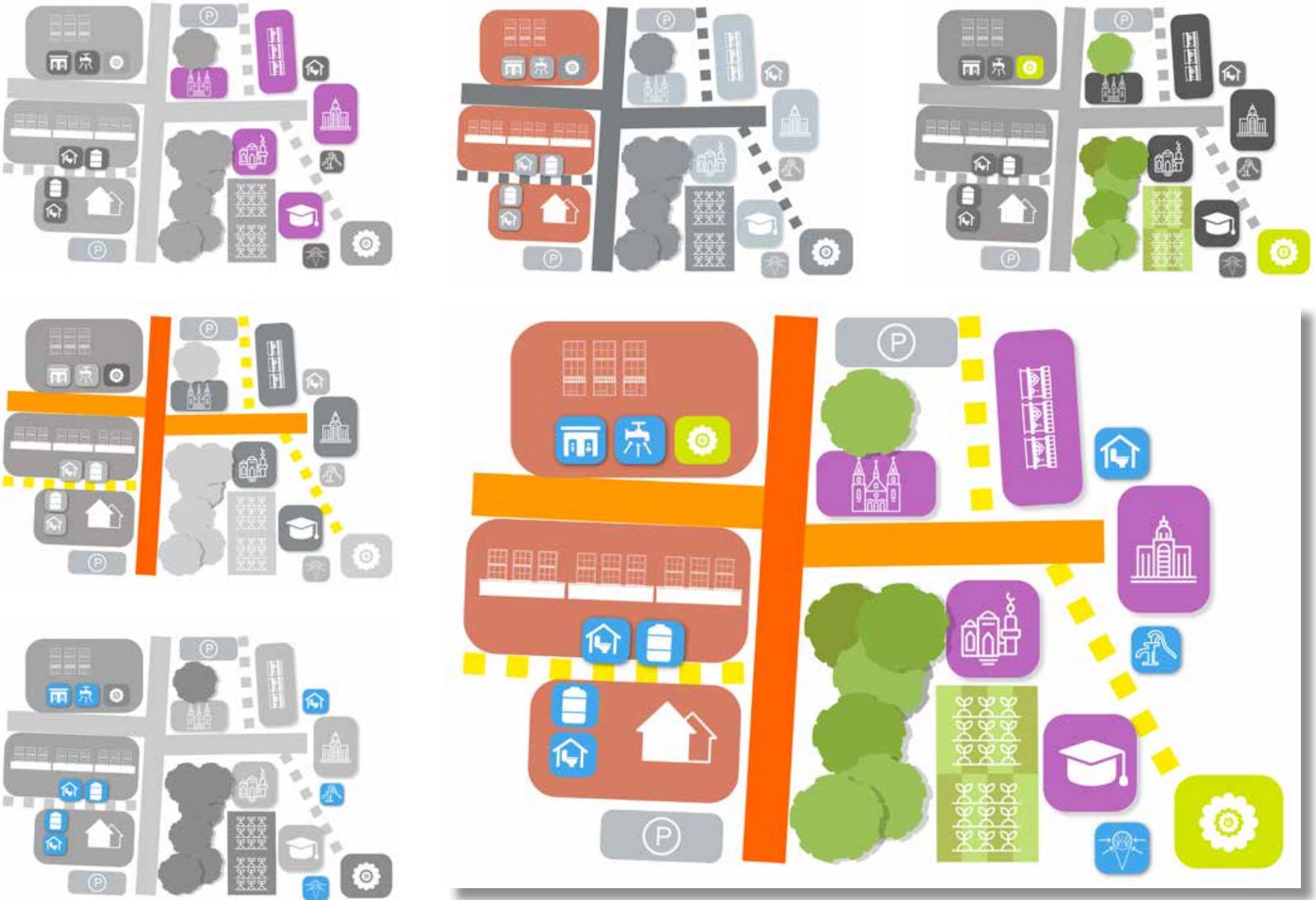
**Construction materials:** Residents recommended that future developments should use long-lasting construction materials including stone, cement blocks and corrugated zinc.

**Sanitation and waste management:** Residents agreed that there is need for a central dumping and waste management site, an adequate drainage system, and self-contained toilets for every household. Another shared suggestion was to create public toilets that can cater for large gatherings within the settlement, as well as shared community toilets for those who can't afford private toilets.

**Water provision:** There was some agreement that fresh running water could be accessible to everyone in the neighbourhood and could be piped to every structure. Residents discussed that private water tanks could be installed to

allow for better management of limited water resources, as well as community water tanks that could act as auxiliary tanks for times when individual water provisions are running low.  
**Roads:**

Participants maintained that access roads could be improved so that goods and service can easily reach all residents. There was also an agreement that footpaths as well as roads for light vehicles like bikes and tricycles could be improved, as a method of saving space and improving connections within the settlement and to the city. Finally many residents felt that improved roads providing access to emergency vehicles could significantly improve life expectancy in the settlement.



5.6 Home scale principles



## 5.4 Principles and Options

### Home Principles

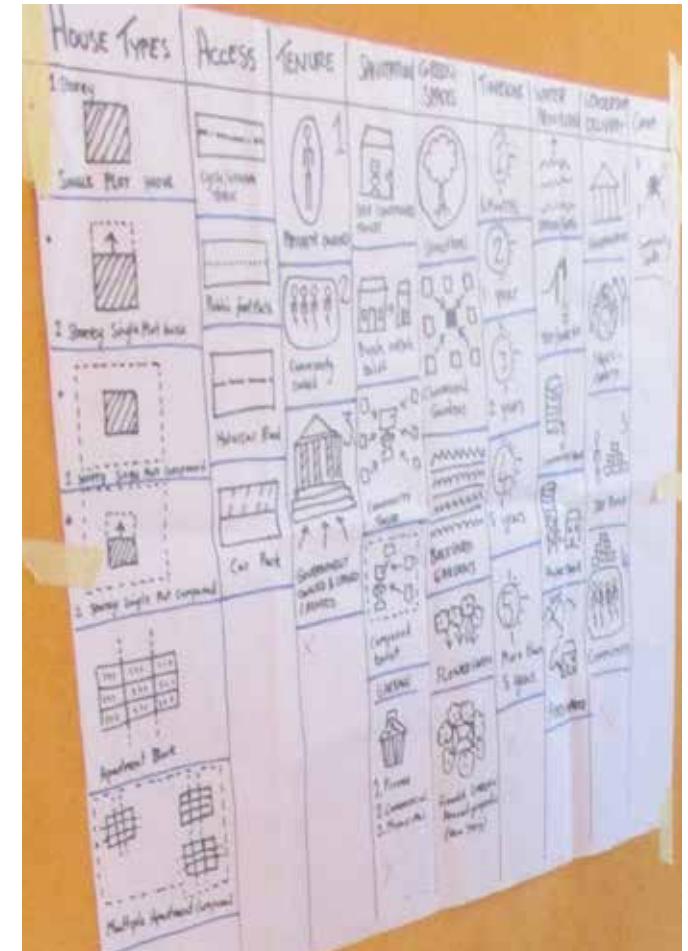
1. Housing made from durable **long lasting** and **secure materials**
2. Housing typologies which **improve access** to the city
3. A variety of housing options which cater for **different cultural and family needs**
4. Secure **tenure rights**
5. **Dignified, secure and sanitary** shared community amenities



The principles and options conclude the developing stage of the home scale. These represent the residents aspirations for improving individual housing conditions in the settlement while recognising the importance of shared resources to the experience of home in Cockle Bay.

The principles generated will be reviewed by the residents as part of the portfolio of options exercise which considers these in relation to the other scales.

The options generated capture different aspects home from physical materials to tenure and delivery. Infrastructure and services are also important considerations in relation to living conditions. These options will be collated and refined then used by residents to design different scenarios for future development during the portfolio of options stage.



5.7 Home scale principles

## Home Options

### Housing Options

#### Typology:

- Two storey house
- One storey house with compound
- Two storey house with compound
- Apartment blocks
- Multiple apartment blocks within compounds



#### Construction materials:

- Concrete Block
- Zinc roofing
- Concrete paving
- Local government maintenance
- Stone paving
- Wood panelling
- Stone blocks



#### Tenure:

- Private ownership
- Community ownership
- Government ownership
- NGO's ownership



### Infrastructure Options

#### Sanitation:

- Self-contained toilets
- Private outside toilets
- Drainage systems
- Public toilets
- Community shared toilets



#### Waste management:

- Waste collection centre
- Private waste management
- Government waste management
- Community waste management

#### Water Provision:

- Piped fresh water
- Tap (bore hole)
- Private water tanks
- Shared water tanks

#### Green spaces:

- Communal gardens
- Backyard gardens
- Flower gardens
- Green strip

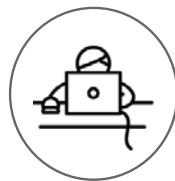
### Organisation Options

#### Housing Delivery:

- Self build
- Community led
- Local chiefs and traditional leaders led
- Government led
- NGOs and charities

#### Construction Professionals:

- Building contractors
- Engineers
- Consultants
- Architects
- Surveyors

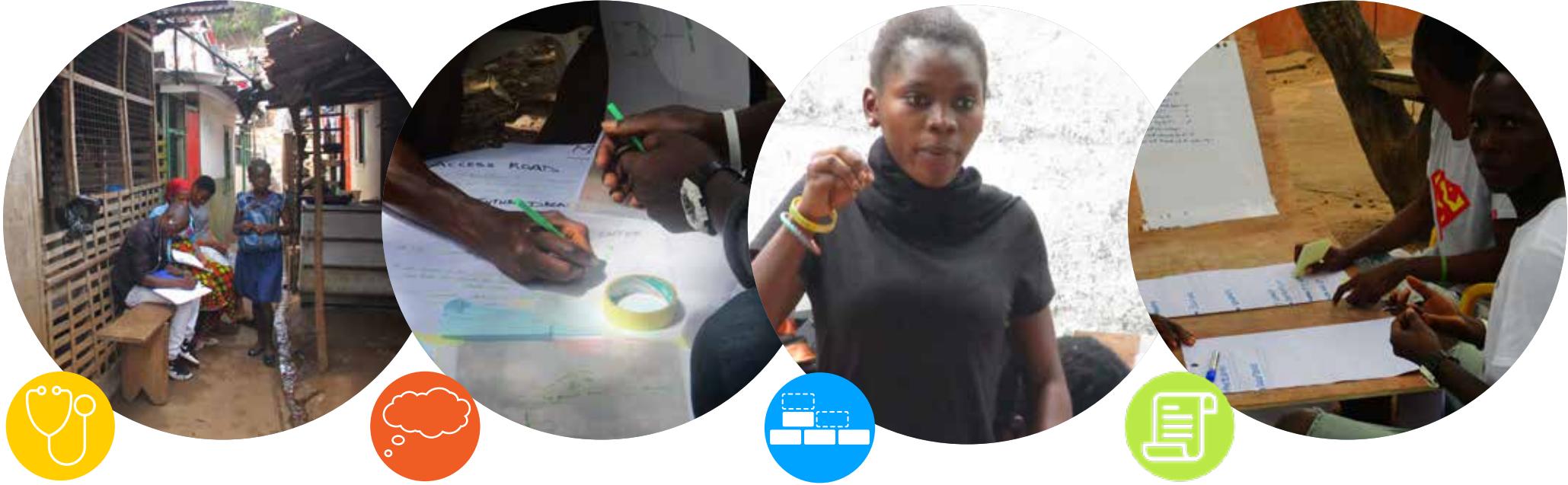


# 6 COMMUNITY

The Community scale focused on community dynamics in relation to community spaces (streets, community amenity spaces and surrounding areas) and infrastructures (transport, water, sanitation, energy, information).

The exploration into the community scale was organised into four phases.





### **6.1 Diagnosis**

This phase sought to understand the current conditions of shared spaces and infrastructure in Cockle Bay. The focus was on identifying neighbourhood resources and opportunities, as well as current challenges. This phase also explored social and spatial diversity, asking how different groups of people experience the settlement (e.g. women, men, young, old, people with disabilities).

### **6.2 Dreaming**

This phase aimed to articulate residents' values and aspirations for the settlement. Looking at whether services, facilities, infrastructure and public spaces should be created or improved, this phase identified common aspirations and challenges to improvements.

### **6.3 Developing**

This stage aimed to consolidate findings from the previous steps and create options for the improvement of shared spaces and infrastructure in Cockle Bay. Options referred to both concrete interventions and ways of building partnerships and alliances to support change.

### **6.4 Options & Principles**

The options and principles section showcases the options which participants created for improving the community as well as principles which highlight the development priorities of the community.



## 6.1 Diagnosis

The diagnosis activities included a series of mapping exercises asking participants to share their experiences of Cockle Bay, and to highlight focal points as well as positive and negative issues associated with specific places in the settlement.

### Findings

Cockle Bay is a dense settlement with few shared spaces available for collective use, be they outdoor or indoor. Amongst those, social spaces for gathering and interaction are the most numerous. In particular, cultural and religious buildings and sites are highly valued by residents. At the same time, many participants reported that the physical conditions of shared spaces are poor and that social spaces tend not to be well maintained and are not visually pleasing.

Participants discussed that due to the lack of spaces for collective use, most shared spaces need to accommodate multiple uses and different groups compete over the same few spaces, which can cause tensions. At the same time, these spaces easily become overcrowded, for instance during sporting events.

During the activities, it was mentioned several times that a number of shared spaces are dominated by a specific group and/or tend to exclude specific segments of the population. For example, local restaurants are predominantly used by young unmarried men. Beaches tend



6.1 Diagnosis activities at community scale

not to be used by elderly people because they are difficult to access and are not considered suitable for children because of fast tides. Although religious spaces are the most popular spaces in the community, participants identified noise, lack of inclusiveness and gender discrimination as common issues associated with religious facilities.

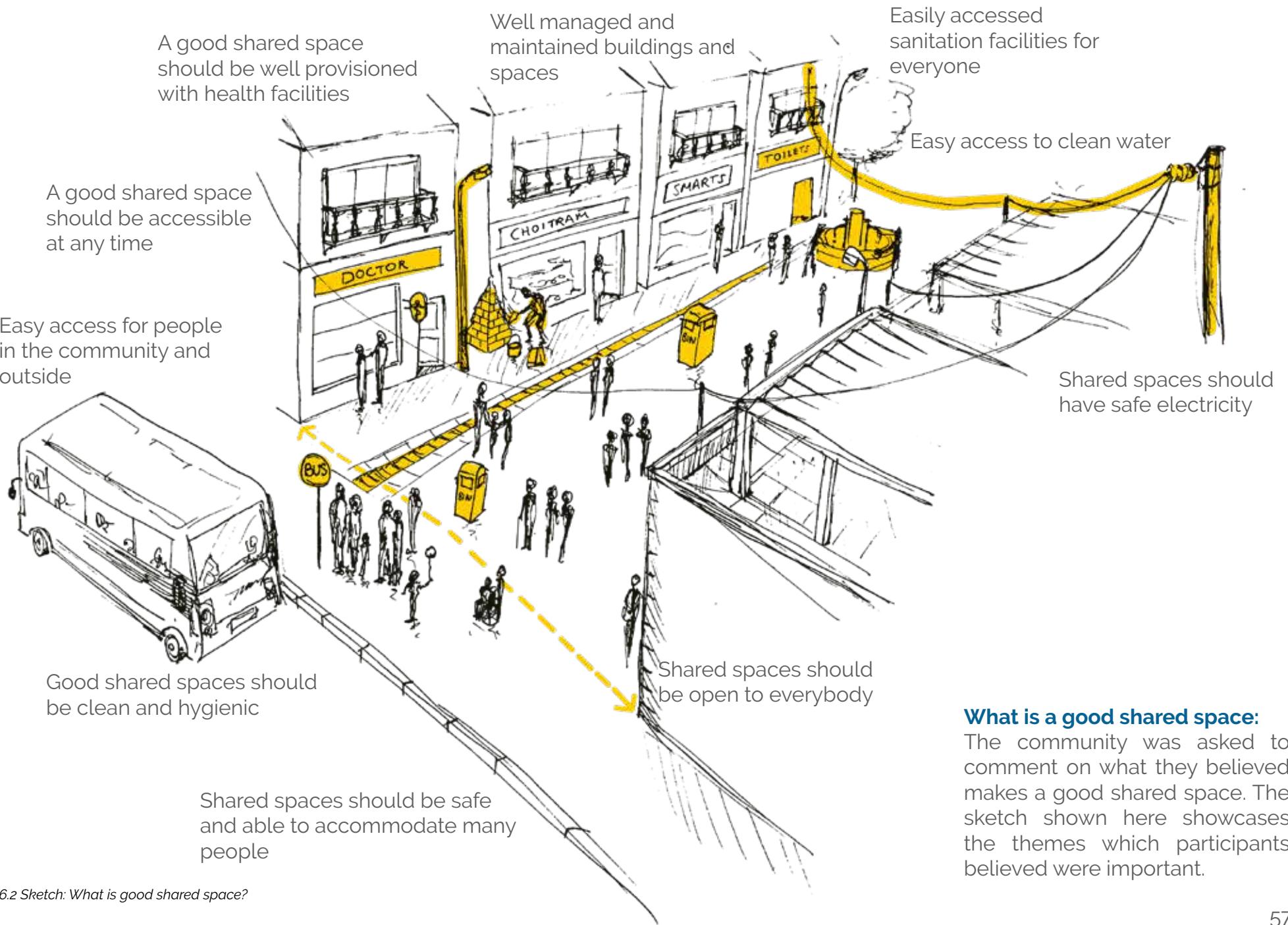
Safety in outdoor spaces is a concern for many residents. This is sometimes mitigated by public surveillance. However, in some areas of the settlement where there is less community surveillance and poor lighting, outdoor spaces are considered to be crime hotspots. Most indoor spaces are considered safe.

One of the largest shared spaces in the settlement is the wharf: mud and sand flats revealed at low tide. The wharf brings a strong economic service to the community, and the income generated from sand mining and cockle picking in the area is seen as having a

positive impact on Cockle Bay. The wharf is not perceived to be in good condition because people use it for sewage and waste dumping. Furthermore, the destruction of the mangroves along the shore is perceived to have damaged environmental health in the area.

More broadly, the lack of sanitation and poor waste management are considered to be unhealthy for the community and environment. And to have a strong impact on the quality of shared outdoor space in Cockle Bay. Participants also discussed that many of the shared spaces in the community do not have enough trees, green spaces or green infrastructure.

One of the most important issues identified by the community is the lack of connections and poor mobility between shared spaces throughout the settlement. Residents state that this problem is most pressing for people living near the sea.





## 6.2 Dreaming

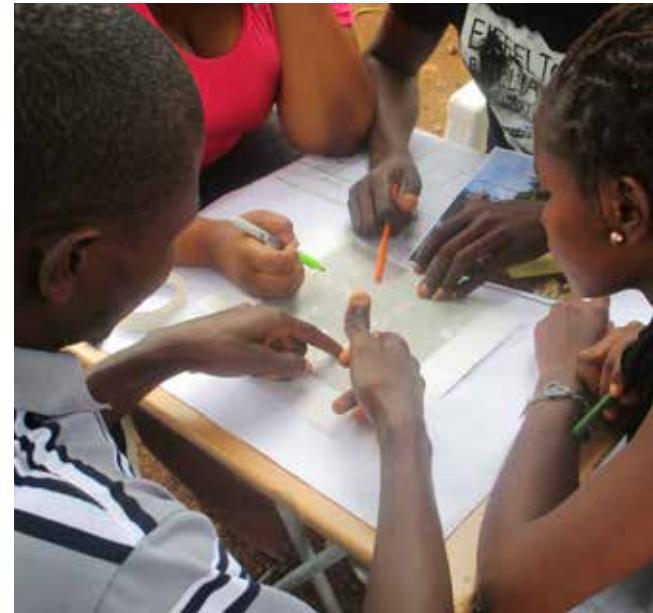
The dreaming activities featured aspirational community area mapping combined with focal studies aimed at addressing key issues in the settlement. Participants were encouraged to draw interventions over photos and existing plans, and describe what changes they had made.

### Findings

During the dreaming phase, a wide range of visions and wishes for Cockle Bay were shared. These included improvements to access roads, footpaths, and bridges, followed by water and sanitation infrastructure and flood risk mitigation measures.

The diagnosis phase highlighted the importance of mobility infrastructure. Residents explained that they would like a network of well constructed main roads, secondary roads, footpaths and bridges that are interconnected through the settlement and link to the existing road network.. It was suggested that these roads could be created from materials like tar and concrete, which are less likely to erode away in heavy rains. It was discussed that street lights should be provided to improve visibility and community surveillance.

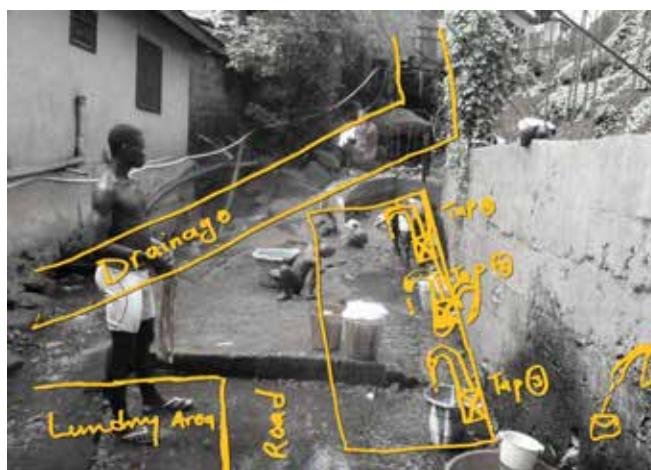
Flooding is a key concern for Cockle Bay residents. Participants expressed the hope that a retaining wall could be built to hold back tidal floods and any restrict further expansion of the



*6.3 Planning activities at community scale*  
The final aspiration shared by participants was that all buildings in the settlement, and public use buildings in particular, could be transformed in time from pan body (corrugated iron) structures to more durable materials as well as increased in height. This is to maximise available open space in the settlement and allow for new uses. One example of a new land use discussed by participants was a space for children to play during lunch breaks at school.

settlement into the Aberdeen Creek. Another strategy to mitigate against flooding was the cleaning, widening and deepening of the existing drainage system to prevent localised flooding during the rain season. Participants stressed the need to use longer lasting materials as well as to build infrastructure that is safe and minimises everyday hazards for residents.

For many in the community, sanitation is the highest priority. They desired separate self-contained toilets for men and women in community buildings and spaces as well as a shared solid waste disposal pit to stop drains from getting blocked and waste entering the sea. Participants also aspired to have water taps that are clean, safe to drink and made from durable high quality pipes. Water access was also desired in community buildings and shared spaces.



6.4 Dreaming about drains



## 6.3 Developing

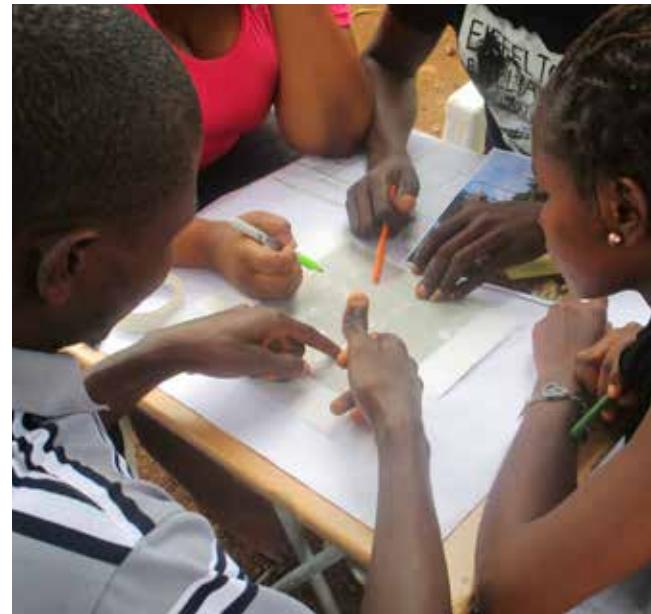
The developing phase activities sought to consolidate findings from the dreaming phase and provide greater detail on how the proposed interventions might work. Participants then combined their ideas into a set of principles and options to be taken forward to the next level.

### Findings

The main findings from the developing phase are summarised in 6.4 Home Principles and Options. In addition, a number of priorities emerged from the conversations.

**Water infrastructure:** Options for water infrastructure included different types of water tanks, which are valued because they can store large amounts of water, serve many people, and last a long time. On the other hand, participants discussed that water tanks take a large amount of space, can cause long queues for water and can be difficult to maintain. One opinion shared by participants was that tanks could be located underground to save space.

Another set of options related to water infrastructure focussed on water taps. Many participants claimed that taps last longer and reduce the amount of time needed to fetch water, and that the water is less likely to become contaminated. At the same time taps can reduce social interaction and can be very expensive to install and maintain. Participants also discussed sourcing water from the ground and the benefits



*6.5 Developing activities at community scale*  
overflow. Another option was to separate grey water and solid waste, which could stop water from overflowing but might prove complex to manage. The final options focussed on externalising waste management with a biomass facility, or piping sewerage to a waste treatment facility. Both options could be very expensive.

that jack-pumps and wells could bring to the settlement throughout the year. The key issues with taking water from the ground is that they can be expensive to build and might not be applicable to cockle bay in many places due to salty groundwater.

**Drainage:** Participants discussed two main options for drainage. The first was sloop gutters or open street drainage channels. The benefits of these are that health risks are minimised as water does not settle in one place. However they could be a hazard in the rain if they overflow. The second option was deep gutters that could take more water away from the streets, but can cause injuries if people fall down in them.

**Sanitation:** Three options for sanitation were identified. The first was to construct septic tanks: they can be emptied frequently and minimise risk of diseases spread, but they could be expensive and a danger to the community if they



6.6 Developing activities at community scale



## 6.4 Principles and Options

### Community Principles

1. Fresh water Security
2. Access to roads and transport infrastructure
3. Access for all members of the community including vulnerable citizens
4. Stronger community resilience to hazards
5. Robust solid and liquid waste management
6. Environmental Sustainability for Sustainable Livelihoods



The principles and options conclude the developing stage of the community scale. These represent the residents aspirations for improving public and communal infrastructure in the settlement with a focus on accessibility, waste and water management and sustainable livelihoods..

The principles generated will be reviewed by the residents as part of the portfolio of options exercise which considers these in relation to the other scales.

The options generated capture different aspects of the community from physical materials to tenure and delivery. Infrastructure and services are also important considerations in relation to living conditions. These options will be collated and refined then used by residents to design different scenarios for future development during the portfolio of options stage.



6.7 Community principles

## Community Options

### Public Service/Space Options

#### **Services**

- Health centres
- Community centres
- Police stations
- Schools
- Fire force
- day care centres

#### **Recreation/leisure.**

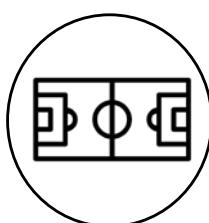
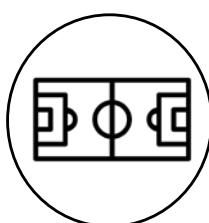
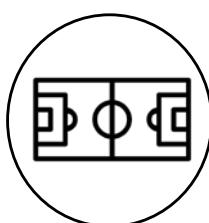
- Hotel
- Cinema
- Bars/restaurants
- Football Field
- Beach
- Wetlands

#### **Cultural Spaces**

- Mosques
- Churches
- Chief barray
- Shrines

#### **Economy Livelihoods**

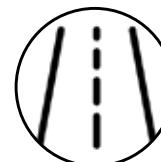
- Markets
- Shops
- Fishing Jetty
- Home businesses
- Banks



### Infrastructure Options

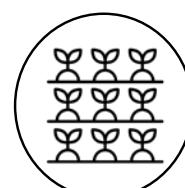
#### **Transport and Roads:**

- Main roads (tar)
- Paved footpaths
- Bike and trike roads
- Emergency access roads
- Pedestrian bridges
- Vehicle Bridges
- Road signs
- Street Lighting



#### **Environmental/Green Space:**

- Mangroves (conservation and replanting)
- Street trees for shade and to protect from erosion
- Community Gardens
- Lagoon



#### **Water Provision:**

- Shared taps
- Public water tanks
- Public jack pumps/boreholes
- Rainwater collection

#### **Drainage:**

- Large water gutter
- Sloop gutter (small open street drainage channels)

#### **Sanitation:**

- Sewage piped to a Bomeh sewage facility
- Removable septic tank
- Biomass facility
- Septic tank emptied into the wharf at high tide (toilet water)
- Grey water (underground pipe)



#### **Waste Management:**

- Waste processing site
- Waste collection

#### **Security:**

- CCTV

### Organisation Options

#### **Ownership:**

- Government
- Community
- Individuals
- Family
- Shared ownership
- Lease
- private sector owned



#### **Committees:**

- Harbour/Jetty Committee
- Community Committee

7

# CITY

The city scale focused on citywide processes, conditions and experiences. Activities included the exploration of spaces in the city that are relevant to the lives of Cockle Bay's residents, and the identification of residents' values and aspirations for the city as a whole. Participants were then asked to develop city-level interventions that could have a positive impact on Cockle Bay—spanning issues of transport, public services and livelihood opportunities.

The exploration into the city scale was organised into four phases.





### 7.1 Diagnosis

This phase aimed to unpack how the residents of Cockle Bay experience the city. The phase started by identifying key places in Freetown that are important for local residents, and then focussed on revealing some of the challenges and opportunities that Cockle bay residents face in relation to the city.



### 7.2 Dreaming

This phase aimed to articulate residents' values and aspirations for the city as a whole. Participants suggested a range of interventions for specific spaces in the city, which could have a positive impact on life in the settlement.



### 7.3 Developing

This stage aimed to consolidate findings from the previous steps and create principles and options for the improvement of residents' experience of Freetown.



### 7.4 Principles & Options

The options and principles section showcases the options which participants created for improving Freetown as well as principles which highlight the development priorities of the community.



## 7.1 Diagnosis

During the diagnosis, participants were asked to discuss their positive and negative experiences of the city, and the challenges and opportunities that the city presents to the community.

### Findings

A few key themes emerged from these conversations. Firstly, participants identified the quality of urban infrastructure as a priority. The issue mentioned the most was the quality of the drainage system. It was reported that water often overflows during the rainy season, which can harm business as well as facilitate the spread of disease. Participants ascribed this problem to the frequent misuse of the water drainage system for solid waste disposal. Participants also referred to the poor conditions of the road and transportation networks. Key problems identified by Cockle Bay residents included automobile traffic congestion as well as crowding in public transportation, which hinders access to city services. Air pollution also emerged as a key preoccupation for many participants, who voiced concerns about the effects that poor air quality can have on health, particularly in informal areas.

Some of the residents indicated that unemployment is a problem for many in the city. Several participants claimed that youth unemployment is a key factor leading to violence—both criminality and youth participation in armed groups. This is most acute in the city centre and in areas where police forces are less present. Residents mainly



*7.1 Diagnosis at city scale*  
linked unemployment to the lack of adequate education and training for young adults. Participants discussed disputes over the use of open space. It was mentioned that there are often conflicts between street vendors and municipal authorities, as well as between street vendors and other road users who complain about the traders' encroachment on the public realm.

Finally, a key challenge in the relation with the city is access to rental housing. Participants expressed the view that rent costs in Freetown are high and at the same time, people who identify as Krios tend to have strict rules about who can live in their properties. It was also mentioned that single women struggle to rent properties, and in some cases, women who live by themselves can be victims of violence.

#### Educational Facilities

- 1. Sierra Leone Grammar School
- 2. Collegiate School
- 3. Fourah Bay College (place for testing education and also build up our social life)

#### Iconic Buildings and Spaces

- 1. Aberdeen Bridge
- 2. Congo Cross Roundabout
- 3. Youyi building is the place where most of the minister offices are.
- 4. Siaka Stevens road is one of the main streets in the wider city where can find the law court, commercial bank and electricity house, museum and the cotton tree.

#### Police and Law

- 1. Lumley Police Station
- 2. Special Court
- 3. State Avenue is the place where we have most of the government buildings

#### Markets and Economic Spaces

- 1. Lumley roundabout market area
- 2. Aberdeen road market
- 3. Lightfoot Boston Street Markets
- 4. PZ Ibuildingl market place
- 5. Sanni Abacha Street: It has a lot of traffic due to the congestion due to street markets
- 6. Dovecut Market
- 7. Water quay: a place where we import and Export good in and out of the country

#### Leisure and Recreation

- 1. Family Kingdom  
Lumley beach (Freetowns most popular recreational and tourist space)
- 2.
- 3. Lumley Gold Club
- 4. Cockle Bay Beach
- 5. National swimming pool (local and national swimming competition centre)  
National Stadium (national events and sporting activities, the stadium is very dilapidated)
- 6.
- 7. Parrenial Field

#### Infrastructure and Mobility

- 1. Aberdeen Roundabout (largest in Sierra Leone)
- 2. Aberdeen Road Junction (Transport stops)
- 3. Wilkinson Road: the main road in the Western Area that links to Lumley and the wider city.
- 4. Motor Main Road (Main road into city centre from the West)
- 5. Pademba Road is the main connection centre in the city and also connects us to the wider city.
- 6. New Bypass Road is a road connecting Dwarzack junction to sumalai town, it is not well constructed.
- 7. Fourahbay Road is not too easy for vehicles to pass through
- 8. Kissy Road is much more congested so we need to do an extension to have more easy access.



7.2 Diagnosis at city scale



## 7.2 Dreaming

The dreaming phase aimed to articulate residents' values and aspirations for the city as a whole. Participants first discussed hotspots or urban areas that are important to different groups across the city. Based on this exploration, they identified a range of interventions for specific localities, which could have a positive impact on life in Cockle Bay.

### Findings

Participants first identified critical improvements for the city. They prioritised improving security through street lighting and increased surveillance. The group also believed that spaces for economic activities require significant ameliorations with better trading and storage facilities. Waste management and sanitation also featured highly in the collective aspirations of participants, alongside the overall urban environmental quality, which could be enhanced through planting schemes in public spaces and the improvement of existing buildings. Finally, a renewed traffic management system was promoted.

The community also identified a series of secondary improvements, which they felt would make the city a better place to live in but are not of critical importance. It was discussed that commercial areas such as PZ and Dovecot should make space for street traders through the creation of formal markets or trading areas.



7.3 Dreaming activities at city scale

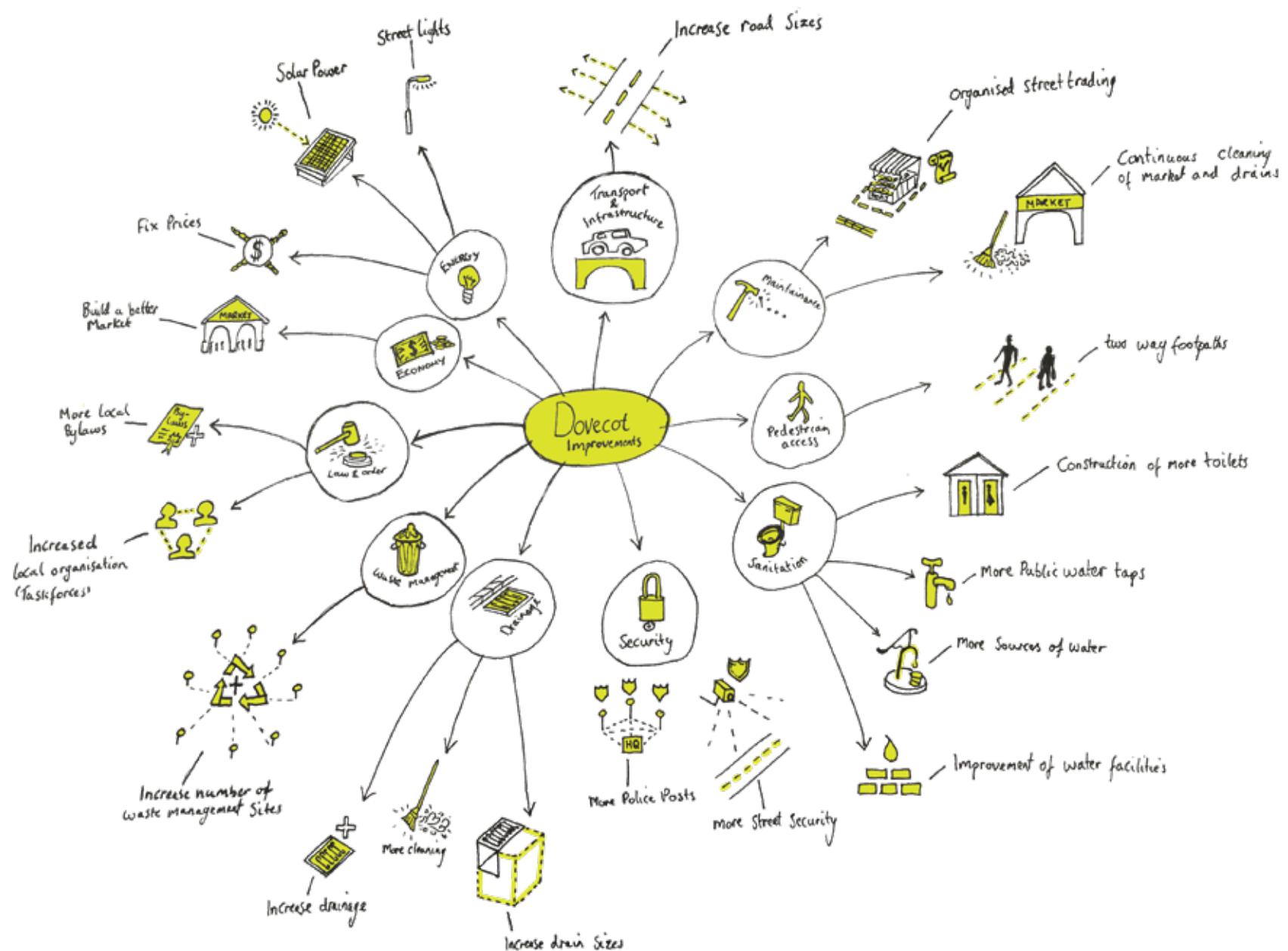
The transport system was perceived to have on-going issues, specifically with regards to car parking and the public transport system. Participants suggested that public transport should be improved and made cheaper, and car parks should be created in the city centre. Finally, residents mentioned tourist areas such as beaches. It was discussed that these public spaces should be equipped with garbage cans and public bathrooms, and that leisure facilities need improvements.

Residents mentioned that the western part of the city is not well provisioned with services such as health care and education. They focused specifically on vocational educational centres for those who are not able to attend formal school. It was suggested that a medical centre should be created near the Lumley roundabout, and an educational centre in a more central area of the city.





7.4 City scale locations



7.5 Dovecot city scale improvements



## 7.3 Developing

This phase intended to capture how the community might approach development strategically. Activities featured an analysis of relevant stakeholders and a 'navigating power' exercise that explored which institutions are responsible for different aspects of urban development. The final set of activities aimed to create principles and options for the improvement of residents' experience of Freetown.

### Findings

Participants had a variety of ideas about the roles and responsibilities of different stakeholders in the upgrading process. The results suggested that local authorities should lead the upgrading process and provide support throughout the development. The exercise also suggested that finance should mainly come from NGOs. Local and community organisations should be in control of advocacy activities and should be responsible for finalising interventions. Upkeep and maintenance was also decided to be a community responsibility.

When confronted with an analysis of existing power structures around informal settlement upgrading, residents demonstrated that they knew individuals and organisations in the community and local authority who held power to make change. At the same time they struggled to identify development actors who



7.6 Developing activities at city scale

could facilitate change across the city. There was a real concern among participants that they did not know enough organisations who could help finance improvements to the community, but they agreed that SLURC, FEDURP, the local Councillor, their Ward Committee and the Community Chairperson could help them advocate and source funding.

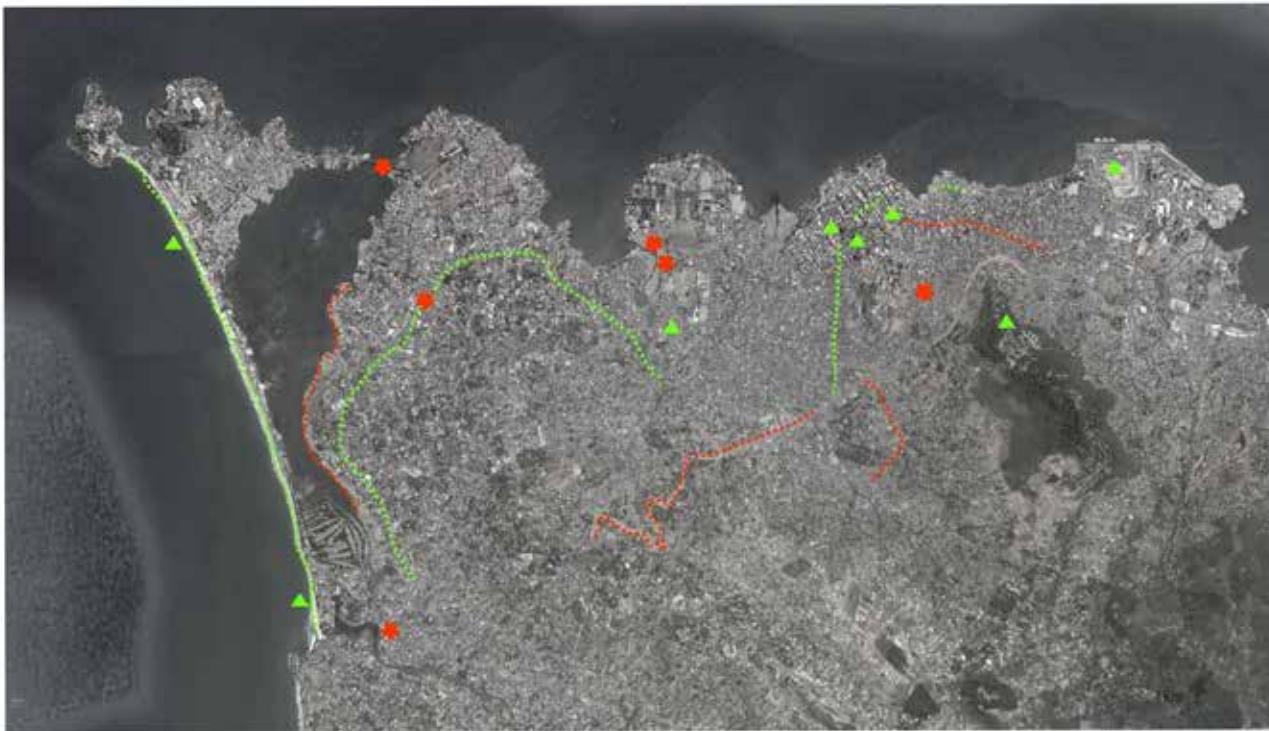
When discussing what would contribute to making the city of Freetown more inclusive, participants identified a number of factors, including property ownership; using qualified contractors and trained personnel, and constructing housing and buildings with good materials so that they can be higher and accommodate more people.

Participants agreed that in an inclusive city there should be a large number of services, facilities and amenities that benefit all residents—including transportation, health and education facilities, clean drinking water, sanitation and

reliable electricity. All residents should also be secure from natural and man-made hazards as well as criminal activities. Infrastructure and access were discussed at length: an inclusive city should have a good road system that connects all areas of the city. Natural areas should be respected and there should be green open spaces outside the city centre. Participants also considered public spaces as a vital component of an inclusive city.

Inclusive development could also be fostered by economic policies that encourage investment. In particular, participants argue in favour of a wider variety of secure financing options, including banks, micro credit organisations and NGOs.

The final area considered by participants was public engagement. They argued that excellent community participation and leadership would greatly improve the sense of inclusion in Freetown.



Dovecot	Supporting intervention	Advocating intervention	Financing intervention	Leading intervention	Finalising intervention	Upkeep and maintenance
Should be Informed	Local business religious leaders	Community chairman	MoTrade Land-owners	MoLands	Area chief	Chairman/ chairlady women leaders
Should be encouraged to take part	Social clubs youth chairman other communities	Ward development committee	CBO's Local businesses	Planning and Design Consultants Youth Chairman	Religious leaders	CBO's
Need to be involved	Area chief community chiefs	Fedurp	Micro Credit organisations	CBO	Chairman/ chairlady women leaders	Local Business People Youth Groups
Very important	MoHousing	Local Councillor	MoFinance	FCC	Local Councillor MP	Community People
Critically important	Major MoLands	MP	NGOs	Mayor	NGO's Mayor	FCC



## 7.4 Principles and Options

### City Principles

1. Affordable formal accommodation (high to medium rise)
2. Affordable range of public transport options
3. Equal distribution of core services
4. Equality of recreation and healthy living spaces
5. Fair distribution of facilities and amenities
6. Preserving the beauty of the city

The principles and options conclude the developing stage of the City scale. These represent the residents aspirations for a more inclusive city with equal access to resources for everyone.

The principles generated will be reviewed by the residents as part of the portfolio of options exercise which considers these in relation to the other scales.

The options generated capture different aspects of the city from physical buildings such as health centres and schools to finance and participation. These options will be collated and refined then used by residents to design different scenarios for future development during the portfolio of options stage.

### City Options

#### Public Service/Space Options

##### Services

- Hospitals
- Colleges
- Centres
- Police stations
- Schools
- Fire force
- Day care centres



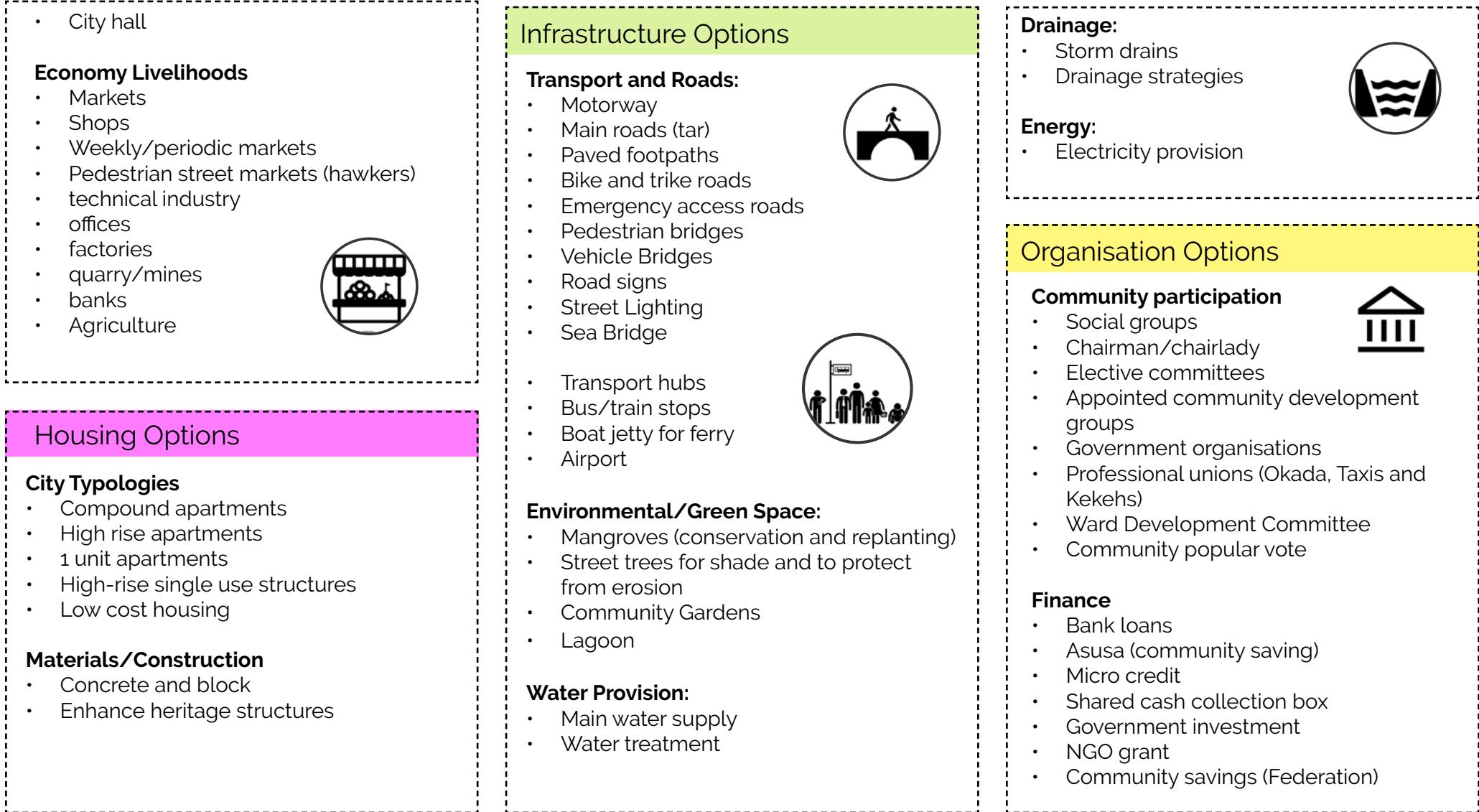
##### Recreation/leisure.

- Hotel
- Cinema
- Bars/restaurants
- Public swimming pool
- Sport centres
- Football Field
- National stadiums
- Beach
- Park
- Wetlands



##### Cultural Spaces

- Mosques
- Churches
- Cultural performance spaces
- Arts buildings
- Music venues
- Chief barray
- Shrines



# 8

# INTEGRATED PRINCIPLES & OPTIONS

The principles and options from every scale have been collated in the following section to inform the activities in the portfolio of options. The principles have been integrated and will act a guide for decision making and to test the proposals that community develop using the refined set of options.



## 8.1 Scale Principles



### Home

1. Housing made from durable long lasting and secure materials
2. Housing typologies which improve access to the city
3. A variety of housing options which cater for different cultural and family needs
4. Secure tenure rights
5. Dignified, secure and sanitary shared community amenities



### Community

1. Fresh water Security
2. Access to roads and transport infrastructure
3. Access for all members of the community including vulnerable citizens
4. Stronger community resilience to hazards
5. Robust solid and liquid waste management
6. Environmental Sustainability for Sustainable Livelihoods



### City

1. Affordable formal accommodation (high to medium rise)
2. Affordable range of public transport options
3. Equal distribution of core services
4. Equality of recreation and healthy living spaces
5. Fair distribution of facilities and amenities
6. Preserving the beauty of the city

### Community Organisation

1. Community leadership on urban development projects
2. Proactive community financing options
3. Improved community organisation
4. Community accountability in upkeep and maintenance of local assets
5. Well managed collaboration with government and private stakeholders



8.1 Principles and options activity

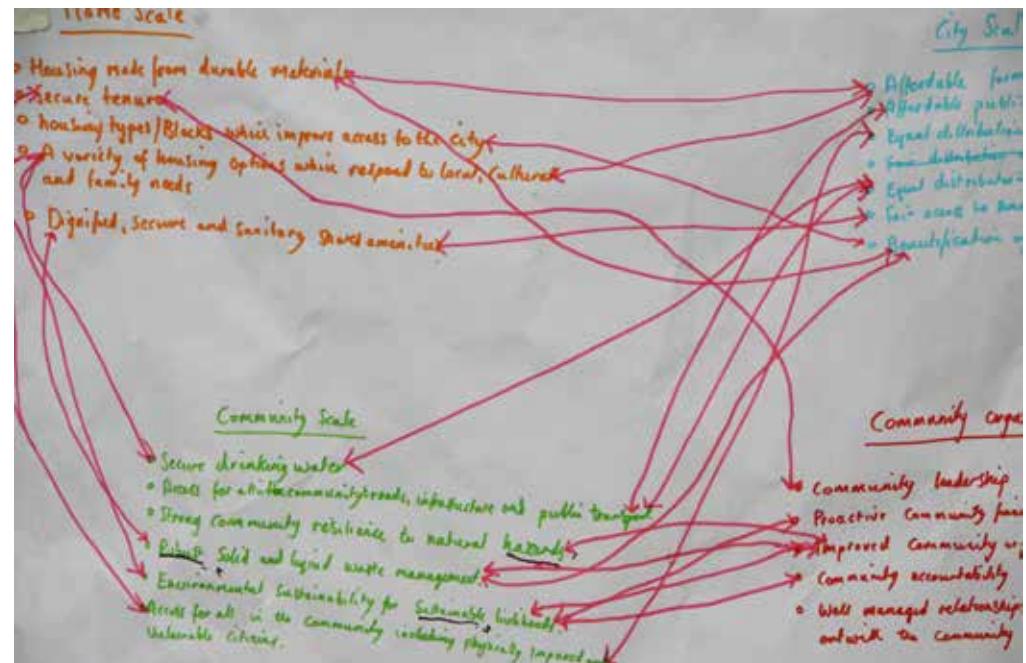
## 8.2 Integrated Principles

The principles captured on the previous page represent the outcome from each scale. The next step in the process is to consolidate these principles into an integrated set which reflects the aspirations from the various scales picking up key themes across the set and recognising that meaningful change needs to be considered holistically.

This activity allowed the working groups at this stage to understand the refined findings from the previous workshops. The community members were requested to judge the principles,

and show how they were connected through the different scales, then to discuss which principles should be prioritised in the plans.

This final set of principles summarises the outcome of this discussion and the priorities that were identified.



### 1. Protect and enhance local environment to support livelihoods and tenure security

- Create opportunities clean and restore the existing natural environment*
- Restrict destructive activities like sand mining and in natural fragile areas*
- Seek funding opportunities, financial incentives and donations to pay for restoration of local environment*
- Restore the local environment to its original beauty.*
- Create social infrastructure to ensure goals are achieved*

### 2. Achieve security of tenure for all, with no evictions or displacement

- Legitimate tenure access for all members of the community and existing households.*
- Recognise formal and informal residents living under diverse tenure arrangement*
- Equality in tenure security, not just a privilege of the already established.*
- Protect citizens with effective local and national policy.*



8.2 Integrated principles sketch

### 3. Access for all to quality, safe housing which works for different family types in the community

- Improved construction materials for easier maintenance and to improve resilience against natural/man-made hazards.
- Design to improve the overall visual look of the community
- Provision a mix of housing varieties to meet every need including vulnerable and physically impaired citizens
- Create opportunities for affordable housing

### 4. Create a fair settlement with equal access to resources

- Construct amenities, facilities and houses with ease of access in mind to ensure all residents are well provisioned.
- Provision fresh water outlets across the community for all to use
- Protect community interests through strong effective community organisation

### 5. Improve access and mobility within the community and with surrounding area

- Ensure that new connections created improve ability of emergency services to access the community.
- Create opportunities for public transport to service the community.
  - Create a network of quality roads and footpaths throughout the settlement.
- Ensure that connections link to the central area of the community and the wider city

### 6. Improved waste management and sanitation to improve public health

- Identify key spaces in the community to construct public toilets
- Create a space for solid waste management to avoid pollution
- Reduce spread of sickness and disease across settlement by provisioning enough toilets to suit community needs.
- Reduce solid and liquid waste dumping into Aberdeen Creek

## 8.3 Refined Options

The options generated at each scale have been refined and catagorised in the following pages.

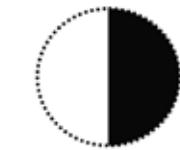
The icons have been developed to help to visualise the different options. These will be used in the next stage of the methodology where the community will use the icons to propose new layouts of the settlement and develop organisational strategies for various interventions and improvements.

### Timescale

These options relate to the timescale in which an intervention might happen



Now



Soon



Later

## Organisation Options

### Stakeholders

These options relate to both community and city wide stakeholders and institutions



Local Council



NGO



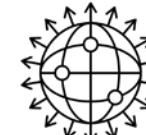
Private Sector



Social Groups



Government



Zone Steering Committee



Individual



Family Networks



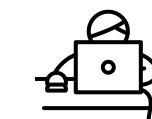
Traditional leader/  
Chairperson



CBO's and  
Charities



Local Politicians



Consultants



The Community  
People



Elected  
Community  
Committee



Ward  
Development  
Committee

### Funding

These options relate to the finance available for proposals



Shared Cash  
Collection



Bank Loans



Asusa (savings)



Micro Credit



Government  
Investment



NGO Grant



FEDURP

# Housing Options

## Decision Making



Community Vote

## Typology

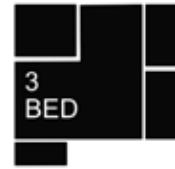
These options relate to both the size and typology of individual homes



1 BED



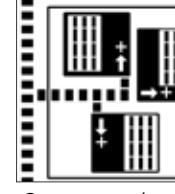
2 BED



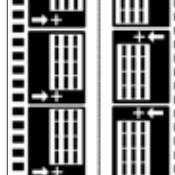
3 BED



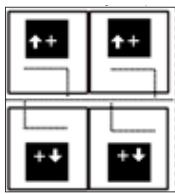
4 BED



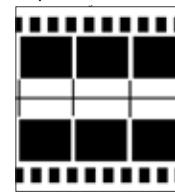
Compound Apartments



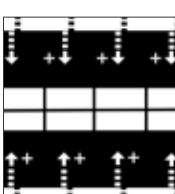
On-Street Apartments



Multi-Level Single Units



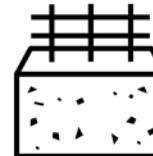
Single Level row units



multi level attached row units

## Materials

These options relate to the building materials used for construction



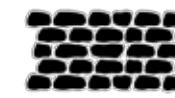
Concrete



Panbody  
(corrugated iron)



Innovative Materials



Stone



Dirty Block



Brick



Mud-cement  
blocks

## Tenure

These options relate to the type of housing tenure available



Lease/rent



Shared  
Ownership



Rent to Buy  
(Mortgage)



Individual  
Ownership

# Infrastructure Options

## Water

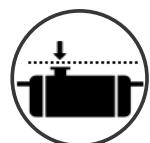
These options relate to access to water for drinking and bathing



Piped Water



Private Water Storage



Shared underground tank (rainwater)



Water from the ground



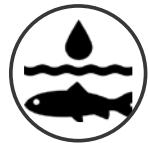
Shared Water Storage



Recycling of Water



Roof Water Collection



Clean river water for drinking

## Sanitation

These options relate to toilet and bathing facilities



Community pit toilet



Self contained private toilet



Compound toilet



Public toilet

## Drainage

These options relate to waste water and water run off



Waste water underground pipes



Septic tank removal



Drainage Channel



Natural Drainage



Deep Gutter

## Waste Management

These options relate to household and municipal waste



Biomass (using waste)



Sewerage treatment (bomeh)



Waste management/dump site

## Energy

These options relate to strategies for and access to power



Electricity

## Community Space/Service Options

### Transport

These options relate to mobility, public and private



Roads



Street Lighting



Signs and signals



Pedestrian Footbridge



Transport stop



Pavements



Train Station



Wharf/jetty



Bus Station



Car parking



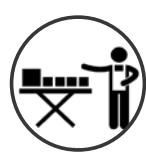
Vehicle bridge

### Economic Spaces

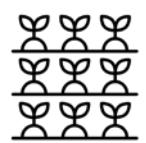
These options relate to livelihoods and markets



Temporary markets



Street Traders



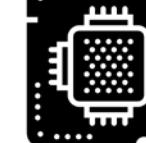
Urban Farms



Banks



Bars/Restaurants



Industry



Formal Markets



Shops

### Public Spaces/Buildings

These options relate to public service buildings and spaces



Health Facility



Emergency Services



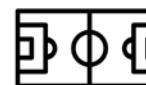
Education Facility



Childcare Facility



Recreational



Leisure and sport



Cultural



Community



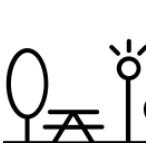
Religious



Offices



Factories



Natural

# 9

## PORTFOLIO OF OPTIONS

The 'portfolio of options' exercise brought together the four streams of work (Policy and Planning, Home, Community and City) and began to explore the kind of negotiation required between various interests in order to achieve a cohesive plan for the settlement.

The core part of the exercise engaged Cockle Bay residents in planning their ideal upgraded settlement with a kit of parts on a scaled site model. The aim was to test responses to specific issues within the broader and more complex context of upgrading as a whole. Participants worked in three groups of sixteen. By the end of the session, each of the groups created a community action plan that consisted of a modelled and a drawn layout of the upgraded settlement and a set of organisational strategies.



**1**

### **9.1 Modelling a Layout**

The modelling a layout exercise was used as a method for the community to approach a difficult array of issues in a controlled scenario focussed way using a 3D model with option cards to plan for the future.

**2**

### **9.2 Planning an organisational strategy**

This stage was aimed at helping the community come to a consensus on how developments in the community should be managed over time and which organisations should be involved at what stage

**3**

### **9.3 Drawing a Refined Layout**

The refined drawing layout was aimed at distilling some of the key findings from the modelling layout stage into a cohesive basic mobility, access, housing and amenities plan.

Group 1



Group 2



Group 3



## 9.1 Modelling a Layout

The modelling section illustrates the three model layouts assembled by participants, then discusses (i) similarities across the groups of participants; (ii) unique choices made by each group and (iii) overall findings from the exercise.

### (i) Shared Decisions Across Layouts:

#### Housing:

Amongst the primary concerns of residents were safety and providing enough housing for everyone. Participants felt that due to the topography of Cockle Bay, one- to two-storey units should be used in areas that have recently been reclaimed from the intertidal zone, because the ground is not strong enough to accommodate high-rise buildings. In areas where the land is more stable and able to support larger buildings, the groups concentrated taller three- to five-storey apartment blocks that could accommodate the majority of the community. Buildings were arranged into parallel rows to maximise developable space, and most participants argued that the settlement's roofline should be stepped to match the slope of the land. Finally all teams included green strips to separate the rows of houses, to be used for subsistence food growing.

#### Infrastructure and transport:

Participants felt that roads should be laid out on a grid pattern to match the row-house



typology. Secondly the groups agreed that there should be bus stops in the centre and at the extremities of the settlement for all members of the community to access. A coastal road was included in all the models: this was intended as a buffer to stop further expansion into the Aberdeen Creek. Finally all the groups insisted that street lighting should be improved in all footpaths and roads for better visibility, safety and security.

#### Amenities:

All groups chose to locate public toilets and water points next to public areas where there are a number of shared activities, buildings and spaces of community value. This was for

the convenience of all in the community. They also agreed that there should be a central meeting point where they use public space. Residents also felt that access to electricity should be provided to all. Similarly, residents agreed that everyone should have access to safe drinking water, and that the existing drinking outlets could be purified for this purpose. Contingency planning was an important factor in the decision-making process. One such contingency was the inclusion of publicly accessible shared water tanks for easy access to everyone if their personal water supply runs out or has problems.

## **Services:**

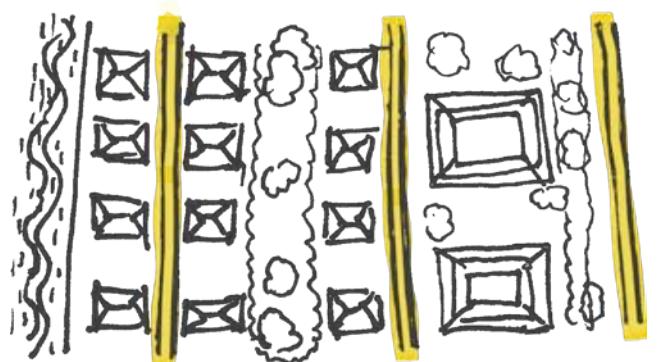
The main community facilities were consolidated in one building, including emergency services together with a health clinic and a school. The idea was to locate this in a geographically central point so it is equally accessible to all. The chosen location was Mafengbeh, next to the primary access route, which would also allow emergency services to quickly access the settlement.

## **Public buildings and spaces:**

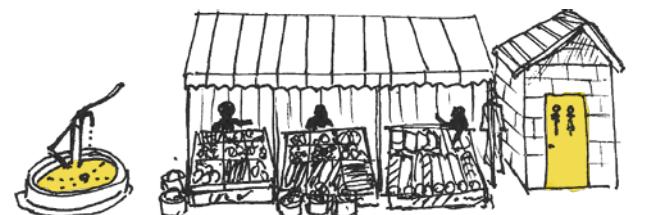
Residents clustered together the community centre, recreational spaces like playing fields and economic spaces like shops and market. These were located at the heart of the settlement so that everyone could easily access them.

Work and employment were something that participants wanted to encourage within the plan. They discussed that higher buildings should be designed to host a mix of uses like shops and offices in the lower floors. These buildings should be located centrally to make sure that Cockle Bay's core commercial area is vibrant and accessible.

Existing religious buildings should be consolidated into larger buildings and located centrally but far from each other.



*Road's and pathways organised into a row pattern*



*Toilet and water amenities near public spaces*



*Mixed-use apartment ground floors*

*9.3 Sketch reflections*

## **(ii) Unique Decisions Across Model Layouts**

The portfolio of options exercise generated rich debates. In addition to their shared choices, workshop participants made many further suggestions as to how the neighbourhood could develop in the future. Some of these unique ideas should be considered for inclusion in later plans.

## **Housing:**

Different housing typologies were discussed within the groups. For instance, group 3 suggested to use detached or semi-detached buildings across the settlement, so that the in-between spaces could be utilised for commercial activities such as small shops and kiosks. Group 1 selected a variety of housing arrangements to suit different household sizes and types, while group 2 chose to grade houses by proximity to the sea – with buildings located furthest inland intended to support larger families, and housing closer to the shore accommodating small and single-person households.

## **Infrastructure and transport:**

Drainage systems featured in many conversations. It was mentioned by some of the participants that roads should have deep gutters running alongside them, to drain heavy storm water. Participants also mentioned road signs to minimise road collisions and roadside paving to give pedestrians a safe area to walk.



*Stepped roofscape increasing in height from coastline*



*Creating centrally located emergency and educational facilities in the community*



*Clustering of economic, community and religious spaces*

*9.4 Sketch reflections*

## Amenities:

Several discussions focused on water resilience. One group located water wells next to the proposed school and emergency centre, to ensure those facilities have autonomous access to fresh water in case of scarcity. For the same purpose, some of the participants suggested that medium- and high-rise buildings should be provided with private water tanks. Group 3 observed that water wells can be contaminated by saltwater intrusion if located too close to the sea, and placed piped water and tanks in areas where they knew water would be too saline to drink, and water wells where they know ground water would be safe.

All three groups chose to include self-contained toilets in different ways. Group 1 agreed that all housing units should have piped water and toilets, while group 2 believed that self-contained toilets should only be allocated to higher density apartment blocks. Group 3 stated that low-density housing developments should share water and toilet points between three-four households. Some participants also included shared compound toilets for visitors.

Group 1 suggested that waste management sites should be used as sorting and relaying sites for solid waste to be transferred to the city's larger waste processing facilities.

Group 3 selected grey water separation to minimise the volume of waste entering the liquid waste system and watercourses. The same group adopted septic tanks to avoid unprocessed waste being piped into the sea. Some participants suggested that a biomass energy facility could be used as a place for sorting liquid waste and creating energy for the community.

## Services:

Participants had differing ideas about the community facilities needed in Cockle Bay. Group 2 argued in favour of combining an educational centre, a small health centre and an emergency service station in one building along a main road. Group 3 suggested that community-based medical facilities should only act as a contact point for city wide emergency services.

## Public buildings and spaces:

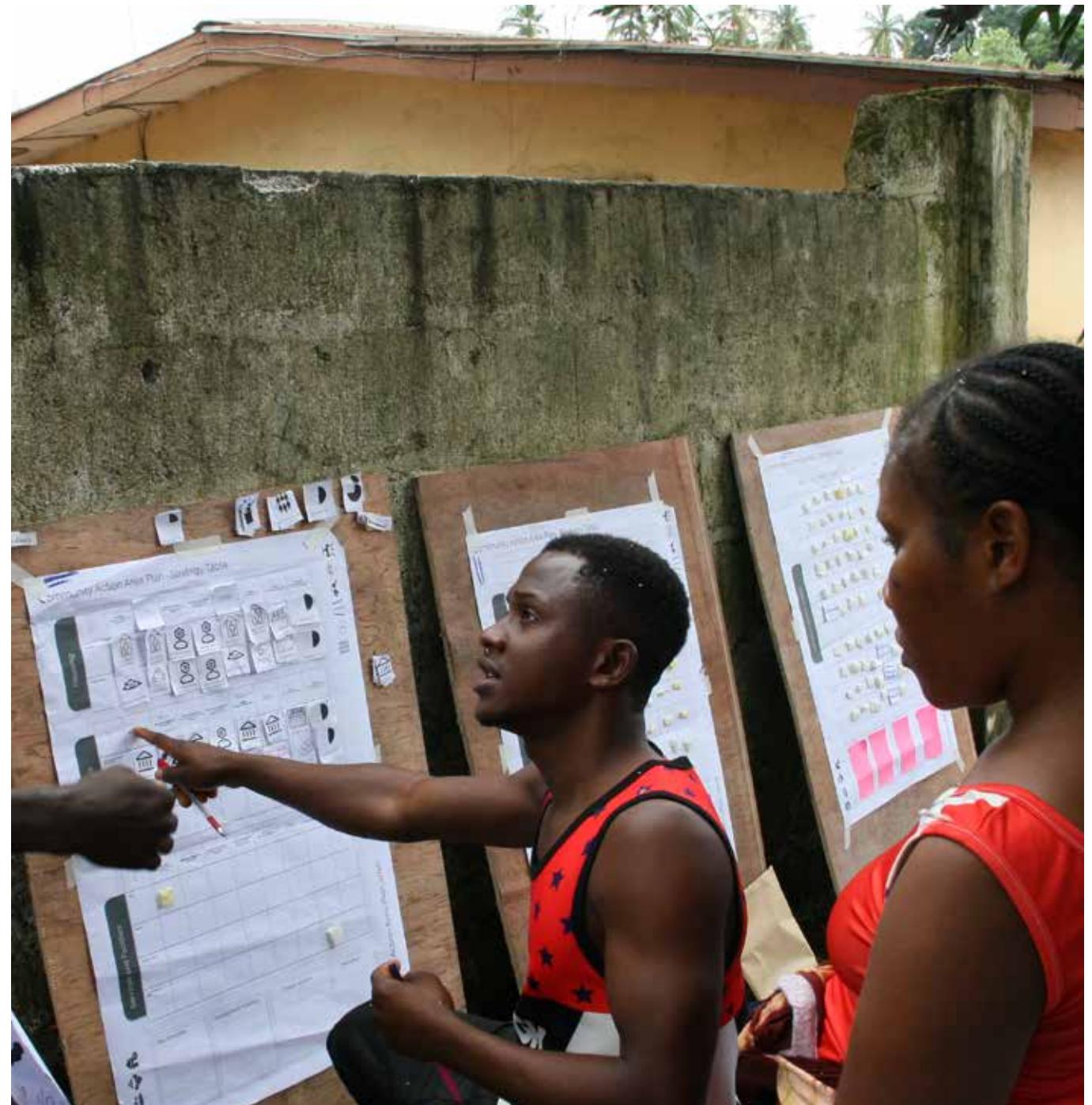
Group 1 suggested that a slipway, jetty or harbour should be built to connect Cockle Bay with other maritime trading settlements and to support fishing activities. A market and a waste management facility complemented the structure. The group also argued that public toilets should be built near all commercial spaces.

The Hillet View recycling centre is a popular instalment in the community. Group 2 planned for the site to be expanded to increase waste processing capacity and formalised to support livelihoods.

Noise pollution in Cockle Bay is currently a problem for residents. Group 3 included a formal market in the upgrading plan but located it far from the main residential area to avoid noise disturbances.

## 9.2 Planning an organisational strategy

This activity allowed resident to explore appropriate strategies for delivering improvements to the settlement considering who is involved in the decisions and delivery also financial implications. This section presents the findings from each group and then reflects on common themes and considerations.



## Group 1

### Community Development Strategy

#### Planning Findings

This group predominantly agreed that the community should lead all aspects of the development, with the exception of services and facilities that are normally administered by the government (such as healthcare and law enforcement).

Private building contractors and the local ward development committee were placed in control of urban development in the settlement.

For spaces dedicated to economic activities, the group selected private sector financing, management and delivery options that would take pressure off the community and government.

Choices by average within planning areas					
Amenities	Public Buildings and Spaces	Housing	Economic Spaces	Services and Facilities	Mobility and Infrastructure
					
The Community	The Community	The Community	The Community	Government	The Community
					The Community

Choices by average within strategic areas							
Ownership (What types of tenure and ownership)	Post-Build Maintenance (Who's involved in upkeep and maintenance after development)	Decision Making Process (how will the community make decisions)	Leadership of Development (who will coordinate development actors)	Delivery (Who will construct the development)	Finance (who will pay for it)	Materials (what materials will be used)	Timescale (is the development needed now, soon or later)
							
The Community People	The Community People	Ward Development Committee	Building contractors	Traditional leaders (chief/chairperson)	NGO grant	Concrete blocks	Now
							
					Government investment		Soon



## Group 2

### Community Development Strategy

#### Planning Findings

This group also chose to substantially involve FEDURP in the upgrading process, especially in financing small infrastructure improvements like footpaths and cycle paths.

Group 2 also tended to put the community in control of the development process. At the same time they selected various forms of government provision, for instance in regards to amenities, services and infrastructure. The group also discussed a sophisticated set of community-based governance arrangements, using both internal committees and external actors to guide and support the development process.

In regards to housing development, the group agreed that individual houses should be privately owned by residents, whereas larger blocks with collective facilities should be built and managed through shared processes and contracts, with decisions made at the community level.

Choices by average within planning areas					
Amenities	Public Buildings and Spaces	Housing	Economic Spaces	Services and Facilities	Mobility and Infrastructure
					
The Community	The Community	The Community	The Community	Government	Government
					
Government				The Community	

Choices by average within strategic areas							
Ownership (what types of tenure and ownership)	Post-Build Maintenance (Who's involved in upkeep and maintenance after development)	Decision Making Process (how will the community make decisions)	Leadership of Development (who will coordinate development actors)	Delivery (Who will construct the development)	Finance (who will pay for it)	Materials (what materials will be used)	Timescale (is the development needed now, soon or later)
							
The Community People	The Community People	Ward Development Committee	Traditional leaders (chief/chairperson)	The Community People	NGO grant	Concrete blocks	Now
						Government investment	
		The Community People	Elected community committee	Community contractors/volunteers			Soon


9.7 Group 2: Community development strategy planning findings

## Group 3

### Community Development Strategy Planning Findings

Group 3 confirmed a preference for community-led development with government support in key areas such as service and infrastructure provision. Overall the group's choices reflected the ambition for the community to be in control of the development process, with traditional leaders and government bodies maintaining a strong role in decision-making.

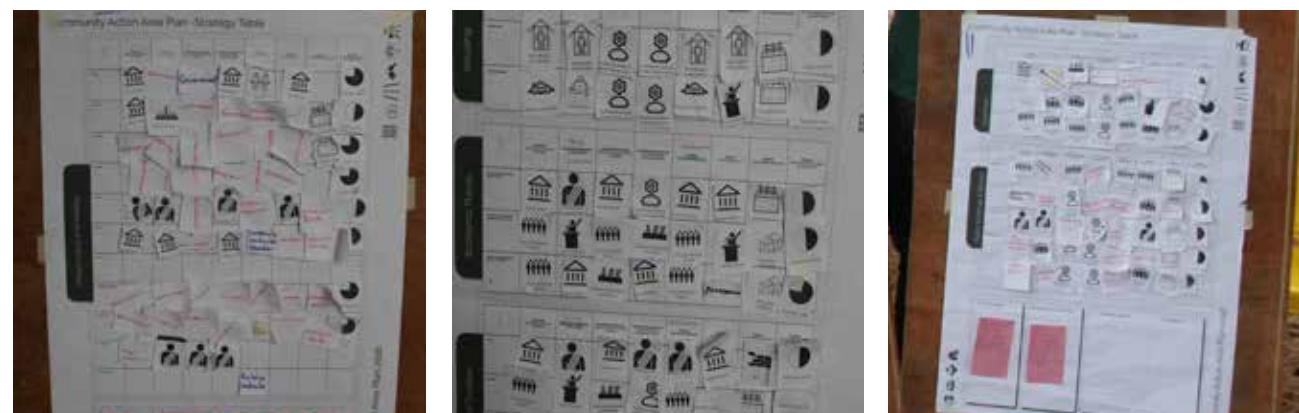
In particular the group agreed that infrastructure and transport should be supplied, financed, and led by the government but delivered by local residents.

Choices by average within planning areas

Amenities	Public Buildings and Spaces	Housing	Economic Spaces	Services and Facilities	Mobility and Infrastructure
					
The Community	The Community	The Community	The Community	Government	Government

Choices by average within strategic areas

Ownership (What types of tenure and ownership)	Post-Build Maintenance (Who's involved in upkeep and maintenance after development)	Decision Making Process (how will the community make decisions)	Leadership of Development (who will coordinate development actors)	Delivery (Who will construct the development)	Finance (who will pay for it)	Materials (what materials will be used)	Timescale (Is the development needed now, soon or later)
							
The Community People	The Community People	Local council	Government	The Community People	Government investment	Concrete blocks	Soon



9.8 Group 3: Community development strategy planning findings



9.9 Organisational activities

Sector	Group 1	Group 2	Group 3	Average
Electricity	Community	government and community	government	Government and community
Water	Community	community	community	community
Toilets and Sanitation	Community	government	Community	community
Religious spaces and buildings	Community	community	community	community
Cultural spaces and buildings	Community	community	community	community
Municipal/ community spaces and buildings	Community	community	Government and Community	community
Recreational and leisure spaces and buildings	Community	mix	Community	community
Natural Spaces	Community	community	Community	Community
Housing types	Community	community	Community	community
Housing typology (housing grouped)	Community	community	Community	community
Primary industries (farming/mining/fishing)	Community	community	government	community
Secondary Industries (brick, charcoal, product making)	private sector	community	community	community
Tertiary industries (hospitality, office work, technical)	government	government and community	Government and Community	government
Health facilities	community	government	Government	government
Educational facilities	government	community	Community	community
Emergency service facilities	government	Government	Government	government
Waste management	community	community	Community	community
Roads	community	community	Government	community
Footpaths	community	community	Government	community
Cycle Paths	mix	community	Government	mix
Street lights	government	community	Government	government
Drainage	community	government and community	Government	government
Bridges	community	government	Government	government
Rail tracks				
Road Signs and Signalling		community	Government	Community and government
transport hubs		community	Government	
Transport stops		community	x	
Transport vehicles		community	x	
Average	community	community	Mixed	Community

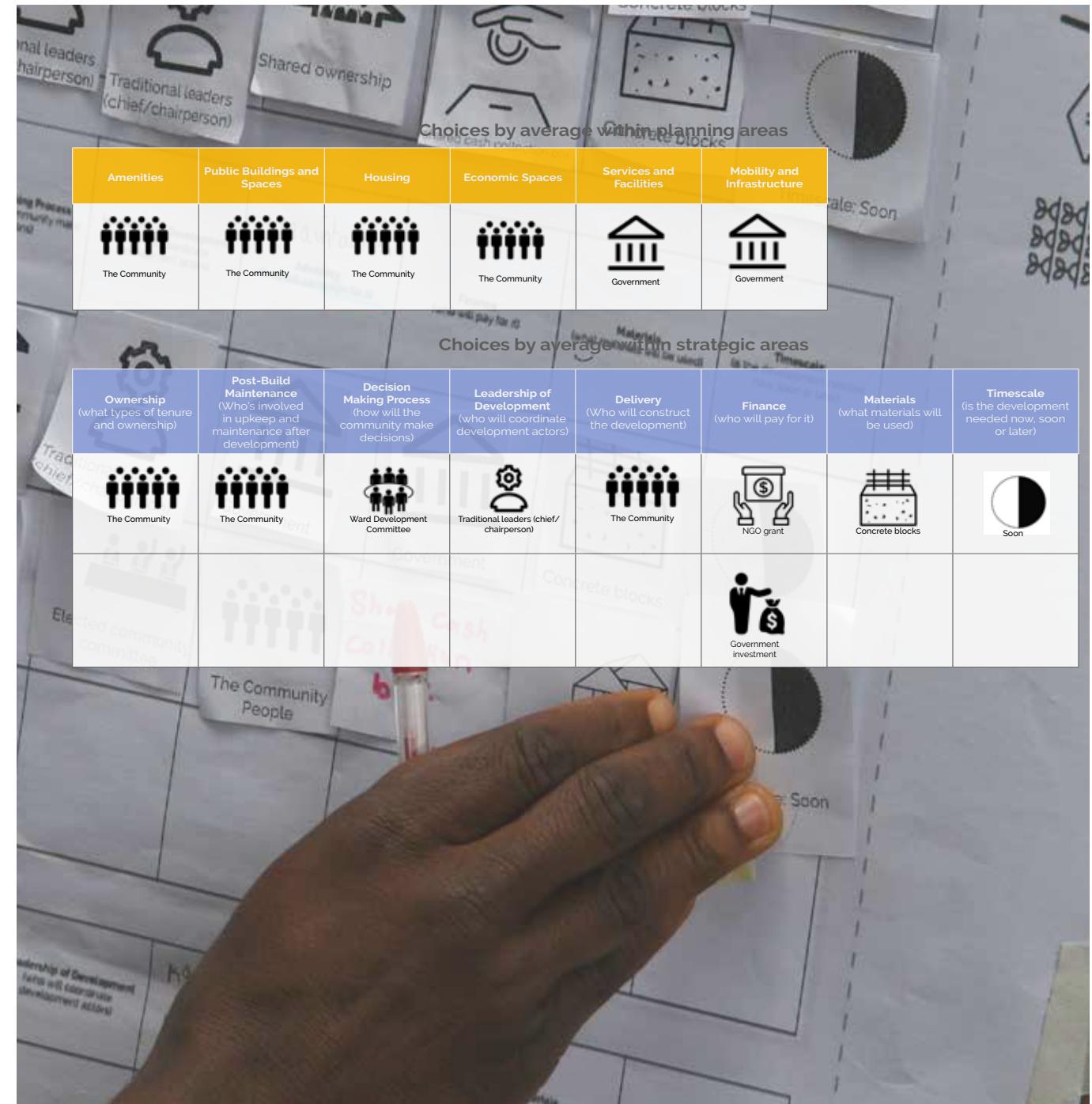
9.10 Community development strategy findings table

## Considerations moving forward

This activity demonstrated that participants would generally like to take a community-led approach to the upgrading of the settlement, but at the same time tend to rely on traditional leadership for making decisions because there are no community governance structures that can support more collective forms of decision-making.

Financing also presented a challenge, with choices demonstrating heavy reliance on donor support from government and NGOs, as currently there are no mechanisms in place to support community-based financing.

Moving forward, support should be provided to Cockle Bay residents so that a community-led approach to informal settlement upgrading can be appropriately supported by community-led financing and decision-making processes.



9.11 Considerations moving forwards

### 9.3 Drawing refined layouts

This section reviews the three plans drawn by participants through the original sketch and a digitalised version.



9.12 Drawing refined layouts

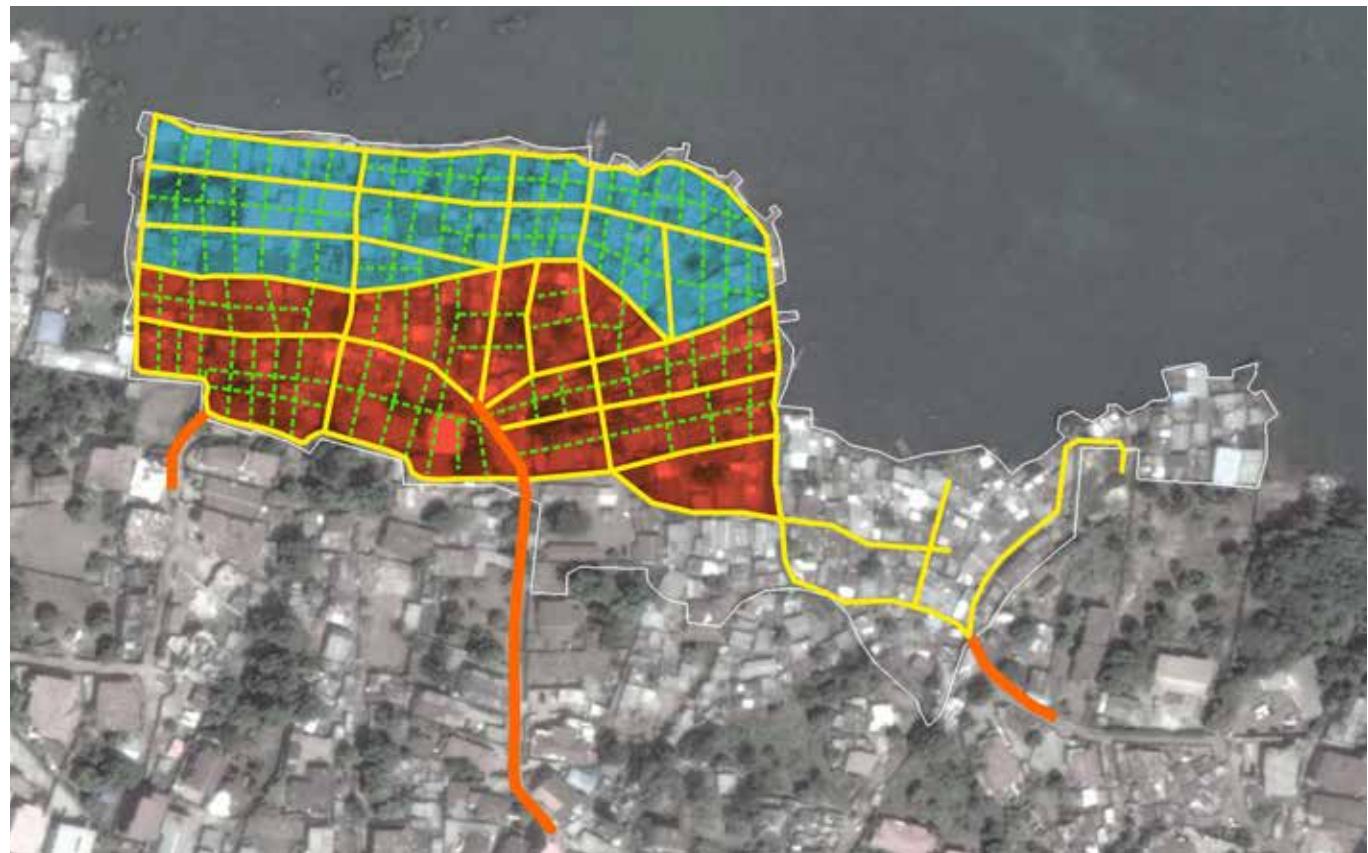


9.13 Group 1: Refined layouts

## Drawn Layout 1

The final layout for design layout 1 followed the model plan in many respects; however, as the group drew the plan they decided to work closer with the existing settlement layout while also retaining the core ideas of their model layout. The group chose a more organic street pattern that follows existing roads and footpaths. Buildings outlined in red are intended as higher density structures whereas the blue tone represents the lower density one-storey houses.

The group retained the element of the model layout that organised buildings into a hierarchy of sizes decreasing in height moving toward the shore. One key constraint of this plan is that the group did not set out community value areas that had been created in the model plan, such as the harbour area.



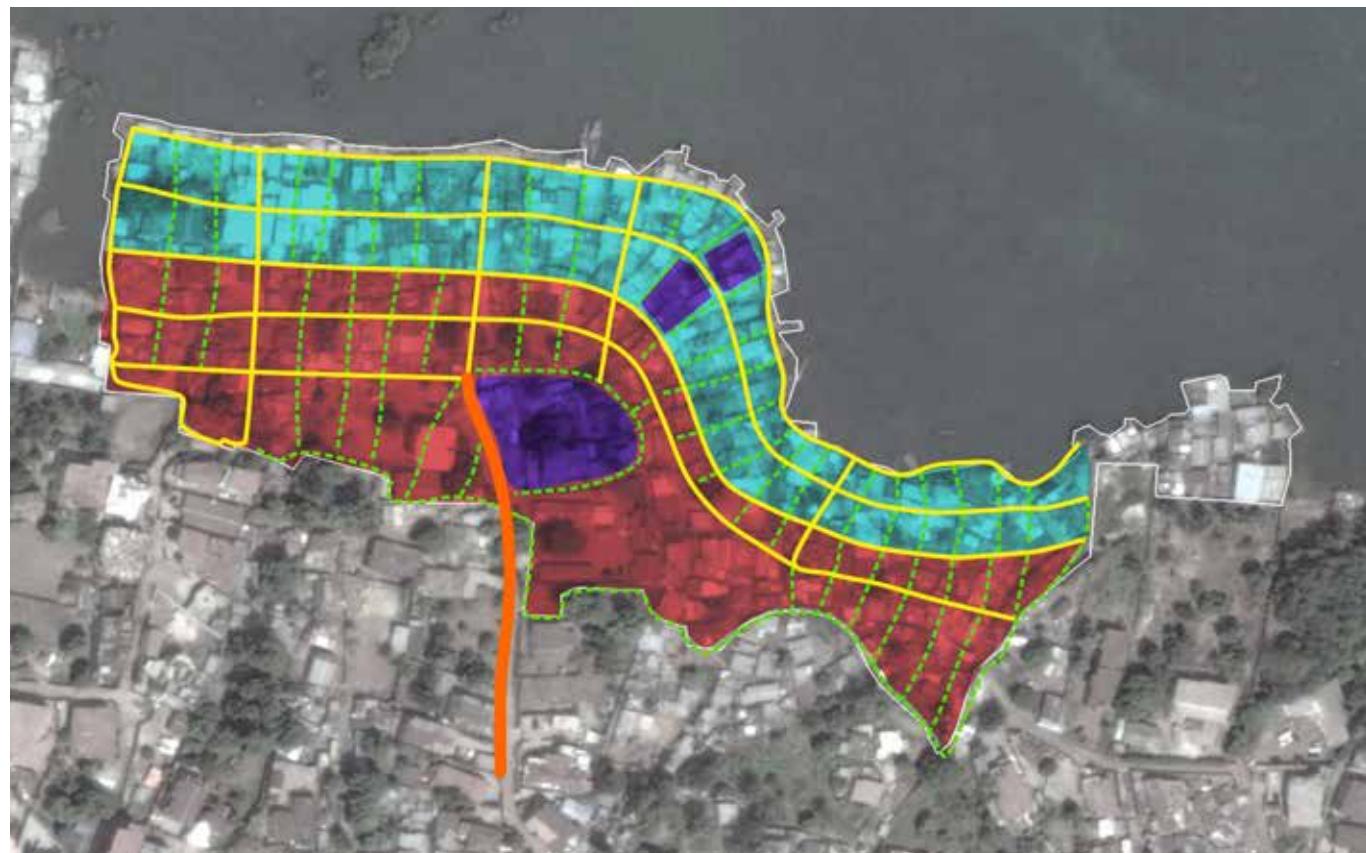


9.14 Group 2: Refined layouts

## Drawn Layout 2

This group embraced the row typology. Retaining some existing routes within the settlement group 2 also positioned higher density housing inland. This group also created an area in the core of the settlement to locate buildings and spaces of community importance.

This group also drew a secondary commercial area to the north-east of the site. Overall the plan is well structured and the roads are uniform, which should make the settlement very legible and easy to move around. Two elements of the plan may need further consideration. The first is the lack of road and footpaths to the east of the site next to the main access point. The second consideration is the lack of linkage between the commercial area to the east and the central community area.





9.15 Group 3: Refined layouts

### Drawn Layout 3

The final layout for group 3 demonstrated strong attention to detail. The group chose an extremely legible street pattern that ensured a clustering of activities around the centre of the settlement and a key access point. The group also arranged the footpaths in the settlement to reflect the change in height and density from the coastline to inland.

This plan does have some considerations that would need addressing. The layout does not take advantage of existing routes within the settlement and does not utilise all three existing points of access, which is important for a settlement of this size. The plan also lacks sufficient access to the north of the site.

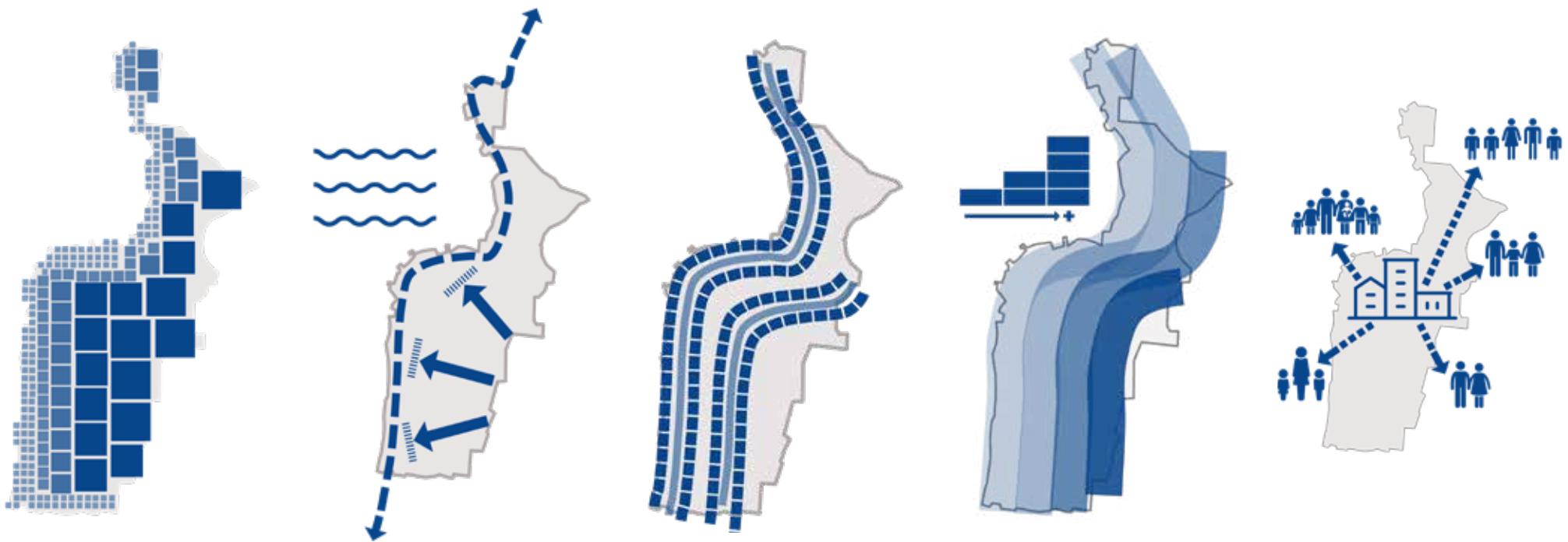


# 10

## DESIGN GUIDE

This design guide integrates the learning that emerged from the modelling, organisational and drawing activities into a set of design instructions for the future development of Cockle Bay.





1. Lower density next to sea and in areas of Cockle Bay
2. Hard urban edge in the form of a small road or promenade to delineate the coastal boundary of Cockle Bay and to avoid further urban expansion into the creek
3. North-South terraced grid street pattern
4. Multi-storey buildings along the Central to Eastern area of settlement
5. Housing mix to provide for different household sizes and types

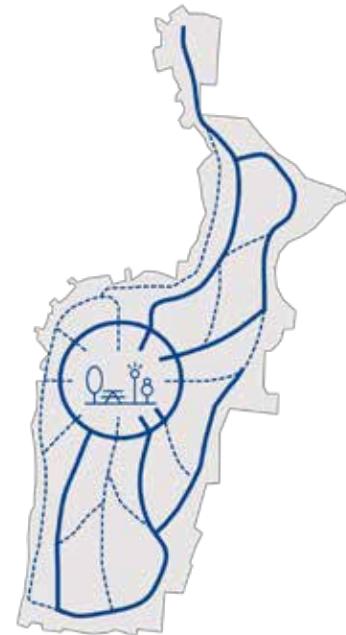
- 
- The diagram consists of five separate maps of a town or city area, each illustrating a different urban design principle:
- Icon 6: Shows a building with a height limit of four to five storeys, indicated by a stack of five horizontal bars with a checkmark on the fourth bar.
  - Icon 7: Shows a mixed-use ground floor unit containing a cafe, car park, and other commercial spaces.
  - Icon 8: Shows a green strip separating back-to-back residential properties.
  - Icon 9: Shows a central public square surrounded by various public-use buildings like a library, school, and market, with arrows indicating connectivity.
  - Icon 10: Shows improved recreation facilities including a football pitch, basketball court, and playground.
6. Buildings not higher than four-five storeys
  7. Mixed-use ground floor units for commercial and business activities
  8. Green strip between back-to-back properties
  9. Public-use buildings and spaces clustered together in central areas with supporting public amenities
  10. Improved recreation facilities



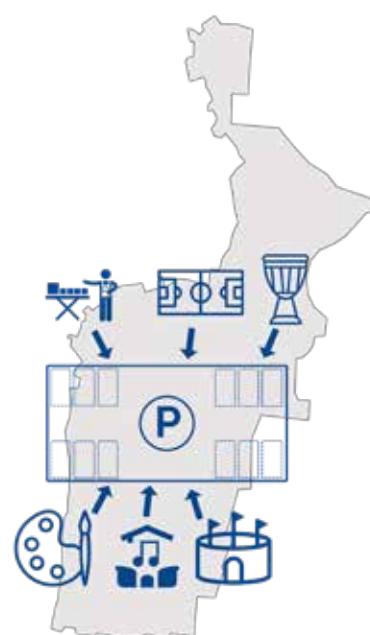
11. Centrally located religious spaces



12. Market spaces located away from key residential areas to avoid disturbance



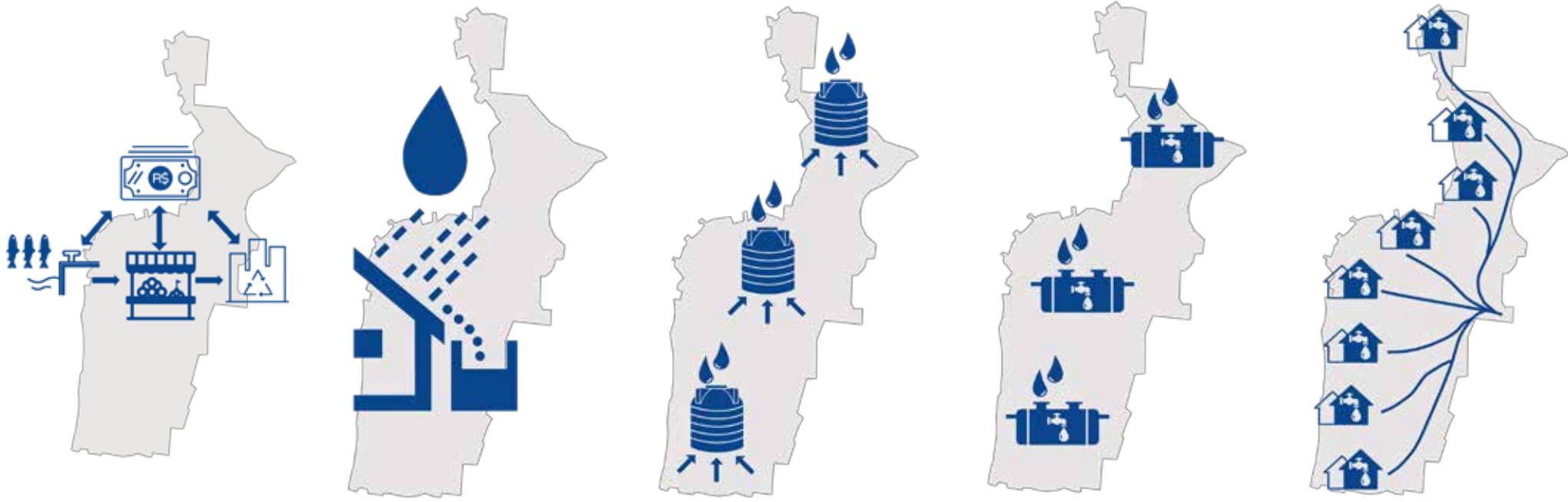
13. Public spaces centrally located with footpaths and roads connecting them.



14. Mixed-use car parks



15. Waste management facilities next to market spaces



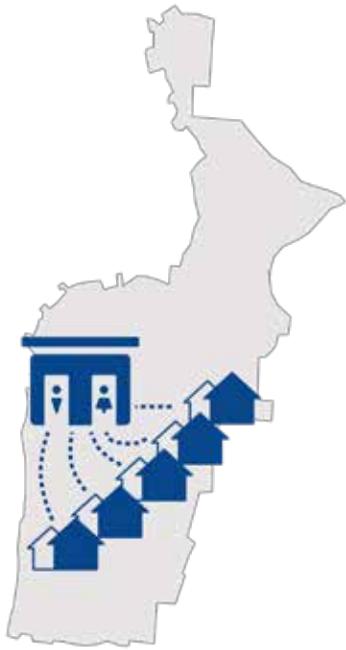
16. New job creation site in Mafengbeh in the form of a jetty/spit connected to a commercial area for selling fresh goods

17. Rooftop rainwater collection and storage amenities for every building

18. Auxiliary public water tanks evenly distributed in key spaces across the community

19. Auxiliary water tanks stored underground

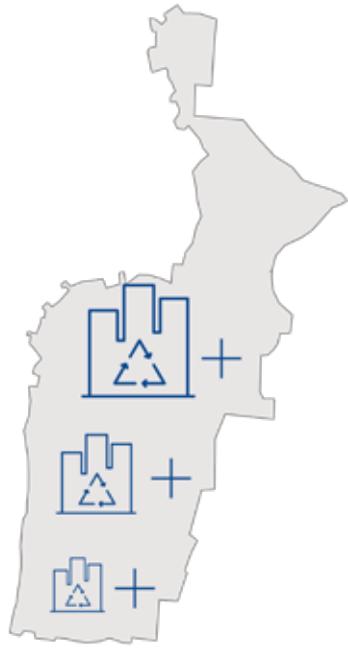
20. Piped water and toilets for every household



21. Shared toilets  
for guests to the  
community serving  
one-five houses



22. Public toilets located  
next to public spaces  
and buildings



23. Consolidated and  
expanded waste  
processing facilities

11

## TAKING THE PLAN FORWARD



## 11.1 Reflections from the process

This document represents the process and outputs of a pilot project exploring how Community Action Area Plans can be implemented in informal settlements in Freetown utilising participatory design and planning methods. This in-depth collaboration was undertaken over the course of a year and included over twelve workshops in Cockle Bay with over 150 residents engaged in the activities.

Alongside the general planning of the settlement, one of the key aspirations of the community was the training and capacity building that residents would receive through being involved in the process. In their assessment of the process, resident expressed that by engaging in the making of this CAAP they learnt new skills and felt more confident to engage with planning and development issues. Both the facilitating team and the community also recognised that some residents had been more involved in the process and excelled in planning activities; it is now hoped that these individuals can be supported through Community Learning Platforms to take actions forward.

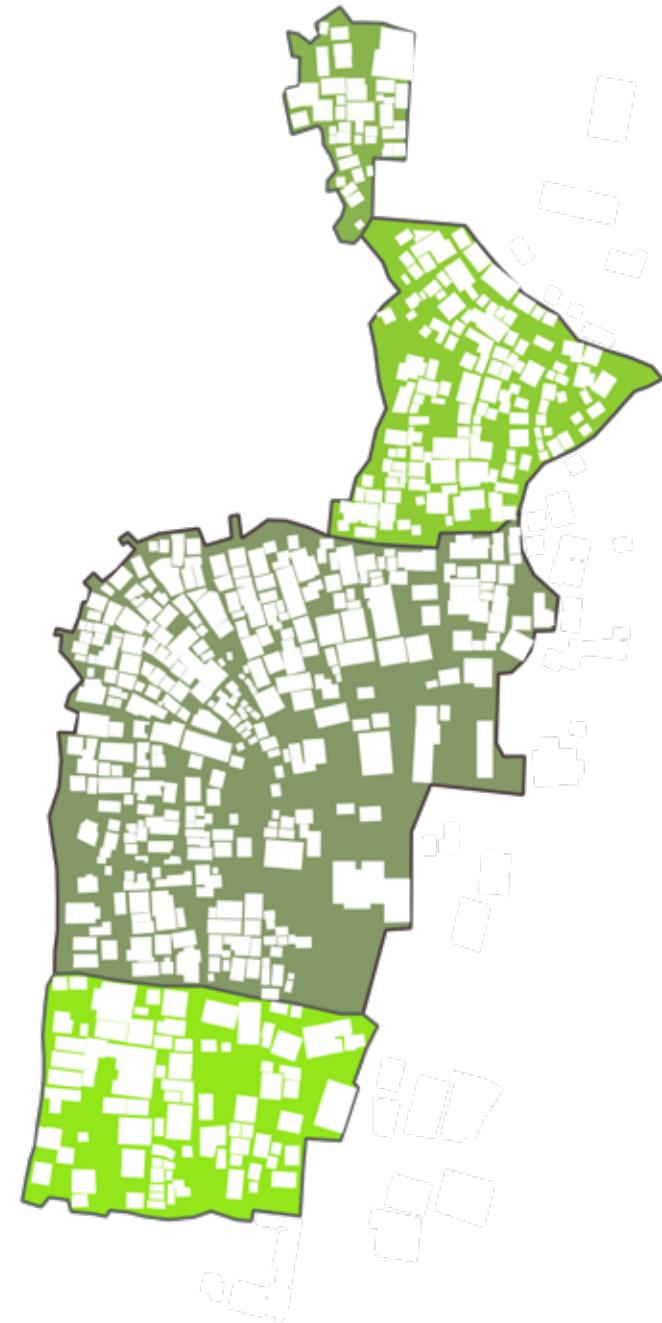
*We expected some capacity building which I believe we have all gained a huge amount of and also the platform or the opportunity to discuss issues of development. So, our knowledge base has improved greatly mainly through the discussions and the activities we did and the skills we have gained. For most of us, because I cannot speak for everyone, we have learnt how to draw*

*plans, how to map, and a lot of the basics needed for community planning. As far as I am concerned these ideas and skills if used in the right way help make the community a better place for us. So, let me say a big thank you for that (Dworzark Steering Group).*

There were several challenges flagged up by the community and the team regarding the implementation of the process. These included:

- Time frame of engagements was quite long for residents who might have other employment;
- Keeping everyone on task particularly when undertaking complex activities was sometimes a challenge;
- Unforeseen circumstances leading to delays in the process such as weather conditions and political events;
- Lack of prior knowledge of the final output, as this was the pilot process.

These challenges have been recorded and strategies for mitigation considered in future CAAP processes.





11.2 Photographs from various activities

## 11.2 Future Actions

*'As informal settlement dwellers we are also concerned about the face of Freetown. We want Freetown to be a beautiful city, we don't want our communities to be an eyesore. so, if this can be done in our community and it brings change, we would want it to be done in all other communities in Freetown'. We recommend that the Freetown City Council makes the CAAP mandatory for all settlements. 'A CAAP should be done in all settlements across Freetown, this can be done by either the FCC or any other donor or NGOs and this should now be the development bible for every community. So, when people come and want to work in the community, they should go by the CAAP' (Cockle Bay Steering Group)*

The Cockle Bay steering group reviewed a draft copy of this document. The community members recognised that the material produced provided a good overview of the process and community outputs. They were pleased with the content and thought that the document would be valuable to present to city authorities.

*'The CAAP report can be something we can show case to the authorities, about the how far the community has gone with ideas and the community's willingness to transform.' (Cockle Bay Steering Group)*

One major concern was the length and complexity of the document. To share with the wider community and bring everyone on board the, Steering Group requested that there is a lighter version of the CAAP with less text and

focussing on the tangible outputs they can use for future planning in the settlement.

*'Once we have other outputs that are easy to read and use, we can easily align our community laws with them, as was mentioned earlier we are going to make rules and regulations that will help put the work or the output into practice'. (Cockle Bay Steering Group)*

There was also an acknowledgement that the settlement profile covered the different aspects of the community with the information available, however, to implement the CAAP more detailed settlement information was needed.

The community also identified that the CAAP should not be a fixed document and reflect changes to the community over time. It was suggested that the CAAP should state how long it is valid and when it should be reviewed.

### **Key points to consider moving forward include;**

- The Change by Design process allows for in-depth engagement with the local community. However, activities should be reviewed to ensure that the timescale and level of detail are realistic for communities to engage, as well as for local stakeholders to deliver future CAAPs.
- In its current format, the output of CAAP is long and includes a large amount of technical information, which makes it difficult

for residents to access. If the CAAP is to be streamlined and scaled up as a community planning tool utilised throughout Freetown's informal settlements, its format needs to be re-thought in collaboration with the different constituencies who need to utilise the final document (local community, socio-technical support organisations, local government)

- The time-frame of informal settlement upgrading should be considered in future CAAP's
- Support should be provided for residents who have been involved in the process to continue to develop their skills in participatory design and planning.

# ACKNOWLEDGEMENTS

## Key Contributors and Authors;

### ASF-UK

Charles Wright  
Beatrice De Carli  
Sophie Morley

### SLURC

Joseph Macarthy  
Sulaiman Kamara  
Sudie Austina Sellu  
Ibrahim Bakarr Bangura  
Mary Sirah Kamara

### The Bartlett Development Planning Unit

Alexandre Aspan Frediani

### Advisory Group

Freetown City Council, Ministry of Works Housing and Infrastructure, Housing Department, Ministry of Lands Country Planning and Environment, Country Planning Department, Office of National Security, Disaster Management Department, Centre of Dialogue on Human Settlement and Poverty Alleviation (CODOHSAPA), Sierra Leone YMCA, Federation of the Urban and Rural Poor Sierra Leone (FEDURP-SL)

## Cockle Bay Steering Group

Chief Pa Alimamy Kargbo, Esther Kamara, Sheik Mustapha Kamara, Sallay Yealie Kargbo, Abdul Kamara, Salami Sesay, Mohamed T Sesay, Kadja Bangura, Isatu Kalokoh, Aminata Bangura, Yayah Koroma, Marie Sesay, David Molandee Kamara, Alusine Kamara

### Community Contributors

#### Home Scale

Abdul Bangura, Foday Turay, Musa Bangura, Jariatu Kamara, Saidatu Sankoh, Haja Kadiatu, Babbie Koroma, Osman O Bangura, Sulaiman Kamara, Abu bakarr Kamara, Mariatu Sankoh, Mohamed Sankoh, Memuna Koroma, Isatu Sesay, Joseph Cole, Esther Kamara, Salami Sesay, David Maladi, Joana kaine, Joseph Bankorie, Tity Goba, Yeali Kargbo, Lansana Thoronkah, Sheku essay, Mohamed Tito, Alimamy K Thoronkah, Idrissa Sankoh, Nannah Kamara, Amie Thorley , Yayah Kamara, Assanatu Sesay, Hafsatu Dumbuya, Daniel, Kamara, Emmanuel Turay, Joseph Sesay, Brima Kanu, Peter Kanu , Samuella grant , Ishmael Bangura, Isaac Thorley, Fatima Dumbuya,

Santigie Koroma, Momoh Sesay, Abdul Bangura, Abraham Conteh, Sully G Koroma, Andrew Kamara, Haja Conteh, Umah Barrie, Maria Turay, Jamilatu Jalloh , Dora koga, Doris Bangura, Gbassay Kamara, Abu bakarr Bangura, Abdulai Bangura, Amara Koroma Usif Sesay, Zainab Turay , Wara Kamara, Foday kargbo, Francis Conteh, Abass Kamara

#### Community Scale

Mohamed Jagor sr, John Hassan Koroma, Ramatulai Turay, Mohamed S Kargbo, Foday Jalloh, Zainab J Bundu, Umu Amanda Kamara, Ibrahim S Kamara, Michael Sesay, Mohamed Kamara, Mohamed Lamin Kabba, Aminata M Kamara, Lua Nadia Deen, Musu Sheriff, Ibrahim B Conteh, Musu Kamara, Fatmata T Samura, Dauda Mansaray, Khalilu Kamara, Hawanatu Conteh, Mariatu Lahai, Sia Sannoh, Prince Anthony, Hawanatu Bangura, Joseph Lewis Fudia Songo, Basiru Brima, Eva Nadia Kamara, Fatima Bello, Michael Turay, Frances Turay, Abass kargbo, Umu Jalloh, Ramatu Kanu , Hawa kargbo, Ibrahim

Bangura, Adamsay Bangura , Alie Kamara, Amara Koroma , Allaymatu Sesay, Alima Bah, Alpha Kamara , Rabiatu Jalloh, Ramatulai Jalloh, James Gbla, Abie kakora, Sheriff Bundu, Alimamy Turay , Sumana Sankoh, Sillah kargbo, Lamratu bah

#### City Scale

Pa Alimamy Kargbo, Ibrahim Sillah, Musu Kandeh, Abdul Rahman Sesay, Amadu Jalloh, Umama Sesay, Alusine Kamara , Seray Conteh, Sarah Kamara, Samuel Sankoh, Fatima Kanu, Marie Kargbo, Anna kargbo, Hawa Bangura, Tony Bangalie, Mohamed bah, John Serry, Joseph Sesay, Kadja Kamara, Saio Thoronkah, Fatmata Samura, Abdulai G Barrie, Kadiatu F Mansaray, Sulaiman Mballu, Mohamed Yillah, Sheku Kamara , Mustapha Bangura, Bernadette Mason, Peter Sankoh, Mana Samura, Frank Bubu Kamara, Kadiatu Turay, Musa F.M Wullarie, Abu M Sesay, Mohamed A Sesay, Musu Kamara, Joseph C Sesay.



# BIBLIOGRAPHY

Brar P. (2018) 'The Mountain Will Fall', Al Jazeera, People and Power, [22,02,2018], <http://www.aljazeera.com/programmes/peopleandpower/2018/02/mountain-fall-18022110518846.html>

sierraexpressmedia.com (09/14/2016 ) 'CHRD exposes devastating health care sector in Freetown' p.4

Y Care International (2012) 'Sierra Leone Youth Led Community-Based Disaster Risk Reduction'

Cumming, A & Harrison, L (2012) 'Youth Volunteerism and Disaster Risk Reduction', Y Care International

Koroma, B., Rigon, A., et al (2018) 'Urban Livelihoods in Freetown's Informal Settlements', Draft Report, Sierra Leone Urban Development Centre

Ministry of Land, Country Planning and the Environment (MLCPE) & Freetown City Council (FCC) (2014) 'Freetown Structure Plan 2013–2028 Main development issues and analysis' DRAFT

Koroma, B. (2018) 'Co-Learning for Action: From risk-mitigation to transformative action to disrupts urban risk traps in Freetown', ES3 Terms of Reference, University College London  
SDI(2017) 'Know your City: Dworzack', Slum Dwellers International, Accessed online [12/03/2017], <http://knowyourcity.info/settlement/1860/13581265>

Desai MA, Mehta S, Smith KR. (2004) 'Indoor smoke from solid fuels: Assessing the environmental burden of disease at national and local levels'. Geneva, World Health Organization, (WHO Environmental Burden of Disease Series, No. 4).

