



UCL

Social Learning for Building Resilience

**THE CASE OF YOUTH COMMUNITY-BASED
ORGANISATIONS IN INFORMAL SETTLEMENTS OF
FREETOWN, SIERRA LEONE**

**A dissertation submitted in partial fulfilment of the requirements for the
MSc Environment and Sustainable Development**

10,962 words

Milimer Morgado Mendoza

MSc Environment and Sustainable Development

Supervisor: Alexandre Frediani

Development Planning Unit, University College London

1st September 2016



Acknowledgements

This study is the result of a collaborative effort of many amazing individuals that conveyed me with their invaluable insights, guidance, and expertise.

I would like to thank my academic supervisor, Alexandre Frediani, for guiding me and pushing me to think critically and outside the box. I would also like to express my gratitude to all the individuals who made the Dissertation Fellowship possible, especially, Andrea Rigon, the SLURC team, Caroline Pradier and Rehana Merali from Y Care International, and my fellow Magdalena Gatica for sharing with me this amazing opportunity that allowed me to grow both professionally and personally.

Recognition also to my professors, and colleagues from DPU that made this academic experience a truly rewarding one.

And to the UK Foreign and Commonwealth Office for financially supporting the completion of my studies.

Finally, to my husband, and my family and friends living in Venezuela, who's constant support, love, and strength motivate me to work hard for my dreams and goals.

Table of Content

Acknowledgements	i
List of Tables.....	iv
List of Figures	iv
List of Abbreviations.....	v
1 Chapter 1. Introduction	7
1.1 Background.....	7
1.2 Research Focus	8
1.3 Overall Research Aim and Individual Research Objectives.....	9
1.3.1 Hypothesis	10
1.3.2 Individual research objectives.....	11
2 Chapter 2. Literature Review and Analytical Framework.....	13
2.1 Evolution of Social Learning	13
2.2 What is Social Learning?	13
2.3 The relation between Social Learning and Shocks	14
2.4 Debates on Resilience	15
2.4.1 The Socio-ecological systems approach.....	16
2.4.2 Resilience and governance	18
2.4.3 The urban resilience approach	19
2.4.4 Resilience and vulnerability	20
2.5 Social Learning for Building Resilience	20
2.5.1 Social learning in the context of youth community's resilience.....	21
2.5.2 Enabling environmental factors of social learning for building resilience	22
2.5.3 The processes of social learning for building resilience.....	24
3 Chapter 3. Methodology	29
3.1 Research Strategy	29
3.2 Data Collection	32
3.3 Framework for data analysis	33
3.4 Limitations	33

3.4.1	Validity, reliability, and trustworthiness.....	33
4	Chapter 4. Case Study: Analysis of results and Discussions	35
4.1	The Disaster Management context of Sierra Leone	35
4.2	Enabling environmental factors of Social Learning for Building Resilience	37
4.2.1	Partnerships.....	37
4.2.2	Engagement	38
4.2.3	Different ways of thinking	39
4.2.4	Diverse communities.....	40
4.2.5	Connectedness and vibrant social network	41
4.2.6	Participation and influence of opinions	43
4.2.7	Learning through critical reflection of self	45
4.3	The Ebola Outbreak as a trigger of Social Learning Processes	46
4.3.1	Network activation, Community empowerment, and Developing trust ..	46
4.3.2	Community participation.....	46
4.3.3	Innovation	47
4.3.4	Articulating problems	48
4.3.5	Self-efficacy	49
4.3.6	Action coping and Critical awareness	50
5	Chapter 5. Conclusion	52
6	Chapter 6. Bibliography.....	55
	Appendices	67
	Appendix A List of interviewees.....	67
	Appendix B. Interview template for CBOs. Theme: Social Learning Processes.....	68
	Appendix C. Interview template for Disaster Management (IFRC) International Federation Red Cross. Theme: Disaster Risk Management.....	69
	Appendix D. Photos from Interviews and field observation	71

List of Tables

Table 1. Enabling Factors for promoting Social Learning environments.	23
Table 2. Processes of Social Learning for Building Resilience at the institutional level.	26
Table 3. Processes of Social Learning for Building Resilience at the community level.	27
Table 4. Processes of Social Learning for Building Resilience at the individual level. ..	28

List of Figures

Figure 1. Definition of terms.....	12
Figure 2. Socio-ecological systems attributes, based on Adger et al. 2011, p.4 and Folke et al. 2010, p.3.....	17
Figure 3. Social Learning processes at the individual, community, and institutional level, based on Becker et al., 2011, p.1.	25
Figure 4. Research strategy diagram based on Henson, 2006, p.4	31
Figure 5. Map of targeted communities. Base map: OpenStreetMap, 2016, Freetown, Sierra Leone.	36
Figure 6. Disaster Risk Management Structure of Sierra Leone.	41
Figure 7. DRR information flows in Freetown, Sierra Leone.	43

List of Abbreviations

AU African Union

CBO Community-based Organisation

CDMC Community Disaster Management Committee

CODOHSAPA Centre of Dialogue on Human Settlement and Poverty Alleviation

DDMC District Disaster Management Committees

DMD Disaster Management Department

DRM Disaster Risk Management

DRR Disaster Risk Reduction

ECOWAS Economic Community of West African States

EPA-SL Environment Protection Agency

EVD Ebola Virus Disease

FCC Freetown City Council

FEDURP Federation of the Urban and Rural Poor

IFRC The International Federation of Red Cross and Red Crescent Societies

INGO International Non-Governmental Organization

MLCPE Ministry of Lands, Country Planning, and the Environment

MOHS Ministry of Health and Sanitation

MRU MANO River Union

NACSLIA National Security and Central Intelligence Act

NGO Non-Governmental Organisations

ONS Office of National Security

SES Socio-Ecological Systems

SDI Shack / Slum Dwellers International

SLRCS Sierra Leone Red Cross Society

UNDP United Nations Development Programme

UNISDR United Nations International Strategy for Disaster Reduction

UN-HABITAT United Nations Human Settlements Programme

YMCA-SL YMCA Sierra Leone

VCA Vulnerability and Capacity Assessment

1 Chapter 1. Introduction

1.1 Background

Around 54% of the world's population live in urban areas, with Western Africa as one of the most rapidly urbanising region worldwide (UN-HABITAT, 2016; World Bank Group, 2016). In 2015, the total population of Sierra Leone was of 7,075,641 inhabitants (Statics Sierra Leone, 2016) with 39.1% dwellers living in urban areas such as Freetown; and it is projected to reach 43.8% by 2030 (AfDB et al., 2016).

Therefore, their rapid growth placed them in a vulnerable position to shocks and crises (UN-HABITAT, 2014). Nevertheless, Pelling and Winsner (2009) describe that African urbanisation trends generate risk as well as pathways for resilience.

Natural disasters, such as flooding and droughts, are not the only risks faced by cities. These are also exposed to a range of human-induced disasters, such as economic shocks, conflict-related crises, and health epidemics (Groupe URD, 2011; Pelling and Winsner, 2009).

Slum residents are extremely vulnerable to shocks as a result of a diversity of factors such as urban segregation. Vulnerable groups also have limited access to effective risk management instruments and coping strategies; therefore, vulnerabilities manifest in crises, in terms of fatalities, material damage and through barriers to development (Marzo and Mori, 2012; Groupe URD, 2011; Thouret and D'Ercole, 1996).

The humanitarian sector calls for disasters to be seen as opportunities; a chance to improve urban systems. Consequently, there is a need to rethought policies in order to strengthen the urban emergency response (Groupe URD, 2011). Pelling and Winsner (2009) underscore that African urbanism needs to be re-imagined "from the slums" since is where the vast majority of urban dwellers live and will continue to unless political forces change the existing urban trend (ODI, 2016).

1.2 Research Focus

The Ebola outbreak (2014-2016) in West-Africa was described as the largest, most complex and devastating in the history of the disease. With more than 8,000 cases and around 3,000 fatalities confirmed in Sierra Leone (Government of Sierra Leone, 2015; UNDP et al., 2015).

What began as a health crisis, quickly escalated into a deadly epidemic of large proportions, going beyond the constraints of being solely a public health issue to severely disrupting other sectors such as education and economy (International NGOs, 2015). However, the rapid spread of the virus and complications experienced during the response can be attributed to diverse structural factors, such as inadequate water provision and fragile government-society relations, which emulated some of the hardship experienced by the poor in pre-war times. What was seen as 'normal' before the outbreak was unsustainable in the long-term (UNDP et al., 2015).

At the peak of the outbreak, the government's strategy focused on enforcing quarantines and movement restrictions to populations, further damaging trust between affected communities and institutions (ACAPS, 2015b). A shift from national-led approaches to community-led ones marked a turning point in the response (ACAPS, 2015a). Therefore, the success of it can be largely attributed to youth leaders and community-based organisations (CBOs) participation (UNDP et al., 2015).

Youth in Sierra Leone are defined as young people — female and male — between the ages of 15 and 35 years, one in three Sierra Leoneans is a young a person, representing 34% of the population (Ministry of Youth Affairs, 2014). Moreover, Sierra Leone's war 1991-2002 is described by many as a "crisis of youth" known for the use of child soldiers. Although is debatable whether youth were responsible for it, it is crucial to acknowledge that youth was the central driving force behind the conflict, fuelled by years of poor government who could not provide them with basic opportunities (Shepler, 2010).

Hence, it is critical that lessons from this experience are learned to prevent future disasters. By strengthening the current mechanisms for disaster risk management (DRM) ^[1] through cross-collaboration among the different stakeholders involved, and ensuring that communities are placed at the centre of responses. With youth as agents of change in recovery processes and future responses (UNDP et al., 2015).

Although the country's structures were not able to cope with the impacts of the crisis, the large response to the outbreak also offered opportunities for the country to re-think and re-build those structures to increase their resilience (International NGOs, 2015).

1.3 Overall Research Aim and Individual Research Objectives

Questions asked about what is being learned by governmental institutions and the urban majority—slum communities—should be a priority (Savage, 2016). Therefore, this research seeks to answer some of these questions by adopting as analytical lenses the notion of social learning for building resilience. With social learning defined as a process of which individuals that seek to improve a situation that affects their overall community get together and take action collectively (Allen, 2015). Furthermore, claims over the incorporation of communities into DRM structures can be explored through elements of resilience such as the concept of 'adaptive governance', which fundamentally seeks to spread practices and beliefs from the bottom-up, including the inputs of marginalised groups (Sharpe et al., 2015). Collective action for adaptation is a necessary element of DRM, particularly among poor and vulnerable communities (Cannon and Müller-Mahn, 2010).

Moreover, this dissertation seeks to advance an understanding of the mechanisms through which social learning occurs and its enabling factors, as well as the notion of shocks as triggers for social learning processes and their potential positive impacts on

^[1] DRM and disaster risk reduction (DRR) will appear interchangeably throughout this dissertation, due to the transition from DRM approaches to DRR implemented by the ONS following the Hyogo Framework (Massaquoi and Sesay, 2014).

community resilience. Using as an entry point for the study, the participation of youth CBOs ^[2] in the Ebola Outbreak 2014-16 that occurred in Freetown, Sierra Leone.

This dissertation is grounded in existing frameworks about social learning, community resilience, and their combined conceptualisation. Therefore, a summary of different processes and enabling factors for the promotion of social learning for building resilience are included in Chapter 2. Subsequently, the analytical framework developed will be used to evaluate a case study composed of six CBOs located in four informal settlements of Freetown: Marbella, Colbot, Kroo Bay and Dworzack.

Finally, results from the case study and their implications for social learning and resilience debates will serve to discuss and analyse the extent in which changes were adopted at different levels of the DRR management structure of Sierra Leone.

Some limitations on the scope of this research are pre-determined by the fact that methodologies for using social learning for building resilience are not easy to find in the available literature. This can be attributed to the current state of research on resilience, which has not thoroughly explored the concept of learning (Sharpe et al., 2015). Therefore recurring to a combination of various frameworks were used as a form of pursuing consistency and applicability.

1.3.1 Hypothesis

This research postulates that the Ebola Outbreak 2014-2016 that occurred in Freetown, Sierra Leone provided a 'window of opportunity' to initiate social learning processes. As a result, new approaches were embraced in DRR structures such as the integration of youth CBOs at the forefront of DRR initiatives as well as changes in practices and perspectives in both individuals and social units. Further reflected in the creation of DRR policies and frameworks for building resilient communities that can withstand future shocks and hazardous events.

^[2] CBOs with a variety of themes of interest such as children development were targeted instead of organisations with pure DRR interests such as the community disaster management committees (CDMC), because their membership is also composed of other established CBOs (Y Care International, 2012).

1.3.2 Individual research objectives

To prove the above hypothesis, this research seeks to address three main research questions:

1. How is the DRR management structure in Freetown?
 - a. Which are the relevant policy and framework on DRR in Freetown and how youth CBOs are set within the structure? And how do stakeholders perceive the role of youth CBOs in DRR?
2. Which are the existent enabling factors of social learning to build resilience in Freetown, Sierra Leone?
 - a. Evaluate the applicability of the indicators developed to measure existing factors fostering social learning for building resilience.
 - b. Identify which factors are present and their influence on the social learning processes and building resilience.
3. To what extent do social learning processes take place among CBOs as a result of the Ebola outbreak?
 - a. Evaluate the notion of social learning for building resilience, and the practicality of the indicators developed to measure its processes.
 - b. Advance an understanding of the different processes that take place within social learning, and the notion of shocks as triggers for social learning through the Ebola outbreak 2014-2016.

This study collected both primary and secondary data during a field-based research, in which one-on-one interviews were conducted with relevant actors working DRM in Freetown. Additionally, available reports, legal instruments, and research articles were fundamental for answering the proposed research questions.

Chapter 2 defines concepts such as social learning, resilience, the conceptualisation of social learning for building resilience, and evaluates frameworks from which indicators for processes and enabling factors were erected. Chapter 3 describes the research strategy, framework for analysis and limitations to the study proposed. Chapter 4

develops on the findings resulting from the application of the social learning for building resilience analytical framework used to study youth CBOs. And finally, Chapter 5 summarises the findings and concluding remarks derived from the hypothesis and research objectives. Figure 1 defines key terms that precede Chapter 2.

Figure 1. Definition of terms

Disasters	"A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources" (UNISDR, 2009, p.9).
Shocks	Shocks can be defined as "landscaping-changing events" because of their capacity to enable adjustment of landscapes. Shocks can be caused by a variety of external events such as economic crises, and climate-related events. Consequently, there is a growing interest in disasters and shocks as learning opportunities and linking shocks to resilient systems (Castán et al., 2014)
Crises	Crises can be described as covariate shocks characterised by economic and social impacts for a country's population. While crises have diverse origins, channels of transmission, and diverse long-term impacts of shocks, nevertheless, some are often predictable or recurring and are the consequence of inappropriate policies. Weak systems and human action or inaction are what creates vulnerability to risks and what transforms accidental events into disasters (World Bank Group, 2015; Marzo and Mori, 2012; Groupe URD, 2011).

2 Chapter 2. Literature Review and Analytical Framework

2.1 Evolution of Social Learning

Social learning has its roots in psychology studies with the work of Bandura and his social learning theory (Harvey et al., 2013; Muro and Jeffrey, 2008). He defines it as the learning that happens at the individual level in a social context, directly or indirectly — by observation of others' behaviour— to fit with social norms or structures (Bandura, 1969). Thereby, sociological perspectives contrast with this view, moving from learning in social contexts to learning within social structures, such as organisations (McCarthy et al., 2011).

Nowadays, a different school of thought focusing on learning as active social participation and learning for social change has emerged that conceptualise, although not always explicitly, social learning as “a process of social change in which people learn from each other in ways that can benefit wider social-ecological systems” (Reed et al., 2010, p.2).

This school of thought originated from organisational learning such as Wenger (1998) and Argyris, Schön (1978), informed by social theories of learning that define it as, active social participation that takes place within the practice of communities (Reed et al., 2010). An example of this lies on Wenger (1998) definition of practice as learning and practice as a community, resultant from his conceptualisation of ‘communities of practice’ as the relationship of mutual engagement and shared ways of doing things.

2.2 What is Social Learning?

Social learning can be found in many forms in the literature. It has gradually evolved from individual learning to be situated in social contexts, and more recently, as a critical aspect of the sustainability of socio-ecological systems (SES); an example of this can be found in the work of Diduck (2010). Authors like Pelling (2011) situate social learning as an indispensable process for resilience as adaptation, others, as an instrument for

natural resource management (e.g. Pahl-Wostl 2006), and more recently in environmental education with published work from Krasny et al. (2010). Altogether, they exemplified the current state of the field and its variety of perspectives and directions (Sharpe et al., 2015; Reed et al., 2010).

Authors such as Reed et al. (2010) and Rodela (2011) agree that the diversity of viewpoints and lack of clarity on social learning conceptualisation and practical approaches, limit the capacity of scholars to correctly assess and measure whether it has occurred.

Consequently, Reed et al. (2010, p.6) claim that for a process to be categorised as social learning, it must firstly bring a change in understanding (i.e. change in attitudes); secondly, go beyond the individual level to be situated in larger social units (i.e. communities); and thirdly, occur through social interactions between the individuals involved.

However, social learning does not only imply changes in understanding it is also a form of collective action, decision-making, and problem-solving between different actors in the face of change (Harvey et al., 2013; Muro and Jeffrey, 2008; Pahl-Wostl et al., 2007). Collective action can be described as “the action of a group of people who share an interest and who take common action in pursuit of that shared interest” (Muro and Jeffrey, 2008, p.332). Therefore, is learning that leads to changes in practices and relations among the members of a community or network (Harvey et al., 2013).

2.3 The relation between Social Learning and Shocks

Cranton (2002) definition of “activating event” is of one that “exposes a discrepancy between what a person has always assumed to be true and what has just been experienced”. Therefore, socio-ecological disturbances can represent an activating event that can alter one’s mental model (cited in Smith et al., 2016, p.442). However, for shocks to foster change, will depend on whether social reactions are able to challenge existing regimes and protect the sustainable ones (Castán Broto et al., 2014).

Similarly, researchers in the field of climate change adaptation and mitigation policy have stressed their concerns about the effects of shocks on the resource-reliant poor who are acutely vulnerable, explaining that, shocks can reinforce the status quo, thus, reinforcing existent inequalities and deepening the economic hardship poor people are subjected to (McSweeney and Coomes, 2011).

Nevertheless, researchers such as Norris et al. (2008) state that communities have the potential to continue functioning and to adapt successfully in the aftermath of disasters. Social learning can be conceptualised as an important element for the capacity of communities to respond to existent and future shocks (Smith et al., 2016; Krasny et al., 2010). An example of these is the case of rural poor in Honduras studied by McSweeney and Coomes (2011), after a major flooding caused by hurricane Mitch in 1998, indigenous communities were able to undermine the status quo and rewrite its land tenancy rules.

Furthermore, changes made afterwards seemed to increase the community's resilience to subsequent storms, when the rain hit again in 2008 the negative impacts were lesser to those of Mitch, providing evidence that communities can learn from previous shocks and use disasters as "windows of opportunity" for social-ecological improvement and resilience. The study also builds on the importance of fostering local capacities for institutional change (McSweeney and Coomes, 2011).

2.4 Debates on Resilience

Building resilience has gained momentum in the international policy arena, and is now an 'organising principle' used by donor agencies to respond to contemporary and future shocks; an example is the UN Hyogo Framework for Action 2005-2015 (Coaffee, 2013; Levine et al., 2012). However, there is little consensus about its meaning and how it should be studied (Bourbeau, 2015). Although the ambiguity of the term allows cross-discipline collaboration, it deprives it of conceptual clarity and practicality (Moser, 2008).

Nonetheless, Bourbeau (2015) postulates that knowledge about resilience is contingent, therefore, reaching a comprehensive theory does not acknowledge the complexity of the social field; by admitting that every claim is necessary can foster dialogue and debates among alternative interpretations.

Resilience was first introduced by Holling (1973) as a concept for ecosystems management (Adger et al., 2011). Defining resilience as a measure of the persistence of systems and their ability to absorb change and disturbances whilst maintaining their original state.

Nowadays, 'resilience thinking' or 'resilience approach' derived from the SES methodology^[3] dominate resilience debates (Moser, 2008). Likewise, the conceptualisation presented by the fields of psychology and ecology has been highly influential in world politics (Bourbeau, 2015).

2.4.1 The Socio-ecological systems approach

Folke et al. (2010) define SES as interdependent systems concerning people and nature; resilience in this context refers to SESs able to continually adapt and change yet within critical thresholds. Walker et al. (2004) define three attributes of SES: resilience, adaptability and transformability; resilience as persistence, adaptability as the capacity to adjust to disturbances, and transformability fundamentally signifies altering the nature of a system (Folke et al., 2010). Figure 2. **Socio-ecological systems attributes** presents the key concepts associated with this approach.

Change is essential to SES's resilience, therefore adaptability and transformability are essential to it; adaptability comprehends SES's capacities to learn, and combine experience and knowledge to respond to shocks but maintaining essential processes, radically contrasting with the concept of transformability (Folke et al., 2010). Resilience can also be applied to people, places, and ecosystems, therefore, resilience ideas

^[3] The resilience alliance is a consortium of group and institutions from diverse disciplines, that explore the dynamics of SESs using resilience as an overarching framework (Folke, 2006). <http://www.resalliance.org/>

provide a framework for understanding change in communities, whether desirable or undesirable and unforeseen or planned (Adger et al., 2011).

However, resilience is not only about persistence to disturbances, is also about seizing opportunities for transformation and renewal resulting from shocks. However, this will depend on the system's attributes. Nowadays there is an increased focus on transformability instead of adaptation to current situations and the practice of adaptive governance (Folke, 2006).

Figure 2. Socio-ecological systems attributes, based on Adger et al. 2011, p.4 and Folke et al. 2010, p.3.

Resilience	"is the capacity of a system to absorb disturbance and reorganise while undergoing change, therefore, maintaining the same functions, structures, identity and feedbacks" (Walker et al., 2004, p.2).
Adaptability	A part of resilience. it represents the capacity of actors in a system to influence resilience and to respond to endogenous and exogenous shocks (Folke et al., 2010). "Is a function of the social component (the individuals and groups acting to manage the system), therefore, their actions influence resilience either intentionally or unintentionally" (Walker et al., 2004, p.3)
Transformability	"is the capacity to create a fundamentally new system when ecological, economic, or social structures (including political) make the existing system untenable" (Walker et al., 2004, p.3).
Adaptive Capacity	A fundamental feature of resilient SES, as such, comprehends the preconditions necessary to be able to adapt to shocks and disturbances. It is represented by available social and physical resources, and the ability to employ them effectively (Nelson et al., 2007).
Adaptive Governance	Successful adaptation entails steering processes of change through institutions (Nelson et al., 2007). Whereby creating adaptability and transformability in SESs (Walker et al., 2004). It relies on social networks with diverse actors located in multiple levels or polycentric governance (Olsson et al., 2004).

Some of the qualities required for transformability are diversity, learning platforms, networks, trust, collective action and a variety of actors with cross-scale communication (Walker et al., 2004). Likewise, transformations are derived from resilience and the use of crisis as 'windows of opportunity' recombining experiences and knowledge, and innovation (Folke et al., 2010).

Nonetheless, Cannon and Müller-Mahn (2010) critique that the resilience approach focuses mainly in SES in relation to climate change adaptation, therefore it loses relevance to the wide-range of crisis and hazards that affect communities. Likewise, its overly scientific and technical approach makes difficult to escape the scientific realm and alienates, ordinary people. Equally, Adger et al. (2011) postulate that most of the normative prescriptions view resilience as a characteristic that can be gained or enhanced without making fundamental changes in systems functions.

Furthermore, predominant critiques of resilience thinking claim that issues of power and social relations are underplayed, therefore, policy prescriptions fail to recognise power asymmetries between actors and safeguard the status quo. Likewise, normative analysis of resilience show that there are likely to be winners and losers from implementing resilience, nonetheless, an emerging literature calls for equity and redistribution and reducing vulnerability to be placed as priorities within the resilience approach (Adger et al., 2011).

2.4.2 Resilience and governance

Bourbeau (2015) states that due to the complex and dynamic nature of the resilience process, change does not imply a return to the previous state. Moreover, he postulates that resilience is a socio-historical process, whereby, disturbances are interpretative moments, in which agents need first to identify an event as a disturbance. Therefore, the level of adjustment of a group to internal/external shocks is highly influenced by past decisions and their social context.

Fundamentally, resilience is not a fixed attribute or an unchangeable characteristic, is dynamic rather than stable, additionally, it does not imply finality is a process that can never be fully completed, therefore, complete immunity to shocks and disturbances does not exist (Bourbeau, 2015).

Similar to Adger et al. (2011) Bourbeau (2015) states that resilience has a bright and a dark side. World politics see resilience as always desirable; concepts informed by

psychology studies will always see shocks as negative and resilience as a positive adaptation. Contrastingly, supporters of Foucauldian 'governmentality' thesis argue that resilience is a product of neoliberalism, which allows governments to relinquish responsibility in times of crisis and conserving unbalanced power relations. Thus, policies that focus on the sole prevention and preparation of communities rather than the state can lead to just that.

However, Bourbeau (2015) explains that positioning resilience as purely positive is as dangerous as reductionist views of resilience that define it as a political tool for power perpetuation. Middle-ground approaches in urban resilience studies such as Coaffee (2013) describe that new governance approaches for urban resilience should aim at the conjoint responsibility of different individuals, contrasting with the traditional assessments that relied solely on limited government actors.

2.4.3 The urban resilience approach

Coaffee (2013) defines the fourth wave of integrated place-based resilience. Currently, resilience is being redirected to smaller spatial scales and embedding 'resilience thinking' into everyday practices. Current hazards challenge individuals and collective capacities, therefore, building individual, institutional and community's resilience is a route towards building the resilience of the whole.

Nonetheless, in line with 'governmentality' claims, there is a risk of resilience policies of becoming a strategy for states to place the burden of crises on citizens. DRM experiences from underdeveloped countries regarded resilience as a quality that individuals can acquire by themselves without a dedicated support or intervention from the state. Decentralisation does not mean complete state withdrawal (Coaffee, 2013).

Moreover, promoting community's resilience cannot simply be left to communities, it demands collaboration between the state and its citizens. Building resilience is more effective when there are mutually accountable networks of civic institutions, agencies,

and citizens working in partnerships towards common goals within a common strategy (Coaffee, 2013).

2.4.4 Resilience and vulnerability

Folke (2006) argues that when vulnerable systems are hit by small disturbances and caused social consequences it means that it has lost their resilience. The link between resilience and vulnerability is complex and hard to delimit. Bourbeau (2015) postulates that resilience gains purpose when we acknowledge that we are potentially vulnerable, thus, building resilience does not negate concerns over vulnerability nor it forces its displacement as long as resilient strategies are not only targeted to building resistance to shocks.

Contrastingly, Cannon and Müller-Mahn (2010) argue that resilience thinking displaced vulnerability from the development agenda leaving behind the poor and the vulnerable. Hence, the focus should be on adaptation and development under a pro-poor policy.

Fundamentally, resilience is shaped by actor's right to access, resources, and assets. Although individual vulnerability may be reduced through economic development alone, reduction of collective vulnerability in poor neighbours living in risky conditions also requires social and political resources (Pelling, 2003).

Therefore, social networks of civil society actors are the web that ties together a system's adaptive governance (Folke, 2006). In order to shape and adapt systems institutions, organisations need to be connected to all levels and scales facilitating flows of information (Olsson et al., 2004).

2.5 Social Learning for Building Resilience

Accordingly, building resilience is not an outcome but a process in which communities gain confidence and are able to build their capacities of identifying, reflecting, and adapting their own practices to manage uncertainty; however, there are persistent constraints such as available human and financial resources (Sharpe et al., 2015). Social

learning for building resilience can be found in processes such as community participation and collaborative action, under a shared environment with linked organisations actively collaborating for present and future responses (Smith et al., 2016).

Sharpe et al. (2015, p.1) claim that “through facilitated social learning, knowledge, values and capacities can be developed, whilst increasing a group’s capacity to build disaster resilience”, hence, given the right circumstances social learning for building resilience can be triggered.

Therefore, social learning allows moving beyond individual knowledge to one that evolves through the inputs of multiple stakeholders, including those at the lowest level of power structures (Sharpe et al., 2015). As claimed by Reed et al. (2010) collective learning can be more effective than the sum of individual learnings. Similarly, Freire (2005) in his pedagogy of the oppressed, states that through learning collectively people become critically aware of their circumstances and shared reflections; defined as “conscientização”.

2.5.1 Social learning in the context of youth community’s resilience

Smith et al. (2016) studied social learning for building resilience in three youth-based organisations for educational ecology created to respond to climate change in their communities. They proposed that practices of ecologic civic engagement can be an effective strategy for the mitigation and response to the environmental effects caused by climate change.

Furthermore, they sought to fill a gap in research about resilience and social learning among groups by developing an approach to measure social learning processes using indicators. Smith et al. (2016) found that programs can become important forms of social adaptation by themselves, helping communities to cope and recover from shocks, therefore building resilience.

2.5.2 Enabling environmental factors of social learning for building resilience

As stated by Smith et al. (2016) recent scholarship recognises that community resilience depends not only on democratic structures of governance, infrastructure development, and technology but also in additional elements such as enabling environments for learning. Table 1, provides a list of key factors for promoting learning environments for individuals within communities who are supported by governmental institutions.

To build the necessary capacities for resilience, resource inequities need to be addressed and reduced, linkages between organisations need to be reinforced and maintained, and local people need to be actively engaged in risk mitigation initiatives. Moreover, there must be social platforms for learning where stakeholders can share their views and exchange information (Smith et al., 2016; Norris et al., 2008).

Social learning approaches integrate different ways of thinking as necessary for the generation and application of decisions, however, power dynamics will influence learning outcomes (Muro and Jeffrey, 2008). Therefore, assuming that high levels of interaction between stakeholders are evidence of social learning is rather simplistic. Hence, a conducive environment is one in which institutions share both knowledge and spheres of influence, allowing the flow of information in a vertical manner rather than horizontally (Sharpe et al., 2015)

Table 1. Enabling Factors for promoting Social Learning environments.

Level	Enablers	Characteristics
Institutional Level	Partnerships	Partnerships that facilitate spaces for ongoing and regular dialogue within and between institutions and stakeholders (Sharpe et al., 2015).
	Engagement	<ul style="list-style-type: none"> • DRR as a policy priority at all levels of government, political consensus on the importance of DRR, and official support to community's vision through local government DRR policies, strategies, and emergency plans with clear visions and targets (Twigg, 2013).
	Different ways of thinking	<p>Described by Krishnan et al. (2013) as:</p> <ul style="list-style-type: none"> • The inclusion of local knowledge in decision-making, e.g. coping mechanisms and local strategies to mitigate or reduce risk.
		
Community Level	A diverse community	<ul style="list-style-type: none"> • Communities are resilient when there are available learning capabilities and creative powers (Sharpe et al., 2015). Diversity is a key feature of resilience and adaptive capacity. • It conveys abilities to continue in the face of change, frames for creativity, and an array of alternatives to maintain functioning (Folke et al., 2003).
	Connectedness and vibrant social network	<ul style="list-style-type: none"> • Connections to the most vulnerable groups, e.g. the elderly, single mothers, children and others (Sharpe et al., 2015) • The connection between the community and its nationals. Governments must know and consider risks suffered by communities, ensure that community contributions are respected, through partnerships, and by communicating effectively with its members (IFRC, 2014).
	Levels of participation and influence of opinion framers	<p>Described by Sharpe et al. (2015) as:</p> <ul style="list-style-type: none"> • Established mechanisms for all members to have a say, for example by holding regular meetings. • Inclusion and respect for all views in order to build a consensus. • The presence of flexible forms of local leadership often earned and maintained through individual competencies, able to manage conflict and foster adaptation of good practices.
		
Individual Level	Learning through critical reflection	<ul style="list-style-type: none"> • Participating in social learning processes such as in workshops, training, and on-the-job experiences for community actors (Krishnan et al., 2013).

2.5.3 The processes of social learning for building resilience

Social Learning processes can be hard to quantify which poses a challenge to building resilience. Methods for measuring social learning are scarce, and vary depending on the conceptualisation used; furthermore, the inherent complexity of the term challenges the production of generalised methods (Sharpe et al., 2015). For this reason, this study incorporates diverse frameworks for social learning and resilience evaluation, a synthesis of the different frameworks is graphically presented in Figure 3.

Since social learning requires learning to move from the individual to larger social units, therefore specific processes are placed within levels, with individuals working actively in their communities that are supported by institutions. However, processes will influence all levels; network activation requires the presence of diverse actors from all scales, moving through the existing connections and partnerships between actors. A thorough description, indicators, and outcomes for each process are given in Table 2, 3 and 4, which will be used to capture social learning processes for building resilience in youth CBOs of Freetown.

Processes which can also be defined as attributes of a system—comprising individuals, communities, and institutions—serve as indicators of resilience. Therefore, the lack or existence of these attributes in SESs will determine the likelihood of community to deal with uncertainty (Becker et al., 2011). The findings derived from the evaluating the indicators develop will be analysed and their implications on building resilience and social learning debates will be discussed in Chapter 4.

Figure 3. Social Learning processes at the individual, community, and institutional level, based on Becker et al., 2011, p.1.

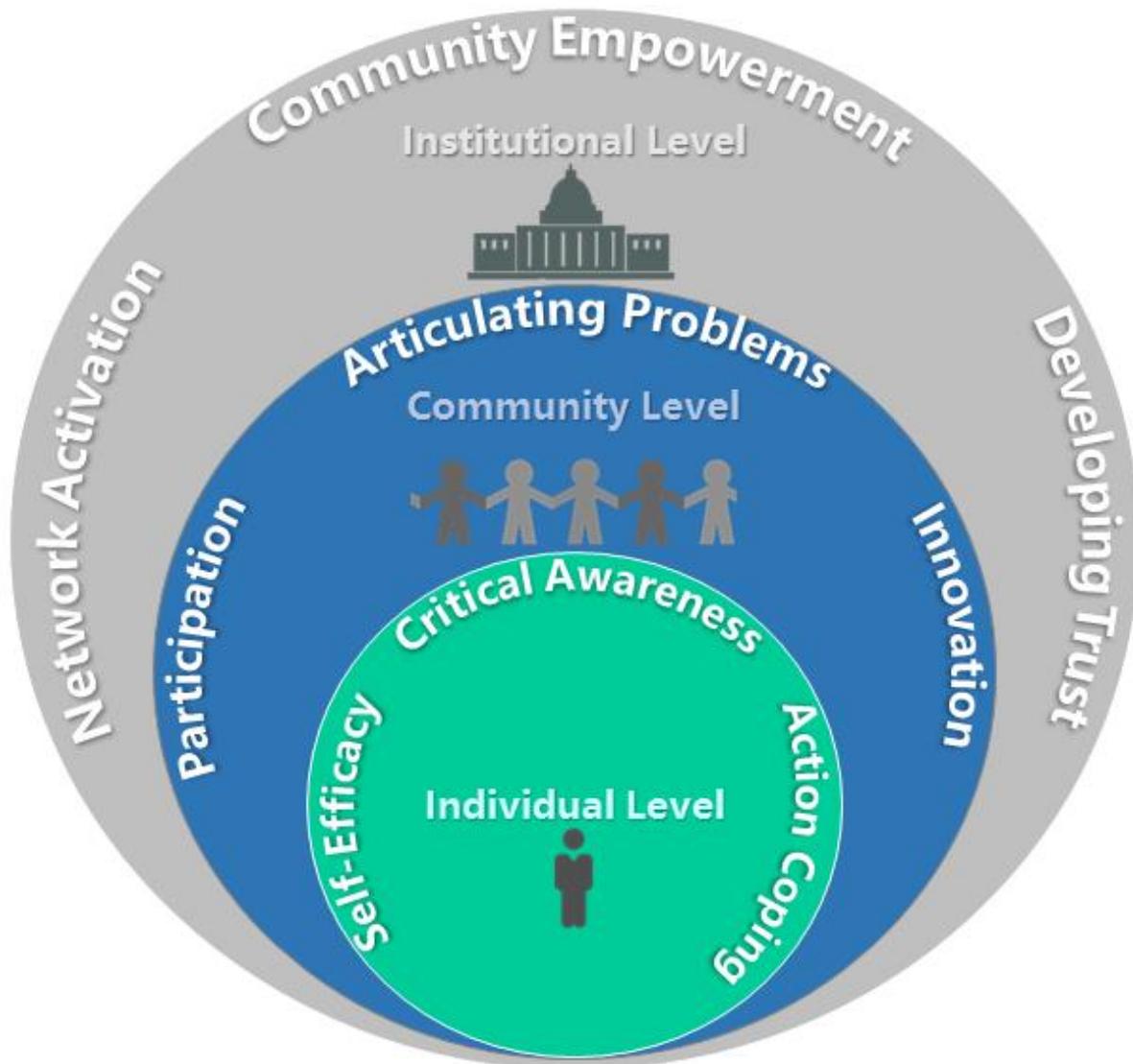


Table 2. Processes of Social Learning for Building Resilience at the institutional level.

Processes	Description	Indicators	Potential Outcomes
Network Activation	<p>An effective network is one with a variety of stakeholders from all levels of society (Mostert et al., 2007).</p> <p>Collaborative platforms can be part of governance structure, allow cross-scale linkages and improve vertical and horizontal interplay (Pahl-Wostl et al., 2007).</p>	<p>Formation of groups that include all key organisations, and recognised the value of the knowledge and expertise of local stakeholders (e.g. community leaders, CBO members) (Mostert et al., 2007).</p> <p>Involvement beyond participation to joint practices (Pahl-Wostl et al., 2007).</p>	<p>Increase the capacity and confidence of the stakeholders (Mostert et al., 2007).</p> <p>Identify pressing issues and prioritised them according to a general consensus (Mostert et al., 2007).</p> <p>Drive collective action from new insights rooted in shared experiences (Pahl-Wostl et al., 2007).</p>
Community Empowerment	<p>In the social learning context, it implies the increase of this skills of individuals, groups and communities for better decision-making for themselves, in which public and civil society become partners (Allen et al., 2002).</p> <p>Empowerment influences critical reflection, sense of community and DRR (Becker et al., 2011).</p>	<p>Feeling of individuals of being able to influence what happens in their communities (Becker et al., 2011).</p> <p>Provision of resources (social, knowledge, material, etc.) to facilitate development. Community-led risk reduction instead of institution led (Becker et al., 2011).</p> <p>Development of programs and emergency training to communities (Becker et al., 2011).</p>	<p>Communities are empowered to deliberate and make their own decisions (Allen et al., 2002)</p> <p>Communities and individuals realise their own value, strengths and capacity to manage risk (Allen et al., 2002).</p> <p>Communities are able to identify available resources and set collective goals (Allen et al., 2002).</p>
Developing Trust	<p>Developing trust is a long-term process. Trust influences the effectiveness of relationships and the development of effective adaptive capacity. Levels of trust depend on prior experiences, e.g. during post-crisis (Becker et al., 2011).</p>	<p>Community involvement and engagement in decision-making about risk-reduction (Becker et al., 2011)</p> <p>Communities trust in sources of hazard/risk information and perceive organisations are empowering them (Becker et al., 2011)</p>	<p>Collaboration between communities, organisations and institutions for future responses (e.g. through partnerships) (Becker et al., 2011).</p> <p>Dissemination of accurate and consistent information to the public among all stakeholders (Becker et al., 2011).</p>

Table 3. Processes of Social Learning for Building Resilience at the community level.

Processes	Description	Indicators	Potential Outputs
Innovation	<p>Innovation is a crucial factor in building resilience, including a democratised used of technology, with open access and available training on how to use it, requiring trust between stakeholders (Sharpe et al., 2015).</p> <p>Local Innovation must be integrated with scientific knowledge, and acknowledge both failure and success to form opportunities for learning (Sharpe et al., 2015).</p>	<p>Exchange activities between all stakeholders that can lead to learning and innovation e.g. Information sharing, collaboration and dialogue across all levels (Twigg, 2013).</p> <p>Training and learning about DRR at the community level, and among organisations and institutions (Twigg, 2013). Using methods such as participatory processes to develop realistic options (Sharpe et al., 2015).</p>	<p>Increased scientific and technical capacities for innovation on DRR within communities (Twigg, 2013). Best practices can be replicated and escalated by government action (Twigg, 2013).</p> <p>Development of community hazard/risk assessments for a comprehensive review of the state of communities for informed decision-making (Twigg, 2013).</p>
Community Participation	<p>The degree to which individuals take part in community life (Becker et al., 2011). Developing collective solutions and forming an understanding of problems, and work towards collective goals (Harvey et al., 2013; Krishnan et al., 2013).</p>	<p>Community leaders involved in national emergency planning (e.g. contingency and response plans) and resilience building (Twigg, 2013; Becker et al., 2011).</p> <p>Formal community Disaster response groups and community volunteers involve in preparedness, response and recovery activities (Twigg, 2013).</p>	<p>Enhanced physical and psychological resilience to disaster (Krishnan et al., 2013).</p> <p>Identification of urgent needs and vulnerable individuals (Krishnan et al., 2013).</p>
Articulating Problems	<p>The ability of a community to articulate local problems, express views and needs. Disseminate information and discussed risk/hazards issues (Becker et al., 2011).</p> <p>An iterative process of communication and action between individuals and groups constructing a mutual concern (Smith et al., 2016)</p>	<p>The existence of participatory activities and empowerment initiatives that act as vehicles for articulating problems (Becker et al., 2011).</p> <p>Risk perceptions and awareness among community members for identification and problem solving (Becker et al., 2011).</p>	<p>Creation of community-led plans rather than top-down led (Becker et al., 2011).</p> <p>Improved critical awareness, trust, participation processes and empowerment of individuals in DRM and DRR related topics (Becker et al., 2011).</p>

Table 4. Processes of Social Learning for Building Resilience at the individual level.

Processes	Description	Indicators	Potential Outputs
Self-Efficacy	<p>Is the belief or confidence in one's ability to do something in a given situation (Sharpe et al., 2015). In the context of DRM is the ability to take action in mitigating disasters (Becker et al., 2011).</p> <p>Self-efficacy develops when individuals effectively solve problems and deal with challenges, and accumulate experiences (Becker et al., 2011).</p>	<p>Perception of being able to prevent damage and being self-sufficient in the face of a hazardous event through their own means (Becker et al., 2011).</p> <p>The belief that emergency plans and preparedness measures will be effective in protecting communities or reducing risk (Becker et al., 2011).</p>	<p>Increased the capacity of individuals to respond effectively to hazards and problem-solving experience (Becker et al., 2011).</p> <p>Higher levels of self-efficacy are linked to accurate knowledge of everyday community issues (Becker et al., 2011).</p>
Critical Awareness	<p>Is the extent to which people think and talk about the importance of hazards, with other people, this, in turn, influences people's motivation and preparedness to manage uncertainty, and legitimise hazards as a salient issue (Becker et al., 2011).</p>	<p>Awareness-raising activities on DRM for communities, using different forms of communication to reach all members of the community including vulnerable groups (Twigg, 2013).</p> <p>Training for communities about hazards, to enable them to implement activities and emergency plans (Twigg, 2013).</p>	<p>The whole community is aware of disaster risk, the possible impacts and how to respond and mitigate them (Twigg, 2013).</p> <p>Increased involvement in community-led activities and disaster management groups (Becker et al., 2011)</p>
Action Coping	<p>The ability of oneself to solve problems by confronting them, seeking solutions. Addressing the roots of the problems directly rather than alleviating the emotions produced (Becker et al., 2011).</p> <p>Actively participating in mitigation and reduction of risk (Becker et al., 2011).</p>	<p>The existence of activities to improve community's organisation for disaster preparedness. Committees, volunteers and public institutions replicating learnings through practical action (Twigg, 2013).</p> <p>Community knowledge of hazards, vulnerabilities and risks for collaborative community-led action (Twigg, 2013)</p>	<p>Improved risk preparedness of individuals and communities by taken action rather than emotion-coping (Becker et al., 2011)</p> <p>Empower communities with skills and preparation to response in emergency situations increasing individual's confidence to respond to uncertainty (Sharpe et al., 2015).</p>

3 Chapter 3. Methodology

This research forms part of a dissertation fellowship organised by SLURC (Sierra Leone Urban Research Centre) supported by UCL (University College London), Njala University, and organisations Y Care International and YMCA. The partnership was created with the aim of fostering collaboration among the different actors working in urban-related issues for the urban poor in Freetown, Sierra Leone, and to enhance the capacities and knowledge of those who work towards the well-being of urban dwellers. Following the outlined objective of the SLURC of delivering high-level research that influences the country's urban policy and practice, the fellowship involved a field-based investigation in Freetown for a period of two weeks.

3.1 Research Strategy

The empirical research in this scholarship evaluates how social learning processes can foster resilience and if these can be triggered by shocks. A case study approach was adopted to assess the strategy by exploring youth CBOs of Freetown's informal settlements and thus evaluating their social learning processes for building resilience. Biggam (2012) defines case studies as approaches that are concerned with close observation of how a particular group of the population behaves in a particular setting. Therefore, this approach corresponds with the research objectives outlined in Chapter 1.

Moreover, studying how DRM is viewed and practised among the different stakeholders in Freetown was critical as vulnerability to disasters and their negative outcomes are directly influenced by resilience before and after crises (Adger et al., 2005).

The research strategy adopted follows a set of phases described in Figure 4. The first stage involved the development of the research questions. It is followed by a literature review that incorporated different frameworks produced to identify and measure: social

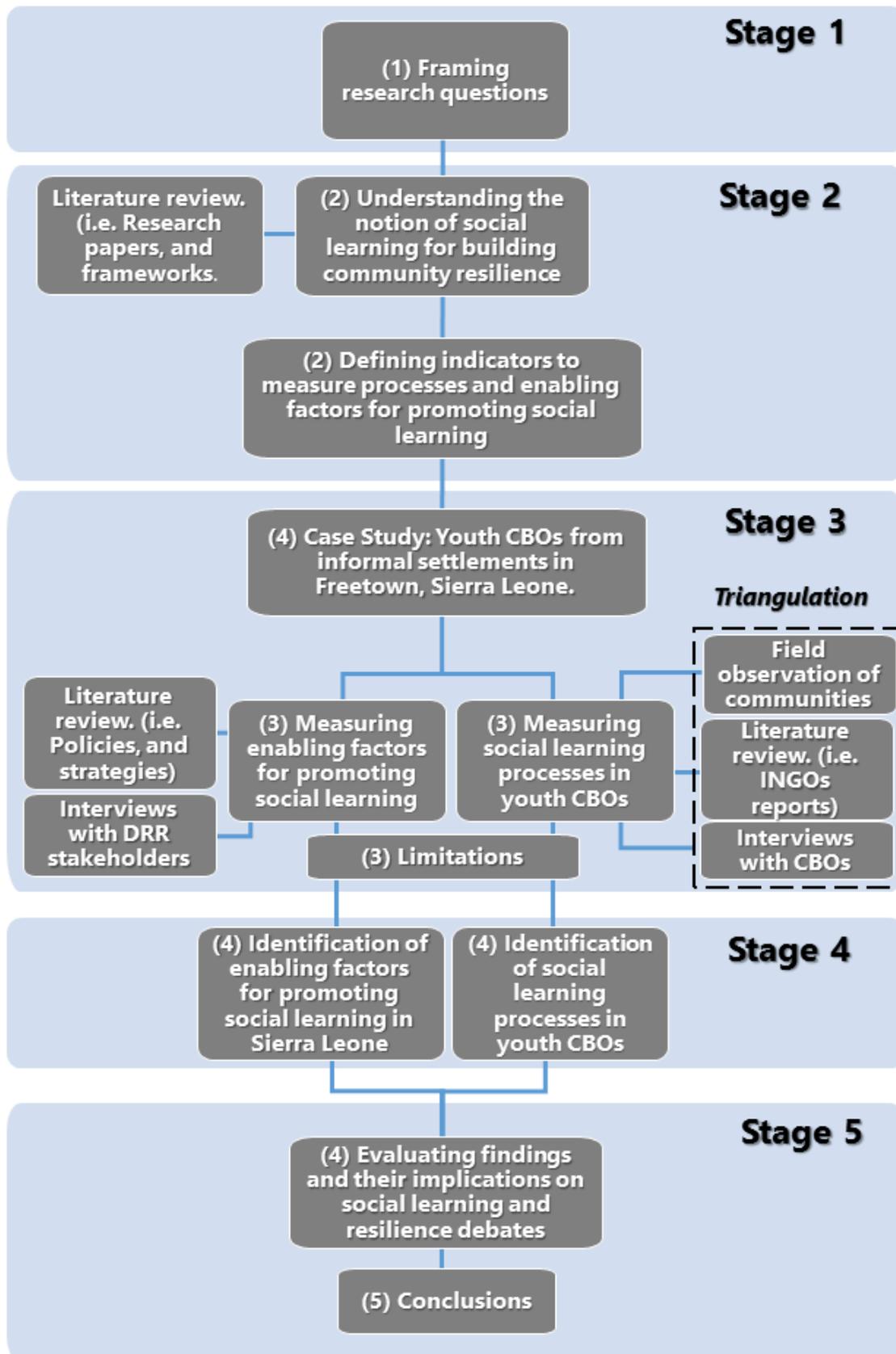
learning processes from (Harvey et al., 2013; Mostert et al., 2007; Pahl-Wostl et al., 2007; Allen et al., 2002) building community resilience from (Twigg, 2013; Becker et al., 2011) and the combination of both concepts from (Smith et al., 2016; Sharpe et al., 2015; Krishnan et al., 2013)^[4]. A combination of different frameworks instead of a single one was adopted because of the vagueness in which sometimes processes were explained—either definitions or indicators for measuring were missing or concentrated only in social learning or resilience—therefore, gaps found in one literature were covered with other literature, by establishing links between the definitions presented in each framework.

Furthermore, according to Sharpe et al. (2015), underlying factors that pre-determined the likelihood of social learning to be fostered can also be interpreted as indicators of social learning and understandings can be translated to other disaster studies. Moreover, most of the factors can be assessed through reviews of policies and management structures. Therefore, for the third stage processes and underlying factors were assessed for the case study selected, through the set of indicators developed and their corresponding characterisation. These also served as guidelines for the preparation of the content of interviews.

Moreover, the case study comprised only youth CBOs instead of any CBO, due to the degree in which youth groups were involved in the Ebola response as reflected in post-crisis reports (Kamara, 2016; Y Care International and YMCA, 2016; UNDP et al., 2015). Although, youth are instrumental for the development of Sierra Leone they remain underrepresented among the existing structures (Ministry of Youth Affairs, 2014). Thus, this research seeks to enlighten the possibilities CBOs have of being integrated into official structures and the degree in which this is reflected in the DRM environment.

^[4] (Sharpe et al., 2015) developed the emBRACE framework for building communities resilience that considers social learning as a key component in the process of building resilience therefore, it clearly influenced the development of this study.

Figure 4. Research strategy diagram based on Henson, 2006, p.4



Note: The number in parenthesis refers to the relevant chapter in the dissertation.

The six CBOs and the four targeted communities were purposely selected based on their involvement and interest in DRM activities, from which two (Dworzack and Colbot) were known to be active and had a long engagement with community disaster management committees (CDMCs) as reported by Cumming (2012). The remaining CBOs were selected based on their willingness to be interviewed and their interest in participating in the research.

Finally, the two last stages of the strategy involve evaluating the data collected using the framework of analysis of social learning for building resilience developed. As well a discussion of the results in their implications on resilience and social learning debates is presented. Therefore, conclusions reflect on the usefulness of such framework and the implications of key theoretical debates in both resilience and social learning areas.

3.2 Data Collection

The primary method for data collection adopted was semi-structured interviews in addition to field observation of communities and literature review. These were selected through a review of previous research papers that sought to measure social learning processes in the context of resilience. An example is a study developed by Smith et al. (2016) on youth-ecology groups, where he matched collective cognitive mind-mapping with individual interviews to study individual and collective learning. Another example is the study developed by Sharpe et al. (2015) which included one-on-one interviews, focus groups and surveys to measure collective interactions. Likewise, Castán Broto and Dewberry (2015) adopted one-on-one interviews along with literature reviews on policy and legislation as data collection instruments.

A total of eleven interviews were held, six of these were CBO members and the rest were representatives from national institutions and NGOs. The aim was to connect information to the levels of DRM structure and to place CBDMCs in the general context of DRR. Additionally, field observations of the communities were conducted at the same time as interviews.

3.3 Framework for data analysis

Following a similar approach to the one presented in Biggam (2012), this study analysed the qualitative data by comparing and contrasting with the data collected from interviews with findings from the literature review. This process required transcriptions of all recorded interviews and a classification of enabling factors and processes according to the indicators developed in the second stage (see Chapter 2). Subsequently, prevailing processes among the CBOs were detected and perspectives across CBOs and organisations were compared to get a better understanding of their relationship. Results and conclusions are presented collectively for all CBOs studied.

3.4 Limitations

One of the limitations identified was the lack of practicality that social learning frameworks for measuring processes have for field-based research; hence undermining the analysis and formation of conclusions. This limitation was also identified by Sharpe et al. (2015); therefore, this research evaluated enabling factors in addition to process because these are better defined in the literature and are easier to measure. Moreover, by continuing studies that seek to measure the effectiveness of social learning for building resilience will help to tailor existent social learning initiatives by identifying their weaknesses and strengths (Sharpe et al., 2015).

3.4.1 Validity, reliability, and trustworthiness

Initially, individual interviews along with focus groups for collective learning were selected as the research instruments. However, logistic constraints impeded the application of focus groups as CBO members were constantly on the move and then setting a meeting for a least five members of more than one community was not possible. For this reason, questions were directed to placing individuals in the context of their communities and how they interacted with the different stakeholders.

Although results cannot be generalised and therefore potentially reducing their validity, this study sought for relatability (Biggam, 2012). Through testimonials from

CBDMCs providing a rich set of experiences and perspectives and generalisation can be achieved in time with additional empirical research.

However, a 'triangulation' of methods was adopted (see Figure 4) to extract data from multiple sources (interviews, literature review, and field observation) as means of corroboration and establishing the trustworthiness on the study's conclusions (Bowen, 2005). For example, in the case of questions related to behaviour and perceptions, studies were conducted to evaluate public knowledge, attitudes, and practices related to Ebola virus disease (EVD) were used to reduce bias and improve the validity of the results.

Furthermore, acknowledging that the use of interviews as the main mean to collect data can be problematic. This research incorporated Biggam's (2012) suggestions to reduce bias and improve reliability. Respondents' biases were addressed by collecting a variety of views on DRR issues, ranging from institutional organisations such as ONS, respectable INGOs to CBOs. Additionally, interview's questionnaires were extensive and detailed, addressing issues through different questions, and in the case of CBOs questionnaires were alike in order to be comparable. However, interviewees can bias the information provided, leading to errors in the data collection.

Lastly, reliability was sought by adopting the aforementioned methodology and a transparent strategy. A list of interviewees has been included in appendix A, samples of interview questions for CDMCs and institutions is in appendix B and C respectively, and appendix D provides pictures from the field observations.

4 Chapter 4. Case Study: Analysis of results and Discussions

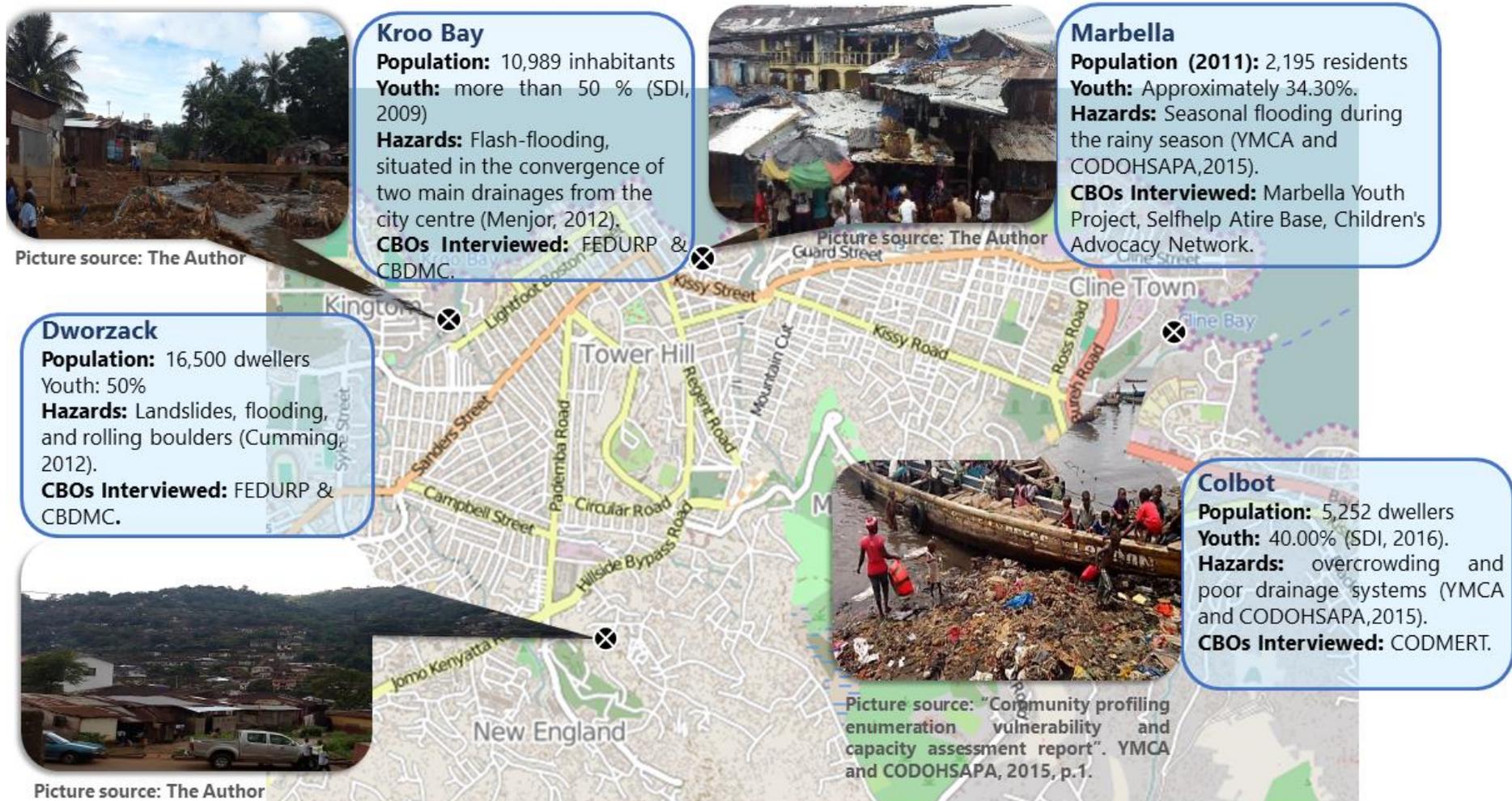
Around 40% of Sierra Leoneans reside in urban areas and are even more concentrated in Freetown, where the proliferation of slums rose following the country's 11-year civil war (CODOHSAPA and FEDURP, 2011). Freetown's population in 2013 was approximately of 998,000 inhabitants and is expected to double by 2028. Approximately 60% of households live without acceptable standards of urban health and sanitation (MLCPE and FCC, 2014). According to Shack/Slum Dwellers International SDI (2014), Freetown has at least 61 informal settlements.

This research evaluated the notion of social learning for building resilience in six youth CBOs from four slum communities of Freetown: Marbella, Colbot, Kroo Bay and Dworzack; where the indicators of enabling factors and processes of the conceptualisation were evaluated. Figure 5 shows a map with key facts for each community and their location.

4.1 The Disaster Management context of Sierra Leone

Sierra Leone has experienced disasters in various forms over the years, one being a devastating civil war. As part of the reconstruction strategy, the 2002 National Security and Central Intelligence Act (NASCIA) was decreed (Massaquoi and Sesay, 2014). In this act, the Office of National Security (ONS) acquired the role of government's primary coordinator of all prevention and national responses to emergencies (human-made or natural). Subsequently, the Disaster Management Department (DMD) was launched. This unit is one of the eleven directorates within the ONS and is the nation's central organisation responsible for DRM (Mye-Kamara, 2011; UNISDR, 2010).

Figure 5. Map of targeted communities. Base map: OpenStreetMap, 2016, Freetown, Sierra Leone.



4.2 Enabling environmental factors of Social Learning for Building Resilience

4.2.1 Partnerships

Achieving adaptive capacity tends to be facilitated when grassroots actors are fully involved, Pelling (2003) claims that partnerships are imperative for resilience, as they signify joint initiatives for collective action. Moreover as explained by Folke (2006), essential components of building resilience such as adaptability are clearly undermined without significant partnerships between citizens and governmental institutions.

Likewise, Sierra Leone recognises that a coordinated DRM programme is based upon partnerships as the joint capacity of the state and other agencies (ONS, 2006). Among their partners, there are the Sierra Leone Red Cross (SLRCS), the Ministry of Health and Sanitation (MOHS), and the Environment Protection Agency (EPA-SL) (Lahai, 2016). Furthermore, key regional memberships include the African Union (AU), the Economic Community of West African States (ECOWAS) and the Mano River Union Agreement (MRU) (Mye-Kamara, 2011).

However, features of an adaptive governance which rely fundamentally on collaborations among diverse stakeholders are non-existing in the current DRR framework. Partnerships between communities and the state are poor, lacking direct engagements between formal DRR structures and CBOs (Bradlow, 2010). Social learning processes can only facilitate the incorporation of marginalised groups and create contexts for the converge of diverse viewpoints when successful partnerships exist (Sharpe et al., 2015). The notion of power is also critical for the functioning of partnerships – one actor's substantial predominance will weaken collaboration and predisposed learning processes. (Pelling, 2003).

Therefore, Sierra Leone's DRR institutions need to realise and create opportunities for grassroots participation to build social networks capacity for effective decision-making under uncertainty. Efforts for the creation of contexts for social learning need to bring

together actors from all sectors, which essentially calls for the institutionalisation of CDMCs participation in DRR governance. Institutional settings give collective action the necessary constitution and direction to crisis response beyond spontaneous and unstructured reactions to emergencies (Cannon and Müller-Mahn, 2010). Such as the ones adopted during the EVD response.

4.2.2 Engagement

In terms of international legal framework, the most influential were the Hyogo Framework for Action 2005-2015, which inspired the development of the Disaster Management Policy draft in 2007. This framework has now been superseded by the Sendai Framework for disaster risk reduction 2015-2030 (IFRC, 2012). Among the national DRR instruments are the National Disaster Preparedness and Response Plan draft created for the coordination of DRM activities and recovery from disasters among the different stakeholders (DMD and ONS, 2012, n.d.).

In 2007 the Sierra Leone Disaster Management Policy was drafted with the aim of integrating DRM with sustainable development efforts (IFRC, 2012). However, in 2013 it was still awaiting ratification from Parliament to enact it into law. In order for this policy to be relevant in addressing potential disasters, it needs to be updated to include the learnings derived from the Ebola response, which are fundamental for the applicability of any future plans and policies in Sierra Leone ^[5] (Milton, 2013; IFRC, 2012).

Essentially, the policy approach seeks to increase political commitment. Therefore, without the government's official endorsement, DRM policy, and plans cannot be mainstreamed into other agencies or ministries, and the resilience of communities cannot be built (DMD and ONS, 2012).

^[5] Efforts in the integration of health into DRR plans are currently being supported by UNISDR through the project "Accelerating implementation of the Sendai Framework in Ebola affected countries with risk-informed Health system" which hopefully will strengthen disaster risk governance (Karanja, 2016).

This absence of legal binding also denotes a lack of commitment of key stakeholders to DRR issues. As critiqued by Bourbeau (2015), this can lead to the creation of policies for building resilience that rely only on communities' preparedness without substantial support from the state. Therefore allowing central governments to place the burden of managing risk and responding to crises on Freetown's urban dwellers. Fundamentally, resilience policies should promote the creation of accountable networks for the conjoint efforts of both communities and government institutions working towards a common goal as postulated by (Coaffee, 2013).

Furthermore, the DMD does not receive direct budget allocations from the government since is not an autonomous agency; nonetheless, in 2009 efforts for its separation started (DMD and ONS, 2012). Consequently, activities are mainly supported by donor agencies and INGOs. A Disaster Management Fund was launched in 2012; though in 2016 it had not yet reached its financial goal (Massaquoi and Sesay, 2014).

Adaptive capacity is represented by a system's capacity to mobilise physical, social and financial resources in an effective manner; this attribute will influence the effectivity of any emergency responses to future events. Therefore, Sierra Leone's DRR institutions need to improve their political self-efficacy defined as they believe in the value of taking actions (Sharpe et al., 2015). This can be achieved through persistent engagements in developing effective solutions and legislative instruments for the management of DRR issues.

4.2.3 Different ways of thinking

Urban development and DRR issues are viewed differently by institutions and communities; however, communities' vision is not fully integrated into development plans. Promoting social learning for resilience requires building consensus over strategies instead of their imposition, and negotiation to manage arising conflict (Sharpe et al., 2015).

Moreover, slum communities are in continuous threat of eviction since they are regarded as 'illegal' by government officials. Although some dwellers are willing to be relocated, the fundamental agenda of CBOs supports development 'in-situ' (slum-upgrading). Contrastingly, the national government and the ONS aim at removing people from 'risk' using resettlement strategies — voluntary or forced.

Learning fundamentally involves negotiation of meaning, as the converge of participation and rectification of all actors. Therefore, social learning processes require mutual engagement and shared values (Wenger, 1998). In order to improve the well-being and resilience of those at risk, the focus should be placed in dialoguing and having meaningful engagements between policy makers, urban dwellers, and CBOs (Hitchen, 2015).

Freetown's slum communities have the capacity to evaluate their own conditions as demonstrated through the development of Community Profiling Enumeration Vulnerability and Capacity Assessment (VCA) reports. Nonetheless, these have not been fully recognised or acknowledged in developmental strategies (Bradlow, 2010).

4.2.4 Diverse communities

One of the main attributes of Freetown's slums is diversity. Large coastal slums such as Kroo Bay have complex internal economies, with markets, and a diversity of professions within the slums. Ranging from small entrepreneurs and craftsmen to nurses, teachers and government employees. Not only they have diverse capabilities but also strong creative forces; one example is the upsurge of urban farming from old waste deposits in the eastern part of the city (Home Leone, 2016).

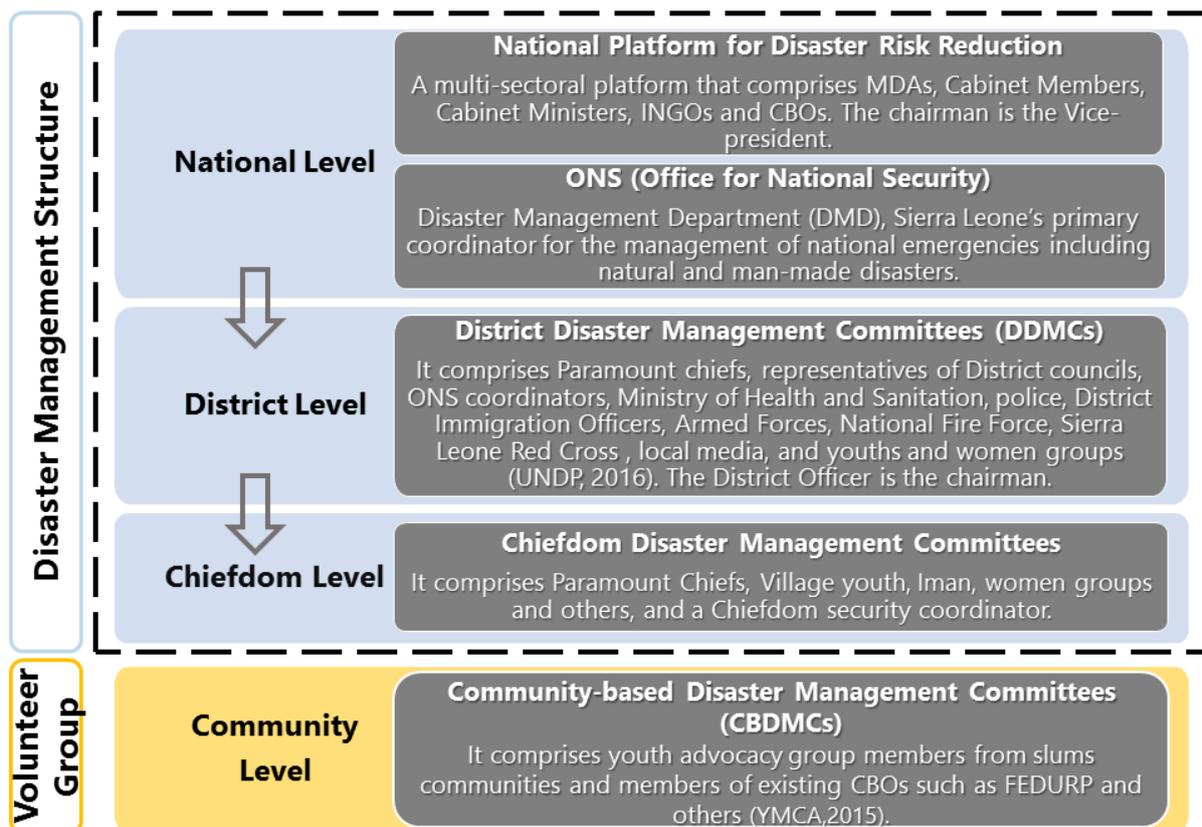
Diversity is a key component of successful social learning along with network activation, levels of participation and influence of opinion framers. Communities are more resilient when they have numerous capabilities and creative powers. However, diversity is only instrumental when there are vibrant social networks and the free flow of information

across all connections. And when the flow is constrained or partial diversity becomes a hindrance (Sharpe et al., 2015).

4.2.5 Connectedness and vibrant social network

The Sierra Leonean structure for DRM maintains a hierarchical top-down approach represented in Figure 6. Decentralisation efforts started with NASCIA through the Provincial and District Security committees (NASCIA, 2002) and more recently with the 2004 Local Government Act that attributes some DRR directives to local councils. Nonetheless, Freetown City Council (FCC) has its own DRM committee (DMD and ONS, 2012).

Figure 6. Disaster Risk Management Structure of Sierra Leone. Source: Author contributions based on interviews. NASCIA and testimonials.



Sierra Leone’s National Platform for DRR leads the disaster management structure. It is comprised of a multi-sectoral group presided by the Vice-president of the country and encompasses ministries, agencies, district councils and others (DMD and ONS, 2012).

Then, the ONS act as the coordinator of all forms of emergency. Consecutively, there are the lower administrative units at the district level. These are the District Disaster Management Committees (DDMCs) that consist of the Ministry of Agriculture, INGOs, CBOs, and others. They are accountable for the prevention and mitigation strategies for their jurisdictions as well as communicating risk evaluations to the national level (DMD and ONS, 2012). At the chiefdom level, there are chiefdoms DRM representatives, including a chiefdom security coordinator and other members (Karanja, 2016).

Finally, at the community level ^[6] is the Community Disaster Management Committees (CDMCs), which are considered by the ONS as 'volunteer groups' for DRR initiatives and therefore they are not officially a constituent of the DRM structure. Moreover, their membership is mainly constituted by youth from slum communities and members of existing CBOs, such as the Federation of the Urban and Rural Poor (FEDURP). They hold the lead in DRR activities inside their communities and often support NGO-led initiatives in their communities (Y Care International, 2012).

Although the presence of DRR actors from all levels exist, equal levels of participation do not. As stated by Mostert et al. (2007) social learning processes begin when all stakeholders realise their interdependence and agree that collective participation will yield better results than unilateral actions. This not only requires the presence of major stakeholders in network activation processes but also the integration of a wide-range of actors. Therefore, a rich social network of civil society actors can shape the capacity of adaptation of institutions and organisations, and their connectedness will facilitate flows of information across all levels (Olsson et al., 2004).

Resilience is shaped by the actor's right to access resources and assets, which in the case of 'at risk' communities implies access to political and social resources in order to reduce collective vulnerability (Pelling, 2003). Therefore, institutionalising communities'

⁶ This thesis recognises the complexity and diversity of communities; however, in this case, CDMCs are formed based on their geographic location.

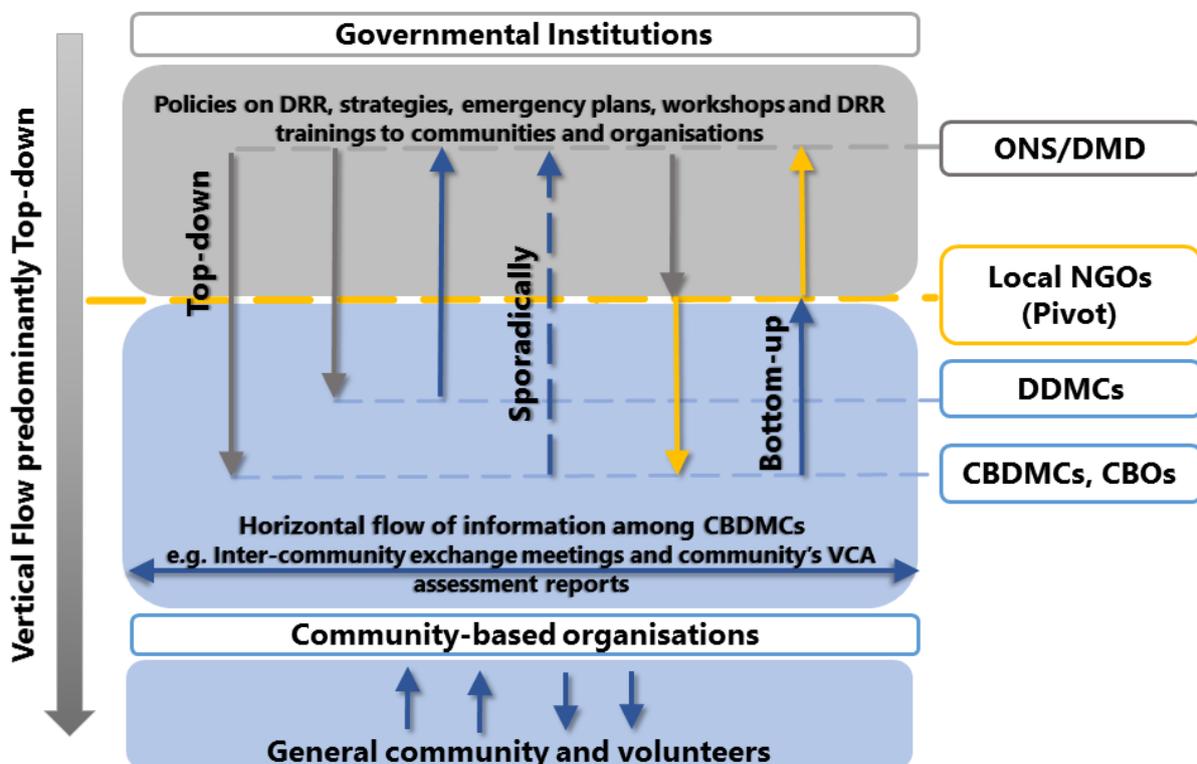
participation is fundamental for enabling social learning processes that could lead to resilient communities.

Allowing the communication and inclusion of diverse opinions not only develops trust between actors but also a commitment to what is being decided and acted upon (Sharpe et al., 2015).

4.2.6 Participation and influence of opinions

Enablers of social learning environments such as the influence of opinion framers can only foster re-configurations in vulnerable systems when cross-scale linkages and flexible vertical interplays of information can flow from the actors below to the ones at the top (Sharpe et al., 2015). However, in the case of Freetown's DRR, power imbalances and a predominance of a top-down flow among vertical interplays remain the case of Sierra Leone's DRR information flows, which is shown in Figure 7.

Figure 7. DRR information flows in Freetown, Sierra Leone. Source: Author contributions based on interviews, literature reviews and testimonials.



For social learning to build resilience in the wider community, learning needs to be moulded and extended with the inclusion of local understandings. Those at the bottom are the ones who have the commitment, energy, and impetus to evolve the process, therefore. Moreover, for new resilience ideas, practices and changes in habits to be spread from the bottom up, spheres of influence need to be addressed and broaden, and vertical interplays need to be flexible since this is how information will flow between the various levels (Sharpe et al., 2015).

Relations between the community and political stakeholders in Freetown are weak because of a deficient flow of information between the two groups. The Government of Sierra Leone relies greatly on external consultants for the evaluation and provision of solutions to slum communities, rather than embracing locally-produced reports, even though they are more familiarised with their everyday struggles (Bradlow, 2010).

Therefore, a two-way communication between the state and communities must allow populations to communicate their needs to stakeholders, and in return, they must respond to them with effective solutions. Hence, communication becomes a form of accountability (ACAPS, 2015a).

Consequently, reliance on external views undermines the integration of communities' vision, generating wrong understandings of slum dwellers concerns, which had previously lead to aggressively anti-poor policies (Bradlow, 2010). The complex interplay between knowledge dissemination and development of new ideas are central to both learning theories and resilience thinking (Sharpe et al., 2015).

Furthermore, local NGOs such as YMCA act as the 'pivot' of communication dynamics between DRR actors at different levels. They informed institutions such as the ONS about the state of slums communities and vice versa. CBOs when asked about how they communicate with the ONS described— *our first priority is to report to YMCA... so in terms of channel of communication, our first set of communication is YMCA, and then we can ask YMCA even want to pass on the information, and they said yeah we can talk*

to the ONS, then at the same time if ONS want to invite us to a meeting, they can pass to YMCA. Consequently, when asked about their participation in DRR decision-making they claimed— our voices are heard directly to YMCA and indirectly to those who are responsible. Clearly reinforcing YMCA's central role of communication enabler.

However, as mentioned by Pelling (2003), the possession of information is central to power, information can be used as a means of excluding grassroots groups from formal decision-making. Information flows can define the way political actors relate to each other and legitimise authority in policymaking.

Contrastingly, horizontal flows of information were found at the community level, between CDMCs in the form of 'inter-community meetings', which are essentially a form of local knowledge exchange. When a community is performing well with their DRR activities and another is improving less, successful CDMCs assist weaker CBOs by exchanging good practices, and potential solutions. This in turn, improves the community's capacity for identifying vulnerabilities and producing community-led strategies to mitigate risk. However, the progress made can be hampered. Power asymmetries between the state and communities can undermine any adaptive potential by creating ties of dependency and weakening local accountability (Pelling, 2003).

In sum, Sierra Leone DRR flow of information mimics Pelling's (2003) postulate on information flows, which states that technical expertise, funding, and status benefit top-down flows from governments to local actors, with few local knowledge initiatives flowing upwards. However, these can be addressed by creating rewarding and equitable partnerships.

4.2.7 Learning through critical reflection of self

CBO members interviewed expressed that they participate in training activities supported by different organisations including the ONS. However, these are 'sporadic' (see Figure 7) or respond to guidelines created for specific institutional programs rather than forming continuous channels for dialogue between the two, which could develop

an ever-evolving learning. Although, critical reflection is enabled through learning spaces such as ‘inter-community meetings’ and citizens interest in participating in DRR activities, greater support from institutions is indispensable for citizens to be capable of advancing social learning processes and influencing overall DRR decision-making.

4.3 The Ebola Outbreak as a trigger of Social Learning Processes

4.3.1 Network activation, Community empowerment, and Developing trust

In the case of the outbreak, some features such as community empowerment and network activation were forced upon stakeholders by the nature of the emergency and allowed participatory processes and innovation to flourish momentarily rather than permanently. In the case of empowerment and developing trust processes, deficient enabling factors such as the influence of opinions and different ways of thinking predispose their occurrence. Empowerment occurs through cooperative linkages between all stakeholders, where citizens have the power to influence what happens in their communities (Becker et al., 2011). Therefore, if CBOs are prevented from direct engagement, participation, and satisfying forms of collaborative action, they are not fully empowered and trust between communities and institutions cannot be built.

4.3.2 Community participation

In the case of Marbella, the EVD struck them on four occasions; from which they learned that they had a responsibility to form a collective understanding of the epidemic and to educate their community about the virus. Marbella’s CBOs participated in multistakeholder meetings as well as awareness-raising campaigns in communities, particularly, for vulnerable groups such as women, and the elderly.

CBOs also gained recognition from other stakeholders. Dworzack’s CBO explained how during the Ebola outbreak the ONS and other organisations recognised the key role CDMCs play in disaster-prone communities. Therefore, NGOs and institutions employed them for their activities.

CBOs were initially challenged with low numbers of youth participation. However, they mentioned that the number of people interested in volunteering for DRR activities increased after the outbreak. Colbot's CBO stated that Ebola was difficult to fight because everybody saw it as an external issue; nonetheless, through focal group discussions with communities, people's awareness of DRR initiatives increased.

As described by Smith et al. (2016), the mechanism of developing trust through collaborative action is a result of social learning processes, which in this case is reflected in community collective efforts and individual learning processes such as self-efficacy. Furthermore, communities' resilience can be improved by strengthening social interactions and group's ability to work together (Smith et al., 2016).

In Freetown's DRR structures, social interactions are likely to happen at the community level, rather than between institutions and communities. Therefore, only among CDMCs, collective capacity for action is nurtured. A change in this trend can only happen if government institutions improve their engagement capacity.

4.3.3 Innovation

Innovation was also fostered from the EVD response. A young EVD volunteer described that "innovation is not just about technology. Innovation is about how organisations and institutions work with young people" (Kamara, 2016, n.p). Youth were instrumental in integrating local and scientific knowledge. An example of this was a young woman from Colbot's CDMC; she explained that the training carried by YMCA on proper hand-washing inspired her to become a peer educator and to impart learnings on EVD and prevention techniques to her neighbours and family members, overcoming rooted customs (YMCA, 2014).

Likewise, NGOs focused on community-led approaches using the existing community structures and the application of participatory techniques based on social mobilisation and dialogue reflection (ACAPS, 2015a). Therefore, it is evident that the shock fostered innovation as a social learning process with the promotion and spread of strategies

and coping mechanisms from the bottom up; in this case, from individuals to communities.

Innovation is also a way of moving closer to resilience. It fundamentally requires trusting relationships, open communication, flexibility, and reflection. Adaptation also requires integration of new practices and reflection on failure and success (Krishnan et al., 2013).

As CDMCs' participation has not been integrated into DRM structures, trusting relationship and connectedness between institutions and communities are still weak. This would have serious implications for future responses, as well as in the adaptive capacity of systems and processes for building slum community resilience. Therefore, the 'window of opportunity' to re-build vulnerable structures using EVD innovative practices was not exploited.

4.3.4 Articulating problems

Another crucial learning from the response was that achieving changes in practices must begin at the grassroots level as forming mutual concern over risk and the need for re-evaluating them is crucial for communities' capacity of articulating problems. The involvement of traditional leaders in tackling the outbreak was critical to reshaping and discouraging traditional practices such as religious burials that involved touching and washing deceased victims (ACAPS, 2015a).

Furthermore, changes in habits and practices were mentioned by all CBOs; for example, hand-washing has become a daily practice for the population. A study conducted in 2014 to evaluate public knowledge, attitudes and practices related to EVD (KAP) revealed that 95% of the respondents reported a change in behaviours since hearing about EVD (UNICEF et al., 2014). Subsequently, in 2015 the fourth KAP revealed that 87% of interviewees wash their hands with water and soap (UNICEF et al., 2015).

Furthermore, Dworzack's CBO expressed how community's cleaning practices improved since DRR preparedness is regarded as an important issue. Although they

were being implemented before, now they are more effective. Watching over the health of the community is now part of the CDMC priorities; every two months they organise house-to-house visits around the community to identify and support ill individuals. Likewise, Marbella's CDMC improve its ability to work in teams, now they work in thematic groups and hold regular group meetings to discuss their experiences and to find solutions for DRR issues identified.

4.3.5 Self-efficacy

The outbreak also changed people's perception of the role of local leaders. In the case of Marbella, the community previously did not appreciate the value of CDMC's work; however, during the Ebola response, people were able to see the vital role they played in stopping the epidemic (i.e. by removing the sick from their houses). Marbella's CBO explained - *now people look at us like we are very important*. Thus, the self-efficacy of CBO members increased, reflected in their belief of being capable of bringing change to their communities. Now they carry reconstructive strategies to support youth who lost their family.

As postulated by Norris et al. (2008), CBOs that focus on learning and resilience such as CDMCs are important forms of social adaptation by themselves, helping communities to cope and recover from shocks. Additionally, they are beneficial to participant's psychology and ecology.

However, all CDMCs when asked about how prepared they felt to face a new outbreak or a disaster answered that in terms of capacity and knowledge they feel better prepared and empowered to defeat disasters; however, logistics would be a key challenge. They emphasised that due to the lack of financial resources available, they could not overcome any potential outbreak.

As mentioned by Norris et al. (2008), additionally to evaluating individual and groups learning processes, it is necessary to understand the broader social context where communities are set in in order to recognise their capacity to adapt to and mitigate

environmental disturbances. Albeit social learning processes at the individual level were fostered by the EVD shock, institutional support will define how long-lasting changes in communities will be and how determinant these will be in the formation of resilient communities able to withstand future shocks.

4.3.6 Action coping and Critical awareness

To enable social learning within individuals essentially depends on their openness and flexibility in engaging in learning and reflection on past/current knowledge and experiences, which is required to develop meaningful social learning experiences (Sharpe et al., 2015). Action coping as a form of critical reflection is determinant for building community resilience. It is reflected in their capacity to take action for themselves, and existent connections to the most vulnerable groups.

These attributes were displayed in Marbella's CBOs, through an example of replicating learnings through practical action. As they recently faced a high number of cases of 'chickenpox' (varicella), they were capable of attacking the issue by replicating the use of sensitisation campaigns and reaching vulnerable groups such as lactating mothers and parents of children under five – these methodologies were learned during the EVD response. As well, they mentioned how they attempt to be constantly available for the community to make sure *'it stops within the community'*.

Likewise, critical awareness features were drawn from Kroo Bay's CBO comment's. The training provided during the Ebola outbreak improved the community's ability to seek solutions to other DRR issues and their capacity to perform preparedness measures for future events. Becker et al. (2011) state that social learning processes for building resilience at the personal level can be identified through an increase of citizen's belief in the benefits of DRR mitigation and preparedness and that by actively participating in such activities negatives outcomes can be reduced.

Furthermore, critical awareness also refers to people's legitimatisation of hazards as a salient issue (Becker et al., 2011). Results from the 2015 KAP survey revealed that

communities awareness on EVD issues had increased and denial was lost, with almost 97% believing that the disease was real (UNICEF et al., 2015).

5 Chapter 5. Conclusion

Social learning and resilience concepts are both complex and contested, with a diversity of interpretations and implications as shown in the literature review in Chapter 2. Therefore, the adoption of a synthesis of diverse frameworks for their evaluation proved to be useful in capturing the richness of viewpoints of both the social science field and urban settings.

Moreover, the use of indicators to measure both processes and enabling factors for social learning were firstly created as guides for developing the content of the data collection instruments, nonetheless, they also helped to identify and organise more easily specific attributes of both social learning and resilience conceptualizations at different social levels. As well, the tables created can be used, adapted, and improved in further studies concerning social learning for building resilience and the evaluation of changes and learnings derived from emergency responses.

As mentioned by Castán et al (2014) social reactions to shocks will impact the degree of changes fostered by them. Through the case study employed, this statement materialised; social learning processes in youth CBOs were clearly identified by analysing the results from the application of the aforementioned instruments. Communities joined for collective action with the goal of defeating the Ebola epidemic. Thus, alterations in practices and habits were formed in individuals as shown in the KAP surveys and in the testimonies provided by CBO members. Underpinning the notion that social learning processes in individuals can be triggered by 'activating agents'.

All learnings identified corresponded with Reed et al. (2010) categorisation of social learnings, moving from individual alterations of understandings to be situated in larger units produced by social interactions among communities members. However, these are iterative and interconnected, thus, they will continue to progress through established learning platforms, such as CDMCs and other CBOs.

Although CDMCs were already in place, the response required a deeper engagement with participatory approaches (i.e. focal group's discussions) and the formation of strong social connections, bringing a sense of revival within and beyond their community's structures. The Ebola shock offered youth CBOs a platform to exhibit how instrumental they are in leading DRR activities in their communities, and the dramatic impact external projects can have when community's structures are used. Therefore, they were successful in seizing the 'window of opportunity' offered by the EVD, exemplified in their ability to replicate learnings and break social paradigms.

Nonetheless, enablers of social learning at the institutional level were found to be momentarily caused by the outbreak. Therefore, without enablers such as partnerships and social networks that include diverse actors, particularly, slum dwellers, social learning processes are stopped from developing. Being perceived only as 'volunteers', CDMCs do not receive the social and political recognition and support they need from governmental institutions. This in turn, jeopardises all progress achieved by CDMCs in building community resilience.

Sierra Leone's DRR management structure exhibits some of the 'Foucauldian governmentality' concerns. Decentralisation efforts correspond more to international legalisation instruments, such as the Hyogo Framework, rather than a true effort to forming collaborative alliances for adaptive capacity. Therefore, DRR policies conceived under the existent premises have the risk of further 'responsabilising' citizens for the own DRR preparedness and emergency response, rather than moving towards Coaffee (2013) thesis of integrated placed-based resilience, that would actually benefit communities.

Adaptation to the EVD crisis was sought rather than the transformability of the system, which proved to be extremely vulnerable. The Sierra Leone DRR system in its current form is, therefore, vulnerable to endogenous/exogenous shocks. Social networks are the web that ties together a system's adaptive capacity and opens the door for

transformative capacity; the traditional notion that resilience in communities can be enhanced without making substantial changes in systems functions is still in place.

Measuring enabling factors for promoting social learning processes brought to light many implications, that can endanger not only the success of any future response but projects for building slum community resilience and their development. However, changes in DRR governance can still be made, and progress with the inclusion of grassroots groups into 'official' structures is currently being pushed by CDMCs and supported by INGOs and local NGOs, who realised that resilience is not only about bouncing back, adapting and preserving existent structures, it also requires cross-scale communication, trust, and vibrant social networks. However, central government efforts still necessitate a meaningful political will in expanding the 'spheres of influence' and a flexible vertical interplay for communication.

6 Chapter 6. Bibliography

- ACAPS (2015a) *Ebola Outbreak , Sierra Leone: Communication: Challenges and good practices*. [online]. Available from: <http://www.acaps.org/country/sierra-leone/special-reports>. (December 2015).
- ACAPS (2015b) *Ebola outbreak in West Africa 22 months on: Key issues for recovery and preparedness*. [online]. Available from: <http://www.acaps.org/country/sierra-leone/special-reports>. (October 2015).
- Adelekan, I. et al. (2015) Disaster risk and its reduction: an agenda for urban Africa. *International Development Planning Review*. [Online] 37 (1), pp. 33–43. [online]. Available from: <http://dx.doi.org/10.3828/idpr.2015.4>. [Accessed: 15 July 2016].
- Adger, W. N. et al. (2011) 'Resilience', in *The Oxford Handbook of Climate Change and Society*. [Online]. pp. 1–23. [online]. Available from: <http://oxfordhandbooks.com/view/10.1093/oxfordhb/9780199566600.001.0001/oxfordhb-9780199566600-e-47>. [Accessed: 27 June 2016].
- Adger, W. N. et al. (2005) Social-ecological resilience to coastal disasters. *Science (New York, N.Y.)*. 309 (5737), pp. 1036–1039. [Online] Available from: <http://www.ncbi.nlm.nih.gov/pubmed/16099974>. [Accessed: 27 June 2016].
- AfDB et al. (2016) *African Economic Outlook 2016: Sustainable Cities*. pp. 315. [online]. Available from: http://www.oecd-ilibrary.org/development/african-economic-outlook-2016_aeo-2016-en. [Accessed: 27 June 2016].
- Allen, W. (2015) *Social learning - What it looks like* [online]. Available from: <http://learningforsustainability.net/social-learning/> (Accessed 13 August 2016).
- Allen, W. et al. (2002) Using Participatory and Learning-Based Approaches for Environmental Management to Help Achieve Constructive Behaviour Change. Landcare Research (May). [online]. Available from: http://www.landcareresearch.co.nz/publications/researchpubs/mfe_0102-057.pdf

- Bandura, A. (1969) Social-Learning Theory Of Identificatory Processes. *Handbook of Socialization Theory and Research* p.213–262.
- Becker, J. S. et al. (2011) *Building community resilience to disasters: A practical guide for the emergency management sector*. [online] pp. 1-46. Available from: http://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Psychology/Disasters/pubs/GNS/2011/SR_2011-009.pdf
- Biggam, J. (2012) *Succeeding with your Master's Dissertation: A step-by-step handbook*. Berkshire, England: Mc Graw Hill.
- Bourbeau, P. (2015) Resilience and international politics: Premises, debates, agenda. *International Studies Review*. [Online] 17 (3), 374–395. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/misr.12226/abstract>
- Bowen, G. a (2005) Preparing a qualitative research-based dissertation: Lessons learned. *The Qualitative Report*. [Online] 10 (2), 208–222. [online]. Available from: <http://www.nova.edu/ssss/QR/QR10-2/bowen.pdf>.
- Bradlow, B. B. (2010) *Towards a Pro- Poor ' Agenda For Change ' . Opportunities and Experiences of Slum Policy and Practice in Sierra Leone*. [online]. Available from: http://www.sdinet.org/media/upload/documents/Towards_a_Pro_Poor_Agenda_for_Change_-_FINAL_Dec_2010.pdf.
- Cannon, T. & Müller-Mahn, D. (2010) Vulnerability, resilience and development discourses in context of climate change. *Natural Hazards*. [Online] 55 (3), 621–635. Available from: <http://link.springer.com/article/10.1007/s11069-010-9499-4>
- Castán Broto, V. & Dewberry, E. (2015) Economic crisis and social learning for the provision of public services in two Spanish municipalities. *Journal of Cleaner Production*. [Online] 1123018–3027. Available from: <http://www.sciencedirect.com/science/article/pii/S0959652615013761>

- Castán, V. et al. (2014) What can we learn about transitions for sustainability from infrastructure shocks? *Technological Forecasting & Social Change*. [Online] 84, 186–196. Available from:
<http://www.sciencedirect.com/science/article/pii/S0040162513001704>
- Coaffee, J. (2013) Rescaling and responsabilising the politics of urban resilience: From national security to local place-making. *Politics*. [Online] 33 (4), 240–252. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/1467-9256.12011/abstract>
- CODOHSAPA & FEDURP (2011) *Community-Led Enumeration and Profiling: the State of 11 Coastal Slums in Freetown, Sierra Leone*. [online]. Available from:
http://sdinet.org/wp-content/uploads/2015/04/State_of_11_Coastal_Slum_in_Freetown_Sierra_Leone.pdf. (December).
- Cumming, A. (2012) *Youth Volunteerism and Disaster Risk Reduction*. (October). [Online]. Available from: <http://www.ycareinternational.org/wp-content/uploads/2013/06/Youth-Volunteerism-and-Disaster-Risk-Reduction-in-Urban-Slums-of-Freetown.pdf>
- DMD & ONS (n.d.) *National Disaster Management Preparedness Plan. Volume one*. [online]. Available from: <http://www.ifrc.org/docs/idrl/672EN.pdf>. [online]. Available from: <http://www.ifrc.org/docs/idrl/672EN.pdf>.
- DMD & ONS (2012) *Sierra Leone: National progress report on the implementation of the Hyogo Framework for Action (2009-2011)*. [online]. Available from: http://www.preventionweb.net/files/16241_sle_NationalHFAprogress_2009-11.pdf. (2009 - 2011).
- Folke, C. et al. (2010) Resilience Thinking: Integrating Resilience, Adaptability and. *Ecology and Society*. [Online] 15 (4), 20. Available from:
<http://www.ecologyandsociety.org/vol15/iss4/art20/>

- Folke, C. (2006) Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change*. [Online] 16 (3), 253–267.
Available from:
<http://www.sciencedirect.com/science/article/pii/S0959378006000379>
- Folke, C. et al. (2003) 'Synthesis: building resilience and adaptive capacity in social – ecological systems', in *Navigating social-ecological systems: building resilience for complexity and change*. [Online]. Cambridge University Press. pp. 352–387.
[online]. Available from: <http://ebooks.cambridge.org/>.
- Freire, P. (2005) *Pedagogy of the Oppressed. 30th Anniversary edition*. The Continuum International Publishing Group Inc.
- Government of Sierra Leone (2015) National Ebola Recovery Strategy for Sierra Leone. Government of Sierra Leone [online]. Available from:
http://ebolaresponse.un.org/sites/default/files/sierra_leone_recovery_strategy_en.pdf.
- Government of Sierra Leone (2002) *The National Security and Central Intelligence Act 2002*. p.1–23. [online]. Available from: <http://sierra-leone.org/Laws/2002-10.pdf>
- Groupe URD (2011) Special Issue 'Cities and Crises'. *Humanitarian Aid on theMove*. 33 (8), 9–12. [online]. Available from: <http://www.alnap.org/resource/6990.aspx>
- Harvey, B. et al. (2013) Social learning in practice: A review of lessons, impacts and tools for climate change adaptation. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) [online]. Available from: www.ccafs.cgiar.org. (38). [online]. Available from: www.ccafs.cgiar.org.
- Henson, K. (2006) *Can Aid for Development Lead to Effective Outcomes? The Problems of Sustainable Development in Aid: A Ghana Case Study*. University of Cambridge.
- Hitchen, J. (2015) Flooding in Freetown: a failure of planning? Africa Research Institute Web page [online]. Available from:

<http://www.africaresearchinstitute.org/blog/flooding-in-freetown-a-failure-of-planning/>. [online].

Holling, C. S. (1973) Resilience and Stability of Ecological Systems. *Annual Review of Ecology and Systematics*. 4 (1973), 1–23. [online]. Available from: URL: <http://www.jstor.org/stable/2096802>.

Home Leone (2016) *Relocation strategy: a model for slum resettlement in Sierra Leone*.

IFRC (2014) *IFRC Framework for Community Resilience*. [online]. Available from: [http://www.ifrc.org/Global/Documents/Secretariat/201501/1284000-Framework for Community Resilience-EN-LR.pdf](http://www.ifrc.org/Global/Documents/Secretariat/201501/1284000-Framework%20for%20Community%20Resilience-EN-LR.pdf). [online].

IFRC (2012) *International Disaster Response Laws (IDRL) in Sierra Leone*. [online]. Available from: [http://www.ifrc.org/PageFiles/41164/1213700-IDRL-Sierra Leone-EN-LR.pdf](http://www.ifrc.org/PageFiles/41164/1213700-IDRL-Sierra%20Leone-EN-LR.pdf). [online].

International NGOs (2015) *From Emergency to Recovery: an opportunity to build a stronger Sierra Leone*. [online]. Available from: http://www.actioncontrelafaim.org/sites/default/files/articles/fichier/sierra_leone_from_emergency_to_recovery_ingo_recommendation_0.pdf.

Kamara, K. (2016) *How youth triumphed in the Ebola disaster | Plan International* [online]. Available from: <https://plan-international.org/blog/2016/03/how-youth-triumphed-ebola-disaster> (Accessed 16 August 2016).

Karanja, E. (2016) *Ebola countries implement Sendai Framework* [online]. Available from: <https://www.unisdr.org/archive/49821> (Accessed 8 August 2016).

Krasny, M. E. et al. (2010) Environmental education, resilience, and learning: reflection and moving forward. *Environmental Education Research*. [Online] 16 (December), 665–672. Available from: <http://www.tandfonline.com/doi/abs/10.1080/13504622.2010.505445?tab=permissions>

- Krishnan, S. et al. (2013) *Building Community Resilience through Water , Sanitation , and Hygiene Programmes during Post-Disaster Recovery*. [Online]. Available from: https://www.researchgate.net/publication/280304822_Building_Community_Resilience_through_Water_Sanitation_and_Hygiene_Programmes_during_Post-Disaster_Recovery
- Lahai, I. F. (2016) *Drainage Control , a major factor in Disaster Management in Sierra Leone*. (July).
- Levine, S. et al. (2012) *HPG Policy Brief 49. The relevance of ' resilience ' ? 49* (September). [Online]. Available from: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7818.pdf>
- Marzo, F. & Mori, H. (2012) *Crisis Response in Social Protection. Social Protection and Labor Discussion Paper (1205)*. [Online]. Available from: <http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/430578-1331508552354/1205.pdf>
- Massaquoi, M. & Sesay, A. (2014) *National Disaster contingency plan: Ebola not included : Sierra Leone Concord Times. Concord Times*.
- McCarthy, D. D. P. et al. (2011) *A Critical Systems Approach to Social Learning: Building Adaptive Capacity in Social, Ecological, Epistemological (SEE) Systems. Ecology & Society*. [Online] 16 (3), 1–16. [online]. Available from: <http://www.library.umaine.edu/auth/EZProxy/test/authej.asp?url=http://search.ebscohost.com/login.aspx?direct=true&db=eih&AN=66785298&site=ehost-live&scope=cite>.
- McSweeney, K. & Coomes, O. T. (2011) *Climate-related disaster opens a window of opportunity for rural poor in northeastern Honduras. Proceedings of the National Academy of Sciences of the United States of America*. [Online] 108 (13), 5203–5208. Available from: <http://www.pnas.org/content/108/13/5203.full>

- Milton, B. (2013) Sierra Leone News: Salone extreme high risk country for disaster. *Awoko Newspaper*. 6 December. [online]. Available from: <http://awoko.org/2013/12/07/sierra-leone-news-salone-extreme-high-risk-country-for-disaster/>.
- Ministry of Youth Affairs (2014) *A Blue Print for Youth Development 2014-2018 Sierra Leone's National Youth Programme*.
- MLCPE & FCC (2014) *Freetown Structure Plan 2013 – 2028 Main development issues and analysis*. (October).
- Moser, S. (2008) Resilience in the Face of Global Environmental Change. Community and Regional Resilience Initiative. [online]. Available from: http://www.resilientus.org/wp-content/uploads/2013/03/Final_Moser_11-11-08_1234883263.pdf
- Mostert, E. et al. (2007) Social learning in European river-basin management: Barriers and fostering mechanisms from 10 river basins. *Ecology and Society*. [Online] 12 (1), . Available from: <http://www.ecologyandsociety.org/vol12/iss1/art19/>
- Muro, M. & Jeffrey, P. (2008) A critical review of the theory and application of social learning in participatory natural resource management processes. *Journal of Environmental Planning and Management*. [Online] 51 (3), 325–344. Available from: <http://www.tandfonline.com/doi/pdf/10.1080/09640560801977190>
- Mye-Kamara, M. (2011) *Disaster Management Department, Office of National Security (DMD/ONS) | PreventionWeb.net* [online]. Available from: <http://www.preventionweb.net/organizations/3031/view> (Accessed 8 September 2016).
- Nelson, D. R. et al. (2007) Adaptation to Environmental Change: Contributions of a Resilience Framework. *Annual Review of Environment and Resources*. [Online] 32 (1), 395–419. Available from: <http://www.annualreviews.org/doi/pdf/10.1146/annurev.energy.32.051807.09034>

- Norris, F. H. et al. (2008) Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*. [Online] 41 (1-2), 127–150. Available from: <http://link.springer.com/article/10.1007/s10464-007-9156-6/fulltext.html>
- ODI (2016) *Urbanisation: Consequences and opportunities for the Netherlands'* Directorate- General for International Cooperation. [Online] (January). Available from: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10219.pdf>
- Olsson, P. et al. (2004) Adaptive comanagement for building resilience in social-ecological systems. *Environmental management*. [Online] 34 (1), 75–90. [online]. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/15383875>.
- ONS (2006) *Sierra Leone Disaster Management Policy (Final draft copy)*. [online]. Available from: <http://www.ifrc.org/docs/idrl/671EN.pdf>. (June). [online]. Available from: <http://www.ifrc.org/docs/idrl/671EN.pdf>.
- Pahl-Wostl, C. et al. (2007) Social learning and water resources management. *Ecology and Society*. 12 (2), Art. 5. [online]. Available from: <http://edepot.wur.nl/41198>.
- Pelling, M. (2011) *Adaptation to climate change: from resilience to transformation*. Vol. 1.
- Pelling, M. (2003) *The vulnerability of cities: natural disasters and social resilience*. London: Earthscan. [online]. Available from: <http://site.ebrary.com/lib/utslibrary/Doc?id=10128871> \n http://books.google.com/books?hl=en&lr=&id=cjjBdCzB-C0C&oi=fnd&pg=PR9&dq=The+Vulnerability+of+Cities:+Natural+Disasters+and+Social+Resilience&ots=RIDE_sO6bf&sig=pzkmplkXVQC.

- Pelling, M. & Winsner, B. (2009) *Disaster Risk Reduction: Cases from urban Africa*. London: Routledge.
- Reed, M. S. et al. (2010) What is Social Learning? *Ecology and Society*. 1–10. [online]. Available from: <http://www.ecologyandsociety.org/volXX/issYY/artZZ/>.
- Rodela, R. (2011) Social Learning and Natural Resource Management: The Emergence of Three Research Perspectives. *Ecology & Society*. [Online] 16 (4), 1–12. [online]. Available from: <http://content.ebscohost.com/ContentServer.asp?T=P&P=AN&K=70256856&S=R&D=eih&EbscoContent=dGJyMMvI7ESeprc4v+bwOLCmr0qep7FSs6i4SbKWxWXS&ContentCustomer=dGJyMPPt54vhset55+S5febl8YwA\nhttps://ezproxy.lib.uwm.edu/login?url=http://search.ebscohost.com/logi>.
- Savage, A. B. (2016) The Municipality of Freetown - Some disaster prone areas and locations with potential flooding. *The Engineering Forum*. (1), 1–14. [online]. Available from: http://slie-sl.org/wp-content/uploads/2016/06/SLIE_Newsletter_2016_Issue_1.pdf.
- SDI (2014) *Developing a citywide slum register: Freetown Settlement Profiling Learning Exchange* [online]. Available from: <http://sdinet.org/2014/08/developing-a-citywide-slum-register-freetown-settlement-profiling-learning-exchange/> (Accessed 16 August 2016).
- Sharpe, J. et al. (2015) *Social Learning and Resilience. Building in the emBRACE Framework. Deliverable 4.3*. [online]. Available from: http://www.researchgate.net/publication/276273677_Social_Learning_and_Resilience_Building_in_the_emBRACE_framework. [online].
- Shepler, S. (2010) Youth music and politics in post-war Sierra Leone. *The Journal of Modern African Studies*. [Online] 48 (04), 627–642. [online]. Available from: <http://www.scopus.com/inward/record.url?eid=2-s2.0-79951744896&partnerID=tZOtx3y1>.

- Smith, J. G. et al. (2016) Framing for resilience through social learning: impacts of environmental stewardship on youth in post-disturbance communities. *Sustainability Science*. [Online] 11 (3), 441–453. Available from: <http://link.springer.com/article/10.1007/s11625-015-0348-y>
- Statics Sierra Leone (2016) *Sierra Leone 2004 Population and Housing Census*. [online]. Available from: <https://www.statistics.sl/wp-content/uploads/2016/06/2015-Census-Provisional-Result.pdf>. (March). [online]. Available from: <https://www.statistics.sl/wp-content/uploads/2016/06/2015-Census-Provisional-Result.pdf>.
- Thouret, J.-C. & D'Ercole, R. (1996) Vulnérabilité aux risques naturels en milieu urbain: effets, facteurs et réponses sociales. *Cahiers des Sciences Humaines*. 32 (2), 407–422. [online]. Available from: http://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_4/sci_hum/010006241.pdf.
- Twigg, J. (2013) *Characteristics of a Disaster-Resilient Community*. [online]. Available from: <http://community.eldis.org/.59e907ee/Characteristics2EDITION.pdf>. [online]. Available from: <http://community.eldis.org/.59e907ee/Characteristics2EDITION.pdf>.
- UNDP et al. (2015) *Recovering from the Ebola Crisis*. [online]. Available from: <http://www.undp.org/content/undp/en/home/librarypage/crisis-prevention-and-recovery/recovering-from-the-ebola-crisis---full-report.html>.
- UN-HABITAT (2014) *The State of the African Cities 2014: Re-imagining sustainable urban transitions*. [online]. Available from: <http://www.eurekaselect.com/52219/volume/1>.
- UN-HABITAT (2016) *Urbanization and Development: Emerging Futures. World Cities Report 2016*. [online]. Available from: <http://unhabitat.org/books/world-cities-report/>
- UNICEF et al. (2015) *Follow-up Study on Public Knowledge, Attitudes, and Practices*

Relating to EVD Prevention and Medical Care. Preliminary Findings. [online].

Available from: <http://www.focus1000.org/index.php/downloads-resources/download/4-ebola-kap-study/32-kap-4-preliminary-findings>.

UNICEF et al. (2014) *Study on public knowledge, attitudes and practices relating to Ebola Virus Disease (EVD) Prevention and medical care in Sierra Leone.*

(September). [online]. Available from: <http://reliefweb.int/report/sierra-leone/study-public-knowledge-attitudes-and-practices-relating-ebola-virus-disease-evd>

UNISDR (2009) 2009 UNISDR Terminology on Disaster Risk Reduction. *International Strategy for Disaster Reduction (ISDR)*. [Online] 1–30. [online]. Available from: www.unisdr.org/publications.

UNISDR (2010) *Inventory of National Coordination Mechanisms , Legal Frameworks and National Plans for Disaster Risk Reduction in Africa.* [online]. Available from: <http://www.unisdr.org/we/inform/publications/18926>

Walker, B. et al. (2004) Resilience, Adaptability and Transformability in Social – ecological Systems. *Ecology and Society*. [Online] 9 (2), 1–9. [online]. Available from: <http://www.ecologyandsociety.org/vol9/iss2/art5/>.

Wenger, E. (1998) *Communities of practice: Learning, meaning and identity.* [online]. Available from: http://scholar.google.com/scholar?start=20&q='communities+of+practice'&hl=en&as_sdt=0,5&as_ylo=2010#5.

World Bank Group (2015) *CityStrength Diagnostic: Methodological Guidebook.* (May). [online]. Available from: <http://documents.worldbank.org/curated/en/557791467992483926/City-strength-diagnostic-methodological-guidebook>

World Bank Group (2016) *Urban Development Overview* [online]. Available from: <http://www.worldbank.org/en/topic/urbandevelopment/overview#1> (Accessed

12 June 2016).

Y Care International (2012) *Sierra Leone Youth-led Community-based Disaster Risk Reduction*. [online]. (October). Available from:
<http://www.ycareinternational.org/publications/sierra-leone-youth-led-community-based-disaster-risk-reduction/> (Accessed 17 July 2016).

Y Care International & YMCA (2016) *Ebola Emergency Response. Evaluation and Learning Summary*. [online]. (February). Available from:
<http://www.ycareinternational.org/publications/ebola-emergency-response/>
(Accessed 1 May 2016).

YMCA (2014) *Isata Koroma – YMCA of Sierra Leone* [online]. Available from:
<http://myy.ca/isata-koroma-ymca-of-sierra-leone/> (Accessed 16 August 2016).

Appendices

Appendix A List of interviewees

#	Interviewee	CBO	Community	Position Held	Theme
CBO Interviewed					
1	Abdul R. Kamara	Marbella Youth Project & CDMC	Marbella	Head of CBO	Youth Development
2	Alhaji M. Bangura	Selfhelp Atire Base	Marbella	Head of CBO	Health
3	Hassan Sesay	Children's Advocacy Network & CDMC	Marbella	Head of CBO	Children and Youth Development
4	Abu Bakarr Kangbo	CODMERT (Community Disaster Management and Emergency Response Team) & CDMC	Colbot	Head of CBO	Disaster Risk Management
5	Murray Allie Conteh	FEDURP (Federation of Urban and Rural Poor) & CDMC	Kroo bay	Chairman of the Community	Disaster Risk Management
6	Yivah Oryamks Conteh	FEDURP (Federation of Urban and Rural Poor) & CBDMC	Dworzack	Head of FEDURP and Head of the CBDMC	Disaster Risk Management
Institutions Interviewed					
7	Sierra Leone Red cross Society	-	-	-	Disaster Risk Management
8	(YACAN) Youth and Children Advocacy Network in Sierra Leone	-	-	-	Youth Development
9	YMCA Disaster risk management programme	-	-	-	Disaster Risk Management
10	National Youth Commission	-	-	-	Youth Development
11	National Youth Commission	-	-	-	Youth Development
12	Disaster Management (DMD/ONS)	-	-	-	Disaster Risk Management

Appendix B. Interview template for CBOs. Theme: Social Learning Processes.

- a) *Getting a sense of their experience in the response*
 - i) Can you brief me a little about the work that you do?
 - ii) Who are the participants or members of the CBO's?
- b) *Getting a sense of their experience in the response*
 - i) What was your role during the Ebola response?
- c) *Evaluating processes of critical reflection*
 - i) What changes in behaviour, habits, practice or values do you think the Ebola outbreak fostered in members of the CBO's and the rest of the community?
 - ii) Did any changes on the structure of the management of the CBO were done, or changes in strategies, needs to address risk or disasters?
 - iii) Did you incorporate disaster risk management activities in the community?
Does the community has any sort of plan for disasters?
- d) *Collaboration and information exchange and involved actors in risk management*
 - i) What sort of partnerships or collaborations do you have?
 - ii) Can you tell me about what kind of relationships and with whom does your CBO's is involved with?
- e) *Capacity Building*
 - i) Do you any sort of programme for capacity building?
 - ii) Is there a municipal training programme you participate related to emergency management?

**Appendix C. Interview template for Disaster Management (IFRC)
International Federation Red Cross. Theme: Disaster Risk Management.**

- Can you tell a bit about the role of the IFRC in disaster management in Freetown?
 - Which are some of the current projects and activities that you had in place right now? (*Community level*)
1. I saw in your Sierra Leone Red Cross the that you carried the first ever National Vulnerability and Capacity Assessment, can you share with us some of the results of the assessment, and your thoughts on it?
 2. From your experience, which are some of the practices adopted by men and women in informal settlements to mitigate risk? What about communities as collectives?
 3. Which were the communities where you performed the assessment?
 4. Who are the main stakeholders that participated in the VCA?
 5. Do you work with the community disaster management committees? can you explain me a bit more about the role they play in disaster management in Freetown?
 6. Do you currently have activities or projects where you work with committees?
 7. Can you tell me about the overall disaster management in Freetown, the main stakeholders? With whom do you work with? What about support from public stakeholders?
 8. I saw that you had a working session in the Disaster Management Office of the Office of National Security in preparation for the VCA? What other collaborations IFRC has with the ONS?
 9. What about the national policy on disaster management, researching online I only found the 2006 version, is this the latest?

10. Is this the policy or framework that you use within IFRC, do you have your own policy framework that applied to projects? Is this feed or an interpretation of the current national policies?
11. Can you tell me a bit about the role of Community-Based Disaster Management Committees (CBDMCs) during the Ebola outbreak? What about the role of youth?
12. In your opinion, the Ebola response fosters any changes in behaviour, habits, practice or values in community and DRM in Freetown. Individually and Collectively?
13. Is there a functioning network for DRM actors in Freetown? Or existing spaces for DRM actors to exchange information and learnings?
14. Do you have any soft or hard material that you could supply to us? For example, the VCA, reports or maps?

Note: Ask if they are going to take part in the biennial conference of the Sierra Leone institution of engineers (SLIE) – 29TH JUNE – 1ST JULY 2016. National Disaster Risk Management and Preparedness: An Engineering Perspective for Resilience

Appendix D. Photos from Interviews and field observation



Interview with Marbella Youth Project. Freetown, Sierra Leone. Source: Author. Taken: July 2016.



Field observation in Marbella, Freetown, Sierra Leone. Source: Author. Taken: July 2016.



Field observation in Kroo Bay, Freetown, Sierra Leone. Source: Author. Taken: July 2016.



Interview with Marbella Youth Project. Freetown, Sierra Leone. Source: Author. Taken: July 2016.