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ENVIRONMENTAL AND COMMUNITY SUSTAINABILITY FOR INFORMAL SETTLEMENT COMMUNITIES IN NAMIBIA AND SOUTH AFRICA: A COMPARATIVE SOCIAL WORK STUDY

By

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A thesis submitted in fulfilment of the requirements for the degree

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Abstract

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study

By

PEGGIE CHIWARA

Supervisor: **Prof Dr Antoinette Lombard**
Department: **Social Work and Criminology**
Degree: **Doctor of Philosophy (Social Work)**

The goal of the study was to explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

The study employed an exploratory sequential mixed methods research design, which as such combined qualitative and quantitative research approaches in two successive study phases. These correspondingly adopted a collective case study design and a cross-sectional survey design. The researcher sampled 91 and 531 participants respectively for the qualitative and quantitative study phases. They included child and household participants, social workers, NPO, environmental health and human settlements practitioners in Windhoek, Namibia and in Orange Farm and Region G of the City of Johannesburg, South Africa.

The findings indicate that social and economic inequalities contribute to a lack of access to urban land, adequate housing, security of tenure, education, employment and basic services and to polluted and degraded environments in informal settlements. The study concludes that the social, economic and environmental challenges in informal settlements are interrelated and rooted within broader national and urban level contexts that reinforce social and economic exclusion. As such, realising environmental and community sustainability for informal settlement communities transcends the geo-spatial boundaries in informal settlements and requires the mobilisation of multi-sectoral partnerships and resources that promote human and environmental well-being in poor communities.

The outcome of the study is an integrated strategy for promoting environmental and community sustainability for informal settlement communities. A key recommendation is for local authorities, informal settlement communities and stakeholders from the political, social services, housing, labour, health, education, water, energy and environmental sectors in Namibia and South Africa to partner in piloting and adapting the strategy to suit their local contexts.

Key words

Sustainable development

Environmental and community sustainability

Informal settlements

Environmental justice

Developmental social work

Environmental social work

Green social work

Human rights

Namibia

South Africa

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Dedication

To Daniel and Douglas for refusing to allow a life-limiting tragedy to stand in the way of our God given destiny.

Table of contents

Appendices

List of figures

List of tables

Abbreviations and acronyms

ACRWC	African Charter on the Rights and Welfare of the Child
AU	African Union
CoJ	City of Johannesburg
CoW	City of Windhoek
DFID	Department for International Development
EHP	Environmental health practitioner
GDP	Gross domestic product
GHI	Global Hunger Index
GRN	Government of the Republic of Namibia
HISA	Hope Initiatives Southern Africa
HSP	Human settlements practitioner
IASSW	International Association of Schools of Social Work
IBM	International Business Machines
ICSW	International Council on Social Welfare
IFPRI	International Food Policy Research Institute
IFSW	International Federation of Social Workers
IUCN	International Union for Conservation of Nature
KRC	Khomas Regional Council
MDG	Millennium Development Goal
MoHSS	Ministry of Health and Social Services
NDP	National Development Plan
NPC	National Planning Commission

NPO	Non-profit organisation
NSA	National Statistics Agency
OHCHR	Office of the High Commissioner for Human Rights
PIE	Person-in-environment
QDA	Qualitative data analysis
RSA	Republic of South Africa
SACN	South African Cities Network
SADC	Southern African Development Community
SAHRC	South African Human Rights Commission
SDFN	Shack Dwellers Federation of Namibia
SDG	Sustainable Development Goal
SPSS	Statistical Package for Social Sciences
SSA	Statistics South Africa
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCRC	United Nations Convention on the Rights of the Child
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESC	United Nations Economic and Social Council
UNESCO	United Nations Educational Scientific and Cultural Organization
UNGA	United Nations General Assembly
UN-Habitat	United Nations Human Settlements Programme
UNICEF	United Nations Children's Fund
WB	World Bank
WCED	World Commission on Environment and Development
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WWF	World Wide Fund for Nature

CHAPTER 1
GENERAL INTRODUCTION AND ORIENTATION TO THE STUDY

1.1 Introduction

Urban areas in both South Africa and Namibia are highly inequitable places that are characterised by the spatial separation of residential areas according to class and population groups and the concentration of the poor in informal settlements (United Nations Human Settlements Programme (UN-Habitat), 2001:2). Sixty one percent of urban dwellers in Sub-Saharan Africa (UN-Habitat, 2016c:104), and over one billion people globally, live in slum and informal settlements, with these figures expected to increase threefold by 2050, if curative and preventative policies are not initiated, sustained and scaled up (UN, 2016:1). The challenges that informal settlements present for sustainable development are many and include very high population densities, inadequate sanitation, high incidences of contagious diseases, pollution, seasonal flooding, a lack of basic services and environmental degradation (Conradie, 2003:127; Weber & Mendelsohn, 2017:29). These challenges can potentially detract Namibia and South Africa from realising the sustainable development goals (SDGs) as envisioned by the United Nations (UN, 2015b). SDG 11 encapsulates the requirement to make cities and human settlements inclusive, safe, resilient and sustainable, while SDG target 11.1 emphasises that all people, including slum residents, should have access to affordable, safe and adequate housing and basic services (UN, 2015b:21). Achieving the SDGs calls for concerted multi-sectoral efforts in integrating the social, economic and environmental dimensions of sustainable development with the view of promoting social, economic and environmental justice for all.

While social work is committed to promoting social justice, human rights and social and economic equality (Chiwara & Lombard, 2017:570; Lombard & Twikirize, 2014:315), it has yet to gain substantive involvement in environmental justice efforts (Jarvis, 2017:36). This argument is equally true for social work practice in Namibia and South Africa, which is guided by a social development and developmental social work approach. Gray, Coates and Davies (2017:141) rightly note that although sustainable development is embedded in social development theory, the integration of the social,

economic and environmental dimensions of sustainable development is often absent in social work practice. This lack of integrated practice is attributed to social work's historic focus on the social environment, which Hawkins (2010:69) views as inadequate in the face of environmental injustices that negatively impact on the well-being of social service users. Consensus on this matter has in recent years prompted social work to embrace an expanded view of its traditional person-in-environment principle to include the interactions between social and natural environments (Besthorn, 2012:1; Dominelli, 2012:194). The *Global Agenda for Social Work and Social Development Commitment to Action (Global Agenda*) (2012), commits to integrating the social, economic and environmental facets of sustainable development in social work theory, research, education and practice. This integration is underpinned by a four-pronged emphasis on promoting social and economic equalities; the dignity and worth of peoples; environmental and community sustainability; and the recognition of the importance of human relationships. The study was a contribution to the third pillar of the *Global Agenda* and the international social work research theme for 2017 and 2018, which were aptly entitled; promoting environmental and community sustainability. The study utilised a social work perspective and a comparative study focus to draw lessons for the integration of the social, economic and environmental dimensions of sustainable development to promote human and environmental well-being amongst informal settlement communities. The outcome of the study was an integrated strategy for promoting environmental and community sustainability for informal settlement communities in Namibia and South Africa.

Key concepts

The following key concepts were central to the study:

Community sustainability

Community sustainability is a term that in the literary sense is made up of two dimensions. For Storey (2010:1162), "both community and sustainability are contested ideas and community sustainability is a term that compounds a number of vague and ambiguous concepts." In relation to informal settlement communities, the study adopted a view of the community that sees it as being comprised of a group of people who live in a particular geographical area (Sheafor & Horejsi, 2012:81). Sustainability implies the capacity to maintain some entity, process or outcome over time (Jenkins, 2010:380). Community sustainability therefore infers the ability of communities and

the various aspects that make up these communities to thrive and perpetuate themselves. Storey (2010:1163) views community sustainability in terms of making progress towards preserving or reinforcing human well-being, which in turn contributes to the capacity of communities to endure. Community sustainability speaks to realising sustainable communities and by implication, sustainable development at the grassroots level. Sustainable communities in Winther's (2017:339) view, possess the power, agency and learning capability to realise their capacity for the economic, social, ecological and ethical aspirations of sustainable development. As such, the agency of communities and the pursuit of socially, economically and environmentally just decisions are key to sustainable communities.

Comparative study

Comparative studies systematically compare two or more countries, cultures or institutions with the view of formulating theory or supporting policy making decisions based on the lessons learnt (Sasaki, 2004:153). The units of comparison in the study were the Okahandja Park, Babilon and Kilimanjaro informal settlement communities in Windhoek, Namibia and informal settlement communities in Extensions 1 and 7B of Ward 3 in Orange Farm, which is situated in Region G of the City of Johannesburg (CoJ) in South Africa. While there are significant population size variations between Namibia, which has a population size of 2.4 million people (National Statistics Agency (NSA), 2017) and South Africa, which has a population of 57.7 million people (Statistics South Africa (SSA), 2018:1) the two countries were deemed comparable for several reasons. Namibia and South Africa both share a similar history of political, social, economic and environmental exploitation and dispossession under colonialism. This was followed by their governance under the South African apartheid regime from which Namibia became independent in 1990, while South Africa attained democracy in 1994. Although both countries are classified as upper middle-income countries (World Bank (WB), 2018c) the legacy of their colonial and apartheid past is presently manifested in extreme social and economic inequalities. Inequality estimates provided by the WB (2017) show that Namibia and South Africa are two of the most unequal countries in the world, as evidenced by Gini coefficients of 0.63 in South Africa and 0.59 in Namibia, with a value of 0 representing absolute equality, while a value of 1 depicts absolute inequality. These indicators show that inequality in Namibia and South Africa remain highly prevalent. In light of these extreme levels of inequality,

Namibia and South Africa are considered by the WB (2016; 2018b) as the two most unequal countries in the world. This is evidenced in that the poorest 55 percent of the Namibian population control only three percent of the country's gross domestic product (GDP), while the wealthiest five percent control 70 percent of GDP (WB, 2016). Similarly, the poorest 20 percent of the South African population control less than three percent of GDP, while the wealthiest 20 percent control 65 percent of GDP (WB, 2018b). Inequality in these countries is even more noticeable in urban areas like Windhoek and Johannesburg, which are characterised by the proliferation of informal settlements on the fringes of wealthy urban centres (UNEP, 2012:235). Another commonality is the fact that social work in both countries ascribes to a developmental social work approach and is respectively regulated by the Social Work and Psychology Act 6 of 2004 in Namibia and the Social Service Professions Act 110 of 1978 in South Africa.

Social work study

The study was deemed as a social work study as it was conducted from a social work perspective using a theoretical framework for social work that was embedded in environmental justice theory, the three generations of human rights framework and social development. The study's findings have implications for social work and multi-sectoral partnerships that promote social, economic and environmental justice for poor communities. The findings can assist social workers in transcending their traditional narrow focus on the social environment to attend to the interconnectedness of social, economic and environmental challenges in poor communities. Social work is a practice-based profession and an academic discipline that promotes social change, human rights, social development, social cohesion, social justice and the empowerment and liberation of people (International Federation of Social Workers (IFSW) & the International Association of Schools of Social Work (IASSW), 2014).

Social justice

Social justice is an ideal condition where all members of society have the same basic rights, protection, opportunities, obligations and social benefits (Barker, 2014:399). In view of the study, social justice entails access by informal settlement communities to basic services such as adequate sanitation, refuse removal, clean water and energy for cooking and lighting. Social workers promote social justice through challenging the

inequitable distribution of resources, unjust policies and practices and social conditions that contribute to social exclusion, stigmatisation or subjugation (IFSW, 2012b).

Economic justice

Economic justice is "an ideal condition in which all members of society have the same opportunities to obtain material resources necessary to survive and fulfil their human potentials…the term embodies a principle in which…all people receive adequate incomes above an agreed poverty threshold" (Barker, 2014:135). For the researcher, affording informal settlement communities with access to decent work and income generating opportunities and to social safety nets such as social grants is key in working towards the realisation of economic justice.

Environmental justice

Environmental justice emphasises that it is the human right of all people to live in a clean, safe, and healthy environment (Hawkins, 2010:69). It points to the dynamic relationship between poverty, ecosystem services and pollution that sees poor and marginalised communities suffering disproportionately from environmental impacts (Miller, Hayward & Shaw, 2012:271). In these authors' view, environmental justice draws attention to social inequities in the distribution and exposure to environmental hazards. It is these inequities that make poor communities experience disproportionate exposure to environmental hazards.

Environmental sustainability

Morelli (2011:24) defines environmental sustainability as "a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs [without]…exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs." Environmental sustainability also relates to reversing biodiversity loss, the depletion of natural resources and improving the living conditions of all people through sustainable access to clean and safe drinking water and basic sanitation (United Nations General Assembly (UNGA), 2008).

Informal settlements

Informal settlements are housing units that exist on land that has not been surveyed or proclaimed as residential. They consist mainly of informal shack dwellings on the

outskirts of towns or on vacant or pockets of under-utilised land in urban areas (SSA, 2001:19). While they are referred to as informal settlements in Namibia and South Africa, in literature, the word slum is often used in a general way to include informal settlements and a wide range of other low-income housing settlements that are characterised by poor housing, overcrowding, a lack of basic services and insecure tenure (UN-Habitat, 2003:9).

Namibia

The study area in Namibia was the Tobias Hainyeko constituency. It is one of the poorest and rapidly growing constituencies in Windhoek, with 78 percent of homes in this constituency being shack dwellings (Khomas Regional Council (KRC), 2015:25). Windhoek has Namibia's largest urban population of approximately 400 000 inhabitants (City of Windhoek (CoW), 2017:51). The three informal settlements in Tobias Hainyeko constituency which formed part of the study included the Okahandja Park, Kilimanjaro and Babilon informal settlements. They are located about 10 kilometres outside the central business district in Windhoek. In particular, the Okahandja Park informal settlement has been in existence since 2002, while the Kilimanjaro and Babilon informal settlements were established in 1993 (Shack Dwellers Federation of Namibia (SDFN), 2009:91). Population figures provided by the SDFN (2019:1) show that the Okahandja Park informal settlement had 5010 households in 2015, the Babilon and Kilimanjaro informal settlements respectively had 1187 and 1418 households in 2018. These figures represent a combined population size of 7615 households.

South Africa

The study area in South Africa was the electoral Ward 3 in Orange Farm, which falls within Region G of the CoJ. Johannesburg is South Africa's fastest-growing city and has the country's largest urban population of 8.5 million people (South African Cities Network (SACN), 2016:21). Ward 3 is regarded as the most deprived and impoverished area in all of Johannesburg (De Wet, Patel, Korth & Forrester, 2009:9). Overall, Region G is the least integrated and most marginalised and isolated of all of Johannesburg's seven regions and is characterised by a lack of formal housing and basic services, an extremely high unemployment rate and overall exclusion from the economic and social opportunities that Johannesburg has to offer (CoJ, 2018). Orange Farm was established in 1988 and has the largest informal settlement population in

South Africa (Orange Farm Human Rights Advice Centre, 2016; Rudolph, Kroll, Ruysenaar & Dlamini, 2012:4). Ward 3 is collectively made up of Orange Farm Extensions 1, 4, 6 and 7 (Municipal Demarcation Board, 2012) and has an estimated population of 29 677 people (SACN, 2017:59).

Well-being

Social work engages people and structures to address life challenges and enhance well-being (IFSW & IASSW, 2014). In this study well-being is defined as "the social, economic, psychological, spiritual or medical state of an individual or group" (Vanclay, Esteves, Aucamp & Franks, 2015:98).

1.2 Rationale and problem statement

The study was a continuation of the researcher's interest in exploring the interventions that contribute to social and economic equality, which formed part of her master's in social work study in 2015, and which at that time was linked to the first pillar of the *Global Agenda*. The third *Global Agenda* pillar and international social work research theme for 2017 and 2018 and a recent study on drought (Chiwara & Lombard, 2018), sparked the researcher's interest to pursue a doctoral study linked to the overarching *Global Agenda* theme of environmental and community sustainability. The researcher's decision to undertake a comparative study was influenced by the fact that Namibia and South Africa are close neighbours that share a similar history of governance under the former South African apartheid regime. The discriminatory policies which were enacted during apartheid contributed to social, economic and environmental injustices for black communities in Namibia and South Africa. Her decision to embark on a comparative study was furthermore motivated by her dual status as a Namibian resident who was enrolled for a full-time doctoral study programme at the University of Pretoria in South Africa. Her personal experiences living and studying for an undergraduate social work degree in Namibia and a master's degree in social work in South Africa familiarised the researcher with the social work policy, education and practice contexts in both countries. The researcher capitalised on these unique opportunities to carry out a doctoral study that explored how environmental and community sustainability could be promoted for informal settlement communities in Namibia and South Africa.

The sustainability of informal settlement communities and the physical environment in informal settlements suffer manifold human made disasters and natural environmental hazards due to poverty, social and economic exclusion, hunger, unemployment and a lack of access to basic services. The *2030 Agenda for Sustainable Development* (hereafter *2030 Agenda*), calls for multi-sectoral partnerships and the participation of local communities in promoting peace, prosperity and the well-being of both humanity and the planet (UN, 2015b:1). Towards this end, social workers should alongside other actors, work to realise social, economic and environmental justice for all, within a human rights framework that is rooted in the active participation of local communities. The present study was anchored in an integrative social, economic and environmental justice framework. In particular, the study was embedded in environmental justice theory, social development theory, and the three generations of human rights framework. The envisaged outcome of the study was an integrated strategy for promoting environmental and community sustainability for informal settlement communities in Namibia and South Africa.

Social work's adoption of the *Policy Statement on Globalisation and the Environment* (IFSW, 2012a) and of the *Global Agenda* (2012) has revolutionalised social work practice around the world. These global social work documents enunciate a firm stance that recognises the manner in which natural, social and economic environments interact to excerbate social, economic and environmental injustices in poor communities. Green social work (Dominelli, 2012) and environmental social work (Gray et al., 2013) are indicative of the recognition in social work that poor environmental conditions have a profound impact on human well-being, while human decisions can negatively impact on the well-being of the natural environment. Informal settlement communities by virtue of the social and economic exclusion and environmental injustices they experience, provide a platform for multi-stakeholder partnerships to practically assimilate the social, economic and environmental dimensions of sustainable development in view of contributing to sustainable communities and environments. The study contributed to the broadening of research knowledge on environmental and community sustainability and on human and environmental well-being in informal settlements. This contribution is important seeing that very few social work studies have explored environmental and community sustainability (IASSW, 2016:3), and in Africa in particular. Accurate, disaggregated

information is the starting point for creating equitable and evidence based urban policies that target marginalised communities (UN Children's Fund (UNICEF), 2012:68). However, information on informal settlements remains largely inadequate, outdated or non-existent, making it difficult to target interventions to these communities (Government of the Republic of Namibia (GRN), 2015:30; UN-Habitat, 2015:5). It was against this background that the researcher conducted the study to draw lessons for integrating the social, economic and environmental dimensions of sustainable development in informal settlements, in view of contributing to environmental and community sustainability.

Research question and sub-research questions

The study was underpinned by the following research question:

- How can environmental and community sustainability be promoted for informal settlement communities in Namibia and South Africa?

The study's research question was underpinned by the following sub-questions:

- What are the social, economic and environmental challenges for sustainable development amongst informal settlement communities?
- What interventions promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities?
- How can the social, economic and environmental dimensions of sustainable development be integrated to promote sustainable informal settlement communities?

1.3 Goal and objectives of the study

The goal of the study was:

- To explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

The goal of the study was supported by the following objectives:

- To conceptualise environmental and community sustainability for informal settlement communities within a theoretical framework that is embedded in environmental justice theory, the three generations of human rights framework and social development.
- To determine the social, economic and environmental challenges for sustainable development amongst informal settlement communities.

- To determine the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities.
- To explore how the social, economic and environmental dimensions of sustainable development could be integrated to promote sustainable informal settlement communities.
- To formulate an integrated strategy for promoting environmental and community sustainability for informal settlement communities in Namibia and South Africa.

1.4 Research methodology

The study utilised a mixed methods research approach that combined qualitative and quantitative research approaches in different phases of the study (Creswell & Plano Clark, 2011:411). The study adopted an exploratory sequential mixed methods research design where qualitative and quantitative research designs are implemented sequentially (Teddlie & Tashakkori, 2009:26). With the aid of a mixed methods approach, the researcher generated in depth findings through a qualitative research approach and numeric data through a quantitative research approach. The findings were subsequently triangulated to inform an integrated strategy for promoting environmental and community sustainability for informal settlement communities in Namibia and South Africa. As the study was in a relatively new area in social work, an exploratory mixed methods design enabled the researcher to firstly explore the study topic qualitatively, and to thereafter compare the findings in a subsequent quantitative study phase (Ivankova, 2015:138).

The study's population was made up of three categories. The first category consisted of all adult informal settlement residents in Kilimanjaro, Babilon and Okahandja Park informal settlements in Windhoek and Ward 3 in Orange Farm. The second population category consisted of all child beneficiaries of the Nathaniel Maxuilili Soup Kitchen and Hope Initiatives Southern Africa (HISA) in Namibia and Camp Sizanani Life Skills in South Africa (Camp Sizanani). Collectively the aforementioned non-profit organisations (NPOs) offer feeding, life skills and educational programmes to children living in the Babilon, Okahandja Park and Kilimanjaro informal settlements and Orange Farm. The third population category consisted of all the community practitioners at the

above-mentioned NPOs and all the environmental health practitioners (EHPs), social workers and human settlements practitioners (HSPs) working at the CoW in Windhoek, Namibia and at the CoJ in Region G of Johannesburg in South Africa. The sample for the qualitative phase of the study was drawn from the study population by means of purposive sampling (Teddlie & Tashakkori, 2009:173). Conversely, the quantitative phase of the study utilised a combination of systematic (Leedy & Ormrod, 2013:212), and total population sampling methods (Strydom, 2011a:225). The qualitative phase of the study utilised structured and semi-structured one-on-one interviews (Teddlie & Tashakkori, 2009:229), and focus group interviews (Rule & John, 2011:66), as data collection methods. The data for the quantitative phase of the study were collected through a survey questionnaire (Ivankova, 2015:251). A detailed discussion of the study's research methodology that incorporates the measures that the researcher utilised to improve the trustworthiness, reliability and validity of the findings, the study's ethical considerations and limitations is provided in Chapter Five.

1.5 Division of the research report

The dissertation is divided into the following eight chapters:
Chapter One presents a general overview of the study that focuses on the study's key concepts, rationale and problem statement, research questions, goal, objectives and a brief overview of the study's research methodology. It also outlines how the eight chapters that make up this research report are organised.

Chapter Two conceptualises and describes the inter-relatedness between sustainability and sustainable development. It explores their historical origins by detailing the major events in world history that shaped the commitment to sustainability and its pursuit through sustainable development. It also outlines the core principles and the 17 SDGs that underpin the *2030 Agenda* (UN, 2015b), which is the global plan of action for sustainable development. It explores the balanced and integrated perspective of the *2030 Agenda* alongside other perspectives that offer suggestions on how sustainability can be realised. It also highlights the challenges that hamper sustainable development.

Chapter Three explores environmental and community sustainability as they relate to informal settlement communities in Namibia and South Africa. It conceptualises the terms informal settlements, environmental and community sustainability and presents

a historical overview of informal settlements in Namibia and South Africa. The chapter embeds the continual growth of informal settlements in these neighbouring countries within a development context that is characterised by inequitable development patterns, poverty, unemployment, rapid urbanisation and a lack of access to adequate housing and basic services. The chapter presents the challenges that stand in the way of realising environmental and community sustainability for informal settlement communities. It also outlines some of the measures that Namibia and South Africa have taken to address the challenges that are faced by informal settlement communities.

Chapter Four explores environmental and community sustainability within a theoretical framework that is grounded in environmental justice theory, the three generations of human rights framework and social development. The chapter highlights the global, regional and national policy frameworks that enunciate a commitment to promoting environmental and community sustainability. It also examines the social work practice frameworks that guide social workers in translating theories and policies on sustainable development into concrete action.

Chapter Five is an in-depth presentation of the study's research methodology. It elucidates on the study's mixed methods research design, the research methods, study population, sampling methods, data collection and analysis procedures. It also highlights the measures the researcher utilised in view of increasing the trustworthiness, reliability and validity of the study's findings. The chapter also presents the ethical considerations which guided the researcher and her research assistants' conduct with research participants and the information they provided and the study's limitations.

Chapter Six integrates the study's qualitative and quantitative findings on the social, economic and environmental challenges for sustainable development amongst informal settlement communities in Namibia and South Africa. The findings are categorised under themes and sub-themes. The qualitative findings are presented in the form of participants' narratives, while the quantitative results are presented in the form of tables and statistical figures, which are discussed and anchored in literature from previous studies.

Chapter Seven continues the presentation of the study's qualitative and quantitative findings by focusing on the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities in Namibia and South Africa.

Chapter Eight wraps up the research report by presenting the study's key findings and conclusions, followed by a discussion of the extent to which the goal and objectives of the study were accomplished. Thereafter, an integrated strategy for promoting environmental and community sustainability for informal settlement communities in Namibia and South Africa is presented. The chapter ends by making recommendations for the implementation of the strategy, for social welfare policy, social work education and practice.

CHAPTER 2
GLOBAL, REGIONAL AND NATIONAL PERSPECTIVES ON SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

2.1 Introduction

Sustainability and sustainable development are interrelated but different concepts that are rooted in realising a more sustainable world and development processes that consider the well-being of both the natural environment and of people presently and in the future. They are underpinned by the realisation that human well-being is interconnected with the state of the biophysical environment, while human activities have far-reaching consequences for both people and the environment. The chapter conceptualises and describes the inter-relatedness between sustainability and sustainable development. It details the significant events in world history, which shaped and reinforced the commitment to realising sustainability through the rallying cry of sustainable development. The researcher thereafter outlines the core principles and the 17 SDGs that underpin the *2030 Agenda* (UN, 2015b) which is the global plan of action for sustainable development. Following this, the researcher compares the balanced and integrated perspective of the *2030 Agenda* against other perspectives that offer suggestions on how best sustainability could be realised. The chapter also discusses the challenges that hamper sustainable development and ends with a conclusive summary.

2.2 A conceptualisation of sustainability and sustainable development

In this section, the researcher defines sustainability and sustainable development and discusses their historical origins.

2.2.1 Sustainability

Sustainability is a global buzzword that is seen as a potential solution for worldwide, regional and local problems (Mensa & Castro, 2004:3). In its analogous use, sustainability refers to dependable social conditions, whilst in its literal use it implies the capacity to maintain some entity, process or outcome over time (Jenkins, 2010:380). Sustainability is a widely held social and political goal (Adger, 2003:1)

which can be exploited to champion disparate goals. As Jenkins (2010:381) has observed, sustainability is used to argue for and against climate treaties, free markets, social spending, environmental preservation such that finding a standard definition of sustainability seems elusive. It is against this background that Mckenzie (2004:1) argues for sustainability to be clearly defined wherever it is used so that its contextual meaning is understood. Moreover, sustainability on its own, is increasingly discredited as a useful concept unless it is used in conjunction with a delineating modifier (Morelli, 2011:20). As such, the study explored environmental and community sustainability for informal settlement communities in Namibia and South Africa.

The study adopted a view of sustainability which emphasises the centrality of ensuring the well-being of communities and of the environment. In this regard, the UN Educational Scientific and Cultural Organization (UNESCO) (2012:5), sees sustainability as, "a paradigm for thinking about a future in which environmental, social and economic considerations are balanced in the pursuit of development and an improved quality of life." Similarly, Hembd and Silberstein (2011:263) view sustainability as, "the ability of humans and human society to continue indefinitely within a finite natural world and its underlying natural cycles." Sustainability, for Schmitz, Matyók, Sloan and James (2012:4) is concerned with "the preservation of biodiversity as part of human survival, social sustainability and social and environmental justice." Central to the view of sustainability which the study adopted is a concern for the future well-being of humanity and the environment. This also implies that sustainability has a major existential focus and a social and environmental justice thrust.

Sustainability is a fairly recent term that emerged in the 1960s in response to widespread concerns about environmental degradation and the poor management of natural resources (Mckenzie, 2004:1). At the root of these concerns was human economic activity and its relationship with and impacts on the natural environment (Hembd & Silberstein, 2011:263). Sustainability is a realisation that the world is exploiting natural resources unsustainably in pursuit of short-term economic gains at the expense of the environment and of present and future generations, who risk substantial health and environmental effects (Lancet Commission, 2015:1973). Industrial processes in western countries are seen by Dominelli (2012:84) to have sparked global interest in pursuing sustainability as these processes have contributed

much more to environmentally destructive activities than less industrialised countries. Sustainability emerged as a critique of neo-liberal market driven development processes that indiscriminately exploit natural resources and have undesirable social and environmental consequences (Dylan, 2013:68). Climate change and natural resource depletion are some of the negative environmental consequences of profit driven development that have created a contemporary imperative around sustainability and the heightened interest in pursuing it through sustainable development (Hembd & Silberstein, 2011:262). Within the framing of sustainability is the complex mutuality of human and ecological systems and the need to integrate economic health, ecological integrity, social justice, and responsibility for the future (Jenkins, 2010:381). When examined from such an integrated viewpoint, sustainability enables people to reconsider and transform development of all types in light of the sustainability imperative (Hembd & Silberstein, 2011:276). Sustainability is underpinned by various ideals and principles that include, “equity among generations, gender equity, peace, tolerance, poverty reduction, environmental preservation and restoration, natural resource conservation, and social justice” (UNESCO, 2012:5).

2.2.2 Sustainable development

While sustainability is a long-term goal towards realising a more sustainable world, sustainable development encompasses the many processes and pathways towards realising sustainability (UNESCO, 2012:5). A classic definition of sustainable development by the World Commission on Environment and Development (WCED) (1987:41), sees it as:

> Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of ‘needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs.

The aforementioned definition implies that sustainable development is a long-term endeavour that is rooted in processes that are aimed at achieving equity within and between generations. The definition also alludes to development processes that prioritise the welfare of the poor while acknowledging the finite nature of environmental resources. Sustainable development additionally puts a limit on technological

advances and on insatiable lifestyle patterns. However, the above classic definition of sustainable development has come under criticism for being too vague and for therefore falling subject to a variety of interpretations (Adams, 2006:2; Mckenzie, 2004:2; Peeters, 2011:8). Mckenzie (2004:2) for instance argues that when sustainable development is defined vaguely in order to meet the needs of all stakeholders, it becomes a smokescreen behind which business can continue its operations unhindered by environmental concerns, while paying lip service to the needs of future generations. Drexhage and Murphy (2010:9) applaud the definition for its flexibility in allowing various stakeholders to adapt the concept of sustainable development for their own purposes. Dylan (2013:74) also lauds the definition for its ability to bring together divergent groups with manifold interests in the common service of environmental protection and human rights. While acknowledging that WCED's definition of sustainable development is indeed vague, Adams (2006:2) commends it for cleverly capturing two fundamental issues; the challenge of environmental degradation that is associated with economic growth and the need for economic growth to alleviate poverty. Warburton (1998:2) makes an interesting observation in view of this definition and notes that whereas the word environment is completely absent from this definition, it has been the environmental implications of sustainable development that have received the most attention in the sustainable development discourse. However, the WCED (1987:6) clearly objects to a narrow interpretation of sustainable development:

> When the terms of reference of our Commission were originally being discussed in 1982, there were those who wanted its considerations to be limited to 'environmental issues' only. This would have been a grave mistake. The environment does not exist as a sphere separate from human actions, ambitions, and needs, and attempts to defend it in isolation from human concerns have given the very word 'environment' a connotation of naivety in some political circles…the 'environment' is where we all live; and 'development' is what we all do in attempting to improve our lot within that abode. The two are inseparable.

It is evident that sustainable development transcends a narrow focus on environmental conservation to include the interconnectedness of environmental and human well-being. As Peeters (2011:6) rightly states, sustainable development is "not simply a question of better care for the biophysical environment, instead it also concerns the quality of society in many respects." Sustainable development emphasises the fact that the goal of conservation cannot be realised without development to alleviate

poverty, raise standards of living, allow people to reach their human potential, enjoy healthy and dignified lives and ensure the welfare of both present and future generations (Yeld, 1997:13). Thus, central to sustainable development is a holistic form of development that takes into consideration economic development, social equity and environmental protection (Drexhage and Murphy, 2010:6). Based on the preceding discussion it can be noted that sustainability and sustainable development are undergirded by various interrelated principles that include, equity among generations, poverty reduction, environmental preservation, social justice, the pursuit of human rights and dignity (UN, 2015b:7; UNESCO, 2012:5).

2.2.3 The historical roots of sustainability and sustainable development

A discussion of sustainability and sustainable development would not be complete without analysing their historical roots. For Du Pisani (2006:83), such an analysis assists in revealing the main threads of discourse and the manifold issues subsumed under the two terms, seeing that they are often used without giving careful thought to their real meanings and why development should be sustainable. The term sustainability was framed over a period of several decades, within an environmental movement that highlighted the negative impact of unabated economic pursuits on the well-being of the natural environment. Scholars (Allen et al., 2002:23; Coates & Gray, 2012:230) credit Rachel Carson for ushering in the modern environmental movement in the early 1960s through her book *Silent Spring*, which shattered the assumption at that time that the natural environment had an infinite capacity for absorbing widely used pesticides. A major outcome of Carson's book that is noted by Schlosberg (2007:7) is the fact that the book interlinked the previously disconnected concerns of ecological and environmental justice, by demonstrating concern for the well-being of the natural environment and the health of the people and animals that inhabit it. Allen et al. (2002:23) ascertain that the release of *Silent Spring*, was followed by the convening of the Club of Rome in 1968, which was made up of a group of individuals with a shared concern for the future of humanity, who grouped together to establish a holistic understanding of the world's environmental problems. A significant outcome of the Club of Rome was their publication in 1972 of a report entitled *Limits to Growth*, which triggered the most heated debates in the history of environmental concerns (Allen et al., 2002:23; Jenkins (2010:381). Drexhage and Murphy (2010:7) report that

the ever-rising environmental debates during this period necessitated the convening of the UN Conference on the Human Environment in 1972 in Stockholm, Sweden, which is the first gathering of its kind to have discussed sustainability at a global scale. A notable outcome of this conference as noted by Yeld (1997:14), "was a rapid and widespread increase in public awareness and understanding of environmental issues." The Stockholm conference garnered considerable momentum on sustainable development, and a series of recommendations led to the establishment of UNEP and several other environmental protection agencies across the globe (Drexhage & Murphy, 2010:7). The 1980 *World Conservation Strategy*, which was a collaboration between the International Union for the Conservation of Nature (IUCN), the World Wildlife Fund (WWF) and UNEP, documented the recommendations from the Stockholm conference (Drexhage & Murphy, 2010:7; Jenkins, 2010:381). These authors argue that the *World Conservation Strategy* contributed to making sustainability a global benchmark of action and identified key policy options for sustainable development. The *World Conservation Strategy* therefore gave currency to the term sustainable development by emphasising that conservation cannot be achieved without development to alleviate poverty and that humanity, which exists as a part of nature, has no future unless nature and natural resources are conserved (IUCN et al., 2009:1). In 1983, the UN established the WCED to address a growing concern over the "deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development" (Drexhage & Murphy, 2010:7). Four years after its establishment, the WCED produced the landmark *Our Common Future report*, commonly known as the *Brundtland report*, which according to Morelli (2011:23) elevated sustainable development to a global ethic.

The historical significance of the *Brundtland report* as highlighted by Drexhage and Murphy (2010:2) lies in that it firstly provided the world with a classic definition of sustainable development. Secondly, the acceptance of the *Brundtland report* by the UNGA gave the term sustainable development political salience and drew the world's attention around the common theme of sustainable development. Four years after the release of the *Brundtland report*, the IUCN et al. collaborated once again to produce a blue print document that outlined the nine principles of a sustainable society entitled; *Caring for Earth: A Guide to Sustainable Development* (IUCN et al., 1991). Following

the release of this document, world leaders met a year later in Rio de Janeiro, Brazil for the UN Conference on Environment and Development (UNCED), which is popularly known as the Earth Summit (UNCED, 1992). Drexhage and Murphy (2010:8) view the Earth summit as having laid the foundations for the global institutionalisation of sustainable development. An important outcome of the Earth Summit was that it adopted the *Rio Declaration on Environment and Development*, which stipulated 27 principles of sustainable development and *Agenda 21*, which is a global plan of action for sustainable development. As stated by Allen et al. (2002:22), the Earth Summit recognised the importance of cities, urbanisation and local action in achieving sustainable development and the adoption of *Agenda 21* set the precedent for local action in sustainable development through the framework of a *Local Agenda 21*. These outcomes of the Earth Summit resonated well with the focus of the present study. Besthorn (2014:15) is of the view that even though the Earth Summit was not the first international conference to have discussed environmental concerns, it was arguably the most widely publicised and eagerly anticipated environment conference, which was marked by the census that environmental issues must become a global priority. Drexhage and Murphy (2010:8) ascertain that the Earth Summit succeeded in garnering political support for environmental issues as it was attended by virtually every national leader across the globe, at that time, who collectively committed to working towards sustainable development.

The four years that followed the Earth Summit were marked by the convening of five international conferences on people centred sustainable development that nclude; the World Conference on Human Rights, the International Conference on Population and Development, the World Summit on Social Development, the Fourth World Conference of Women and the UN Conference on Human Settlements (Allen et al., 2002:26). Following these conferences was the convening of the Earth Summit +5 conference in New York in 1997, five years after the initial Earth Summit (UNGA, 1997). In 2000, world leaders assembled at the UN Millennium Summit, where they adopted the Millennium Development Goals (MDGs) (UNGA, 2008). As the UN Millennium Summit coincided with the dawn of the new millennium in 2000, the summit reinforced the imperative to pursue sustainable development into a new era in world history.

Subsequent international conferences on sustainable development include the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa (UN, 2002). Remarkably, the WSSD was the first international conference on sustainable development to be held on African soil. For the researcher, this conference signified a highly momentous event that affirmed Africa's significance as a partner in the pursuit of sustainable development. The WSSD reiterated a commitment to *Agenda 21* and the principles set out by the Earth Summit, through the adoption of the *Johannesburg Plan of Implementation*. It furthermore reinforced the urgent imperative for realising sustainable development at local, national, regional and global levels through its interdependent and mutually reinforcing economic, social and environmental dimensions (UN, 2002:1). Adams (2006:3) hails the WSSD for placing poverty on top of the sustainable development agenda and for strengthening the policy debates around poverty and environment. Drexhage and Murphy (2010:8) commend the WSSD for demonstrating "a major shift in the perception of sustainable development - away from environmental issues toward social and economic development."

Other notable conferences include the World Conference on Disaster Reduction in Hyogo, Japan in 2005, which resulted in the adoption of the *Hyogo Framework for Action (2005-2015)* (International Strategy for Disaster Reduction, 2005:1). For the researcher, the major contribution of the Hyogo Framework for Action is seen in the manner in which it uniquely captures the importance of assimilating poverty reduction, good governance and disaster risk reduction in realising sustainable development. It was at the Rio+20 conference, in 2012 where UN member states launched the process of developing the SDGs and conference resulted in a focused political outcome document with clear and practical measures for implementing sustainable development (UN, 2012). The year 2015 saw the adoption of three ambitious and innovative global frameworks that shape sustainable development, environmental sustainability and social-ecological justice, which together can become powerful tools for informing and inspiring efforts at the interface of social justice and environmental sustainability (Kemp, Mason, Palinkas, Rechkemmer & Teixeira, 2016:1). These frameworks include the *Sendai Framework for Disaster Risk Reduction 2015-2030* (UN Office for Disaster Risk Reduction, 2015), the *Paris Agreement on Climate Change* (UN Framework Convention on Climate Change, 2015) and the *2030 Agenda* (UN, 2015b). On a regional level, the year 2015 saw the adoption of *Agenda 2063*,

which is Africa's first ever collective roadmap on sustainable development (African Union (AU), 2015).

It is evident from the preceding discussion that sustainable development is largely a top down approach which did not emerge directly from the poor communities that are negatively impacted by the ill-effects of unsustainable social, economic and environmental practices. The study however took a bottom up approach to sustainability. It highlights the community level challenges in informal settlements that impinge on the realisation of sustainable communities and environments and articulates the vision that informal settlements have for realising environmental and community sustainability.

2.2.4 The *2030 Agenda*

In 2015, world leaders reaffirmed their commitment to sustainable development through the adoption of the *2030 Agenda*. This landmark agenda builds on the MDGs and sets out 17 SDGs and 169 targets that balance and integrate the social, economic and environmental dimensions of sustainable development (UN, 2015b). While the *2030 Agenda* is not legally binding, it is a plan of action for people, planet and prosperity and for strengthening universal peace through collaborative partnerships by all stakeholders and countries (UN, 2015b:1). The 17 SDGs and their 169 targets all have a bearing on promoting environmental and community sustainability across the globe. The UN (2018) summarises the 17 SDGs as follows; SDG 1: no poverty; SDG 2: zero hunger; SDG 3: good health and well-being; SDG 4: quality education; SDG 5: gender equality; SDG 6: clean water and sanitation; SDG 7: affordable and clean energy; SDG 8: decent work and economic growth; SDG 9: industry, innovation and infrastructure; SDG 10: reduced inequalities; SDG 11: sustainable cities and communities; SDG 12: responsible consumption and production; SDG 13: climate action; SDG 14: life below water; SDG 15: life on land; SDG 16: peace, justice and strong institutions and SDG 17: partnerships for the goals. The core principles that are embodied in the *2030 Agenda* include; universality, human rights, leaving no one behind, interconnectedness and indivisibility, inclusiveness and multi-stakeholder partnerships and these are briefly highlighted below.

- **Universality**

The SDGs in contrast to their predecessor, the MDGs, are universally applicable to all countries and adopt a global perspective that aims to shape development in all countries and all economies as opposed to focusing only on those countries with weaker economic histories (Jones, Powers & Truell, 2018:9).

- **Human rights**

The 17 SDGs and 169 targets of the *2030 Agenda* are embedded in a human rights-based framework. The agenda envisages a world of universal respect for human rights and human dignity, the rule of law, justice, equality and non-discrimination and the full realisation of human potential and shared prosperity (UN, 2015b:4). The OHCHR (2015:1) observes that many of the SDGs relate closely to economic, social and cultural rights, while SDG 16 on peaceful and inclusive societies covers many dimensions of civil and political rights, including personal security, access to justice, and fundamental freedoms. It also notes that SDG 17 and many of the international targets under each SDG address issues that are related to duties of international cooperation and the right to development.

- **Inclusiveness**

The *2030 Agenda* (UN, 2015b) is committed to inclusiveness; this is also quite evident in that the term inclusive is mentioned six times in the SDGs. The *2030 Agenda's* focus on inclusiveness is also seen in that it, "calls for the participation of all segments of society - irrespective of their race, gender, ethnicity, and identity - to contribute to its implementation" (UN System Staff College (UNSSC), 2019:1). The *2030 Agenda*'s commitment to inclusiveness is particularly important in light of this study's engagement with informal settlement communities, who often are excluded in urban planning processes (GRN, 2015:30; UN-Habitat, 2015:5).

- **Leaving no one behind**

The UNSSC (2019:1) reports that "the *2030 Agenda* seeks to benefit all people and commits to leave no one behind by reaching out to all people in need and deprivation, wherever they are, in a manner which targets their specific challenges and vulnerabilities." In view of leaving no one behind, *the 2030 Agenda* calls for quality, accessible, timely and reliable disaggregated data that will help with the measurement of progress and to ensure that no one is left behind (UN, 2015b:12). This study

contributes to the body of knowledge on informal settlement communities in Namibia and South Africa that can inform decision making in view of leaving no one behind in the development process.

- **Interconnectedness and indivisibility**

The 17 SDGs are indivisible, integrated and interdependent, and they balance the economic, social and environmental dimensions of sustainable development (UN, 2015b:3). This fact requires countries and the world at large to make progress in realising all the 17 SDGs instead of approaching them as a list of individual goals from which they selectively choose the ones they may want to focus on (OHCHR, 2015:2; UNSSC, 2019:1).

- **Multi-stakeholder partnerships**

The *2030 Agenda* calls for multidisciplinary and multi-sectoral partnerships and the participation of local communities in promoting sustainable peace and prosperity and the well-being of both people and the planet (UN, 2015b:1). The IUCN et al. (2009:11) sees global partnerships as indispensable for sustainable development seeing that no one nation is self-sufficient. Informal settlement communities by virtue of the social and economic exclusions and the environmental injustices they experience (see Chapter Three, sub-section 3.4), provide an opportunity for communities, social workers, local authorities and multi-sectoral stakeholders to form collaborative partnerships that practically assimilate the social, economic and environmental dimensions of sustainable development.

2.2.5 Approaches to sustainability

The balanced and integrated perspective of the *2030 Agenda* (UN, 2015b) can be seen in light of the triple bottom line, which the researcher will examine alongside other approaches to sustainability. These approaches include the weak versus strong sustainability model and the systems approach to sustainability.

2.2.5.1 The triple bottom line

The triple bottom line is a framework for sustainability that originated within a business context and was developed in 1997 by John Elkington, who happened to be both an environmentalist and economist, to describe a mode of corporate reporting that

encompasses environmental, social and economic concerns (Mckenzie, 2004:6). Peeters (2011:11) reports that the triple bottom line is concerned about the 3Ps, namely people, profit and planet, and views sustainable development as a balanced integration of social, economic and environmental goals. In the view of the researcher, the utility of the triple bottom lies in the fact that it encourages businesses to consider the environmental and social implications of profit making. The *2030 Agenda* expands on the triple bottom line to include a holistic focus on the 5Ps of people, planet, peace, prosperity and partnerships for development (UN, 2015b:2). The UNSSC (2019:2) ascertains that sustainable development, which is traditionally viewed through the lens of social inclusion, economic growth, and environmental protection, has taken on a richer meaning with the adoption of the *2030 Agenda*. More so, as the agenda builds upon the traditional triple bottom approach by adding two critical components of partnerships and peace and that sustainability ultimately lies at the core of these five dimensions.

Critics of the triple bottom line view this model as supporting a weak approach to sustainability, seeing that it gives equal weight to the social, economic and environmental dimensions of sustainable development (Adams, 2006:3; Allen, You, Meijer & Atkinson, 2002:16). The aforementioned critics argue that the manner in which the triple bottom line gives equal weight to the highlighted three dimensions, implies that trade-offs can always be made between the environmental, social and economic dimensions of sustainability, while failing to account for ecological limits and in so doing, allows economic interests to continue unhindered. Adams (2006:4) argues that the three dimensions of sustainable development cannot be treated as equivalent as the environmental resources that are available to support society and the economy effectively present a finite limit on human activity and on economic development. McKenzie (2004:6-7) observes that whereas the triple bottom line treats social, economic and environmental considerations as equal, in reality however, social concerns are rarely given equal priority to economic and environmental concerns. As such, social sustainability is the most neglected area in triple bottom line reporting. The present study explored social sustainability alongside environmental sustainability in informal settlements. Another limitation of the triple bottom line which is noted by Allen et al. (2002:16) lies in the manner in which it fails to recognise the political dimensions that underpin sustainable development.

2.2.5.2 Weak versus strong sustainability

The fundamental debate regarding sustainable development is whether to adopt a weak or strong conception of sustainability (Pelenc, Ballet & Dedeurwaerdere, 2015:1). Weak sustainability assumes that sustainability cannot be realised without development (Peeters, 2011:8). It places considerable reliance on anticipated technological changes that come with development and their ability to create built capital solutions to compensate for environmental degradation and the decrease in natural capital (Hembd & Silberstein, 2011:268). Speaking from a strong sustainability viewpoint, Mary (2008:36) argues that, "it may be reckless to believe that biodiversity can diminish without threatening our own survival as a species." As such, strong sustainability is built on the belief that sustainable development is not only about maintaining economic activity and improving social welfare, but about ensuring that the natural resource base will not be irretrievably depleted or damaged over time (Department of Environmental Affairs (DEA), 2016:18). Strong sustainability is informed by the view that certain forms of natural capital are critical for human existence and their functions cannot be duplicated by means of human or built capital, and that the existing stock of natural capital must be maintained and enhanced (Hembd & Silberstein, 2011:268; Neumayer, 2012:564).

Jenkins (2010:382) is of the opinion that strong sustainability could be held from both eco-centric and anthropocentric perspectives, with the former requiring that moral decisions consider the good of ecological integrity for its own sake, while from an anthropocentric view, human systems depend on rich biodiversity and the integrity of the natural environment. It can therefore be said that strong sustainability recognises the interconnectedness between human and environmental well-being. There is evidence in literature to suggest that both strong and weak sustainability are desirable depending on the development trajectories that countries find themselves on. In this regard, Neumayer (2012:561) suggests that highly industrialised countries should aim at achieving strong sustainability by severing the link between high human development and unsustainable carbon emissions, while less industrialised countries should work at realising weak sustainability by using natural capital to enhance human well-being and eventually work towards achieving strong sustainability. For the sake

of both human and environmental well-being it may be necessary for countries to maintain a fine balance between working towards weak and strong sustainability.

2.2.5.3 The systems approach to sustainability

Considering the limitations posed by the triple bottom line, a systems approach to sustainability takes cognisance of the interconnectedness of governance processes and the social, economic and environmental facets of sustainable development. A systems approach to sustainability views the economic, socio-political and ecosystem aspects of sustainable development as embedded in each other within a governance system that upholds all three aspects (Republic of South Africa (RSA), 2008:14). The inclusion of a governance system in the systems approach demonstrates the importance of national and international systems of governance in implementing sustainable development and in regulatory and oversight activities (RSA, 2008:15). Within a systems approach, local issues are viewed and understood within a global context, while solutions to local problems are seen as having global consequences (UNESCO, 2012:6). The need to examine the link between local and global issues, policies and practices is increasingly being emphasised in social work (Dominelli, 2012:195). Such a linkage is important seeing for instance that policies made in western countries can have a detrimental impact on the well-being of communities living locally in Namibia and South Africa. Similarly, pollution in a certain part of the world can negatively affect people living across the world through global warming and climate change.

Dylan (2013:75) maintains that the link between local and global issues implies that in view of realising sustainable development, social workers have no option but to operate at both local and global levels and to draw from a variety of knowledge issues. UNESCO (2012:6) supports a systems-thinking approach to sustainable development as opposed to an approach that looks at social, economic and environmental problems in isolation, as these are very much interlinked. Peeters (2011:12) argues that a systems approach treats the social, economic and environmental dimensions of sustainable development as intrinsically relational and demonstrates the fact that economic production and human behaviour towards the natural environment is a socially and culturally mediated process. He furthermore views a systems approach

as supporting a vision of strong sustainability as it allows the ecosystem to limit the economy and society.

2.3 The challenges that stand in the way of realising sustainable development

Drexhage and Murphy (2010:2) argue that although sustainable development is intended to encompass social and economic development and environmental protection, it has for many decades been compartmentalised as an environmental issue. This predominant focus on environmental protection could explain why Adams (2006:7) bemoans that poverty remains deeply persistent in spite of decades of explicit concern about sustainable development, with the implications for current and future generations of poor people being extremely serious. Scholars (Dominelli, 2012:195; Drexhage & Murphy, 2010:17; Dylan, 2013:68) observe that the pursuit of the neo-liberal economic paradigm in many countries across the world, has worsened inequalities between and within countries. Neo-liberalism is rooted in greed, exploitation, an unquenchable desire for profits (Cunningham & Cunningham, 2012:40). It is furthermore driven by the need to satisfy an insatiable demand for consumer goods that is rooted in consumerist lifestyles and overconsumption (Conradie, 2003:123). Production to meet such demands unfortunately occurs at the expense of the natural environment.

Sen (1999:3) argued decades ago that economic growth cannot sensibly be treated as an end in itself. As such, models that measure development in terms of an increase in personal profits, gross domestic product, industrialisation or technological advancements are evidently flawed, as real development should expand the real freedoms that people enjoy. Development should also contribute positively to enhancing quality of life and social justice. A major challenge noted by Drexhage and Murphy (2010:18) in relation to changing this state of affairs, is the fact that, “the UN, which has led international discussions on sustainable development, has never been perceived as the main international forum for discussions on economic development.” Rather, the very proponents of the neo-liberal paradigm, in the form of the WB and World Trade Organisation are the ones who have maintained power and dominance in governing the global economy (Halle, 2002:1). This status quo could be a plausible reason why most contemporary development continues to follow an unsustainable

development trajectory that partly meets human needs while increasingly destroying and degrading the natural resource base (IUCN et al., 2009:9).

2.4 Summary

This chapter has conceptualised sustainability and sustainable development and contextualised them in light of their historical origins. Sustainability is a long-term endeavour that envisions a future where environmental, social and economic considerations are balanced, while sustainable development is a development paradigm that aims to realise sustainability. Sustainable development requires coordinated global, regional, national and community level efforts for its realisation. The chapter has also highlighted various perspectives that shed light on how sustainability could be realised. Collectively these perspectives entrench the need for development that addresses social, economic and environmental challenges and political governance systems that support sustainable development efforts. The chapter has also outlined some of the challenges that hamper sustainable development. While progress has been made globally in spearheading sustainable development, the global dominance of the neo-liberal development paradigm which equates economic growth with progress does not prioritise poverty eradication and is underpinned by the extensive exploitation of natural resources, undermines efforts to realise sustainable development. At the same time, sustainable development continues to be compartmentalised as an environmental issue. This has negative implications for advancing the social, economic and environmental dimensions of sustainable development in an integrated manner. In Chapter Three, the researcher discusses environmental and community sustainability as it relates to informal settlement communities in Namibia and South Africa.

CHAPTER 3
ENVIRONMENTAL AND COMMUNITY SUSTAINABILITY FOR INFORMAL SETTLEMENT COMMUNITIES

3.1 Introduction

The Namibian and South African urban landscape is characterised by ever expanding informal settlements that strike dissonance with these countries' upper middle-income country classification by the WB (2018c). The manifold social, economic and environmental deprivations that characterise informal settlements in these countries raise concerns over the present and future well-being of poor urban communities. They furthermore serve as an example of how the poor continue to be left behind in the development process.

This chapter narrows down the discussion on sustainability by focusing on environmental and community sustainability for informal settlement communities. It begins with the researcher defining informal settlements and outlining the attributes that distinguish them from formal residential areas. Following this, the researcher discusses environmental and community sustainability by focusing on the built and natural environments in informal settlements, the brown and green environmental agendas and the social dimensions of sustainable development. She thereafter presents a historical overview of informal settlements in Namibia and South Africa and discusses the social, economic and environmental challenges in informal settlements. This is followed by a discussion of the measures that Namibia and South Africa have taken in response to informal settlements. The chapter ends with a conclusive summary.

3.2 A conceptualisation of informal settlements and environmental and community sustainability for informal settlement communities

Informal settlements fall within the broader category of slums, which in the view of the UN-Habitat (2003:9), is an all-encompassing catch-all phrase that describes a wide range of low-income settlements characterised by poor housing, overcrowding, a lack of services and insecure tenure. In the traditional sense of the word, a slum denotes a legal inner-city residential area that was built decades ago in line with the then

prevailing housing standards, but which, over time, became physically dilapidated such that the original owners moved out, paving way for lower income groups to inhabit the area (UN-Habitat, 2003:196). Informal settlements as defined by the SSA (2001:19) consist of informal shack dwellings that are built on land that has not been surveyed or proclaimed as residential, often on the outskirts of towns or in pockets of unutilised open spaces in urban areas. Davis (2006:38) observes that the establishment of informal settlements in many countries has taken the form of slow encroachment or invasions on undeveloped public or private land, which is often synchronised to a favourable opportunity for land occupation such as an election or natural disaster. This is true for the study areas in Windhoek and Orange Farm, which are characterised by continual land invasions on state-owned land (CoJ, 2018; Weber & Mendelsohn, 2017:91). The fact that informal settlements emerge with little or no planning, has implications for the realisation of the right to adequate housing as stipulated by the *International Covenant for Economic, Social, and Cultural Rights* (ICESCR) (UNGA, 1966b). The deprivations that distinguish informal settlements from formal residential areas include; a lack of security of tenure and basic services, inadequate housing, overcrowding and location in hazardous areas (Davis, 2006; Dovey, 2014; Weber & Mendelsohn, 2017). The singular and combined effects of these deprivations have implications for the sustainability of informal settlement communities and on the natural environment.

The study adopted a holistic view of the environment that examines the social, economic, natural and built environments in informal settlements, seeing that the deprivations that characterise informal settlements cut across each one of these environments. In addition to exploring the social and economic environments that have an impact on informal settlement communities, a view of the built and natural environments is considered by Allen et al. (2002:16) as a central component of sustainability in an increasingly urbanised world. Hart (1997:5) argues that an exploration of both the built and living environments of people, and poor people in particular, allows one to fully capture environmental justice issues in poor communities by linking social inequities with environmental concerns. Environmental sustainability can be construed in relation to the biophysical environment. In this regard, it is “the ability of the biophysical environment to maintain its functioning within natural parameters and cycles over time, in order to supply environmental goods and services

to the economic and social spheres" (DEA, 2016:20). By inference, this definition sees environmental sustainability as being concerned with safeguarding the vitality of the natural environment so that it continues its natural processes and cycles, which are important for sustaining human livelihoods and well-being. Another view of environmental sustainability by Gray et al. (2017:144), views it as the extent to which natural resources are preserved, conserved or managed to meet current and future human needs. A far-reaching view of environmental sustainability captures the environmental concerns that relate to both the biophysical and built environments. In this regard, environmental sustainability is viewed by the UNGA (2008:3) as relating to reversing the loss of biodiversity and environmental resources and ensuring sustainable access to clean and safe drinking water, basic sanitation and improving the deplorable living conditions in slums and informal settlements. As noted by Peeters (2011:6) environmental sustainability is "not simply a question of better care for the biophysical environment, but also concerns the quality of society in many respects." It is against this background that the study construed environmental sustainability in relation to both the biophysical and the built environments in informal settlements.

The brown and green environmental agendas capture the environmental concerns that respectively pertain to the built and biophysical environments and the interactions between the two. Allen et al. (2002:25) ascertain that the brown agenda has a social justice focus that revolves around improving the immediate environmental conditions of lower-income groups and is therefore concerned with the urban environmental challenges that threaten human well-being. The UN-Habitat (2009:1) reports that the brown agenda focuses on optimising land use, the provision of waste disposal systems, minimising energy consumption and creating an efficient built environment that is needed for a healthy environment and for human and economic opportunities. The brown agenda therefore has implications for informal settlement communities, as they predominantly lack access to adequate sanitation, clean water and clean forms of energy and other basic services. In stark contrast to the brown agenda, the green agenda concerns itself with global environmental problems such as rain forest depletion, global warming, climate change and biodiversity loss, which are an effect of human activity (Allen et al., 2002:25). Within a sustainable development frame of reference these environmental challenges have implications for both global and local communities. As such, the green agenda concerns itself with the preservation of

ecosystems at local, national, regional and global levels as people depend on the integrity of ecosystem services for air, food, water, waste dispersion and a reliable climate (UN-Habitat, 2009:1).

Although the brown agenda draws attention to environmental issues in poor communities, while the green agenda pertains to global environmental challenges, they both emphasise the need to ensure equity in development. However, they take a slightly different approach on intra-generational and inter-generational equity. Allen et al. (2002:37) explain this by saying that the brown agenda is rooted in realising intra-generational equity by ensuring that all urban residents to enjoy healthy and safe living and working environments. Inversely, the green agenda emphasises inter-generational equity, in that it is concerned with how development draws on finite resources and degrades ecological systems in ways that compromise the ability of future generations to meet their needs (UN-Habitat, 2009:20). Reconciling the green and brown agendas is an indispensable requirement for sustainable development. The *2030 Agenda* achieves this in its consideration of both urban and global environmental concerns.

The realisation of environmental sustainability and the promotion of human rights are complementary objectives as ecosystem services such as air, food, water and climate regulation are preconditions for the full enjoyment of the human rights to life, health, water and food (UNEP, 2015:1). The *2030 Agenda* emphasises that the respect, protection and promotion of human rights is key in achieving sustainable development (UN, 2015b). The implicit connections between sustainability and human rights require people to work in tandem for a world-wide culture of environmental sustainability and a world that is fair and just to all (Hawkins, 2010:71). This view brings into perspective the imperative to simultaneously pursue environmental and community sustainability.

The term community sustainability is a fairly recent term that emerged following the adoption of *Agenda 21*, which advocates for a community-driven approach to sustainability (UNCED, 1992:15). Such an approach acknowledges that communities underpin the attainment of environmental and community sustainability. As noted by the Lancet Commission (2015:1975), environmental and community sustainability are interconnected processes that co-evolve across spatial and temporal scales due to the fact that natural environments do not exist without people, while communities

cannot totally exist in isolation from nature. The study perceived a community as a group of people who live within a particular geographical area (Sheafor & Horejsi, 2012:81) and more specifically, in informal settlements. The researcher however acknowledges that there is much more to a community than a static physical location (Brueggemann, 2006:118). More so as communities are formed to address a wide range of problems and needs that people are individually and collectively faced with (Weyers, 2011:56). As is demonstrated in sub-section 3.4 of this chapter, informal settlement communities emerge in response to poverty, unemployment and a lack of access to adequate housing, amongst other challenges. Community sustainability is grounded in the practices and actions that are needed for communities to achieve sustainable development (James, Nadarajah, Haive & Stead, 2012:11). To be sustainable, communities "must meet the different needs of their residents, including housing, basic services, community facilities, transport and livelihood/job opportunities, while…being sensitive to the surrounding ecosystems and natural resources" (RSA, 2011:28). However, informal settlements are confronted by manifold challenges that detract from the realisation of sustainable communities and environments. To give a brief context of these challenges, the next discussion grounds informal settlements in Namibia and South Africa, historically.

3.3 Historical overview of informal settlements in Namibia and South Africa

The emergence of informal settlements in Namibia and South Africa is rooted in their colonial and apartheid past, which engendered segregated development patterns. This reality is testimony to how, "past and present political, economic, cultural and social orders, shaped in specific contexts, have unequal consequences for global, national and local communities" (*Global Agenda*, 2012:1). It is not the researcher's intention to give a comprehensive historical context of informal settlements in Namibia and South Africa but to highlight the major issues that influenced their emergence.

3.3.1 Informal settlements in Namibia

Namibia became an independent nation in 1990. However, the combined effects of colonisation by Germany and subsequent governance by the then apartheid South African regime, "disenfranchised the Namibian people [in many ways], resulting in deeply embedded levels of extreme poverty and inequality" (Chiwara & Lombard,

2017:563). Both administrations were grounded in the pursuance of skewed forms of development that were based on skin colour. The then South African Odendaal Commission is reported by the KRC (2015:52), to having been instrumental to the creation of the homeland system in Namibia, which in 1962, confined black communities to various communal areas based on their ethnicities. Apartheid was therefore driven by separate forms of development that created exclusive urban spaces for white communities, while black communities were confined in rural areas. The UN-Habitat (2001:29) reports that during apartheid, a limited number of black people were allowed to migrate into urban areas as contract labourers and separate residential areas, which are commonly known as townships, were created to house them. Gold, Muller and Mitlin (2001:3) point out that separate development under apartheid meant that the white-only suburbs had well developed infrastructure, while townships were less developed. Furthermore, land and housing ownership and the extension of housing in townships was strictly forbidden, resulting in grossly overcrowded living conditions. As noted by Muller and Mbanga (2012:67), it was only in 1987, when the right to own housing and land was extended to black Namibians.

The declaration of Namibia's independence in 1990 was a major turning point in the country's history that brought democracy and the pursuit of human rights for all. The removal of apartheid era restrictions on the free movement is noted to have resulted in black communities gradually moving out of overcrowded townships (Gold et al., 2001:3) and rural areas (SACN, 2016:29) into shack settlements on the periphery of urbans. The WB (2002) reports that the progressive influx of people in Windhoek in particular created considerable housing shortages. A mitigating measure was for the then Windhoek City Council to create two interim reception areas, in Windhoek's Havana and Okuryangava Extension 6, where individuals could set up shacks and were provided with basic water and communal sanitation facilities. The WB furthermore notes that the persistent influx of people into these reception areas during the early 1990s, resulted in their intended carrying capacities being exceeded and the decision by the city to honour these settlement patterns and embarking eventually on incrementally upgrading these areas. It is important to highlight that the study's research sites of Babilon, Okahandja Park and Kilimanjaro informal settlements are presently situated in the then Okuryangava Extension 6 reception area (CoW, 2004). It is evident that informal settlements in Namibia started off as an interim settlement

arrangement to address the urban housing crisis that followed Namibia's independence. The reality however, is that close to three decades after independence, informal settlements remain a prominent feature of Namibia's urban landscape that are characterised by extreme poverty and lack. Presently, there are 308 informal settlements in Namibia that accommodate close to one million (995 000) urban residents (Nakale, 2018:1). In Windhoek, informal settlements are concentrated in the four north-western constituencies of Tobias Hainyeko, where this study' population was drawn, in Moses Garoëb, Samora Machel, and parts of Khomasdal North constituency (Crush, Nickanor & Kazembe, 2019:3). These constituencies border the township of Katutura, which historically was the only township for black communities in Windhoek.

3.3.2 Informal settlements in South Africa

As Namibia and South Africa share a history under the same apartheid system of governance, the emergence and growth of informal settlements in these countries, though different, is closely related. The UN-Habitat (2003:208) particularly sees the adoption of the Land Act of 1913 as an event that largely dispossessed black communities in South Africa of their land, forcing many of them into wage employment in urban areas. The resultant demand for accommodation in the early 1930s, led to the formation of informal settlements on the urban fringes. As was the case in Namibia, Davis (2006:51) observes that the apartheid government created townships for black communities in South Africa but they were however denied the right to own housing and land. The UN-Habitat (2003:208) attribute devastating droughts in the late 1970s and early 1980s, an even more unprecedented rate of migration, as people moved into urban areas in search of livelihoods. It also reports that it was during the latter part of the 1980s, when Orange Farm was established as an informal settlement by poor migrants who settled on the southern fringes of Johannesburg.

Huchzermeyer, Karam and Maina (2014:154) report that informal settlements have been part of Johannesburg since its inception, while some have been displaced by formal development, others have re-emerged elsewhere. The context provided in this section shows similarities in how black communities in both Namibia and South Africa were denied the right to own land and housing prior to 1987 and the attainment of South Africa's democracy in 1994. Although apartheid has long being abolished it has

enduring consequences for present and future generations that are rooted in inequality. Johannesburg has over 180 informal settlements (CoJ, 2017:79). Informal settlements in Johannesburg are, "concentrated in an arc along the city's western periphery, from Ivory Park in the north-east, past Diepsloot in the north-west, down to Orange Farm in the far south" (Huchzermeyer et al., 2014:160). It is important to highlight that informal settlements in both Windhoek and Johannesburg are located on the periphery of townships where their residents live far from employment options, health, education and other services, which are needed for the realisation of socio-economic rights. The next discussion embeds the continual growth of informal settlements in Namibia and South Africa against a backdrop of rapid urbanisation, poverty and historically entrenched social and economic inequalities, which all have a profound negative impact on the realisation of environmental and community sustainability in urban areas.

3.4 The challenges that stand in the way of realising environmental and community sustainability for informal settlement communities

In this section, the researcher discusses the social, economic and environmental challenges that impinge on the realisation of environmental and community sustainability for informal settlement communities. The challenges are discussed within the guiding framework of the *2030 Agenda,* which provides a set of 17 SDGs and 169 targets for people, the planet, prosperity, peace and partnerships for development (UN, 2015b:2).

3.4.1 Rapid urbanisation

Rapid urbanisation has manifold implications for the realisation of sustainable environments and communities. In 2017, 69 percent of the adult population and 57 percent of the child population in South Africa lived in urban areas (Hall, 2018:157). While Namibia's urban population is estimated to constitute half of the country's population (Gopaldas & Ndhlovu, 2018:4), close to 40 percent of the country's population lives in shacks in urban areas (Nakale, 2018:1). Due to rapid urbanisation, Namibia's urban population is projected to increase to 60 percent of the country's population by 2030 (NSA, 2018b). On a regional level, Africa's urban population is projected to reach 56 percent by the year 2050 (UN, 2014b:1). The challenge that

rapid urbanisation presents lies in the fact that urban areas lack the ability to adequately supply basic services, socio-economic opportunities and environmental resources. UN-Habitat (2016b:1) reports that rapid urbanisation presents a trend where more and more people are flocking to cities which lack the capacity, resources and opportunities to equitably sustain all people. The overstrained capacity of urban areas is also evidenced in how they are unable to meet the demand for adequate housing that rapid urbanisation presents. Figures provided by the UN-Habitat (2016a:3) show that close to 62 percent of Africa's urban population live in slums and informal settlements. Rapid urbanisation is noted to contribute to the massive growth of informal settlements in major cities in Namibia (GRN, 2004:129), and South Africa (SACN, 2016:25), with the average residence period in informal settlements in South Africa being 10 years (RSA, 2012:106). Turok, Budlender and Visagie (2017:1) argue that the numerical significance of people living in informal settlements means that the global aspirations of ending poverty and ensuring adequate living standards for all are intricately bound by the prevailing static conditions in informal settlements.

The underlying factors of rapid urbanisation in Namibia and South Africa are remarkably similar. For instance, the GRN (2004:170) attributes rapid urbanisation in Namibia to high population growth rates, migration to urban areas due to recurrent droughts and the perception that life is easier and better in towns. Similarly, rapid urbanisation in South Africa is rooted in high urban birth rates and migration from less resourced towns, rural areas and neighbouring countries (Hall, 2018:157; SACN, 2016:25). Migration trends to Johannesburg are fuelled by its status as the country's economic hub (SACN, 2016:21), while people migrate to Windhoek because it has, "the most vibrant economic and industrial development of all urban centres in Namibia" (Weber & Mendelsohn, 2017:72). In light of the challenges that rapid urbanisation presents, SDG target 11.3 aims to enhance inclusive and sustainable urbanisation by the year 2030.

3.4.2 Social and economic inequalities

Income inequality is highly prevalent in Namibia and South Africa. Inequality implies a contradiction where certain segments of the population battle with poverty, while others live extravagant lifestyles (Jauch, Edwards & Cupido, 2011:231). It furthermore translates into inequalities in various other spheres of life that limit a large fraction of

the population from accessing social, economic opportunities and political resources (UNDP, 2013:27). For poor people, inequalities cancel out the benefits of living in a better-off society (Green, 2012:4). The pursuance of neo-liberal, market driven-approaches is seen by Kanyenze, Jauch, Kanengoni, Madzwamuse and Muchena (2017:30) as having attributed to stubbornly high levels of inequalities in Namibia and South Africa and the failure of the state to redress the apartheid legacies of inequality and exclusion. As noted by the UN Economic and Social Council (UNESC) (2019:5), rising income and wealth inequalities risk undermining efforts to achieve sustainable development as they threaten to erode social cohesion and entrench insecurities.

Inequality also has an unfair impact on women and children. As noted by UNICEF (2012:8), in a world where inequality exists it is children who suffer the most from the combined negative effects of poverty and inequality. Similarly, poverty and inequality increase women's vulnerability to gender-based violence (South African Human Rights Commission (SAHRC), 2014:50). Although women and girls constitute half of the world's population, they continue to be denied full access to human rights and the social and economic opportunities that the world has to offer (UN, 2015b:6). Worldwide gender inequalities are seen in that women represent less than 40 percent of employed people globally. Additionally, a fifth of women aged between 15 and 49 years experienced physical or sexual partner violence between May 2018 and 2019 (UNESC, 2019:4). As a lack of power and voice entrench inequality across the world (Green, 2012:43), gender equality and the empowerment of women and girls is a prerequisite for the realisation of sustainable development. Cheston and Kuhn (2002:175) view empowerment as a process of change by which individuals and groups with little or no power gain power and the ability to make choices in matters affecting their lives. It is quite evident that empowered communities are better positioned to contributing to a more sustainable society. Ensuring education for all, as is the focus of SDG 4, is a necessary pre-requisite for the realisation of gender equality and women empowerment (UN, 2015b:14). In light of world-wide patterns of inequality, SDG 5 focuses on reducing gender inequality, while SDG 10 targets reducing income inequality within and among countries (UN, 2015b), the result being that a realisation of either of the two SDGs has a positive reinforcing impact on the attainment of the other.

3.4.3 A lack of formal ownership of land and housing in urban areas

The racially skewed ownership of land and housing in Namibia and South are testimony to how the legacy of the apartheid era policies continue to haunt and impinge on the well-being of present generations of urban and rural residents. Recent land audits in both countries attest to this reality. For instance, the white Namibian population accounts for just 10 percent of the country's population but owns 70 percent of the commercial freehold agricultural land in Namibia, while the black Namibian population owns 16 percent of this land (NSA, 2018a:48). Likewise, the Whites in South Africa own 72 percent, Coloureds 15 percent, Indians 5 percent and Blacks 4 percent of farms and agricultural holdings that are owned by individual land owners in this country (RSA, 2017:2).

As stipulated by SDG target 1.4, equal access to ownership and control over land and other forms of property are a prerequisite for sustainable development (UN, 2015b:15). However, the urban land and housing markets in both Namibia and South Africa follow a neo-liberal path that creates inequalities in land and housing ownership, which is ultimately tied to one's social class. Studies in South Africa (Mzileni, 2018:1) and Namibia (Chiripanhura, 2018:1; Weber & Mendelsohn, 2017:92) point to how the neo-liberal valuation of land and housing exclude the vast majority of urban residents in these countries from accessing land and housing. At the same time market dynamics dictate that rental accommodation is too expensive for the urban poor and for these authors, these are the major factors that contribute to the proliferation of informal settlements in Namibia and South Africa.

Dominelli (2014:133) argues that the current global socio-economic system of neo-liberalism results in unsusustainable models of development, unequal power dynamics and the unequal distribution of resources that exacerbate structural inequalities and affect poor and low income groups the most. Such development processes in turn, comple poor urban communities to seek shelter in informal settlements, where the land is acquired through illegal invasions. However, housing in informal settlements is a far cry from being considered as adequate, as it is often made up of makeshift shack dwellings that are constructed from a variety of salvaged and other materials that include corrugated iron sheets, wood, mud and plastics (UN-Habitat, 2003:209). By implication, housing in informal settlements lack resilience.

Resilience is an important dimension of sustainable communities that is emphasised by SDGs 9 and 11, which respectively direct efforts at building resilient infrastructure and making cities and human settlements inclusive, safe, resilient and sustainable (UN, 2015b:14).

Urban areas in Namibia and South Africa epitomise extreme social and economic inequality as evidenced by the separation of residential areas according to class and the concentration of the poor in informal settlements (UN-Habitat, 2001:2). Inequalities in urban areas are also seen in that middle and upper-income residents have property rights, while poor communities live in informal settlements where they do not own the land and cannot invest in it (Weber & Mendelsohn, 2017:94). A lack of legal security of tenure or in other words, of the formal documentation that entitles a person to occupy a certain piece of land or structure is a distinguishing feature of informal settlements. Security of tenure, as highlighted by the UN-Habitat (2003:11) offers residents legal protection against forced evictions and other threats.

Weber and Mendelsohn (2017:33) point to the contradiction that although many of the informal settlements in Windhoek are serviced with municipality roads, communal toilets and water points, these areas have never been formally proclaimed and their residents do not hold legal tenure over the land. A study by De Wet et al. (2009:15) also established that while many Orange Farm residents claim ownership of their houses, ownership does not necessarily imply that they are in possession of a deed of sale, but that they own the materials that were used to construct their houses. Hence, there are clear similarities between informal settlement communities in Windhoek and Orange Farm in relation to a lack of legalised tenure. In Namibia, “formalised land tenure is a condition for households to access municipal services privately” (Karuaihe, 2019). As such, the extension of security of tenure to the urban poor is important for building sustainable communities as it gives the residents the leeway to invest in these communities without fear of evictions. A study by Weber and Mendelsohn (2017:26) acknowledged the important contribution of security of tenure in making urban areas more socially just and inclusive, especially as secure tenure enables residents to secure the investments that are made into their properties. They furthermore argue that, “for poor people, such savings are especially important to reduce socio-economic vulnerability, and to provide an economic springboard for future generations.”

It is acknowledged in both Namibia and South Africa that the transfer of land ownership to the majority black communities is an amicable solution to the current inequities in urban land and housing ownership. Towards this end, the South African National Assembly approved in 2018, a process that would see an amendment of Section 25 of the Constitution to allow for the expropriation of land without compensation (Parliament of the RSA, 2018). While addressing the UNGA during the same year, the Namibian president called for a change to Namibia's constitution to allow for land expropriation without compensation (Allegri, 2018). Gopaldas and Ndhlovu (2018:5) however note that, "Namibia – unlike South Africa, has made no firm commitment towards a constitutional amendment."

3.4.4 Environmental degradation in informal settlements

Inherent in the framing of SDG 15 is the imperative to protect, restore and promote the sustainable use of terrestrial ecosystems, to sustainably manage forests, combat desertification, to halt and reverse land degradation and biodiversity loss (UN, 2015b:24). This SDG encapsulates the requirement for people to act as stewards of natural ecosystems and to ensure that current and future activities do not degrade local resources (Rainey, Robinson, Allen & Christy, 2003:709). However, informal settlements create and are associated with environmental degradation and biodiversity loss (Weber & Mendelsohn, 2017:29). The environmental degradation and loss of biodiversity in informal settlements stems from the removal of vegetation in and around informal settlements for firewood and for making room for more shacks. Environmental degradation is also exacerbated by living in ecologically sensitive areas. Gold et al. (2001:19) have observed how the natural vegetation in informal settlements in Windhoek has been depleted through the cutting down trees for firewood in the absence of electricity and other energy alternatives. As demonstrated in a study by Yeld (1997:27), poor people in their efforts to escape poverty, through the more concerted extraction of natural resources, end up damaging their immediate natural environments so as to help their families to survive for the present. As such, social and economic exclusion pushes communities to destroy their own immediate environments. A study by Rogge (2000:46) also established that poor environmental conditions are exacerbated by the harsh conditions of living in poverty, with the poor being at an even greater risk of experiencing the combined effects of economic

problems and environmental problems. These findings reinforce a point raised by Conradie (2003:127) that, "environmental degradation is not a separate concern from poverty…but often a manifestation thereof." The environmental degradation that is associated with informal settlements also occurs because they are often set up in swampy areas, river beds and on hill tops. For Conradie (2003:126), these areas constitute land which ideally should not be inhabited but is seen by poor people as underutilised, and therefore open for occupation. Marginal areas are often rife with intestinal parasites that infect and harm the health of poor children and adults living in cities worldwide (Davis, 2006:143; UN-Habitat, 2003:73). As such, living in informal settlements is a wager against inevitable disaster, especially as more and more poor people locate in hazardous and marginal locations (Davis, 2006:39).

Yeld (1997:17) argues that it is in impoverished and overcrowded communities where environmental ethics are often considered as irrelevant and conservation concerns seen as an unnecessary luxury in the never-ending struggle for survival. Apart from being a danger to human life, setting up homes in environmentally hazardous areas contributes to the deterioration of already vulnerable ecosystems. Informal settlement communities are therefore prone to "the differentiated outcomes of disasters that affect poor and marginalised communities the most" (Dominelli, 2013:433). Informal settlement communities are often aware of the environmental degradation that occurs in and around their communities but they often feel powerless to do much about their situation (Gold et al., 2001:11).

Moser and Satterthwaite (2008:2) reveal that the occupation of floodplains by informal settlement communities and a lack of household waste collection all combine to cause seasonal floods that disproportionately impact on informal settlement communities. Inadequate waste removal systems in informal settlements have a profound impact on ecological ecosystems in these areas and are a significant contributor to land and water pollution (CoJ, 2018). Globally, two billion people do not have access to waste collection services, while another three billion people lack access to controlled waste disposal facilities. Increasing urban populations and the existence of consumer-oriented economies amid rising income levels and rapid urbanisation all contribute to the increase in the amount of waste that is generated in urban areas (UNESC, 2019:17). SDG target 6.3 directs efforts at eliminating dumping and minimising the release of hazardous wastes and substantially increasing recycling and safe reuse by

2030 (UN, 2015b:18). This target is quite significant seeing that there are finite limits to the impacts that the environment can withstand without dangerous deterioration (IUCN et al., 2009:10).

3.4.5 Poverty

Agenda 21 recognises informal settlements as an inevitable consequence of poverty and urbanisation (UNCED, 1992:46). While informal settlements do not accommodate all of the urban poor, it is in informal settlements where it is easiest to see poor people in their highest concentrations (UN-Habitat, 2003:28). Additionally, informal settlements are not homogenous places as people who earn reasonable incomes live within or on the edges of informal settlements (Ballinger & Wilke, 2015:36). Informal settlements also point to the urbanisation of poverty, which for the UN-Habitat (2003:30), entails a process where the locus of global poverty is moving from rural to urban areas. The *2030 Agenda* views poverty in income and multi-dimensional terms and defines extreme income poverty as living on less than one US$1.25 a day (UN, 2015b:15). An income measure of poverty is important considering the highly monetised nature of urban life. As pointed out by Pieterse, Parnell and Haysom (2015:21) the routine costs associated with living in urban areas imply that it is near impossible for anyone to have a decent quality of life without a stable job or income.

Income poverty is exacerbated by unemployment. Pendleton, Crush and Nickanor (2014:194) report that in spite of the actual or perceived opportunities that urban areas provide, unskilled migrants face the harsh reality that urban areas are also places where employment is hard to come by, poverty is widespread and the quality of life is the worst. Namibia's unemployment rate stood at 33.4 percent in 2018 (NSA, 2018c:19). In South Africa, 29 percent of the working age population is unemployed (SSA, 2019:1). According to the CoJ (2018) the majority of residents in Region G of Johannesburg are unemployed and live below the poverty line. Similarly, a significant proportion of job seeking adults in Namibia are unemployed due to a lack of education and skills (KRC, 2015:25; Nickanor, 2013:99). Turok et al. (2017:3) attribute unemployment in South Africa to the fact that the economy has not been able to generate enough new jobs, coupled with an increasing proportion of jobs that require skill levels that are out of reach for most unemployed youth. Globally the youth are three times more likely to be unemployed than adults (UNESC, 2019:4).

A lack of education and skills implies that informal settlement residents often settle for low paying jobs in the informal sector (UNICEF, 2012:5). However, it is not unusual to encounter informal sector workers who have incomes that exceed the earnings of those in the formal sector (UN-Habitat, 2003:28). The barriers that income poverty presents are many and these barriers are in relation to access to health, education and other basic services (Adésínà, 2007:24; Hall & Sambu, 2018:137). In view of income poverty in these countries, both Namibia and South Africa implement social protection measures to reduce the income disparities between the rich and poor (Jauch et al., 2011:225; Lombard, 2008:121). Strong social protection systems are viewed by the UNESC (2019:6) as crucial in enabling those left behind to get back on their feet and escape poverty, noting however that, social protection services worldwide still need to be brought to scale.

The *2030 Agenda* also aims to end poverty in all its forms everywhere and to reduce at least by half, the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions (UN, 2015b:15). This far reaching view of poverty takes into consideration the fact that poverty is a complex phenomenon that cannot be solely construed in monetary terms. A classic definition of multi-dimensional poverty by Narayan (1999:26), views poverty as the lack of whatever is necessary for material well-being, including a lack of food, housing, land and other assets. This definition is consistent with Green's (2012:6-7) assertion that, "poverty is about much more than a low income…It is a sense of powerlessness…and exclusion from decision-making, the relative lack of access to public services, the financial system, and…any other source of official support." Children remain overrepresented among the poorest people, as one in five children lives in extreme poverty (UNESC, 2019:4). The multi-dimensional view of poverty by the UNGA (2006:28), views children living in poverty as being deprived of nutrition, water, sanitation facilities, shelter, education, participation, protection and access to basic health-care services, irrespective of how wealthy their households appear to be. This definition speaks to the daily realities of a lack of access to basic needs that is experienced by children living in informal settlements. The reverse of such multi-dimensional poverty as highlighted by Green (2012:7), is not simply an increase in income, but a wider notion of well-being that is comprised of good health, physical safety, decent work, and other non-monetary factors. This is the reason why the UN-Habitat (2003:29) argues for

measures that address the inter-related dimensions that make up poverty, as addressing poverty monetarily may not deal with the many other aspects needed to ensure a sustainable transition from poverty.

Eradicating poverty in all its forms is also a prerequisite for realising environmentally sustainable communities. As Yeld (1997:17) emphatically states, poverty should be eliminated for both social and environmental reasons as it is associated with environmental destruction. An observation by WCED (1987:16) that "a world in which poverty is endemic will always be prone to ecological and other catastrophes," remains true to this day. The eradication of poverty is also a precondition for peace. The inability of large segments of poor urban communities to escape poverty and to access urban resources, services and opportunities is noted by the SACN (2016:10) to at times result in collective violence and xenophobic attacks. In the words of the UN (2015b:2), "there can be no sustainable development without peace and no peace without sustainable development."

3.4.6 Hunger

A study by Oxfam (2014b:12) established that people living in urban informal settlements make up the largest percentage (32.4 percent) of people who experience hunger in South Africa. Research conducted in Namibia by Crush et al. (2019:4) also point to the extremely high incidences of food insecurity amongst households living in informal settlements in Windhoek. A survey done in Namibia by WHO (2017) shows that children from the poorest urban quintile in this country, are five times more likely to be chronically malnourished due to persistent food insecurity and are 2.7 times more likely to die before the age of five than children from the wealthiest urban quintile. The findings confirm a finding by Green (2012:6) that the poverty of parents can potentially ruin their children's futures. Separate studies done by UNICEF (2017:1) and Oxfam (2014b:4) concur that Namibia and South Africa, for upper-middle income countries, record significantly higher rates of stunting amongst children under five years, as evidenced by a stunting prevalence of 24 percent in Namibia, and 26.5 percent in South Africa. Stunting is a measure of chronic malnutrition in children, which is linked to poverty and a lack of access to adequate food (Grace, Davenport, Funk & Lerner, 2012:406).

South Africa and Namibia respectively feature on numbers 51 and 103 of the Global Hunger Index (GHI), which measures the hunger levels of 118 countries (International Food Policy Research Institute (IFPRI), Concern Worldwide, Welthungerhilfe & UN, 2016:12). The persistent challenge of hunger in Namibia is seen in that it is one of the only two countries in the world that have had the lowest percentage reductions in GHI scores since 2000 (IFPRI et al., 2016:13). Unlike Namibia which is a net food importing country that imports 96 percent of its fruit and wheat, 60 percent of millet and 40 percent of white maize from foreign countries (Nakale, 2019:1), South Africa produces enough food to feed each and every one of its citizens (Oxfam, 2014b:2). The paradox of hunger in a food secure South Africa is attributed by Oxfam to ever-increasing food prices that see the poorest income groups spending as much as half of their earnings on food. This reality affirms an observation by Ericksen, Bohle and Stewart (2012:67) that food insecurity arises from deep-rooted structural poverty and social and economic factors that restrict access to food.

The implications of chronic hunger and malnutrition are devastating as they undermine the health, well-being and life chances of poor children and adults. Childhood development studies by Bartlett (2008:504) and Jabry (2002:4) show that malnutrition in children causes irreversible physical and mental developmental damages, a fact that spells bad news for realising community sustainability. As pointed out by the UN (2015a:1), good health during children's early years is not only foundational for school success but for their capacity to contribute meaningfully to society as adults. It is therefore important to invest in food security for all people in view of enhancing the well-being of present and future generations. Towards this end, SDG 2 directs efforts at ending hunger, achieving food security and improved nutrition for all people (UN, 2015b:15). While hundreds of millions of poor people across the world face hunger, overconsumption and an epidemic of obesity blights the lives of the rich (Green, 2012:5). Key to making urban areas sustainable is curbing the individualism, consumerism and overconsumption that transverse the global consumer culture (Mary, 2008:40), which equates well-being to material abundance and consumption (Coates, 2005:29). There is therefore need for people to adopt the ethic for living sustainably, which requires a re-examination of people's values and altering behaviours that detract from the goal of sustainable development (IUCN et al., 2009:11).

3.4.7 Lack of access to basic sanitation and affordable, safe drinking water

Access to basic sanitation and safe drinking water are basic human rights that enable communities to lead decent, healthy and dignified lives. The *Strategic Framework for Water Services* defines a basic sanitation facility as one that is safe, ventilated, and easy to keep clean and one that minimises the risk of the spread of sanitation-related diseases and enables the removal of human waste and wastewater in an environmentally sound manner (RSA, 2003:46). SDG 6 aims to ensure sustainable access and management of water and sanitation for all by 2030 (UN, 2015b:18). Realising this goal is particularly important seeing that for the hundreds of millions of people living in informal settlements, toilets are rare, while running water to one's household is very scarce (UN-Habitat, 2016c:16). Poor sanitation and a lack of access to safe drinking water are precursors for disease outbreaks. An example to illustrate this is the hepatitis E outbreak that started in 2017 in Namibia and infected hundreds and killed several informal settlement residents (New Era Reporter, 2018). The outbreak continued to take its toll in 2019, with cases of infected people having risen to 3819 by the beginning of August (Beukes, 2019:7). Hepatitis E is classified by the WHO (2018b) as a rare form of hepatitis that is attributable to drinking water that is contaminated with human waste. The environmental injustices associated with the hepatitis E outbreak in Windhoek are seen in how it mainly occurred in informal settlements. Speaking from a children's perspective, UNICEF (2012:14) argues that high urban child mortality rates are concentrated in areas where extreme poverty is intermingled with inadequate basic services. SDG target 3.3 aims to end hepatitis and other water borne diseases by 2030 (UN, 2015b:16).

To put the hepatitis E outbreak in Windhoek into perspective, UNICEF (2017:3) reports that Namibia has one of the highest rates of open defecation in Africa as evidenced by 51 percent of the country's population and 80 percent its rural population who practise open defecation. Kahiurika and Coetzee (2016:1) argue that in any one of the densely populated informal settlements in Windhoek, it is common to see children engaging in open defecation, while adults use flying toilets, a local term, which refers to plastic bags that are used for human excretion and thereafter tossed onto open spaces. Although South Africa fares significantly better than Namibia in terms of access to sanitation, open defecation remains a challenge in informal settlements

(SSA, 2016). Considering the negative impacts of open defecation on the environmental and on human health and well-being, SDG target 6.2 aims to end open defecation in all countries by the year 2030. Revitalised efforts are needed for the realisation of these SDG targets, seeing that more than half of the global diarrhoeal disease burden is linked to unsafe drinking water and inadequate sanitation (UNESC, 2019:10).

Informal settlements in both Namibia and South Africa are not completely devoid of toilets, as local authorities extend access to communal toilet facilities in these areas. The CoW (2017:54) however, argues that there are very few toilets in informal settlements relative to an ever-increasing informal settlement population. Moreover, most of the communal toilets in informal settlements are unusable due to poor maintenance, frequent water shortages and vandalism. A study conducted by Okuhle and Mngenela (2018:1) also demonstrates that access to toilets in informal settlements in South Africa remains a challenge, with the few available toilets lacking privacy and safety. Resultantly, women bear the brunt of gender-based violence and risk sexual assault and harassment due to a lack of access to adequate sanitation (SAHRC, 2014:63; Weber and Mendelsohn, 2017:23).

The right to water is constitutionally guaranteed by section 27(1)(b) of the Constitution of RSA, 1996. In particular, section 27(2) mandates the state to take reasonable measures, within its available resources, to achieve the progressive realisation of this right. Towards this end, South Africa has a free basic water and sanitation policy that commits to the provision of free water, electricity, sanitation and solid waste removal to indigent households, but service delivery in the poorest communities remains a major challenge (SAHRC, 2014:28). While Namibia's constitution does not enshrine social and economic rights, the country has a prepaid water system that enables informal settlement communities to purchase water at the various communal water points in informal settlements (Weber & Mendelsohn, 2017:80). Affordability, however remains a key challenge as some resort to drinking water from unsafe sources as is evident in the ongoing hepatitis E outbreak. Moser and Satterthwaite (2008:15) argue that not only is the public provision of infrastructure and services inadequate in informal settlements, there are few mechanisms by which low-income citizens can hold their local governments to account for the provision of these services.

3.4.8 Lack of access to affordable, reliable and sustainable forms of energy

A lack of access to affordable, reliable and sustainable forms of energy remains a major challenge in informal settlements. For instance, a study done by the SACN (2016:193) established that during winter, a brown haze may be seen over many informal settlements in South Africa due to the burning of wood and coal for cooking, with the air quality in informal settlements falling far below set air quality standards. Similarly, a lack of clean forms of energy mean that women living in informal settlements and rural areas in Namibia bear the brunt of respiratory and eye problems that result from indoor air pollution, particularly as cultural norms dictate that women do most of the cooking (GRN, 2015:18). Globally, people living in poor communities die from cardiovascular and respiratory diseases that are directly associated with indoor and outdoor air pollution, with sub-Saharan Africa being one of the worst affected regions, owing to the large proportion of people who rely on polluting fuels for cooking (UNESC, 2019:10).

A lack of access to affordable and sustainable forms of energy in informal settlements in Windhoek is noted by Gold et al. (2001:19) to contribute to an increased scarcity of natural vegetation in and around informal settlements and the greater travelling distances needed to go in search for firewood that put more pressure on women and exacerbate gender inequality. Conversely, access to modern sources of energy frees up time for households to engage in productive economic activities (Weber & Mendelsohn, 2017:21). A lack of access to affordable modern sources of energy in informal settlements is also associated with fire hazards. To illustrate this, the Fire Protection Association of Southern Africa (2018) documented an alarming 5283 shack fires in South Africa between 2016 and 2017. Similarly, shack fires are a daily challenge for informal settlement communities in Windhoek. Sadly, it only takes a few minutes for a shack to burn down completely (New Era Reporter, 2016). The extraordinarily high population densities in informal settlements and the flammable nature of their dwellings are noted by Davis (2006:127) to turn a simple fire accident into a mega-fire that destroys hundreds of shacks. Shack fires therefore endanger people's lives and exacerbate poverty by destroying the few tangible assets that informal settlement communities can claim ownership of. It is against this background that SDG 7 aims to ensure access to affordable, reliable, sustainable and modern

energy for all (UN, 2015b:14). In the next discussion, the researcher outlines some of the responses Namibia and South Africa have implemented in view of addressing the challenges that informal settlements present.

3.5 Responses to informal settlements in Namibia and South Africa

Evictions, mass housing and informal settlement upgrading programmes and self-help group savings schemes constitute some of the strategies that have been implemented in response to the persistent challenge of informal settlements in Namibia and South Africa.

3.5.1 Evictions

Informal settlement residents live with the constant threat of eviction and of losing their modest assets, with the uncertainty of being evicted putting an immense additional pressure on households (Mooya & Cloete, 2010:5; Weber & Mendelsohn, 2017:27). While the Namibian constitution does not contain any explicit guarantees with regard to adequate housing or against forced evictions, Ellinger, Odendaal and Von Carlowitz (2015:1) ascertain that court judgments delivered in both Namibia and South Africa have in many ways restricted the power of local authorities to evict illegal settlers. This is especially true when informal settlements are erected on public land, as the state is forced to tolerate informal settlement residents unless, it is willing and able to provide alternative housing. GRN (2015:23) reports that informal settlement communities in Namibia are protected by an anti-eviction directive that was issued in 2015 by the cabinet.

South Africa however, enacted legislation in the form of the Prevention of Illegal Eviction and Unlawful Occupation of Land Act 19 of 1998 to protect the urban poor from arbitrary evictions. The Act gives effect to section 26(3) of the Constitution of RSA, 1996 which states that “no one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances.” In the interests of creating sustainable urban communities, forced evictions, without alternative adequate housing arrangements constitute a violation of human rights. The failure to provide alternative adequate housing to the victims of forced evictions is noted by the UN (2014a:1), to put families in life and health-threatening situations that arise from losing access to food, education, health care,

employment and other livelihood opportunities. Forced evictions therefore serve to further marginalise already vulnerable communities.

3.5.2 Mass housing programmes

Namibia has yet to implement mass housing schemes for low income earners, as private and public sector developers in this country specifically target middle and upper-income households (Weber & Mendelsohn, 2017:92). As such, "many Namibians are excluded from the housing finance market because they have low incomes, are poor, or they are unemployed" (Chiripanhura, 2018:1). An interview that Nakale (2018:1) conducted with Mbanga, who is the national facilitator of the SDFN, established that the low levels of income amongst informal settlement communities in Namibia play a major role in reinforcing the inequalities that characterise the Namibian housing market. Contrariwise, South Africa, through its RDP mass housing programme has delivered 4.3 million houses and housing subsidies to 20 million low income earners, since 1994 (RSA, 2016:1). While the provision of adequate housing and services to informal settlement communities is important, housing on its own, does not solve the challenges of unemployment and poverty that characterise poor communities. In this regard, Turok (2016:13) argues that although many informal settlement communities in South Africa have over the years been relocated into newly built RDP housing, the houses are often located far away from job opportunities, amenities and community services.

3.5.3 Informal settlement upgrading programmes

Inclusive cities eliminate the urban divide that exists between the rich and poor, by promoting social integration and the mainstreaming of human rights through affording all people with access to housing, basic services and opportunities (UN-Habitat, 2013:2). Informal settlement upgrading is central to SDG target 11.1 (UN, 2015b:21) and the UN-Habitat (2013:16*) Global Housing Strategy* aims to curb social exclusion in urban areas by integrating informal settlement communities as legal urban residents who have access to basic services and the social and economic opportunities that cities provide. Informal settlements upgrading as defined by the UN-Habitat (2013:16) entails the realisation of human rights for informal settlement communities through the

provision of legality of tenure, infrastructure, basic services and improved environmental conditions.

At a country level, Namibia's *National Housing Policy* commits to upgrading 75 percent of the country's informal settlements by the year 2030 through affording informal settlement residents the right to housing and basic services (GRN, 2009:17). However, this policy has yet to practically realise what it committed to. Similarly, South Africa's *Informal Settlement Upgrading Programme* seeks to provide informal settlement residents with secure tenure and access to basic services and housing (RSA, 2010). These commitments are furthermore enunciated in the *National Development Plan* (NDP) (RSA, 2012:65) and in the strategic plans of the CoJ (2017:48) and CoW (2017:55). While informal settlement upgrading is a noteworthy initiative, similar concerns with regard to its implementation have been noted in South Africa by Misselhorn (2010) and in Namibia by Weber and Mendelsohn (2017:37). The authors argue that budgetary constraints, extremely high population densities and difficult topographies in informal settlements and a severe shortage of alternative affordable and suitably located land relative to job opportunities and social services, all combine to make informal settlement upgrading difficult to implement.

3.5.4 Self-help group saving schemes

Good case examples that demonstrate the agency of the urban poor in responding to the inequitable access to land and housing in urban areas can be drawn from both Namibia and South Africa. In Namibia, the SDFN is a consortium of 605 saving schemes and has 20400 members throughout the country. It has since its inception in the 1990s, managed to formally secure land for 6230 informal settlement households and leveraged additional government contributions that enabling it to build over 3488 houses (SDFN, 2019a). Mooya and Cloete (2010:3) report that the SDFN achieves its objectives by working with informal settlement residents by pooling savings to formally purchase land in and around informal settlements, which is then formally surveyed, sub-divided and occupied under a group tenure system.

In South Africa, the Shack Dwellers International South African Alliance (2019) mobilises informal settlement communities to engage in savings schemes, learning exchanges and enumeration programmes with the view of strengthening livelihoods and alleviating poverty, homelessness and landlessness. While these initiatives are

commendable, community action, on its own, does not solve the structural problems of poverty, unemployment and inequitable access to land and housing that see more and more people living in informal settlements, as these require strategic political decisions and structural changes that increase the opportunities that are available to the poor. The initiatives on their own are inadequate to realise the transformation that is needed for informal settlement communities to transition into sustainable communities.

3.6 Partnerships for sustainable communities and environments

As has been highlighted across this chapter, informal settlements arise from a complex interplay of inequality, poverty, migration, rapid urbanisation and a lack of access to land and adequate housing. By implication, the realisation of environmental and community sustainability for informal settlement communities requires political will coupled with human, technological, financial, infrastructural and other resources. Multi-stakeholder partnerships that include the government, local authorities, informal settlement communities, community-based organisations and professional groups are also crucial for the realisation of environmental and community sustainability. The importance of partnerships for sustainable development is emphasised by the *2030 Agenda* which sees the transition to a socially, economically and environmentally sustainable future as requiring an interdisciplinary response (UN, 2015b). Moser and Satterthwaite (2008:1) have observed the unwillingness of many local authorities to work in partnership with informal settlement residents, even though informal settlements in these cities house the majority of the city's population. For the UN-Habitat (2003:5), "the most important factor that limits progress in improving housing and living conditions of low-income groups in informal settlements…is the lack of genuine political will to address the issue in a fundamentally structured, sustainable and large-scale manner."

3.7 Summary

It is evident that realising environmental and community sustainability for informal settlement communities is a complex and multi-faceted, yet indispensable endeavour considering the wide-array of social, economic and environmental challenges facing informal settlements and urban areas in general. This chapter has conceptualised

informal settlements as housing structures that are set up on land that is not designated as a residential area, but is seen by poor communities as vacant and underutilised. It has defined the closely related concepts of environmental and community sustainability and provided a historical overview of informal settlements in Namibia and South Africa, which all emerged as a result of segregatory development patterns during apartheid.

The chapter has furthermore embedded the continual growth of informal settlements in these two neighbouring countries within a context of rapid urbanisation, poverty and social and economic inequality. It has also elucidated on the social, economic and environmental challenges for sustainable development in urban areas and in informal settlements. Some of these challenges include the skewed access to land and adequate housing in urban areas in Namibia and South Africa due to the pursuance of market neo-liberal economics, poverty, food insecurity, a lack of basic services in informal settlements. Following this, the chapter highlighted the measures that Namibia and South Africa have taken in response to the challenges that are presented by informal settlements. In the next chapter the researcher discusses the global, regional, national and social work theoretical, policy and practice frameworks that collectively guide efforts in promoting environmental and community sustainability at international, regional and national levels.

CHAPTER 4
THEORETICAL, POLICY AND PRACTICE FRAMEWORKS FOR ENVIRONMENTAL AND COMMUNITY SUSTAINABILITY

4.1 Introduction

Environmental and community sustainability is a global priority, which social workers in partnership with other stakeholders, should promote and research on in relation to the best practices and challenges in realising it (IASSW, 2016:1). This chapter explores environmental and community sustainability for informal settlement communities by drawing on a theoretical framework that is grounded in environmental justice theory, the three generations of human rights framework and social development. The chapter also highlights the global, regional and national level legislative and policy frameworks that enunciate commitments to realising environmental and community sustainability. Following this, it examines the key practice frameworks that guide social workers in translating theory and policy frameworks on integrating the social, economic and environmental dimensions of sustainable development into concrete action. These practice frameworks include developmental, environmental and green social work. The chapter ends with a conclusive summary.

4.2 Theoretical framework for environmental and community sustainability

A theory represents a system of interconnected ideas that enables a researcher to condense and organise knowledge about how a certain aspect of the social world works and why (Neuman, 2014:57). A theoretical framework combines a set of compatible and complementary theories and models within a given study (Sheafor & Horejsi, 2012:35). The utility of triangulating multiple theories lies in the fact that no single theory can adequately explain the complexity of any given phenomenon (Fowler, 2006:53). The study's theoretical framework interconnected ideas from environmental justice theory, the three generations of human rights framework and social development, with the view of grounding the study within a social, economic and environmental justice framework. Such integration enabled the researcher to capture the social, economic and environmental justice concerns and the multi-faceted

dimensions that underpin environmental and community sustainability for informal settlement communities. The study's theoretical framework was crucial in aiding the researcher in focusing the research questions and the distinct areas that needed to be explored during data collection and in structuring data analysis and the interpretation of findings (Fowler, 2006:51). The following discussion elucidates on the tenets, strengths and weaknesses of the study's theoretical framework in relation to attending to social, economic and environment justice concerns.

4.2.1 Environmental justice theory

At first glance, the term environmental justice appears to imply some form of justice that is accorded to the natural environment. Contrariwise, environmental justice is rooted in how societies do justice to individuals and communities who are disproportionately affected by poor environmental conditions (Besthorn, 2013:34). Environmental justice theory conceptualises the environment in view of where people live, work, play or go to school and how these activities interact with the physical and natural world (Bullard, 2008:22). Environmental justice therefore takes a holistic view of the environment that can be used in examining the interactions between the human, built and physical environments in informal settlements. As is highlighted in sub-section 3.3.4 of Chapter Three, informal settlement communities live in degraded and ecologically hazardous environments. At the same time, a lack of basic services in informal settlements means that they also contribute to degrading the environments in which they live. This status quo is rooted in social and economic exclusion and a lack of access to habitable land, adequate sanitation, housing and clean forms of energy, which ultimately contribute to environmental degradation in informal settlements.

Miller et al. (2012:271) note that the dynamic relationship between poverty, ecosystem services and pollution that sees poor and marginalised communities suffering disproportionately from environmental impacts is an important focus of environmental justice. As such, environmental issues should always be explored alongside poverty, so as to work towards environmental justice and the social and economic inclusion of all people (UNDP, 2016:128). The manner in which environmental justice draws interlinkages between poverty and environmental concerns attests to how environmental justice functions within a human rights and social justice framework

(Miller et al., 2012:271). Hence, environmental justice is both a social justice and civil rights concern (Monsma, 2006:445). However, environmental justice extends "the human rights focus of social justice to concerns about a larger version of environment and how it affects humans" (Miller et al., 2012:271). Conradie (2003:127) argues that the inextricable link between environmental degradation and social justice means that there can be no serious commitment to social and economic justice that does not include an ecological responsibility and vice versa.

Environmental justice has its historical roots in citizen protests in America during the 1980s, which protested against the siting of hazardous and polluting industries and the dumping of toxic waste in areas that are predominantly inhabited by people of colour (Agyeman, Bullard & Evans, 2002:81). Environmental justice seeks to eliminate harmful practices in housing, land use, industrial planning, health care, and sanitation services (Bullard, 2008:22). Concerns with the citing of toxic industries in poor communities are not unique to western industrialised countries. To illustrate this, the Goldman Environmental Prize (2014) cites that whereas, the community of South Durban, in Durban South Africa is home to 300 000, mostly low-income residents it hosts almost 70 percent of Durban's industries. The disproportionate impact of toxic chemicals on this community has led to its infamous label as the cancer valley, owing to the high prevalence of cancer, asthma and bronchitis in South Durban.

From a historical viewpoint, apartheid era policies in both Namibia and South Africa gave rise to multiple environmental injustices in relation to the control over land and natural resources, a lack of access to environmental services and the disproportionate impacts of industrial toxicity on black communities (UNDP, 2014:18). Such injustices are captured in the term environmental racism, which refers to any policy, practice, or directive that differentially affects or disadvantages, whether intentionally or unintentionally, individuals, groups, or communities based on race or colour (Bullard, 2008:10). Conradie (2003:127) argues that the pursuit of exploitative economic policies, racial polarisation, gender discrimination and class inequities create environmental injustices that have a disproportionate impact on poor communities. Against this background, environmental justice theory posits that, "every human being and human community is entitled to a life unencumbered by deleterious environmental conditions" (Besthorn, 2013:34). This means that within an environmental justice

framework all individuals, irrespective of their social status, have the right to be protected from environmental degradation. An important contribution of the environmental justice movement is in how it highlighted the structural social and economic differences associated with environmental protection (Monsma, 2006:448). Dominelli (2013:436) gives credit to the 1972 Stockholm Declaration and the 1992 Rio Declaration for spearheading the requirement for environmental justice at a global stage.

In view of the environmental injustices that largely befall poor communities, the primary mission of environmental justice is to ensure that when environmental calamities occur, they are not disproportionately borne by any specific individual or groups of people (Besthorn, 2013:34; Environmental Protection Agency, 2017:1). Towards this end, environmental justice seeks to realise the equitable distribution of environmental burdens and benefits associated with economic growth across all societal groups (Bullard, 2008:7). Environmental justice additionally provides a mechanism of accountability for the protection of rights and the prevention and punishment of wrongs related to the disproportionate impacts of economic growth, rising pollution and degradation of ecosystems on the poor (UNDP, 2014:5). It calls for targeted action and resources that address the disproportionate impacts of environmental injustices (Bullard, 2008:3).

Environmental justice is underpinned by the mutually reinforcing facets of distributive and procedural justice. As a key environmental justice concern, distributive justice seeks to realise the spatial fairness of the physical distribution of environmental burdens and benefits (Walker, 2012:10). A lack of social and distributive justice is evident in the high levels of disaster vulnerability and low levels of resources in less developed communities and regions (Zakour, 2011:226). Procedural justice is concerned with the participation and meaningful involvement of poor and marginalised communities in environmental decision making, with the main value of procedural justice being its contribution in making distributive environmental justice a reality (Global Justice and the Environment Project, 2018). The equitable sharing of environmental benefits such as clean water and land amongst rich and poor urban communities, and the meaningful involvement of informal settlement communities in efforts that highlight the interaction between social and economic exclusion and

environmental injustices are important for the realisation of sustainable environments and communities.

An important contribution that environmental justice theory makes in relation to the study lies in the manner in which the theory offers a framework through which social injustices, inequalities and environmental issues are interconnected. The theory succeeds in unearthing the intricate associations between living in poverty and poor environmental conditions. Within the ethos of leaving no one behind in the development process (UN, 2015b:1), environmental justice theory draws attention to the inherent worthy, dignity and right of poor communities to live in clean environments. In the researcher's view, environmental justice theory can aid social workers in identifying the environmental injustices that threaten the well-being of informal settlement communities and that detract from sustainable development.

Environmental justice theory however draws criticism from Dominelli (2012:97) as it is not concerned with tackling structural social and economic inequalities. It furthermore takes a reactive stance on societal injustices, as injustices only crop up when there is perceived risk for some communities to be disproportionately exposed to environmental hazards due to their race, socio-economic status or geographic isolation (Claudio, 2007:A501). As is evident in society, environmental degradation affects both people and natural ecosystems. As such, Besthorn (2013:32) labels environmental justice theory as an anthropocentric theory that has "accomplished very little to actually protect the environment or to sustain ecological systems for future generations." Having acknowledged these shortcomings, the study also drew guidance from the three generations of human rights framework, which provides a legal backing for environmental protection and the tackling of structural inequalities and environmental injustices within a social, economic and environmental rights framework.

4.2.2 The three generations of human rights framework

Human rights provide long-term guarantees and a set of entitlements that enable vulnerable and excluded individuals and communities to make demands on those in power who have a responsibility to respect, protect, and fulfil human rights (Green, 2012:21). Human rights are rooted in the complex struggle to ensure the survival of

the human species (Wronka, 2008:45). They "represent an important rallying cry for those seeking to bring about a more just, peaceful and sustainable world" (Ife, 2012:9). Human rights are universal, equal, indivisible and interdependent and impose legal obligations on states and state actors for their fulfilment (Office of the High Commissioner for Human Rights (OHCHR), 2006:1). In a world that is characterised by social, economic and environmental injustices, human rights are important for the realisation of sustainable communities and environments. When human rights are integrated with development, poverty reduction strategies no longer derive only from the fact that the poor have needs but rights which duty bearers are obliged to respect, promote and uphold (UN Convention to Combat Desertification, 2008:19).

The three generations of human rights framework provides a typology for examining human rights according to their historical emergence (Ife, 2012). The categorisation of human as first, second and third generations was proposed in 1977 by Karel Vasak, a Czech human rights scholar and director of UNESCO's Division of Human Rights and Peace (Macklem, 2015:61). The United States Declaration of Independence in 1776 and the French Declaration on the Rights of Man and of the Citizen in 1789 are credited for ushering in the first generation of human rights during the 18th century, in the form of civil and political rights (Green, 2012:22). Civil and political rights encompass the rights to life, freedom from torture, freedom of expression and the right to vote and actively engage in the civil and political life of a society (UNGA, 1966a).

The *Universal Declaration of Human Rights* (UDHR) (UN, 1948) and the *International Covenant on Civil and Political Rights* (UNGA, 1966a) capture this category of human rights. Namibia and South Africa are democratically governed countries that uphold, protect and promote the realisation of human rights for all through their respective country's constitutions. Civil and political rights are individually based and are characteristic of democratic societies (Ife, 2012:44). They furthermore assert the liberty to pursue the quest for dignity and non-discrimination (Wronka, 2011:440). In the context of this study, civil and political rights are important in that they create an enabling environment for advocating and lobbying for the rights of informal settlement communities. They furthermore give communities the freedom to have their voices heard as they pursue justice, dignity and the right to live a life that is free from poverty and social and economic exclusion.

Following the emergence of first-generation human rights are economic, social, and cultural rights (UNGA, 1966b), which are also known as second generation human rights. This category of rights emerged during the 19th and 20th century following the adoption of the UDHR in 1948 and the end of World War 2 and the German Holocaust (Ife, 2016:4; Noyoo, 2004:360). Second generation human rights are well enshrined in the ICESCR and include; the rights to social security, work, education, adequate housing, food, clothing and the right to take part in a society's cultural life (UNGA, 1966b). The ICESCR was ratified by Namibia in 1994 and by South Africa in 2015; it urges state parties to take appropriate steps to ensure the realisation of economic, social and cultural rights. Second generation rights are often referred to as positive rights owing to the fact that state parties are obliged to finance and actively promote these rights (Green, 2012:22). The Constitution of RSA, 1996 provides for the state to take reasonable legislative and other measures, depending on the availability of resources, to ensure the realisation of this category of rights. However, the Constitution of the Republic of Namibia, 1990 does not explicitly provide for economic, social and cultural rights but the fact is Namibia has an obligation to promote this category of rights owing to its ratification of the ICESCR.

Wronka (2011:440) argues that governments' obligations to promote second generation rights and to provide for basic necessities is aimed at ensuring that all people enjoy an existence worthy of human dignity. As such economic, social and cultural rights are essential for realising sustainable informal settlement communities. As noted by the Centre for Economic and Social Rights (2018), first and second-generation human rights are very much interconnected, as the civil right to speak freely means little if one lacks a basic education, while the right to vote does not help much if one is suffering from starvation. Civil and political rights, as well as economic, social, cultural and economic rights also extend to children as is reinforced by the *UN Convention on the Rights of the Child* (*UNCRC*) (UNICEF, 1989).

Third generation human rights encompass solidarity rights, which collectively belong to communities and society in general, such as communities' right to self-determination (Green, 2012:22), peace and distributive justice (Wronka, 2008:19). Third generation human rights also include environmental rights, the right to economic development and to benefit from world trade and economic growth, as well as the right to live in a cohesive and harmonious society (Ife, 2012:48). This category of rights can

be seen to belong to countries and continents as well. As reported by Ife (2012:47), third generation human rights arose more recently in the 20th century in widespread opposition to the societal injustices of colonialism, unsustainable development processes and the deteriorating state of the natural environment. It is evident that third generation human rights are concerned with macro-level issues that at times span across national and international boundaries. This fact implies that their realisation requires the international community to work together in adopting structural measures for the full realisation of these rights. The adoption of the *2030 Agenda* by the UN (2015b) could be seen as a concrete step towards this direction.

In the context of this study the three generations of human rights framework is useful for ascertaining the full range of human rights that informal settlement communities are entitled. Communities can therefore utilise this as leverage for lobbying governments to fulfil these rights. However, a human rights framework on its own, does not necessarily translate into the realisation of human rights as this requires political will and institutional arrangements in this regard. Often at times, governments' obligation to uphold and promote human rights is limited by the availability of resources. To illustrate this, Chapter Two of the Bill of Rights of the Constitution of RSA, 1996 asserts that the state will take reasonable legislative and other measures, within its available resources to achieve the rights to housing, health care, food, water and social security, education and equitable access to land. Dominelli (2014:142) notes with concern that some countries negate their duties to fulfil human rights for food, shelter, education and health services under the guise of financial limitations. She furthermore points out that global financial crises in recent years, have served to legitimise the withdrawal of many countries in social welfare provisioning. Another limitation of the three generations of human rights framework in the context of the study is that it does not offer guidance on the interventions that could be utilised to advance social, economic and environmental rights. To overcome this limitation, the study's theoretical framework incorporated social development theory to provide insight into the interventions that uphold human rights and advance social and economic inclusion.

4.2.3 Social development

Social development is a practice theory (Payne, 2014:6), and an approach to social welfare that postulates a macro-policy framework for poverty alleviation through the integration of social and economic goals (Gray, 2006:S53). By implication, social development recognises that social welfare goals such as the eradication of poverty, injustices and inequalities can only be addressed if social and economic goals are consolidated. Social development emerged as an alternative to the neo-liberal development paradigm's approach of prioritising economic growth over social welfare (Midgley, 2014:20).

As an alternative to neo-liberalism, "social development seeks to enable poorer and more oppressed groups of people in a society to share in the benefits of economic development" (Payne, 2014:217). It is also informed by the belief that economic development policies should be people centred and sustainable and should address the distortions that have characterised economic development for many years (Midgley, 2017:168). Social development contributes to "economic development through social investments in social programmes that enhance people's welfare through their participation in the productive economy and the achievement of social inclusion" (Patel, 2015:125). The adoption of the *Copenhagen Declaration on Social Development* (*Copenhagen Declaration*) in 1995, the MDGs in 2000 and SDGs in 2015 renewed the commitment to social development globally (Midgley, 2017:161).

A definition by Midgley (2014:13) perceives social development as "a process of planned social change designed to promote the well-being of the population as a whole within the context of a dynamic multifaceted development process." This definition implies that social development priorities the well-being of society as a whole. It also suggests that social development is committed to universalism and inclusiveness, which are all important in view of leaving no-one behind in the development process. The notion of planned social change suggests that social development is an outcome of purposeful planning, policy making and the implementation of targeted programmes and projects (Midgley, 2017:163). Social development is premised on human agency and the power of ordinary people to bring about change in their lives and social conditions with the partnership of various stakeholders (Patel, 2015:123). Social development utilises partnerships that see

households, community groups, non-profit and faith-based organisations, and government agencies working together in the development process (Midgley, 2017:168). It engages these actors in implementing a wide array of interventions, which in essence consist of plans, policies, programmes and projects to address various context specific challenges (Midgley, 2014:15). Social development interventions organise into different practice strategies that include social protection, human capital, social capital, the accumulation of assets, microenterprises and microfinance and social planning (Midgley, 2014:69). From a social development perspective, environmental and community sustainability can be achieved through developing and implementing policies and strategies aimed at preparing for and addressing the effects of climate change, pollution, the depletion of natural resources, food insecurity and the displacement of people (Gray et al., 2017). As the future of humankind depends on the adoption of policies that more effectively address pollution, climate change, and the depletion of natural resources, strategies that promote sustainable development should form an integral part of social development action (Midgley & Pawar, 2017:16).

In spite of being a holistic paradigm that aspires for sustainability, environmental concerns have not been treated as a priority in social development theory and practice (Gray et al., 2017:159). This shortcoming could be attributed to the fact that social development literature has over the years concentrated on social and economic development, while leaving out environmental sustainability. This accounts for Midgley's (2017:161) submission that social development "is primarily known for linking economic development with social welfare." Although a dual focus on social and economic goals is important, it is not enough in the context of environmental challenges that have a disproportionate negative impact on poor communities. Hence, the *2030 Agenda* adopts an integrated focus on social and economic development and environmental protection (UN, 2015b). As highlighted several decades ago by the UN (1995:4), "social development requires continuous efforts to reduce and eliminate major sources of social distress and instability…and…world-wide conditions that pose severe threats to the health, safety, peace, security and well-being of…people." These world-wide conditions could be taken to include environmental injustices that negatively impinge on the well-being of poor communities. Gray et al. (2017:142) propose a new environmental paradigm that utilises a social development lens to

accept the limits of nature; define successful development in terms of local employment, health, women's engagement, and where livelihoods are uplifted through locally managed conservation efforts and community supported agriculture.

Social development is a relevant approach in view of promoting environmental and community sustainability for informal settlement communities, as it upholds people's well-being. It also provides insight into the interventions that various stakeholders could utilise in promoting socially, economically and environmentally just communities. In light of enhancing social development's contribution to sustainable development, Midgley and Pawar (2017:5) emphasise the need for the identification of new initiatives and the strengthening or refocusing of existing programmes so that they effectively contribute to sustainable development. They also argue for an analytic assessment of social development's likely future direction in light of changing social and economic needs and political events. Having contextualised the study within a theoretical framework that is rooted in environmental justice, human rights and the integration of the social, economic and environmental dimensions of sustainable development, the next section discusses the legislative and policy frameworks for environmental and community sustainability.

4.3 Legislative and policy frameworks for environmental and community sustainability

All societies need laws, institutional frameworks as well as social and economic policies if they are to advance more sustainably (IUCN et al., 2009:11). Similarly, efforts to promote environmental and community sustainability are only effective if they occur within the context of conducive legal and policy frameworks that are grounded in human rights, social, economic and environmental justice and public participation in decision making (UNEP, 2015:1). The *2030 Agenda* opens up new avenues for countries across the globe to integrate sustainable development and human rights into global, regional and national policies (OHCHR, 2015:1). Namibia and South Africa acceded to numerous international and regional covenants that safeguard the inalienable rights of all people. This section highlights the declarations, covenants, legislations and policy frameworks that guide the promotion of environmental and community sustainability at global, regional and national levels. The researcher's intention is not to offer an exhaustive list of all the institutional arrangements in this

regard, but to highlight the major frameworks that shape the realisation of sustainable and environmentally sustainable communities.

4.3.1 International, regional and national policy frameworks for sustainable environments and communities

The adoption of the *UDHR* by the UNGA in 1948 marked a significant moment in world history as countries reached consensus that human rights are a global responsibility (Green, 2012:22). The *UDHR* upholds core social justice concerns such as human dignity, non-discrimination, civil and political freedoms, economic, social and cultural rights and solidarity (Wronka, 2008:23). Although the *UDHR* is not legally binding, its enduring influence is seen in that the rights enshrined in this declaration are amplified in several international and regional covenants and conventions (Healy, 2008:736). The *African Charter on Human and People's Rights*, as adopted by the Organisation of African Unity (1982), is a regional human rights instrument that advances the promotion and protection of human rights. Namibia's independence in 1990 and the attainment of democracy in South Africa in 1994 brought about policy making processes to redress the inequitable and unjust policies of the apartheid era. The imperative to realise the sustainability of communities and environments is integrated in these countries' constitutions, NDPs and many other legal frameworks, which all have an important bearing on the implementation of programmes and projects that promote environmental and community sustainability.

Constitutional provisions are indispensable for the realisation of human rights to life, food, water, social protection and to a clean environment, which ultimately impact on the realisation of sustainable communities and environments. Whereas, South Africa's constitution enshrines first, second and third generation rights, Namibia's constitution places particular emphasis on first and third generation rights. Concerning environmental rights, Article 24 of the Bill of Rights of the Constitution of RSA, 1996 guarantees all persons the right to an environment that is not harmful to their health or well-being and to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures that prevent pollution and ecological degradation. Article 95(l) of the Constitution of the Republic of Namibia, 1990 states that the state shall actively promote and maintain the welfare of all Namibians by adopting policies that are aimed at the maintenance of ecosystems,

ecological processes, biological diversity and the utilisation of natural resources on a sustainable basis for the benefit of present and future generations.

In relation to second generation rights, Article 26, 27, 28 and 29 of the Constitution of RSA, 1996 provides for the rights to health care, education, sufficient food and water, social security and adequate housing, which the state is obliged to fulfil depending on the availability of resources. Article 26 also provides for the protection of individuals and communities from arbitrary evictions or the demolition of their housing without a court order. Whereas the listed rights are important for the realisation of sustainable informal settlement communities, the right to be protected from arbitrary evictions is particularly significant owing to their lack of legal security of tenure. The right to social security as stated in South Africa's constitution gives effect to the many social protection provisions that are extended to vulnerable citizens in this country. Although the right to social security is not enshrined in Namibia's constitution, the country's *Vision 2030 Policy Framework for Long-Term National Development* (*Vision 2030*) commits to redistributing income through various social security measures and safety nets (GRN, 2004:104).

The pursuit of sustainable development forms the cornerstone of both Namibia's *Vision 2030* (GRN, 2004) and South Africa's NDP (RSA, 2012). *Vision 2030* was adopted in response to the challenges of rapid urbanisation, high consumerism, poverty, reduced livelihood options, unemployment, crime, increasing pollution, climate change, drought and environmental degradation in Namibia (GRN, 2004:41). These challenges are somewhat similar to those identified by South Africa's *Diagnostic Overview* (National Planning Commission (NPC), 2011), which subsequently informed the formulation of this country's NDP (RSA, 2012). The unique challenges that are listed in South Africa's *Diagnostic Overview* but not in Namibia's *Vision 2030* include; corruption, divided communities, spatial patterns that marginalise poor communities, a resource intensive economy, crumbling public infrastructure and uneven public service performance (NPC, 2011:7). The listed development challenges affect informal settlement communities both directly and indirectly and have a negative impact on the realisation of sustainable development in urban areas and in Namibia and South Africa as a whole.

Namibia's *Vision 2030* and South Africa's NDP are cognisant of the challenges that contribute to and are characteristic of informal settlements in these countries. *Vision 2030* acknowledges that informal settlements in the outskirts of towns in Namibia are associated with localised deforestation, increased waste management challenges, high unemployment rates, crime, limited access to adequate sanitation and the spread of communicable and waterborne diseases (GRN, 2004:170). These experiences are in no way different from those experienced in South Africa. In view of promoting sustainable and environmentally sustainable communities, it is critical to spearhead poverty reduction, access to employment, adequate sanitation and sustainable energy sources for all urban communities. The two countries took legislative steps to uphold environmental protection and management through the adoption of the Environmental Management Act 7 of 2007 in Namibia and the Environmental Management Act 107 of 1998 in South Africa. The later stated country took an addition step by adopting the *National Framework for Sustainable Development*, which spells out South Africa's vision for sustainable development and which outlines the strategic interventions towards this direction (RSA, 2008:7).

The *Copenhagen Declaration* as adopted at the WSSD in 1995, commits to a people centred approach to development that is guided by a social development approach. The WSSD was the largest gathering of world leaders at that time, who committed to addressing poverty, inequalities and hunger and to increasing access to education, employment, safe drinking water, sanitation and adequate shelter for all (UN, 1995:8). It is quite evident that these challenges are among the persistent challenges in informal settlements. People's relationship with the natural environment is a recurrent theme in the *Copenhagen Declaration*. It calls for people to fulfil the responsibility for present and future generations by ensuring equity among generations and protecting the integrity and sustainable use of the natural environment (UN, 1995:4). In this way, it emphasises the centrality of both environmental and human well-being. The commitments that world leaders agreed to at the WSSD were amplified through the adoption of the *2030 Agenda* (UN, 2015b).

The *Social Policy Framework for Africa* (AU, 2008) is an outcome of the WSSD. It provides an overarching structure for the implementation of a social development approach to social welfare in Africa. It acknowledges that economic growth, though necessary, is not sufficiently able to address the challenges posed by the multi-faceted

socio-economic and political forces that generate the continent's social development challenges (AU, 2008:4). It furthermore identifies population and development, employment; social protection, good governance, health, migration, education, gender equality, urban development, environmental sustainability and the impact of globalisation and trade liberalisation as the 18 key priority areas for the realisation of sustainable development in Africa. While this policy is a well-crafted plan that aims to tackle poverty, inequality and environmental issues in Africa, Wright and Noble (2010:116) note with concern that many Africa countries have yet to translate it into their domestic policies. This reality demonstrates the need for political will and resources that enable countries to turn international and regional policies into concrete plans and programmes.

In relation to children, the UNCRC (UN, 1989) and the *African Charter on the Rights and Welfare of the Child* (ACRWC), (AU, 1990) respectively constitute international and African children's rights instruments that articulate a unified stance on child centred development, with the ACRWC incorporating subtle differences to reflect the African context (Adu-Gyamfi & Keating, 2013:56). At the domestic level, the Namibia's Child Care and Protection Act 3 of 2015 and South Africa's Children's Act 38 of 2005 give effect to the protection and promotion of children's rights in accordance to the UNCRC and ACRWC. The UNCRC is collectively made up of 54 articles that enshrine children's survival, protection, development and participation rights. Survival rights encompass children's rights to life, nutrition, shelter, heath care and an adequate standard of living, while development rights include children's rights to education, access to information and freedom of thought (UNICEF, 2018:4). Protection rights as enshrined in the UNCRC and ACRWC require that children be protected from all forms of abuse, neglect and exploitation, while participation rights recognise that children should be enabled to play an active role in their communities and to have a say in matters affecting their lives (UNICEF, 2018:4).

Although there are no SDGs that are specifically dedicated to child welfare, the SDGs have various child specific targets, which aim to end poverty, malnutrition, child labour, abuse, exploitation and trafficking, to protect children in vulnerable situations and to increase children's access to quality education (UN, 2015b). The SDG targets cover the survival, development, protection and participation dimensions of children's rights. However, poverty deprives children of the rights to food, water, shelter, sanitation,

education, participation, protection and access to basic health-care services (UNGA, 2006:28). It can therefore be said that poverty robs children of the very rights to develop and thrive, which clearly has implications for the sustainability of present and future generations of people. The importance of a healthy natural environment in enhancing the enjoyment of children's rights is well acknowledged by both the UNCRC and ACRWC. Articles 29(1)(e) of the UNCRC and 11(2)(g) of the ACRWC call for children's education to be directed to the development of respect for the environment and natural resources. Teaching children to value and nurture the environment is crucial in entrenching environmentally sustainable practices in all people.

UNICEF (2015b:1) ascertained through its years of working with children across the world that the environment, climate and a green planet are very high on children's agenda but very few programmes pay sufficient attention to the impacts of climate change and environmental degradation on children. In view of furthering children's rights, the study provided a unique opportunity for children living in informal settlements to exercise their right to participation by articulating the future they want, in light of pressing social, economic and environmental challenges that threaten their very survival. UNICEF's *Strategic Framework on Environmental Sustainability for Children 2016 - 2017* recognises the disproportionate impacts that climate change and environmental degradation have on children growing up in disadvantaged communities. This framework also acknowledges that a poor environment undermines children's social inclusion, health, protection, nutrition and access to water, sanitation and education and on HIV prevention and treatment (UNICEF, 2015b:1). This framework also emphasises the importance of including children in all efforts that protect the environment and promote the well-being of communities (UNICEF, 2015b:2). Having highlighted the legislative and policy frameworks that guide the pursuit of sustainable environments and communities at global, regional and national levels, the researcher will now discuss the practice frameworks that aid social workers in translating theories on socially, economically and environmentally just development into practice.

4.4 Social work practice frameworks for promoting environmental and community sustainability

While theories provide a generalised set of ideas that describe and explain knowledge of the social world in an organised way (Payne, 2014:5), practice frameworks help guide practitioners in translating theories into action. As noted by Sheafor and Horejsi (2012:58) practice frameworks, "consist of a coherent set of beliefs and assumptions about how and when human behaviour and social systems can be changed." They also set out a range of situations that practitioners typically deal with and identify a range of methods available for them to select from and perhaps give some basis for practitioners to make their selections from (Payne, 2014:8). Practice frameworks are indispensable to social work's contribution to environmental sustainability seeing that, any adequate response to social and environmental injustices, "will have to be at the level of praxis and not only at the level of theory, ideas or awareness" (Conradie, 2003:128).

Developmental, environmental and green social work constitute the practice frameworks that social workers draw guidance from in formulating interventions that promote social, economic and environmental justice and human rights for all. While there are differences in their emphasis on the environment in social work, a commonality is that they are all informed by a generalist framing of social work, which Kirst-Ashman and Hull (2010:3) say is underpinned by:

- An ecological, person-in-environment (PIE) systems theoretical approach which views individuals, families, organisations and communities as systems within their environments.
- A problem solving, planned change approach to resolve issues encountered by any of these systems that is embedded in a focus on human well-being, human rights and social and economic justice.
- Adherence to social work ethical principles and values.
- The assumption of a wide range of professional roles to achieve social work goals.
- The use of a wide range of skills at the micro, mezzo and macro levels of intervention.

While social work practice frameworks draw from a common value, skills and knowledge base, green and environmental social work go a step further in their conceptualisation of the environment to include the natural environment within which individual, familial, organisational and community systems interact. In the next sections, the researcher identifies the unique features of the aforementioned practice frameworks, followed by a discussion of how social work can contribute to environmental and community sustainability, which combines ideas from each of the highlighted frameworks.

4.4.1 Developmental social work

Developmental social work practice is shaped by a developmental social welfare approach and by social development theory (Midgley & Conley, 2010:xii). A developmental social welfare approach is rooted in bridging the micro-macro divide in analysing and addressing welfare challenges, human rights-based practice, interrelating social and economic goals, democracy and participation and social welfare pluralism (Patel, 2015:82). Weyers (2011:54) defines developmental social work as, a "distinctive approach to social work service delivery that goes beyond micro level rehabilitation, counselling, protection and continuing care services. It utilises strengths, asset-based and non-discriminatory approaches to enhance social functioning, prevent social problems and develop human and social capital." Developmental social work integrates social and economic goals with the view of addressing poverty, deprivation and inequalities (Midgley & Conley, 2010:xiv). The *White Paper for Social Welfare* provides for the implementation of developmental social work practice in South Africa within a rights-based, just, equitable, accessible and democratic social welfare system (RSA, 1997:11). Namibia has yet to develop a social welfare policy framework. However, social work practice in Namibia is leaned towards a developmental approach that places emphasis on the empowerment of individuals, groups and communities as opposed to adopting a curative and remedial approach (Ministry of Health and Social Services (MoHSS), 2010:1).

Social work has in recent years been criticised for overly concentrating on the social, aspects of society, touching a bit on the economic and largely ignoring environmental issues (Dewane, 2010:20). In the researcher's view adopting an environmental justice frame of reference in developmental social work is important for enabling social

workers in Namibia and South Africa to fully contribute to sustainable development. A lack of an integrated social, economic and environmental justice framework in social work implies that social workers are ill-positioned to adequately respond to the environmental injustices that negatively impact on the well-being of poor communities, who form the bulk of social service users (Hawkins, 2010:69). The impacts of social, economic and environmental challenges fall most heavily on the populations to whom social workers are most accountable for, and when social work remains on the margins of environmental efforts it neglects its ethical responsibilities to vulnerable populations (Kemp, 2011:1205). Besthorn (2014:16) attributes the narrow view of the environment in social work to the profession's restricted theoretical models and their embeddedness in a highly individualised, economistic and growth entrenched knowledge system that is characteristic of mainstream Western worldviews. This is in addition to the widely held belief by social workers that the natural environment is the responsibility of other professions.

The limited conceptual framing of the environment in social work implies that environmental sustainability, which is an indispensable requirement for sustainable development has not been a core concern in social work for many years (Peeters, 2011:3). It also means that "social workers have for far too long been ill equipped for the relevance and connection between social work and environmental issues" (Coates & Gray, 2012:231). A narrow interpretation of the environment consequently limits social workers' role in confronting the environmental injustices issues that are intertwined with poverty, such as pollution, overcrowding, a lack of access to adequate sanitation, housing, clean water and energy for household use.

Sheafor and Horejsi (2012:59) assert that social workers should avoid falling into the habit of using practice frameworks in an uncritical manner as the concepts, beliefs and assumptions from which frameworks are constructed must be continually re-examined and tested against changing times and new research findings. In this regard, the observation by IASSW (2016:3) that, "there is minimal attention to climate change and environmental degradation in social work teaching, research and practice" can be said to be true for developmental social work. A study by Chiwara and Lombard (2018) established that social workers are well aware of the negative impact that environmental crises have on the well-being of poor communities but they hardly engage in research efforts, policy discussions and practice interventions to mitigate

the impact of environmental crises on these communities. These authors' findings confirm what Dominelli (2012:338) says that, social work has been slow in responding to the challenges posed by environmental crises, while deeming the ensuing environmental injustices these perpetrate as concerns for the physical sciences. However, global environmental changes such as global warming have social consequences that ultimately impact on the socio-political, economic and physical environment in which social workers engage in and on the type of work social workers will be called upon to carry out (Gray et al., 2013b:3). The large-scale changes that are taking place at a global level require an ongoing critical review of existing theories and aligning social work action with these changing contexts (Patel, 2015:136). The IFSW and IASSW (2014) advocate for a broader view of the environment in social work that includes "the various social systems that people are embedded in and the natural, geographic environment, which has a profound influence on the lives of people." Consequently, a holistic view of the environment in social work includes a focus on the social, economic, built and natural environments and how they interact to impact on human well-being. An explicit environmental focus is seen in the environmental social work framework which places particular emphasis on the well-being of both people and of the natural environment.

4.4.2 Environmental social work

Environmental social work is a fairly recent social work practice framework that reflects the emerging interest by social workers in safeguarding the natural environment. As such, environmental social work attempts to draw attention to social work's responsibility towards the non-human world (Gray et al., 2013b:1). Environmental social work incorporates views from eco-social work (Norton, 2012; Peeters, 2011) and deep ecology (Besthorn, 2012) to call for an ecological perspective in social work that broadens the notion of environment to include the natural environment (Gray et al., 2013b:6). In this way, environmental social work extends social work's notion of the environment from a human centred, anthropocentric environment to an ecological view of the environment. Ecological justice brings out the connectedness of individuals and communities to the rest of nature and the interconnectedness of social and environmental well-being (Dylan, 2013:62; Gray et al., 2013a:304). As evident in the discussion of the social, economic and environmental challenges in Chapter Three

(sub-secton 3.4) and of the environmental justice theory in this chapter (sub-section 4.42) poor environmental conditions impinge on human well-being, while poor social conditions contribute to the deterioration of the natural environment. Besthorn (2012:255) views ecological justice as a deep form of justice as it embraces both social and ecological justice concerns, with the latter being justice that is afforded to the natural world. Miller et al. (2012:271) argue that ecological injustices occur as a direct result of the imbalances in the relationship between humans and nature that emanates from giving priority to human needs at the expense of the interests of the natural world. Environmental social work calls for respect for ecological limits, the promotion of environmental sustainability, global ecological justice, environmental preservation, environmental ethics and interdisciplinarity in environmental issues (Gray et al., 2013b:6).

Environmental social work's recognition of the earth's biophysical boundaries and limited resources (Peeters, 2011:7), necessitates the need for development that safeguard the integrity of the natural environment and for people to develop a symbiotic rather than an exploitative relationship with nature. Environmental social work has drawn criticism from Dominelli (2012:5) who sees it as a mere preoccupation with a broader view of the environment in social work that is not rooted in challenging unequal socio-economic relations that destroy both physical and human socio-cultural environments. As such, a far-reaching view of the environment in social work must focus on the well-being of both social and natural environments, while challenging social and economic inequalities that deteriorate the well-being of people and the natural environment. Such a view is provided by green social work.

4.4.3 Green social work

Dominelli (2012:3) propounded green social work, which argues that any responses to environmental crises must holistically challenge and address poverty, structural inequalities, socio-economic disparities, industrialisation processes, consumption patterns, global interdependencies and limited natural resources. As such, green social work emphasises the integration of the social, economic and environmental dimensions of development in social work. It can also be said that green social work brings an environmental praxis to social work that tackles environmental issues through addressing social challenges and economic injustices. It furthermore

espouses the imperative for attitudinal and lifestyle changes that see individuals and society as a whole, moving away from greed driven consumerism and consumption. As Dominelli (2012:6) puts it, green social work adopts a social, economic and environmental justice agenda that brings marginalisation, structural inequalities, human rights and active citizenship into the heart of social work theory and practice. Dominelli (2013:437) embeds green social work within an ethics of care that sees people caring for one another and for the environment, in ways that ensure that all living things survive presently and for generations to come. This view attests to the fact that environmental and community sustainability are the ultimate aims of green social work. The next section integrates the key aspects of developmental, environmental and green social work and outlines the role of social work in promoting sustainable communities and environments.

4.5 An integrated social work perspective on promoting environmental and community sustainability for informal settlement communities

Social workers are actively involved in social change efforts that improve the functioning of communities in various settings (Sheafor & Horejsi, 2012:81; Weyers, 2011:54). However, social workers need to draw from their wealth of community work experience and rally poor communities around environmental justice issues. Patel (2015:203) is of the view that social workers' engagement with communities offers them an opportunity to utilise different interventions that combine the efforts of different stakeholders "to improve the economic, social, cultural and environmental conditions of communities." The adoption of the *Global Agenda* (2012), the *Policy Statement on Globalisation and the Environment* (IFSW, 2012a), and the emergence of various social work practice frameworks that embed the interconnectedness of social, economic and environmental justice issues (Besthorn, 2012; Dominelli, 2012; Gray et al., 2013), positions the profession well in efforts that promote the sustainability of communities and their environments. The highlighted social work policy and practice frameworks reinforce the fact that the environmental protection goals of sustainable development are not disconnected from social work's goal to promote human well-being.

The well-being of communities is not only threatened by poverty, inequality and social exclusion, but also by environmental crises that are driven by poverty and social

exclusion which, in turn, exacerbate poverty, food and water insecurity and vulnerability. The links between environmental issues and human well-being makes social work's involvement in environmental efforts even more important. As rightly pointed out by Besthorn (2014:21), social workers engaged in working towards environmental sustainability do not adopt a stance that asks; what can social workers do to eliminate environmental crises? They however ask what can social work do to improve the lives of social service users and in what ways can social workers partner with people most impacted by environmental decline? Hence, for Kemp (2011:1201), social work can certainly articulate a stance on environmental issues that is consistent with its humanistic commitments and social justice mission. As promoting environmental and community sustainability is a relatively new domain for social work, it requires social workers to be innovative in as far as integrating the social, economic and environmental facets of sustainable development in practice interventions. Towards, this end, social workers can harness the key ideas of developmental, environmental and green social work to inform interventions that holistically attend to the social, economic and environmental facets of justice. When viewed alongside each other, developmental, environmental and green social work integrate the people, planet, prosperity, peace and partnerships foci of the *2030 Agenda* (UN, 2015b:2). As such, the next section integrates the key components of developmental, green and environmental social work to build on and embed the five pillars of developmental social work (Patel, 2015:82) in a social, economic and environmental justice thrust.

4.5.1 Bridging the micro-macro and local-global divides in analysing and addressing social, economic and environmental challenges

Realising environmental and community sustainability from a social work perspective requires social workers to operate at the micro, mezzo and macro levels of intervention seeing that social, economic and environmental challenges have practice implications for each of these levels. However, such interventions should not be narrowly confined on the level of therapy but should be developmentally focused. As Gray et al. (2013b:4) ascertain, effective interventions in the arena of environmental crises must transcend micro-level interventions that focus on counselling individuals and families impacted by environmental crises. Netting, Kettner, Mcmurtry and Lori Thomas (2017:2) remark that when the arena for change is limited solely on the micro level, an assumption is

made that causal factors associated with a particular challenge can be found only in some deficit in the micro level system. Broadening the problem analysis scope in social work to include the macro system recognises the possibility of causal factors that may be identified in policies and practices at the macro level. As such, bridging the micro-macro divide in analysing social problems (Patel, 2015:127) is important for realising sustainable communities and environments. On a macro level, social workers could engage in politicised empowering and transformative practice that includes advocacy, lobbying, political action, policy development, implementation, monitoring and enforcement to protect and restore natural resources (Gray et al., 2013a:307; Haynes, 2012:269). Advocacy practice could also challenge decision makers to uphold human well-being and social and environmental justice and challenge industrial models of development that do not pay particular attention to the needs of the poor (Dominelli, 2012:194). Community level practice with informal settlement communities also requires that social workers work alongside the informal leadership structures in informal settlements to mobilise collective action around equitable access to land, adequate housing, sustainable and clean forms of energy, water, sanitation, jobs and the right to a clean environment.

The development of social policies that draw lessons from micro-level practice to mitigate the impact of environmental crises on human well-being (Dominelli, 2012:2), is another area of involvement that assist social workers in bridging the micro-macro divide in view of realising sustainable development. Bridging the micro-macro divide in problem analysis also extends to linking local issues with global trends, more so as the challenges of unemployment, poor environments, environmental injustices and recent trends in xenophobia may be rooted in global interactions, policies and practices. For Besthorn (2012:248), the interlinkages between local and global issues are particularly important seeing that almost all societies in the world are linked to and influenced by global market mechanisms, international trade agreements, transnational corporate influences and increasingly deteriorating environmental conditions. The definite link between local and global issues necessitates an examination of any relevant global factors that either contribute to the existing social, economic and environmental problems or that can be utilised as potential solutions to the challenges that people are locally faced with (Cox & Pawar, 2013:57). Hence, as noted by Hembd and Silberstein (2011:263), the century-old expression that says,

think globally, act locally is relevant in relation to community sustainability. As Lundy and Van Wormer (2012:738) rightly say, the linkages between local and global issues should be understood within a social justice, human rights-oriented framework of social work practice.

4.5.2 Human rights-based practice

The three generations of human rights framework is useful in carving out social workers' role in human rights from a broader justice and sustainable development perspective (Lombard & Twikirize, 2014:316-317). Social workers in partnership with other stakeholders could draw on the full range of human rights as outlined in the three generations typology in holding authorities accountable for the protection and fulfilment of rights for informal settlement communities. As pointed out by Ife (2012:159) social work research could contribute to a human rights agenda through the identification of individuals and groups whose rights have been violated or denied and providing a mechanism for their voices to be heard and evaluating the adequacy of policies and programmes in meeting human rights. Green (2012:202) identifies a role for social work in ensuring that the voices of the most marginalised are heard in relation to environmental crises and that communities are empowered to become active in preparing for, and coping with, disasters and in building effective and accountable state machineries for disaster management. In this way, social workers can maximise on civil and political human rights provisions to ensure that the well-being of poor and marginalised communities is taken into consideration in all development processes. Human rights-based practice in the view of Tester (2013:114) requires social workers to organise around the environment and human rights issues in local, regional and international forums. In view of the social, economic and environmental injustices that marginalise the poor, advocating for the rights of people at all levels, and facilitating outcomes where people take responsibility for each other's well-being, while realising and respecting the inter-dependence among people and between people and the environment is important (IFSW, 2014).

4.5.3 Capitalising on the power of multi-stakeholder partnerships

Social welfare pluralism thrust of developmental social welfare is rooted in multi-sectoral partnerships that see the government, non-profit organisations, individuals,

families, communities and the commercial sector working together in tackling societal challenges (Patel, 2015:93). Gray et al. (2013b:2) urge social workers to break free of their professional silos and to work cooperatively with other stakeholders in better understanding and responding to multifaceted environmental and other challenges. Such a stance is important seeing that partnerships underpin the realisation of sustainable development. For the researcher, the utility of partnerships lies in the fact that no one actor can have all the knowledge, skills and resources to sufficiently address the multifaceted challenges in informal settlements. The fundamental core of good partnerships as identified by Stibbe, Reid, Gilbert, the Partnering Initiative and UN Department of Economic and Social Affairs (UNDESA) (2018:6), is their ability to bring together diverse resources in ways that can together achieve more impact, greater sustainability, increased value to all.

4.5.4 Interrelating social, economic and environmental justice goals

While an environmental focus is inherent to the theoretical underpinnings of developmental social work, scholars (Midgley, 2014; Patel, 2015) note that developmental social work has traditionally focused on consolidating social and economic development goals. However in view of the intertwinned nature of social, economic and environmental challenges, there is need for developmental social workers to adopt an integrated social, economic and environmental justice focus. Hawkins (2010:68) argues that the mere fact that degraded environments impede people's social and economic development is reason enough for social work to extend its social justice mission to include the human right to live in a clean, safe and healthy environment. In Dominelli's (2013:432) view, a holistic understanding of social, economic and environmental issues is important in view of reducing risk and asserting that environmental justice be included in projects that address human needs while creating a sustainable society. She furthermore points out that environmental justice is an important issue for social workers to realise as environmental degradation and disasters do not impact upon people equally, with the result being that their differentiated outcomes affect poor and marginalised individuals and communities the most (Dominelli, 2014:137).

George and Marlowe (2005:5) assert that, "in a world of growing inequality and oppression, there is need for a social work practice that works for social justice and

societal transformation, while simultaneously addressing people's immediate needs." For Hawkins (2010:68), sustainability, human rights, and environmental justice are all necessary for the social work profession to effectively pursue the goal of making the world more just, humane, and sustainable. One way in which social workers can contribute to environmental justice as noted by Kemp and Palinkas (2015:20), is through assisting communities to prevent, anticipate and respond to the human impacts of environmental changes in a just, equitable and inclusive manner. Dominelli (2014:338) acknowledges the important role that social work educators and practitioners could play in developing and sustaining an environmental justice that upholds human and citizenship-based rights and in ensuring that such concerns are covered in social work curricula.

Environmental crises have social, economic and environmental dimensions as they, "disrupt physical, social, and environmental resources; compromise communications and infrastructures; diminish coping capacities; overwhelm social support networks; deplete household assets; and pose threats to human well-being and safety" (Kemp et al., 2016:1). Environmental disasters exacerbate existing socio-economic and cultural inequalities (Dominelli, 2014:344), resulting in social, economic and environmental injustices. The IASSW & IFSW (2017:2) highlight the interlinkages between social, economic and environmental injustices by saying that environmental crises exacerbate social exclusion and discrimination, due to existing inequality and extreme poverty, poor communities are most affected by these crises, have least resources to reverse the situation and are less likely to be reached by counter measures. The inextricable link between environmental degradation and social, economic and environmental justice issues means that there can be no serious commitment to social and economic justice that does not include ecological justice (Conradie, 2003:127). There is therefore a growing imperative for social work to move beyond its traditional social and economic justice focus to actively integrate and work towards social, economic and environmental justice.

4.5.5 The participation of individuals, families and communities in development processes

The realisation of sustainable communities and environments require people to exercise their agency as well as democratic processes that enable marginalised

communities to have a say in development efforts. Patel (2015:92) emphasises the need for development to be people centred and to draw on the active participation and involvement of all people. As noted by Dominelli (2012:203), a commitment to democracy and a set of democratic practices provides the means for including all voices in discussions about communities. Informal settlement communities know best what a sustainable future would look like for them, as such there is need for consultative processes that listen to, respect and incorporate the views of informal communities in efforts aimed at realising sustainable and environmentally sustainable communities.

4.6 Summary

In this chapter, the researcher has presented a theoretical framework for environmental and community sustainability that integrates environmental justice theory, the three generations of human rights framework and social development. The highlighted framework is embedded in advancing human rights and the integration of social, economic and environmental justice goals in view of contributing to sustainable communities and environments. The global, regional and national legislative and policy frameworks that were outlined in this chapter enunciate commitments and legal provisions for sustainable development and human rights for all. From a social work perspective, developmental, environmental and green social work provide insight into how social workers can translate theories and commitments to sustainable development into concrete action. Social workers can draw on all three practice frameworks to holistically address the multifaceted social, economic and environmental challenges in informal settlements. In the next chapter the researcher presents an in-depth discussion of the study's research methodology.

CHAPTER 5
RESEARCH METHODOLOGY

5.1 Introduction

This chapter presents the methodology that was utilised in conducting the study. It starts by outlining the study's mixed methods research approach, research design, research methods, study population, sampling, data collection and data analysis procedures. Following this, the researcher illuminates on the measures that she utilised in view of improving the trustworthiness, reliability and validity of the study's qualitative and quantitative findings. Thereafter, she discusses the ethical considerations that guided the study and outlines the study's limitations. The chapter ends with a conclusive summary.

5.2 Mixed methods research approach

The study employed a mixed methods research approach that combined qualitative and quantitative research approaches in different phases of the study (Creswell & Plano Clark, 2011:411). A mixed methods approach was instrumental in assisting the researcher in generating qualitative findings in participants' own words and in generating numerical data that quantified the various themes that emerged from the qualitative study. Towards this end, the researcher collected and analysed qualitative and quantitative data sequentially.

5.3 Type of research

The study had applied and basic research goals. From an applied research goal perspective (Neuman, 2014:27), the study has a practical application as it proposes an integrated strategy for promoting environmental and community sustainability for informal settlement communities in Namibia and South Africa (see Chapter Eight, sub-section 8.4). The aim of the strategy is to guide multi-sectoral collaborative action in promoting sustainable communities and environments. From a basic research point of view (Fouchè & De Vos, 2011:94), the study's findings contributed to the expansion of the social work knowledge base in promoting sustainable communities and environments from an integrated social, economic and environmental justice

perspective. This outcome is in line with the *Global Agenda* (2012), and the *2030 Agenda's* (UN, 2015b) commitments to integrating the social, economic and environmental dimensions of sustainable development. Findings from this baseline study will furthermore inform additional research on environmental and community sustainability, which for the IASSW (2016:3) is a relatively new and by implication, under researched area in social work.

5.4 Mixed methods research design

A research design entails the procedures that the researcher utilises in collecting and analysing research data and in interpreting and reporting the study's findings (Creswell & Plano Clark, 2011:53; Delport & Roestenburg, 2011:171). The study adopted an exploratory sequential mixed methods research design, where qualitative and quantitative research designs were implemented in sequence (Teddlie & Tashakkori, 2009:26). The chosen design prioritised and began with the collection and analysis of qualitative data (Creswell & Plano Clark, 2011:71). For the qualitative study, the researcher formulated three sets of interview schedules (see Appendices 1 to 5). The collection of qualitative data in the study was in view of exploring and gaining an in-depth understanding of the multi-faceted issues that underpin environmental and community sustainability for informal settlement communities. Following qualitative data analysis, the researcher formulated three sets of questionnaires that she administered on child participants, household participants and practitioners in the quantitative study (see Appendices 6 to 10). She thereafter collected and analysed the quantitative data, followed by a consolidation and joint interpretation of the qualitative and quantitative findings. The integration of qualitative and quantitative findings within the same study assisted the researcher in verifying, confirming and generalising the themes that emerged from the qualitative study onto a larger quantitative study population as is outlined by Creswell and Plano Clark (2011:71) and by Ivankova (2015:145). The exploratory sequential mixed methods design that was utilised in the study is illustrated in Figure 5.1 below.

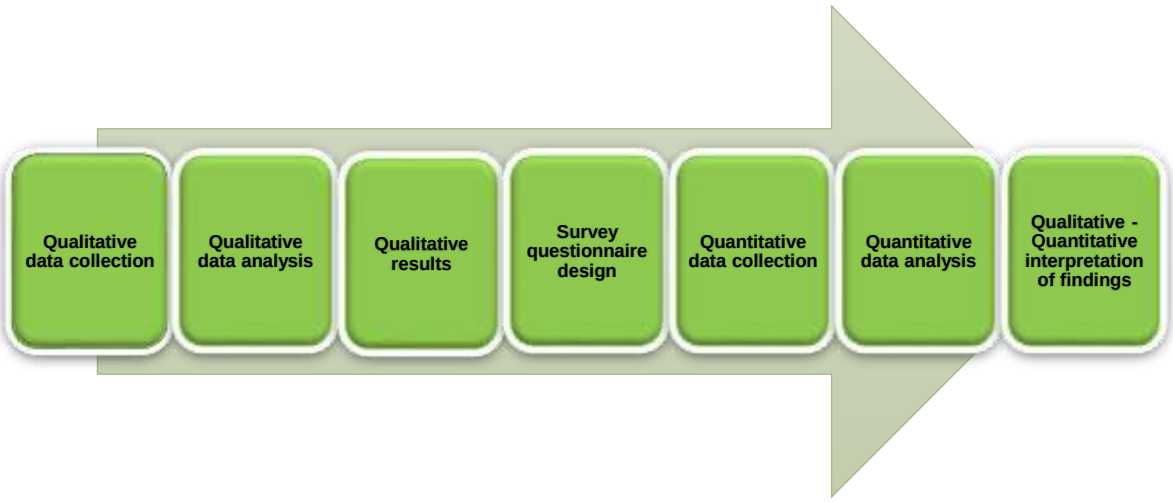

Figure 5.1: An exploratory sequential mixed methods research design

The researcher utilised an exploratory sequential mixed methods research design in in view of doing a more comprehensive assessment (Ivankova, 2015:139) of the social, economic and environmental dimensions of the challenges that informal settlement communities experience. Seeing that the study was in a relatively new field in social work, the researcher did not have prior knowledge of the constructs that are relevant to environmental and community sustainability for informal settlement communities.

Commencing with a qualitative study assisted the researcher in unearthing the constructs that were relevant to the social, economic and environmental dimensions in informal settlement communities, which the researcher subsequently measured in the quantitative study. The researcher also had a relatively adequate amount of time to conduct an exploratory sequential mixed methods design, as she was enrolled for a period of three years in a full-time doctoral programme. The researcher agrees with Teddlie and Tashakkori (2009:153) that an exploratory sequential mixed method design is relatively straightforward to describe, implement and report on. However, as is noted by Creswell and Plano Clark (2011:89) implementing the design required considerable financial resources due to the sequential iterations involved in its execution. This was particularly true in light of the comparative nature of the study, which required the researcher to carry out two qualitative and two quantitative research phases and to travel back and forth between the study sites in Namibia and South Africa. The fact that the researcher was a recipient of doctoral scholarships,

helped eased the financial burdens that were associated with conducting the study. In the next section, the researcher outlines the study's qualitative research design.

5.4.1 Qualitative research design

Qualitative research explores the characteristics or qualities of a particular phenomenon which cannot be reduced to numerical values (Leedy & Ormrod, 2013:95). Central to qualitative research is the need to understand people's behaviour and experiences from the point of view of research participants and is premised on both the subjectivity and multiplicity of their perspectives (Rule & John, 2011:60). The qualitative phase of the study utilised a collective case study design, which Creswell and Poth (2018:99) also refer to as a multiple case study design. A case can be an individual, a family or a country (Neuman, 2014:41). The cases in the study were comprised of three distinct groups that included; informal settlement households, children living in informal settlements and the practitioners (social workers, HSPs, EHPs and NPO practitioners) who worked with informal settlement communities. The cases were sourced from multiple sites, which included the Kilimanjaro, Okahandja Park and Babilon informal settlements and from the CoW in Windhoek, Namibia. They were also sourced from the CoJ in Region G of Johannesburg and from informal settlement communities in Extensions 1 and 7B in Ward 3 of Orange Farm in South Africa. A collective case study design provided the means for gathering qualitative data beyond a single case and across multiple-sites (Goddard, 2012:164). The fact that the study sourced cases from multiple sites in two different countries also entails that the study was a comparative case study (Rule & John, 2011:120).

Household and child participants were included in the study in view of learning about their first hand experiences of the social, economic and environmental challenges that impinge on the realisation of sustainable informal settlement communities and environments. Practitioners were selected for inclusion in the study based on the fact that they directly rendered interventions that attended to the social, economic and environmental aspects of community life in informal settlements. A collective case study design enabled the researcher to explore the challenges and the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities, from the view of children, household participants, social workers, EHPs, HSPs and NPO practitioners. A

collective case study design assisted the researcher in bringing similar and differing views and patterns within and across the cases (Neuman, 2014:41). As such, the chosen design facilitated a deeper understanding of the social, economic and environmental dimensions of sustainable development amongst informal settlements communities, which were located across vast geo-spatial localities in Namibia and South Africa. A collective case study design enabled the researcher to utilise the same research questions, a common theoretical framework and identical data collection and analysis methods across the study sites (Goddard, 2012:164; Rule & John, 2011:21). However, the several iterations involved in executing a collective case study design in Namibia and South Africa meant that the researcher had to utilise a considerable amount of time, money and energy travelling across the study sites. As a qualitative research design cannot be utilised to arrive at statistical conclusions, the researcher factored in a quantitative research design.

5.4.2 Quantitative research design

The study incorporated a quantitative research design in view of generating numerical data on statements of objective fact and determining generalisable trends (Rule & John, 2011:60) on the social, economic and environmental dimensions of sustainable development in the study areas. The quantitative research phase of the study adopted a cross-sectional survey design. As noted by Ivankova (2015:197), a cross-sectional survey design is a non-experimental research method that allows the researcher to gather standardised data on participants' attitudes, opinions and experiences without influencing their behaviour in any way. Leedy and Ormrod (2013:189) view a survey as incorporating the following; posing a series of questions to willing participants, summarising their responses with percentages, frequency counts and other statistical indexes and drawing inferences about a particular population based on the responses drawn from the study's sample. The highly structured nature of a cross-sectional survey design assists in reducing ambiguity in the research results (Greig, Taylor & Mackay, 2013:168). However, developing, testing and refining a new survey instrument in this relatively new study area in social work took a significant amount of time.

5.5 Mixed methods research methods

Research methods refer to a collection of techniques that the researcher employs in a study to select participants, gather and analyse research data and report on findings (Neuman, 2014:2). The study was grounded in mixed methods research. It employed qualitative and quantitative research methods in different phases of the study to sample and collect data from the study's population, followed by the analysis and joint interpretation of the data and reporting of the findings.

5.5.1 Study population

A study population includes all individuals within an identifiable boundary that possess the specific and well-defined characteristics that the researcher is interested in (Teddlie & Tashakkori, 2009:341). The study contributed to the growing body of knowledge on environmental and community sustainability by engaging children and adults who live in similar socio-economic contexts across national borders, alongside the stakeholders who work with these communities in tackling the social, economic and environmental challenges in informal settlements. The population of the study consisted of informal settlement households, children living in informal settlements and practitioners (social workers, HSPs, EHPs and NPO practitioners) who worked in informal settlements. The first population category included all the households in Kilimanjaro, Babilon and Okahandja Park informal settlements in Windhoek, Namibia and informal settlement communities in Extensions 1 and 7B in Ward 3 of Orange Farm in South Africa. The SDFN (2019b:1) estimates that in 2017, there were 5010 households in Okahandja Park informal settlement, while in 2018, the Babilon and Kilimanjaro informal settlements respectively had a population of 1187 and 1418 households. The study population in Namibia is displayed in Table 5.1 below.

Table 5.1: The informal settlement population in the study area in Namibia

Informal settlement name	Number of households
Okahandja Park informal settlement	5010
Babilon informal settlement	1187
Kilimanjaro informal settlement	1418
Total	7615

Source: (SDFN, 2019b).

The household population in South Africa was comprised of all informal settlement households in Extensions 1 and 7B in Ward 3 of Orange Farm. These households included residents of the Batswadi ba ntena informal settlement in Extension 1, which is also referred to as Central City informal settlement and of Extension 7B informal settlement. According to the community leaders (Khunoane, 2019; Luchaka, 2019) of the Central City and Extension 7B informal settlements, their communities have a combined population of 708 households. This population is displayed in Table 5.2 below.

Table 5.2: The informal settlement population in the study area in South Africa

Informal settlement name	Number of households
Central City informal settlement (Extension 1)	500
Extension 7B informal settlement	208
Total	708

Source: (Khunoane, 2019; Luchaka, 2019).

The second population category included all the child beneficiaries of Nathaniel Maxuilili soup kitchen and HISA which render feeding, life skills and educational programmes that target children living in the Okahandja Park, Babilon and Kilimanjaro informal settlements in Windhoek. In South Africa, the population included all the child beneficiaries of Camp Sizanani Life Skills, an NPO that empowers children from marginalised communities in South Africa, such as Orange Farm with life skills and HIV education. Collectively, the aforementioned NPOs served as the entry points through which the researcher gained access to the informal settlement communities in the study areas. According to these organisations, the Nathaniel Maxuilili soup kitchen had 356 child beneficiaries, while HISA had 80 child beneficiaries and Camp Sizanani had 200 child beneficiaries in Orange Farm at the time when permission to conduct the study was granted. This population is displayed in Table 5.3 below.

Table 5.3: The population of the child beneficiaries of the NPOs in the study (n=636)

NPO	Number of child beneficiaries
Nathaniel Maxuilili soup kitchen	356
HISA	80
Camp Sizanani	200
Total	636

Children were a key population category in the study seeing that environmental and community sustainability have implications for all people and for children presently and for their future. Child development scholars (Nairn & Clarke, 2012; Woodgate, Tennent & Zurba, 2017) assert that children are competent beings, who if given the opportunity, can make valuable contributions to society irrespective of their psychosocial developmental stage. The third and last population category was comprised of practitioners (social workers, EHPs and HSPs) from the CoW in Namibia and CoJ in Region G of Johannesburg in South Africa. It also included NPO practitioners (staff members and volunteers) of the abovementioned NPOs. According to the information given by these organisations, 65 practitioners met the criteria for inclusion in the study. This population in Namibia included 20 practitioners from HISA, four from Nathaniel Maxuilili soup kitchen, two social workers, 29 EHPs and 10 HSPs from the CoW. The population of the practitioners in the study area in Namibia is summarised in Table 5.4 below.

Table 5.4: The population of practitioners in the study area in Namibia (n=65)

Category of practitioners	Size
NPO practitioners – HISA	20
NPO practitioners - Nathaniel Maxuilili soup kitchen	4
Social workers - CoW	2
EHPs – CoW	29
HSPs – CoW	10
Total	65

According to the information provided by the CoJ and Camp Sizanani, 75 practitioners met the criteria for inclusion in the study. This population consisted of 20 NPO practitioners from Camp Sizanani in Orange Farm, 9 social workers, 23 EHPs and 23 HSPs from the CoJ in Region G of Johannesburg in South Africa. This population is summarised in Table 5.5 below.

Table 5.5: The population of practitioners in the study area in South Africa (n=65)

Category of practitioners	Population size
NPO practitioners Camp Sizanani - Orange Farm	20
Social workers - Region G of the CoJ	9
EHPs - Region G of the CoJ	23
HSPs - Region G of the CoJ	23
Total	75

Permission to engage the study population was respectively granted by the councillors of the Tobias Hainyeko Constituency in Windhoek and of Ward 3 in Orange Farm.

Permission was additionally granted by the CoJ, CoW, HISA, Camp Sizanani and Nathaniel Maxuilili soup kitchen (see Appendices 31 to 37).

5.5.2 Mixed methods sampling procedures

Sampling entails selecting a few individuals from the study population who can potentially shed the most light or different lights on the study topic (Rule & John, 2011:64). The study sampled participants for the qualitative phase of the study by means of non-probability sampling procedures and units for the quantitative phase of the study through probability sampling techniques (Teddlie & Tashakkori, 2009:171). In non-probability sampling, the positive probabilities of inclusion in the study for all the units in the population are unknown (Vehovar, Toepoel & Steinmetz, 2016:329), while in probability sampling, all units in the population have an equal chance to be selected for inclusion in the study (Ivankova, 2015:183). Combining non-probability and probability sampling strategies to collect qualitative and quantitative data allowed the researcher, as noted by Ivankova (2015:183), to simultaneously achieve transferability and generalisation of findings on the study population and to obtain information that mirrors the depth and breadth of participants' experiences and views.

5.5.2.1 The sampling methods in the qualitative phase of the study

The researcher selected participants for the qualitative phase of the study by means of purposive sampling. Purposive sampling entails the use of the researcher's judgment in selecting a small sample of participants who are informative to the research goal (Teddlie & Tashakkori, 2009:173). Guided by purposive sampling, the researcher deliberately selected participants who in her view had relevant knowledge, experience and interest (Rule & John, 2011:64), on the social, economic and environmental challenges in informal settlements. Qualitative samples are relatively small in size so as to enable an in-depth exploration of the phenomena under study (Ritchie, Lewis, Elam, Tennant & Rahim, 2014:112). The researcher sampled 91 participants, for the qualitative phase of the study, of which 50 participants were sampled in Namibia, while 41 were sampled in South Africa. The sample size was influenced by the comparative purpose of the study and what was possible in light of the available time and resources (Nieuwenhuis, 2016:84). The qualitative study sample in Namibia is displayed in Table 5.6 below.

Table 5.6: The purposive sample in the qualitative study in Namibia (n=50)

Population category	Sample size
Household participants	9
Child participants	24
Social workers	2
EHPs	5
HSPs	5
NPO practitioners	5
Total	50

As displayed in Table 5.6, the qualitative study sample in Namibia was comprised of 50 participants who included nine (9) household participants, 17 practitioners and 24 child participants. The qualitative study sample in South Africa is displayed in Table 5.7 below.

Table 5.7: The purposive sample in the qualitative study in South Africa (n=41)

Participant category	Sample size
Household participants	9
Child participants	15
Social workers	4
EHPs	5
HSPs	3
NPO practitioners	5
Total	41

As displayed in Table 5.7 above, the study sample in South Africa was comprised of 41 participants who included nine (9) household participants, 17 practitioners and 15 child participants. The household participants in the qualitative phase of the study were selected using the following criteria:

- Being older than 18 years.
- Having resided in Okahandja Park, Babilon or Kilimanjaro informal settlements in Windhoek or in informal settlement areas in Orange Farm Ward 3 for at least one year.
- Selection from a list of residents who meet the inclusion criteria, who indicated their willingness and availability to participate in the study, which was obtained through the Tobias Hainyeko Constituency or the Ward 3 councillor's office in Orange Farm.

The child participants in the qualitative phase of the study were selected by means of the following criteria:

- Being a beneficiary of a HISA, Nathaniel Maxuilili soup kitchen or Camp Sizanani programme.
- Being aged between 13 and 17 years.

- Having resided in Okahandja Park, Babilon or Kilimanjaro informal settlement or in Orange Farm for at least one year.
- A list of children who meet the inclusion criteria, who indicated their willingness and availability to participate in the study, which was obtained through the HISA, Camp Sizanani or Nathaniel Maxuilili soup kitchen.

Social workers, HSPs, EHPs and NPO practitioners in the qualitative study were selected by means of the following criteria:

- Being a staff member of the CoW, CoJ, or a volunteer or staff member of HISA, Nathaniel Maxuilili soup kitchen or Camp Sizanani.
- Directly rendering services to Okahandja Park, Babilon or Kilimanjaro informal settlements in Windhoek, Orange Farm or Region G of the CoJ.
- A list of practitioners who meet the study's inclusion criteria and had indicated their willingness and availability to participate in the study, which was obtained through their respective organisations.

5.5.2.2 The sampling methods in the quantitative phase of the study

The quantitative phase of the study utilised a different and larger sample of participants from the same study population as was utilised in the qualitative phase of study (Creswell & Plano Clark, 2011:188). Drawing in an entirely new sample of participants assisted the researcher in bringing in fresh perspectives into the study. This also prevented the duplication of responses. All in all, the quantitative phase of the study had a sample size of 531 participants. The quantitative study in Namibia utilised a sample size of 276 participants who included; 192 household participants, 28 practitioners and 56 child participants. In South Africa, the quantitative study had a sample size of 255 participants who included; 191 household participants, 23 practitioners and 41 child participants. Participants in the quantitative study were drawn through a combination of systematic and total population sampling techniques.

- **Systematic sampling in the quantitative study**

The researcher utilised systematic sampling to select household participants for the quantitative phase of the study. Systematic sampling involves selecting participants according to a predetermined sequence (Leedy & Ormrod, 2013:212). The researcher identified household participants for inclusion in the quantitative study by selecting the fortieth housing structure in the study areas. After which, the head of household or any other available adult household member were invited to complete a survey questionnaire. The systematic sample size for household participants in the study was

383 participants. Of these, 192 participants were sampled in Namibia, while 191 were sampled in South Africa. The systematic sampling criteria for household participants in the quantitative study is displayed in Table 5.8 below.

Table 5.8: The systematic sampling criteria for household participants in the quantitative study (n=383)

Population	Sampling method	Size	Sampling criteria
Household participants	Systematic sampling	383	Participants must: • Not have participated in the qualitative phase of the study. • Be willing and available to participate. • Have resided in the study areas for at least one year. • Be the head of household or any available adult family member of every fortieth household in Okahandja Park, Babilon and Kilimanjaro informal settlements Windhoek and of every third household in Extension 1 and 7B informal settlements in Orange Farm.

The population and systematic sample size of the household participants in the quantitative study in Namibia is displayed in Table 5.9 below.

Table 5.9: The population and systematic sample size of household participants in the quantitative study in Namibia

	Namibia	
	N = Total population	**N = sample**
Okahandja Park A informal settlement	4000	100
Okahandja Park B informal settlement	320	8
Okahandja Park C informal settlement	190	5
Okahandja Park D informal settlement	500	13
Total	5010	126
Babilon informal settlement	1187	30
Kilimanjaro informal settlement	1418	36
Total	7615	192

Source: (SDFN, 2019b).

The population and systematic sample size of household participants in the quantitative phase of the study in South Africa is displayed in Table 5.10 below.

Table 5.10: The population and systematic sample size of household participants in the quantitative study in South Africa

	South Africa	
	N = Total population	N = sample
Central City informal settlement (Extension 1)	500	122
Extension 7B informal settlement	208	69
Total	708	191

Source: (Khunoane, 2019; Luchaka, 2019).

- **Total population sampling**

The researcher utilised total population sampling to survey the entire population of NPO child beneficiaries and practitioners who meet the quantitative study's inclusion criteria. The researcher surveyed the aforementioned populations in their entirety, as they were quite small in number as evidenced by them being comprised of less than 100 individuals (Leedy & Ormrod, 2013:215), in each comparative study site. In Namibia, the study utilised a total population sample size of 84 participants, who were comprised of 56 child participants and 28 practitioners. This sample is displayed in Table 5.11 below.

Table 5.11: The total population sample of child participants in the quantitative study in Namibia (n=56)

Population	Sampling method	Size	Sampling criteria
Child participants	Total population Sampling	56	Participants must: • Not have participated in the qualitative phase of the study. • Be willing and available to participate • Be aged between 13 and 17 years. • Be a beneficiary of HISA or the Nathaniel Maxuilili soup kitchen. • Have resided in Okahandja Park, Babilon or Kilimanjaro informal settlements for at least one year.

The total population sample of practitioners in the quantitative study in Namibia is displayed in Table 5.12 below.

Table 5.12: The total population sample of practitioners in the quantitative study in Namibia (n=28)

Population	Sampling method	Size	Sampling criteria
Practitioners	Total population sampling	28	Participants must: • Not have participated in the qualitative phase of the study. • Be willing and available to participate. • Be an EHP or HSP at the CoW or a staff member or volunteer of HISA or Nathaniel Maxuilili soup kitchen. • Directly render or supervise services to Okahandja Park, Babilon or Kilimanjaro informal settlements.

In South Africa, the study had a total population sample size of 64 participants, who were made up of 41 child participants and 23 practitioners. The sample of child participants in South Africa is presented in Table 5.13 below.

Table 5.13: The total population sample of child participants in the quantitative study in South Africa (n=41)

Population	Sampling method	Size	Sampling criteria
Child participants	Total population sampling	41	Participants must: • Not have participated in the qualitative phase of the study. • Be willing and available to participate. • Be aged between 13 and 17 years. • Be a beneficiary of a Camp Sizanani programme. • Have resided in Orange Farm for at least one year.

The total population sample of practitioners in the quantitative study in South Africa is presented in Table 5.14 below.

Table 5.14: The total population sample of practitioners in the quantitative study in South Africa (n=23)

Population	Sampling method	Size	Sampling criteria
Practitioners	Total population sampling	23	Participants must: • Not have participated in the qualitative phase of the study. • Be willing and available to participate. • Be an HSP or EHP at the CoJ in Region G or a volunteer of Camp Sizanani in Orange Farm. • Directly render or supervise services to informal settlement communities in Orange Farm or Region G of the CoJ.

5.5.3 Mixed methods data collection procedures

The exploratory sequential mixed methods study gathered both qualitative and quantitative research data (Teddlie & Tashakkori, 2009:218). It commenced with the collection of qualitative data in the study area in Namibia, followed by South Africa.

5.5.3.1 Data collection procedures in the qualitative phase of the study

The researcher collected data for the qualitative phase of the study herself by interviewing children, practitioners and adult residents of informal settlements in the study areas in Namibia and South Africa. The collection of data from different categories of participants enabled the researcher to obtain a wide array of views. These views were utilised as the basis of comparing issues related to environmental and community sustainability for informal settlement communities, which she thereafter tested in the quantitative study. The qualitative study adopted a social constructivist paradigm, which Creswell and Plano Clark (2011:409) say is grounded in understanding the meaning of the phenomena under study, based on the subjective views of participants. Bloomberg and Volpe (2012:29) ascertain that social constructivism views reality as socially constructed and that individuals develop subjective meanings of their personal experiences, giving way to multiple meanings of reality. For the researcher, this implies that qualitative studies acknowledge that participants can interpret the same phenomenon in varied ways. As such, it was anticipated that the qualitative study participants would perceive environmental and community sustainability for informal settlement communities in diverse ways. The

qualitative study utilised one-on-one interviews and focus group interviews as the primary means of data collection. The aforementioned data collection methods enabled the researcher to yield rich descriptions in participants' words that captured their subjective experiences and understanding (Greig et al., 2013:174) of the social, economic and environmental dimensions of sustainable development in informal settlements. The researcher's role in the qualitative research process was to make inferences based on the patterns that emerged from the data (Gliner, Morgan & Leech, 2009:8).

- **One-on-one interviews**

One-on-one interviews enabled the researcher to engage participants in open-ended, interactions, which generated rich, in-depth information (Teddlie & Tashakkori, 2009:229) on the study topic. The researcher utilised one-on-one structured interviews with household participants and one-on-one semi-structured interviews with the practitioners. The interviews were structured and semi-structured in the sense that the researcher utilised structured and semi-structured interview schedules (see Appendices 1 to 5), to guide the interviews (Neuman, 2014:320). The researcher conducted 18 structured interviews with household participants, nine in Namibia and another nine in South Africa. She also conducted 34 semi-structured interviews with EHPs, HSPs, social workers and NPO practitioners. Seventeen of these were conducted in Namibia and the other 17 were done in South Africa.

The researcher conducted the interviews face to face with each participant, in locations that had minimal disruptions and noise levels. Each interview session lasted between 45 minutes to one and half hours and they were voice-recorded with each participant's prior informed consent (Ivankova, 2015:201). The interviews assisted the researcher in gaining an understanding of the factors that underpin people's decisions to live in informal settlements. They also explored the social, economic and environmental challenges that confront informal settlement communities, the interventions that minimise these challenges and the changes that are needed to transform informal settlement communities in into sustainable communities.

- **Focus group interviews**

Focus group interviews were the primary means through which the researcher gathered data from the child participants in the study. The study adopted an age-based

approach (UNCRC, 1989), that defines a child as any person under the age of 18 years. To be included in the study, the children had to be willing and available to participate, be aged between 13 and 17 years and had to have resided in the Kilimanjaro, Babilon and Okahandja Park informal settlements in Windhoek or in the informal settlement communities in Orange Farm for at least one year. As noted by Teddlie and Tashakkori (2009:228) focus groups are a group interviewing technique where a group moderator, who in this case was the researcher, is guided by a semi-structured interview schedule (see Appendix 5). Guided by the focus group interview schedule, the researcher facilitated a free and open discussion amongst a group of child participants (Rule & John, 2011:66).

Focus group interviews are an effective means for enabling an in-depth exploration of participants' perceptions and experiences within a group setting (Ivankova, 2015:202). The focus group interviews enabled the child participants to share their visions of sustainable informal settlements and environments and the challenges that hamper the realisation of this vision. To ensure thick descriptions of gathered data each focus group session was voice-recorded (Neuman, 2014:436) with the informed assent of the child participants (see Appendices 11 to 14), and the informed consent of their parents and guardians (see Appendices 15 to 20). Assent is an agreement between the researcher and minors who have no legal right to consent in a study (Alderson & Morrow, 2011). As is discussed under the study's ethical considerations in section 5.8 of this chapter, obtaining the assent of children to participate in research studies is a mandatory pre-condition for safeguarding their well-being.

The researcher conducted seven focus group discussions, which were deemed sufficient for allowing access to a range of participants and a variety of insights (Tonkiss, 2012:229). Of these, four were conducted in Namibia, while three were held in South Africa. The focus groups engaged 24 child participants in Namibia and 15 child participants in South Africa. Each focus group discussion was comprised of between four and six participants, with a small age range of between 13 and 17 years. Greeff (2011:366) views a small group size as good for allowing each participant an opportunity to share their views while eliciting a wide range of responses. The researcher arranged for a quiet place to conduct the focus group discussions at the premises of Camp Sizanani, HISA and Nathaniel Maxulili soup kitchen, as these organisations offer a safe and child friendly environment that was important in the

study. The focus groups were conducted in English, which is one of the languages that are used when communicating with children at these organisations. Although the focus groups were conducted in English, there were instances where some of the participants mixed English with their mother tongue and were given "the right to communicate…in their chosen language" (Viviers & Lombard, 2012:12). This was done in view of respecting the cultural diversity in the contexts in which the study took place. A volunteer child participant interpreted for the researcher in instances where a participant expressed him or herself in his or her mother tongue. Within the focus group, the researcher and child participants sat with their chairs arranged in a close circle to allow for eye contact (Alderson & Morrow, 2011:40).

An important methodological consideration that the researcher took in view of the unequal adult-child relations in the communities where the study took place was to allow the child participants to set up ground rules before each focus group session. In so doing, the researcher allowed the child participants to assert their power by directing the research process and dictating that data collection be carried out at their own terms. As such, the study shifted the children's position from that of research subjects to research agents (Woodgate et al., 2017). Viviers and Lombard (2012:16) assert that boundaries and rules that apply during children's participation process should be negotiated as far as practicable. Focus group interviews, alongside structured and semi-structured one-on-one interviews gave the researcher many opportunities to clarify unclear questions and to ask participants to explain vague responses (Teddlie & Tashakkori, 2009:229).

The comparative nature and collective case study design of the study, however, meant that it took the researcher a considerable amount of time to conduct and transcribe the interviews, which is an inherent feature of qualitative studies (Greig et al., 2013:161). The principle of data saturation informed the number of one-on-one and focus group interviews that the researcher conducted. Towards this end, the researcher conducted 59 interviews, which were comprised of 18 structured interviews with household participants, nine in Namibia and nine in South Africa; 34 semi-structured interviews with the practitioners, 17 in Namibia and 17 in South Africa; and seven focus group interviews with child participants, four in Namibia and three in South Africa. Data saturation in the view of Teddlie and Tashakkori (2009:183) occurs when interviewing additional participants does not result in new information that can be utilised to

development more themes. The data from the one-on-one interviews and focus group discussions was subsequently analysed and compared for emerging themes. Following this, the researcher formulated questionnaire constructs for use in the quantitative phase of the study.

5.5.3.2 Data collection procedures in the quantitative study

Data collection in quantitative studies functions from a positivist paradigm. Positivism perceives reality as objective and focuses on the observation and measurement of social phenomena (Sarantakos, 2013:33-34). Thus, central to positivism is the development of numeric measures (Creswell, 2014:7). The quantitative phase of the study collected data through survey questionnaires. Questionnaires provide a structured means for participants to self-report on their attitudes, beliefs, judgements, experiences and other attributes related to the study topic (Teddlie & Tashakkori, 2009:343). The study adopted three sets of self-administered, group administered and hand delivered questionnaires, which were respectively administered on household participants, child participants and practitioners. The questionnaires collected data from a large sample of participants and were comprised of several question items, which measured the themes that emerged from the qualitative study (Ivankova, 2015:251).

The researcher structured each questionnaire into sections and sub-sections and utilised a combination of closed-ended questions, statements, dichotomous (yes/no) questions, multiple choice questions, matrix type questions and ordinal questions (Delport & Roestenburg, 2011:198-201). Questionnaires offer the advantage that they can be designed to cover the exact areas that the researcher is interested in and provide an effective means of focusing the study (Greig et al., 2013:163). The drawback of using questionnaires in the study lied in the huge monetary costs and ecological footprint that is associated with printing hard copies of questionnaires for the 531 participants who took part in the quantitative study. At the same time, printing the questionnaires was the most feasible way of administering the survey instruments for this particular population. The three types of questionnaires that were utilised in the study are highlighted next.

- **Self-administered questionnaires**

The researcher was assisted by nine research assistants (six and three research assistants respectively in Namibia and South Africa) to administer the household questionnaire. Prior to administering the questionnaire, the researcher gave the research assistants training on the ethical aspects that informed the study (see section 5.8). The assistants each signed an informed consent letter (see Appendix 27) as a declaration of their commitment to adhere to the ethical principles that guided the study. The administering of questionnaires to the household participants in the study involved handing out a questionnaire to an individual respondent, who completed the questionnaire on his or her own, while the researcher was available to clarify any issues (Delport & Roestenburg, 2011:188). However, in the majority of the cases, the household participants opted for the researcher and research assistants to read out each question in the questionnaire and the range of responses, after which the researcher and her assistants would complete the questionnaire based on each participant's responses. Prior to conducting the study, the researcher engaged language experts at the Universities of Namibia and Pretoria, who respectively translated the household questionnaire and informed consent letters into Oshiwambo and isiZulu (see Appendices 8, 9, 22 and 23), which are the local languages that are each predominantly spoken in Windhoek and Orange Farm. Self-administered questionnaires were advantageous in the study as they offered a quick turnaround time (Teddlie & Tashakkori, 2009:239).

- **Group administered questionnaires**

Within the context of the study, group-administered questionnaires involved child participants sitting in a group setting to individually complete a questionnaire, while the researcher was present to clarify any uncertainties (Delport & Roestenburg, 2011:189). Group administered questionnaires offer "an efficient method of collecting data from a large number of people simultaneously" (Rule & John, 2011:66). The researcher formulated the questionnaire for the child participants (see Appendix 6) in an easy to read, colourful and visually stimulating manner (Lewin, 2011:225). The questionnaire was respectively administered to the sampled child participants at Camp Sizanani, HISA and Nathaniel Maxuilili soup kitchen. Prior to administering the questionnaire, the researcher and child participants read through and signed an informed assent letter. After which, the researcher gave instructions on how to

complete the questionnaire without dictating the participants' responses. A disadvantage of group administered questionnaires is that some child respondents may feel too shy to ask for clarification within a group setting and may therefore answer the questions arbitrarily (Delport & Roestenburg, 2011:189).

- **Hand delivered questionnaires**

The researcher hand delivered questionnaires to HSPs, EHPs and NPO practitioners in the study. Social work practitioners did not participate in the quantitative study as their population was quite small and as the majority of them had already participated in the qualitative study. Using hand delivered questionnaires in the study entailed the researcher personally delivering questionnaires to individual practitioners. The practitioners completed the questionnaire at their own time, after which the researcher collecting the completed questionnaires at an appointed time (Delport & Roestenburg, 2011:188). Allred and Ross-Davis (2010:307) refer to hand delivered questionnaires as the drop-off and pick-up method of administering questionnaires, which they say offers the potential for face-to-face contact and verbal communication between the researcher and respondents and gives the researcher an opportunity to personally explain the purpose of the study. While hand delivered questionnaires have time and transport cost implications that arise from travelling back and forth to deliver and pick up questionnaires, Allred and Ross-Davis (2010:307) are of the view that this method of distributing is associated with low non-response rates.

5.5.4 Pilot study

Prior to data collection, the researcher conducted two separate qualitative and quantitative pilot studies in Namibia and South Africa. The pilot studies mirrored the sampling and data collection procedures, which the researcher had planned for the main study (Strydom & Delport, 2011:394). The qualitative pilot study in Namibia was comprised of the first two structured and semi-structured one-on-one interviews, which the researcher respectively conducted with household participants and practitioners, as well as the first focus group discussion with the child participants. Following the same order, a second qualitative pilot study was conducted in South Africa. Prior to conducting the interviews, the researcher obtained the informed consent of all the pilot study participants, and in the case of the child participants, their assent and the informed consent of their parents and guardians. The qualitative pilot study assisted

the researcher in gaining familiarity with the study sites and in gauging the overall feasibility of the study (Leedy & Ormrod, 2013:112). This was particularly important as the researcher had never worked before in either study sites in Namibia and South Africa. The qualitative pilot study enabled the researcher to refine the study's interview schedules (Yin, 2014:98) by rephrasing ambiguous questions and eliminating questions which were phrased differently but elicited more or less the same answers. As recommended by Ismail, Kinchin and Edwards (2018:6), the researcher incorporated the qualitative pilot study findings into the main study as the outcome of the pilot study did not call for a major overhaul of the interview schedules and the planned research methods.

The quantitative pilot study involved pilot testing the three sets of questionnaires, which the researcher had developed for the practitioners, household and child participants in the quantitative study, using the themes that emerged from the qualitative study. The researcher administered the questionnaires on a limited number (Delport & Roestenburg, 2011:195) of household, child and practitioner respondents whose responses were not incorporated into the main study. In particular, the researcher administered the questionnaire to four respondents from each category of participants in Namibia and South Africa. The researcher also consulted child care experts at the CoW, Camp Sizanani, HISA, Nathaniel Maxuilili and statistical experts in the Department of Statistics at the University of Pretoria in developing the questionnaires. The quantitative pilot study provided an opportunity for the pilot study respondents and experts to point out areas where questionnaire constructs needed rephrasing or re-ordering (Leedy & Ormrod, 2013:92), after which the researcher incorporated the changes in the final set of questionnaires. The pilot study also enabled the researcher to determine the average time that each category of participants would spend on completing their respective questionnaire. As suggested by Ivankova (2015:262) the researcher conducted cognitive interviews with respondents immediately after the pilot study to determine the level of ease by which they completed the questionnaires. These interviews also elicited information on the usefulness of the questionnaires in capturing the multi-faceted social, economic and environmental dimensions of sustainable development in informal settlements.

5.6 Mixed methods data analysis procedures

The study commenced with qualitative data collection and analysis, with the qualitative data analysis process influencing the direction that data collection in the subsequent quantitative study phase would follow (Teddlie & Tashakkori, 2009:274). Data analysis in the study was therefore interlinked and involved the integration of qualitative thematic techniques and quantitative statistical techniques. In analysing and interpreting data for the study, the researcher drew guidance from the study's theoretical framework, which was rooted in environmental justice theory; three generations of human rights framework and social development theory (Chapter Four, sub-section 4.2).

5.6.1 Data analysis in the qualitative phase of the study

The qualitative data analysis process relied on the data collected which the researcher had gathered by means of the structured and semi-structured one-on-one interviews and focus group discussions. In qualitative research "data collection, data analysis and report writing are not distinct steps" (Creswell & Poth, 2018:185). Rather, qualitative data analysis is an iterative process that involves going back and forth between data collection and analysis (Teddlie & Tashakkori, 2009:251). This entails that as qualitative data collection is taking place, ideas about directions for analysis occur; patterns take shape and possible themes that inform subsequent data collection spring to mind (Schurink, Fouché & De Vos, 2011:405).

Qualitative data analysis follows an inductive route whereby themes emerge from the data (Teddlie & Tashakkori, 2009:251). As such, the researcher analysed qualitative data thematically by means of Creswell and Poth's (2018:185) qualitative data analysis spiral, which entailed a back and forth data analysis process as opposed to following a fixed and linear data analysis path. The first task in the process was to manage and organise the qualitative data. Towards this end, the researcher transcribed the voice recordings of participants' interviews by listening repeatedly to each audio recording, while typing out a transcript. This process evidently took many months to finalise seeing that the researcher had 59 qualitative interviews to transcribe. The researcher then uploaded the typed transcripts into Atlas.ti 8, which is a qualitative data analysis (QDA) software (Atlas.Ti Gmbh, 2018). After organising the transcripts in Atlas.ti, the

researcher embarked on reading and re-reading the transcripts, while memoing emergent ideas and this assisted the researcher with developing codes (Creswell & Poth, 2018:187). Following this, the researcher embarked on describing and classifying the codes into themes, a process which Creswell and Poth (2018:189) consider as the heart of the qualitative data analysis. This enabled the researcher to build detailed descriptions of the data by reducing codes into themes and providing an interpretation of the data in light of literature perspectives and the researcher's own views. Following this, the researcher developed and assessed interpretations by thinking beyond the themes to figuring out the larger meaning of the data (Creswell & Poth, 2018:195). The final loop in the data analysis spiral involved representing and visualising the data (Creswell & Poth, 2018:196). This was achieved through presenting the qualitative data in the form of a narrative report that mirror participants' own words and perspectives (Leedy & Ormrod, 2013:97).

The researcher's decision to use Atlas.ti 8 QDA software was in view of the voluminous nature of the data which the qualitative study yielded. Atlas.ti provides a ready means of storing, segmenting, and organising lengthy data and assists the researcher in easily finding patterns across the data (Leedy & Ormrod, 2013:159). The use of a QDA software in the study yielded several benefits that are highlighted by Creswell and Poth (2018:208-209). Firstly, it provided an organised file storage system that enabled the researcher to easily manage the qualitative data. Secondly, it assisted the researcher in easily locating the material. Thirdly, it enabled the researcher to visualise relations among codes and themes and to easily analyse the data. Apart from the benefits that Atlas.ti provides in easily organising qualitative data, Hwang (2008:521) is of the view that the use of QDA software enhances the credibility of the study by making the qualitative research processes more transparent and replicable. While the use of Atlas.ti 8 came with several benefits, the fact that this was the researcher's first time to use a QDA software meant that she had to make significant time investments attending training sessions on Atlas.ti, which were organised by her university.

5.6.2 Data analysis in the quantitative phase of the study

Data from the three sets of questionnaires, which the researcher respectively administered on household participants, practitioners and child participants, formed the basis of the quantitative data analysis process. The questionnaires yielded data in

the form of numbers that were representing values of variables that measured specific characteristics (Neuman, 2014:393), related to informal settlement communities. The quantitative data analysis process was accomplished through the aid of version 25.0 of the Statistical Package for Social Sciences (SPSS) (International Business Machines (IBM), 2018). The quantitative data analysis commenced with data coding in preparation for entry into SPSS. The data coding process entailed systematically re-organising the data into a format that is easy to analyse using a statistical software (Neuman, 2014:393). Part of this process involved assigning numerical values to each questionnaire variable and a unique identification number that distinguished each of the three sets of questionnaires (Fouché & Bartley, 2011:254). Following this, the data was entered into SPSS, after which all the categories of variables that were entered into SPSS were checked for accuracies in coding, a process which Neuman (2014:396) calls data cleaning. Having ruled out errors in coding, the data was processed and analysed in SPSS using various univariate, bivariate, multivariate, descriptive and inferential statistics (Fouché & Bartley, 2011:254). After which the analysed data was summarised in easily interpretable tables and scores, which made it easy for patterns and relationships to be detected and results to be better communicated (Teddlie & Tashakkori, 2009:257).

Using SPSS in the study was particularly time saving as it increased the speed at which the quantitative data analysis was completed. In addition, SPSS offered a range of statistics for analysing the data and enabled the data to be summarised in easily understandable tables (Leedy & Ormrod, 2013:302). The researcher received statistical support from the Department of Statistics at the University of Pretoria, who captured and analysed the quantitative data in SPSS, following the outlined process. The quantitative research results are presented in the form of tables, frequencies and statistical interpretations and are jointly interpreted alongside the qualitative findings in Chapters Six and Seven.

5.6.3 The integration of qualitative and quantitative study findings

Having yielded qualitative and quantitative findings from the data analysis process, the researcher integrated and compared the findings to determine the extent to which the quantitative results verified and validated the qualitative findings (Creswell & Plano Clark, 2011:122; Ivankova, 2015:176). The qualitative and quantitative findings are

triangulated in Chapters Six and Seven, which respectively commence with a presentation of the qualitative findings, followed by the quantitative results in the form of tables, frequencies and statistical interpretations. The findings are then jointly interpreted and anchored in literature. The findings focus on the social, economic and environmental challenges for sustainable development and the interventions that promote the social, economic and environmental dimensions of sustainable development among informal settlement communities in Namibia and South Africa.

5.7 Trustworthiness, reliability and validity of findings

The strategies which the researcher utilised to ensure rigour in the qualitative study are discussed first, followed a discussion of the strategies that assisted the researcher in improving the reliability and validity of the quantitative results.

5.7.1 Trustworthiness of the qualitative findings

Trustworthiness has to do with ensuring that qualitative research maintains scholarly rigour and transparency (Rule & John, 2011:107). Towards, this end, the qualitative study utilised the following four strategies; credibility, transferability, dependability and confirmability to improve the trustworthiness of the findings.

- **Credibility**

Credibility is the extent to which qualitative findings are believable and promote confidence in their truth (Ivankova, 2015:266). To improve the credibility of the qualitative findings, the qualitative phase of the study utilised the following four strategies; triangulation, member checking, peer debriefing and prolonged engagement in the research field (Teddlie & Tashakkori, 2009:332). Triangulation is based on the view that people learn more by observing reality from multiple perspectives as opposed to looking from a single perspective (Neuman, 2014:166). In this regard, the study explored data from multiple theoretical lenses (Rule & John, 2011:109). The multiple theoretical lenses that the study adopted, integrated and drew perspectives from environmental justice theory, the three generations of human rights framework and social development theory. The combination of qualitative and quantitative research approaches and the use of a collective case study approach (Ivankova, 2015:266), also assisted the researcher to explore the study topic from multiple perspectives. Triangulation allowed the researcher to showcase the views of

children, alongside household participants, EHPs, HSPs, social workers and NPO practitioners.

Member checking or respondent validation, as Leedy and Ormrod (2013:104) like to call it, was achieved by presenting the transcribed data to a few of the study's qualitative study participants and affording them an opportunity to read through their own transcripts, in order to verify the accuracy of the data. The researcher got feedback on the transcribed data from 10 participants in the study areas in both Namibia and South Africa who verified the accuracy of their own interview transcripts. The researcher employed peer debriefing by engaging in supervisory sessions with her study supervisor who gave feedback on whether or not appropriate interpretations and valid conclusions were made based on the findings (Rule & John, 2011:108). Conducting the study in two sequential phases in both Namibia and South Africa, over a period of three years, offered the researcher an opportunity to achieve prolonged engagement in the study sites. This enabled the researcher to personally familiarise herself with the poverty, environmental, cultural and socio-economic contexts in the study areas.

- **Transferability**

Transferability is defined by Ivankova (2015:266) as the extent to which the qualitative findings are applicable to other contexts. Transferability in her view is achieved by yielding thick descriptions or detailed descriptive data of participants and the study settings that enable comparisons to be made with other research contexts. The researcher worked towards the yielding of thick descriptions by offering detailed descriptions of the poverty and inequality contexts in urban areas in Namibia and South Africa in Chapter Three. The voice recording of the qualitative interviews and the verbatim transcription of the interviews, followed by the presentation of participants' narratives in Chapters Six and Seven were some of the other measures that the researcher employed to assure that the study yielded thick descriptions. Based on these techniques other researchers could be in a better position to make comparisons with other contexts and to draw their own conclusions based on the presented findings (Leedy & Ormrod, 2013:104).

- **Dependability**

Dependability refers to the extent to which the research process is logical, well documented and audited (Ivankova, 2015:266; Schurink et al., 2011:420). The researcher embarked on achieving dependability through an audit trail within the research report that documents the process of data collection, analysis and interpretation. The study simultaneously achieved dependability by triangulating different research sites and categories of participants.

- **Confirmability**

Confirmability is the extent to which the qualitative findings are shaped by participants' views and not by the researcher's bias (Ivankova, 2015:266). To realise this, the researcher detailed the process of data collection, analysis and interpretation within the research report, with the view of providing evidence that corroborates the research findings and interpretations (Schurink et al., 2011:421).

5.7.2 Reliability and validity of quantitative data

Reliability refers to "the degree to which an instrument consistently and accurately measures the concept or construct it claims to measure" (Ivankova, 2015:262). To improve the reliability of the quantitative findings, the researcher pilot tested the study's three sets of survey questionnaires in both Namibia and South Africa using two to three participants in each participant category. The researcher also consulted a statistical expert at the University of Pretoria who reviewed and gave input into the questionnaires. An additional measure that the researcher took to ensure the reliability of the study's finding was to follow a standardised process in administering the questionnaires as outlined in sub-section 5.5.3.2 of this particular chapter. Validity refers to "the degree to which an instrument measures what it is supposed to measure" (Ivankova, 2015:262). The researcher attended to face, content, criterion and construct validity.

- **Face validity**

Face validity is a measure to guarantee the cooperation of respondents (Leedy & Ormrod, 2013:89), which has to do with the overall appearance of the quantitative survey instrument. The quantitative pilot study presented an opportunity for the researcher to test the face validity of the three sets of survey questionnaires that were utilised in the main study. As face validity can be a subjective assessment of validity

(Teddlie & Tashakkori, 2009:210), the researcher also tested the survey instrument for content, criterion and construct validity.

- **Content validity**

Ivankova (2015:262) views content validity as the degree to which an instrument measures its intended subject matter and this is achieved when the questions in a questionnaire represent all possible questions on the subject matter. In the study, content validity was improved through consulting experts (Teddlie & Tashakkori, 2009:210). The consulted experts included; HSPs, EHPs, NPO practitioners and social workers who possessed specialised knowledge on informal settlement communities in Namibia and South Africa and on sustainable development. The experts concurred during the pilot phase of the study that the three sets of questionnaires which were developed by the researcher covered the major domains that are relevant to a study on environmental and community sustainability for informal settlement communities in Namibia and South Africa.

- **Criterion validity**

Criterion validity has to do with comparing the scores on a survey instrument with an external criterion known to or believed to measure the concept being studied (Delport & Roestenburg, 2011:174). In the case of the study, questionnaire constructs were formulated based on the themes that emerged from the qualitative phase of the study and by reviewing literature on informal settlements, sustainable development and environmental and community sustainability.

- **Construct validity**

Construct validity has to do with the degree to which the survey instrument actually measures the intended concept (Ivankova, 2015:262). Construct validity was achieved by clustering together response items that measured the same construct (Delport & Roestenburg, 2011:175). The researcher made use of cognitive interviews with pilot study respondents in order to establish how the respondents understood and interpreted the survey questions and constructed their answers (Ivankova, 2015:262).

5.8 The ethical considerations in the study

As a practising social worker, the researcher ascribes to an ethical code, which regulates the professional conduct of social workers and is grounded amongst others,

in human rights, social justice, respect for privacy and the right to participation (IFSW, 2012b). The study adhered to a set of ethical principles that guide research studies with human subjects and these included; informed consent, voluntary participation, confidentiality, privacy and anonymity, avoidance of harm and dissemination of information. These principles provided the researcher and her research assistants with rules and behavioural expectations about the most correct conduct towards study participants (Strydom, 2011b:114) and the research data. The next paragraphs highlight the ethical considerations that guided the researcher and her research assistants' conduct throughout the course of the study.

5.8.1 Ethical considerations prior to conducting the study

While the researcher collected data for the qualitative study herself, she was assisted to distribute questionnaires in the quantitative study by six research assistants in Namibia and three research assistants in South Africa. As such, the researcher obtained the research assistants' written informed consent (see Appendix 5), after having thoroughly trained them on the ethical considerations that guided the study. Seeing that the study engaged children as research participants, the researcher had to strike a balance between ensuring that children's voices are heard and that their rights are well protected (Nairn & Clarke, 2012:179). As such, the researcher approached the child participants knowing that they constituted a vulnerable group that needs protection (UNCRC, 1989), while acknowledging that their participation in the study would advance children's best interests in contributing to sustainable environments and communities. As a way of ensuring that the manner in which participants in the study were engaged reflected respect for their rights, the study obtained ethical clearance (see Appendix 6) from the Ethical Clearance Committee in the Faculty of Humanities at the University of Pretoria. Creswell and Poth (2018:54) argue that the process of getting university ethical clearance is guided by policies that require evidence that the researcher is aware of the relevant ethical issues that pertain to the study and that he or she formulates a plan to address ethical issues relating to the treatment of research participants and the information they provide. As a precondition for submitting an application for ethical clearance, the researcher obtained written permission to engage household participants in the study respectively from the councillor of the Tobias Hainyeko Constituency and Ward 3 of Orange Farm,

as these constituted the gatekeepers of informal settlement communities in the study areas. Similarly, written permission to engage the practitioners and child participants in the study was respectively obtained from CoJ, CoW, HISA, Nathaniel Maxuilili Soup Kitchen and Camp Sizanani (see Appendices 31 to 37).

5.8.2 Ethical considerations at the beginning of the study

While it is important to obtain the written permission of organisations to engage research participants in a study, this measure is not enough, as participants need to know why, how and what they are being asked to participate in (Neuman, 2014:151). To attend to this, the researcher utilised informed consent letters to obtain the prior written informed consent of the practitioners, household participants and the parents and guardians of the child participants in the study (see Appendices 15 to 29). The researcher obtained the written informed assent of the child participants in the study through assent letters (see Appendices 11 to 14). Assent is an agreement by minors who cannot legally consent to participate in a study (Alderson & Morrow, 2011:102). Obtaining both parental consent and the assent of child participants in the study was in view of respecting and being sensitive to the special needs of children in research studies (Creswell & Poth, 2018:55).

The consent and assent letters introduced the researcher, the title and purpose of the study and the study's procedures. They furthermore highlighted any possible risks, discomforts and benefits that would accrue from participating in the study as well as participants' right to refuse to participate and to withdraw from the study at any time, if they so wish, without any negative consequences arising. The letters also made participants aware of the fact that the researcher would voice-record all interviews as a measure to guarantee the richness of the findings. Furnished with this information, participants were in a better position to make an informed decision as to whether or not they wished to participate in the study. The researcher sought once-off consent to use the research data for a doctoral dissertation, conference papers, scientific journals, book chapters and further research.

The researcher took time to carefully read through the informed assent letters with all prospective child participants so that they fully understand its contents and afforded them an opportunity to ask questions prior to them agreeing to participate in the study. The assent letters were formulated in easy-to-read English. The informed consent

letters for household participants and for the parents and guardians of the child participants in the study were formulated in English, Oshiwambo and isiZulu, while those of the practitioners were formulated in English. Participants' understanding of the study's purpose, procedures and outcomes and why they were selected for inclusion in the study, constituted the necessary groundwork needed before the study could commence.

5.8.3 Ethical considerations during data collection

Voluntary participation was a central ethical consideration in the study as participants were not coerced into participating but did so at their free will (Neuman, 2014:151). Although none of the participants expressed the desire to withdraw from the study, they were afforded the right to withdraw from the study at any time, if they so wished, without any negative ramifications arising on their part (Greig et al., 2013:255). This right was also in view of minimising the psychological harm that the study would inadvertently pose. The study also promoted the principle of avoidance of harm by affording participants the right not to answer any questions that they felt uncomfortable answering. While anonymity has got to do with protecting the identity of participants (Iphofen, 2011:92) confidentiality relates to limiting other people's access to information obtained during a study (Strydom, 2011b:119). In view of upholding the privacy of research participants and demonstrating that their identities would remain anonymous, the researcher assigned the practitioners and household participants in the study with pseudo names and extended an opportunity to the child participants to choose pseudo names for use in the study. Strydom (2011b:120) maintains that information given anonymously ensures the privacy of research participants. An interesting challenge however, was that some child participants preferred to use their real names so that their unique contributions could be acknowledged. Woodgate et al. (2017:5) encountered a similar ethical dilemma in their study, which for them, illustrates how the ethical protocols that are set forth "to protect participants may instead create situations where participants become limited in their power to contribute to research." Consequently, the child participants had to compromise and settle for using pseudo names, which they chose based on their favourite colours, fruits, persons, places and car brands.

As a measure to uphold confidentiality, the research interviews were conducted in rooms that ensured privacy and minimised intrusion and eavesdropping by non-participants. As safety and protection from harm must be a priority in all children's participation processes (Viviers & Lombard, 2012:15), data collection with child participants was done at the NPOs where they were sourced. At the end of each data collection session, the researcher set aside time to debrief participants so as to give them an opportunity to work through the research experience and its aftermath (Strydom, 2011b:122). The participants were also acquainted with the necessary counselling support (Iphofen, 2011:56) through the informed consent and assent letters. Upon finalising data collection, participants could still contact the researcher on any matter related to the study, as the researcher made her contact details available in the informed consent and assent letters.

5.8.4 Ethical considerations during data analysis

Protecting the confidentiality and anonymity of research participants continued during data analysis. This was achieved by using pseudo names to support participants' narratives. Another key ethical consideration during data analysis was to avoid disclosing only positive (Creswell & Poth, 2018:55), or negative results. To achieve this, the data analysis process was guided by multiple perspectives from child participants, social workers, EHPs, household participants, HSPs and NPO practitioners, who each gave a holistic picture of the deficits and strengths in informal settlements.

5.8.5 Ethical considerations during the reporting of the findings

In reporting the findings, the researcher avoided falsifying the findings and plagiarising the information cited in the report (Creswell & Poth, 2018:56). The researcher protected the anonymity of research participants by not reporting the findings in ways that could directly link the findings to a particular participant (Leedy & Ormrod, 2013:151). The use of pseudo names in reporting of the findings was particularly beneficial in this regard. Only the researcher has knowledge of which participants were assigned with which pseudo names and that information will remain confidential. All information pertaining to the study and the study's participants was archived in the Department of Social Work and Criminology at the University of Pretoria, where it will be safely kept for a period of fifteen years.

5.8.6 Ethical considerations while releasing the research findings

Without publishing the findings, a charge could be made that all stakeholders' time was wasted, which clearly is an ethical concern (Iphofen, 2011:133). As the researcher has an ethical obligation to publish the research findings, the findings were utilised in compiling this social work doctoral thesis. The findings will furthermore contribute to peer reviewed journal and book chapter publications, conference papers and further research. The researcher will also share electronic copies of the research report with the various stakeholders who participated in the study. Another key ethical consideration upon completing the study would be to tailor make the research findings for children audiences in order to avoid what I'anson (2013:104) refers to as, colonising children's experiences to satisfy adult audiences.

5.9 Limitations of the study

In view of the comparative nature of the study, the study's findings relate to informal settlement communities in the Babilon, Okahandja Park and Kilimanjaro informal settlements in Windhoek, Namibia and Orange Farm in South Africa. Although, the quantitative results confirmed and generalised the qualitative findings onto a larger population within the study (Ivankova, 2015:145), the findings are not generalisable to informal settlement communities in other settings. The findings however add to the body of knowledge on the social, economic and environmental challenges for sustainable development amongst informal settlement communities and the interventions that promote the social, economic and environmental dimensions of sustainable development, which informal settlement communities and stakeholders in other contexts could draw lessons from.

5.10 Summary

The chapter has described the procedures that were utilised in conducting the comparative study in Namibia and South Africa. The study adopted a mixed methods research approach and an exploratory sequential mixed methods research design, where qualitative and quantitative research phases were carried out in sequence. The chapter has also highlighted the qualitative and quantitative sampling, data collection and analysis procedures that were utilised in the study. It has also reported on how the qualitative and quantitative findings were integrated in view of drawing conclusions

and providing a holistic picture of environmental and community sustainability for informal settlement communities in Namibia and South Africa. The chapter also gave an overview of how the researcher enhanced the trustworthiness of the qualitative findings, the reliability and validity of the quantitative findings and of the study's ethical considerations and limitations. Chapter Six presents and integrates the qualitative and quantitative empirical findings that were generated by the study.

CHAPTER 6

EMPIRICAL FINDINGS ON THE SOCIAL, ECONOMIC AND ENVIRONMENTAL CHALLENGES AMONGST INFORMAL SETTLEMENT COMMUNITIES IN NAMIBIA AND SOUTH AFRICA

6.1 Introduction

The study's research findings are drawn from the qualitative and quantitative phases of the study and are presented in two consecutive chapters. Chapter Six presents findings on the social, economic and environmental challenges for sustainable development amongst informal settlement communities in the study areas in Namibia and South Africa. In Chapter Seven, the researcher presents findings on the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities in the study areas. Key findings and conclusions from these two chapters are consolidated in Chapter Eight.

The qualitative phase of the study yielded findings from 59 interviews, which were comprised of 18 one-on-one structured interviews with household participants, seven focus group interviews with child participants and 34 one-on-one semi-structured interviews with practitioners (NPO, HSPs, EHPs and social workers). The researcher utilised Atlas.ti 8 (Atlas.Ti Gmbh, 2018) QDA software to organise the data for analysis. The qualitative data was subsequently analysed by means of Creswell's (2014) thematic analysis process. The researcher utilised the themes that emerged from the qualitative data to design three sets of survey questionnaires for the household participants, practitioners and child participants. The questionnaires were administered on a total of 531 participants (383 household participants, 97 child participants and 51 practitioners) in Namibia and South Africa. The quantitative data were analysed using version 25.0 of SPSS (IBM, 2018).

The next section presents the demographic information of the study's participants, followed by a discussion of the themes and sub-themes that capture the study's qualitative and quantitative findings. The qualitative findings are presented in the form of participants' narratives, while the quantitative findings are displayed in tables and

statistical figures and are jointly interpreted and grounded in literature from previous studies. The chapter ends with a summary.

6.2 The demographic characteristics of the study's participants

The participants who were sampled in the study had experience living in informal settlements or working with informal settlement communities. The study sampled practitioners from CoW, HISA and Nathaniel Maxuilili soup kitchen in Windhoek, Camp Sizanani in Orange Farm and CoJ in Orange Farm and Region G of Johannesburg. The study also sampled household and child participants from the Kilimanjaro, Babilon and Okahandja Park informal settlements in Windhoek. Household participants in South Africa were sampled from Extensions 1 and 7B informal settlement areas in Ward 3 of Orange Farm, while child participants were sampled from Camp Sizanani in Orange Farm. For the quantitative study in South Africa, 13 child participants were sampled at Camp Sizanani, while an additional 28 child participants were sampled from informal settlement households in Extensions 1 and 7B of Ward 3.

6.2.1 Demographic information of participants in the qualitative study

The demographic information of the qualitative study's participants is presented next, starting with that of the child participants. In reporting the findings, pseudonyms (Iphofen, 2011; Leedy & Ormrod, 2013) are used to protect participants' identities. Whereas practitioners and household participants were randomly assigned with pseudo names, the child participants adopted their favourite colours, fruits, car brands and names of their favourite personalities as pseudo names for the purposes of the study.

- **The demographic information of child participants in the qualitative study**

The qualitative study had a sample of 39 child participants, 24 of which were sampled in Namibia, while 15 were sampled in South Africa. The demographic information of the child participants in Namibia in presented in Table 6.1 below.

Table 6.1: Biographical information of child participants in the qualitative study in Namibia (n=24)

Pseudo name	Gender	Age in years	Years of residence Babilon, Kilimanjaro and Okahandja Park	Grade at school
Joyce, CP (Nam)	Female	13	13	7
Mary, CP (Nam)	Female	13	13	8
Choice, CP (Nam)	Female	15	13	9
Precious, CP (Nam)	Female	16	11	10
John, CP (Nam)	Male	14	Unsure	8
Rudolph, CP (Nam)	Male	13	13	7
Paul, CP (Nam)	Male	17	10	10
Hafeni, CP (Nam)	Male	15	1	7
Michael, CP (Nam)	Male	16	10	7
Raphael, CP (Nam)	Male	15	9	8
Tom, CP (Nam)	Male	15	5	7
Selma, CP (Nam)	Female	15	15	8
Hilma, CP (Nam)	Female	17	17	11
Nangura, CP (Nam)	Female	14	14	8
Hipose, CP (Nam)	Male	15	15	8
Johannes, CP (Nam)	Male	15	15	8
Paulus, CP (Nam)	Male	15	9	9
Toivo, CP (Nam)	Male	15	15	8
Benz, CP (Nam)	Female	15	15	9
Hardbody, CP (Nam)	Female	14	7	7
Mustang, CP (Nam)	Male	14	8	7
BMW, CP (Nam)	Male	14	9	7
Audi, CP (Nam)	Female	13	6	7
Jaguar, CP (Nam)	Female	13	12	6

As displayed in Table 6.1 above, a total of 24 child participants participated in the qualitative study in Namibia, of which 11 were female, and 13 were male. They had a mean age of 14.62 years and their ages fell within the study's inclusion criteria of 13 and 17 years. The children were either attending primary or secondary school. They had lived in the Kilimanjaro, Babilon and Okahandja Park informal settlements for periods ranging between one year and 17 years, with several of them having lived in these areas all their lives. This is evidenced by those participants whose ages correspond with their period of residence in an informal settlement. One child participant (John), was unsure of how long he has lived in an informal settlement. The biographical information of the child participants in the qualitative study in South Africa is presented in Table 6.2 below.

Table 6.2: Biographical information of child participants in the qualitative study in South Africa (n=15)

Pseudo name	Gender	Age	Years of residence in Orange Farm	Grade at school
Mango, CP (SA)	Female	17	14	11
Banana, CP (SA)	Female	17	14	11
Pear, CP (SA)	Female	16	10	10
Pineapple, CP (SA)	Female	16	13	10
Apple, CP (SA)	Female	14	Unsure	8
Orange, CP (SA)	Female	14	Unsure	8
Purple, CP (SA)	Female	17	16	11
Pink, CP (SA)	Female	17	3	11
Military Green, CP (SA)	Female	15	15	10
Gray, CP (SA)	Male	13	6	8
Paris, CP (SA)	Female	17	16	11
Pretoria, CP (SA)	Female	15	6	10
London, CP (SA)	Female	17	11	11
Cape Town, CP (SA)	Male	16	8	9
Brooklyn, CP (SA)	Male	17	16	11

As displayed in Table 6.2, the majority (12/15) of the child participants in the qualitative study in South Africa were female, while three (3/15) were male. Their mean age was 15.87 years. The child participants all lived in Orange Farm and fell within the study's inclusion criteria of between 13 and 17 years. As was the case in Namibia, all of the child participants in South Africa were attending school. A notable difference however is that all the child participants in South Africa were attending secondary school, while those in Namibia were either attending primary or secondary school. Overall, the child participants in South Africa had lived in Orange Farm for periods of between 3 years and 16 years, with several of them having lived in Orange Farm since birth. As was observed in Namibia, where one participant was unsure of how long he had lived in Orange Farm, two of the child participants in South Africa were unsure of how long they had lived in Orange Farm. The children saw their participation in the study as an opportunity to have their voices heard and asserted their right to participation as follows:

> "Children have the right to have their voices heard because people tend to undermine what we children say." [Banana, CP (SA)]

> "We have a right to speak our own mind and we also have the right to be listened to." [Pink, CP (SA)]

Table 6.3 below presents the biographical information of the household participants in the qualitative study in Namibia and South Africa.

Table 6.3: Biographical information of household participants in the qualitative study (n=18)

Pseudo name	Gender	Marital status	Employment status	Age group	Years lived in informal settlements
1. Olivia, HP (Nam)	Female	Co-habiting	Unemployed	23-27	7
2. Johnson, HP (Nam)	Male	Single	Unemployed	32-37	23
3. Timothy, HP (Nam)	Male	Married	Employed	46-60	11
4. Petina, HP (Nam)	Female	Married	Self-employed	38-42	18
5. Titus, HP (Nam)	Male	Single	Student	18-22	Since birth
6. Judith, HP (Nam)	Female	Single	Unemployed	18-22	2
7. Edson, HP (Nam)	Male	Single	Employed	43-47	9
8. Juan, HP (Nam)	Male	Single	Employed	23-27	6
9. Princess, HP (Nam)	Female	Single	Employed	18-22	Since birth
10. Portia, HP (SA)	Female	Single	Unemployed	23-27	13
11. Favour, HP (SA)	Female	Single	Employed	33-37	12
12. Michelle, HP (SA)	Female	Single	Employed	28-32	26
13. Refilwe, HP (SA)	Female	Single	Employed	33-37	26
14. Zanele, HP (SA)	Female	Married	Unemployed	46-60	16
15. Benjamin, HP (SA)	Male	Single	Self-employed	33-37	26
16. Darius, HP (SA)	Male	Single	Self-employed	33-37	18
17. Webster, HP (SA)	Male	Single	Student	18-22	Since birth
18. Donavan, HP (SA)	Male	Single	Self-employed	23-27	Since birth

As presented in Table 6.3 above, 18 household participants took part in the qualitative study and were sampled in equal proportions of nine participants each in the study areas in Namibia and South Africa. There was also equal gender representation of household participants in the qualitative study. The majority of the household participants (14/18) were single, while three were married and one was cohabiting. Four household participants had lived in the study areas since birth and these fell within the 18 to 22 years and 23 to 27 years age groups. The participants had respectively lived in the study areas for a minimum of two years in Namibia and 12 years in South Africa and for maximum periods of 23 years in Namibia and 26 years in South Africa. The demographic information of NPO practitioners in the qualitative study in Namibia and South Africa is presented jointly in Table 6.4 below.

Table 6.4: Biographical information of NPO practitioners in the qualitative study (n=10)

Pseudo name	Gender	NPO	Number of years working at NPO	Number of years working with informal settlement communities
1. NPO A1 (Nam)	Female	HISA	11	11
2. NPO A2 (Nam)	Female	HISA	1	1
3. NPO B1 (Nam)	Female	Nathaniel Maxuilili	9	15
4. NPO B2 (Nam)	Female	Nathaniel Maxuilili	5	5
5. NPO B3 (Nam)	Female	Nathaniel Maxuilili	6 months	8 months
6. NPO C1 (SA)	Female	Camp Sizanani	6	19
7. NPO C2 (SA)	Male	Camp Sizanani	12	13
8. NPO C3 (SA)	Male	Camp Sizanani	2	5
9. NPO C4 (SA)	Male	Camp Sizanani	3	5
10.NPO C5(SA)	Male	Camp Sizanani	2	8

As displayed in Table 6.4 above, 10 NPO practitioners participated in the qualitative study and were sampled in equal proportions of five participants each in the study areas in Namibia and South Africa. Six of the participants were female, while four were male. Their period of employment at HISA and Nathaniel Maxuilili in Namibia ranged between 6 months and 11 years and between 2 years and 12 years at Camp Sizanani in South Africa. The practitioners' minimum and maximum number of years working with informal settlement communities in Windhoek, Namibia were 8 months and 15 years respectively. The minimum and maximum number of years the practitioners in South Africa had worked with informal settlement communities in Orange Farm and Region G of Johannesburg were 5 years and 19 years respectively. The biographical information of the social work practitioners in the qualitative study in Namibia and South Africa is jointly presented in Table 6.5 below.

Table 6.5: Biographical information of social workers in the qualitative study (n=6)

Pseudo name	Gender	Organisation	Years of social work practice with communities	Number of years working with informal settlement communities	Number of years working at organisation
1. SW 1 (Nam)	Female	CoW	7	7	7
2. SW 2 (Nam)	Male	CoW	14	14	14
3. SW 1 (SA)	Male	CoJ	17	17	17
4. SW 2 (SA)	Female	CoJ	12	3	3
5. SW 3 (SA)	Female	CoJ	18	18	18
6. SW 4 (SA)	Female	CoJ	21	21	21

As displayed in Table 6.5 above, two social workers participated in the qualitative study in Namibia and were the only two social workers at the CoW who worked with informal settlements communities. Four social work practitioners took part in the qualitative study in South Africa; two of these were the only CoJ social workers in Orange Farm, while the other two were based in Region G of the CoJ. The findings therefore point to the limited number of social workers that are employed by local authorities to work with informal settlement communities. Speaking from a Namibian perspective, Chiwara and Lombard (2017:567) note that a lack of social workers permeates across many facets of social welfare service delivery that are intended to address social and economic inequalities. The social work practitioners in the study had worked with informal settlement communities for periods between 3 years and 21 years. The biographical information of HSPs in the qualitative study in Namibia and South Africa is jointly presented in Table 6.6 below.

Table 6.6: Biographical information of HSPs in the qualitative study (n=8)

Pseudo name	Gender	Organisation	Profession	Years of work with informal settlement communities	Number of years working at CoW/CoJ
1. HSP 1 (Nam)	Male	CoW	Town planner	14	14
2. HSP 2 (Nam)	Female	CoW	Town planner	5	5
3. HSP 3 (Nam)	Male	CoW	Town planner	5	5
4. HSP 4 (Nam)	Female	CoW	Town planner	3	3
5. HSP 5 (Nam)	Male	CoW	Town planner	13	13
6. HSP 1 (SA)	Male	CoJ	Building inspector	3	3
7. HSP 2 (SA)	Female	CoJ	Building inspector	5	13
8. HSP 3 (SA)	Male	CoJ	Land surveyor	10	15

As displayed in Table 6.6 above, five HSPs participated in the qualitative study in Namibia, while three participated in the qualitative study in South Africa. All five HSPs in Namibia worked for the CoW and were town planners by profession, while two of the HSPs in South Africa were building inspectors and the other one was a land surveyor for Region G of the CoJ. The HSPs had worked with informal settlement communities in Windhoek, Orange Farm and Region G of the CoJ for periods between three years and 14 years. The biographical information of EHPs in the qualitative study in Namibia and South Africa is jointly presented in Table 6.7 below.

Table 6.7 Biographical information of EHPs in the qualitative study (n=10)

Pseudo name	Gender	Profession and organisation	Years of work with informal settlement communities	Number of years working at CoW/CoJ
1. EHP 1 (Nam)	Female	EHP/CoW	8	1
2. EHP 2 (Nam)	Female	EHP/CoW	8	1
3. EHP 3 (Nam)	Female	EHP/CoW	10	12
4. EHP 4 (Nam)	Female	EHP/CoW	11	11
5. EHP 5 (Nam)	Male	EHP/CoW	6	6
6. EHP 1 (SA)	Male	EHP/CoJ	10	10
7. EHP 2 (SA)	Male	EHP/CoJ	3	3
8. EHP 3 (SA)	Male	EHP/CoJ	4	4
9. EHP 4 (SA)	Male	EHP/CoJ	19	2
10.EHP 5(SA)	Male	EHP/CoJ	5	5

As displayed in Table 6.7 above, 10 EHPs participated in the qualitative study and were sampled in equal proportions of five participants each from the CoW in Namibia and Region G of the CoJ in South Africa. The EHPs had worked with informal settlement communities for periods between 3 years and 19 years. The demographic information of participants in the quantitative study is presented next.

6.3 The demographic information of participants in the quantitative study

In line with the sampling procedure for a mixed methods study, the quantitative phase of the study employed a larger but different sample of participants from the same study population as was utilised in the qualitative phase of study (Creswell & Plano Clark, 2011:188). The quantitative results that are presented for each variable indicate the total number of participants who responded to that particular variable.

6.4 The gender of participants in the quantitative study

The gender of the participants who took part in the quantitative study is presented next, starting with that of the child participants.

6.4.1 The gender of child participants in the quantitative study

Ninety-seven children participated in the quantitative phase of the study. The largest proportion (57.7%, 56/97) of child participants was sampled in Namibia, while 42.3% (41/97) was sampled in South Africa. The demographic information of the child participants who indicated their gender in the quantitative study is presented in Table 6.8 below.

Table 6.8: The gender of child participants in the quantitative study (n=94)

			Country		
			Namibia (n=56)	South Africa (n=38)	Total (n=94)
What is your gender?	Male	Count	23	12	35
		% within Country	41.1%	31.6%	37.2%
	Female	Count	33	26	59
		% within Country	58.9%	68.4%	62.8%
	Total	Count	56	38	94
		% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.8 above, less than half (41.1%, 23/56) of the child participants in Namibia and South Africa (31.6%, 12/38) were male, while the majority (58.9%, 33/56) of the child participants in Namibia and South Africa (68.4%, 26/38) were female.

6.4.2 The gender of household participants in the quantitative study

The quantitative phase of the study sampled 383 household participants, of which 192 were sampled in Namibia and 191 in South Africa. The demographic information of the household participants who indicated their gender in the quantitative study is presented in Table 6.9 below.

Table 6.9: The gender of household participants in the quantitative study (n=379)

			Country		
			Namibia (n=191)	South Africa (n=188)	Total (n=379)
What is your gender?	Male	Count	80	79	159
		% within Country	41.9%	42.0%	42.0%
	Female	Count	110	109	219
		% within Country	57.6%	58.0%	57.8%
	Other	Count	1	0	1
		% within Country	0.5%	0.0%	0.3%
Total		Count	191	188	379
		% within Country	100.0%	100.0%	100.0%

As indicated in Table 6.9, the majority (57.8%, 219/379) of the household participants in the study were female, while less than half (42%, 159/379) were male. One participant (1/379, 0.3%) neither identified as male nor female. When compared with the genders of the child participants in the quantitative study, the findings show the majority of the participants in the study were female. Females in both the Namibian and South African contexts traditionally bear the brunt of household duties and familial responsibilities. The SAHRC (2014:63) also notes that women and black women, in particular, constitute the majority of the poorest people in society.

6.4.3 The gender composition of the practitioners in the study

Thirty-four (34) practitioners (17 in Namibia and 17 in South Africa), took part in the qualitative phase of the study. There was equal gender representation of practitioners in the qualitative study, as 50% (17/34) were female and the other 50% (17/34) were male. A larger proportion of practitioners (51) was sampled in the quantitative phase of the study, of these 55% (28/51) were sampled in Namibia and 45% (23/51) were sampled in South Africa. Table 6.10 below, displays the gender composition of the practitioners in the quantitative study.

Table 6.10: The gender of practitioners in the quantitative study (n=51)

			Country		
			Namibia (n=28)	South Africa (n=23)	Total (n=51)
What is your gender?	Male	Count	17	12	29
		% within Country	60.7%	52.2%	56.9%
	Female	Count	11	10	21
		% within Country	39.3%	43.5%	41.2%
	Other	Count	0	1	1
		% within Country	0.0%	4.3%	2.0%
	Total	Count	28	23	51
		% within Country	100.0%	100.0%	100.0%

As depicted in Table 6.10, the majority of practitioners who took part in the quantitative phase of the study were male (56.9%, 29/51), while less than half (41.2%, 21/51) were female, one participant (2%, 1/51) did not identify as either male or female.

6.5. The age compositions of participants in the quantitative study

The age composition of the participants who took part in the quantitative study is presented next, starting with that of the child participants.

6.5.1 The age composition of child participants in the quantitative study

The mean, minimum and maximum ages of the child participants in the quantitative study are presented in Table 6.11 below.

Table 6.11: The age composition of child participants in the quantitative study (n=96)

Country	Mean	N	Std. Deviation	Minimum	Maximum
Namibia	13.95	56	1.135	13	17
South Africa	14.58	40	1.500	13	17
Total	14.21	96	1.329	13	17

As displayed in Table 6.11 above, the youngest child participants in the quantitative study were 13 years of age, while the oldest were 17 years old. Based on the child participants overall mean age of 14.21 years, the children who took part in the quantitative study were mostly in their formative teenage years.

6.5.2 The age composition of household participants in the quantitative study

The age composition of household participants in the quantitative study is presented in Table 6.12 below.

Table 6.12: The age composition of household participants in the quantitative study (n=382)

Country	Mean	N	Std. Deviation	Minimum	Maximum
Namibia	36.73	192	12.083	18	76
South Africa	37.72	190	10.714	18	69
Total	37.23	382	11.419	18	76

As displayed in Table 6.12 above, the youngest household participants in the quantitative study aged 18 years, while the oldest participants were 76 years old. On

average, the household participants in the quantitative study were in their youth as evidenced by a mean age of 37.23 years.

6.5.3 The age composition and years of experience of practitioners in the quantitative study

The ages and years of experience of the practitioners who participated in the quantitative study are presented in Table 6.13 below.

Table 6.13: The age composition and years of experience of practitioners in the quantitative study

Country		N	Minimum	Maximum	Mean	Std. Deviation
Namibia	Age	28	22	56	39.39	11.315
	How many years have you worked with informal settlement communities?	27	1	24	8.00	6.373
	How many years have you worked at this organisation?	28	1	24	8.89	6.130
	Valid N (list wise)	27				
South Africa	Age	22	20	39	27.00	6.473
	How many years have you worked with informal settlement communities?	23	1	11	5.61	3.313
	How many years have you worked at this organisation?	23	1	15	5.65	4.152
	Valid N (list wise)	22				

As displayed in Table 6.13 above, the mean age of practitioners in the quantitative study was 39.39 years in Namibia and 27 years in South Africa. The practitioners had worked with informal settlement communities for periods of between 1 year and 24 years in Namibia and between 1 year and 11 years in South Africa. They had worked at their respective organisations for a minimum period of 1 year and a maximum period of 24 years in Namibia and 15 years in South Africa.

6.6 The mother tongues of household participants in the quantitative study

The findings on the household participants' mother tongues in Namibia are displayed in Table 6.14 below.

Table 6.14: The mother tongues of household participants in the quantitative study in Namibia (n=192)

Country			Frequency	Percent	Valid Percent	Cumulative Percent
Namibia (n=192)	Valid	Afrikaans	5	2.6	2.6	2.6
		Damara	17	8.9	8.9	11.5
		Gciriku	4	2.1	2.1	13.5
		Nama	2	1.0	1.0	14.6
		Nyemba	6	3.1	3.1	17.7
		Oshiwambo	125	65.1	65.1	82.8
		Otjiherero	5	2.6	2.6	85.4
		Rukwangali	26	13.5	13.5	99.0
		Shona	1	.5	.5	99.5
		Thimbukushu	1	.5	.5	100.0
		Total	192	100.0	100.0	

The findings on the household participants' mother tongues in the study area in South Africa are presented in Table 6.15 below.

Table 6.15: The mother tongues of household participants in the quantitative study in South Africa (n=191)

Country			Frequency	Percent	Valid Percent	Cumulative Percent
South Africa (n=191)	Valid	Afrikaans	2	1.0	1.0	1.0
		IsiNdebele	4	2.1	2.1	3.1
		IsiZulu	74	38.7	38.7	42.4
		Sepedi	3	1.6	1.6	44.0
		Sesotho	46	24.1	24.1	68.1
		Setswana	5	2.6	2.6	70.7
		Shangaan	1	.5	.5	71.2
		South Sotho	25	13.1	13.1	84.3
		SiSwati	1	.5	.5	84.8
		Tshivenda	11	5.8	5.8	90.6
		Xhosa	14	7.3	7.3	97.4
		Xitsonga	5	2.6	2.6	100.0
		Total	191	100.0	100.0	

As displayed in Table 6.14 and Table 6.15 above, the household participants in Namibia spoke 10 different languages, while those in South Africa spoke 12 different languages. The mother tongue of the majority (65.1%, 125/192) of household participants in Namibia was Oshiwambo, while that of a significant proportion (38.7%, 74/191) of household participants in South Africa was isiZulu. One participant (1/192, 0.5%) in Namibia indicated Shona as his mother tongue. As Shona is predominantly spoken in Zimbabwe, this finding suggests that this participant was an immigrant. Another participant (1/192, 0.5%) in Namibia spoke Thimbukushu, while in South Africa, two participants each spoke Shangaan and siSwati, which are less commonly spoken languages in the study areas. Overall, the findings are consistent with the

demographic trends in the study areas in Namibia and South Africa. They furthermore suggest that a wide range of indigenous black communities in Namibia and South Africa live in informal settlements. The findings also suggest that race is an important factor that underpins one's chances of living in an informal settlement.

6.7 The marital composition of household participants in the quantitative study

The quantitative study also gathered data to determine the marital composition of the study's household participants; the findings are presented in Table 6.16 below.

Table 6.16: The marital composition of household participants in the quantitative study (n=381)

		Country		
		Namibia (n=190)	South Africa (n=191)	Total (n=381)
Never married	Count	117	73	190
	% within Country	61.6%	38.2%	49.9%
Living with girlfriend or boyfriend	Count	46	57	103
	% within Country	24.2%	29.8%	27.0%
Married	Count	23	51	74
	% within Country	12.1%	26.7%	19.4%
Separated	Count	1	2	3
	% within Country	0.5%	1.0%	0.8%
Divorced	Count	2	3	5
	% within Country	1.1%	1.6%	1.3%
Widowed	Count	1	5	6
	% within Country	0.5%	2.6%	1.6%
Total	Count	190	191	381
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.16, a few (19.4%, 74/381) of the study's household participants were married, while a resounding majority (80.6%, 307/381) were unmarried (never married, living with boyfriend, separated, divorced or widowed). Of the unmarried household participants, close to half (49.9%, 190/381) were never married, while 0.8% (3/381) had separated from their spouses. The fact that close to half of the household participants were never married does not necessarily imply that they lived alone, did not have children or any family responsibilities. Overall, the participants' biographical information captures the key demographic features that were pertinent to the study. In the following sections, the researcher integrates the qualitative and quantitative findings from the comparative mixed methods study in Namibia and South Africa.

6.8 The social, economic and environmental challenges for sustainable development amongst informal settlement communities in Namibia and South Africa

In this section, the researcher integrates the study's findings in view of yielding meta-inferences, which in essence are conclusions that are arrived at by integrating inferences from the qualitative findings and quantitative results (Teddlie & Tashakkori, 2009:152). The meta-inferences that are presented in this chapter specifically relate to the social, economic and environmental challenges for sustainable development amongst informal settlement communities in Namibia and South Africa. While communities underpin the realisation of sustainable development, the challenges that in informal settlements are testimony to how environmental and human well-being are threatened by poverty and by human made environmental disasters that are underpinned by poverty and social exclusion. In turn, natural and human made environmental disasters in informal settlements exacerbate the poverty and vulnerability that is experienced by informal settlement communities.

The findings that are presented in this chapter attest to the hardships that children and adults in informal settlements experience due to their social and economic exclusion. The findings are presented in the form of themes and sub-themes, which are supported by participants' narratives and where applicable, with the quantitative results, in the form of frequencies and percentages and literature findings. The quantitative findings are displayed in table format and are followed by statistical interpretations.

6.8.1 Themes and sub-themes

Table 6.17 below presents the themes and sub-themes that reflect the study's qualitative and quantitative findings on the social, economic and environmental challenges amongst informal settlement communities in Namibia and South Africa.

Table 6.17: Themes and sub-themes

Theme	Sub-themes
1. Inequitable development patterns	1.1 Misperceptions of urban areas as places that offer a better quality of life 1.2 Informal settlements as an embodiment of social and economic exclusion in urban areas 1.3 Lengthy periods of residence in informal settlements
2. Lack of ownership of land in urban areas	2.1 The fear and insecurity associated with a lack of legal security of tenure in informal settlements
3. A lack of access to adequate housing	3.1 Unaffordable housing in urban areas 3.2 The emergence of an informal settlement housing market 3.3 Housing that is built from poor or salvaged materials
4. The poor environmental conditions associated with inadequate housing in informal settlements	4.1 Vulnerability to adverse weather conditions 4.2 Living in ecologically fragile and geographically hazardous built environments 4.3 A disproportionate exposure to seasonal flooding 4.4 An increasingly fine line between natural and human made environmental disasters in informal settlements 4.5 Building practices that exacerbate environmental degradation 4.6 Overcrowded living conditions 4.7 The poor health outcomes associated with living in ecologically fragile environments
5. The experience of poverty amongst informal settlement communities	5.1 The social and economic exclusion that informal settlement communities experience due to stigma 5.2 Jobs that do not guarantee a basic standard of living 5.3 The hunger dimension of poverty 5.4 Children's unique experiences of food insecurity 5.5 The social and economic vulnerability experienced by children living in poverty 5.6 Access to food from questionable sources

	5.7 The association between hunger and a lack of sustainable and reliable sources of energy
6. A lack of access to education amongst informal settlement communities	6.1 Children fail to complete basic education 6.2 A lack of basic education amongst adult informal settlement residents 6.3 A lack of money to pursue tertiary education
7. Unemployment amongst informal settlement residents	7.1 The interrelation between unemployment and a lack of education 7.2 Lengthy periods of unemployment 7.3 The high costs associated with job searching 7.4 The despair and hopelessness that is associated with unemployment
8. A lack of access to basic services in informal settlements	8.1 The impact of rapid urbanisation on the delivery of basic services 8.2 The impact of living in marginal areas on the delivery of basic services 8.3 A lack of access to safe and affordable drinking water 8.4 A lack of access to adequate sanitation 8.5 The safety concerns associated with a lack of adequate sanitation in informal settlements 8.6 A lack of access to safe forms of energy 8.7 The safety concerns associated with searching for firewood 8.8 A lack of access to refuse removal services
9. The intersections between a lack of basic services, poor health and environmental outcomes	9.1 Water borne disease outbreaks 9.2 Land and water pollution 9.3 Indoor and outdoor air pollution 9.4 Diminishing natural vegetation in and around informal settlements 9.5 The dangers associated with illegal electricity connections 9.6 Vulnerability to shack fires

Theme 1: Inequitable development patterns

Urban areas in Namibia and South Africa are highly inequitable places that are characterised by the spatial separation of residential areas according to class and race, and a concentration of the poor on the periphery of urban areas (UN-Habitat,

2001:2). In light of inequitable development patterns across the world, SDG 11 aims to make all cities and human settlements inclusive, safe, resilient and sustainable (UN, 2015b:21). Inclusive cities promote social integration, the mainstreaming of human rights and eliminate the social and economic divide between the rich and poor through affording all people with access to adequate housing and basic services and the upgrading of informal settlements (UN-Habitat, 2013:2). The findings suggest that the continual growth of informal settlements in the study areas is a by-product of nationwide inequitable development patterns that reinforce poverty and prompt people to migrate to urban areas in search of work and better standards of living:

> "Push factors…in other regions [in Namibia] that is one of the contributing factors [to migration]. People don't see opportunities [in their home regions] and Windhoek, having been a top dog city historically, they think everything is in Windhoek." [HSP 5 (Nam)]

> "The city…is an economic attraction for internal and external migrants...When people think of the city, they think they will get jobs because of they are coming from the poor communities where…there are no jobs, people are unemployed, people are poverty stricken." [SW 3 (SA)]

As noted in literature, inequitable development patterns in Namibia and South Africa are the leading causes of migration from less resourced towns and rural areas to urban areas (Hall, 2018:157; Weber & Mendelsohn, 2017:19; SACN, 2016:25). Migration trends to Johannesburg are influenced by its status as South Africa's economic hub (SACN, 2016:21), while Windhoek is an attractive migrant destination as it has "the most vibrant economic and industrial development of all urban centres in Namibia" (Weber & Mendelsohn, 2017:72). The sub-themes associated with inequitable development patterns include; misperceptions of urban areas as places that offer a better quality of life, the social and economic exclusion that characterise informal settlements and lengthy periods of residence in informal settlements.

Sub-theme 1.1: Misperceptions of urban areas as places that offer a better quality of life

Findings from the study areas point to a prevailing perception among emigrants living in poverty that urban areas offer a better quality of life as compared to rural areas. The reality however is that urban areas are highly inequitable places where jobs, adequate housing and basic services are inaccessible for all and where socially and

economically excluded populations live in deplorable conditions in informal settlements:

> "People have the perception that if I come to an urban area, things will change for them…They think if I come to Windhoek I will find work, only to find out that the situation is not as they expected…They think if I go to the city, life will be better and then you come in the city you find that life is really much worse than it is at the village…So, you don't have a choice but to go and informally squat somewhere." [EHP 1 (Nam)]

> "They call it the place of gold…thinking that Johannesburg is where we can get jobs…but when they come here, they find that things are expensive. Now, the only affordable place is to go… [live in] the informal settlements." [SW 1 (SA)]

> "A lot of people come…from all over Namibia with that hope that if I get to Windhoek…I am going to get employed. I am going to sustain my family. I am going to get a home and there are schools available. Unfortunately, at the rate at which Windhoek is growing with all the people coming from all over, you find that the dream is not actually there…There are not enough jobs…there is not enough housing…the schools are not enough." [EHP 2 (Nam)]

A study by Pendleton et al. (2014:194) established that in spite of the actual or perceived opportunities that are associated with urban areas, unskilled migrants face the harsh reality that urban areas are places where employment is hard to come by, poverty is widespread and the quality of life is the worst. As noted by UN-Habitat (2016b:1) rapid urbanisation presents a trend where more and more people are flocking to cities that lack the capacity, resources and opportunities to equitably sustain all people. UN-Habitat (2003:17) ascertains that the overstrained capacity of urban areas is seen in how they are unable to meet the demand for adequate housing, jobs and basic services for all. In light of these challenges, informal settlements provide an affordable place to stay for the urban poor.

Sub-theme 1.2: Informal settlements as an embodiment of social and economic exclusion in urban areas

Informal settlements embody extreme lack and deprivation, while vast wealth and high standards of living are the unique privilege of a few, with the difference between rich and poor communities getting wider:

> "Windhoek is one of the cities where you will see this is rich, this is poor. So, the difference, the gap is too big…The rich become richer and the poor, they become very poor." [SW 1 (Nam)]

Social and economic exclusion in urban areas is evidenced by the spatial differences that characterise residential areas, as the rich and poor live in distinct suburban areas. The rich maintain enviable lifestyles, while the poor lack adequate housing, land and access to nutritious food:

> "[Inequality is getting] bigger, there is a big difference because the rich, they are staying in their nice places, they are looking nice, they are eating healthy food and then the poor ones, they are staying in Kambashus [shacks] and they don't have land and they are not eating nutritious food. Maybe, they are eating only one or two times per day." [NPO B2 (Nam)]

Speaking from a South African perspective, Turok et al. (2017:4) reports that cities "remain deeply inscribed by the inherited patterns of racial segregation, with most poor communities living in peripheral townships and informal settlements." The spatial differences in urban areas make them highly inequitable and unsustainable places (UN-Habitat, 2001:2). Participants' experiences with social and economic exclusion were starkly similar in both Namibia and South Africa. Evidently, they utilised adjectives such as, 'left behind', 'not a priority', and 'forgotten' to describe the social and economic exclusion that they experienced in their communities:

> "Ward 3, is left behind. When I see other wards, there is progress, a lot of progress but when I look at my ward? I don't see any development." [Portia, HP (SA)]

> "Municipality comes fast only where there are a lot of people who are having money, higher salaries, who can afford [services]. Maybe [development] is just coming slowly because our salaries are [low]…To put it this way, maybe we do not qualify to be a standard for them to fast [track the provision of services]." [Timothy, HP (Nam)]

> "Orange Farm…is like a forgotten place where it's always the last. It's like an afterthought...For me, I don't think Orange Farm is like a priority in the city." [SW 2 (SA)]

Participants' narrations are testimony to their experiences as marginalised, undervalued and socially and economically excluded communities. The participants' sentiments are not new, as a study by Misselhorn (2008:3) noted that there is, "a strong perception by residents of informal settlements that the state does not care about their predicament and that they are somehow inferior and ineligible due to their 'informal' or 'shack' status." Leaving informal communities behind in the development process, strongly goes against the ethos of the *2030 Agenda* (UN, 2015b). Favour, a household participant in South Africa bemoaned the bleak future of black communities that are left behind:

> "As long as the government keeps…failing us there won't be a future…for black people…We are still living in apartheid but we are…[experiencing it through] poverty…We don't see democracy you understand? We are still living in that apartheid era but they twisted the style." [Favour, HP (SA)]

Favour's sentiments echo a view by Green (2012:4) that for poor people, inequalities cancel out the benefits of living in a better-off society. While it can be argued that inequality is not unique to any one particular country, a participant in Namibia was of the opinion that not enough is being done to reduce the pervasive levels of inequality in Namibia:

> "Reducing inequality still remains one of the biggest challenges not only for Windhoek but for Namibia and Africa and the world at large but…I really can't say that much is really being done in terms of reducing inequality." [HSP 4 (Nam)]

The findings affirm evidence by the UNDP (2019) that Namibia and South Africa remain highly unequal countries, in spite of their classification by the WB (2018b) as upper middle-income countries. Namibia's wealth is concentrated in the hands of a few individuals (5%), who in 2016, controlled 70 percent of the country's wealth, while the poorest 55 percent controlled a mere three percent of its GDP (WB, 2016). In the same way, in 2018, the poorest 20 percent in South Africa controlled less than three percent of GDP, while the wealthiest 20 percent controlled 65 percent of GDP (WB, 2018a).

Kanyenze et al. (2017:30) attribute the stubbornly high levels of inequalities in these two countries to the pursuance of neo-liberal, market driven-approaches, which have failed to redress the apartheid legacies of inequality and exclusion. As highlighted by Jauch et al. (2011:231), inequality implies that while the majority of the population battle with poverty, others live extravagant and wasteful lifestyles that contribute to widespread pollution and wastage of scarce resources. Inequality contributes to social exclusion, stigmatisation and subjugation (IFSW, 2012b), and robs disadvantaged individuals and communities of the opportunities needed to survive and fulfil their human potential (Barker, 2014:135). Inequality is a key driver of widespread poverty and oppression as it excludes certain groups of people from accessing basic human rights and the benefits of development (IFSW, 2013). As such, ending inequality is important for all countries, as in an increasingly globalised world, poverty and suffering

do not remain confined within a single country, but quickly spill over to other countries in the form of conflict, migration and environmental degradation (Green, 2012:3).

Sub-theme 1.3: Lengthy periods of residence in informal settlements

Findings from the comparative study sites in Namibia and South Africa show that people who seek shelter in informal settlements end up living there for lengthy periods of time, without experiencing an upward social mobility that enables them to relocate to formal residential areas where basic service delivery is relatively better:

> "We came looking for jobs…I came here in 1992…because I had a… [a big] family, I could not stay at my brother's house…with my children and nephews everything…So I decided to come to Kilimanjaro [informal settlement]." [Timothy, HP (Nam)]

> "The people…are remaining behind…Most of them they are living there close to 15 to 20 years." [EHP 4 (SA)]

The periods of residence in informal settlements of household participants in the quantitative study are presented in Table 6.18 below.

Table 6.18: Household participants' periods of residence in informal settlement areas (n=382)

Country	Mean	N	Std. Deviation	Minimum	Maximum
Namibia	13.31	191	9.364	1	49
South Africa	12.41	191	10.517	1	37
Total	12.86	382	9.954	1	49

As displayed in Table 6.18, household participants in the quantitative study had lived in informal settlements for a minimum period of one year in both Namibia and South Africa, and for a maximum period of 49 years in Namibia and 37 years in South Africa. The household participants' mean period of residence in informal settlements in Namibia was 13.31 years and 12.41 years in South Africa. The findings indicate that the participants had on average lived in informal settlement areas for more than a decade. Participants' experiences are consistent with a report by RSA (2012:106) that states that the average residence period in informal settlements in South Africa is 10 years. The child participants' period of residence in informal settlements is presented in Table 6.19 below.

Table 6.19: Child participants' periods of residence in informal settlement areas (n=90)

Country	Mean	N	Std. Deviation	Minimum	Maximum
Namibia	11.27	52	4.529	2	17
South Africa	8.82	38	5.632	1	17
Total	10.23	90	5.141	1	17

As presented in Table 6.19, the child participants' minimum period of residence in informal settlement areas were two years and one year respectively in Namibia and South Africa. However, the child participants' mean period of residence in informal settlements in Namibia was slighter higher (11.27 years) than that of child participants in South Africa (8.82 years). The child participants' overall mean period of residence in informal settlements was 10.23 years and this almost mirrors that of the household participants, which was 12.86 years (see Table 6.18 above). An examination of the child participants' maximum periods of residence in informal settlements show that those who had resided the longest in an informal settlement had lived there for 17 years. Seeing that the oldest child participants in the study were 17 years of age, several of the child participants in the study had lived in informal settlements all their life and to these children the only home they know is that in an informal settlement. A comparative analysis of the child and household participants' maximum periods of residence in informal settlements suggest that children living in informal settlements are highly likely to continue living in informal settlements through their adulthood. Mammon (2016:128) posits that the story of children living in informal settlements is one that is shared with many of the children of urban migrants who cannot live the kind of lives they value and have reason to value.

Theme 2: Lack of ownership of land in urban areas

While close to two-thirds of the South African population and half of the Namibian population live in urban settings (Gopaldas & Ndhlovu, 2018:4), ownership of land in urban areas remains a key challenge amongst the poor. Participants in both Namibia and South Africa embedded this challenge in market dynamics that make land in urban areas both unaffordable and inaccessible for poor individuals and communities:

> "People don't have money to buy…land…They just don't have that money to buy land. So, they take their own will and build their *mbashus* [shacks]" [Precious, CP (Nam)]

> "They tend to make informal settlements because they don't have the land where they can build their houses on." [HSP 1 (SA)]
>
> "Some of them are totally not working at all. Some of them are homeless totally. Some they just went [to settle in informal settlements] because they don't have land, because of looking for a place to stay at an affordable cost." [EHP 5 (Nam)]

Under apartheid, the right to own land, housing and other immovable property in urban areas was denied to black communities in both Namibia and South Africa (Muller & Mbanga, 2012:67; Davis, 2006:51). As such, the study's findings show that while apartheid has long been abolished, the right to own land especially in urban areas, still remains unrealisable for many black communities. Weber and Mendelsohn (2017:92) attribute the inability of the poor to own land in Windhoek to a land market that predominantly serves the needs of high-income earners, while low and ultra-low-income groups are excluded from owning land. Mzileni (2018:1) views the neo-liberal market valuation of land and racially controlled patterns of urban settlements as the major factors that underpin the continual growth of informal settlements in South Africa. Market driven approaches to development therefore play a significant role in denying poor communities a chance to ever own land in urban areas. The neo-liberal paradigm dictates that individual interests take centre stage over communal well-being and is rooted in the belief that economic well-being is primary and will bring about well-being in all other areas of life (Coates, 2005:29). Neo-liberal economic policies play a major role in exacerbating socio-economic inequalities in various contexts across the world (Dominelli, 2012:175; Dylan, 2013:68).

It is acknowledged in both Namibia and South Africa that the transfer of land to poor and historically disadvantaged black communities is an amicable solution to the current inequities in urban land ownership. As such, there have been major debates in recent years in both Namibia and South Africa that centre on redressing the racially skewed patterns of land ownership with the view of ensuring social and economic inclusion, human dignity and general redress to black communities (Gopaldas & Ndhlovu, 2018:2). Towards this end, the South African National Assembly recently approved the process to amend Section 25 of the Constitution to allow for the expropriation of land without compensation (Parliament of the RSA, 2018). During the same year, the Namibian president called for a change to the country's constitution to allow for land expropriation without compensation (Allegri, 2018). However, "Namibia

– unlike South Africa – has made no firm commitment towards a constitutional amendment" (Gopaldas & Ndhlovu, 2018:5). Table 6.20 below, presents findings on the extent to which the practitioners in the study viewed unaffordable land in urban areas as a contributing factor to the continual growth of informal settlements in the study areas.

Table 6.20: The extent to which practitioners in the quantitative study viewed unaffordable land as a contributing factor to informal settlements (n=50)

	Country				Total (n=50)	
	Namibia (n=28)		South Africa (n=22)			
Strongly disagree	0	0.0%	0	0.0%	0	0.0%
Disagree	1	3.6%	0	0.0%	1	2.0%
Unsure	4	14.3%	1	4.5%	5	10.0%
Agree	7	25.0%	9	40.9%	16	32.0%
Strongly agree	16	57.1%	12	54.5%	28	56.0%
Total	28	100.0%	22	100.0%	50	100.0%

As displayed on Table 6.20, the majority 57.1% (16/28) of practitioners in Namibia and South Africa (54.5%, 12/22) strongly agreed that unaffordable land in urban areas is a factor that contributes to the growth of informal settlements in the study sites. Only a few 3.6% (1/28) of the practitioners in Namibia and none of the practitioners (0.0%, 0/22) in South Africa disagreed with this statement. The quantitative study also examined the link between the availability of seemingly free or cheap vacant land and the household participants' decision to move into these areas. The results are presented in Table 6.21 below.

Table 6.21: The extent to which the availability of seemingly free or cheap vacant land influenced household participants' decisions to move into an informal settlement (n=380)

		Country		Total (n=380)
		Namibia (n=190)	South Africa (n=190)	
Not at all	Count	81	2	83
	% within Country	42.6%	1.1%	21.8%
To a small extent	Count	22	8	30
	% within Country	11.6%	4.2%	7.9%
To a moderate extent	Count	16	9	25
	% within Country	8.4%	4.7%	6.6%
To a great extent	Count	10	42	52
	% within Country	5.3%	22.1%	13.7%
To a very great extent	Count	61	129	190
	% within Country	32.1%	67.9%	50%
Total	Count	190	190	380
	% within Country	100.0%	100.0%	100.0%

As tabulated in Table 6.21, half (50%, 190/380) of the participants in the study agreed to a very great extent that the availability of seemingly free or cheap land was a reason why they moved into their respective informal settlement areas. The disaggregated results were statistically significant ($p<0.05$), yielding $p=0.00$ on the Pearson Chi-square test, as more participants (67.9%, 129/190) in South Africa, compared to just 32.1% (61/190) in Namibia, agreed to a very great extent with this statement. Contrariwise, more participants (42.6%, 81/190) in Namibia, than in South Africa (1.1%, 2/190), cited that the availability of seemingly free or cheap land was not at all a reason why they moved into their respective informal settlement areas. A unifying factor however, is that none of the household participants in Namibia or South Africa were the legal owners or tenants of the land on which their shacks were built. As such, they lived with the fear and insecurity that is associated with a lack of legal security of tenure, which is discussed next as the sub-theme related to a lack of ownership of land in urban areas.

Sub-theme 2.1: The fear and insecurity associated with a lack of legal security of tenure

The findings show that informal settlements give the urban poor access to a somewhat affordable place to live; however, land in informal settlements is not legally procured:

> "Most of them they are living there close to 15 to 20 years but they will tell you that even now they still do not have title deeds." [EHP 4 (SA)]

> "Informal settlements…don't have…land tenure…you must enter into a transaction or an agreement with the owner of the land…then normal land sale procedure and transfer can be followed, which will ultimately provide…the applicant with the right." [HSP 5 (Nam)]

In Namibia, "formalised land tenure is a condition for households to access municipal services privately" (Karuaihe, 2019):

> "In informal settlements people settle there without any rights." [HSP 3 (Nam)]

The findings corroborate evidence by Weber and Mendelsohn (2017:94) that informal settlement residents in Namibia do not own the land on which they are settled. Likewise, a study by De Wet et al. (2009:15) reveals that in as much as many Orange Farm residents claim ownership of their homes, such ownership does not necessarily imply having legal security of tenure. As such, these communities lack the property rights and the legal security of tenure, which protects residents in formalised residential areas against arbitrary evictions. Consequently, informal settlement

communities live with the constant fear that they may be evicted by local authorities at any moment, without warning. The quantitative results in Table 6.22 below show the extent to which household participants in the quantitative study lived in fear of eviction.

Table 6.22: The extent to which household participants in the quantitative study lived in fear of eviction (n=378)

		Country		Total (n=378)
		Namibia (n=191)	South Africa (n=187)	
Never	Count	21	18	39
	% within Country	11.0%	9.6%	10.3%
Sometimes	Count	11	21	32
	% within Country	5.8%	11.2%	8.5%
Often	Count	5	13	18
	% within Country	2.6%	7.0%	4.8%
Very often	Count	7	28	35
	% within Country	3.7%	15.0%	9.3%
Always	Count	147	107	254
	% within Country	77.0%	57.2%	67.1%
Total	Count	191	187	378
	% within Country	100.0%	100.0%	100.0%

The quantitative survey results as displayed in Table 6.22, show that an overwhelming majority (89.7%, 339/387) of the household participants in the study lived with the fear of eviction (sometimes, often, very often or always), while slightly over a tenth (10.3%, 39/378) of the participants never lived with this fear. Of the participants who always lived with the fear of eviction, 77% (147/191) resided in Namibia, while 57.2% (107/187) lived in South Africa. The findings are testimony to the vast insecurities under which informal settlement communities live. Evictions, as noted by UNICEF (2012:5), often come without warning or consultation and may involve moving the residents to far off locations and in the process, they destroy long established economic systems and support networks.

South Africa enacted the Prevention of Illegal Eviction and Unlawful Occupation of Land Act 19 of 1998 to protect the millions of urban dwellers who do not have common law entitlement to the land which they inhabit from arbitrary evictions (Socio-Economic Rights Institute of South Africa, 2018:17). The Act gives effect to section 26(3) of the Constitution of RSA, 1996 which states that, “no one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances.” A study done in Namibia by Ellinger et al. (2015:1) established that court judgments delivered in both Namibia and South Africa in relation to the right to adequate housing and to the eviction of illegal occupants, have in many

ways restricted local authorities' power to evict illegal settlers. More especially when informal settlements are erected on state land, as the state is forced to tolerate the settlers unless, it is willing and able to provide alternative housing for them. However, another study done in Namibia by Tjeja−Tjatindi (2016:10) point to the persistent trend in the eviction of informal settlement communities in Windhoek due to the increasing role that market forces play in determining how urban land is used.

Theme 3: A lack of access to adequate housing

Access to adequate housing is a basic human right, which is not realised for the majority of the urban poor in Namibia and South Africa. Unaffordable housing in urban areas intermingles with poverty and the failure of the state to deliver on public housing to exclude poor communities from owning adequate housing. This status quo is instrumental to the emergence of an alternative, yet unregulated, informal housing market, which sees both the rich and poor taking advantage of the urban housing crisis to erect and rent out shacks in informal settlements. However, the housing in informal settlements is far from being considered as adequate, as individuals construct shacks using any kinds of materials. The sub-themes associated with this theme include; unaffordable housing in urban areas, the emergence of an informal settlement housing market and housing that is built from poor or salvaged materials.

Sub-theme 3.1: Unaffordable housing in urban areas

Unaffordable housing in urban areas, unemployment, poverty and low paying jobs that do not guarantee a basic standard of living are some of the factors that influence individuals to live in inadequate housing conditions in informal settlements:

> "If you are in a poverty state, how do you afford a house? …It's more the contributing factor [to informal settlements] because I cannot afford to pay rent and also, I'm unemployed." [SW 1 (SA)]
>
> "For those who are living in the informal settlements are living there because of the level of affordability not necessarily because of choice." [HSP 2 (Nam)]
>
> "People here…cannot afford to go and rent or to buy an ERF [housing stand/plot] in Okuryangava. They [settled] here because of their low salary." [Timothy, HP (Nam)]

The unaffordability of housing in urban areas point to the role of neo-liberal housing markets in South Africa (Mzileni, 2018:1) and in Namibia (Chiripanhura, 2018:1; Weber and Mendelsohn, 2017:92) in excluding the poor from accessing adequate

housing. Unaffordable housing in Namibia is compounded by the fact that Namibia has over the years failed to deliver any mass housing programmes for low income earners, rather, private and public sector developers specifically target middle and upper-income households (WB, 2002). The role that neo-liberal economic policies play in minimising the roles that governments play in the provisioning of housing is well documented (Davis, 2006:62). While there are no state led housing schemes for people with low to no incomes in Namibia, the state-owned National Housing Enterprise has over the years financed housing for middle-income groups (Weber & Mendelsohn, 2017:92). This fact has played a major role in entrenching the inequalities that characterise the Namibian housing market. In Namibia, even government employees, who ideally earn salaries that are set above the minimum wage find themselves living in informal settlements:

> "Of recent we have seen that…even teachers are finding it difficult to buy a house in Windhoek…house prices are just skyrocketing on a daily basis…policemen, defence forces members, prison officials, the list goes on." [EHP 5 (Nam)]

Key to the social exclusion that is experienced by these public service workers is a lack of access to housing finance that is commensurate with their salaries. These findings are consistent with an observation in literature that, "the poor-, low- and even middle-income majority of the population in developing countries cannot afford a loan for even the least expensive, commercially built housing units" (UN-Habitat, 2003:7). As such, access to housing finance is critical in housing provision, as conventional housing finance is often only available to higher-income groups, resulting in the highly segmented housing markets that separate informal and formal housing markets in Namibia and South Africa.

Sub-theme 3.2: The emergence of an informal settlement housing market

The findings show that the unaffordability of housing in urban areas, a lack of access to public funded housing and of housing finance that is commensurate with the salaries of low income earners, all combine to bolster an alternative and yet unregulated informal settlement housing market that delivers on the housing needs of the urban poor. In this market, individuals who have the means to build shacks make a living through selling and renting out shacks:

> "It's again the issue of affordability, not everyone is able to afford to buy the material in order to build their own house [shack] So, you have to

> rent from someone and even, the cost of renting there [in an informal settlement] is lower than anywhere else." [EHP 5 (Nam)]
>
> "There are people who are renting out their shacks…I think [it's] those who came first… [when] it was a vacant land and they put their shacks there." [EHP 3 (SA)]
>
> "Some people that are owning those informal houses [shacks]…are renting [out] those houses [shacks] because they have the means to build the shacks…then they can rent it out to the newcomers that are coming to Windhoek." [HSP 3 (Nam)]

Various role players, come together to make the informal settlement housing market a reality. These include individuals who clear and sell vacant land which they are not legally entitled to sell, those who make a living through building shacks and those who sell, buy or rent housing in informal settlements:

> "You have that category [of] people…building up shacks in order to rent them out. You also have people that just clean…spaces, they sell those spaces to people that want to build…they have become like landlords, in their own ka hood [small hood]" [HSP 5 (Nam)]
>
> "If you have a stand in an informal settlement you can build maybe three shacks and when you build three shacks you know you can have tenants and then you make them pay rent." [EHP 1 (SA)]

The above findings highlight how informal settlements provide an unregulated real estate opportunity for individuals who capitalise on the gaps that arise due to government failures to afford poor individuals access to urban land and adequate housing. UN-Habitat (2003:7) reports that it is the informal sector which has taken over the responsibility for addressing the housing needs of the urban poor people in informal settlements. It furthermore, argues that renting in informal settlements has become the primary method through which the poor access housing in urban areas. The quantitative results as presented in Table 6.23 below, highlight the level of speculation amongst practitioners in the study of the extent to which the buying, selling and renting out of shacks occurs in informal settlements.

Table 6.23: The extent to which practitioners in the quantitative study viewed erecting shacks to sell or rent out as contributing to the growth of informal settlements

		Country				Total	
		Namibia		South Africa			
		N	%	N	%	N	%
Erecting shacks to rent out	Strongly disagree	2	8.0%	0	0.0%	2	4.3%
	Disagree	4	16.0%	1	4.5%	5	10.6%
	Unsure	5	20.0%	5	22.7%	10	21.3%
	Agree	8	32.0%	7	31.8%	15	31.9%
	Strongly agree	6	24.0%	9	40.9%	15	31.9%
	Total	25	100.0%	22	100.0%	47	100.0%
Erecting shacks to sell to others	Strongly disagree	2	7.7%	0	0.0%	2	4.2%
	Disagree	6	23.1%	4	18.2%	10	20.8%
	Unsure	6	23.1%	3	13.6%	9	18.8%
	Agree	12	46.2%	7	31.8%	19	39.6%
	Strongly agree	0	0.0%	8	36.4%	8	16.7%
	Total	26	100.0%	22	100.0%	48	100.0%

As displayed in Table 6.23, the practitioners were largely of the view that a lot of erecting shacks to rent out or sell to others goes on in informal settlements. This is evidenced by 31.9% (15/47) of the practitioners who respectively agreed and strongly agreed that the growth of informal settlements is fuelled by people who erect shacks to rent out to others. Even more practitioners (39.6%, 19/48) agreed, while 16.7% (8/48) strongly agreed that the growth of informal settlements is fuelled by people who erect shacks to sell to others. The quantitative study also established the proportion of household participants who rented out at least one room. The findings are displayed in Table 6.24 below.

Table 6.24: The extent to which household participants rented out at least one room (n=375)

		Country		
		Namibia (n=192)	South Africa (n=183)	Total (n=375)
Never	Count	172	168	340
	% within Country	89.6%	91.8%	90.7%
Sometimes	Count	1	1	2
	% within Country	0.5%	0.5%	0.5%
Often	Count	1	1	2
	% within Country	0.5%	0.5%	0.5%
Very often	Count	0	0	0
	% within Country	0.0%	0.0%	0.0%
Always	Count	18	13	31
	% within Country	9.4%	7.1%	8.3%
Total	Count	192	183	375
	% within Country	100.0%	100.0%	100.0%

As shown in Table 6.24, the majority 90.7% (340/375) of household participants in the quantitative study reported never renting out at least one room for an income, with only a few of the (8.3%, 31/375) indicating that they always rented out at least one room. The quantitative study however did not establish whether the participants had built, bought or were renting their shacks from a third party. The quantitative findings as tabulated in Table 6.25, below show the extent to which household participants in the study relocated into their respective informal settlement in view of increasing their chances of qualifying for RDP or government subsidised house.

Table 6.25: The extent to which household participants moved into informal settlements in view of increasing their chances of qualifying for government subsidised housing (n=380)

	Country					
	Namibia N	Namibia %	South Africa N	South Africa %	Total N	Total %
Not at all	100	52.1%	10	5.3%	110	28.9%
To a small extent	19	9.9%	14	7.4%	33	8.7%
To a moderate extent	2	1.0%	5	2.7%	7	1.8%
To a great extent	7	3.6%	16	8.5%	23	6.0%
To a very great extent	64	33.3%	143	76.1%	207	54.4%
Total	192	100.0%	188	100.0%	380	100.0%

The results displayed in Table 6.25 show that an overwhelming majority (76.1%, 143/188) of the household participants in South Africa and just a quarter (33.3%, 64/192) of household participants in Namibia moved into informal settlements with the view of increasing their chances of getting RDP or government subsidised housing. Conversely, a large proportion (52.1%, 100/192) of household participants in Namibia and 5.3% (10/188) of the household participants in South Africa did not at all move into their respective informal settlement areas with the view of increasing their chances of getting RDP or government subsidised housing. As such, participants' responses in Namibia and South Africa were leaned on the opposite ends of the Likert scale. The results were therefore statistically significant ($p<0.05$), as evidenced by a probability value of $p=0.00$ on the Pearson Chi-square test for independence. The qualitative findings also reveal that some individuals erect shacks in informal settlements, not necessarily to live there, but to have their names listed among informal settlement residents, in the hope of qualifying for RDP housing:

> "[This other informal settlement] just mushroomed now, now, now. And if you look there the majority of those guys that put shacks there, they are not living there…I can assure you they are empty…They are putting

> them there in the hope… [that] when they relocate those people, they will be able to get a piece of land…He is renting [elsewhere]…but he can't qualify for a bond house." [SW 1 (SA)]
>
> "There are those who are taking chances that even if I have a property, when people will be given or when the area will be formalised, I will have a second formal property." [HSP 5 (Nam)]

Overall, the findings demonstrate an interplay of factors that influence people's decisions to set up shacks in informal settlements.

Sub-theme 3.3: Housing that is built from poor or salvaged materials

The findings show that housing in informal settlements is far from being adequate, as it is constructed using all sorts of poor and potentially harmful materials that include plastic sheets, wood, used drums, rusted zinc iron sheets and asbestos:

> "[Our houses are built from] corrugated iron…some use drums to build their houses. It's very poor [material]" [Hilma, CP (Nam)]
>
> "The…situation is bad…the zincs…are like rusted…and when you look up, there are lots of holes…The conditions of the shacks themselves…are not really, really, good." [SW 2 (SA)]

For participants in the study, poverty creates a desperate situation where people salvage whatever materials they can find to build housing, even though such materials lack resilience to the weather elements, increase the risk of fire hazards and have a deteriorating impact on human health:

> "They are living in…plastics with their families, their young children should it burn? …You can imagine those children will burn to death." [SW 3 (SA)]
>
> "They are poor people. Obviously, they don't have any means to build proper structures… [their housing], is not resilient...The materials that they are using to make their structures…can also be a danger…Asbestos is a good material for them to build a house with, but in the other way it turns against them as it's causing…diseases…It's a health hazard and…they [also] use it for making fire." [EHP 5 (Nam)]

The findings corroborated what is already documented in literature that housing in informal settlements is often made from corrugated iron sheets, plastic or timber (UN-Habitat, 2003:209). In one participant's words, such housing:

> "Is not proper housing, for proper human beings." [Benjamin, HP (SA)]

The quantitative study quantified the number of child participants living in zinc or brick housing. The results are presented in Table 6.26 below.

Table 6.26: Type of housing that child participants in the quantitative study lived in (n=97)

			Country		
			Namibia (n=56)	South Africa (n=41)	Total (n=97)
Do you live in a zinc or brick house?	Zinc	Count	56	26	82
		% within Country	100.0%	63.4%	84.5%
	Brick	Count	0	15	15
		% within Country	0.0%	36.6%	15.5%
Total		Count	56	41	97
		% within Country	100.0%	100.0%	100.0%

As shown in Table 6.26, all (100%, 56/56) of the child participants in Namibia lived in zinc shacks, while a significant majority (63.4%, 26/41) of child participants in South Africa lived in zinc shacks and the rest (36.6%, 15/41) lived in brick housing. The quantitative study also quantified the number of household participants living in zinc, brick or other type of housing and the results are presented in Table 6.27 below.

Table 6.27: Type of housing that household participants in quantitative study lived in (n=383)

			Country		
			Namibia (n=192)	South Africa (n=191)	Total (n=383)
Indicate the type of housing that you currently live in	Brick house	Count	3	0	3
		% within Country	1.6%	0.0%	0.8%
	Zinc shack	Count	188	191	379
		% within Country	97.9%	100.0%	99.0%
	Other	Count	1	0	1
		% within Country	0.5%	0.0%	0.3%
Total		Count	192	191	383
		% within Country	100.0%	100.0%	100.0%

As indicated in Table 6.27, all (100%, 191/191) of the household participants in South Africa and an overwhelming majority (97.9%, 188/192) of household participants in Namibia lived in zinc shacks. One participant (1/191, 0.5%) in Namibia neither lived in a zinc nor a brick house. The findings align with an observation by the UN-Habitat (2003:209) that informal settlements are characterised by housing constructions of varying degrees of permanence. However, a brick house in an informal settlement does not necessarily imply that it is a legal structure:

> "[In] informal settlements…if you build a building…and it's not approved by the council, that building is illegal no matter how beautiful it is." [HSP 1 (SA)]

> "Informal settlements refer to the way people have built their houses and not necessarily with which material people have built their houses." [HSP 5 (Nam)]

Overall, the findings on the type of housing that the participants lived in are consistent with the characteristic features of housing in informal settlements (UN-Habitat, 2003:209).

Theme 4: The poor environmental conditions associated with inadequate housing in informal settlements

The study conceptualised the environment in relation to the natural and built environments in informal settlements and this was in view of fully capturing the environmental justice issues in informal settlements. Adequate housing should be habitable and must provide its inhabitants with protection from structural hazards, harsh weather elements and disease vectors (Committee on Economic Social and Cultural Rights, 1991:3). The study's findings point to inadequate housing in informal settlements and to the interlinkages between inadequate housing and poor environmental conditions. The UN-Habitat (2003:5) argues that, "the most important factor that limits progress in improving housing and living conditions of low-income groups in informal settlements…is the lack of genuine political will to address the issue in a fundamentally structured, sustainable and large-scale manner." A practitioner in Namibia could not have agreed more with this assertion:

> "If we change our political will…We will be able to transform informal settlements in a short period of time." [HSP 5 (Nam)]

Eight sub-themes related to the poor environmental conditions associated with inadequate housing in informal settlements emerged from the findings. These include; vulnerability to adverse weather conditions, living in geographically hazardous areas, a disproportionate exposure to seasonal flooding, an increasingly fine line between natural and human made environmental disasters in informal settlements, building practices that exacerbate environmental degradation, overcrowded living conditions and the poor health outcomes associated with living in ecologically fragile environments.

Sub-theme 4.1: Vulnerability to adverse weather conditions

The use of poor and salvaged building materials implies that housing in informal settlements is far from being resilient but is prone to structural hazards and adverse weather conditions:

> "[Our homes] …can even be blown away by the wind." [Hilma, CP (Nam)]

> "Most of the people especially those living in shacks, the shacks are just blown away…if you don't have a strong house." [Donavan, HP (SA)]

> "Last year this time…a lot of…[shacks], the wind destroyed…the buildings were in a poor condition." [SW 4 (SA)]

The zinc housing structures in informal settlements also means that children and adults living in these communities are vulnerable to the extremes of hot and cold weather:

> "In summer during the day it's very hot…in winter it's too cold because those things [zinc shacks] are like metal…they will even freeze." [Hilma, CP (Nam)]

> "In winter when it's freezing cold the steel structure becomes very cold. So, the inside of the house becomes almost twice as cold…So, you have these extremes that are happening." [EHP 4 (SA)]

It is evident from the findings that poor housing in informal settlements undermines the capacity of the urban poor to mitigate against extreme weather events. As implied in SDG target 1.5, building the resilience and reducing the exposure and vulnerability of the poor to climate-related extreme weather events and to diverse economic, social and environmental shocks and disasters are critical for sustainable development (UN, 2015b:15). Table 6.28 below, shows the extent to which the household participants' housing did not provide good protection from bad weather.

Table 6.28: The extent to which household participants' houses did not provide good protection from bad weather (n=381)

	Country					
	Namibia N	Namibia %	South Africa N	South Africa %	Total N	Total %
Never	37	19.4%	12	6.3%	49	12.9%
Sometimes	17	8.9%	42	22.1%	59	15.5%
Often	20	10.5%	18	9.5%	38	10.0%
Very often	16	8.4%	35	18.4%	51	13.4%
Always	101	52.9%	83	43.7%	184	48.3%
Total	191	100.0%	190	100.0%	381	100.0%

The quantitative results as displayed in Table 6.28 above, corroborate the qualitative findings that housing in informal settlements often does not give good protection from bad weather. The results show that only 12.9% (49/381) of the household participants negated that their housing does not give them good protection from bad weather, the rest of the participants (87.1%, 332/381) indicated that their housing (sometimes, often, very often or always) does not give good protection from bad weather. Of these

participants 52.9% (101/192) in Namibia and 43.7% (83/190) in South Africa, reported that their houses always do not give adequate protection from bad weather. These findings highlight commonalities in the experiences of informal settlement communities in Namibia and South Africa in relation to living in shacks that do not give good protection from bad weather.

Sub-theme 4.2: Living in ecologically fragile and geographically hazardous built environments

Due to social and economic exclusion, informal settlement communities erect housing anywhere they find an opportunity to do so, regardless of whether the identified place is fit for human habitation or not:

> "There are areas within our municipality that have been identified… [as inhabitable], but then people don't know that. They will just see a piece of land and say this land has been lying vacant…for long. So, it means then the government doesn't have plans whilst it's a hazardous place for them to be able to call home." [EHP 5 (SA)]

> "[For informal settlement communities] land is where it is not built. It doesn't matter how [the condition of the land is] …Places that I would think that here will be not fit for people to stay, there are people now staying [there]" [EHP 5 (Nam)]

> "People want to build…they go to the municipality. They ask for land; they say there is nothing but they can see that there is land and then they just take their own will and make their own mbashus [shacks]" [Mary, CP (Nam)]

Housing in the study areas were located in geographically hazardous built environments and in ecologically fragile habitats. The practitioners in Namibia reported seeing shacks that are built under high voltage power lines, which constitute danger zones that ideally should never be inhabited:

> "[My department] went for a site inspection where they flew over the powerlines and it was projected that over a thousand households were living under those high voltage power lines. So, anything that can happen can really be hazardous." [HSP 4 (Nam)]

> "Some of the houses are being erected under the electrical poles where they are forbidden…to put [housing]…We also had one incident when the pole fell on one of the shacks and then…[a] woman died." [SW 1 (Nam)]

> "It is really a serious challenge because the number of the shacks are increasing…under the servitude power line which is very dangerous." [HSP 1 (Nam)]

While similar findings did not emerge from the sampled study area in South Africa, a study done in South Africa by Lali (2017:1) highlighted the dangers and the fear of electrocution that informal settlement communities that live under high voltage power lines experience. In spite of the high risks associated with living under high voltage transmission lines and the efforts of local authorities to remove communities from these areas, more and more people keep building shacks in there:

> "There are people who are residing under the high voltage powerlines...In 2007, a child got electrocuted because there was a tree that grew taller…the branches touched two wires and they had tied a rope, a laundry line made of wire onto this tree to the shack. Now the children they were sitting under the tree so they died…We were forced to clear that area but today as we are speaking there are more houses than those that were there when we cleared it." [HSP 5 (Nam)]

Moser and Satterthwaite (2008:10) argue that government efforts to remove poor communities from danger zones can prove futile when alternative sites are inadequate or are not provided at all. It was also common for participants in both study areas to encounter shacks that are built in wet lands, river beds and on mountain cliffs:

> "People…put their shacks next to…where the river has to pass through…It is very dangerous and it can even cause these serious accidents." [HSP 2 (Nam)]

> "There are families in those [flood plains] …there. So, when there is rain those people would definitely be facing challenges…When it rains, they are destroyed badly." [NPO C1 (SA)]

> "[They may settle] on the side of a hill that is not stable. So, in terms of seasonal dangers when it comes to heavy rains and flooding, it's easy for shacks to wash away if they are on the side of an unstable hill. That is a disaster that is waiting to happen." [EHP 4 (SA)]

These findings show that in their endeavour to address pressing needs for housing, poor communities often ignore the duty to care and protect ecologically fragile habitats and perceive their long-term well-being as secondary, for as long as they have a place to live for that moment. The findings confirm an observation by Conradie (2003:126) that poor and marginalised communities "are driven to live in physical conditions that are of a bad environmental quality, and which are therefore "open" for occupation." As such, living in informal settlements is a wager against inevitable disaster as more and more people locate into hazardous locations (Davis, 2006:39). Table 6.29 below, shows the extent to which practitioners in the quantitative study witnessed shacks that are built in hazardous areas.

Table 6.29: The extent to which practitioners in the quantitative study witnessed shacks that are built in hazardous areas (n=49)

		Country		Total (n=49)
		Namibia (n=27)	South Africa (n=22)	
Not at all	Count	0	3	3
	% within Country	0.0%	13.6%	7.0%
To a small extent	Count	3	3	6
	% within Country	11.1%	13.6%	12.0%
To a moderate extent	Count	3	3	6
	% within Country	11.1%	13.6%	12.0%
To a great extent	Count	5	6	11
	% within Country	18.5%	27.3%	23.0%
To a very great extent	Count	16	7	23
	% within Country	59.3%	31.8%	46.0%
Total	Count	27	22	49
	% within Country	100.0%	100.0%	100.0%

The findings show that informal settlement communities in Namibia are more inclined to live in hazardous areas than those in South Africa. As indicated in Table 6.29, more than half (59.3%, 16/27) of the practitioners in Namibia and less than a third (31.8%, 7/22) of practitioners in South Africa witnessed to a very great extent shacks that are built in hazardous areas. None of the twenty-seven practitioners in Namibia and a small proportion (13.6%, 3/22) of practitioners in South Africa, did not witness shacks that are built in hazardous areas in the study areas. This finding shows that not all informal settlements are located in hazardous areas.

Sub-theme 4.3: A disproportionate exposure to seasonal flooding

The findings point to a disproportionate exposure to seasonal flooding by informal settlement communities in both the study areas in Namibia and South Africa. These seasonal flooding incidences at times leave children and adults injured, dead or without shelter:

> "Some of our houses are in the riverbeds, some they are in the mountains…When it rains, it causes damage, because most of the houses…they go together with the water." [NPO B3 (Nam)]

> "Like this year, we experienced people [who] were killed because of the heavy rain that occurred and then it even destroyed houses and many people were injured, some were even killed and it destroyed houses." [Paul, CP (Nam)]

A lack of adequate housing has painful consequences for informal settlement communities, while a seemingly lack of care by those in positions of power adds to this pain:

> "We don't have proper housing. When it rains here you will hate it. You will hate it! When…they say there are floods in the city or in the CBD, when they speak about floods, not mentioning what is happening here in Orange Farm, it's very painful." [Benjamin, HP (SA)]

Table 6.30 below shows the extent to which household participants in the quantitative study experienced seasonal flooding.

Table 6.30: The extent to which household participants experienced seasonal flooding (n=382)

		Country		Total (n=382)
		Namibia (n=191)	South Africa (n=191)	
Not at all	Count	63	66	129
	% within Country	33.0%	34.6%	33.8%
To a small extent	Count	18	75	93
	% within Country	9.4%	39.3%	24.3%
To a moderate extent	Count	17	18	35
	% within Country	8.9%	9.4%	9.2%
To a great extent	Count	7	7	14
	% within Country	3.7%	3.7%	3.7%
To a very great extent	Count	86	25	111
	% within Country	45.0%	13.1%	29.1%
Total	Count	191	191	382
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.30 above, a third (33%, 63/191) of the household participants in Namibia and just over a third (34.6%, 66/191) of the household participants in South Africa did not at all experience seasonal flooding. The rest of the participants (67%, 128/191) in Namibia and South Africa (65.4%, 125/191) experienced seasonal flooding to a small, moderate, great or to a very great extent. The relationship between living in an informal settlement in Namibia and experiencing seasonal flooding was statistically significant ($p<0.005$), with the results yielding a probability value of $p=0.000$. This is evidenced by the fact that a significant proportion (45.0%, 86/191) of household participants in Namibia and a small proportion (13.1%, 25/191) of household participants in South Africa reported experiencing seasonal flooding to a very great extent. Conversely, a significant proportion (39.3%, 75/191) of household participants in South Africa and 9.4% (18/191) of household participants in Namibia reported experiencing seasonal flooding to a small extent. The researcher attributes these findings to the fact that the informal settlement communities in the sampled study area in South Africa were mostly settled on hill sides and in areas with good drainage, while the majority of the informal settlement communities in Namibia lived

alongside dry river beds and mountain valleys, which got flooded during the rainy season.

Sub-theme 4.4: An increasingly fine line between natural and human made environmental disasters in informal settlements

The findings point to an increasingly fine line between natural and human made environmental disasters in informal settlements. When informal settlement communities settle in wetland and along dry river beds, a seemingly natural environmental disaster such as flash floods could as well be a human made environmental disaster:

> "I would say… [floods in informal settlements are] human-made mostly, because you might find that flooding normally happens in the informal settlements but next to it is a suburb, but it's not happening there. Climate change will never…target an informal settlement." [EHP 1 (SA)]

> "They are even constructing their houses within the river beds…So, …they block the flow of rivers…Most of our floods… [are] human-made floods, it is not necessarily the natural ones. It is because you blocked the flow of water and then the water will…flood the area." [EHP 3 (Nam)]

> "This year…we had a flash flood where…lives were lost…These people [had] settled in the middle of a river course…The house got washed away…They [normally] fill up the area with sand trying to change the river course but because the water was very, very, strong it couldn't divert from its original route." [HSP 5 (Nam)]

While it is true that climate change will never target an informal settlement as argued by EHP 1 above, informal settlement communities lack the adequate housing infrastructure to mitigate against the effects of climate change. As such, seasonal flooding in informal settlements is a human made disaster that is underpinned by the conditions of living in ecologically fragile areas and a lack of access to adequate housing:

> "We've got [hu]man… [made] environmental hazards based on the environment that they find themselves at." [SW 1 (SA)]

The findings affirm an observation by Fara (2001:47) that, "many of what people perceive as 'natural' disasters are the outcome of a much wider range of factors than just natural." As such, human activities play a significant role in increasing the impact of natural hazards in poor communities. Environmental concerns in poor communities are therefore rooted in and intertwined with poor living conditions. The dynamic relationship between poverty, ecosystem services and pollution that sees poor and marginalised communities suffering disproportionately from environmental impacts is

an important environmental justice concern (Miller et al., 2012:271). As stated by Napier (2004:24), the recognition that informal settlements are more disaster prone than any other settlement types and that loss of life is disproportionately large in informal settlements gives cities reason for prioritising interventions in these areas.

Sub-theme 4.5: Building practices that exacerbate environmental degradation

The clearing of vegetation to build shacks in informal settlements contributes to environmental degradation, which is exacerbated by relentless efforts to re-channel or block the natural flow of water bodies:

> "They clear…up the vegetation in order to put up the shacks but that also has a negative impact like if there are heavy rains, there is nothing holding the soil together. You will have soil erosion and land degradation." [EHP 4 (Nam)]
>
> "The stripping of the topsoil is part of [their] clearing… rechannelling of the flow of water… So, those activities bring about erosion…that is …[what] I am linking to the degradation [in informal settlements]" [HSP 1 (Nam)]
>
> "One is the environmental degradation in terms of vegetation because when people are clearing the land to put up structures, they don't care of what is there, whether it's protected [tree species], or what they just clear. Then that cleaning at the end of the day leads to soil erosion, when it's windy or when it's raining." [HSP 5 (Nam)]

The above participants' concerns demonstrate that informal settlement communities fail to address their housing needs in an environmentally sound manner. The findings are consistent with what Weber and Mendelsohn (2017:29) noted in Namibia that informal settlements create and are associated with environmental degradation and the loss of biodiversity that owes itself to inadequate services and a lack of planned infrastructure. Inherent in the framing of SDG 15 is the requirement to protect, restore and promote the sustainable use of earth-bound ecosystems and to combat desertification, biodiversity loss and land degradation and to act as stewards of the natural environment (UN, 2015b:24). Stewardship, hints at ensuring that current and future activities do not degrade local resources such that a community becomes less productive or attractive over time (Rainey et al., 2003:709).

Sub-theme 4.6: Overcrowded living conditions

Overcrowding in the study areas was evidenced in how some relatively big households were crammed into tiny living spaces:

> "In some of the houses…you can find 15 people in the ghetto [a shack] of two rooms." [NPO B3 (Nam)]
>
> "If you go in one zinc… [you will even] find seven people…staying there." [SW 1 (Nam)]
>
> [When I think of poverty] I…think of… [a] situation [where] a family of about 11 are living in a shack." [Pineapple, CP (SA)]

A social work participant in South Africa questioned how households that are crammed in such small living spaces can possibly lead a normal life:

> "In a small shack how do we cook, we clean, we sleep, we do everything in the one space? …It's risky health hazard." [SW 4 (SA)]

Even though land in some informal settlements is already taken up by shacks, people continue to build more shacks:

> "People are…overcrowded. Everyday more shacks are being built… [and yet] there is not enough space." [Titus, HP (Nam)]
>
> "Many people are staying in one area, there is no space…the population is more than the space…can accommodate." [EHP 3 (Nam)]

A social work participant in South Africa was clearly concerned about the continuous influx of people into informal settlements and the impact this has on the natural environment:

> "When people keep on flocking in an area…all the natural resources and whatever little resources that community has; it ends up being depleted." [SW 3 (SA)]

The findings point to what Yeld (1997:17) observed decades ago, that poverty is associated with environmental destruction and an increasing number of people living in a limited geographical area. Table 6.31 presents findings on the extent to which the practitioners in the quantitative study witnessed overcrowding in the informal settlements in the study areas.

Table 6.31: The extent to which practitioners in the study witnessed overcrowding in informal settlements (n=50)

		Country		Total (n=50)
		Namibia (n=28)	South Africa (n=22)	
Not at all	Count	1	2	3
	% within Country	3.6%	9.1%	6.3%
To a small extent	Count	2	2	4
	% within Country	7.1%	9.1%	8.1%
To a moderate extent	Count	1	4	5
	% within Country	3.6%	18.2%	10.9%
To a great extent	Count	7	5	12
	% within Country	25.0%	22.7%	23.8%
To a very great extent	Count	17	9	26
	% within Country	60.7%	40.9%	50.8%
Total	Count	28	22	50
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.31 above, the majority (60.7%, 17/28) of practitioners in Namibia and 40.9% (9/22) of the practitioners in South Africa witnessed overcrowding to a very great extent in the informal settlements in the study areas. A few (3.6%, 1/28) of practitioners in Namibia and 9.1% (2/22) in South Africa, did not witness overcrowding in the informal settlements in the study areas. Table 6.32 below presents findings on the extent to which the household participants experienced overcrowding in their informal settlements.

Table 6.32: The extent to which household participants experienced overcrowding in their informal settlements (n=382)

		Country		Total (n=382)
		Namibia (n=191)	South Africa (n=191)	
Not at all	Count	5	24	29
	% within Country	2.6%	12.6%	7.6%
To a small extent	Count	11	29	40
	% within Country	5.8%	15.2%	10.5%
To a moderate extent	Count	27	18	45
	% within Country	14.1%	9.4%	11.8%
To a great extent	Count	38	53	91
	% within Country	19.9%	27.7%	23.8%
To a very great extent	Count	110	67	177
	% within Country	57.6%	35.1%	46.3%
Total	Count	191	191	382
	% within Country	100.0%	100.0%	100.0%

As depicted in Table 6.32, the majority (57.6%, 110/191) of household participants in Namibia and a significant proportion (35.1%, 67/191) of the household participants in South Africa experienced overcrowding to a very great extent. A few (2.6 %, 5/191) of the household participants in Namibia and 12.6% (24/191) of household participants

in South Africa, cited that overcrowding was not at all a challenge where they lived. These findings corroborate the views by practitioners in the study, that informal settlement communities live in overcrowded conditions. As reported by the UN-Habitat (2003:9) overcrowding is one of the distinguishing characteristic features of informal settlements. As discussed later under sub-themes 9.1 and 9.6 in this chapter, overcrowded environments increase the vulnerability of informal settlement communities to shack fires and disease outbreaks.

Sub-theme 4.7: The poor health outcomes associated with living in ecologically fragile environments

Findings from the study areas in Namibia and South Africa show that informal settlement communities are often prone to failing sick due to living in areas where stagnant water accumulates, or where the land is permanently moist. The fact that informal settlement communities generate waste that pollutes the environment where they live further aggravates the poor health outcomes in these areas. Resultantly, children and adults in informal settlements constantly find themselves falling sick and in need of medical attention:

> "Informal settlements…come up in land that is not serviced and…in those lands you find that its either a wet land or a catchment area. If it's a wetland, naturally the ground will be permanently soaked and during rains it takes time for the land to sort of seep to the ground. So, its stagnant for longer…Where water is stagnant there is potential for …mosquitoes breeding [and] potential for other harmful micro-organisms growing in those areas." [EHP 4 (SA)]

> "They…live near the wetlands…the places where it doesn't even dry… They pollute it… [as well]. Those families that are surrounding…that area…are affected by different types of illnesses. It's just a health hazard because most of the times they are at the clinic. You will see them at the clinic and they are with their children." [SW 3 (SA)]

For the practitioners in the study, when informal settlement communities invade land, they are often not aware of the seasonal dynamics and environmental challenges that are associated with living in certain areas. More so, as no social and environmental impact assessments are conducted before informal settlement communities invade particular areas:

> "When they wake up and choose a place…they might not be aware of the challenges that go with it. Sometimes you might find that they have chosen a place…in summer, it's dry…but when you go there during the rainy season there is no drainage, there is water and all of these are…challenges." [EHP 5 (SA)]

> "When communities invade [land in informal settlements] they are really not aware of the environmental impact it has on the community." [HSP 4 (Nam)]

> "Sometimes people just choose a place to stay but they don't know… [the environmental hazards associated with that place] …Now you sit there and in future you become exposed to conditions and you can't link it to where you stay. You always link them to somewhere else but you forget that where you are [staying] has an impact on [your health]" [EHP 5 (SA)]

For Davis (2006:121) however, environmentally hazardous and unattractive areas give poor communities some form of security against evictions as these areas are considered as low value land. For him, such areas, "are poverty's niche in the ecology of the city, and very poor people have little choice but to live with disaster." In addition, inadequate housing in the study areas was evidenced in poorly ventilated housing, which when coupled with damp living conditions, increase the spread of highly contagious respiratory diseases such as tuberculosis:

> "If the shack…is permanently moist and it's not ventilated you get all sorts of diseases…Obviously…it's not a conducive environment for people…whose immunity is compromised…So, if your immunity is compromised the environment is not helping the situation." [EHP 4 (SA)]

> "People stay in shacks where there are no…windows...and now you will find that there is a person who's got TB…there needs to be ventilation…they just build a structure, where they know that at night, I can be able to sleep that is the priority for them." [EHP 5 (SA)]

Practitioners in Namibia saw the lack of ventilation that characterise shacks in informal settlements as a deterrent measure against thieves, which was a fact that compromised their health:

> "What I see is that they don't put ventilation in their houses, they are probably scared of break in crimes...If you go there their houses are too dark. I don't know how they cope." [HSP 3 (Nam)]

> "Theft is very high in the informal settlements. So, rather than providing access to your property you would rather have a solid corrugated iron sheet [without windows] which is actually not ideal… [there is no] light as well. So, you rather sacrifice what you know you need opting for safety." [EHP 4 (Nam)]

As noted by Davis (2006:146) "the most extreme health differentials are no longer between towns and rural areas but between the urban middle classes and the urban poor." This statement attests to how poverty contributes to extremely poor health outcomes for marginalised urban communities. In view of making cities and human

settlements inclusive, safe, resilient and sustainable, SDG target 11.1 aims to ensure access for all people to adequate, safe and affordable housing for all and to upgrade slums and informal settlements into formalised residential areas (UN, 2015b:21).

Theme 5: The experience of poverty amongst informal settlement communities

Poverty is a reality that both child and adult participants in the study were intimately familiar with:

> "Poverty is the leading factor in Orange Farm…from Extension 1 to Extension 10." [Mango, CP (SA)]

> "People…are still living in poverty in…our community…especially in Kilimanjaro…we are still behind and poverty is still here in." [Timothy, HP (Nam)]

> "Poverty in Orange Farm is the norm, it's something that is now normal…it's part of people's lives." [Donavan, HP (SA)]

For a social work participant in South Africa, the fact that Orange Farm has more informal settlements than any other area in Johannesburg, aligns with its status as:

> "…the most deprived area [in Johannesburg] …and Region G as a whole." [SW 1 (SA)]

Poverty in informal settlements implies a broader, multidimensional experience of social exclusion as not all people living in informal settlements are poor from an income point of view. The following narration and the quantitative study results as presented in Table 6.33 below, illustrate this point:

> "Informal settlements are complex…you will find the poor of the poorest but not everyone is poor in an informal settlement…You reach a shack you see that here, literary, I can see poverty but you go to the next place you will say but really why would this person come and settle here?" [EHP 1 (Nam)]

Table 6.33: Household participants' description of the extent of poverty in their households (n=382)

		Country		
		Namibia (n=192)	South Africa (n=190)	Total (n=382)
We are extremely poor	Count	73	40	113
	% within Country	38.0%	21.1%	29.6%
We are very poor	Count	53	29	82
	% within Country	27.6%	15.3%	21.5%
We are poor	Count	53	91	144
	% within Country	27.6%	47.9%	37.7%
We are not poor	Count	13	30	43
	% within Country	6.8%	15.8%	11.3%
Total	Count	192	190	382
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.33 above, 88.7% (339/382) of the household participants in the study generally identified as poor, very poor or extremely poor, while 11.3% (43/382) indicated that they are not at all poor. On a country level, as much as 38% (73/192) of the household participants in Namibia, and 21.1% (40/190) of household participants in South Africa, described their households as extremely poor. A Pearson Chi-square test for independence shows that there is a statistically significant (p=0.001) relationship between living in an informal settlement in Namibia and identifying either as extremely poor or very poor and living in an informal settlement in South Africa and identifying either as poor or not poor. Other studies confirm that informal settlements are not homogenous places, as people who earn reasonable incomes live within or on the edges of informal settlements (Ballinger & Wilke, 2015:36; UN-Habitat, 2003:28). The *Pretoria Declaration on Informal Settlements* attributes living in informal settlements to dysfunctional urban land markets and policies, and not simply to poverty (UN, 2016:2). This study also sought to establish how poverty has changed in participants' households since moving into an informal settlement. This was in view of establishing whether living in informal settlements is associated with better or worse off outcomes for the urban poor. The findings are tabulated in Table 6.34 below.

Table 6.34: Household participants' description of how poverty has changed in their households since moving into an informal settlement (n=383)

		Country		
		Namibia (n=192)	**South Africa (n=191)**	**Total (n=383)**
It is now much worse	Count	74	35	109
	% within Country	38.5%	18.3%	28.5%
It is somewhat worse	Count	31	24	55
	% within Country	16.1%	12.6%	14.4%
It is still the same	Count	31	29	60
	% within Country	16.1%	15.2%	15.7%
It is somewhat better	Count	39	74	113
	% within Country	20.3%	38.7%	29.5%
It is much better	Count	17	29	46
	% within Country	8.9%	15.2%	12.0%
Total	Count	192	191	383
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.34, over a third (38.7%, 74/191) of household participants in South Africa indicated that poverty in their households is somewhat better, while 15.2% (29/191) indicated that poverty is much better since moving into an informal settlement area. This is compared to 20.3% (39/192) and 8.9% (17/192) of household

participants in Namibia who respectively indicated that poverty in their households is somewhat better or much better since moving into an informal settlement. Conversely, more participants in Namibia indicated that poverty in their households is somewhat worse (16.1%, 31/192) or much worse (38.5%, 74/192), since moving into an informal settlement. This is compared to 12.6% (24/191) of household participants in South Africa who indicated that poverty in their households is somewhat worse and 18.3% (35/191) who indicated that it is much worse, since moving into an informal settlement area. The findings were statistically significant ($p<0.005$), as they yielded a probability value of $p=0.000$ on the Pearson Chi-square test in SPSS and show that moving into an informal settlement is associated with worse off outcomes in Namibia as compared to South Africa. The findings could be attributed to the fact that basic services such as water were available free of charge to informal settlement communities in the study area in South Africa as opposed to those in Namibia (see sub-theme 8.3 in this chapter). The following seven sub-themes illustrate the experience of poverty amongst informal settlement communities; the social and economic exclusion that informal settlement communities experience due to stigma, jobs that do not guarantee a basic standard of living, the hunger dimension of poverty, children's unique experiences of food insecurity, the social and economic vulnerability experienced by children living in poverty, access to food from questionable sources and the association between hunger and a lack of sustainable and reliable sources of energy.

Sub-theme 5.1: The social and economic exclusion that informal settlement communities experience due to stigma

The qualitative findings in both comparative study areas point to the deeply rooted stigma that children and adults living in informal settlements experience, which in turn exacerbates the social and economic exclusion that informal settlement communities experience. Poverty comes with the stigmatisation of informal settlement communities as 'thieves', 'uneducated', 'sub-human', 'lazy' people:

> "Many are scared of people from Orange Farm. People they think we are not humans." [Benjamin, HP (SA)]
>
> "They are undermining us or maybe they are looking at us like we didn't go to school. We went to school. They must ask our qualifications and then we will provide it to them." [Favour, HP (SA)]
>
> "Orange Farm or other similar places…are stigmatised as areas where there is crime or areas where it's high risk to go to." [NPO C1 (SA)]

The stigma that is associated with living in informal settlements is also felt by children who at times get teased by their peers at school who live in formalised residential areas:

> "[I attend school in a formal township] and you have to walk to the school, and if your feet get dirty, your classmates will laugh out and you will feel bad…they will laugh at you and make fun of you and make funny comments." [Precious, CP (Nam)]
>
> "At school people will be making fun of you [saying that], you live in a kambashu [shack] where the municipality can knock down your shack whenever they want." [Joyce, CP (Nam)]
>
> "[At school] they will even tease you that you are coming from Okahandja Park [informal settlement]. [John, CP (Nam)]

Being stigmatised at school may have implications for children's self-esteem or their performance or attendance at school. However, stigma often fails to take into consideration the fact that those who live in informal settlements may have been prompted to do so by circumstances beyond their control:

> "The perception that the more affluent people have…[is] that people living in the informal settlement areas, it's almost as if they see you as less because you are living there. And then they automatically reason that…you are not as educated, that you are there because you are lazy…It's not…because…I don't want to work, I want to live here…I could have had a formal job and something happened at work, maybe I was retrenched and all that." [EHP 4 (Nam)]

The stigma that is attached to informal settlement residents acts as barrier that lowers their chances of formally securing employment and the social and economic opportunities, which are already non-existent in their communities. By so doing, stigma reinforces poverty:

> "It becomes a challenge to access information, a challenge to access opportunities because of the stigmatised labels that are put on the area…So, you are just stigmatised when you come from Orange Farm, ever since growing up actually." [NPO C1 (SA)]
>
> "There is also bias when people are employing potential employees. If they know this is your background [you live in an informal settlement] then they already sort of disregard you." [EHP 4 (Nam)]
>
> "If you are looking for a job maybe for example in Randburg, you have to use a Soweto address, but if you say you are from Orange Farm it's very rare that they take you." [Portia, HP (SA)]

Contrary to the widely held perception of Orange Farm as a place that is full of criminals and drug addicts, a household participant in South Africa, had a positive story to tell about his community:

> "The media portrays a different story about Orange Farm…people will tell you that Orange Farm is weak, Orange Farm is full of crime. Orange Farm is full of drug addicts, it's a drug den…Orange Farm is very positive that where I'm from…Orange Farm is talented, I am a poet myself and if I recite poems…you will say that this guy is not from Orange Farm, but people…are not proud to say that they are from Orange Farm because of the image, the bad image." [Benjamin, HP (SA)]

The findings show that whether one lives in Windhoek or in Orange Farm, stigma is a common experience among informal settlement communities. These findings are confirmed by studies by Ballinger and Wilke (2015:37) and Davis (2006:110), which point to the fact that informal settlements are highly stigmatised areas. For the researcher, stigma detracts from the goal of realising sustainable development, which is undergirded by the pursuit of human rights, dignity, equality and non-discrimination.

Sub-theme 5.2: Jobs that do not guarantee a basic standard of living

The experience of poverty by informal settlement communities can also be attributed to their access to menial jobs that do not offer a living wage:

> "In… [informal settlements] those who are working will be on the fringes, [having] jobs that really don't take them anywhere." [EHP 4 (SA)]

> "[In] this Babilon area, many people are not working. The ones who are working…are getting small [salaries]" [NPO B2 (Nam)]

The injustices associated with low paying jobs is seen in that they are often the kinds of jobs, "that require people to work the hardest" (Oxfam, 2014a:65):

> "Like securities [security guards], they work long hours and they just get a little bit of money, a little bit of salary." [John, CP (Nam)]

A participant in Namibia could not envision inequality ever reducing, if the poor continued to earn salaries that do not guarantee a basic standard of living, while the cost of living kept of getting higher:

> "[Inequality in] this Windhoek? ...I don't think it can reduce…What they should see to it is about the salaries…because here in Windhoek, the salaries are very down but coming to the selling [of] properties, it is very highly priced [then] food…every month maybe they used to increase the prices. There is no way it can reduce. No way!" [Petina, HP (Nam)]

Moreover, participants often got access to jobs that are of a temporary nature, which kept them in perpetual insecurity and made them vulnerable to a variety of social and economic shocks. Others procured temporary jobs from several employers within the same month:

> "People…are not having...real work that is… [able] to take care of their family...They are just working for the sake of working… [they] are not having permanent work…They…[work] only for a day and then they get paid and [then they] look for something else." [Paul, CP (Nam)]

> "Somebody will wake up to clean some other people's gardens or other people's houses and you find that person works two days in another house, two days and it's like that person is not permanently employed but is working permanent. If you work two days in a certain household it's like you are temporary employed and out of 7 days you work 6 days in three houses." [EHP 4 (SA)]

> "There are people that are working but only for one week…and after that week the person will not be working. Where will they get enough food for their house?" [Nangura, CP (Nam)]

The quantitative study established the number of household participants worked for themselves by either making or selling goods, had a paid job from one employer or worked for several employers within the same month. The results are displayed in Table 6.35 below. The employment status of all household participants in the quantitative study is presented later in Table 6.39.

Table 6.35: How household participants in the quantitative study were employed (n=139)

		Country		Total (n=139)
		Namibia (n=90)	South Africa (n=49)	
I work for myself (I make or sell goods)	Count	50	8	58
	% within Country	55.6%	16.3%	41.7%
I have a paid job from one employer	Count	32	36	68
	% within Country	35.6%	73.5%	48.9%
I work several employers during the same month	Count	8	5	13
	% within Country	8.9%	10.2%	9.4%
Total	Count	90	49	139
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.35, only a small proportion (9.4%, 13/139) of household participants in the study worked for several employers within the same month, while the largest proportion (48.9%, 68/139) had a paid job from one employer. The majority (73.5%, 36/49) of the household participants who had a paid job from one employer lived in South Africa and just over a quarter (35.6%, 32/90) lived in Namibia. The fact that some household participants had a paid job from one employer does not automatically imply that their earnings were set above the minimum wage. As will be demonstrated under theme 6 in this chapter, which presents findings on access to education among informal settlement communities, the majority of the household participants in the study dropped out of school before reaching matric. A practitioner

in Namibia pointed out the association between low levels of education and the likelihood of securing a low paying job as follows:

> "If you don't…have education. You become a security guard. What can you afford? ...Even when you get here, how will you be able to feed your family? It's not possible." [HSP 3 (Nam)]

A practitioner in South Africa pointed out the dilemma that sees individuals with low paying jobs not being able to meet their basic needs, while at the same time they cling to that kind of job:

> "[Its] not a well-paying job, [its] just a job to survive. Yes, that's the kind of jobs they get…You are scared to lose [it] because it's the only thing that you can do at that moment but you can't reach…your goals [with that kind of job]" [NPO C4 (SA)]

Hence, people living in poverty have limited social and economic opportunities. When asked to decide between a low paying job and being unemployed, they will rather opt for the low paying job:

> "What they regard as work will be… [working as] security guards…because of where these people have been, they see it as very decent to them. If I am able to get an income at the end of the month and if I am able to take care of my family then I am happy…Even though they don't make that much." [NPO C1 (SA)]

The findings confirm what is noted by Turok and Borel-Saladin (2018:781) that, "most shack dwellers are restricted to low-paid…jobs." The fact that almost all of the labour that informal settlement residents do is low-paid is a significant contributing factor to income poverty amongst people living in informal settlements (UNICEF, 2012:5).

Sub-theme 5.3: The hunger dimension of poverty

The multidimensional nature of poverty in informal settlements is also evidenced in food insecurity and hunger:

> "Where you find poverty is where you find hunger." [Timothy, HP (Nam)]

Poverty adds to the challenges that informal settlement communities experience and is marked by a daily struggle for survival and the uncertainty of not knowing how one will meet his or her household's present and future needs for food:

> "Due to poverty, we live with what we have at the moment. We try to make it day by day. To say let me survive for today. I don't know tomorrow what I am going to eat, where the food is going to come from…Poverty…adds to what is happening in Orange Farm." [NPO C2 (SA)]

While income poverty is not an adequate measure of poverty (Sen, 1999:88), a lack of income is an equally important indicator of poverty, as a lack of money to buy food predisposes households to hunger. A social work practitioner in Namibia posed the following rhetoric question in view of stimulating introspection on the pervasive levels of food insecurity amongst informal settlement communities:

> "They are dependent on food that they buy from the shops and if you don't have money?" [SW 1 (Nam)]

The link between income poverty and hunger was echoed by another social work practitioner in South Africa who, while acknowledging the important contribution that social grants make in alleviating poverty, gave examples of households where all family members did not qualify for social grants. Resultantly, they went to bed hungry:

> "There are informal settlements where most of the income is from the grant, the 300, the 400 rand for one child…some of them, the children …are over 18 and the parents are 56 years, 58 and there…is nothing. So, that's where you will find that they will really struggle in terms of having some income of some sort. And sometimes they will…sleep without even food." [SW 2 (SA)]

Table 6.36 below presents findings on the extent to which household participants in the quantitative study reported getting hungry but not eating because they could not afford enough food.

Table 6.36: The extent to which household participants in the quantitative study got hungry but could not eat because they could not afford enough food (n=382)

		Country		Total (n=382)
		Namibia (n=192)	South Africa (n=191)	
Never	Count	21	48	69
	% within Country	10.9%	25.1%	18.0%
Sometimes	Count	121	93	214
	% within Country	63.0%	48.7%	55.9%
Often	Count	12	20	32
	% within Country	6.3%	10.5%	8.4%
Very often	Count	21	26	47
	% within Country	10.9%	13.6%	12.3%
Always	Count	17	4	21
	% within Country	8.9%	2.1%	5.5%
Total	Count	192	191	383
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.36, only a few (18%, 69/383) of the household participants in the study indicated never getting hungry and not eating because they could not afford enough food. The majority (55.9%, 214/383) however, indicated sometimes getting hungry but not eating because they could not afford enough food. Studies done in South Africa (Oxfam, 2014b:12) and Namibia (Crush et al., 2019:4) noted the

extremely high rate of food insecurity amongst informal settlement communities. Oxfam (2014b:2) reports that poor households suffer hunger due to a lack of money to buy food and that those with low paying jobs are often only food secure in the first week after receiving their wages but are food-insecure for the remaining three weeks. Ending hunger, achieving food security and improved nutrition for all people (UN, 2015b:15), is an important prerequisite for sustainable communities. However, hunger remains a persistent challenge in both South Africa and Namibia, which respectively feature on numbers 51 and 103 of the GHI, which measures the hunger levels of 118 countries globally (IFPRI et al., 2016:12). Namibia is noted by the IFPRI et al. (2016:13) to be one of only two countries in the world that have had the lowest percentage reductions in GHI scores since 2000. Oxfam (2014:2) attributes the paradox of hunger in a food secure South Africa, to ever-rising food prices that see the poorest income groups spending as much as half of their earnings on food. This finding confirms an earlier observation by Ericksen et al. (2012:67), that food insecurity in South Africa arises from deep-rooted structural poverty and social and economic inequalities that restrict access to food.

Sub-theme 5.4: Children's unique experiences of food insecurity

The findings point to the fact that children are a vulnerable group that needs special care, love and support as orphaned children, children living in child headed households, in food insecure homes and in households where food is available can all suffer from food insecurity:

> "I don't have parents. I am living with my grandmother and siblings, sometimes we do go to bed without food." [Pink, CP (SA)]
>
> "Some…[children] are coming from a home where they don't cook or they cook after two weeks…They don't even have food." [SW 1 (Nam)]
>
> "We talked about a teenager being the head of the family, that also leads to hunger because you are still a minor you can't find proper work and when you do you won't find enough money…it leads to hunger because you can't provide for the whole family." [Pear, CP (SA)]

Children's vulnerability to food insecurity can be embedded in a lack of money to buy food, child neglect and misplaced priorities and other factors that see their caregivers spending most of their earnings or even children's social grants on non-food or seemingly non-basic items:

> "Some [adult relatives] treat other kids not like the way they treat their kids. Like for example, my mother is dead and my auntie is treating me

> bad…when I go to sleep, I don't eat. When I am going to school, I don't even eat breakfast." [Precious, CP (Nam)]

> "This girl came to us crying, telling us… [that her] parents are getting the grant for children, they spend it on other things, whilst children go sleep on an empty stomach." [Pineapple, CP (SA)]

> "Some [adults]…when they get money instead of going home and buy food, they use it for alcohol instead of just buying food in the house." [Paul, CP (Nam)]

The UNGA (2006:28) stipulates that children living in poverty are deprived of nutrition, water, sanitation facilities, shelter, education, participation, protection and access to basic health-care services, irrespective of how wealthy their households appear to be. The cumulative implications of chronic hunger are devastating for children's health, well-being and futures as it contributes to irreversible physical and mental developmental damages (Bartlett, 2008:504; Jabry, 2002:4). In view of realising sustainable communities, good health during childhood is foundational, not only for school success, but for children's capacity to contribute meaningfully to society as adults (UN, 2015a:1). Therefore, "hunger is a personal and a communal malaise that crushes the potential of people to get out of poverty and to prosper" (Oxfam, 2014b).

Sub-theme 5.5: The social and economic vulnerability experienced by children living in poverty

The findings show that poverty exacerbates the social and economic vulnerability that is experienced by children living in informal settlements, as they at times find themselves engaging in relationships with older men in exchange of material support:

> "[Because of poverty] you get frustrated…and that drags you to trying to do somethings. That's why some of our teens end up having blessers because they think that the blesser will change their situation at home…Somehow I don't blame them." [Pink, CP (SA)]

> "We have a lot of children that are coming from that area that are getting pregnant at a very high rate because they don't know what to do…they look for boyfriends as a source of income." [SW 1 (Nam)]

> "The young people end up being with your blessers…[or] sugar daddies…I think they are related to poverty and your other problems that are facing the young people." [SW 3 (SA)]

Worse still, some parents encourage their children to engage in relationships with older men, with the view of improving their poor household's circumstances:

> "Some parents tell children, get a rich boyfriend, he will support you, you get a child and you get work." [Precious, CP (Nam)]
>
> "The poor believe that having a lot of babies is better because they can help you…they believe that they can help the poor parents to be rich." [John, CP (Nam)]

However, such practices compromise children's futures, as they risk falling pregnant, contracting HIV, sexually transmitted infections and ultimately, dropping out of school:

> "There is no future in Orange Farm because most of the kids in Orange Farm are drop outs and some of them when they are in grade 12, they fail pregnant and after that they don't go to school, they just stay at home." [Paris, CP (SA)]
>
> "Children under the age of 14 are getting pregnant." [John, CP (Nam)]
>
> "There is a lot of teenage pregnancy here in Orange Farm. Many girls end up dropping school." [London, CP (SA)]

The other factors that impact on the education of children living in informal settlements are discussed under theme 6, which presents findings on access to education among informal settlement communities.

Sub-theme 5.6: Access to food from questionable sources

The findings raise alarm on some of the strategies that poor households utilise in their endeavour to alleviate hunger. The findings suggest that living in poverty makes people not to care much about where their food is sourced or whether or not the food, they have access to is fit for human consumption. Hence, some take advantage of the desperation of poor communities by selling them food that is destined for the dumpsite, at irresistibly low prices:

> "We have the poorest of the poor staying there. If somebody comes selling food at the…cheapest price those folks will run for it. And those guys who are selling compromised food they will specifically target the informal settlements to go and sort of dispose those food items that were supposed to go to a landfill site. They will just go and get quick cash out of those communities." [EHP 4 (SA)]

While the poor in informal settlements are reeling with hunger, unequal access to food in urban areas imply that formal market processes contribute to food wastages by dumping food that has gone past its sale by date. This discarded food eventually finds its way into the informal food market and on people's dinner plates in informal settlements:

> "Everything that is being dumped at the dumpsite…it's them [residents of informal settlements] that are going to collect food from there…Scavenging!" [EHP 5 (Nam]

Oxfam (2014b:2) reports that poor households spend nearly half of their income on food, however, they have to suffice with cheap, expired and non-nutritious food and that this creates a society that in a way has good access to bad food. As will be discussed in sub-theme 9.1, eating food from questionable sources is a precursor for food borne disease outbreaks in informal settlements. Reducing global food wastages at the retail and consumer levels is crucial to the realisation of sustainable development (UN, 2015b:22). Another hunger alleviation strategy that put households at risk was watering vegetable gardens using contaminated water due to a lack of access to affordable safe and clean water:

> "You will also find some growing vegetables…using untreated water or un-purified water…which is also one of the environmental health factors [in informal settlements]" [EHP 3 (Nam)]

> "You find that people have…vegetable [gardens and] those vegetables…are being watered with polluted water." [EHP 1 (SA)]

Others sourced fish from contaminated waters:

> "They even use this Goreangab dam to fish…It's actually contaminated water…but you find them eating fish from that…dam." [EHP 3 (Nam)]

The findings therefore highlight the need for interventions that ensure that poor households do not only have access to sufficient quantities of food, but that the food they have access to is both nutritious and safe for human consumption.

Sub-theme 5.7: The association between hunger and a lack of sustainable and reliable sources of energy

Findings from the study area in Namibia show that hunger in informal settlements is not only associated with a lack of food but with a lack of sustainable and reliable sources of energy. A lack of firewood may mean that some families will go hungry even though food is available. Firewood is also an unreliable energy source in bad weather conditions, seeing that some households could only cook their meals outdoors:

> "For us that work in informal settlements, there are really poor people who cannot afford anything, the person just wakes up, he doesn't even know what to eat…Even if you give them anything, he won't be able to cook [due to a lack of firewood.]" [HSP 3 (Nam)]

> "If there is no wood then we stay like that [we don't eat] until we…get…money to buy wood." [Johnson, HP (Nam)]
>
> "Some people have to make fire outside where they cook…and when it's raining it's not possible for them to cook…They will not eat that night or that day." [Mary, CP (Nam)]

As such, some households find themselves with very few options but to eat raw food:

> "They are eating raw food because they don't have enough resources [for], cooking." [EHP 5 (Nam)]

However, by eating raw food households run the risk of food poisoning. A study done in Kenya by Kimani-Murage, Schofield, Wekesah, Mohamed, Mberu, Ettarh, Egondi, Kyobutungi and Ezeh (2014:1106) reveals that cooking can be particularly expensive for slum communities who often have to buy charcoal, firewood or paraffin for cooking. Resultantly, some households resorted to cooking a small daily meal portion in order to save on the fuel, which is a fact that adds to the hunger in poor households.

Theme 6: A lack of access to education amongst informal settlement communities

The child participants in the study viewed education as an important tool for guaranteeing better futures:

> "We should start focusing on our future by studying so that we can be able to better ourselves." [Purple, CP (SA)]
>
> "Our rights are that you have to go to school so that…we have a brighter future…If your mum…is going to die at the end you know…you can support your family." [Brooklyn, CP (SA)]

As evidenced in Table 6.37 below, the child participants in the quantitative study were all attending school as was the case in the qualitative study.

Table 6.37: Child participants' grades at school in the quantitative study (n=97)

		Country		Total (n=97)
		Namibia (n=56)	South Africa (=41)	
Grade 4	Count	3	1	4
	% within Country	5.4%	2.4%	4.1%
Grade 5	Count	3	1	4
	% within Country	5.4%	2.4%	4.1%
Grade 6	Count	7	7	14
	% within Country	12.5%	17.1%	14.4%
Grade 7	Count	19	5	24
	% within Country	33.9%	12.2%	24.7%
Grade 8	Count	15	11	26
	% within Country	26.8%	26.8%	26.8%
Grade 9	Count	8	5	13
	% within Country	14.3%	12.2%	13.4%
Grade 10	Count	0	5	5
	% within Country	0.0%	12.2%	5.2%
Grade 11	Count	0	5	5
	% within Country	0.0%	12.2%	5.2%
Grade 12	Count	1	1	2
	% within Country	1.8%	2.4%	2.1%
Total	Count	56	41	97
	% within Country	100.0%	100.0%	100.0%

Basing on Sections 53(1) of the Namibia Education Act 16 of 2001 and 3(1) of the South Africa Schools Act 84 of 1996, which respectively stipulate that children must start grade one at the age of seven years, it was expected that the youngest (13 years) child participants in this study would be attending grade seven. However, as seen in Table 6.37 above, 4.1% (4/97) of the child participants were attending grade four, while another 4.1% (4/97) were attending grade five and 14.4% (14/97) were attending grade six. The findings suggest that the participants either started school late or might have repeated some grades. Contrary to the participants' view of education as a pathway to securing better futures, the findings also show that children living in informal settlements risk dropping out of school due to travelling long distances to school, the hidden costs of education and being overburdened with domestic chores. At the same time, access to basic education is not realised at all for some children who are all together denied the opportunity to go to school. NPO A in Namibia played a crucial role in identifying and equipping children who never attended school with basic numeracy and literacy skills, and some of these children were already in their teenage years:

> "A lot of times you may find a family who wants [a] child to stay at home…and help out with the household chores. So, then that prevents them from going out and getting an education. Some of the children that come [to our] after school [programme] they may be 13 or 14 and may not be able to read." [NPO A2 (Nam)]

The sub-themes that are associated with a lack of access to education amongst informal settlement communities include; children who fail to complete basic education, a lack of basic education amongst adult informal settlement residents and the lack of money to pursue tertiary education.

Sub-theme 6.1: Children who fail to complete basic education

The challenges that impact on children's education in informal settlements include; teenage pregnancies, walking long distances to school, the hidden costs of education and overburdening children with household chores. Participants cited the worrying trend of children who drop out of school as follows:

> "Many young people dropped school. They didn't finish their education, now they end up being jobless not having money to buy food for their family or for themselves." [London, CP (SA)]
>
> "Most of the children in Orange Farm are uneducated or they don't go to school or they drop out at some stage." [NPO C1 (SA)]

As there are no schools in some informal settlements and secondary schools more especially, children living in informal settlements have to walk long distances to attend school in other areas but this requires resilience, otherwise they end up dropping out of school:

> "Even now as I am talking here, a lot of children which is going to grade one next year, they didn't get a space [at the schools in our community] …We can struggle, [to] take our children far where they can get a place. If not so, they are going to sit at home." [Olivia, HP (Nam)]
>
> "Kids have to walk also long distances just to go to school and they end up dropping." [HSP 3 (Nam]

Walking long distances to school has safety implications for young children who risk being attacked or mugged on their way to school or back home:

> "High schools…are far…and all these kids of ours this side, they just walk to school. It's far for them and it's also dangerous for them." [Johnson, HP (Nam)]
>
> "On Monday, I got mugged on my way to school." [Pineapple, CP (SA)]

Although basic education is free for all children attending public schools in Namibia and for children attending school in poor communities in South Africa, the hidden costs that are associated with attending school can prove quite prohibitive for poor parents. This consequently forces them to pull their children from school:

> "Most of the kids that are being raised in an informal settlement [do not get] …a proper education…and even when they try to…go to school [in other suburbs] they don't match the standard of the school in the suburb

> because most of the schools in the suburbs you may find that they have proper uniforms and all those things but the ones that are from the informal settlement they are suffering…Most of them they just abandon school cause of a lack of proper resources to go to school." [EHP 1 (SA)]

> "This thing of school uniform…they require all the kids to have blazers. If you don't have a blazer you are not…accommodated in the school." [Hilma, CP (Nam)]

The findings in Namibia reveal that some children drop out of school because their families prefer that they stay at home to assist with household chores. As such, these children risked being exploited as domestic helpers:

> "Some parents, maybe there is a lot of work in the house…they will say don't go to school just do this at home. The school should wait." [Mary, CP (Nam)]

> "If for example my mother has a small baby and there is no one to take care of the small baby, my mother has to tell me not to go to school and stay with the baby." [John, CP (Nam)]

> "It's like…me as a mother, I am having a baby then…I am working somewhere especially household [work] …I will tell my kid to stay with the baby and that is another thing that will cause her not to go to school." [Olivia, HP (Nam)]

Ensuring access to early childhood, primary and secondary school, tertiary education, vocational training and lifelong learning opportunities are all important for sustainable development (UN, 2015b:17).

Sub-theme 6.2: A lack of basic education amongst adult informal settlement residents

The failure to access basic education in childhood has life-long implications for adult living in informal settlement communities, especially as education is important for securing work and for contributing productively in society:

> "Are not educationally empowered there is no way that they can participate in the economic [development] that is supposed to reduce inequality." [HSP 4 (Nam)]

Table 6.38 below presents information on the highest levels of education of the household participants who took part in the quantitative phase of the study.

Table 6.38: Household participants' highest levels of education (n=363)

		Country		
		Namibia (n=178)	South Africa (n=185	Total (n=363)
I did not attend school	Count	5	0	5
	% within Country	2.8%	0.0%	1.4%
Attended some primary school	Count	45	19	64
	% within Country	25.3%	10.3%	17.6%
Completed primary school	Count	18	8	26
	% within Country	10.1%	4.3%	7.2%
Attended some secondary school	Count	75	71	146
	% within Country	42.1%	38.4%	40.2%
Attended adult literacy programmes	Count	8	2	10
	% within Country	4.5%	1.1%	2.8%
Completed matric	Count	18	79	97
	% within Country	10.1%	42.7%	26.7%
Completed tertiary education	Count	9	6	15
	% within Country	5.1%	3.2%	4.1%
Total	Count	178	185	363
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.38, only 4.1% (15/363) of the household participants in the quantitative study completed tertiary education, while 26.7% (97/363) completed matric. The rest of the participants (69.2%, 251/363) dropped out of school before reaching matric, as evidenced by the participants who attended some primary school, completed primary school, attended some secondary school or only attended adult literacy programmes. The findings imply that the majority of household participants in the study lacked the necessary educational investments that would give them an upper hand when looking for employment in the formal sector. Education is a basic human right that enables people to acquire the knowledge and skills that are needed to exploit work opportunities. As reported by Oxfam (2014a:48-49), education is critical in enabling individuals to gain social mobility and to secure decent jobs. Improving access to education for informal settlement communities is critical considering that poor people migrate to urban areas in search of work only to realise that, "with no education and skills it is extremely hard to find a job in the city" (Nickanor, 2013:99).

Sub-theme 6.3: A lack of money to pursue tertiary education

The findings show that while some children and youth living in informal settlements pass their matric, they fail to pursue tertiary education due to a lack of money. In addition, most tertiary institutions are located far out of reach for many individuals living in informal settlements who struggle to get the transport money needed to travel for classes:

> "Some kids…have passed their grade 12 [but] they do not have money…[for] the tertiary institutions…The institution is too far, they cannot afford taxi money, then they have to stay at home, they have no choice." [Hilma, CP (Nam)]

> "There are many children who passed very well but…they can't go to the college because of their backgrounds." [Favour, HP (SA)]

> "Tertiary education is there, but the challenge is the financial implications…Those children whose backgrounds cannot afford, may not be able to access tertiary education because of financial implications." [SW 1 (Nam)]

Oxfam (2014a:10) is of the view that poor individuals and communities have the odds stacked against them in terms of access to education. The barriers that income poverty presents in accessing health, education and other services are well documented (Adésínà, 2007:24; Hall & Sambu, 2018:137).

Theme 7: Unemployment amongst informal settlement residents

Unemployment emerged as a common challenge amongst informal settlement communities in the study areas, which can be attributed to a lack of education and which reinforces poverty and hunger and is associated with crime and substance abuse:

> "Unemployment…is…the leading factor that leads our people to living in poverty and from that comes other factors like…alcohol abuse and sometimes drug abuse. It might also have an impact on our crime situation here in the city because people have no other choice than to be involved in crime." [SW 2 (Nam)]

> "There is too much unemployment [and] too much unemployment…causes hunger and hunger is equals to crime." [Favour, HP (SA)]

> "We also have an unemployment rate that is very high that is adding to the problems that we are having…they are taking substances just to maybe forget the challenges that they are facing." [SW 3 (SA)]

For London, a child participant in South Africa, there is definitely a three-pronged link between poverty, unemployment and a lack of education:

> "There is poverty in our community because many young people…dropped out of school…they end up being jobless not having money to buy food for their family or for themselves. That's how poverty starts." [London, CP (SA)]

The UN-Habitat (2003:76) acknowledges that high unemployment coupled with social, economic, physical exclusion contributes to crime and violence in informal settlement

areas. Table 6.39 below presents findings on the employment status of household participants in the quantitative study.

Table 6.39: Household participants' employment status (n=383)

		Country		
		Namibia (n=192)	**South Africa (n=191)**	**Total (n=383)**
Student	Count	8	2	10
	% within Country	4.2%	1.0%	2.6%
Retired	Count	7	5	12
	% within Country	3.6%	2.6%	3.1%
Unemployed but not looking for work	Count	28	5	33
	% within Country	14.6%	2.6%	8.6%
Unemployed and looking for work	Count	62	122	184
	% within Country	32.3%	63.9%	48.0%
Self-employed but looking for formal employment	Count	36	10	46
	% within Country	18.8%	5.2%	12.0%
Self-employed and not looking for formal employment	Count	11	7	18
	% within Country	5.7%	3.7%	4.7%
Employed part-time	Count	22	26	48
	% within Country	11.5%	13.6%	12.5%
Employed permanently	Count	18	14	32
	% within Country	9.4%	7.3%	8.4%
Total	Count	192	191	383
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.39 above, 48% (184/383) of the household participants indicated that they were unemployed and looking for work, while 8.6% (33/383) were unemployed but not looking for work. The disaggregated results show an even larger proportion (63.9%, 122/191) of household participants in South Africa who were unemployed and looking for work. This proportion of unemployed household participants in the study area in South African was significantly higher than the national unemployment rate in South Africa which stands at 29 percent (SSA, 2019:1). Inversely, the fact that 32.3% (62/192) of household participants in Namibia were unemployed and looking for work mirrors the national unemployment rate in Namibia, which stands at 33.4 percent (NSA, 2018c:19). The following sub-themes are associated with unemployment among informal settlement communities; the interrelation between unemployment and a lack of education, lengthy periods of unemployment, the high costs associated with job searching and the despair and hopelessness that result from unemployment.

Sub-theme 7.1: The interrelationships between unemployment and a lack of education

The findings point to the interrelationships between unemployment and a lack of education, as a lack of formal qualifications or job skills are major obstacles to securing formal employment or pursuing self-employment:

> "People don't have the skills to be employed or to generate their own source of food or income." [SW 2 (Nam)]
>
> "We've got a lot of youngsters that are unskilled and it's hard to really find a job if you don't have any documentation and also lack of matric." [SW 1 (SA)]
>
> "A lot of people…are unemployed, they are uneducated…they have grade 12 and some of them, they even have grade 7…They don't have qualifications, they are unable to get employment." [SW 1 (Nam)]

A study by Nickanor (2013:99) shows that a significant proportion of job seeking adults in Namibia are unemployed due to a lack of education and skills. Turok et al. (2017:3) attribute unemployment in South Africa to the fact that the country's economy has not been generating enough new jobs and also that an increasing proportion of the jobs that are available require skill levels that are out of reach for the majority of the unemployed youth.

Sub-theme 7.2: Lengthy periods of unemployment

The quantitative study determined the periods of unemployment of household participants in the study who either indicated being unemployed and looking for work or unemployed but not looking for work. The findings are presented in Table 6.40 below.

Table 6.40: The period of unemployment amongst household participants in the quantitative study (n=216)

Country	Mean	N	Std. Deviation	Minimum	Maximum
Namibia	5.80	75	5.602	0	35
South Africa	5.82	141	5.263	0	30
Total	5.81	216	5.370	0	35

As displayed in Table 6.40, the mean period of unemployment amongst household participants in the study was 5.81 years, with the disaggregated mean periods of unemployment being 5.80 years in Namibia and 5.82 years in South Africa. The participants were unemployed for a maximum period of 35 years in Namibia and 30 years in South Africa. As is captured in the following words of a practitioner in Namibia,

chronic unemployment is evidently a major challenge amongst informal settlement communities:

> "You find people saying I have been here for 3 or 4 years, some have been here for 10 years and up to now they haven't been able to attain a job, to attain a better living or a job." [EHP 2 (Nam)]

The quantitative study also established the extent to which unemployment contributed to the decision by household participants in the study to live in informal settlements. The results are presented Table 6.41 below.

Table 6.41: The extent to which unemployment contributed to household participants' decisions to live in informal settlements (n=380)

		Country		Total (n=380)
		Namibia (n=191)	South Africa (n=189)	
Not at all	Count	18	16	34
	% within Country	9.4%	8.5%	8.9%
To a small extent	Count	8	17	25
	% within Country	4.2%	9.0%	6.6%
To a moderate extent	Count	15	18	33
	% within Country	7.9%	9.5%	8.7%
To a great extent	Count	24	32	56
	% within Country	12.6%	16.9%	14.7%
To a very great extent	Count	126	106	232
	% within Country	66.0%	56.1%	61.1%
Total	Count	191	189	380
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.41 above, unemployment contributed to a very great extent to the decision by household participants in Namibia (66%, 126/191) and in South Africa (56.1%, 106/189) to live in informal settlements. For less than ten percent (9.4%, 18/191) of the household participants in Namibia and South Africa (8.5%, 16/189), unemployment did not at all contribute to their decision to live in informal settlements. Overall, the findings suggest that unemployment contributes significantly to the growth of informal settlements in the study areas.

Sub-theme 7.3: The high costs associated with job searching

The findings indicate that job searching can be very expensive and hard to sustain endeavour for unemployed individuals living in poverty. This is considering the fact that the comparative study areas of Orange Farm in South Africa and the Okahandja Park, Babilon and Kilimanjaro informal settlements are located far from the industrial hubs in Johannesburg and Windhoek:

> "The challenge that we see in the informal settlements is the distance that you get from an economic perspective from the informal settlement to…place[s] of employment." [HSP 1 (Nam)]

> "[Orange Farm], it's at the South of Joburg…If a person wants to go and look for a job…you either have to go to Vereeniging or you have to go to Joburg. Either way, it all requires money…So, if you are not working it's going to be a problem." [EHP 2 (SA)]

> "You have to wake up very early around 3 to 4am [so that] before 7 or 8 o'clock you reach that point where you heard that there is employment somewhere here today. You have to foot [walk]. Footing [walking on foot] from here…to that point is approximately 20 to 25 kilometres." [Edson, HP (Nam)]

Johnson, a household participant in Namibia shared his struggles of going out to search for a job on an empty stomach and returning home without a job to a house where there is no food:

> "You go [with] hunger from here. In town, you walk the whole day around and then you come again back home. So, to come back again at home, you are so worried, there is nothing [no food] at home." [Johnson, HP (Nam)]

Other household participants like Olivia in Namibia, borrowed money from loan sharks to enable them to embark on job searching but this put already vulnerable households at risk of failing into great debt and vulnerability:

> "Sometimes…you take a cash loan…for that moment that you want to go and look for work…The cash loan is very bad, I cannot make myself get used to getting money from the cash loan…Sometimes, you think that you are going to make [it] in that month…Now…you cannot afford to buy food in the house together with paying the cash loan." [Olivia, HP (Nam)]

With a lack of transport money to look for work and repeated failed attempts in securing a job, some individuals give up job searching all together:

> "People have lost hope because of our job situation…instead of doing something on their own, they will rather go and sit and drink alcohol the whole day." [EHP 4 (Nam)]

> "In Orange Farm people don't go out and do some interviews for jobs they just stay at home. They say that they…will wait for a call that they are offered a job." [Gray, CP (SA)]

A lack of transport money to look for work and repeated failed attempts in securing a job, could be a plausible reason for the 14.6% (28/192) of household participants in Namibia and 2.6% (5/191) in South Africa, who reported being unemployed but not looking for work (see Table 6.39 above). It is well acknowledged by the UN-Habitat

(2013:3) that living far from urban centres is associated with high transportation costs that are quite prohibitive for individuals living in poor communities to access jobs and other livelihoods opportunities.

Sub-theme 7.4: The despair and hopelessness that is associated with unemployment

The findings point to the despair and hopeleness that accompany unemployment and living in poverty, as individuals resorted to substance abuse to temporarirly forget their challenges:

> "We also have an unemployment rate that is very high that is adding to the problems that we are having. And then poverty, because most of the young people… when [their] needs are not met…they are taking substances just to maybe forget the challenges that they are facing." [SW 3(SA)]

> "People have lost hope because of our job situation…they will rather go and sit and drink alcohol the whole day and in most cases, it's families in informal areas." [EHP 4 (Nam)]

> "They end up drinking each and every day, to say I don't want to stress that much, I am not finding a job." [NPO 2 (SA)]

A study done in Namibia by Nickanor (2013:114) confirms the despair and hopelessness that results from chronic unemployment amongst informal settlement communities, which is often reflected in alcohol abuse. As noted by the UN-Habitat (2003:75), neighbourhoods that "suffer high unemployment rates are also likely to suffer from weak social structure, high rates of alcohol abuse, drug abuse, frustrations and violent youth crime." In light of sustainable development, the harmful use of alcohol negatively impacts on the realisation of many SDG targets that are related to mental, maternal and child health, combating HIV, TB and non-communicable diseases and the reduction of injuries (WHO, 2018a:xii).

Theme 8: A lack of access to basic services in informal settlements

Basic services are a mandatory prerequisite for communities to lead healthy, dignified and productive lives. However, for the informal settlement communities in the study areas, water, sanitation, electricity and refuse removal services were either non-existent or available to a limited extent. A lack of access to basic services in his community prompted a household participant in South Africa to argue that:

> "Our government fails us…[when] they fail to distribute or to deliver services." [Darius, HP (SA]

The sub-themes that are associated with a lack of access to basic services in informal settlements include; the impact of rapid urbanisation on the delivery of basic services for all, the impact of living in marginal areas on the delivery of basic services, a lack of access to safe and affordable drinking water, a lack of access to adequate sanitation, the safety concerns associated with a lack of adequate sanitation in informal settlements, a lack of access to safe forms of energy, the safety concerns associated with searching for firewood and a lack of access to refuse removal services.

Sub-theme 8.1: The impact of rapid urbanisation on the delivery of basic services

Findings from both study areas in Namibia and South Africa show that rapid urbanisation has a profound negative impact on the delivery of basic services to all urban residents. With the continuous inflow of people into informal settlements, different households living within the same informal settlement can have variable access to water, sanitation, electricity and refuse removal:

> "Orange Farm…is extending, so there are a lot of people who are…coming in and just putting their shacks…Areas that were here prior to the beginning of this year, most of them, they do have water, they do have sanitation...except these mushrooming shacks that are appearing everywhere." [EHP 2 (SA)]
>
> "The informal settlements have grown at such a rate and at such a faraway distance that people are not easily accessible to services like clinics, hospitals, fire services, emergency services." [EHP 2 (Nam)]

The fact that more and more new informal settlement residents settle in areas where basic services are either non-existent or where they have to walk long distances to access basic services has negative implications for realising sustainable communities and environments:

> "They settle in areas where there are no social amenities or social services. Clinics or hospitals, health centres are very far [or] they are not there." [HSP 5 (Nam)]
>
> "The city really tries to extend water to as many people as possible but it's difficult in some areas because they keep on increasing the walking distance." [HSP 1 (Nam)]

As such, rapid urbanisation has social, economic and environmental justice implications for sustainable development. While cities proactively plan for the provision of basic services in urban areas, rapid urbanisation and the rate at which informal

settlements are growing outpaces their ability to deliver basic services effectively and timeously:

> "As the City of Windhoek, we plan for certain areas, and when you have the land grabbing happening overnight, it becomes an issue to bring the services to the people on a timely manner. Of course, there are financial issues linked to that, there are planning issues, there are procurement issues, there is capacity with regards to staff issues." [EHP 2 (Nam)]
>
> "[It] takes us back to service delivery…with this thing of land invasions, now it is a serious problem because…shacks are mushrooming and people are building their shacks wherever they want to. And then the government is expected to provide services." [SW 3 (SA)]
>
> "We are really having an issue in Namibia, when it comes to the mushrooming of informal settlements, people are flocking to the city almost on a daily basis and you can see that the city is trying to put mechanisms in place but at the rate that people are coming in, I think it's just too high for the city to be able to manage." [EHP 1 (Nam)]

As such, rapid urbanisation adds pressure to the limited resources in urban areas by increasing demand for public services, energy, water, sanitation, education and health care (Napier, 2004:23; UNDESA, 2013:ix). Table 6.42 below, presents information on the extent to which the practitioners in the study agreed or disagreed that informal settlements in the study areas were sprawling away from already existing basic service infrastructures.

Table 6.42: The extent to which the practitioners agreed/disagreed that informal settlements in the study areas were sprawling away from basic services (n=51)

		Country		
		Namibia (n=28)	**South Africa (n=23)**	**Total (n=51)**
Strongly disagree	Count	0	1	1
	% within Country	0.0%	4.3%	2%
Disagree	Count	4	2	6
	% within Country	14.3%	8.7%	11.5%
Unsure	Count	0	3	3
	% within Country	0.0%	13.0%	6.5%
Agree	Count	9	8	17
	% within Country	32.1%	34.8%	33.5%
Strongly agree	Count	15	9	24
	% within Country	53.6%	39.1%	46.5%
Total	Count	28	23	51
	% within Country	100.0%	100.0%	100%

As displayed in Table 6.42, slightly less than a half (46.5%, 24/51) of the practitioners in the study strongly agreed, while one practitioner (2%, 1/51) strongly disagreed that informal settlements in the study areas were sprawling away from already existing basic service infrastructures. A report by UNICEF (2012:14) shows that high child

mortality rates in urban areas tend to occur in those areas where extreme poverty interacts with inadequate basic services.

Sub-theme 8.2: The impact of living in marginal areas on the delivery of basic services

Living in ecologically fragile and geographically hazardous built environments such as mountain tops, under high voltage power transmission lines or alongside riverbeds has a negative impact on the delivery of basic services to informal settlement communities who live in these areas. As local authorities are unable to deliver basic services to areas are deemed unfit for human habitation or in topographically difficult environments which prove unfeasible or very expensive to provide basic services. As such, informal settlement communities that are located in marginal areas are caught up in a desperate situation of poverty and a lack of access to basic services:

> "In some of the areas the topography is very bad for us to provide services…They are there on their own, without even the permission of the municipality. There was not even an environmental impact assessment done to determine if the area is even suitable, so that you can plan and then provide services." [HSP 2 (Nam)]

> "If you settle in the mountains it's even more difficult to take services there, and it's more expensive…unlike in a flat area." [EHP 1 (Nam)]

> "It becomes a challenge to provide services to those communities especially if you have to formalise those areas. Some of those areas are really undevelopable or it will cost the city more to provide services…People just go settle anywhere where they find it suit but they don't consider how… [big] a challenge [it is] for the city to bring services to them." [HSP 4 (Nam)]

Contrary to the above quoted practitioners' views, the household participants in the study were of the opinion that local authorities do not prioritise the delivery of basic services to informal settlements as they constitute areas that are largely inhabited by poor people:

> "Municipality comes fast only where there are a lot of people who are having money, higher salaries, who can afford [services] Maybe [development] is just coming slowly because our salaries are [low]…To put it this way…we do not qualify to be a standard for them to fast [track the provision of services] …When you are talking money, if there is no money there is no development." [Timothy, HP (Nam)]

> "If this place was more of a suburb, we will have city parks going around cutting trees…plumbers will go and check if the sewerage pipes are well fixed…But…they…only focus on places where they know that it's

> attractive for their municipality…Orange Farm is not a priority, it's classified as the last place in Johannesburg." [Benjamin, HP (SA)]

As such, living in marginal areas excludes informal settlement communities from realising optimal human and social development.

Sub-theme 8.3: A lack of access to safe and affordable drinking water

The findings point to how the right to water is not realised for poor urban communities. The sprawling of informal settlements and the location of some informal settlement communities on marginal land have negative ramifications on their access to adequate safe drinking water. The findings show that access to safe drinking water was a particularly daunting challenge for the informal settlement communities in the study area in Namibia, as water is not freely provided to informal settlement areas but is available through a prepaid water system. However, not all households in this study area in Namibia could afford to have a sustainable access to adequate clean water, as they found it too expensive to buy:

> "Water we have, but it's expensive for some of the community members…They use a rechargeable card that they pay at the municipality and then they can have water." [NPO A1 (Nam)]

> "Unless you can charge your card. If you do not recharge it, then you know that, that day you will not drink water." [Olivia, HP (Nam)]

As people cannot survive without water, households that could not afford to recharge their prepaid water cards resorted to borrowing water from neighbours who could afford to recharge their water cards:

> "You do not have any water until when you buy it…[Some] cannot afford… [so] they borrow from their neighbours." [NPO B2 (Nam)]

> "The community members…do help each other, once I do not have water, I do ask your card then you give me, I take two, three containers then I keep, until I get…money to recharge my card." [NPO A1 (Nam)]

Out of desperation, some households resorted to begging for money to recharge their water cards:

> "Some…do not even have money to…recharge their cards in order for them to have water…Some of them…beg in the streets for … money to…recharge their cards." [Paul, CP (Nam)]

As the communities in the study area in Namibia had variable access to communal toilets which the municipality erected in informal settlements, without the requirement for households to pay in order to access these toilets, some households resorted to

drawing drinking water from toilet cisterns. However, these are very unsafe sources of water:

> "Some of the people…don't have cards [to access water], they drink from the toilet's water, they go and fetch in the toilet and then drink." [Raphael, CP (Nam)]

> "If…there is no money to recharge the card that they use, they will go fetch water in the toilets and drink it." [Hilma, CP (Nam)]

Fetching water from toilet cisterns for drinking and household use is dehumanising and has major social justice and health implications. More so as the same toilet cisterns were used by others to wash their hands after toilet use:

> "In the informal settlements people have access to unsafe water sources…because of the water [that] they pay for, people would go in the cisterns pull up the pipes and also get water from there. Or someone comes and washes their hands in the cistern the next person can come and use that water." [EHP 1 (Nam)]

> "If your card doesn't have money or water you go to the toilet and you break the toilet and that's where you…fetch water from. Which is not right." [Precious, CP (Nam)]

A child participant in Namibia was of the view that a lack of sustainable access to water in informal settlements affects women the most, as they are often amongst the poorest groups in informal settlements:

> "For a woman, a single mother who has to take care of like three children they all have to go to school, eat bread every day, school fees and everything, she cannot afford [to buy water]" [Choice, CP (Nam)]

As noted by Oxfam (2014a:44), economic inequality adds new dimensions to old disparities, such as gender inequality as in every country, access to safe water is significantly higher for men than women. Whereas the prepaid water card systems barred the poorest community members from having a sustainable access to adequate safe and clean water, a practitioner in Namibia justified the prepaid water system in informal settlements as follows:

> "[Before] we provide[d] them with [free] water…but they allow[ed] the kids to play with the water taps. When you go there the water is just running, they will tell you that it's *aweh* [free] water, everything is just Harambee [free]. Now we have prepaid meters at least some progress is now there." [HSP 3 (Nam)]

Unlike those in Namibia, informal settlement communities in the study area in South Africa has access to free water that is provided for by the municipality:

> "The city did try to provide them with communal taps…It's available free of charge…If it's not available at the communal tap, Joburg water will

> send trucks with water, then the people will come and get the water." [EHP 1 (SA)]
>
> "Water is free…This area is…a land of the people who are poor…That's why everything is free." [Favour, HP (SA)]
>
> "So far, [water] has been free and there are taps either in different yards, or there is one [communal] tap, but people can access it at any time." [NPO C1 (SA)]:

Although water was afforded free of charge in the study area in South Africa, there are major costs associated with its procurement. As such, communities have a duty to safeguard water, which is a finite resource:

> "Water is not free…It's a burden on the city because the city has to provide it for free because of the level of affordability of the community. So, the least that communities can do it to help the city save water." [HSP 3 (SA)]

The fact that water was freely available to informal settlement communities in the study area in South Africa and not in Namibia, points to the role that social welfare policy commitments play in upholding social and economic rights. To illustrate this point, South Africa has a free basic water and sanitation policy that commits to providing free water, electricity, sanitation and solid waste removal to households living in poor communities (SAHRC, 2014:28). This provision is in accordance with the Constitution of RSA, 1996, unlike that Namibia, which stipulates that the government will take reasonable legislative and other measures, depending on the availability of resources to ensure the realisation of economic, social and cultural rights. Table 6.43 below presents information on the extent to which household participants in the quantitative study and their households lacked access to adequate clean and safe drinking water.

Table 6.43: The extent to which household participants and their households lacked access to adequate clean and safe drinking water (n=382)

	Country				Total	
	Namibia		South Africa			
	n=192	%	n=190	%	n=382	%
Never	48	25.0%	37	19.5%	85	22.3%
Sometimes	61	31.8%	18	9.5%	79	20.7%
Often	14	7.3%	13	6.8%	27	7.1%
Very often	35	18.2%	41	21.6%	76	19.9%
Always	34	17.7%	81	42.6%	115	30.1%
Total	192	100.0%	190	100.0%	382	100.0%

As displayed in Table 6.43 above, 22.3% (85/382) of the household participants in the study reported never lacking access to adequate safe drinking water. The rest (77.7%,

297/382), reported sometimes, often, very often or always lacking access to adequate safe drinking water. The variable access to adequate clean and safe drinking water amongst the household participants in the study could be attributed to the financial costs associated with accessing water in the study area in Namibia. It could also be due to the fact that some household participants in the study area in South Africa, where water was provided free of charge, lived a considerable distance away from the community water taps.

Sub-theme 8.4: A lack of access to adequate sanitation

A lack of access to adequate sanitation was a persistent challenge amongst the informal settlement communities in the study areas and this had a deteriorating impact on the well-being of the communities and the environment in which they live. Inadequate sanitation in the study areas was evidenced through open defecation, the bucket toilet system and in what participants in Namibia referred to as, 'flying toilets.' Participants used phrases such as 'appalling', 'dirty' and 'unconducive' to describe the poor environmental conditions associated with inadequate sanitation in informal settlements, while others remarked that it takes 'great endurance' to live in the 'deplorable' sanitary conditions in informal settlements:

> "Basically, it's the issue of [poor] waste management, if you go to the informal settlements…the environment is dirty. There is water flowing all over…and then they have informal markets, people trade in appalling conditions." [EHP 1 (Nam)]
>
> "They don't even have sanitation and then the places are dirty. And it's not a conducive environment that a person can stay [in]" [SW 4 (SA)]
>
> "The air is no longer fresh because the environment is polluted because of open defecation… [It takes] endurance and…determination to live in such conditions." [HSP 5 (Nam)]

The following narrations are testimony to participants' lived experiences and daily struggles with open defecation:

> "People use the river beds, they go around the bushes. Even just at a certain open area in the community they will just shit there." [Hilma, CP (Nam)]
>
> "There are areas that still don't have…basic toilets. They will tell you they have to take a hole and try to make a toilet." [NPO C2 (SA)]
>
> "In certain [informal settlement] places… [there are no] ablution facilities … and now people end up helping themselves in places where they [have to] hide [from other people's views]" [EHP 5 (SA)]

Open defecation impinges on the duty of informal settlement communities to care for the natural environment, as they find themselves hiding behind bushes or utilising open spaces or natural water bodies to attend to the call of nature. It is against this background that a practitioner in Namibia argued that:

> "This open defecation is not doing justice to the environment so to say." [EHP 1 (Nam)]

Yet another practitioner in Namibia reasoned how one could think of doing justice to the environment when he or she is deprived of basic sanitation:

> "How can you think of protecting the environment whilst you [don't have a toilet?]" [EHP 3 (Nam)]

It therefore follows that communities cannot realistically think of protecting the natural environment when they lack access to basic toilet facilities. Therefore, access to basic sanitation services is imperative for ensuring the well-being of both communities and the environment. Due to a lack of access to adequate sanitation community members in the study area in Namibia found themselves utilising plastic bags to relieve themselves within the confines of their homes, which they thereafter tossed outside. This phenomenon was defined by a practitioner in Namibia as:

> "Flying toilets, [which] are basically where people make use of carry bags…to relieve themselves." [EHP 2 (Nam)]

The following narrations capture participants' experiences with flying toilets:

> "We don't have enough toilets… [the community members] use plastics and then they go throw…them in the bush." [Judith, HP (Nam)]

> "In the night because it is very dark outside. Sometimes…[they] have a stomach ache or running tummy, they use plastic bags…and then in the day that is when they go throw it away." [NPO A1 (Nam)]

> "The bush [is] grassy [and] …windy and snakes and other insects [are there] …So, sometimes you have no other option but just to help yourself into a plastic and throw it around which is not proper." [Choice, CP (Nam)]

Open defecation and flying toilets are a documented reality in informal settlements in Windhoek, where it is common to see children engaging in open defecation, while adults use flying toilets, which are thereafter toss onto dumpsites and riverbeds (Kahiurika & Coetzee, 2016:1). While participants in Namibia reported using plastics bags in place of toilets, those in South Africa pointed to the use of the bucket toilet system, which participants saw as a relic of the apartheid era:

> "Sanitation is a problem. There are areas that use the bucket system because they do not have proper sanitation." NPO C1 (SA)]

> "They've got the toilets but the toilets it's the bucket system at this time of democracy they are using the bucket system." [SW 1 (SA)]

The findings confirm an observation by the UN-Habitat (2016c:16) that, for the hundreds of millions of people living in slums and informal settlements, toilets are rare, while running water to one's household is very scarce. Open defecation remains a challenge in Namibia, where 51 percent of the population and 80 percent of the country's rural population practises open defecation (UNICEF, 2017:3). Although South Africa fares significantly better than Namibia in terms of access to adequate sanitation, open defecation remains a challenge in informal settlements (SSA, 2016). SDG target 6.2 views achieving access to adequate and equitable sanitation and hygiene for all and ending open defecation as mandatory for sustainable development (UN, 2015b:18). Table 6.44 below presents information on the extent to which household participants and their households utilised the bush, buckets or plastic bags in place of toilets.

Table 6.44: The extent to which household participants and their households utilised the bush, buckets or plastic bags in place of toilets (n=382)

	Country					
	Namibia (n=192)	**Namibia %**	**South Africa (n=190)**	**South Africa %**	**Total (n=382)**	**Total %**
Never	27	14.1%	15	7.9%	42	11.0%
Sometimes	37	19.3%	18	9.5%	55	14.4%
Often	10	5.2%	3	1.6%	13	3.4%
Very often	12	6.3%	19	10.0%	31	8.1%
Always	106	55.2%	135	71.1%	241	63.1%
Total	192	100.0%	190	100.0%	382	100.0%

As is reflected in Table 6.44, the majority of household participants in the quantitative study and their households, lacked access to adequate sanitation. This is demonstrated by 63.1% (241/382) of the household participants who reported that they always use the bush, buckets or plastic bags for toilets. However, slightly more household participants (71.1%, 135/190) in the study area in South Africa, than in Namibia (55.2%, 106/192) lacked adequate sanitation. These findings could be attributed to the presence of several communal toilets in the sampled study area in Namibia as opposed to the study area in South Africa. As is discussed in Chapter Seven (sub-theme 9.6), communal toilets in informal settlements are often unusable due to vandalism and poor hygiene. Table 6.45 below presents information on the

extent to which child participants in the study utilised the bush, bucket or plastic bags in place of toilets.

Table 6.45: The extent to which child participants in the study utilised the bush, bucket or plastic bags in place of toilets (n=96)

			Country		
			Namibia (n=56)	South Africa (n=40)	Total (96)
Do you use the bush, bucket or plastic bags for toilets?	Never	Count	19	20	39
		% within Country	33.9%	50.0%	40.6%
	Sometimes	Count	30	11	41
		% within Country	53.6%	27.5%	42.7%
	Always	Count	7	9	16
		% within Country	12.5%	22.5%	16.7%
Total		Count	56	40	96
		% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.45 above, 16.7% (16/96) of the child participants in the quantitative study indicated always using the bush, bucket or plastic bags in place of toilets, while 42.7% (41/96) indicated that they sometimes use the bush, bucket or plastic bags in place of toilets. However, as many as 40.6% (39/96) of the child participants indicated never using the bush, bucket or plastic bags in place of toilets. The findings therefore attest to the variable access to adequate sanitation amongst children and adults living in informal settlements.

Sub-theme 8.5: The safety concerns associated with a lack of adequate sanitation in informal settlements

Inadequate sanitation in informal settlements is associated with poor outcomes for women and children, as they are particularly vulnerable to sexual assault and other forms of abuse due to unsafe toilets or the lack of toilets in informal settlements, which predisposes them to use open places in place of toilets:

> "At the shacks they have built the toilets and then people need to go there. It's not safe, rape can take place there." [SW 4 (SA)]
>
> "The toilets are more dangerous especially for the ladies [and] for the kids and not just at night." [HSP 1 (Nam)]
>
> "At night, it's too dark, you cannot even walk to go to the bush because here they do not have toilets and they need to go to the toilet…and it is a riverbed and it's dangerous, girls can be raped, even boys, adults also." [NPO A1 (Nam)]

Table 6.46 below, presents findings on the extent to which household participants in the quantitative study viewed the use of toilets in informal settlements as unsafe for women and children.

Table 6.46: The extent to which household participants in the quantitative study viewed the use of toilets in informal settlements as unsafe for women and children (n=383)

	Country					
	Namibia N	Namibia %	South Africa N	South Africa %	Total N	Total %
Never	45	23.4%	10	5.2%	55	14.4%
Sometimes	9	4.7%	9	4.7%	18	4.7%
Often	6	3.1%	5	2.6%	11	2.9%
Very often	14	7.3%	15	7.9%	29	7.6%
Always	118	61.5%	152	79.6%	270	70.5%
Total	192	100.0%	191	100.0%	383	100.0%

As displayed in Table 6.46, an overwhelming majority (70.5%, 270/383) of household participants in the study viewed the use of toilets in informal settlements as always unsafe for women and children. A lack of adequate sanitation in informal settlements is confirmed by literature (Weber & Mendelsohn, 2017:23; SAHRC, 2014:36) to have considerable negative impacts on the safety of women and children in particular, as they face sexual harassment and assault when obliged to go to the toilet or the bush.

Sub-theme 8.6: A lack of access to safe forms of energy

The findings point to a lack of access to safe and sustainable forms of energy for cooking and lighting homes in informal settlements. More so, as the study areas in both countries were not formally connected to electricity:

> "[In] Kilimanjaro, how long we are now been here? From 1994 until now, but there is no electricity…I don't know what is happening. Why our place is always at the backside?" [Johnson, HP (Nam)]

In the absence of electricity in their communities, participants utilised firewood, candles and paraffin for cooking, heating or lighting their homes:

> "Most of our people don't have electricity, they are using firewood…they are using candles." [NPO A1 (Nam)]

> "If people are staying in an urban area and they don't have access to electricity…the only means is for them to look for firewood." [SW 1 (Nam)]

The fact that informal settlement communities in the study areas were not formally connected to electricity, does not necessarily mean that there are no households in informal settlements that are connected to electricity. More so, as some households source and connect electricity illegally:

> "They are also taking…wires to connect the informal settlements…because they don't have electricity." [SW 3 (SA)]

> "Informal settlement people are connecting electricity illegally." [EHP 1 (Nam)]
>
> "It all depends with their relationships with their neighbours...they use their neighbour's electricity [they do these illegal connections. We call it …*iZinyoka*." [Benjamin, HP (SA)]
>
> "They take power from the rails [railway] to their shacks…You know if people are unemployed, they do anything to survive." [NPO C3 (SA)]

The quantitative study gathered information on the sources of lighting in the child participants' homes, the results are displayed in Table 6.47 below.

Table 6.47: The sources of lighting in child participants' homes (n=97)

		Country		Total (n=97)
		Namibia (n=56)	South Africa (n=41)	
Candles	Count	25	6	31
	% within Country	44.6%	14.6%	32.0%
Electricity	Count	4	30	34
	% within Country	7.1%	73.2%	35.1%
Solar	Count	20	1	21
	% within Country	35.7%	2.4%	21.6%
Paraffin lamp	Count	7	4	11
	% within Country	12.5%	9.8%	11.3%
Total	Count	56	41	97
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.47, a significant proportion (44.6%, 25/56) of child participants in Namibia and 14.6% (6/41) of the child participants in South Africa utilised candles to light their homes, which are an unsafe source of lighting especially around children. An overwhelming majority (73.2%, 30/41) of the child participants in South Africa and as little as 7.1% (4/56) of the child participants in Namibia utilised electricity for lighting their homes. As shown by the qualitative findings, electricity in informal settlements can be illegally connected and this has safety implications for children and adults alike. Ensuring access to affordable, reliable and modern sources of energy for all people as enunciated by SDG 7 is imperative for sustainable development (UN, 2015b:14). The risks to human health and to the environment that are associated with firewood, candles, paraffin stoves and illegal electricity connections are discussed in theme 9 in this chapter, which presents findings on the intersections between a lack of basic services, poor health and environmental outcomes in informal settlements.

Sub-theme 8.7: The safety concerns associated with searching for firewood

A lack of sustainable and reliable sources of energy is particularly burdensome for poor communities and women more especially, as the often spend a significant proportion of their time searching for firewood:

> "We walk two hours… to go get [firewood] …and two hours just for coming back home." [Judith, HP (Nam)]

> "The women go there [to fetch firewood] very early in the morning and maybe they come back around this time [2pm] really it's too far and even it is very hard to get it." [NPO B1 (Nam)]

Going in search of firewood remote places is associated with a high risk of gender-based violence:

> "Women can be raped because it's mostly the women that go look for the firewood." [NPO A1 (Nam)]

> "Most of them walk long distances in areas that are even dangerous. You will find them walking there in the morning [and] at night even." [HSP 2 (Nam)]

A study by Gold et al. (2001:19) confirms that a lack of access to electricity in informal settlements is associated with great travelling distances as women go in search for firewood and this put immerse pressure on women and exacerbate gender inequality.

Sub-theme 8.8: A lack of access to adequate refuse removal services

All communities generate household waste and need well-functioning waste disposal systems to safely dispose of the waste in order to safeguard the health and vitality of communities and their environments. The following participants' narrations attest to the challenge of a lack of access to adequate refuse services in informal settlements. This challenge is exacerbated by the fact that some informal settlements are physically inaccessible to refuse removal trucks owing to their haphazard layouts and location in marginal areas:

> "You find that…[in] informal settlements…there are no roads to [allow] access…Pick-it-up, the ones that are responsible for waste removal…only remove in the outskirts but the bulk of the waste is being dumped inside." [EHP 3 (SA)]

> "With the removal of waste for instance, that is a daily struggle. You find areas where waste has been put but the waste trucks are not able to access that area and that is due to the unplanned population of land and also to the fact that it is dense." [EHP 2 (Nam)]

Studies in Namibia (Beukes, 2019:7; Weber & Mendelsohn, 2017:80) and South Africa (SAHRC, 2014:40) ascertain the challenge of a lack of well-functioning waste

management systems and the dumping of waste in open spaces in informal settlments.

Theme 9: The intersections between a lack of basic services, poor health and environmental outcomes in informal settlements

A lack of access to basic services in informal settlements has social and environmental justice implications and is the major contributing factor to poor health and environmental outcomes in these communities. Participants noted the intertwined nature of social and environmental challenges in their communities as follows:

> "You…have environmental challenges that cause the social ones or …social challenges that cause…environmental [challenges]" [EHP 5 (Nam)]
>
> "I classify environmental health as…a social problem. When you don't have…adequate sanitation, you don't have sufficient water or you walk long distances to fetch water." [HSP 5 (Nam)]
>
> "There…[is] a link between these [challenges]…what is confronting us [is] in terms of an unclean environment, drug abuse, all those types of challenges…It is a vicious cycle…poverty is like a vicious cycle." [SW 3 (SA)]

Participants' views on the interconnections between social, economic and environmental challenges are in alignment with an assertion by the WCED (1987:16) that "a world in which poverty is endemic will always be prone to ecological and other catastrophes." They furthermore support findings by Rogge (2000:47) that "poor environmental conditions exacerbate, and are exacerbated by the conditions of living in poverty." The sub-themes that are associated with the intersections between a lack of basic services and poor health and environmental outcomes include; water borne disease outbreaks, land and water pollution, indoor and outdoor air pollution, the diminishing of natural vegetation in and around informal settlements, the dangers associated with illegal electricity connections; and vulnerability to shack fires.

Sub-theme 9.1: Water borne disease outbreaks

A lack of access to affordable safe drinking water, overcrowding and a lack of adequate sanitation produce a conducive environment for water borne and communicable disease outbreaks. A case that pertinently demonstrates this was an ongoing hepatitis E outbreak that started in Windhoek in 2017 but was only confined to informal settlements in Windhoek. The outbreak continued to take its toll by the time the study was conducted in 2019:

> "We are experiencing this hepatitis E outbreak, the lack of access to potable water and proper sanitation facilities is one of the major issues." [EHP 4 (Nam)]

> "We have been having a [hepatitis E] outbreak for more than six months…Unfortunately it's still ongoing." [EHP 1 (Nam)]

Although the informal settlements that were sampled in the study were not experiencing a hepatitis E outbreak at the time of data collection, the quantitative study sought to determine the extent to which disease outbreaks are common in the study areas. The results are displayed in Table 6.48 below.

Table 6.48: Household participants' views on the extent to which disease outbreaks are a common occurrence in their informal settlements (n=382)

		Country		Total (n=382)
		Namibia (n=192)	South Africa (n=190)	
Not at all	Count	10	120	130
	% within Country	5.2%	63.2%	34.0%
To a small extent	Count	11	16	27
	% within Country	5.7%	8.4%	7.1%
To a moderate extent	Count	18	3	21
	% within Country	9.4%	1.6%	5.5%
To a great extent	Count	25	5	30
	% within Country	13.0%	2.6%	7.9%
To a very great extent	Count	128	46	174
	% within Country	66.7%	24.2%	45.5%
Total	Count	192	190	382
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.48 above, the majority (66.7%, 128/192) of household participants in Namibia and almost a quarter (24.2%, 46/190) of household participants in South Africa, reported that disease outbreaks are to a very great extent a common occurrence in their informal settlements. Contrariwise, an overwhelming majority (63.2%,120/190) of household participants in South Africa and a small proportion (5.2%, 10/192) of household participants in Namibia reported that disease outbreaks are not at all common in their informal settlements. The findings were statistically significant ($p<0.05$) as evidenced by a score of $p=0.00$ on the Pearson Chi-Square test in SPSS. The findings show that the informal settlement communities in Namibia as opposed to South Africa were predisposed to disease outbreaks due to poor environmental conditions. The researcher attributes these findings to a lack of access to affordable and safe drinking water in the informal settlements in the study area in Namibia as the households had to purchase water but often resorted to drinking water

from unsafe sources, whereas water was freely available in the study areas in South Africa (see sub-theme 8.3 in this chapter). A lack of access to safe drinking water and adequate sanitation, coupled with eating contaminated food (see sub-theme 5.6 in this chapter), imply that informal settlement communities can simultaneously experience water and food borne disease outbreaks:

> "Before, we had all the other outbreaks we had the listeria…hepatitis E and…cholera [outbreaks]." [EHP 5 (Nam)]
>
> "Our concern as environmental health practitioners… [is that] we have already had several outbreaks of different communicable diseases in those [informal settlement] areas." [EHP 4 (Nam)]

At the root of the hepatitis E outbreak in Windhoek was drinking water that is contaminated with human waste:

> "The hepatitis E outbreak…is water borne…with the strain that we are dealing with…there are various things that you can look at, unsafe water sources…streams over flowing, sewage ponds…these are all possible reasons and of course the storage of water at individual households also indicated some discrepancies. After doing some sampling…we found some faeces [in the drinking water]" [EHP 2 (Nam)]
>
> "Now especially with this…hepatitis E outbreak, we sampled the…water receptacles that were being used in the homes, those were highly contaminated. We can see that the hygiene within the home is a major issu and that is also where the ventilation and lighting come into place. If they had proper housing, I think it could also mitigate some of that." [EHP 4 (Nam)]

From an environmental justice concern, waterborne disease outbreaks mainly occur in impoverished areas (Dominelli, 2014:134). The environmental justice issues associated with the hepatitis E outbreak in Windhoek is seen in that the outbreak was only confined to informal settlement areas:

> "In terms of environmental health, we really have challenges there. That's why you find this outbreak…of hepatitis E, it's just in the informal settlements." [EHP 1 (Nam)]
>
> "You know whenever a disease outbreak is in Windhoek the most areas that would be affected would be the informal settlements." [EHP 5 (Nam)]
>
> "[The] level of health in informal settlements is not yet at a level that we desire it to be. We have seen…the hepatitis E outbreak…it was mostly found in the informal settlements in Windhoek. And it somehow links to the inadequacy of services and sanitation we provide to informal settlements…Clean water and sanitation are still not at the level that we want but we are working towards that." [HSP 4 (Nam)]

The findings confirm reports of an ongoing hepatitis E outbreak in the informal settlements in Windhoek, which started in 2017 (New Era Reporter, 2018). The outbreak continued to take its toll in 2019 and had infected thousands and killed several informal settlement residents (Beukes, 2019:7). Globally, diseases transmitted through water or human waste are the second biggest cause of death amongst children (Green, 2012:92). Towards this end, SDG target 3.3 aims to end hepatitis and other water borne diseases by 2030 (UN, 2015b:16). Revitalised efforts are needed for the realisation of this SDG target, seeing that more than half of the global diarrhoeal disease burden is linked to unsafe drinking water and inadequate sanitation (UNESC, 2019:10). The findings show that overcrowded living conditions exacerbate the vulnerability of informal settlement communities to the risk of communicable disease outbreaks, which also prove difficult to contain in overcrowded environments:

> "If there is an outbreak of a communicable disease in those areas it spreads really, really, fast and then it is also because of the way the housing is designed and how closely they are to each other as well." [EHP 4 (Nam)]

In light of disaster preparedness and response, overcrowded living conditions in informal settlements have a profound negative impact on disaster response as emergency services often fail to navigate the tiny spaces that separate shacks in densely populated informal settlements:

> "Sometimes…a person is sick and then we call the ambulance, and then [the shack] is behind that house and this side it is closed and the other side it is closed and it is very difficult for them to pass and that person can even die." [Timothy, HP (Nam)]

> "Emergency medical services are struggling to access the houses and the roads because it's not demarcated properly...It's just that we never had a bigger disaster." [EHP 1 (SA)]

> "[In the event of] an emergency, maybe it's a house that caught fire, sometimes they try [to reach there] but the access is not there. Even during this hepatitis E outbreak, the minister had to declare some…houses to be removed to allow access." [EHP 3 (Nam)]

The challenges that disaster response teams experience in responding to emergencies in slum areas is well documented (Davis, 2006:127).

Sub-theme 9.2: Land and water pollution

The findings show that open defecation, flying toilets, raw sewage and dumping garbage into river beds and open spaces combined to cause significant land and water pollution and health risks in informal settlements. In light of a lack of adequate

sanitation some informal settlement residents construct makeshift toilets, which unfortunately cause significant water and land pollution as they drain into river beds and flow in and around people's homes:

> "[They] don't have sanitation facilities…We [have] had issues where people laid pipes that took the toilet water and whatever is flushed there into river beds." [EHP 2 (Nam)]
>
> "Sometimes, the sewage…spills off and then it goes near those houses and there is lots of unhealthy sewage there." [SW 2 (SA)]
>
> "[The sewage drains into] the river beds, whenever they overflow… [There are] houses…next to the riverbeds. So, when… [it floods] sewers will be everywhere." [Hilma, CP (Nam)]

Evidently, pollution has a deteriorating impact on human health and on children who are naturally inclined to play:

> "These riverbeds are always full of water…now these small kids are even going into that water that is not clean, that is even dirty and later on the kids are sick, they even taken to the hospital just because of playing in the dirty water." [Paul, CP (Nam)]
>
> "When waste is being blown by air and everything and some of it is just being dumped just by that stream…it will lead to water being contaminated and the children go and play there and that's where maybe they get water related diseases." [EHP 3 (SA)]
>
> "One [sewage] pipeline was broken, children were just playing there…They get sick, even now we have this disease…hepatitis." [NPO B1 (Nam)]

SDG target 3.9 calls for the mobilisation of global efforts in reducing the number of illnesses and deaths that arise from air, water and soil pollution and contamination (UN, 2015b:16).

Sub-theme 9.3: Indoor and outdoor air pollution

The findings show that a lack of access to clean forms of energy is associated with indoor and outdoor air pollution and incidences of respiratory illnesses and carbon monoxide poisoning amongst informal settlement communities. In the study areas, indoor air pollution was embedded in the use of firewood, coal and paraffin stoves:

> "Like now most of the people they only depend on firewood and it is even causing air pollution…Some they are using paraffin stoves which is [also] dangerous." [NPO B3 (Nam]
>
> "A typical household doesn't have electricity so they will naturally burn other fossil fuels to generate energy, so that leads to air pollution and the air quality in that environment then becomes very compromised." [EHP 4 (SA)]

Individuals and families also risked carbon monoxide poisoning as they used coal heaters indoors in an attempt to escape chilly winters and the poor ventilation in their homes exacerbated this risk:

> "[Some use] imbaula [coal]…the problem with imbaula…when it's cold is that people try, tend to put it in their shacks so as to warm their homes and people end up inhaling the fumes, and getting sick and probably dying as a result of [carbon monoxide poisoning]" [EHP 2 (SA)]

> "There is no ventilation [in the shacks] and they bring in coal there…It's a hazard." [EHP 1 (Nam)]

Indoor air pollution can also have a very damaging impact on children's development:

> "In terms of the way how kids are growing up…in terms of development, it affects them, you have kids here, they are supposed to study in such stuffy places [where there is indoor air pollution, where] there is lack of oxygen." [EHP 1 (Nam)]

Participants attributed outdoor air pollution in the study areas to the burning of rubbish due to a lack of refuse removal services:

> "We burn the [rubbish] and when we burn… [it] it causes air pollution that is dangerous to our lungs." [NPO B3 (Nam)]

> "Of which again it's still a problem to them because when they are burning it…It results in air pollution then they may end up suffering from respiratory diseases and things like that but all the problems are emanating from poor waste management." [EHP 3 (SA)]

Studies done in South Africa (SACN, 2016:193) and Namibia (GRN, 2015:18) demonstrate that burning wood and coal for energy is associated with indoor air pollution and poor air quality in informal settlements. Table 6.49 below, presents findings on the extent to which household participants in the quantitative study viewed air pollution as a challenge where they lived.

Table 6.49: The extent to which the household participants viewed air pollution as a challenge in their informal settlements (n=381)

		Country		Total (n=381)
		Namibia (n=191)	South Africa (n=190)	
Not at all	Count	8	54	62
	% within Country	4.2%	28.4%	16.3%
To a small extent	Count	12	49	61
	% within Country	6.3%	25.8%	16.0%
To a moderate extent	Count	20	17	37
	% within Country	10.5%	8.9%	9.7%
To a great extent	Count	22	12	34
	% within Country	11.5%	6.3%	8.9%
To a very great extent	Count	129	58	187
	% within Country	67.5%	30.5%	49.1%
Total	Count	191	190	381
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.49, the majority (67.5%, 129/191) of household participants in Namibia and a significant proportion (30.5%, 58/190) of household participants in South Africa viewed air pollution as a challenge in the informal settlements where they lived. A small proportion (4.2%, 8/191) of household participants in Namibia and 28.4% (54/190) of household participants in South Africa did not view air pollution as a challenge in their communities. According to a study by Evans (2002:77) the air and water that children in poor communities consume is mostly polluted, these communities also receive poorer municipal services and suffer greater physical deterioration. Globally, people living in poor communities are disproportionately exposed to cardiovascular and respiratory diseases due to indoor and outdoor air pollution, with sub-Saharan Africa being one of the worst affected regions, as the majority of people in this region utlise polluting fuels for cooking (UNESC, 2019:10).

Sub-theme 9.4: The diminishing natural vegetation in and around informal settlements

The cutting of trees for firewood contributes to the diminishing of natural vegetation in and around informal settlement communities. The practitioners in the study were clearly alarmed by the rate at which trees were being chopped for firewood by informal settlement communities:

> "It has come to the extent that the trees are not even having the appropriate time to grow to full age…What is happening is that people are actually chopping trees that are still…green which definitely shows that the sustainability is not going to last us." [EHP 2 (Nam)]

> "Deforestation of the greenery…the felling of trees…in some…informal settlements they have cut so much." [HSP 1 (Nam)]

The qualitative findings in Namibia show that the bigger an informal settlement grows in size, the more the trees that are chopped for firewood and this clearly has implications for environmental sustainability:

> "When it comes to cooking you will obviously see that they still make use of a lot of wood, which is also becoming a problem because the more the informal settlements grows…the more energy sources are needed." [EHP 2 (Nam)]

The findings also show that informal settlement communities are aware of the negative environmental impacts of cutting down trees in their communities but they feel powerless to change the situation because they lack access to any other energy alternatives:

> "We…go in the bush to get firewood…we are chopping all those bushes, we chop it out and not only dry wood, once we get it, we chop it and come use it…We want trees but there is no way we can survive because if we cannot go find wood then there is no way we can cook." [Petina, HP (Nam)]

> "Deforestation, yes it's going higher because we use wood to cook meals…We are struggling to survive, it's forcing us to do that. Not everyone can afford paraffin or gas, so that's what leads us to cut down trees and use for wood to cook, to warm up…No firewood, no eating." [Titus, HP (Nam)]

The indiscriminate chopping down of trees has an impact on efforts to conserve endangered tree species and more so as informal settlement communities cut down trees without planting more:

> "When you are told not to cut trees, protected species…what do I [they] do?... [they] go and cut even though it is protected." [EHP 3 (Nam]

> "And they don't replace trees when they are cutting." [Precious, CP (Nam)]

Instead of natural green sceneries, informal settlements in the study area in Namibia had a silver landscape which is made up of human made corrugated zinc iron structures such that informal settlements in Windhoek are often referred to as silver town:

> "Trees? They cut as they want…You can even see…how silver it is in that whole area. It's silver! Zinc covers the whole area! …They are really damaging the environment." [EHP 3 (Nam]

> "[They are] cutting off trees in such a way that we end up not having something green in that environment." [SW 3 (SA)]

> "This place is very arid...the little trees that we have people are cutting those and using them for firewood." [EHP 1 (Nam)]

To be sustainable, a community must "satisfy its needs [without]…exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs" (Morelli, 2011:24). The quantitative study examined the extent to which household participants in the study witnessed the continuous damage of the natural environment, which include the land, trees and natural water bodies in their communities. The findings are presented in Table 6.50 below.

Table 6.50: The extent to which household participants in the study witnessed the continuous damage to the natural environment in informal settlements (n=378)

		Country		Total (n=378)
		Namibia (n=192)	South Africa (n=186)	
Not at all	Count	13	53	66
	% within Country	6.8%	28.5%	17.5%
To a small extent	Count	29	62	91
	% within Country	15.1%	33.3%	24.1%
To a moderate extent	Count	23	21	44
	% within Country	12.0%	11.3%	11.6%
To a great extent	Count	19	21	40
	% within Country	9.9%	11.3%	10.6%
To a very great extent	Count	108	29	137
	% within Country	56.3%	15.6%	36.2%
Total	Count	192	186	378
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.50, a small proportion (6.8%, 13/192) of household participants in Namibia and over a quarter (28.5%, 53/186) of household participants in South Africa reported not at all witnessing the continuous damage of the natural environment in their informal settlements. Inversely, more than half (56.3%, 108/192) of household participants in Namibia and 15.6% (29/186) of household participants in South Africa reported witnessing the continuous damage to the natural environment in their communities to a very great extent. As noted, several decades ago by Yeld (1997:17), the goal of conservation cannot be realised without development to alleviate poverty and improve the welfare of both present and future generations.

Sub-theme 9.5: The dangers associated with illegal electricity connections

The findings show that illegal electricity connections in informal settlements are a major human made hazard that contribute to electrocutions and the loss of human life:

> "These illegal connections of electricity…can be very dangerous… if you walk in the informal settlements, sometimes you can even see that the wiring is not really placed under the ground, it's just running around all over." [HSP 3 (Nam]

> "There are incidents whereby people can burn because of illegal connections…there are wires on the… [ground] So, water sometimes is running on top. It's not safe even for social workers to go there." [SW 4 (SA)]

> "There we [have] many incidents of electrocutions caused by those illegal connections… [They run] under the bridge, sometimes it's within the storm water pipes… [where] the rain water is supposed to flow." [EHP 3 (Nam]

Although informal settlement residents are often aware of the dangers that are associated with illegal electricity connections, they often risk their lives for the sake of making their daily lives more comfortable:

> "[Illegal electricity connections] symbolises danger but those are the risks that we are willing to take because what? We want to be comfortable. Remember these houses, these informal settlements are not comforting to us. So, we need those things that will make us feel like at least we are somebody. [Donavan, HP (SA)]

> "There is a danger but…you don't do it yourself you call a qualified person. You don't ask for their papers as long as they say they are qualified." [Benjamin, HP (SA)]

News media in Namibia (Rasmeni, 2018; Smith, 2018) and South Africa (Mashaba, 2019; Moodley, 2019) are replete with stories of the dangers that are associated with illegal electricity connections in informal settlements and how local authorities' efforts to disconnect the illegal power supplies are often short lived as communities usually reinstate the power supply shortly after.

Sub-theme 9.6: Vulnerability to shack fires

Informal settlement communities are susceptible to shack fires that are rooted in a lack of access to safer forms of energy and which destroy homes and contribute to the loss of life:

> "People use…heaters… [and] candles. So, there is a lot of fires and shacks burning and kids dying and things like that." [NPO C1 (SA)]

> "Because people don't have electricity, they tend to use candles which is also a danger…you [will] hear of this incident of the shack that burnt and the children have died in that shack." [SW 1 (Nam)]

> "Two weeks back because of illegal connections, we had to bury one child because the whole house has burnt…only to find that…it was illegal electricity." [Michelle, HP (SA)]

Household participants pointed out the dilemma of knowing that the candles and paraffin they utilise in their homes predisposes them to shack fires but not having any other energy alternatives:

> "There are many problems, sometimes if you are sleeping, if the candle finishes, you end up in the fire and then from there if you don't have the money to buy the candles, there is no way that you are going to sleep in the darkness." [Olivia, HP (Nam)]

> "For us now, the person who is not working, it's really difficult. Using the candles, the houses are burning…using this paraffin lights [costs] money also." [Petina, HP (Nam)]

Overcrowding in informal settlements increases the vulnerability of communities to shack fires as when a fire breaks out, many shacks are destroyed in no time:

> "You find in some cases that these shacks are built in such a way that they are close to each other. So, in winter when people are trying to warm each other with firewood or some other heating mechanisms, if one shack catches fire, in no time the entire place will be up in smoke." [EHP 4 (SA)]

> "We are crowded…when there is a fire, even five or ten houses can just burn in one day." [NPO A1 (Nam)]

> "The way we are staying, there isn't enough place. We are squeezed together and sometimes when a Kambashu [shack] for someone gets fire, it's easy…for four or five mbashus to burn at the same time." [NPO B3 (Nam]

The findings support an observation by Davis (2006:127) that the extraordinarily high population densities in informal settlements and the flammable nature of their dwellings can often turn a simple fire accident into a mega-fire that destroys many shacks. The burning of shacks and the loss of the few hard-earned possessions of informal settlement communities creates extreme despair amongst communities who are already living in poverty:

> "When a shack burns, they lose everything and sometimes people lose lives because of these hazards." [SW 2 (Nam)]

> "They didn't insure their houses…they lose everything…worst part of it, maybe when their houses are burning, there is no one working." [Favour, HP (SA)]

> "Most of the residents here in Orange Farm…don't have proper housing…most of them utilise this free space to build their housing.

> Maybe that was their last hope that they had…so when these hazards come…they become homeless." [Donavan, HP (SA)]

The findings therefore show that shack fires endanger people's lives and exacerbate poverty by destroying the few tangible assets that informal settlement communities can claim ownership of. Table 6.51 below, presents information on the extent to which the practitioners in the study viewed shack fires as a challenge in the study areas.

Table 6.51: The extent to which practitioners in the quantitative study viewed shack fires as a challenge in informal settlements (n=51)

		Country		Total (n=51)
		Namibia (n=28)	South Africa (n=23)	
Not at all	Count	0	4	4
	% within Country	0.0%	17.4%	8.7%
To a small extent	Count	2	7	9
	% within Country	7.1%	30.4%	18.7%
To a moderate extent	Count	5	5	10
	% within Country	17.9%	21.7%	19.8%
To a great extent	Count	8	3	11
	% within Country	28.6%	13.0%	20.8%
To a very great extent	Count	13	4	17
	% within Country	46.4%	17.4%	31.9%
Total	Count	28	23	51
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.51, just less than half (46.4%, 13/28) of practitioners in Namibia and 17.4% (4/23) of practitioners in South Africa reported that shack fires are to a very great extent a challenge in informal settlements in the study areas. Conversely, 30.4% (7/23) of practitioners in South Africa and 7.1% (2/28) of practitioners in Namibia reported that shack fires are to a small extent a challenge in the informal settlements in the study areas. Table 6.52 below presents information on the extent to which household participants experienced shack fires in their informal settlements that are attributed to the use of candles and paraffin stoves.

Table 6.52: The extent to which household participants in the study witnessed shack fires that are attributed to candles and paraffin stoves (n=379)

		Country		Total (n=379)
		Namibia (n=191)	South Africa (n=188)	
Not at all	Count	5	30	35
	% within Country	2.6%	16.0%	9.2%
To a small extent	Count	7	100	107
	% within Country	3.7%	53.2%	28.2%
To a moderate extent	Count	9	21	30
	% within Country	4.7%	11.2%	7.9%
To a great extent	Count	23	16	39
	% within Country	12.0%	8.5%	10.3%
To a very great extent	Count	147	21	168
	% within Country	77.0%	11.2%	44.3%
Total	Count	191	188	379
	% within Country	100.0%	100.0%	100.0%

As displayed in Table 6.52, the majority (77% 147/191) of household participants in Namibia and 11.2% (21/188) of household participants in South Africa reported that their informal settlements experience shack fires that are attributed to candles and paraffin stoves to a very great extent. Inversely, the majority (53.2%, 100/188) of household participants in South Africa, and 3.7% (7/188) of household participants in Namibia reported that their informal settlements experience to a very small extent shack fires that are attributed to candles and paraffin stoves. Overall, the findings point to the great risk of fire hazards that informal settlement communities are exposed to due to a lack of safe sources of energy.

6.9 Summary

This chapter has presented the empirical findings on the social, economic and environmental challenges for sustainable development amongst informal settlement communities in Namibia and South Africa. The findings show that there are commonalities in relation to the social, economic and environmental challenges in informal settlements in the study areas. These challenges are underpinned by inequitable development processes that prompt people to migrate to urban areas in the hope of securing employment and better living conditions. However, in urban areas individuals living in poverty cannot afford access to land and decent housing and often secure low paying jobs due to a lack of education. As the social and economic opportunities that are available in urban areas are not readily available to all people, socially and economically excluded communities are prompted to live in informal settlements. However, informal settlements inherently lack the basic services that are

needed for leading decent and healthy lives. Furthermore, informal settlement communities often encroach on and build shacks in ecologically sensitive and geographically built environments and this has a deteriorating impact on the well-being of communities and the natural environment. Chapter Seven presents, analyses and compares the research findings on the interventions that promote environmental and community sustainability for the informal settlement communities in the study areas.

CHAPTER 7

EMPIRICAL FINDINGS ON THE INTERVENTIONS THAT PROMOTE THE SOCIAL, ECONOMIC AND ENVIRONMENTAL DIMENSIONS OF SUSTAINABLE DEVELOPMENT AMONGST INFORMAL SETTLEMENT COMMUNITIES

7.1 Introduction

In Chapter Six, the researcher presented findings that relate to the challenges for sustainable development amongst informal settlement communities. In this chapter the researcher presents findings on the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities. Following the presentation of the findings, the chapter ends with a conclusive summary.

7.2 Themes and sub-themes

Table 7.1 below presents the themes and sub-themes that capture the study's qualitative and quantitative findings on the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlements communities in Namibia and South Africa.

Table 7.1: Themes and sub-themes

Themes	Sub-themes
1. The transition to sustainable and environmentally sustainable informal settlement communities	1.1 Participants' vision for sustainable communities and environments 1.2 Multi-sectoral collaborative partnerships 1.3 The imperative for community participation in development processes 1.4 Political will and commitment to transform informal settlements
2. The challenges that hamper the promotion of social, economic development and environmental	2.1 A lack of multi-sectoral collaboration amongst service providers 2.2 A lack of human and financial resources

protection in informal settlements	2.3 A micro-level social work practice approach that limits social change
3. Practitioners' roles in promoting social, economic development and environmental protection in informal settlements	
4. Interventions that tackle poverty amongst informal settlement communities	4.1 Social protection provisions 4.2 Initiatives that assist children and adults in acquiring identity documents 4.3 Motivational programmes
5. Interventions that promote access to land and adequate housing	5.1 RDP public funded housing in South Africa 5.2 Self-help group savings schemes in Namibia 5.3 Informal settlements upgrading in Namibia and South Africa 5.4 Flexible land tenure provisions
6. Interventions that contribute to food security	6.1 Vegetable gardening projects 6.2 School feeding programmes 6.3 Soup kitchens 6.4 Food banks 6.5 The role of social support networks in minimising hunger
7. Interventions that create opportunities for employment	7.1 Training in starting and running small scale businesses 7.2 Cooperatives 7.3 Training in technical and vocational skills 7.4 Public works programmes 7.5 Microenterprises
8. Interventions that increase access to formal and informal education opportunities	8.1 Free primary and secondary school education 8.2 The building of more schools in and around informal settlement areas 8.3 Early childhood development programmes 8.4 After school programmes 8.6 Bridging schools and adult literacy programmes
9. Interventions that contribute to	9.1 Environmental health education and surveillance programmes 9.2 Recyclable waste picking

environmental sustainability	9.3 Initiatives that empower communities to safeguard water 9.4 Energy solutions that do not degrade or pollute the environment 9.5 Initiatives that reduce incidences of shack fires 9.6 Interventions that improve access to sanitation

Theme 1: The transition to sustainable and environmentally sustainable communities

The transition to sustainable and environmentally sustainable informal settlement communities requires multi-sectoral collaborative partnerships, purposely crafted interventions that promote social and economic inclusion and environmental protection, political will and commitment. The sub-themes associated with this theme include; participants' vision for environmental and community sustainability for informal settlement communities, multi-sectoral collaborative partnerships, the participation of informal settlement communities in development processes, political will and commitment to transform informal settlements.

Sub-theme 1.1: Participants' vision for sustainable communities and environments

Participants' vision for sustainable communities and environments was embedded in affording informal settlements communities with access to adequate housing, water, justice, health, employment and education opportunities and maintaining the vitality of the natural environment:

> "It's about making sure that people have all the basic needs, starting with housing, starting with education. It starts with health…they don't have to worry about what will I do next." [SW 1 (Nam)]
>
> "To be sustainable [informal settlement communities] need water, they need food, the environment must be healthy and then…the issue of work and other things." [EHP 4 (A)]
>
> "A place where the youth are employed, there is justice…health facilities, libraries, kids can go to school. Yes, that's the Orange Farm we are talking about." [NPO C4 (SA)]

It is evident from participants' narrations that the goal to realise environmental and community sustainability for informal settlement communities is a multi-pronged endeavour that requires concerted efforts by various sectors in advancing social, economic and environmental justice for poor communities. Given the complexity of the

social, economic and environmental challenges in informal settlements, some participants were of the view at realising this goal and the SDGs in particular, were all but lofty endeavours:

> "We would wish that we could have these sustainable communities…but it's a dream." [SW 1 (Nam)]

> "[In terms of realising sustainable communities] I don't think we are doing very well and honestly; I don't think many of these things [the SDGs] will be attained by the time they are supposed to be attained. We are definitely working at them, we are definitely trying, from the city's side, from the government's side but there is still a lot of work to be done." [EHP 2 (Nam)]

With multi-sectoral collaborative partnerships that focus on the needs of the poorest and most vulnerable communities in particular, making cities inclusive, safe, resilient and sustainable and ensuring access for all people to adequate housing and basic services can be realisable (UN, 2015b:21).

Sub-theme 1.2: Multi-sectoral collaborative partnerships

The transition to sustainable informal settlement communities and environments requires collaborative partnerships between various sectors and stakeholders, which include the government, the private sector, NPOs, children and adults living in informal settlements and pooling together of human, technological, financial, infrastructural and other resources:

> "We need interventions from all stakeholders, be it government, be it NGOs, be it foreign investors. They need to come on board then we can tackle the issue of transition of informal settlements to formal settlements… [Local authorities] cannot do it on their own. We need funds, we need people to come and donate…[If] interventions are really…integrated...I think we can make it." [HSP 2 (Nam)]

> "If we can take hands…with our line ministries and all these other organisations working with human rights, working with poverty, working with education, working with health…we can really approach…informal settlement communities in an effective manner." [SW 2 (Nam)]

The *2030 Agenda* emphasises collaborative partnerships and an interdisciplinary response that brings together governments, civil society, the private sector, communities and other actors and the mobilisation of resources in promoting peace, prosperity and the well-being of both humanity and the planet (UN, 2015b:26). The utility of partnerships lies in the fact that no one actor can have all the knowledge, skills and resources that are needed to address the multifaceted challenges in informal settlements. Stibbe, Reid, Gilbert, the Partnering Initiative and UNDESA (2018:6) are

of the view that the fundamental core of good partnerships is their ability to bring together diverse resources in ways that can together achieve more impact, greater sustainability, increased value to all. It is also important for partnerships to adopt a human-based approach in addressing the complex social, economic and environmental challenges in informal settlements, as a child participant in Namibia said he would do:

> "If I was a councillor…I [would] …provide protection for this community…I will… make…[sure] that each and every person is having the same rights and those rights are protected. I will make sure that each and every person is… [treated] equal." [Paul, CP (Nam)]

In an increasingly unjust world, human rights are essential for the realisation of sustainable development (OHCHR, 2018). Human rights are universal, equal, indivisible and interdependent moral principles that impose legal obligations on states and state actors for their fulfilment (OHCHR, 2006:1). They "represent an important rallying cry for those seeking to bring about a more just, peaceful and sustainable world" (Ife, 2012:9-10). The three generations of human rights framework outlines, the full range of human rights, which stakeholders can draw from in holding authorities accountable for the protection and fulfilment of sustainable development outcomes for informal settlement communities.

Sub-theme 1.3: The imperative for community participation in development processes

Achieving sustainable communities and environments requires people's agency and democratic processes that empower marginalised communities to have a say in the development that is intended to benefit their communities and in finding solutions to their challenges alongside other partners. Informal settlement communities know best what a sustainable future would look like for them and should be consulted and have their views respected and incorporated into decision making:

> "In order to achieve…sustainable issues we need to somehow understand communities, because they know their context better than us, we are more of the outsiders. So, sometimes we come and impose things on them that they don't see as viable and that's why it leads to unsuccessfulness of projects" [HSP 4 (Nam)]

> "We shouldn't think for [the communities] because when we think for them, we end up having white elephants. We need to get in touch with them and provide [services] according to their needs…If we listen to what they are saying…definitely we will win the battle." [SW 4 (SA)]

It is acknowledged by the IUCN et al. (2009:12) that sustainable development requires the participation of local communities in partnership with national and global stakeholders that pursue the dual goals of development and conservation. Patel (2015:92) argues that development should be people centred and this requires the participation and active involvement of all people in social and community life. Dominelli (2012:203) views democratic practices as providing the means through which all voices are included in discussions about their communities.

Sub-theme 1.4: Political will and commitment to transform informal settlements

The transition to sustainable and environmentally sustainable communities requires high-level political will and commitment. UN-Habitat (2003:5) argues that, "the most important factor that limits progress in improving housing and living conditions of low-income groups in informal settlements…is the lack of genuine political will to address the issue in a fundamentally structured, sustainable and large-scale manner." In view of the need for political will and commitment to transform informal settlements into sustainable communities, participants argued that:

> "If we change…[the] political will…and support, we will be able to transform informal settlements in a short period of time…If there is a political will to contain land invasions and also political will to transform informal settlements, there will be resources available for this particular purpose and that is what is needed." [HSP 5 (Nam)]

> "The government actually… [is] supposed to lead us…in terms of making sure that there is sustainable development in those informal settlements because with us as the foot soldiers there is nothing that we can do if those people are not provided with the services." [EHP 1 (SA)]

As noted by RSA (2008:15) the social, economic and environmental dimensions of sustainable development are embedded in each other within a governance system that upholds all three dimensions. As such, systems of governance are important for implementing sustainable development and for regulatory and oversight activities. The realisation of sustainable and environmentally sustainable informal settlement communities requires governments to fulfil their commitments to the *2030 Agenda* (UN, 2015b), in addition to other legislative and policy frameworks for sustainable development, as outlined in Chapter Four (sub-section 4.3).

Theme 2: The challenges that hamper the implementation of interventions that promote the social, economic and environmental dimensions of sustainable development in informal settlements

The sub-themes that emerged from this theme include a lack of human and financial resources and of appropriate theoretical and practice frameworks for intervening in poor communities.

Sub-theme 2.1: A lack of multi-sectoral collaboration amongst service providers

While achieving sustainable and environmentally sustainable informal settlement communities require partnerships, the findings point to a lack of multi-sectoral collaboration in planning and implementing interventions in informal settlements:

> "People are not working together towards a common goal. I think that is the same for the nation…they are not taking that aim together, there is no proper collaboration…with that we are…lagging behind." [EHP 4 (Nam)]

> "If there can be intersectoral collaboration between the municipality and…NGOs in planning and implementation…to formalise those informal settlements that can help…everyone is doing [their] own thing. There is no intersectoral collaboration but if that can be…practised, I think we can have something to come to those informal settlements and develop them or formalise them." [EHP 3 (SA)]

For Benjamin, a household participant in South Africa, who also ran his own NPO in Orange Farm, a lack of collaboration meant that organisations often duplicated interventions instead of maximising their resources by working together towards a common vision:

> "We need to have a forum, an NPO forum sort of…we are scattered…If we can meet, I think we can have a common vision. Sometimes we, how do I put this? Sometimes we duplicate things." [Benjamin, HP (SA)]

Stibbe et al. (2018:7) argue that in spite of the rhetoric around collaboration, sufficient impact has yet to come out of partnerships as a mechanism for sustainable development. For these authors, many of the partnerships that exist are far from fully delivering on their potential, as they may not be using the right approach for the context or may not be set up and running as efficiently and effectively as they need to be. They furthermore caution against entering into partnerships merely based on the fact that collaboration is a good thing, without paying sufficient attention to the intrinsic added-values that the partnerships bring.

Sub-theme 2.2: A lack of human and financial resources

A lack of human and financial resources evidently impacts on the implementation of interventions that promote sustainable communities and environments:

> "People are many that need assistance and when it comes to resources, we don't have any. And you have projects that sometimes you want to implement but because you do not have enough resources to cover as many people as you can." [SW 1 (Nam)]

> "Even though there are efforts that are being made by the government…I don't think it's reaching the ones that are truly in need…and also the resources that are available, I don't think it's balancing out." [EHP 4 (Nam)]

> "It's difficult to make sure that we get water to everyone with the resources that are available." [EHP 4 (Nam)]

The human and financial resource challenges that were cited by participants in the study attest to the fact that no one profession can adequately tackle the complexity of social, economic and environmental challenges in informal settlements. This accounts for the reason why the UN (2015:26) encourages "the building of multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals." According to Stibbe et al (2018:8) the essence of partnership as a sustainable development tool is the belief that working in partnership will achieve outcomes that no single organisation could achieve working independently and that partnerships can bring together resources from different actors from all sectors that are each essential for the realisation of sustainable development.

Sub-theme 2.3: A micro-level social work practice approach that limits social change

The findings point to a micro-level practice approach and organisational priorities that relegate social workers to counselling interventions:

> "Some organisations are casework oriented and obviously you know already that social workers would not…do community projects." [SW 1 (Nam)]

> "The thing that can work for people is…if social workers can…to do more of community work and group work." [SW 3 (SA)]

The findings corroborate findings from a study by Chiwara and Lombard (2017:572) that there is a lack of recognition of the developmental role that social work could play in national development efforts, more especially as social work practice in Africa is still

associated with its traditional micro-level role. While the importance of counselling can never be underestimated, there is a limit to what therapeutic interventions can achieve in contexts that are characterised by poverty, unemployment and hunger. As such, social work interventions should empower poor communities with the skills and support systems that are needed to escape poverty:

> "I think we still need to work with them individually…but in terms of prevention and education, we really need to take our programmes to them, strive as much as possible to have… [macro level] programmes." [SW 3 (SA)]

> "If you are unemployed…I call you for a group therapeutic session? …Let's be practical! …You need something concrete. When you get home your wife asks you…what do we eat? What do you offer? Social workers...Talks are meaningless nowadays." [SW 1 (SA)]

> "Even if we take them to rehab the challenge is that we don't have an exit strategy. Some when we talk to them, they will tell you that I don't want to use drugs but I'm unemployed. That's how I got into this, because it doesn't help for them to go for rehab and at the end of the day back to the same situation." [SW 4 (SA)]

An NPO practitioner in Namibia could not have agreed more with the above highlighted assertions:

> "We have parents that are abusing alcohol…we need to…encourage them and teach them, train them and give them skills on what they can…start a small business…to do something that can reduce poverty." [NPO B3 (Nam)]

Social work's micro level remedial focus is rooted in the fact that social work practice in Africa continues to be rooted in western problem-solving models that are not the most appropriate models in countries such as Namibia and South Africa where poverty and social and economic inequality are the underlying factors to the many challenges that social service users experience:

> "We are relying on the old [western] theories… [which] are not even tailor made to respond to the South African need…For us to be able to respond to the needs of the community… [social service users] need to know that we are talking tangible, we are talking issues that are realistic. We are not talking social work of the olden days…let's move, let's move, lets evolve." [SW 1 (SA)]

Social work practice in Africa should be decolonised, as western theories are particularly limiting for use in poor communities. As such, social work theories, education and practice should continuously be reviewed in light of changing global and local contexts. Midgley and Conley (2010:5) consider social work's conventional

remedial focus as inadequate in view of realising the profession's social change goals, which call for macro level practice interventions that include advocacy, lobbying, policy practice and organising. Sheafor and Horejsi (2012:59) argue that social workers should avoid using social work theories and practice frameworks in an uncritical manner as the concepts, beliefs and assumptions from which these frameworks are constructed must be continually re-examined and tested against changing times and new research findings. In view of the multifaceted challenges in informal settlements, developmental social work practice is "best suited to intervening in situations of poverty and under-development, within which community development, rather than casework" is the most appropriate method of strategic intervention (Gray et al., 2017:2). Weyers (2011:54) reports that developmental social work transcends micro level rehabilitation and counselling and utilises strengths and non-discriminatory approaches to enhance social functioning, prevent social problems and develop human and social capital that enables people to realise the fullness of the potential that exists within them.

Theme 3: Practitioners' roles in promoting social and economic development and environmental protection in informal settlements

The practitioners who participated in the study were comprised of professionals and community activists whose fields of work included town planning, housing, land surveying, environmental health, social work and childhood development. Their individual and collective roles in informal settlements were analysed in the quantitative study to determine the scope of interventions that advance social, economic and environmental justice for informal settlements communities. The findings are displayed in Table 7.2 below.

Table 7.2: The practitioners' roles in informal settlements[1]

		Country		
		Namibia (n=28)	South Africa (n=23)	Total (n=51)
Counselling	Count	1	5	6
	% within Country	2.4%	9.1%	11.5%
Disaster relief	Count	0	1	1
	% within Country	0.0%	1.8%	1.8%
Life skills training	Count	0	10	10
	% within Country	0.0%	18.2%	18.2%
Informal settlements upgrading	Count	9	5	14
	% within Country	21.4%	9.1%	30.5%
Environmental health education	Count	10	9	19
	% within Country	23.8%	16.4%	40.2%
Environmental health surveillance	Count	5	7	12
	% within Country	11.9%	12.7%	24.6%
Hunger alleviation projects	Count	3	3	6
	% within Country	7.1%	5.5%	12.6%
Early childhood development	Count	7	7	14
	% within Country	16.7%	12.7%	29.4%
Income generating projects	Count	2	5	7
	% within Country	4.8%	9.1%	13.9%
Alcohol and drug rehabilitation	Count	1	3	4
	% within Country	2.4%	5.5%	7.9%
Other	Count	4	0	4
	% within Country	9.5%	0.0%	9.5%
Total	Count	42	55	97

As displayed in Table 7.2, the roles that the practitioners who took part in the quantitative phase of the study assumed fell into 11 broad categories, which included, among others, counselling, disaster relief, life skills training, informal settlements upgrading, environmental health education, environmental health surveillance, hunger alleviation, early childhood development, income generating projects, alcohol and drug rehabilitation roles. The roles that the practitioners assumed have socio-economic upliftment and environmental foci, which are critical in advancing sustainable development outcomes for informal settlement communities. The most common role that practitioners in Namibia rendered was environmental health education (23.8%, 10/42), while in South Africa, it was life skills training (18.2%, 10/55). Although none of the practitioners in Namibia indicated rendering disaster relief and life skills training, these two roles could easily be subsumed under all the other highlighted categories. The practitioners' roles are incorporated into the discussion of the interventions that are implemented to address the social, economic and

[1]The frequencies in Table 7.2 above reflect answers to a multiple response question on practitioners' roles in informal settlements and indicate the number of times each response was mentioned by participants. Although few of the practitioners ticked only one response, there were others who ticked more than one response.

environmental challenges in informal settlements in the study areas in Namibia and South Africa, which constitute the rest of this chapter's themes and sub-themes.

Theme 4: Interventions that tackle poverty amongst informal settlement communities

In view of addressing the multi-faceted challenges that are associated with poverty in informal settlements, a human settlements practitioner in Namibia recognised the need for a comprehensive approach that taps into the unique knowledge and skills of a variety of actors:

> "Poverty is very high especially in informal settlements...The issue is related to poverty eradication and social upliftment…We the planners [alone] cannot [respond to] …social issues because our studies were not related to these…Even when we are upgrading [informal settlements] we are not only upgrading the land, all the other issues should follow." [HSP 3 (Nam)]

In addition, an examination of the root causes of poverty, as opposed to a mere focus on its manifestations can act as the foundation upon which effective poverty eradication interventions are built:

> "Poverty is something that started long ago, if we want to address it, we have to look back to the roots of it and change…that." [Pear, CP (Nam)]

As poverty underpins a wide-array of other social, economic and environmental challenges, addressing poverty produces an enduring ripple effect that helps to reduce the other challenges that is associated with it:

> "Once you intervene on the issue of poverty, a lot of things that are a result of poverty automatically…go away because the root cause has been removed." [SW 1 (SA)]

The NPOs that were engaged in the study had a predominant child centred focus. They actively worked to enhance the well-being of orphans and vulnerable children through the provision of meals, life skills education and other social support services. These interventions were directed at breaking the cycle of poverty in poor communities and empowering children in these communities to have better futures:

> "Hope initiatives is a non-profit-making organisation that provides meals, education and support for children in the informal settlements of Namibia which have been have been hard…[hit] with this AIDS epidemic…Our vision is bringing a model that would break the cycle of hunger and poverty." [NPO A1 (Nam)]

> "Camp Sizanani is looking at orphans and vulnerable children, child headed, HIV positive infected and affected kids... giving them the hope

> that…whatever you are going through in your life, there is still a better future for you..." [NPO C2 (SA)]

Collectively, the NPOs in the study worked to ensure that children living in informal settlements enjoyed their right to survival through the provision of meals, the right to development and participation through improving children's access to education and children's right to protection through interventions that support and safeguard children against HIV and teenage pregnancies. The interventions that were rendered by the NPOs in the study have links with the rest of the themes that are discussed in this chapter. Interventions, as defined by Midgley (2014:15) consist of plans, policies, programmes and projects that are deliberately implemented within specific socio-spatial settings, with the view of enhancing human well-being. Interventions that contribute to the social and economic upliftment of informal settlement communities are important seeing that poverty remains a dominant challenge in these communities. The sub-themes that are related to the interventions that tackle poverty amongst informal settlement communities include; social protection measures, programmes that assist children and adult informal settlement residents in acquiring identity documents and motivational programmes.

Sub-theme 4.1: Social protection provisions

Various social protection measures were implemented in the study areas in Namibia and South Africa and these included burial assistance, social grants, school feeding programmes, free education and the provision of stationery, toiletries and school uniforms to children from poor households. School feeding programmes will be discussed in greater depth under theme 6 in this chapter, which examines the interventions that promote food security. Likewise, free education and the provision of school uniforms, stationery and toiletries will be discussed under the interventions that promote the right to education in theme 8. Indigent and pauper burials were specifically offered in the study area in South Africa after an assessment by a social worker to assist poor households who could not bury their loved ones:

> "We have the…indigent burial that the city is offering. If a South African [national] dies and they cannot afford to bury, the city shoves in…We've [also] got pauper's funeral, [where we] …bury [someone]…when nobody claims the body." [SW 1 (SA)]

> "For those clients who don't have enough money to bury their loved ones, we assist also so that they are able to bury their loved ones." [SW 2 (SA)]

Nationwide state sponsored social grant programmes are implemented in both study areas in Namibia and South Africa to uphold the well-being of vulnerable children and adults. Social grants constitute a proven intervention that addresses the multi-faceted goals of "poverty reduction, social protection, fighting social exclusion [and] promoting human rights…" (Hall & Midgley, 2004:9). The positive impact made by social grants was seen in terms of increasing the purchasing power of poor households:

> "Namibia is trying…at least people are getting that money [social grants] and going to town and buy their stuff." [Olivia, HP (Nam)]

Social grants also minimise food insecurity and hunger in poor households:

> "Nowadays, this social grant is helping us…before there were houses which …[would] sleep on an empty stomach…Even though it doesn't sustain that much, at least you can sleep on a full stomach." [Michelle, HP (SA)]

In view of better targeting social grants, the government in Namibia made the decisive decision to extend access of the child maintenance grant to all vulnerable children, as previously it was only meant for orphaned children. This measure was in view of minimising the dire circumstances under which all vulnerable children live:

> "[The Ministry of] Gender Equality…used to give that [child support] grant for orphans but now it is giving to [all] vulnerable children…Some [of their parents] are working but the salary is too little." [NPO A3 (Nam)]

State sponsored social grant measures demonstrate governments' clear commitment to tackling poverty:

> "[With] social grants, you can see that…something is being done to try to address poverty." [EHP 1 (Nam)]

However, the extent of poverty and deprivation in the study areas meant that for some households, child support grants were their only source of income:

> "What I have learnt since I have worked with community people they say if we are not employed, then we make babies and if we make babies then we have a social grant. So, they make babies so that their grant money increases." [NPO C3 (SA)]

> "Some of them, for the grant situation and because a child stops getting a grant at 16 or 18. So, then they will try to cover up by having another child so that the money doesn't stop. So, it is a survival thing and it's sad though." [NPO C1 (SA)]

The dependence by some households on a single family member's social grant diminishes their intended value:

> "There are families where the child support grant is supporting a family of like of 6 to 7 people…and there is no one working at home. Now for them to survive, it's from the social grant." [NPO C2 (SA)]

Table 7.3 below presents findings on the proportion of child participants in the quantitative study who benefited from government social grants.

Table 7.3: The proportion of child participants in the quantitative study who benefited from government social grants (n=97)

			Namibia (n=56)	South Africa (n=41)	Total (n=97)
Do you get a social grant from the government to help care for you?	No	Count	40	9	49
		% within Country	71.4%	22.0%	50.5%
	I don't know	Count	5	2	7
		% within Country	8.9%	4.9%	7.2%
	Yes	Count	11	30	41
		% within Country	19.6%	73.2%	42.3%
Total		Count	56	41	97
		% within Country	100.0%	100.0%	100.0%

As displayed in Table 7.3, the vast majority (73.2%, 30/41) of child participants in South Africa and 19.6% (11/56) of the child participants in Namibia benefited from government social grants. Conversely, the majority (71.4%, 40/56) of child participants in Namibia and 22% (9/41) of the child participants in South Africa were not social grant beneficiaries. These findings are statistically significantly ($p<0.05$) as evidenced by a score of $p=0.00$ on the Pearson Chi-Square test in SPSS, as only a few child participants in Namibia had access to social grants as compared to those in South Africa. These findings point to the need to increase the coverage of social grants to vulnerable children living in the informal settlements in Namibia. The proportion of household participants in the quantitative study and their household members who benefited from government social grants is presented in Table 7.4 below.

Table 7.4: The proportion of household participants and their household members who benefit from government social grants (n=382)

Country			Frequency N	Percent %	Valid Percent %	Cumulative Percent %
Namibia	Valid	0	149	77.6	77.6	77.6
		1	31	16.1	16.1	93.8
		2	9	4.7	4.7	98.4
		3	2	1.0	1.0	99.5
		4	1	.5	.5	100.0
		Total	192	100.0	100.0	
South Africa	Valid	0	65	34.0	34.2	34.2
		1	41	21.5	21.6	55.8
		2	51	26.7	26.8	82.6
		3	19	9.9	10.0	92.6
		4	9	4.7	4.7	97.4
		5	3	1.6	1.6	98.9
		6	1	.5	.5	99.5
		8	1	.5	.5	100.0
		Total	190	99.5	100.0	
	Missing		1	.5		
	Total		191	100.0		

The quantitative survey results as displayed in Table 7.4 show that more than three quarters (77.6%, 149/192) of the household participants in Namibia and their household members were not social grant beneficiaries. This is compared to just over a third (34%, 65/191) of household participants in South Africa and their household members who indicated not being social grant beneficiaries. The findings are consistent with the pattern observed amongst the child participants (see Table 7.3 above), as more participants in Namibia than in South Africa were not social grant beneficiaries. Looking at the rest of the figures, the fact that the household participants reported that as many as four of their household members in Namibia and eight household members in South Africa are social grants beneficiaries point to the extent of vulnerability in their households.

The instrumental role that social protection plays in bridging the gap between vulnerable and non-vulnerable groups in society is well acknowledged (Ortiz, 2007:53). Developmental social work scholars (Lombard, 2008:121; Midgley, 2014:175) concur that social protection provisions that are targeted on poor households alleviate poverty and inequalities and increase the consumption levels in poor households. As noted by Oxfam (2014a:102), social protection is not only important for reducing economic inequality but it contributes to making society as a whole more caring and egalitarian. While Turok et al. (2017:3) agree that the provision

of social grants to poor households lowers the incidence and intensity of poverty in poor households; they argue that in South Africa, the underlying structure and dynamics of income and wealth distribution remain unchanged. This reality calls for the integration of various interventions that tackle the root causes of social and economic inequalities.

Sub-theme 4.2: Initiatives that assist children and adults in acquiring national identification documents

The findings reveal the need for interventions that assist informal settlement communities in acquiring birth certificates and identity documents, as a lack of identification documents can perpetuate itself and transmit poverty across generations of parents, their children and grandchildren. It furthermore bars the poor from accessing a wide range of social and economic opportunities that are meant to tackle poverty:

> "[For] those parents [that] don't have identity documents, it's difficult for their kids to have birth certificates…to get [a social] grant you will need to have an identity document." [NPO B3 (Nam)]

> "We have a lot of those children [who do not have birth certificates] ...The problem is here, some parents they don't have … [identity] documents and then…their children now they are not getting their birth certificates." [NPO B2 (Nam)]

Judith, a household participant in Namibia and her family typified the intergenerational poverty that is transmitted through a lack of identity documents as she, her mother and daughter all did not have identification documents:

> "I would want to get birth certificates for me and my child and my mother and I would want to go…to school and I also want my child to go also to school." [Judith, HP (Nam)]

Judith's family circumstances highlight the need for interventions that increase access to national identification documents in poor communities. A lack of identification documents could be a plausible reason why a large proportion of child and household participants in the quantitative study in Namibia were not social grant beneficiaries as is displayed in Table 7.3 and Table 7.4 above. NPO A in Namibia ran a project to assist informal settlement residents in obtaining identification documents, while it is evident that the project was making a tangible difference, it was unfortunately terminated due to a lack of funding:

> "In 2014 we were having this project of helping parents to get birth certificates. We [would] take them to home affairs…Then sometimes we

> also call home affairs here at our centre and we get their mobile office here. We have managed to assist plus or minus 800 parents to get documents, like birth certificates and IDs as well as for their children." [NPO A1 (Nam)]

UNICEF (2015a:1) attributes the lack of birth certificates amongst children in Namibia to several challenges that include the fact that Namibia's population of 2.3 million is scattered over a vast territory that has large areas of inaccessible desert. UNICEF notes that in these remote and deprived areas, people cannot afford the cost of travelling to birth registration points, while mobile birth registration campaigns often prove very expensive to sustain. Another barrier highlighted by UNICEF is that some cultural practices in Namibia discourage the timely registration of births, while birth registration of abandoned and orphaned children remains a major challenge. The qualitative findings also show that the challenge of a lack of identification documents amongst individuals in poor communities was not only peculiar to Namibia. An environmental health practitioner in South Africa argued that financial and spatial barriers are the major factors that hinder the poor from acquiring birth certificates:

> "If you can't afford let's say, going to Joburg…to do your ID card it means that you won't have your ID card because you don't have money. So, if the if these people were able to bring these services closer to them. I think a lot will change cause each and every time I attend meetings those are the things; they keep on raising." [EHP 2 (SA)]

The imperative to ensure access to identification documents for all people is underscored by SDG target 16.9, which aims to provide legal identity and birth registration for all by the year 2030 (UN, 2015b:25).

Sub-theme 4.3: Motivational programmes

The qualitative findings in Chapter Six (sub-theme 7.4) demonstrate that chronic unemployment and poverty often lead to feelings of resignation, helplessness and powerlessness. Powerlessness in turn impinges on efforts to promote sustainable communities and environments as these depend on people exercising their power and agency in working towards the economic, social, ecological and ethical aspirations of sustainable development (Winther, 2017:339). Participants in the study identified the need for motivational programmes that empower communities to act as agents of social change:

> "We don't have that motivation… [We need] motivational talks. I've seen we lack motivation around here. People when they complete their matric,

> they have nothing to do…there is no employment for them." [Webster, HP (SA)]
>
> "The youth need motivation…We have different problems; others have lost their self-esteem." [Refilwe, HP (SA)]
>
> "There is lots of mindsets that need to be changed…we stick on that thing that we are poor; we don't have anything. So, if some other people can come…to motivate…to change our mindsets not focusing on…that poverty that you were born in or you grew up in…I believe most of the people we can change our lifestyles. We can change our environment." [Michelle, HP (SA)]

A social work participant in Namibia coordinated a mentorship programme that empowered girls living in informal settlements to envision brighter futures:

> [I have] 10 girls that [I am] mentoring, they all come from the informal settlements where their houses are made of zinc shacks. But those kids are at UNAM [University of Namibia], they are in their second year. They are doing well so there are those ones that can see the poverty but refuse to be poor, understand? …There is a difference between a rich person and a person who refuses to be poor, who was not born rich but he refuses to be poor." [SW 1 (Nam)]

Another social work participant emphasised the importance to nurture young people who are disciplined and determined and who strive to achieve the future they want for themselves:

> "It all need[s] young people who are disciplined, who are responsible who are determined, who are striving to achieve…who are inquisitive that's how we will survive…If we have a weak youth and you lack knowledge you easily get discouraged. Then that's when you lose it...you either end up in jail or your life is doomed. I mean if at the age of 25 you are a druggie and you don't have a future; you don't have a matric, it then becomes difficult for you to pick up." [SW 4 (SA)]

The findings show that children in the study area in South Africa utilised peer education as a platform through which they discussed the common issues that affect children in their communities. The peer education programmes acted as platforms through child children could encourage, motivate, unite and steer one another towards good acts:

> "In our school, we are peer educators…We educate peers about everything that is happening in our lives and we talk in our conversations, we have motivational classes and everything." [Mango, CP (SA)]
>
> "Peer education is [where] a…group of learners of the same age group come and discuss social issues within the school and outside the school premises…We have facilitators who are helping us in all of this. We preach discipline at school. We help each other with school work and stuff. Peer education has to do with grooming people to become people.

> So, I would encourage a lot of people to join the group cause really it changes you in all different aspects of your life." [Pink, CP (SA)]

The above narrations show that children are self-determining agents of change who can positively contribute to the realisation of sustainable communities. The NPO in South Africa, utilised life skills education to build a legacy of future leaders who are empowered to strive for better generations of people:

> "My role as a vochelli [life skills facilitator] is like teaching the kids…As much as we teach them, we also equip them with knowledge of becoming a better people…We won't be vochellis forever. When we teach them it's more like we are teaching the upcoming vochellis. By us teaching them, when we retire, they are the ones who are going to continue with the legacy of Camp Sizanani, helping other children." [NPO C5 (SA)]

As is evident in the above narrations, the interventions that were employed and those which participants suggested for implementation in tackling poverty, had a wider view of poverty as both a lack of income and of power. These findings support the view that, "poverty is about much more than a low income…it is a sense of powerlessness…and exclusion from decision-making, the relative lack of access to…the financial system, and…any other source of official support" (Green, 2012:6-7). As noted by the IUCN et al. (2009:5), local communities are the focus for much that needs to be done in making the change to living sustainably, however there is little they can do if they lack the power to act. As such there is need for interventions that enable communities to have an effective voice in decisions that affect them.

Theme 5: Interventions that promote access to land and adequate housing for informal settlement communities

Public funded housing, group savings schemes, informal settlement upgrading and the flexible land tenure system are some of the interventions that were implemented in view of extending informal settlement communities in the study areas with access to land and adequate housing. For an environmental health practitioner in Namibia, extending basic service infrastructure to informal settlement communities is key to making informal settlement communities sustainable:

> "To me I think infrastructure is the most important change that we need. If everyone is having their own toilet, why would you go out of your toilet and pollute the environment? …If you have access to water, what challenges will you have with regards to health? …If our infrastructure change, I think our social, economic [development will improve]

> …development will never go to those areas unless infrastructure is completely changed." [EHP 3 (Nam)]

Midgley (1999:12-13) concurs that an asset development approach is important for enabling communities to escape poverty, as assets and community held assets in particular, provide the economic and social base upon which development efforts are built. Land ownership in particular was a top priority for the informal settlement communities in the study areas:

> "For me, the issue of owning land is very crucial and I think most of those people if you ask them, the issue of ownership will be on top of the list." [EHP 1 (Nam)]

Land and housing constitute assets or resources that have a market value, which are deemed as the property or wealth of their owners (Midgley, 2014:156):

> "I mean if you have a property, whatever that you are owning, you are rich isn't it?" [HSP 2 (SA)]

Interventions that extend access to land ownership to the urban poor can help promote social exclusion and prove instrumental in alleviating the physical vulnerabilities that informal settlement communities experience due to living on marginal land. The status of informal settlement communities as illegal squatters implies that they cannot invest in building permanent and therefore, resilient housing. However urban land ownership can help address this challenge:

> "[Land ownership] unlocks that potential of your piece of land, where you can now use it for collateral. Even in borrowing, you just use it as collateral against borrowing. Maybe you are entrepreneurial all that you wanted was that." [HSP 1 (Nam)]

> "In most cases even those people in informal settlements who can afford to build themselves proper habitable structures will sort of hold back on their resources because they know where they are it's not their land. So, they don't invest on that land. So, if people are then given…land tenure, it will be easy for people to then say how do I get the materials and how do I invest the little I have to improve the structures that I live in? So that it doesn't permanently be temporary structures of roof sheeting and card boards and plastics and all that." [EHP 4 (SA)]

> "Land tenure…ownership of land. If we can address that we would have changed a lot…First it opens a lot of doors for me and then after we give people land, the municipal services water, electricity, roads, then you look at your schools, clinics, if we could have that right then a lot of things will change in the informal settlements." [EHP 1 (Nam)]

Midgley (2014:156) concurs that projects that assist the poor in acquiring assets have a strong social investment function that is important in reducing patterns of inequality.

Four sub-themes underpin that are associated with the interventions that promote access to land and adequate housing for informal settlement communities in Namibia and South Africa. These include; state funded housing, self-help group savings schemes, informal settlements upgrading and flexible land tenure provisions.

Sub-theme 5.1: State funded housing in South Africa

In South Africa, poor households benefit from the state funded RDP housing scheme that facilitates their right to free adequate housing. While there are no similar programmes in Namibia, the RDP programme offers a good case example from which Namibia can draw lessons from:

> "The right to shelter is promoted because government is even building RDPs for people to help them have a place to stay." [Pretoria, CP (SA)]
>
> "Government is trying because there are people living in RDP houses." [Refilwe, HP (SA)]

The right to adequate housing is constitutionally provisioned in South Africa (Constitution of RSA, 1996), however this is not the case with the Constitution of the Republic of Namibia, 1990. In line with its commitment to realising adequate housing for all, South Africa has since 1994, delivered 4.3 million houses and housing subsidies to 20 million low income earners under its flagship RDP mass housing programme (RSA, 2016:1). However, there have been challenges in regard to the mismatch between the supply and demand for low-income housing in urban areas in South Africa. This means that the RDP housing programme, "has failed to keep pace with population growth, and faces escalating unit costs and a host of other implementation problems" (Turok et al., 2017:4). Another challenge that has an impact on the realisation of sustainable communities is that most RDP housing has been built far from job opportunities, amenities and community services (Turok, 2016:13). As such, some informal settlement communities prefer living in deprived social and environmental conditions in informal settlements instead of being relocated to RDP housing:

> "People that are staying there [at this particular informal settlement] are domestic workers, they work next to the mall. Imagine if you relocate them to another place…if someone is earning 800 rand that means they still need to pull out money for transport. So, now they will think that we are staying next to work, we will rather die here [in an informal settlement] than being relocated…where we are going to be given proper houses…If you go to let me stay 25 kilometres from here that means we

> will still have to pay for transport fees and they are going to struggle." [EHP 1 (SA)]

These findings demonstrate that the provision of adequate housing to informal settlement communities on its own is not enough to resolve the manifold social, economic and environmental challenges that these communities grapple with. In the interest of building sustainable communities, it is vital that any interventions that redress the housing challenges in informal settlement communities should also tackle poverty by improving the livelihood options of poor communities.

Sub-theme 5.2: Self-help group savings schemes

The findings show that there are no state led housing schemes that provide housing to people with low to no incomes in Namibia, as the state-owned National Housing Enterprise (NHE) mainly finances housing for middle-income groups (Weber & Mendelsohn, 2017:92). The *Namibia National Housing Policy* (GRN, 2009:4) ascertains that the Namibian housing sector continues to be characterised by limited financial support for low-income groups and that as many as seventy percent of the Namibian population do not qualify for conventional home loan facilities due to poverty and a limited disposable income. In light of their social and economic exclusion, informal settlement residents in the study area in Namibia team up to form group savings schemes, through which they contribute money to buy municipal land. The compounded power of group savings acts as leverage through which the groups can bargain with the municipality for flexible payment terms. Thereafter, the mucipality will formally subdivide the land to allow for the building of tenured, permanent housing structures, which are connected to basic services:

> "The other…[intervention] that is meant for the low-income areas, is the savings scheme formation, whereby people buy land as a group. A block of land which is informally subdivided and then they are given time to pay it off, for about 8 to 9 years as a group...So, the moment they enter into the sale agreement with the city, they are allowed to build permanent structures then they can develop their area themselves incrementally in terms of services." [HSP 5 (Nam)]

> "You can say that [the savings schemes have] …been successful in terms of giving them buying power to acquire things that they haven't been able to acquire as individuals...Savings has given them the power to achieve things they could not achieve on their own." [HSP 4 (Nam)]

Edson, a household participant in Namibia shared his experience as a savings group member:

> "Like us the federation members, we…contribute money as a group… some we...contribute for the land and some for the material to build the house." [Edson, HP (Nam)]

The group savings schemes demonstrate the sheer determination, solidarity and resilience that is inherent in the informal settlement communities in Namibia:

> "You find also those others they save, they are willing, if they are given a chance, they can buy land…those are people who are not working. You save a dollar, just a dollar per day. Then they save as a group. As a group you can approach the municipality, you buy land, you can build your own houses so there is an issue of ownership…That's why I am saying I see a lot of resilience with those people." [EHP 1 (Nam)]

> "The solidarity that you will get from the people living there [is awe inspiring]. You will find that a lot of them are members of the savings groups because the city encourages that from a policy perspective that you might not afford to own land from an individual perspective but collectively you can. So now form your savings group, approach the City of Windhoek and then apply for land. We can even look at whether it is possible to formalise it where you are so that where you grabbed you are now legal." [HSP 1 (Nam)]

A major challenge however, is that after securing urban land ownership, the group members struggle to raise money to build adequate housing, hence, they continue living in shacks:

> "Most of the areas where we have the schemes what is lacking is just the funds to buy the materials and so forth but…how they organise themselves to get the land are good case studies." [HSP 3 (Nam)]

The SDFN has since 1992, mobilised 605 community saving schemes and has been instrumental in assisting 6230 informal settlement residents across Namibia in formally securing urban land ownership, as well as government contributions that supported the building of 3488 houses for poor urban communities (SDFN, 2019a:1). Community group saving schemes are commendable efforts in addressing the social and economic exclusion that confront urban areas in Namibia. However, on their own, they do not solve the underlying structural challenges of poverty and inequitable access to land and housing in urban areas. As such, deliberate political decisions are required to ensure equitable access to land titles and adequate housing for all.

Sub-theme 5.3: Informal settlements upgrading

Informal settlements upgrading forms the cornerstone of SDG target 11.1 (UN, 2015b:21), and the UN-Habitat (2013) *Global Housing Strategy*. Informal settlements upgrading entails the realisation of human rights for informal settlement communities

through the provision of legality of tenure, infrastructure, basic services and improved environmental conditions (UN-Habitat, 2013:16). The GRN (2009:17) *National Housing Policy* is a strategic and policy framework that enunciates Namibia's commitment to upgrading 75 percent of informal settlements to formal townships by the year 2030. While, many of the informal settlements in Windhoek are serviced with municipality roads, communal toilets and water points (Weber & Mendelsohn, 2017:33) these areas have never been formally proclaimed and their residents do not hold legal tenure over the land. However, the study's findings show that the programme is largely dependent on the ability of informal settlement communities to buy land and pay for the provision of basic services. As such, the programme progressed at a snail's pace:

> "We normally do [informal settlement upgrading] incrementally, depending on the level of affordability…Even the tenure changes with the level of affordability whereby we start as a block and then the block will be owned by the whole community, where they contribute a little towards buying that land…And in that block, you can only have a communal water point and a communal toilet. And then as their levels of income increases, we move towards individual blocks where we create for each one individual Erfs [housing stands] and then they can purchase that." [HSP 4 (Nam)]

> "We've got a development upgrading strategy policy…it entails levels of upgrading, when I am referring to levels of upgrading, I am referring to affordability as well. We need to provide services but the services that we provide will also depend on the levels of affordability." [HSP 2 (Nam)]

Mbanga noted in an interview with Nakale (2018:1) that the monthly income of households in informal settlements in Namibia are below 3 000 Namibian dollars and average 1 500 Namibia dollars. As such, informal settlement communities are unable to participate in the informal settlement upgrading process. The study's findings therefore point to the logistical, technical and financial resource challenges that hamper the implementation of the informal settlements upgrading programme in Namibia, which could explain why the programme progressed at a snail's pace. Amongst these challenges are the extremely high population densities in informal settlements relative to the optimal number of households that can be accommodated in upgraded informal settlement areas, undevelopable topographies in informal settlements, a lack of adequate funding and a lack of alternative land to relocate the excess households that do not fit in the upgraded settlements:

> "The…challenge is…that they are overcrowded. When I am upgrading an area, let me say that I have 200 households and after planning it can only accommodate 100 meaning the 50 percent have to be relocated but we don't have space, in Windhoek space is not there and its costly to develop because of the hills, it's mountainous." [HSP 2 (Nam)]

> "Sometimes you want to upgrade an area but you cannot do so because the people who are residing in an area cannot all be accommodated in our design and then we also don't have alternative sites where we can move these people. And the other one we can say its financial challenges…there are no finances to do it." [HSP 4 (Nam)]

Weber and Mendelsohn (2017:37) concur that informal settlements in Windhoek are so dense such that many of their residents would have to be relocated elsewhere in order to make room for the formalisation of informal settlements to meet the minimum legal requirement for formal residential stands in Namibia. This is compounded by the fact that there is no low-cost land that is available on the market in Windhoek, as such, implementers of informal settlement upgrading remain puzzled as to where they can relocate the excess number of households who do not fit in the formalised areas. A participant in Namibia could relate to this challenge:

> "The major challenge we are facing is providing developable land. As much as people are demanding for land, we are also passionate about it and it doesn't make me go and sleep peacefully…Looking at the conditions that people are living in, but then, the big challenge that we face…is that we are really struggling to provide developable land…habitable land where people can live." [HSP 2 (Nam)]

The challenging topography in many informal settlements in Windhoek and limited financial resources are, as noted by Weber and Mendelsohn (2017:37), to result in the stalling of informal settlement upgrading in Windhoek. The upgrading of informal settlements is equally a high priority in South Africa, as seen in the country's adoption of the *Informal Settlement Upgrading Programme* (RSA, 2010), which seeks to provide informal settlement residents with secure tenure and access to basic services and housing. The study's findings point to a difference in approaches to informal settlement upgrading in Namibia and South Africa, as in South Africa the programme is mainly state funded:

> "The city spends a lot of money in informal settlements upgrade…It's basically human rights issues that we are trying to address." [HSP 3 (SA)]

The same practitioner highlighted the major role that informal settlements upgrading has played in upgrading Orange Farm from a squatter camp to a formal township,

through the building of RDP housing in Orange Farm, even though it continues to be confronted with ever emerging squatter settlements:

> "[Orange Farm] has grown from being just a squatter camp to an economic hub that has got high potential. There is a mall [that] has been built in the area, there is a lot of informal trading in the area and we have seen also people starting to… [extend] their houses to be bigger, from what we gave them as RDPs…So, there is upward mobility that we are seeing in the area." [HSP 3 (SA)]

As such, informal settlement upgrading strategies are important for curbing the social exclusion that informal settlement communities experience by integrating them as legal urban residents that have access to basic services and socio-economic opportunities. A study done in South Africa by Misselhorn (2010:1) cites that the informal settlement upgrading programme in South Africa is also faced with budgetary constraints, high population densities, difficult terrains and a severe shortage of affordable and suitably situated land that is close to job opportunities. The challenges mirror those in Namibia.

Sub-theme 5.4: Flexible land tenure provisions

Namibia promulgated the Flexible Land Tenure Act of 4 of 2012, with the view of creating alternative forms of land tenure that are simpler and cheaper to administer for poor communities. This act allows for exceptions to be made with regard to the country's legally mandated minimum size of a residential stand in urban areas, to allow informal settlement communities to legally acquire smaller residential stands during the informal settlements upgrading process:

> "The Ministry of Land is going to pilot the flexible land tenure system, that is whereby individuals can buy or acquire titles of properties less than 300 square metres, because that is the restriction [of a lack of land for building housing]" [HSP 5 (Nam)]

> "We are now moving away from the 300 squares, because we see even with the 150 people can now settle two [households] on the 300 [square metres] …just to accommodate larger numbers of people." [HSP 4 (Nam)]

While the Flexible Land Tenure Act is intended to provide affordable security of tenure to informal settlement residents and allow for faster delivery of low-cost urban land, sadly for the many thousands of informal settlement communities in Namibia, this act has yet to come into force. The act furthermore does not concern itself with infrastructure provision to informal settlements (Weber & Mendelsohn, 2017:43).

Theme 6: Interventions that contribute to food security

The study identified vegetable gardens, school feeding programmes, soup kitchens, food banks and social support networks as the primary strategies that informal settlement communities depend on to minimise food insecurity and hunger in their households. Whereas these strategies speak to the realities in both the study areas in Namibia and South Africa, they are consistent with an observation by Oxfam (2014b:28), that poor households in South Africa rely on soup kitchens, school feeding programmes and nutrition programmes to feed their families. The study's findings however, point to the need to ensure that such interventions are well targeted so that no households go to bed hungry:

> "People are going to bed hungry, even though there are efforts that are being made…I don't think it's reaching the ones that are truly in need…It's actually sad to think that there are families that don't have anything to eat at night and during the day actually." [EHP 4 (Nam)]

Oxfam (2014b:5) also recommends for action that improves the local level coordination, policy implementation and better targeting of initiatives that address hunger and malnutrition in poor communities. The sub-themes that are associated with interventions that contribute to food security include; vegetable gardens, school feeding programmes, soup kitchens, food banks and the role of social support networks in minimising hunger.

Sub-theme 6.1: Vegetable gardening projects

The study established the important role that vegetable gardens play and could play in alleviating food insecurity amongst informal settlement communities, as they have the potential for allowing communities to grow what they eat and get an income from selling the surplus:

> "In these communities… [set up] agricultural hydroponics farming...so that the communities themselves take ownership of what they eat, meaning they grow what they eat and the surplus they sell it will then become money in their pocket." [EHP 4 (SA)]

Vegetable gardening projects were run differently in the study areas. They varied from contracting service providers who planted gardens that provide poor households with vegetables, to giving informal settlement communities land, seeds and technical assistance to do gardening and community gardening projects that are run by NPOs to supply vegetables for their own soup kitchens and to the wider community:

> "There is a programme… [on] food resiliency…There are people who are assigned to go and make food gardens for the families so that they can harvest for themselves or they are being taught how to maintain a mini garden for themselves. They are given seeds and watering jars so that they can water their gardens and take care of them." [Benjamin, HP (SA)]

> 'Within the city there is a food unit that is assisting people to get seeds and also vegetables." [SW 2 (SA)]

> "We also have two organic gardens on site, which provides the vegetables for the soup kitchen and also for the community." [NPO A2 (Nam)]

While community gardens play a critical role in reducing food insecurity in poor households, the fact that the informal settlements in the study area in Namibia were characterised by extraordinarily high population densities meant that all the free space was taken up by shacks. This challenge was furthermore compounded by the rocky terrain, arid weather conditions, a lack of access to affordable water and financial resources to sustain gardening projects meant:

> "A suggestion was made that we should start putting up gardens [in informal settlements but] there is no space to put up the gardens...It's quite rocky. In some places there is no water in order to sustain the gardens. There is no money in order to sustain the gardens as well." [EHP 2 (Nam)]

> "When it comes to gardening it's also a big trick. It's not only about the water, it's also about the land because already as much as Namibia is so big…a lack of land even to build a house…Imagine now a garden it's like a secondary [thing] …Again Windhoek becomes [a] special [case] because…our city is mountainous…and it's also rocky." [SW 1 (Nam)]

In light of the scarcity of land and water, organisations in the study area in Namibia intervened by providing land, seeds and technical assistance in permaculture, aquaculture and hydroponics. They also taught communities small-scale methods of doing gardening at home that do not require too much water and space. NPO A in Namibia ran a hydroponics gardening project that supplied vegetables to its own soup kitchen and wider informal settlement communities. The gardening project which SW 2 in Namibia coordinated enabled community members to harvest vegetables for household use and sell the surplus food for an income:

> "We have the gardening programme whereby we teach the caregivers in the community to do gardening…We show them how to do gardening although they complain that here in the city it is stony but we tell them that you can use this method. Even a broken bucket at home, you fill it

> with sand and then you can put your…spinach and the other one…onions." [NPO A1 (Nam)]
>
> "We train people how to grow their own crops, gardening skills enabling them to use the space available. Or we have space available from the city's side, they can form a group and continue with the gardening to produce their own food enabling them to have food during the year and the surplus food they can sell to gain an income." [SW 2 (Nam)]

Water savvy gardening methods are imperative in view of recurrent droughts in Namibia (Chiwara & Lombard, 2018) and South Africa, which increase the scarcity of water in both rural and urban areas. As such, there is need for gardening projects that adopt innovative ways of saving, harvesting and recycling water, while addressing the vast levels of food insecurity in poor communities:

> "If you start… [a] food garden it means that you have to use water. It's a scarce resource that we have…So, if people can start to sort of harvest water…and use if for gardening. Come up with creative ways of using water. We spill a lot of water after we use it when it can be used for gardening. We need people that have got a different way from just taking water from the tap and watering a garden." [HSP 3 (SA)]
>
> "We have organisations who are working in partnership with our gardening project… [by helping us to adopt] permaculture farming initiatives. We have people from aquaponics, who also contribute their skills and invest in our programmes." [SW 2 (Nam)]

Community gardens are increasingly considered as a viable way to build social capital, civic engagement and environmental sustainability in poor communities, while addressing food insecurity (Musso, Lardy, Little, Madewell & Valentine, 2013:2).

Sub-theme 6.2: School feeding programmes

School feeding programmes minimise hunger and malnutrition amongst school going children, in addition to improving school attendance and the educational outcomes of children living in poverty. The school feeding programmes that were implemented in both study areas therefore addressed the interlinked human rights to food and education, which is quite important seeing that the right to education cannot be fully realised without first addressing the human right to food:

> "Schools…are cooking for the kids…porridge…during break and after school when they are going home." [Hilma, CP (Nam)]
>
> "At school…they do give…those children who have nothing at home, who they know are struggling. They give them food from schools." [London, CP (SA)]

In view of the food insecurities that vulnerable children experience on days when schools are closed, some schools in the study area in South Africa went an extra mile to provide children from vulnerable households with extra food to cook at home during weekends:

> "At school they give out handouts for those children who are in need. They give the packages of vegetables, maize meal and stuff like that… [so] they can survive on that during weekends." [Pear, CP (SA)]

> "Now children at school they get food each and every day they even take some of the food back home…because they know that…families are having difficulties…getting food." [NPO C5 (SA)]

School feeding programmes fulfil both educational and social protection goals (Bundy, Burbano, Grosh, Gelli, Jukes & Drake, 2009:13), and are an investment in human capital, hunger reduction and equity (World Food Programme, 2013:5). They are furthermore an important retention strategy that encourages children from poor and disadvantaged households to stay in school (Ortiz, 2007:47).

Sub-theme 6.3: Soup kitchens

The NPOs that were sampled in Namibia specifically ran soup kitchens in view of alleviating hunger and improving the nutritional well-being of both school and non-school going children. However, findings from the study areas in Namibia and South Africa show that several churches and NPOs worked relentlessly to ensure that the nutritional needs of children in informal settlements are catered for:

> "[We have] churches [where] young people…go … [and] get food so that they can go sleep, they can't sleep without food." [Brooklyn, CP (SA)]

> "Lucky enough we do not have malnutrition…especially in children because we are having…soup kitchens…Until now we [haven't heard] of somebody whose children are having malnutrition." [Timothy, HP (Nam)]

While NPO C in South Africa did not run a soup kitchen, it played a major role in referring children to organisations where they could be assisted with food:

> "[We] try to [link] …them with some of the organisations where they are giving food…We are trying to run away from those things to say a kid went to bed hungry." [NPO C2 (SA)]

If not for the soup kitchens that were run in the study areas, some children would go for extended periods without food:

> "[The soup kitchen] is bringing a big difference because if it was not for this soup kitchen, some children…could maybe sleep for…four days

> without eating. For now, they are helped from this food and…also they receive nourishment." [Nangura, CP (Nam)]
>
> "If soup kitchens…were not here…people could not survive by themselves, it's hard for a person to survive without any help." [Paul, CP (Nam)]

The high levels of food insecurity that the soup kitchens in Namibia aimed to address was seen in that some households had as many as seven children, who all depended on soup kitchens to meet their daily food requirements:

> "You will see even seven children that are eating at the soup kitchen who are from the same house, so, people don't have food…So at the end of the day children are not getting any meals at home they… [survive from] the soup kitchen." [SW 1 (Nam)]

In as much as soup kitchens play a vital role in reducing hunger and malnutrition in children living in poor communities, the findings from the study area in Namibia show that the demand for meals often far exceeds the capacity of soup kitchens to provide meals to all vulnerable children:

> "When people [children] are feeding it's always busy, they are always pushing, there is not even a one day when they are feeding less than 300 children." [NPO B3 (Nam)]

For logistical reasons, the NPOs in the study area in Namibia only registered children on their feeding programmes at the beginning of each year. However, the constant influx by migrants into the study areas meant that there were always new children in dire need of food assistance. To address this challenge, the soup kitchens went an extra mile to assist as many children as possible, which unfortunately meant that the registered child beneficiaries would not get their full meal portions:

> "We are feeding 350 kids that are registered and sometimes even 400 because…we end up giving food to those ones that are not registered…The registration, it starts in January and with the beginning of every year in January we inform parents to come and register their kids [but] in the middle of the year some parents are coming with the kids from the North. Some are coming and complaining that no! We are suffering can you help us so that our kids can start to eat at your soup kitchen." [NPO B3 (Nam)]

Although the soup kitchens that were run by the two NPOs which were sampled in Namibia, were meant to benefit children only, adults also frequented these soup kitchens begging for food. Thus, attesting to the level of demand for interventions that address hunger in both children and adults:

> "Adults…are coming to ask us for the food, this is a big challenge because we do not have enough food to give them…They are always here [begging] for food…Some of them, even if you say no, we do not have food, we have little food for the kids. Some will end up quarrelling or insulting you." [NPO B3 (Nam)]

In view of the fact that the sampled NPOs in Namibia only provided meals on weekdays, the findings point to collaborative partnerships that ensured that the soup kitchen, which NPO A ran in Namibia, had a sustained impact. These partnerships saw churches filling gaps in service provision by providing meals to children at NPO A during weekends, when its soup kitchen is normally closed:

> "[People from other communities] sometimes…make a soup kitchen here on Sundays, Saturdays, they bring food along and they visit the poor kids, they feed the community." [Precious, CP (Nam)]

> "[Apart from our soup kitchen] we have churches that come feed our children on Saturdays." [NPO A1 (Nam)]

The findings therefore underscore the need for collaborative partnerships that fill gaps in service provision to informal settlements communities.

Sub-theme 6.4: Food banks

Food banks were implemented in both study areas in Namibia and South Africa, with the view of providing food parcels to households where the breadwinner was either unemployed or was a low-income earner. Participants in Namibia, referred to food banks as Harambee, as their introduction was a key outcome of the *Harambee Prosperity Plan* (GRN, 2016:40), which the current president of Namibia introduced at the beginning of his tenure. The move to introduce food banks in Namibia was in response to public outcries against the scavenging of dumpsites for food by the urban poor in Windhoek (Chiwara, 2015:8):

> "[Our president] Hage [Geingob] knows that Babilon does not have food to eat. Some of the people do not work and he provided the community [with] Harambee." [Michael, CP (Nam)]

> "[To] reduce hunger, the president said people must get free Harambee, food bank…Then [the] people that are suffering will go get food and [it] reduces the hunger." [John, CP (Nam)]

> "There are food banks, people…are getting food…[from] Harambee Prosperity Plan…They can only give to people that are not working." [Toivo, CP (Nam)]

In light of food wastages that see poor people scavenging dumpsites for discarded food items, Oxfam (2014b:5) suggests the creation of a fair, accountable and

sustainable food industry that ends food wastages. In the comparative study area in South Africa, the social work practitioners in the study coordinated a food unit that procured vegetables for the benefit of poor households. They also referred these households for assistance with food vouchers at the South African Social Security Agency (SASSA). However, food banks in both countries were a temporary stop gap measure that does not guarantee longer-term food security:

> "We are having a…food unit whereby we are saying no family should go to bed without food. So, we have a programme where us social workers, we will…contract with them to give them vegetables for a certain period of time. Some will feel that vegetables are not enough, then we will refer them to SASSA… [for a] food voucher…the social worker would have assessed and say this person will need food for three months or four months." [SW 3 (SA)]

> "For those who are not receiving the grant, that are not working, we've got the stop hunger packs…You have to be unemployed completely…[or] earning a thousand [rands] and less." [SW 1 (SA)]

As such, poor households still found themselves in dire need of assistance even after the termination of their food aid:

> "Now if you give the person a food parcel for three months, after 3 months…the person is in the same situation." [SW 4 (SA)]

In view of ending hunger, achieving food security and improved nutrition for all people (SDG 2) (UN, 2015b:15), there is need for interventions that ensure longer-term food security amongst urban poor communities and which in so doing, bring change in the real sense of the word:

> The system is failing us… [we need] to come up with things that will sustain people's lives, that will bring change in the true sense. Rather than providing food, rather than giving this…we need to empower and check the loopholes. How long will I give this young person vegetables?" [SW 4 (SA)]

Some evidenced based interventions in this regard include, the creation of decent employment and income generating opportunities in communities that face hunger, through the implementation of targeted government work schemes that provide reliable income and training and a continous review of the minimum wage and social grants (Oxfam, 2014b:5).

Sub-theme 6.5: The role of social support networks in minimising hunger

In addition to the food security interventions that were rendered by various stakeholders, the findings also point to the role that social support networks play in

minimising hunger in poor communities, as people could turn to neighbours and friends for assistance in times of need:

> "[At times] there is nothing [no food] at home…then you just have to…talk with your friends. If I don't have, they will help me [with] a little bit of mealie meal…or soup and then I make a fire and cook." [Johnson, HP (Nam)]

> "Sometimes if you need something and you don't have it's just to ask the [neighbour] can you help me with something? I don't have I will give you later…then tomorrow if him also needs something from you then you give him also." [Edson, HP (Nam)]

Woolcock and Narayan (2000:242) concur that social capital networks are a primary resource that poor people utilise in managing their vulnerabilities.

Theme 7: Interventions that create opportunities for employment

As reported by Gopaldas and Ndhlovu (2018:4), over 60 percent of the South African population and 50 percent of the Namibian population live in urban areas. It therefore follows that if urban areas in these countries are to be sustainable and inclusive, they must:

> "Over and above, try to create employment as much as possible because it is the underlying problem in our communities." [SW 3 (SA)]

Several interventions were implemented in the study areas in view of creating temporary job opportunities and enabling individuals and groups to capitalise on their passions to create jobs:

> "I think that in order to have a job you need to create one." [Banana, CP (SA)]

> "I think if kids are done with school, they should find their passion and think what they are good at, instead of being employed, they should employ themselves and do things that they are good at and better at doing." [Paris, CP (SA)]

These interventions, which are hereafter discussed as sub-themes include; training in starting and running small scale businesses, cooperatives, training in technical and vocational skills and public works programmes. Collectively, the aforementioned interventions could prove critical in substantially increasing the number of youth and adults who have technical and vocational skills for employment, decent jobs and entrepreneurship (UN, 2015b:19).

Sub-theme 7.1: Training in starting and running small scale businesses

Participants in the study asserted the imperative for training that equips informal settlement residents with the knowledge and skills to start and run businesses, coupled with the necessary financial resources in this regard:

> "We should in trying to empower people to start off their own businesses. We need to find new interventions on how to give people the skills they need to start operating and what the options are." [EHP 4 (Nam)]

> "Knowledge and training, that is the only thing that can change a community and provide them with [financial] resources… [that will] empower…the community. So, I believe knowledge is power. People need to be empowered more than anything." [SW 4 (SA)]

Human capital investments, "provide the knowledge, skills and capabilities that people need to participate effectively in the productive economy" (Midgley, 2012:102) In this regard, practitioners in the study coordinated free training programmes that equip informal settlement residents with basic skills on starting and running small scale businesses:

> "We also have projects where we teach them how to start their own business, how to manage their own funding, how to open a bank account." [SW 2 (Nam)]

> "This organisation wants to keep…poverty away from them…We are giving them training on how to sustain themselves like…how to do small businesses." [NPO A1 (Nam)]

> "My role is to…do business and financial literacy training in the community, so teaching people basics around starting their own business since unemployment is a very big issue." [NPO A2 (Nam)]

NPO C in South Africa, through its flagship life skills training programme, equips children with financial literacy, business management and entrepreneurial skills to encourage children to actively contribute in formulating innovative solutions to the challenges confronting their communities:

> "We have a…financial literacy and entrepreneurship programme which also talks about how they can handle their finances. Like how they can start their own businesses to make extra money…At some point during the course of the year they can come up with a market day where they can showcase whatever ideas they come up with and get people to buy from them." [NPO C1 (SA)]

> "We teach kids about business and financial literacy…because it's not every time that you complete school and get employed. So, if you have a business idea or a business mind you can also partake in [creating employment]." [NPO C3 (SA)]

A household participant in South Africa was testimony to how business and financial literacy training can reap real dividends:

> "The national youth development agency [gave us] ...workshops and they taught us to start our own businesses. Like I am a CEO of XX youth academy. The aim is to create employment for the community of Ward 3 where I belong." [Benjamin, CP (SA)]

As seen in the following participants' narrations training to start and run small scale businesses yield better results when combined with financial investments that give people the capital to start their own businesses:

> "If I had money, I would have maybe done a business because the economy is high here. There is lots of [people in Orange Farm] …If you want to survive here you must have a business." [Favour, HP (Nam)]

> "We just need for them to buy for us the material, buy us some machines and then we make some projects…like wood making, welding…There is no work, people…are unemployed, we need…machines." [Timothy, HP (Nam)]

> "The government needs to bring projects for men and women, where they can buy for them materials so that they can start a business. I think that will bring improvements to people." [NPO B3 (Nam)]

The Grameen bank in Bangladesh in a good case example of how microfinance given to poor individuals can go a long way in eradicating poverty and in particularly empowering women to start and run their own businesses (Woolcock & Narayan, 2000:226).

Sub-theme 7.2: Cooperatives

Interventions that build and direct social capital towards local community economic development are important for realising sustainable economic development (Lombard, 2003:161; Rainey et al., 2003:712). In light of the financial challenges that household participants in the study experienced in relation to starting businesses, some individuals teamed up to form cooperatives:

> "Nowadays, for you to [raise] …a lot of money [to start a business] you make a group…Then you are saving in a group…In fact there is no work, people they are unemployed, we need to buy machines [to start businesses]" [Timothy, HP (Nam)]

> "Next month… [we] are going to make a group. Each and every one [will] …make a group and work together in our business." [Olivia, HP (Nam)]

> "I am recruiting women to do a cooperative. As I said there is lots of women who have skills, different skills but they don't have papers to show. So, I want us to be under one umbrella. By doing that we will be

> hiring people at least there would be a small percentage of people who are unemployed." [Favour, HP (SA)]

Cooperatives not only service as an income generation strategy in informal settlements, but as an important tool for peacebuilding and for uniting people from diverse ethnic and cultural backgrounds towards a similar goal:

> "I have done a number of projects with informal settlements where you will get a Zulu speaking, Shangani speaking, Tswana speaking, being in the same cooperative, a candle making project and they were able to work together peacefully with each other supporting each other." [SW 3 (SA)]

It is quite evident that this aforementioned candle making project produced positive results in terms of uniting women from different ethnic groups in communities that are at times fractured along ethnic lines:

> "I don't think [Orange Farm] is going to be a better place because we are people…from different places and we have different backgrounds and the kind of influence you get is not the same. So, in order to try and change it, we have to first come together as one and be united, then we can sit down and discuss what will be best for our community." [Pear, CP (SA)]

Building unity in socially fractured communities serves as a solid foundation upon which sustainable development efforts can be built. The project also provided a source of energy for lighting homes in informal settlements where electricity is often unavailable. Considering that shack fires are a recurrent challenge in informal settlements, (see Chapter Six, sub-theme 9.6), the project could incorporate an educational component that raises awareness on the safe use of candles. Alternatively, it could adopt replace candle making with another innovative project that yields more or less similar desired ends.

Sub-theme 7.3: Training in technical and vocational skills

In the study area in South Africa, technical and vocational skills training was offered to the wider Orange Farm community through a community skills training centre:

> [We have a] skills centre. They do…computer literacy…carpentry, …electricity. So, they educate you, they train you and they help you find employment." [NPO C3 (SA)]

> "[They] …assist community members with regards to computer training and also boiler making and also some other semi-skills that people can use to find employment." [EHP 2 (SA)]

In Namibia, a social work practitioner coordinated a project that equipped women living with HIV and AIDS, teenage mothers and unemployed youth with skills in

dressmaking; unfortunately, the project had to be discontinued due to austerity measures in the participants' organisation:

> "We…previously had projects where…women, unemployed youth and teenage mothers or mothers living with HIV… [were taught] the skill of sewing, making clothes, enabling them to produce their own products and be able to sell it." [SW 2 (Nam)]

These findings show that whereas training in technical and vocational skills are important in empowering informal settlement communities to engage in productive paid or self-employment, resource challenges negatively impact on the implementation of these interventions.

Sub-theme 7.4: Public works programmes

While there are no equivalent programmes in Namibia, the state led Expanded Public Works Programme (EPWP) and the municipality driven Community Works Programme (CWP), were instrumental in creating temporary work opportunities for communities in the comparative study area in South Africa. The public works programmes act as temporary buffers against a lack of income that hire local community members in projects that develop their communities:

> "[We have an] Expanded Public Works Programme, it's regulated by the government… [the CWP] is regulated by the municipality…those are the buffers that we have…You find teenagers that are not working…they do not qualify for a child support grant. How do they survive? So, it's programmes like these ones that are assisting a lot." [SW 1 (SA)]

> "EPWP jobs…guarantee them [work] for a year, a minimum of a year to two years. Every now and then they will get…work where they serve as community workers on community works programmes [or] ward committee members they are earning… [stipends] ...So, government tries by all means to create jobs for unemployed people who are poor." [SW 3 (SA)]

While the participants in South Africa appreciated the public works programmes, they strived for more permanent forms of employment, which will ideally make a lasting impact on reducing unemployment and poverty in their communities:

> "Our community [has a CWP] …it's not permanent jobs, it's temporary. Maybe if they want to put something on the road, they will hire people around here…which will help but then that's something temporary…Most people will strive for permanent posts…yet still the government doesn't help them." [NPO 3 (SA)]

> "As much as they have this thing called EWP, the EWP lasts for 24 months. After 24 months the person goes back to the very same

> situation. People need a permanent job to live a normal life. You know you cannot live your life temporarily forever." [SW 4 (SA)]

Regardless of the fact that the state led public works programme is built around the provision of short-term employment opportunities, it has since its inception in 2004, created over 8.5 million jobs, which demonstrates its impact in reducing poverty and unemployment and contributing to economic growth in South Africa (Henderson & Mbanga, 2017:4).

Sub-theme 7.4: Microenterprises

The promotion of micro-enterprises amongst informal settlement communities is an important unemployment alleviation strategy. The study's findings show that microenterprises in poor communities can cause significant air, land and water pollution. The findings therefore emphasise the need for microenterprises that simultaneously address unemployment and poverty, without having a deteriorating impact on the health of communities and the natural environment:

> "Some of them they do try opening businesses but the problem is that …those businesses they tend not to comply with environmental health. So, we are caught between a rock and a hard place because as much as that person needs that business in order…to make a living for him and his family, it also doesn't comply with environmental health." [EHP 2 (SA)]

> "We don't have marine resources here. Even though… [we have] this Goreangab dam…it's actually contaminated water. It's because we have these mechanical businesses, workshops the oil is everywhere. So, that oil that is everywhere… is washed… [into the] dam." [EHP 3 (Nam]

> "You may find that people…don't have employment, they are doing the panel beating, the spray painting. They don't have the proper things like the booth and when they spray, they are polluting the environment with the air pollution." [EHP 1 (SA)]

The findings from the study area in South Africa, where recyclable waste picking is common, show that while recyclable waste picking is an important livelihood and waste reduction strategy, if it is done without environmental protection in mind, it can become a human made hazard. In this regard, the findings show that recyclable waste picking can accumulate and disperse garbage, while polluting the environment and breeding rodents in the process. This is in addition to recyclable waste picking being a potentially precarious form of employment in the absence of protective gear and adherence to health and safety standards:

> "Even though people are making money from…recycling, you will find that most recycling yards they are dirty, they are overgrown, it's littered…it ends up creating even rodents." [EHP 2 (SA)]

> "They are recycling…but also it is a health hazard because where they stay, you know there is these streams of water, they are using that water to wash or to drink and that water is not all that clean…When they sort their recycling…you find that those plastics are flying around…So, there is positive and also there is negatives to this thing." [SW 3 (SA)]

> "They will selectively recycle stuff that is in high demand at that particular time and then what they do not need because there is no system of waste collection in informal settlements, it will end up behind dumped everywhere." [EHP 4 (SA)]

Recyclable waste picking interventions that contribute to environmental sustainability will be discussed further under theme 9.3 in this chapter. SDG target 14.1 emphasises that global communities should prevent and significantly reduce marine pollution of all kinds and in particular, from land-based activities with the view of conserving and sustainably using marine resources for sustainable development (UN, 2015b:23). It is also important to note that without development to eradicate poverty, conservation goals will be difficult to realise. At the same time, humanity, which exists as a part of nature, has no future unless nature and natural resources are conserved (IUCN et al., 2009:1). As such, there is need to support microenterprises in poor communities so that they occur in harmony with nature, while addressing poverty and unemployment.

Theme 8: Interventions that increase access to formal and informal educational opportunities

Access to education in the study areas was promoted through formal and informal opportunities for education that targeted children and adults living in informal settlements. Opportunities for education in the study areas were reinforced through the following interventions, which are hereafter discussed as sub-themes; free primary and secondary school education, the building of schools in and around informal settlements, early childhood development programmes, after school, bridging school and adult literacy programmes.

Sub-theme 8.1: Free primary and secondary school education

As noted by a child participant in the study, education and a vision for the future play an important role in contributing to sustainable communities:

> "We as teenagers…should just stick to the education part…We just have to have a vision of our future and if we start by changing ourselves and

> then definitely, we will have a better Orange Farm in the future." [Pink, CP (SA)]

In view of increasing access to education for all children, Namibia has a universal education policy, which entails that primary and secondary education in all public schools in this country is free. In South Africa free education is implemented through no-fee paying schools that are located in poor communities:

> "We are now in a system where you do not have to pay fees in…schools." [SW 2 (Nam)]
>
> "The government so far is doing quite well…especially with this free education. I think the poor now have access to education." [HSP 4 (Nam)]
>
> "At school we have the right to free basic education." [Pear, CP (SA)]

Under the universal free education policy in Namibia, the government takes full responsibility for financing the operation of all state-owned schools (Iikela, 2017:3). Allly and Mclaren (2016:1) report that the South African Schools Act was amended in 2005 to establish a quintile system, which categorises public schools into five groups based on the relative wealth of their surrounding communities. Under this system schools in the poorest communities are not allowed to charge learners school fees. These country level policy measures are important for ensuring that all children complete free, equitable and quality primary and secondary education (UN, 2015b:17). As argued by Oxfam (2014a:18), not only is free education a human right, it also serves to mitigate the poor against the worst impacts of skewed income and wealth distribution. In addition, social policy expenditure measures on free basic education are significant investments in development, national building and social cohesion (Adésínà, 2007:42). However, the right to free education was partially realised for children living in the study area in Namibia due to many hidden costs that are associated with attending school:

> "[Education] is not free because you have to buy books, the parents have to buy books and pens...copy paper…and chemical cleaning, for cleaning the toilets." [Toivo, CP (Nam)]
>
> "I am saying it's not free because everything that you are doing [using] it's like your own things, exam papers we are bringing…and even this thing of school uniform." [Hilma, CP (Nam)]

Children in the study area in South Africa were however, provided with free stationery and school uniforms in view of eliminating the hidden costs associated with attending school:

> "At school… they hand out toiletries…the moment they run out you just go and tell them…and they will give you." [Pink, CP (SA)]

> "When you take a child to school you still need to get uniforms…some schools offer stationery, some schools offer uniforms as well." [NPO C1 (SA)]

These findings point to the need for comprehensive policies that not only eliminate school fees but that proactively cater for the multifaceted hidden costs that come with realising the right to education. The economic costs that are associated with the implementation of social policies and the availability of public funds, constrain the capability of governments in implementing well-crafted policies (Blakemore & Grifs, 2007:115). The realising of the right to free education therefore calls for greater political and financial commitments and a multi-sector approach that integrates education policy into a broad-based, anti-poverty development model (Hall & Midgley, 2004:142).

Sub-theme 8.2: The building of schools in and around informal settlement areas

Considering that children living in informal settlements drop out of school due to the long distances that are required to reach the nearest schools, in Namibia, the municipality and other role players were hard at work to ensure that more schools are built in and around informal settlements:

> "Kids have to walk…long distances just to go to school and they end up dropping. Now you have seen that we are proposing in each area…a school. Wherever we are doing our upgrades, we ensure that there is a school within a walking distance." [HSP 3 (Nam)]

The findings were confirmed by Paul, a child participant in Namibia:

> "They built schools here in the informal settlement…Like Fidel Castro [my school], is now near…We now… [have] four schools or five schools [in our community]." [Paul, CP (Nam)]

The local authority in Namibia also availed land free of charge to NPOs who wished to complement government efforts in building schools in informal settlements:

> "The land is given for free when it comes to education… [NPOs] can apply. If they motivate…they can get the land for free." [HSP 3 (Nam)]

This intervention attests to how partnerships are key to the realisation of the right to education.

Sub-theme 8.3: Early childhood development (ECD) programmes

ECD programmes that provide a solid educational foundation are important for improving the educational outcomes of children in poor communities. This effort aligns with SDG target 4.2, which aims to ensure that that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education (UN, 2015b:17). To realise this goal, ECD programmes in poor communities must promote high standards of education:

> "We've got an ECD facility…in our department. Because they say you must catch them whilst they are still young, educate them continue working with them these informal creches and build something that will really turn those creches to be just like the ones that we [have in the formal suburbs] …We shouldn't say just because it's an informal settlement meaning that whatever we are taking to them it must be inferior. No!" [SW 3 (SA)]

Two household participants in the study in Namibia and South Africa ran ECD programmes as a livelihood strategy that also increased access to quality education for children living in their communities. While the household participant in Namibia received formal training in ECD, the participant in South Africa initiated a crèche which is run by his mother who is a qualified school teacher:

> "I came to… [the] decision that let me go to the training of kindergarten, then I got trained. I was volunteering at one kindergarten…then the next year I decided to start out my own. [Petina, HP (Nam)]

> "I also registered…a crèche…which is run by my mother [a trained teacher] in ECD, early child development." [Darius, HP (SA)]

In view of simultaneously promoting good health and hygiene standards in the primary and secondary schools and day care centres in informal settlements, environmental health practitioners in both the study areas in Namibia and South Africa ran health promotion programmes in schools:

> "I am also responsible for ensuring safety for children at schools, at day cares…for ensuring the water that they are drinking is safe and [safe] disposal of waste especially refuse waste." [EHP 2 (SA)]

> "We deal with health promotion and we give health education in the informal markets, informal settlements and the schools…mostly it's on hygiene promotion and also on disease prevention, especially on water and sanitation related diseases." [EHP 1 (Nam)]

The highlighted ECD programmes show that different stakeholders can work together to ensure that educational programmes not only realise the right to education, but to a clean, healthy and safe environment as well.

Sub-theme 8.4: After school programmes

The findings point to the important role that soup kitchens can play in integrating feeding schemes with other programmes that empower children living in impoverished circumstances to perform better at school, in addition to equipping them with information and skills for asserting themselves in communities that are heavily impacted by HIV and AIDS:

> "I have also been working [at the soup kitchen] with our after-school youth, so the ones that come from primary or secondary school to do some homework here." [NPO A2 (Nam)]
>
> "There are other organisations… [that] offer feeding schemes… [they] give children breakfast, then after school the [children]…get meals and…assistance with homework." [NPO C1 (SA)]
>
> "There are…social workers that are providing [life skills] education to the kids. So, if there was no this soup kitchen, we could also not have this information." [Hilma, CP (Nam)]

Although NPO C in South Africa did not run a soup kitchen, it ensured that children who participated in their programmes got meals after each life skills session. The life skills sessions that are rendered by this NPO are designed to empower children with the knowledge and skills that enables them to make informed choices:

> "[Our organisation] is a life skills organisation…We try to assist youth between the ages of 12 to 18, 19 with life skills education so that they get equipped with information and skills on how to make informed choices." [NPO C1 (SA)]
>
> "[Our organisation] …works in [communities] where there are a lot of children that are affected by HIV and AIDS…The aim of the organisation is to educate young people…about HIV and AIDS so that they can take care of themselves at an early age." [NPO C4 (SA)]

As such, there is need for adopting innovative ways that ensure that the interventions that are rendered in poor communities maximise on the opportunities that a single project can provide.

Sub-theme 8.5: Bridging school and adult literacy programmes

NPO A in Namibia ran a bridging school programme that targeted children between the ages of eight and 18 years who, due to unfortunate circumstances, never attended formal school. The bridging school also catered for children who dropped out of school

by providing them with the preparatory education needed for their reintegration into the formal school system:

> "The bridging school is for children that have never been in school before, or they were in school but dropped out due to various reasons…We cater for them for a year and they are from the age of 8 to 17 to 18 there…Once they stay here for a year and we see that the child is ready to go to a formal school, then the child can go register to a formal school." [NPO A1 (Nam)]

> "Some of the children that come after school they may be 13 or 14 [years] and may not be able to read and so it becomes challenging, the older you are to catch up." [NPO A2 (Nam)]

Although findings from the sampled study area in South Africa could not reveal the existence of similar programmes for informal settlement communities in Orange Farm, bridging schools can fill the gaps in education that vulnerable children experience and which often are not adequately addressed through the conventional education system. NPO A in Namibia also ran adult literacy classes that equip individuals with basic literacy and numeracy skills, in view of tackling illiteracy amongst adults living in informal settlements:

> "We also have adult literacy…we find it hard to write a letter to the parents to say parents come and give your commitment or there is parents' meeting and only a few parents will turn up and we come to understand that most of our parents they do not know how to read or…write. So, we came up with this thing let us also teach our parents, let us include our parents, not only the children but let us work with their parents, so we came up with a class and then we teach them how to write and how to read." [NPO A1 (Nam)]

Interventions that promote literacy and numeracy for all people, are critical for the realisation of sustainable development outcomes (UN, 2015b:17).

Theme 9: Interventions that contribute to environmental sustainability

In view of the environmental challenges that confront informal settlement communities, a participant in South Africa asserted the right to a clean and safe environment as follows:

> "The constitution really states that…everyone has the right to have an environment that is safe to their health and well-being and there must be legislation developed to protect their right." [SA-EHP 3]

Seeing that environmental challenges in informal settlements are underpinned by poverty and a lack of access to basic services, the realisation of environmental sustainability in informal settlements requires interventions that tackle poverty and a

lack of access to adequate housing, sanitation, water and energy. It also requires communities to make lifestyle and attitudinal changes in the interest of protecting the environment and safeguarding human well-being. In addition, partnerships are key for the implementation of interventions that safeguard the environment:

> "In order for people to make this community better, they just need to…sit [down as] the whole community and…discuss about serious matters of the environment…they need to cooperate and work together as a community in order for them to make this community better." [Paul, CP (Nam)]

The sub-themes that are related to the interventions that promote environmental sustainability in informal settlements include; environmental health education and surveillance programmes, recyclable waste picking, initiatives that empower communities to safeguard water, energy solutions that do not degrade or pollute the environment, initiatives that reduce incidences of shack fires and interventions that improve access to sanitation.

Sub-theme 9.1: Environmental health education and surveillance programmes

Concrete measures that improve education, awareness-raising, human and institutional capacities to address environmental challenges are critical for the realisation of sustainable communities and environments (UN, 2015b:23). The study's findings show that the NPOs that were sampled in the study incorporated an environmental component in their life skills programmes that inculcated in children the importance of good hygiene and a clean environment. In addition to providing avenues for children to actively engage in cleaning the environment in their communities:

> "We have community service [it]…can be anything from cleaning…[the] environment…When it comes to environmental health it's teaching them or encouraging them not to litter…Even though Orange Farm is so full of litter, we encourage them to…make a difference." [NPO C1 (SA)]

> "We do have programmes for hygiene especially for the youth group and for those in the bridging school, also with the small children in the kindergarten…how to keep themselves clean, how to keep the environment clean." [NPO A1 (Nam)]

> "We…normally teach kids here…to take good care of the environment…We always instil that it is important to live in a healthy environment. Cause you can't be living in a dirty environment and there are a lot of diseases there that you can catch." [NPO C4 (SA)]

At the same time, there was a perception in the communities in the study areas that dumping litter is a strategy that helps to create jobs in communities where job opportunities are scarce:

> "[The community] will be like we are creating jobs for the less fortunate, we are throwing papers they can come pick up those papers at least they will get paid." [Pink, CP (SA)]

> "You will find someone throwing a paper saying I am creating a job for someone. You know you find such perceptions…Even when we are having sessions, they will tell you if we don't throw away papers people won't have jobs." [EHP 1 (Nam)]

> "People will like tell you that if I don't throw the waste there someone will be out of job but if I throw that waste, I know that I will be creating job opportunities." [Darius, HP (SA)]

The perception could have been rooted in the fact that:

> "We have councillors… [who] sometimes appoint people who will go around to clean those illegal dumping sites, who will go around to clean the tarred roads and then they will get a stipend for that period." [NPO C3 (SA)]

Although community clean up campaigns were run in both study areas, these were often once off events, which are not a lasting waste management solution in informal settlements:

> "Sometimes we do this thing of coming together as community leaders, we set up a day and we say this Saturday we are all going to clean up and everyone is welcome to come." [NPO A1 (Nam)]

> "Waste is a problem in Orange Farm…it will require political intervention cause us just doing campaigns and going and cleaning certain spots probably once or twice a month isn't really making that much of a difference." [EHP 2 (SA)]

At the same time, lamented that efforts to teach community members not to dump litter in informal settlements, was not accompanied by the necessary attitudinal changes, owing to the fact that the communities lacked basic services:

> "We give health education…but it's quite a challenge and when you are trying to respond to control diseases, it's very difficult…You [can] clean a place and you come back two days later and you find that you are back to square one." [EHP 1 (Nam)]

> "When you do education you tell people that you must not dump and then they ask you, if you say we mustn't dump where must we put our waste? So, we do have to educate the people that…illegal dumping is prohibited but [we] must also come up with a solution. You might find that our hands are tied because people will ask if you say we must not dump where must we put our waste? ...In informal settlements you have

> to make sure that the services are provided but we are not the service providers, we are just educating." [EHP 1 (SA)]

These findings attest to how environmental interventions can prove too superficial if they are not accompanied by structural changes that ensure access to basic services in poor communities. Likewise, in the absence of comprehensive interventions that guarantee the human right to adequate housing, raising awareness on the dangers of living in environmentally hazardous areas is not enough to deter communities:

> "No matter how we raise awareness that you shouldn't put your shack here people feel that there is no space where they have to put their shack." [SW 1 (Nam)]

The environmental health practitioners in the study also conducted environmental health surveillance programmes in informal settlements to detect and monitor communicable disease outbreaks and exposure to hazardous toxins:

> "In terms of the environment, we are going to check if they are not exposed to kinds of things like chemicals…if there is illegal dumping, they are not exposed to different kinds of diseases and illnesses… asbestos and such things." [EHP 1 (SA)]

> "Our role is more to identify the environmental health factors, which can be the waste, the overflowing of drains, it's all the environmental related issues that we are responsible for." [EHP 3 (Nam)]

While environmental health education and surveillance programmes are important in informal settlements, the findings highlight the inadequacy of environmental interventions, without efforts to tackle poverty and ensure the realisation of human rights for all. In this regard, a practitioner in Namibia argued that no one profession can address the multi-faceted social, economic and environmental challenges in informal settlements, without partnering with others:

> "The perception of everyone is that town planners are to be blamed for informal settlements…but it should actually be [practitioners] who studied social related issues not only town planning [who intervene to address the challenges in informal settlements], because if you leave it to town planning, we will concentrate more on drawing layouts and so forth but there are other social issues that are happening in those areas." [HSP 3 (Nam)]

The findings therefore point to the need for a multi-sectoral approach that draws on the input of both physical and social scientists, who partner with communities in addressing the many dimensions of challenges in informal settlements.

Sub-theme 9.2: Recyclable waste picking

Recyclable waste picking can be a livelihood strategy that provides opportunities for income generation, while entrenching environmentally sustainable practices:

> "South Africa as a whole…needs to find a way to reuse [and recycle] plastics for the very economic benefit of all South Africans…and then it will also create employment." [SW 1 (SA)]

Recyclable waste picking can also contribute to the realisation of SDG target 12.5, which aims to substantially reduce waste generation through prevention, reduction, recycling and reuse (UN, 2015b:22). While individuals in the study area in South Africa utilised recyclable waste picking as a livelihood strategy, participants in the study noted the fact that poor individuals often failed to secure a living wage from it:

> "They get recyclables from affluent places…plastics…card boxes then they to sell it to the recyclers and I don't think it's a job that you would say it give one a living wage." [EHP 4 (SA)]

> "The guys that are doing recycling, how do you expect that guys to… [get] money that will afford the rent and still be able to feed the family? It's not possible." [SW 1 (SA)]

> "[Some community members engage in recycling] but the fact is are they getting what they deserve? ...You can see that they are untidy, it seems as if they spend days without bathing. So, you can imagine that person doesn't have… [any]thing. So, if he went to the recycling and he is being given less of what he or she deserves so, imagine that person." [Refilwe, HP (SA)]

The findings also point to the fact that recyclable waste picking is not a comprehensive waste management solution in informal settlements, where refuse removal services are either non-existent or erratic. This is seeing that recyclable waste pickers selectively seek out items that are recyclable and which guarantee them a better income:

> "They will selectively recycle stuff that is in high demand at that particular time." [EHP 4 (SA)]

This reality therefore also calls for structural changes that address the waste management challenges in informal settlements.

Sub-theme 9.3: Initiatives that empower communities to safeguard water

Communities have an important role to play in safeguarding water even though it is provided to them free of charge. In view of long-term sustainability, the failure to safeguard water has negative repercussions on the availability of water and its equitable distribution among all people. The fact that water was provided free of

charge in the informal settlements in the study area in South Africa does not mean that there were no financial costs associated with its procurement and distribution. As water is a finite life-giving resource, interventions are needed to assist communities in safeguarding water:

> "There is a lot of education that must be done and probably Capetonians are more water savvy that anyone else in the country because they have experienced [drought], how it feels like not to have [water]." [HSP 3 (SA)]

In this regard, the CoJ ran educational campaigns to create awareness on safeguarding water:

> "Right now, there is an awareness…[by] Rand water teaching people how to use water…how to save water…the importance of paying water…So, people are changing their mindset towards disrespecting…water." [Favour, HP (SA)]

> "Joburg water [is]…making awareness of water, to teach people to save water and help them realise that [water treatment] chemicals…are too expensive and we get water from Lesotho." [Refilwe, HP (SA)]

While it may seem self-defeating to have asked the informal settlement communities in the study area in Namibia, where access to adequate clean water was problematic to adopt measures that safeguard water, a practitioner in Namibia observed a lack of awareness programmes in Windhoek in general that teach communities to conserve water:

> "The only reason why we've survived this long [drought] and limited water is because we are not as densely populated as in Cape Town…I think the awareness action was not really as intensive considering the actual situation…and with the restrictions they didn't really go into strict enforcement of the water restrictions." [EHP 4 (Nam)]

As encapsulated in SDG 6, it is important to ensure both the availability and the sustainable management of water. It is equally important to ensure universal and equitable access to safe and affordable drinking water for all (UN, 2015b:18).

Sub-theme 9.4: Energy solutions that do not degrade or pollute the environment

Green energy solutions such as solar energy can potentially play a role in reducing fire incidents, environmental degradation and the indoor and outdoor air pollution that is associated with the use of fire wood and fossil fuels in informal settlements:

> "We need to somehow…move from…this gray infrastructure to the greener infrastructure in order to achieve sustainability. For instance, provide solar instead of…the grid electricity." [HSP 4 (Nam)]

> 'We need to move to greener solutions because our resources are so limited and then also if it's greener solutions there is not really so much

> costs that are involved to communities that cannot afford the basic necessities. And then it's also not a strain on the city's resources, I think it's a win-win solution, I don't have to pay for something that is freely available and I am getting what I need." [EHP 4 (Nam)]

With the necessary political will, extending solar energy to informal settlement communities can be possible:

> "I wish we could follow the lead of the Swakopmund municipality because they have provided solar lighting and heating to the informal areas, which I think is really a good idea instead of leaning more towards fossil fuels…We should really begin to start thinking outside the box concerning services that need to be provided to informal areas." [EHP 4 (Nam)]

Ensuring universal access to affordable, reliable and modern energy for all, is key to sustainable development as is envisaged by SDG target 7.1 (UN, 2015b:19).

Sub-theme 9.5: Initiatives that reduce incidences of shack fires

The findings show that several measures were put in place in the study areas, to reduce the high incidences of shack fires in informal settlement areas. These measures included the setting up fire stations in and around informal settlements, training on fire safety, training on the safe use of gas and the formal electrification of informal settlements:

> "Close to each informal settlement there is…emergency [fire] services, and ambulance services…We have that one that side of Babilon." [EHP 3 (Nam)]

> "We [are] having now the fire brigade, they are helping us a lot to put out the fire on time." [Timothy, HP (Nam)]

> "In Maxuilili they have fire hydrants, the refill of the [fire] trucks is done there." [HSP 3 (Nam)]

In South Africa, the role of the fire brigade went beyond putting out fires to providing free training sessions on fire safety:

> "Emergency personnel are here and most people are trained. Training is for free the city provides it…being trained helps a lot in terms of fighting fire you will know what to do." [Benjamin, HP (SA)]

> "Our fire department is doing a brilliant job in Orange Farm because they do go around educating people…on…the dos and don'ts of fire safety." [EHP 2 (SA)]

In Namibia, plans were underway to formally electrify informal settlements, while training on the safe use of gas was offered to informal settlement communities:

> "We… [are trying] to electrify most of those areas so that they don't use these candles which are dangerous especially during the winters and we have been training them on how to use…gas…so that they don't explode. We spoke…companies that are supplying gas to go and train the communities on how to use gas." [HSP 3 (Nam)]

Sub-theme 9.6: Interventions that improve access to sanitation

In light of the hepatitis E outbreak in Namibia, the government and other stakeholders ran awareness campaigns on the causes, prevention and treatment of hepatitis E and on the importance of handwashing. They also distributed pills for households in informal settlements to use in disinfecting their drinking water. This was accompanied by the setting up of communal handwashing stations, water tanks and the building of more communal toilets in informal settlements:

> "[Hepatitis E] passes quickly, so the government made sure that everyone knows, and they even set up handwashing stations and all those sorts of things." [NPO A2 (Nam)]

> "[With regards to clean] water, now it's better because…the municipality are giving us pamphlets about health and sometimes they are giving us pills to put in water in order to make it clean." [NPO B3 (Nam]

> "With these outbreaks…government and all the stakeholders have managed to take… [clean water and sanitation] services further…toilets and some running water have been taken to the farer side of the informal settlements." [EHP 5 (Nam)]

> "We recently had the hepatitis E [outbreak] …It's an issue of cleanliness [sanitation] We have built more than 100 toilets recently and it has cost us 1.37 million [Namibian dollars]" [HSP 3 (Nam)]

It is acknowledged that hepatitis and other water borne diseases constitute a serious public health concern that has a diminishing impact on the realisation of sustainable development (UN, 2015b:16). While the building of more communal toilets in informal settlements in Namibia is a commendable effort, the study's findings show that the provision of more toilets to informal settlement communities is not an end in itself as this should be accompanied by strategies to keep the toilets well maintained and clean:

> "The community don't care about cleaning the toilets…you as the one who is staying closer to that toilet, should not let that toilet be dirty because all the infections from it will go to your place. Which means, the community just come and use it and go [but] you yourself, should take that responsibility [of cleaning it]." [Petina, HP (Nam)]

> "They vandalise them and they don't clean them and sometimes they end up being blocked and not working…the community will reason to say that how will expect the bathroom to be clean when how many

> households are using that bathroom?...So, maybe it's also that we don't provide adequate toilets and sanitation to the people and stuff, which links to not being in the financial capacity…for the city to do so." [HSP 4 (Nam)]

As noted by UNESC (2019:12), achieving universal access to basic sanitation by 2030 would require countries to double their current efforts in extending access to safe water, sanitation and handwashing facilities to poor communities.

7.3. Summary

The findings that were presented in this chapter show that achieving sustainable development is a collective endeavour that requires a multi-sectoral approach and the active engagement of all people in pulling together towards the realisation of set goals. This chapter has outlined the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlements in the study areas in Namibia and South Africa. The interventions that were provided in both study areas cut across the social, economic and environmental dimensions of sustainable development. These interventions are starkly similar in South Africa and Namibia, with slight context specific variations. However, stakeholders experience a lack of financial and other resources needed for the interventions to make an ongoing and enduring impact.

This chapter has demonstrated that the realisation of environmental and community sustainability for informal settlements is a lofty goal, which needs political will and commitment, the availing of financial, human and technical resources and multi-sectoral partnerships. Without the adoption of structural changes to enable informal settlement communities to access basic services, environmental interventions in informal settlements will remain minimalistic strategies that do not ensure environmental justice for poor communities. As such, interventions to tackle environmental challenges in poor communities should be intertwined with strategies that tackle poverty. In view of promoting sustainable communities and environments, it is important that stakeholders in informal settlements pool their efforts together in ensuring that current projects in informal settlements address various social, economic and environmental goals in an integrated manner. In the next chapter, the researcher consolidates and discusses the study's key findings and conclusions and the extent to which the research goal and objectives were accomplished.

CHAPTER 8
KEY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

The goal of the study was to explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa. The chapter starts by presenting the study's key findings and conclusions, followed by a discussion of the extent to which the goal and objectives of the study were accomplished. Thereafter, an integrated strategy for promoting environmental and community sustainability for informal settlement communities is presented. The chapter ends with recommendations for the implementation of the strategy, for social welfare policy, social work education, practice and research.

8.2 Key findings and conclusions

The study's key findings and conclusions reflect the social, economic and environmental challenges for sustainable development and the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities. The findings and conclusions are presented according to the following seven overarching themes; (1) inequitable development patterns; (2) urban land and housing ownership; (3) the environmental conditions associated with inadequate housing in informal settlements; (4) access to education; (5) informal and formal employment opportunities; (6) poverty amongst informal settlement communities; and (7) access to basic services in informal settlements.

8.2.1 Inequitable development patterns

The key findings and conclusions on inequitable development patterns are summarised as follows:

8.2.1.1 Key findings on inequitable development patterns

- Informal settlements in both Namibia and South Africa are a by-product of nationwide, inequitable development patterns and governance failures that exacerbate poverty and social and economic exclusion and migration from poorly resourced areas.
- There is a prevailing perception in both Namibia and South Africa that cities offer a better quality of life for the poor. The reality however, is a far cry from

this, as inequality dictates that a high level of income is the major predetermining factor as to whether one lives his or her life in dignity.

- Children who are raised in informal settlements have the odds set against them as they are highly likely to continue living in informal settlements through their adulthood, while their adult counterparts live in informal settlements for extended periods of time without ever experiencing upward social mobility.
- Children and adults living in informal settlements have a vision for sustainable communities and environments which is rooted in getting access to security of tenure, justice, health, employment, education, adequate housing, sanitation, water and clean environments.

8.2.1.2 Conclusions on inequitable development patterns

- The structural causes of the challenges that informal settlement communities experience are rooted within broader national contexts and urban settings that promote social and economic exclusion. As such, realising environmental and community sustainability for informal settlement communities transcends the geo-spatial boundaries in informal settlements to include realising socially, economically and environmentally just and inclusive countries and urban areas.
- The marginalisation that is experienced by informal settlement communities jeopardises the goal to realise inclusive and sustainable urban areas.
- Realising human dignity for all is an important justification for eradicating social and economic inequalities and is a prerequisite for sustainable communities.
- The fact that women and girls are disproportionately represented amongst informal settlement residents has implications for programmes and projects that promote women empowerment, gender equality and increase the social and economic opportunities that are available to women and girls.
- Social and economic inequalities have social, economic and environmental justice implications for nation-wide multi-stakeholder partnerships that foster social inclusion and advance human and environmental rights.
- The realisation of environmental and community sustainability for informal settlement communities requires high level political will and commitment, collaborative multi-sectoral partnerships and technological, human, financial, infrastructural and other resources.

- The efforts of informal settlement communities on their own, do not solve the underlying structural challenges of poverty and inequality or contribute to the realisation of environmental and community sustainability.
- People living in informal settlements should be consulted and have their views respected and incorporated in decision making processes that seek to realise sustainable environments and communities.
- Democratic processes that enable informal settlement communities to have a say in development and to co-produce solutions, alongside other stakeholders are important for the realisation of sustainable communities and environments.
- Multi-sectoral stakeholders from the water, energy, housing, health, education, business, agriculture, political and social service sectors can all contribute to the vision of sustainable informal settlement communities.

8.2.2 Urban land and housing ownership

The key findings and conclusions on urban land and housing ownership are summarised as follows:

8.2.2.1 Key findings on urban land and housing ownership

- A lack of ownership of land and housing in urban areas is a common challenge that informal settlement communities in Namibia and South Africa experience and is rooted in neo-liberal market dynamics that make land and housing both unaffordable and inaccessible to the poor.
- Unaffordable land and housing interact with poverty, unemployment, low paying jobs and the failure of the state to provide the poor with adequate housing to contribute to the emergence of an alternative informal settlement housing market that does not meet basic human rights.
- Government employees, who, in actual fact, earn salaries that are set above the minimum wage, also find themselves living in informal settlements.
- Informal settlements afford socially and economic excluded communities with a somewhat affordable place to stay in highly inequitable urban areas.
- Living in informal settlements is characterised by vast levels of insecurity and the persistent fear of eviction.
- A lack of access to land and housing in urban areas creates overcrowded living conditions in informal settlements.

- The interventions that are implemented in view of extending informal settlement communities with access to land and adequate housing in Namibia centre on self-help group savings, while those in South Africa revolve around public funded housing and informal settlement upgrading initiatives.
- Informal settlement upgrading programmes in both Namibia and South Africa are faced with major logistical, technical and financial resource challenges that hamper their implementation.
- RDP housing in South Africa is instrumental in extending poor communities with access to adequate housing; however, the demand for pro-poor housing outpaces the rate at which the government can realistically provide housing for all.
- There is a huge gap in the Namibian housing market due to a lack of state led mass housing programmes for low income earners.

8.2.2.2 Conclusions on urban land and housing ownership

- Property rights remain unrealisable for poor black communities in Namibia and South Africa.
- Key to the social exclusion that is experienced by public service workers living in informal settlements is unaffordable housing and a lack of access to housing finance that is commensurate with their salaries. This reality calls for the adoption of innovative and affordable housing finance arrangements.
- Land tenure is key to providing security to informal settlement communities and to building inclusive and sustainable urban areas.
- Group savings schemes, public funded housing and informal settlement upgrading initiatives offer good case examples from which Namibia and South Africa can each draw lessons from in view of extending access to land and housing to informal settlement communities.
- A broad coalition of stakeholders, not just informal settlement communities and the government are important for the effective implementation of informal settlement upgrading programmes.
- The provision of RDP housing in South Africa is consistent with a developmental social welfare approach, while the gap in the Namibian housing market could be attributed to the role that neo-liberal policies play in limiting the state's involvement in the housing market.

8.2.3 The environmental conditions associated with inadequate housing in informal settlements

The key findings and conclusions on the environmental conditions that are associated with inadequate housing in informal settlements are summarised as follows:

8.2.3.1 Key findings on the environmental conditions associated with inadequate housing in informal settlements

- Informal settlement communities lack the adequate housing infrastructure to mitigate against fire hazards, windy weather conditions, heavy rain and the extremes of hot and cold weather.
- In their efforts to address pressing needs for housing, informal settlement communities settle in wetlands, mountain tops and under high voltage power transmission lines, which in essence are areas that are not suitable for human habitation.
- A lack of access to adequate housing prompts poor communities to invade ecologically fragile and geographically hazardous built environments, in so doing, they ignore the duty to respect, care and protect ecologically sensitive areas, while endangering their own lives.
- The building of shacks in informal settlements is associated with environmental degradation and the diminishing stock of natural vegetation.
- Environmental degradation and environmental disasters in informal settlements are exacerbated by relentless efforts to re-channel or block the natural flow of water bodies to make room for building more shacks.
- There is a fine line between natural and human made environmental disasters in informal settlements, more especially as people inhabit areas that are not fit for human habitation and eventually alter the natural landscape.
- The building of shacks in informal settlements alters the natural environment in these areas to a silver landscape that is made up of human made corrugated zinc iron structures.
- Overcrowded living conditions in informal settlements have a negative impact on the carrying capacity of the natural environment.

8.2.3.2 Conclusions on the environmental conditions associated with inadequate housing in informal settlements

- The inadequate housing conditions in informal settlements are a major concern in light of climate change and have implications for programmes that promote adequate and resilient housing, in view of mitigating poor communities against the ill effects of climate change.
- Socially and economically excluded communities that are denied access to adequate housing perceive their long-term well-being and the well-being of the environment as secondary, for as long as they have a place that they can call their home.
- The linkages between social and economic exclusion and living in deteriorated physical environments in informal settlements have implications for collaborative partnerships that advance social, economic and environmental justice and human rights for all.
- Ensuring adequate housing for all is imperative both for the survival of present and future generations of people and for the overall well-being of the natural environment.
- Natural weather phenomena interact with inadequate housing and living in marginal areas to result in human made environmental disasters.
- Informal settlement communities struggle to recover when their housing and possessions are destroyed by natural and human made environmental disasters and this has implications for building the resilience of poor communities to environmental disasters.
- In the absence of concrete interventions to halt and reverse land degradation and biodiversity loss, informal settlements will continue to contribute to environmental degradation and the diminishing stock of natural vegetation.
- Overcrowded living environments diminish the ability of informal settlement communities to withstand the impact of natural and human made environmental disasters.

8.2.4 Poverty amongst informal settlement communities

The key findings and conclusions on poverty amongst informal settlement communities are summarised as follows:

8.2.4.1 Key findings on poverty amongst informal settlement communities

- Poverty is a reality that both children and adults living in informal settlements are intimately familiar with.
- While informal settlements are largely inhabited by poor communities, not all people living in informal settlements are poor from an income view of poverty.
- For some individuals, living in informal settlements is associated with relatively better outcomes, while for others it is associated with worse off personal and household circumstances.
- Whether one lives in an informal settlement in Windhoek, or in Orange Farm, stigma is a challenge that children and adults living in informal settlements are commonly faced with.
- Poverty is characterised by a daily struggle for survival and the uncertainty of not knowing how one will meet his or her household's present and future needs for food.
- Food that goes past its sale by date often finds itself in the informal food market that supplies homes in poor communities.
- Poverty brings to the fore the vulnerability of all children to hunger, as orphaned children, children living in child headed households, those in food insecure homes and in households where food or money to buy food are readily available, can all find themselves suffering from hunger.
- Children living in poverty are vulnerable to exploitation by cunning adults and this puts children in compromising situations that impact on their futures.
- Hunger in poor communities is not only associated with a lack of food but with a lack of sustainable and reliable forms of energy for cooking.
- Vegetable gardens, school feeding programmes, soup kitchens, food banks and social support networks are the primary strategies that informal settlement communities use in minimising hunger in their households.
- The interventions that were implemented to address poverty in the study areas included social grants, community and school feeding programmes, food banks, free education, school stationery, uniforms and toiletries, life skills, mentorship and motivational programmes.
- The practitioners who rendered interventions in the informal settlements in the study areas were comprised of professionals and community activists whose fields of work included town planning, housing, land surveying, environmental

health, social work and childhood development. Their roles in informal settlements included among other roles, counselling, disaster relief, life skills training, informal settlements upgrading, environmental health education, environmental health surveillance, hunger alleviation, early childhood development, income generating projects, and alcohol and drug rehabilitation.

- While several interventions were implemented for informal settlement communities in the study areas, there was a lack of inter-sectoral collaboration in planning and implementing the interventions. As such, efforts were often duplicated.
- Feeding schemes play a major role in reducing hunger in informal settlements, however the demand for such programmes often exceeds what individual organisations can realistically provide.
- Food bank programmes are often a stop gap measure to reduce hunger in poor communities that do not guarantee households with longer term food security.
- A lack of birth certificates and identity documents are barriers to the uptake of social grants amongst poor communities.
- For some households, social grants and child support grants, in particular, are their only sources of income.

8.2.4.2 Conclusions on poverty amongst informal settlement communities

- The experience of poverty amongst informal settlement communities necessitates a broader multi-dimensional view of poverty.
- The interventions that were implemented to tackle poverty in the study areas embraced a wider view of poverty that sees it as both a lack of income and of power.
- The better outcomes that some households experience after relocating into an informal settlement are rooted in an access to an affordable place to stay, free drinking water and social grants, while a lack of access to adequate safe drinking water and social grants is associated with poor outcomes.
- Stigma reinforces the social and economic exclusion that informal settlement communities experience.
- A lack of birth certificates and identity documents are a barrier to accessing the social and economic opportunities that are important for poverty eradication.

- Poverty makes poor households not to question where their food is sourced, for as long as they have something to ward off hunger for the day.
- The consumption of food that is procured from questionable sources has implications for ensuring that food is not only available in sufficient quantities to poor communities, but that the food that they have access to is safe for human consumption.
- The access to food that has gone past its sale by date in informal settlements has implications for formal food market processes that curb food wastages and promote sustainable consumption and production patterns.
- Hunger and poverty are damaging for children's present and future prospects.
- Children's unique experiences with hunger are embedded in child neglect, misplaced priorities and other challenges that see adult caregivers spending much of their earnings or their children's social grants on non-basic items.
- A lack of access to sustainable sources of energy puts households at risk of eating raw food or going hungry even when they have enough food to cook.
- A lack of access to reliable energy sources puts households at risk going hungry in bad weather conditions, even though they have firewood to cook meals, seeing that many households in informal settlements cook outdoors.
- Partnerships between soup kitchens and donors are key in ensuring sustainable access to food in poor communities.
- A lack of birth certificates and identity documents amongst poor communities perpetuates itself and transmits poverty across generations of parents, their children and grandchildren.
- The dependence by some households on a single family member's social grant diminishes the intended impact of an individual family member's social grant and keeps families in a desperate situation of poverty and vulnerability.
- Interventions that address poverty in children should cover the survival, protection, participation and development dimensions of children's rights.
- Life skills, motivational and mentorship programmes support and equip children with information and skills needed to assert themselves in communities that are heavily impacted by poverty and HIV and AIDS. They motivate and steer children to act as agents of positive social change and build a legacy of leaders who are empowered to strive for generations of people with better futures. They

enable children to exercise their power and agency in working towards the social, economic and environmental dimensions of sustainable development.

- Addressing poverty has social, economic and environmental dimensions.

8.2.5 Access to education among informal settlement communities

The key findings and conclusions on access to education among informal settlement communities are summarised as follows:

8.2.5.1 Key findings on access to education

- The right to education was promoted in the study areas through free primary school education, no-fee paying schools, bridging schools, after school classes, ECD, life skills and adult literacy programmes.
- Walking long distances to school, the hidden costs of education, teenage pregnancy and overburdening children with household chores negatively impact on school attendance amongst children living in informal settlements.
- A lack of adequate education is a common challenge amongst adults living in informal settlements in Namibia and South Africa and those individuals who progress to matric, often fail to pursue tertiary education due to a lack of financial resources.

8.2.5.2 Conclusions on access to education

- While universal education policies play a major role in ensuring access to education for children living in poverty, removing the requirement for children from poor households to pay fees, does not holistically tackle the access barriers that prevent children from attending school.
- The failure to access education during one's formative years has life-long implications.
- Informal settlement communities lack the necessary educational investments needed to give them an upper hand when looking for employment in the formal sector.
- Without the necessary support systems, tertiary education can be far out of reach for individuals living in informal settlements.
- Collaborative partnerships that better target interventions and eliminate the duplication of interventions, while ensuring that a single project addresses multiple related goals are important for sustainable development.

- ECD programmes in informal settlements can serve as a platform through which various stakeholders can come on board to ensure the realisation of multiple goals that advance children's rights.
- Bridging schools play an important role in ensuring that no child is left out of the education system, by providing the preparatory education needed for their integration into the formal school system.

8.2.6 Informal and formal employment opportunities

The key findings and conclusions on informal and formal employment opportunities amongst informal settlement communities are summarised as follows:

8.2.6.1 Key findings on informal and formal employment opportunities

- Unemployment is a major challenge amongst informal settlement communities.
- Unemployment amongst informal settlement communities is associated with poverty, hunger, crime, substance abuse and underpins the decision to live in informal settlements.
- Job searching is an expensive endeavour that requires significant transport, time, energy, financial and other investments, which can prove hard to sustain for people living in poverty.
- With repeated failed attempts in securing a job, some individuals end up giving up on job searching all together.
- Training on how to start and run small scale businesses, cooperatives, training in technical and vocational skills, public works programmes and microenterprises were implemented in the study areas in view of creating informal job opportunities and enabling individuals and groups to capitalise on their passions to create jobs.
- Public works programmes act as temporary buffers against a lack of income; they also contribute to the development of informal settlements as they hire local community members in projects that are facilitated in their communities.
- NPO C in the study area in South Africa capitalised on the power of life skills education to equip children with financial literacy, business management and entrepreneurial skills and prepare them for eventual self-employment.
- The microenterprises and recyclable waste picking in poor communities can potentially be precarious forms of employment that contribute to air, land and

marine pollution in the absence of protective gear and adherence to human and environmental health standards.

- Menial and temporary jobs that do not guarantee a living wage keeps individuals living in informal settlements and their households in perpetual vulnerability and insecurity.

8.2.6.2 Conclusions on informal and formal employment opportunities

- Unemployment is a cross-cutting feature among informal settlement communities in Namibia and South Africa that requires innovative solutions.
- Stakeholders should not only aim to stimulate job creation but the job opportunities that are created must guarantee individuals with reasonable incomes and decent wages.
- Equipping informal settlement communities with skills for productive employment and putting in place support mechanisms that assist individuals in job searching are equally important objectives.
- The feelings of resignation, helplessness and powerlessness that accompany unemployment impinge on the capacity of individuals and communities to work towards the realisation of the social, economic and environmental dimensions of sustainable development.
- Cooperatives are not only an income generation strategy but are an important tool for peacebuilding that unite people from diverse ethnic and cultural backgrounds in working together in addressing common challenges.
- Informal settlement residents strive for more permanent forms of employment, which would make a lasting impact on reducing unemployment and poverty.
- Entrepreneurship programmes are an important avenue through which children can be stimulated to formulate innovative solutions to the challenges that confront informal settlement communities.
- Microenterprises in poor communities should be supported so that they address poverty and unemployment without causing a deteriorating impact on human health and on the natural environment.
- The contribution of recyclable waste picking to environmental sustainability in informal settlements is limited as waste pickers selectively seek out those items which are recyclable and that guarantee them the best market price.

8.2.7 Access to basic services in informal settlements

The key findings and conclusions on access to basic services in informal settlements are summarised as follows:

8.2.7.1 Key findings on access to basic services in informal settlements

- Although local authorities proactively plan for the provision of basic services in urban areas, rapid urbanisation and the rate at which poor communities invade informal settlement areas, outpaces their ability to deliver basic services effectively and timeously.
- Rapid urbanisation can imply that households living within the same informal settlement can have variable access to water, sanitation, electricity and refuse removal services.
- The perception amongst informal settlement communities is that local authorities do not prioritise the delivery of basic services to informal settlements, as they constitute areas that are largely inhabited by poor people.
- Living in ecologically fragile and geographically hazardous built environments has a negative impact on the delivery of basic services to informal settlement communities residing in these areas.
- In Namibia, access to safe drinking water is a daunting challenge as water is not provided free of charge to informal settlement communities but is available through a prepaid water system. However, not all informal settlement residents can afford to maintain a sustainable access to adequate clean and safe water as they find it too expensive.
- The informal settlement communities in the study area in Namibia circumvented a lack of sustainable access to water through borrowing water from neighbours, begging for money to recharge their prepaid water cards and drawing water from unsafe sources that posed a serious risk for water borne disease outbreaks.
- Unlike the informal settlement communities in the study area in Namibia, those in South Africa benefit from water that is provided by local authorities free of charge to poor communities.
- The provision of free water to informal settlements does not necessary entail equal access to adequate clean water for all, as households have variable

access to water depending on how close their households are located to communal water points.

- For the communities in the study, toilets were either non-existent or were too few considering the number of people who needed to use them.
- Poor sanitation in informal settlements manifests itself in the form of open defecation, raw sewage from makeshift and communal toilets, the open bucket system and in what participants in Namibia referred to as, 'flying toilets.'
- In the absence of the access to formal electricity services, informal settlement communities turn to unsustainable, unreliable, unclean and unsafe forms of energy.
- Not all households in informal settlements lack access to electricity, as some resort to connecting electricity illegally, while others use firewood, candles, paraffin and gas for energy, which all contribute to causes fire hazards in informal settlements.
- The setting up of fire stations in and around informal settlements, training on fire safety and the safe use of gas were implemented in view of reducing the high incidences of shack fires in the study areas.
- A lack of access to basic services is a major contributing factor to poor health and environmental outcomes in informal settlements.
- The dumping or burning of rubbish due to a lack of access to refuse removal services contributes outdoor air pollution and to the pollution of land and marine resources in and around informal settlements.
- A lack of access to affordable safe drinking water, combined with a lack of adequate sanitation and access to food whose safety is questionable meant that informal settlement communities in Windhoek, were not only grappling with a hepatitis E outbreak, but were just recovering from cholera and listeria outbreaks.
- In light of the hepatitis E outbreak in Namibia, the government and other stakeholders ran awareness campaigns on the causes, prevention and treatment of hepatitis E and on the importance of handwashing. They also distributed pills for households in informal settlements to use in disinfecting their drinking water. This was accompanied by the setting up of communal handwashing stations, water tanks and the building of more communal toilets in informal settlements.

- While environmental health educational programmes were coordinated by various stakeholders in informal settlements in the study areas, efforts to teach community members not to dump litter in informal settlements were not accompanied by the expected attitudinal changes.
- There was a perception among informal settlement communities in both study areas that dumping litter helps to create jobs in communities where job opportunities are scarce. More so, as local authorities sometime hire people to pick up litter that is scattered in informal settlements.

8.2.7.2 Conclusions on access to basic services in informal settlements

- Rapid urbanisation poses a threat to sustainable development especially as more and more poor people settle in informal settlements that inherently lack access to basic services.
- Living in areas that are not suitable for human habitation keeps informal settlement communities in a desperate situation of a lack of access to basic services, social and economic exclusion and vulnerability to both natural and human made environmental disasters.
- Constitutional provisions and concrete multi-stakeholder interventions that safeguard the right to water and adequate sanitation are important for sustainable communities and environments.
- A lack of sustainable access to water in informal settlements has implications for human dignity and has gender implications for women who often constitute the majority of breadwinners in poor communities.
- While governments have a duty to extend access to adequate water for all, communities have the responsibility to safeguard water, even when it is provided free of charge to their communities.
- The fact that water was provided free of charge in the informal settlements in the study area in South Africa does not mean that there are no financial costs associated with its procurement and distribution.
- Even in light of free access to water, communities need to adopt innovative ways of gardening that conserve water, while enabling them to reap a harvest for household consumption and for selling the surplus.

- A lack of adequate sanitation in informal settlements does not affect all people equally as women and children are the ones who often risk sexual and other forms of assault, while trying to use communal toilets or open spaces as toilets.
- Open defecation, flying toilets, raw sewage from makeshift and communal toilets and the dumping of garbage in river beds and open spaces, all combine to cause significant land and water pollution and health risks in informal settlements.
- Pollution due to a lack of access to basic services impinges on children's right and children are naturally inclined to play, even in polluted environments.
- A lack of affordable and reliable energy sources has time, health and safety implications on women and contributes to the increasing scarcity of trees in and around informal settlements.
- The larger an informal settlement grows in size, the more the trees that are chopped for firewood and this has major implications for the realisation of environmental sustainability.
- Informal settlement communities are aware of the negative environmental impacts that are associated with cutting trees for firewood but they feel powerless to change the situation due to a lack of access to affordable energy alternatives.
- Interventions that extend access to modern forms of energy to informal settlement communities are important for minimising the exposure to indoor and outdoor air pollution, the incidences of fire hazards and the vulnerability to respiratory illnesses and carbon monoxide poisoning that are associated with the use of firewood, paraffin and coal stoves.
- Access to modern clean and reliable sources of energy are important for freeing women from the burden of spending considerable amounts of time and energy in search of firewood, they can then direct this time to actively engaging in productive livelihood activities.
- Individuals living in poverty often risk their lives and those of their community members in their pursuit to make their day to day lives a bit more comfortable through illegally sourcing electricity.
- While there were no green energy solutions in the study areas, solar energy can potentially play a role in reducing fire incidents, environmental degradation

and the indoor and outdoor air pollution that is associated with the use of fire wood and fossil fuels in informal settlements.

- Interventions that safeguard informal settlement communities against fire disasters are an indispensable requirement for ensuring sustainable communities and environments.
- Water borne disease outbreaks have environmental justice implications for multi-sectoral action in realising human rights to water and sanitation.
- The provision of more toilets to informal settlement communities is not an end in itself as this should be accompanied by strategies to keep the toilets well maintained and clean.
- Without the adoption of structural measures to enable informal settlement communities to access basic services, interventions that aim to promote the well-being of informal settlement communities by educating them to keep the environment clean, will remain minimalistic strategies that do not yield the necessary attitudinal changes or ensure environmental justice for the poor.
- The findings highlight the inadequacy of environmental education programmes, without efforts to tackle poverty, in the absence of comprehensive interventions that guarantee the human right to adequate housing, raising awareness on the dangers of living in environmentally hazardous areas are not enough to deter communities from inhabiting these areas.
- The perception that dumping litter creates jobs for people living in communities where job opportunities are scarce detracts from efforts to promote environmental protection efforts and human health and well-being.

8.3 Goal and objectives of the study

The goal of the study was to explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa. The goal of the study was accomplished through the following objectives:

Objective 1

- To conceptualise environmental and community sustainability for informal settlement communities within a theoretical framework that is embedded in environmental justice theory, the three generations of human rights framework and social development.

The first objective of the study was addressed from a literature perspective in Chapter Two, where the researcher conceptualised sustainability, examined the interlinkages between sustainability and sustainable development and outlined the major historical events that shaped the commitment to realising sustainability through sustainable development (see sub-sections 2.2 and 2.3). In Chapter Three (sub-section 3.2) the researcher defined the terms environmental and community sustainability and conceptualised environmental and community sustainability for informal settlement communities by focusing on the built and natural environments in informal settlements, the green and brown agendas and the 5P focus of sustainable development. Within this chapter, the researcher discussed the social, economic and environmental challenges that impinge on environmental and community sustainability for informal settlements (see sub-section 3.4). The researcher took objective one a step further in Chapter Four by conceptualising environmental and community sustainability within a theoretical framework that is grounded in environmental justice theory; the three generations of human rights framework and social development (see sub-section 4.2). The entire study was conducted and analysed through the theoretical lenses of environmental justice, human rights and social development. The findings in Chapters Six and Seven and the key findings and conclusions in Chapter Eight, are explored through the lens of environmental justice, human rights and social development.

In Chapter Four, the researcher also presented the legislative and policy frameworks that enunciate a commitment to promoting environmental and community sustainability internationally, regionally in Africa, as well as in Namibia and South Africa (see sub-section 4.3). She also highlighted developmental, environmental and green social work as some of the practice frameworks that guide social workers in translating theories and commitments on environmental and community sustainability into practice (see sub-section 4.4).

Objective 2

- To determine the social, economic and environmental challenges for sustainable development amongst informal settlement communities.

Objective two was realised from a literature perspective in Chapter Three and by means of the empirical findings in Chapter Six. The empirical findings presented in Chapter Six reaffirmed the literature findings in Chapter Three (sub-section 3.5), on social, economic and environmental challenges amongst informal settlement

communities. The empirical findings in Chapter Six contributed to new knowledge by highlighting the interconnected nature of the social, economic and environmental challenges that informal settlement communities in Namibia and South Africa experience.

Objective 3

- To determine the interventions that promote the social, economic and environmental dimensions of sustainable development amongst informal settlement communities.

Objective three was initially addressed in Chapter Four, where the researcher defined what interventions are from a social development perspective and highlighted the various types of interventions that can be utilised in view of promoting sustainable environments and communities (see sub-section 4.2.3). The researcher also discussed developmental, environmental and green social work as the relevant practice frameworks that guide social workers in formulating interventions that promote social, economic and environmental justice and human rights for all (see sub-section 4.4). In Chapter Seven, the researcher continued the presentation and analysis of the study's findings on the interventions that promote the social, economic and environmental dimensions of sustainable development among informal settlement communities in Namibia and South Africa. In this regard, the researcher presented the interventions that are implemented in the study areas in view of tackling poverty, hunger, inequitable access to land and housing, unemployment and a lack of access to education and basic services.

Objective 4

- To explore how the social, economic and environmental dimensions of sustainable development could be integrated to promote sustainable informal settlement communities.

This objective was realised from a literature perspective in Chapter Two (sub-section 2.2.2), where the researcher defined sustainable development and outlined its three integrated and indivisible social, economic and environmental dimensions. In sub-section 2.2.4, the researcher outlined the core principles of the *2030 Agenda* (UN, 2015b) and how the agenda integrates and balances the social, economic and environmental dimensions of sustainable development through its 17 SDGs and 169 targets. In Chapter Three (sub-section 3.2), the researcher argued for the need to

reconcile both the green and brown agendas of sustainable development in view of addressing both global environmental challenges and the urban environmental challenges that poor communities experience due to a lack of basic services. In Chapter Four (sub-section 4.4), the researcher presented the practice frameworks that guide social work in integrating the social, economic and environmental dimensions of sustainable development. Objective four underpinned the integrated thrust of the strategy that was set out by objective five.

Objective 5

- To formulate an integrated strategy for promoting environmental and community sustainability for informal settlement communities

The researcher addresses objective five in this chapter by outlining an integrated strategy for promoting environmental and community sustainability for informal settlement communities (see sub-section 8.4, below). The strategy is based on the study's key findings and conclusions (see sub-section 8.2, above) and is formulated from an integrated social, economic and environmental justice perspective. The strategy contributes to the achievement of objective four and answers the research question: How can the social, economic and environmental dimensions of sustainable development be integrated to promote sustainable informal settlement communities?

8.4 An integrated strategy for promoting environmental and community sustainability for informal settlement communities

The study's findings show that although the informal settlement communities in the study were located across diverse geo-political localities in Namibia and South Africa, the challenges they face are more or less similar. These challenges attest to the urgent imperative to mobilise partnerships and resources that tackle the complexity of social, economic and environmental challenges in informal settlements. The expected outcome of the study was an integrated strategy for promoting environmental and community sustainability for informal settlement communities, which is presented in Figure 8.1 below. The strategy is formulated from an integrated social, economic and environmental justice perspective. The integrated strategy is underpinned by the study's findings on the interrelatedness of social, economic and environmental challenges in informal settlements. The aim of the strategy is to guide multi-sectoral collaborative action in promoting sustainable communities and environments.

Figure 8.1: An integrated strategy for promoting environmental and community sustainability for informal settlement communities

The proposed strategy is embedded in four interrelated components, which are visually depicted in Figure 8.1. These include; (1) raise awareness on the human and environmental consequences of social and economic inequalities; (2) mobilise multi-sectoral partnerships and resources for social, economic and environmental justice; (3) challenge the structural causes of social and economic inequalities; and (4) implement community level interventions that advance human and environmental well-being. The implementation approach of the integrated strategy has to be in alignment with what is locally relevant. The following discussion of the four interrelatd components include the key pointers which can guide stakeholders in developing a locally relevant integrated strategy.

8.4.1 Raise awareness on the human and environmental consequences of social and economic inequalities

Reducing inequality within and among countries is a precondition for sustainable development (UN, 2015b:21). Social and economic inequalities play a major role in deteriorating human well-being and in creating unsustainable relationships between people and the environment in which they live and depend on for ecosystem services. They reinforce poverty, social and economic exclusion and environmental

degradation, while polluted, overcrowded and degraded environments have a deteriorating impact on human well-being. Grassroots actors alongside informal settlement communities have an important role to play in raising awareness on the human and environmental consequences of social and economic inequalities in poor communities. Such awareness raising is in view of soliciting and strengthening the involvement of all stakeholders in creating a socially just, fair and environmentally sustainable world.

8.4.2 Mobilise multi-sectoral partnerships and resources for social, economic and environmental justice

The challenges in informal settlements all have implications for multi-sectoral partnerships that contribute to social, economic and environment justice. As articulated by SDG target 17.16 multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources to support the achievement of the SDGs are a prerequisite for sustainable development (UN, 2015b:27). Multi-sectoral partners should work alongside local communities by fostering democratic practices that enable informal settlement communities to fully participate in all development processes that are intended to promote sustainable communities and environments. Champions can be appointed to lead strong integrated team work that strategise and formulates a plan of action for challenging the structural causes of social and economic inequalities and coordinating community level interventions that advance human and environmental well-being, with clearly delineated duties for each role player.

8.4.3 Challenge the structural causes of social and economic inequalities

The linkages between social and economic inequalities, inequitable development patterns, poverty and environmental degradation make realising environmental and community sustainability a very challenging endeavour. Informal settlement communities, alongside multi-sectoral partners have an important role to play in identifying and challenging the structural causes of social and economic inequalities at global and national levels, which contribute to poor human and environmental outcomes in informal settlements.

8.4.4 Implement community level interventions that advance human and environmental well-being

Advancing human and environmental well-being are mutually reinforcing objectives. The interconnectedness of human and environmental well-being implies that eradicating poverty is not only in the best interests of informal settlement communities but of the environment upon which they depend on for their very survival. Poverty and addressing it have social, economic and environmental dimensions. Informal settlement communities, alongside multi-sectoral partners should regularly strategise on how best they can coordinate and implement interventions that attend to the social, economic and environmental aspects of community life.

8.5 Recommendations

As indicated by the research findings, promoting sustainable communities and environments is embedded in an integrated, multi-sectoral approach, of which social work is a key role player. The researcher makes the following recommendations for the implementation of the proposed integrated strategy, for social welfare policy, social work education and practice and, finally, for future research.

8.5.1 Recommendations for the implementation of the strategy

Recommendations for the implementation of the strategy are as follows:

- ✓ Local authorities, social service organisations and informal settlement communities in Namibia and South Africa should partner with multi-sectoral stakeholders from the political, housing, labour, health, education, water, energy and environmental sectors in piloting and adapting the strategy to suit their local contexts.
- ✓ The outlined strategy should be utilised alongside other strategies such as the Sustainable Livelihoods Framework (Department for International Development (DFID), 1999), in drawing together stakeholders from various sectors in mapping the challenges and vulnerabilities that interact with human and environmental well-being in informal settlements and the resources, strengths, assets and livelihood strategies that can be utilised in promoting sustainable communities and environments.

Informal settlement communities alongside multi-sectoral partners should undertake the following:

- ✓ Enhance their knowledge and skills in sustainable development, human rights and advocacy practice through hosting and attending community forums, training seminars and workshops.
- ✓ Evaluate relevant social, economic and environmental policies, and identify and highlight policy gaps pertaining to human well-being and environmental sustainability.
- ✓ Engage in social and environmental justice campaigns that advocate and lobby their governments for accountability in implementing NDPs and economic, environmental and social welfare policy commitments.
- ✓ Plan community level projects that have an integrated focus on addressing poverty, promoting social and economic inclusion and nurturing the duty for informal settlement communities to care for one another and for the natural environment.

8.5.2 Recommendations for social welfare policy, social work education and practice

The researcher makes the following recommendations for social welfare policy, social work education and practice:

- ✓ Social workers should contribute to the development of global, regional and national development agendas by engaging in the current consultation processes of the IFSW, IASSW and ICSW to influence the themes of the *Global Agenda for Social Work and Social Development* for the next ten years (2020 to 2030). The themes in the envisaged agenda should include a focus on the environmental challenges that are underpinned by poverty, social and economic exclusion in rural and urban communities.
- ✓ The Department of Social Development in South Africa and the Ministry of Health and Social Services in Namibia should take the lead in revising social welfare policy to ensure inclusion of a sustainability framework which integrate the people, planet, peace, prosperity and partnerships thrust of sustainable development.
- ✓ In view of strengthening social work's contribution to the *Global Agenda* (2012) and the *2030 Agenda* (UN, 2015b), the South African Council for Social Service Professions and the Social Work and Psychology Council of Namibia should encourage continuing professional development in environmental and green

social work. They should additionally explore adopting environmental and green social work as a specialised field in social work.

- ✓ As Namibia and South Africa have adopted a developmental social work approach which supports a sustainable development framework, academic institutions in these countries should integrate the historical underpinnings, theories, principles and challenges to sustainable development in the social work curricula. This will strengthen social work's contribution to the *2030 Agenda* (UN, 2015b).
- ✓ Academic institutions in Namibia and South Africa should partner with local authorities and NPOs in implementing innovative community projects that advance social, economic and environmental justice for informal settlement communities. This will open up field placement opportunities for social work students to apply theory and knowledge in promoting community and environmental sustainability.
- ✓ Social service delivery within the Department of Social Development in South Africa, the Ministries of Health and Social Services; and Gender Equality and Child Welfare in Namibia, local authorities and social service organisations must be delivered with an integrated psychosocial, developmental and environmental focus.
- ✓ Developmental social workers should adopt a sustainable development practice framework that recognises and addresses the social, economic and environmental issues that impact on the well-being of poor communities.

8.5.3 Recommendations for future research

Based on the findings of the study, the researcher makes the following recommendations for further research:

- ✓ In collaboration with the community and multi-sectoral partners, adapt and pilot the proposed integrated strategy for promoting environmental and community sustainability for informal settlement communities in Windhoek and Orange Farm.
- ✓ A post-doctoral study that explores how the proposed integrated strategy for promoting environmental and community sustainability for informal settlement communities can use the sustainable livelihoods framework (DFID, 1999), as a pathway to build resilient communities and environments.

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Appendix 1: Interview schedule for household participants

STRUCTURED INTERVIEW SCHEDULE
HOUSEHOLD PARTICIPANTS

Goal of study: To explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Biographical information

1. Gender

Female	Male	Other

2. Marital status

Single	Co-habiting	Married	Divorced	Widowed	Separated

3. Age group

18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-59	60+

4. How many people live with you?
5. Of these people, who is the head of your household?
6. From which year have you lived in this informal settlement?
7. Where did you live before you moved here?
8. What type of housing do you currently live in?

Zinc	Brick	Tent	Mud	Other:

9. How many rooms does your house have?
10. Do you own or rent this house?
11. Do you have any other house(s) elsewhere?
12. If so, where and what type of house(s) is it?
13. How do you make a living?

Questions

1. What influenced your decision to live in this informal settlement?
2. What changes do you see in your community since you started living here?
3. What is the best part of living here?
4. If you look at your informal settlement, what worries you the most?
5. What assistance do people in your informal settlement receive to lessen these issues?
6. What natural or human made hazards threaten the health of children and adults in your informal settlement?
7. What are some of the things that people do that cause a danger to their lives or to other people's lives?
8. How do people in your informal settlement suffer as a result of these environmental hazards?
9. What harm do these hazards present to the natural environment?

10. How do other people or industries outside your community contribute to the environmental hazards that your community experiences?
11. How do the people in your informal settlement contribute to these environmental hazards?
12. What are some of the things that people in your informal settlement do to address these human-made hazards?
13. What are some of the things that you have done or could have done if you had the necessary support to improve your personal living circumstances in this informal settlement?
14. In 2015, world leaders agreed on the 17 sustainable development goals (see below) that countries should achieve by 2030. On which of these goals do you think your informal settlement is doing well and why?
15. On which goals is it doing poorly and why?
16. If you could transform this informal settlement into a sustainable community what would you do?
17. What do you think would be needed for making this change possible?
18. Who should take responsibility for making this change?
19. Any further comments that you would want to share that may benefit my study?

Sustainable Development Goals (UN, 2015b)

1: No poverty 2: Zero hunger 3: Good health 4: Quality education 5: Gender equality	6: Clean water and sanitation 7: Affordable and clean energy 8: Decent work and economic growth 9: Industry and infrastructure 10: Reduced inequalities	11: Sustainable cities and communities 12: Responsible consumption and production 13: Climate action 14: Protect oceans and marine resources	15: Protect the environment 16: Peace, justice and strong institutions 17: Partnerships for the goals

Appendix 2: Interview schedule EHPs and HSPs

SEMI-STRUCTURED INTERVIEW SCHEDULE

Environmental health and human settlements practitioners

Goal of study: To explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Biographical information

1. Participants' gender_____
2. Profession and job title_____
3. How many years have you worked at the City of Windhoek/Johannesburg?
4. How many years have you worked with informal settlement communities?

Questions

1. What is your role in informal settlements?
2. What social, economic and environmental challenges do you see in the informal settlements where you work?
3. What natural and human made hazards are a persistent or a seasonal danger in these informal settlements?
4. What in your view contributes to the rise of informal settlements in this area?
5. What challenges do you face in relation to informal settlements where you work?
6. What strengths are inherent in people living in these informal settlements?
7. In 2015, world leaders agreed on the 17 sustainable development goals which countries should achieve by 2030. On which of these SDGs are informal settlements in this area doing well?
8. What changes are needed socially, economically and environmentally for informal settlements in this area to transition into sustainable communities?
9. Who should take responsibility for this transformation?

Sustainable Development Goals (UN, 2015b)

1: No poverty 2: Zero hunger 3: Good health 4: Quality education 5: Gender equality	6: Clean water and sanitation 7: Affordable and clean energy 8: Decent work and economic growth 9: Industry and infrastructure 10: Reduced inequalities	11: Sustainable cities and communities 12: Responsible consumption and production 13: Climate action 14: Protect oceans and marine resources	15: Protect the environment 16: Peace, justice and strong institutions 17: Partnerships for the goals

Appendix 3: Interview schedule for NPO practitioners

SEMI-STRUCTURED INTERVIEW SCHEDULE

NPO practioners

Goal of study: To explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Biographical information

1. Participant's gender _____
2. Number of years worked in this NPO _____
3. Number of years participant has worked with informal settlement communities ___

Questions

1. Please tell me briefly about your organisation.
2. What is your role in this organisation?
3. What social, economic and environmental challenges are experienced by children and adults in this informal settlement?
4. What natural or human-made hazards/disasters are a seasonal or a persistent danger to children and adults in this informal settlement?
5. What interventions does your organisation render to promote social, economic and environmental development for communities living in this informal settlement?
6. What challenges do you encounter in delivering services to informal settlement communities in this informal settlement?
7. What community level strengths do you see in the informal settlement communities living in this area?
8. In 2015, world leaders agreed on the 17 sustainable development goals (SDGs) (see below) that countries should achieve by 2030. On which of these SDGs is this informal settlement doing well/poorly? Why do you say so?
9. What changes are needed socially, economically and environmentally to transform this informal settlement into a sustainable community?
10. Who should take responsibility for this transformation?

Sustainable Development Goals (UN, 2015b)

1: No poverty 2: Zero hunger 3: Good health 4: Quality education 5: Gender equality	6: Clean water and sanitation 7: Affordable and clean energy 8: Decent work and economic growth 9: Industry and infrastructure 10: Reduced inequalities	11: Sustainable cities and communities 12: Responsible consumption and production 13: Climate action 14: Protect oceans and marine resources	15: Protect the environment 16: Peace, justice and strong institutions 17: Partnerships for the goals

Appendix 4: Interview schedule for social workers

SEMI-STRUCTURED INTERVIEW SCHEDULE

Social workers

Goal of study: To explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Biographical information

1. Participant's gender _____
2. Profession and job title_____
3. Years of social work experience with communities_____
4. Years of working with informal settlement communities_____

Questions

1. What is your role in relation to informal settlement communities?
2. What social, economic and environmental challenges do you see in the informal settlements where you work?
3. What strengths are inherent in people living in these informal settlements?
4. What in your view contributes to the rise of informal settlements in this area?
5. What challenges do you encounter in delivering services to informal settlement communities where you work?
6. What natural or human-made hazards are a seasonal or persistent danger to children and adults in the informal settlements where you work?
7. What interventions promote social, economic and environmental development in the informal settlements where you work?
8. In 2015, world leaders agreed on the 17 sustainable development goals that countries should achieve by 2030. On which of these SDGs are the informal settlements where you work doing well?
9. What changes are needed to transform the informal settlements where you work into sustainable communities?
10. Who should take responsibility for this transformation?

Sustainable Development Goals (UN, 2015b)

1: No poverty 2: Zero hunger 3: Good health 4: Quality education 5: Gender equality	6: Clean water and sanitation 7: Affordable and clean energy 8: Decent work and economic growth 9: Industry and infrastructure 10: Reduced inequalities	11: Sustainable cities and communities 12: Responsible consumption and production 13: Climate action 14: Protect oceans and marine resources	15: Protect the environment 16: Peace, justice and strong institutions 17: Partnerships for the goals

Appendix 5: Focus group interview schedule for child participants

FOCUS GROUP INTERVIEW SCHEDULE

Child participants

Goal of study: To explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Biographical information

Participants' gender

Child 1	Child 2	Child 3	Child 4	Child 5	Child 6

Ages

Child 1	Child 2	Child 3	Child 4	Child 5	Child 6

Grades at school

Child 1	Child 2	Child 3	Child 4	Child 5	Child 6

Number of years lived in an informal settlement

Child 1		Child 2	Child 3	Child 4	Child 5	Child 6

Questions

1. What do you like the most about the informal settlement where you live?
2. What worries you the most about your informal settlement?
3. How do the things that worry you affect you, other children and your families?
4. How do the things that worry you affect the environment?
5. What small things do you and other children do or could do to help make your informal settlement and its environment a better place to live?
6. What are your rights as children?
7. How are children's rights promoted for children in your informal settlement?
8. In 2015, world leaders agreed on the 17 sustainable development goals (SDGs) (see below) that countries should achieve by 2030. Which SDGs would you want to see achieved in your informal settlement?
9. On which of these SDGs do you think your informal settlement is doing well and why?
10. On which SDGs is it doing poorly and why?
11. If you could make your informal settlement a place where the sustainable development goals are achieved what would you do?
12. What would be needed to make this change possible?
13. Who should take responsibility for making this change?
14. Is there anything else that you would want to share that might be important for my study?

Source: De Heer (2015).

Appendix 6: Questionnaire for child participants

Questionnaire number	

QUESTIONNAIRE FOR CHILD PARTICIPANTS

Hello. My name is Peggie. I am doing a study to help me learn how the environment and the lives of children in your informal settlement could be made better.

PART A: LET'S GET TO KNOW YOU

1. Are you a boy or girl? (Tick ☑ one box only).

A boy 	1	A girl 	2

2. How old are you? _____ [years].

3. What grade are you at school? (Tick ☑ one box only).

Grade at school						
Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	I don't attend school

4. Where do you live? _____

5. How many years have you lived in this informal settlement? (Tick ☑ one box only).

Years lived in informal settlement																	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Unsure

PART B: WHERE YOU LIVE

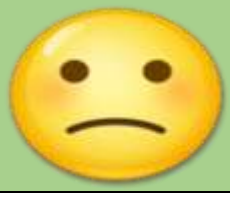
6. Do you live in a zinc or brick house? (Tick ☑ one box only).

	1		2

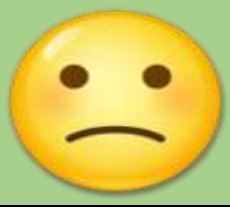
7. Do you feel happy living in your home? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

8. Does your house make you feel safe in bad weather? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

9. Do you have enough clothes to keep you warm when it's cold? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

10. Do you have enough food at home? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

11. Are there safe places where children in your informal settlement can be given meals if they don't have enough food at home? (Tick ☑ one box only).

No	1	I don't know	2	Yes	3
					

12. Do you get a social grant from the government to help care for you? (Tick ☑ one box only).

No	1	I don't know	2	Yes	3
					

13. Do you have clean water to drink at home? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

14. If you fall sick can you easily find a clinic near your home? (Tick ☑ one box only).

No	1	I don't know	2	Yes	3
					

15. What source of light do you <u>mostly</u> use in your home? (Tick ☑ **<u>one</u>** box only).

Candles	1	Electricity	2	Solar	3	Paraffin lamp	4
							

16. Which sources of light cause fire in your informal settlement? (Tick ☑ **<u>all</u>** boxes that apply).

Candles	1	Electricity	2	Solar	3	Paraffin lamp	4
							

17. What energy source do you mostly use for cooking in your home? (Tick ☑ **one** box only).

Firewood 	1	Electricity 	2	Gas 	3	Paraffin stove 	4

18. Which energy sources cause fire in your informal settlement? (Tick ☑ **all** boxes that apply).

Firewood 	1	Electricity 	2	Gas 	3	Paraffin stove 	4

PART C: YOUR ENVIRONMENT

19. Do you use the bush, a bucket or plastic bags as toilets? (Tick ☑ one box only).

Never 	1	Sometimes 	2	Always 	3

20. Is the environment in your informal settlement clean for children to play in? (Tick ☑ one box only).

Never 	1	Sometimes 	2	Always 	3

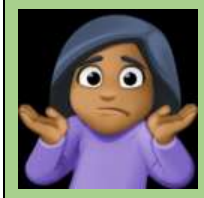
21. What makes the environment in your informal settlement not clean? (Tick ☑ **all** boxes that apply).

Litter 	1	Air pollution 	2	Water pollution 	3

22. Do you get to learn about caring for the environment? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

23. Where do you learn about caring for the environment? (Tick ☑ **all** boxes that apply).

Nowhere	1	At home	2	At HISA, Maxuilili or Camp Sizanani	3	At school	
							

PART D: YOUR COMMUNITY

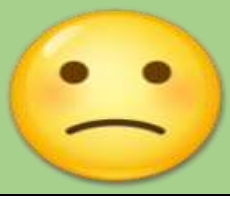
24. Do you feel safe walking alone in your informal settlement? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

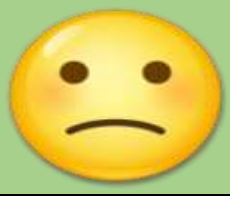
25. What worries you about your informal settlement? (Tick ☑ **all** boxes that apply).

Nothing	1	Alcohol and drug abuse	2	Too much noise	3	Violence	4
							

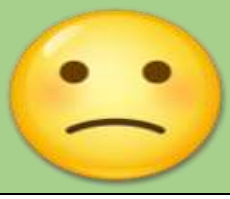
26. Do you feel that adults in your informal settlement care and support you as a child? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

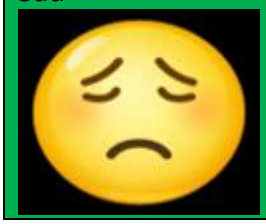
27. Do you get opportunities to share with adults your ideas on how to make your informal settlement a better place? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

28. Do you feel that adults respect your ideas on how to make your informal settlement better? (Tick ☑ one box only).

Never	1	Sometimes	2	Always	3
					

29. How do you see the future of children growing up in your informal settlement? (Tick ☑ one box only).

Sad	1	I don't know	2	Bright	3
					

Thank you for your participation.

Appendix 7: Questionnaire for household participants

Questionnaire Number	

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study

QUESTIONNAIRE HOUSEHOLD PARTICIPANTS

This questionnaire gathers your views on the social, economic and environmental issues in your informal settlement and will take 20 to 25 minutes to complete.

SECTION A: BIOGRAPHICAL INFORMATION

Please answer all questions by ticking ☑ the appropriate box or completing the blank _____ space provided.

1. What is your gender? [Tick ☑ one box only].

1 Male		2 Female		3 Other	

2. What is your age? _____ [years].

3. What is your mother tongue? _____ [language].

4. In which informal settlement do you live? _____

5. For how many years have you been living in an informal settlement? _____ [years].

6. What is your marital status? [Tick ☑ one box only].

1	Never married	
2	Living with girlfriend or boyfriend	
3	Married	
4	Separated	
5	Divorced	
6	Widowed	

SECTION B: EDUCATION AND EMPLOYMENT

7. Indicate your highest level of education? [Tick ☑ one box only].

1	I did not attend school	
2	Attended some primary school	
3	Completed primary school	
4	Attended some secondary school	
5	Matric	
6	Adult literacy	
7	Tertiary education	

8. Indicate your current employment status [Tick ☑ one box only].

1	Student	
2	Retired	
3	Housewife	
4	Self-employed but looking for formal employment	
5	Self-employed and not looking for formal employment	
6	Employed part-time	
7	Employed permanently	
8	Unemployed and looking for work	
9	Unemployed but not looking for work	

If you are employed, answer question 9 but if you are unemployed, answer question 10.

9. Indicate how you are employed. [Tick ☑ one box only].

1	I work for myself (I make or sell goods)	
2	I have a paid job from one employer	
3	I work for several employers during the same month	

10. Indicate how long you have been unemployed. _____ [years] _____ [months].

SECTION C: HOUSING AND LIVING CONDITIONS

11. Indicate the type of housing that you currently live in? [Tick ☑ one box only].

1	Brick house	
2	Zinc shack	
3	Other (specify)	

12. Indicate the number of rooms that form part of this home. _____ [rooms].

13. Indicate the number of household members living with you, in each of the following age categories. [Write an answer in each box].

1	Number of adults older than 60 years	
2	Number of adults older than 18 years but younger than 60 years	
3	Number of children below 18 years	

14. Indicate the area where you lived immediately before you moved into this informal settlement. [Tick ☑ one box only].

1	Rural area in Khomas region/Gauteng province	
2	Rural area in another region/province	
3	Informal settlement in Khomas region/Gauteng province	
4	Informal settlement in another region	
5	Township in Khomas region/Gauteng province	
6	Township in another region/province	
7	I have lived in this informal settlement all my life	

15. Indicate on a scale of 1 to 5, the extent to which the following statements reflect the reasons why you and your household moved into this informal settlement.

	Reasons for moving into this informal settlement	1. Not at all	2. To a small extent	3. To a moderate extent	4. To a great extent	5. To a very great extent
1	Poverty					
2	Unemployment					
3	To be closer to informal business opportunities					
4	To be closer to formal work opportunities					
5	To find a cheap place to live					
6	The availability of free or cheap land to build housing					
7	To be closer to educational opportunities					
8	To increase our chances of getting a government funded house (RDP/NHE)					
9	My household was evicted from another informal settlement					
10	Other [specify]					

16. Indicate on a scale of 1 to 5 the extent to which you are satisfied with this informal settlement as a place to live. [Tick ☑ one box only].

1	Very dissatisfied	
2	Slightly dissatisfied	
3	Unsure	
4	Fairly satisfied	
5	Very satisfied	

17. Indicate on a scale of 1 to 5 how the following statements reflect the conditions under which your household lives.

	Your household's living conditions	1 Never	2 Sometimes	3 Often	4 Very often	5 Always
1	We have problems with pests (e.g. rats).					
2	Our house does not provide us with adequate fresh air [good ventilation].					
3	Our house does not give good protection from bad weather.					
4	We live with the fear of thieves.					
5	We live with the fear of being evicted.					
6	We rent out at least one room					

SECTION D: POVERTY, HUNGER AND HEALTH

18. Indicate on a scale of 1 to 4 how you would describe poverty in your household. [Tick ☑ one box only].

1	We are extremely poor	
2	We are very poor	
3	We are poor	
4	We are not poor	

19. Indicate on a scale of 1 to 5 how poverty in your household has changed, compared with the time you first moved into this informal settlement. [Tick ☑ one box only].

1	It is now much worse	
2	It is somewhat worse	
3	It is still the same	
4	It is somewhat better	
5	It is much better	

20. Indicate the number of your household members that receive a social grant. _____ [number of people].

21. Indicate the number of people that contribute financially to your household's income. _____ [number of people].

22. Indicate on a scale of 1 to 5 whether the following statement reflects your view about your household's monthly income.

	Household income	1. Not at all	2. To a small extent	3. To a moderate extent	4. To a great extent	5. To a very great extent
1	Our monthly household income meets our basic requirements for transport, food, water and energy for cooking and lighting our home.					

23. Indicate on a scale of 1 to 5 how the following statements describe hunger in your household.

	Hunger	1. Never	2. Sometimes	3. Often	4. Very often	5. Always
1.	We get hungry, but we don't eat because we can't afford enough food.					

SECTION E: WATER, SANITATION AND ENERGY

24. Indicate on a scale of 1 to 5 the extent to which the following statements describe your household's access to water, sanitation and energy for cooking and lighting.

	Water, Sanitation and Energy	1. Never	2. Sometimes	3. Often	4. Very often	5. Always
1	My household does not have access to adequate clean and safe drinking water [e.g. water from a tap].					
2	My household uses the bush, buckets or plastic bags for toilets.					
3	The type of toilets that my household uses are not safe for women and children.					
4	The type of toilets that my household uses are unhygienic.					
5	For cooking, my household uses energy sources that are potentially dangerous [e.g. that are a major cause of fire accidents in my community].					
6	For cooking, my household uses energy sources that do not cause smoke or harm our health.					
7	For lighting our home, my household uses energy sources that are potentially dangerous [e.g. that are a major cause of fire accidents in my community].					
8	For lighting our home, my household does not use energy sources that cause smoke or harm our health.					

SECTION F: THE ENVIRONMENT

25. Indicate on a scale of 1 to 5 the extent to which you experience the following environmental challenges in your informal settlement.

	Environmental challenges	1. Not at all	2. To a small extent	3. To a moderate extent	4. To a great extent	5. To a very great extent
1	Floods					
2	Air pollution					
3	Overcrowding [too many people living in a small area]					
4	Rubbish that is lying everywhere					
5	Sewage water flowing everywhere					
6	People using the bush or river beds as toilets					
7	Houses burning down because of candles and paraffin stoves					
8	Houses burning down because of illegal electricity connections					
9	Homes that are built in unsafe places [e.g. wetlands, riverbeds, mountains].					
10	Continuous damage to the environment [e.g. land, trees, rivers].					
11	Disease outbreaks due to a dirty environment [e.g. cholera, hepatitis E].					
12	Other [specify]					

26. Indicate on a scale of 1 to 5 how the following statements reflect your views on the environment where you live.

	THE ENVIRONMENT	1. Strongly disagree	2. Disagree	3. Unsure	4. Agree	5. Strongly agree
1	Poverty makes people not to care about the environment in which they live.					
2	Engaging in recycling projects is looked down upon in this community.					

SECTION G: YOUR COMMUNITY

27. Indicate on a scale of 1 to 5 how the following statements reflect your views on your community.

	STATEMENTS ABOUT YOUR COMMUNITY	1. Strongly disagree	2. Disagree	3. Unsure	4. Agree	5. Strongly agree
1	I worry about the future of children growing up in this informal settlement.					
2	There are partnerships [**more than one organisation** - e.g. the government, municipality, NGOs, community members] to reduce hunger amongst children.					
3	There are partnerships to reduce hunger amongst adults.					
4	There are partnerships to reduce poverty.					
5	There are partnerships to reduce crime.					
6	There are partnerships to improve access to employment and income.					
7	There are partnerships to improve access to decent housing.					
8	There are partnerships to improve access to adequate clean and safe water.					
9	There are partnerships to improve access to toilets.					
10	There are partnerships to make public toilets safer.					
11	There are partnerships to improve access to energy sources for lighting homes that are not potentially dangerous [e.g. that are not the major cause of fire accidents in my community].					
12	There are partnerships to improve access to energy sources for lighting homes that do not harm people's health.					
13	There are partnerships to improve access to energy sources for cooking that are not potentially dangerous [e.g. that are not the major cause of fire accidents in my community].					
14	There are partnerships to improve access to energy sources for cooking that do not harm people's health.					
15	There are partnerships to improve the poor environmental conditions in my community.					
16	Political leaders only show interest in bringing development to this informal settlement when it's time for elections.					

Appendix 8: Questionnaire for household participants (isiZulu)

Inamba Yephepha Lemibuzo	

Ukuxhaswa kwendawo yenhlalo kanye nomphakathi endaweni yokuhlala eyimijondolo eNamibhiya kanye naseNingizimu Afrika: Ucwaningo lokuqhathanisa lwabasebenzi bezenhlalonhle

IPHEPHA LEMIBUZO LABABAMBIQHAZA BASEMAKHAYA E-ORANGE FARM

Leli phepha lemibuzo lizokuqoqa imibono yakho ngokuphathelene nokuthuthukiswa kwezenhlalonhle, zezomnotho nezendawo yenhlalo e-Orange Farm. Kuzothatha cishe amaminithi angama-20 ukuya kwangama25 ukugcwalisa leli phepha lemibuzo.

ISIGABA A: ULWAZI LWEBHAYOGRAFI

Sicela uphendule yonke imibuzo ngokuphawula ngo-☑ ebhokisini elifanele noma ngokugcwalisa esikhaleni osinikeziwe_____.

1. Buyini ubulili bakho?[Phawula ☑ ibhokisi elilodwa kuphela].

1 Ngingowesilisa		2 Ngingowesifazane		3 Ngingobunye ubulili	

2. Mingaki iminyaka yakho yokuzalwa? Iminyaka engu-_____.

3. Yiluphi ulimi lwakho lwebele? [ulimi]_____.

4. Uhlala kuyiphi i-ekstenshini yase-Orange Farm?[i-ekstenshini]_____.

5. Uhleli iminyaka emingaki e-Orange Farm? [iminyaka] engu_____.

6. Isimo sakho somshado sithini? [Phawula ☑ ibhokisi elilodwa kuphela].

1.	Angikaze ngishade	
2.	Ngihlala nentombi noma isoka lami	
3.	Ngishadile	
4.	Sehlukene	
5.	Sehlukanisile	
6.	Ngashonelwa ngumlingani	

ISIGABA B: IMFUNDO KANYE NOKUQASHWA

7. Yisiphi isigaba semfundo esiphezulu kakhulu osifinyelele? [Phawula ☑ ibhokisi elilodwa kuphela].

1	Angizange ngiye esikoleni	
2	Ngangena isikole esiphansi kancane	
3	Ngaqeda isikole esiphansi	
4	Ngangene isikole esiphakeme kancane	
5	Umatikuletsheni	
6	Imfundo yabadala	
7	Imfundo ephakeme	

8. Sithini isimo sakho sokuqashwa samanje? [Phawula ☑ ibhokisi elilodwa kuphela].

1	Ngiyisitshudeni	
2	Ngithathe umhlalaphansi	
3	Ngingumama wekhaya	
4	Ngiziqashile kodwa ngifuna umsebenzi osemthethweni	
5	Ngiziqashile kodwa angifuni umsebenzi osemthethweni	
6	Ngiqashwe okwesikhashana	
7	Ngiqashelwe safuthi	
8	Angiqashiwe futhi ngifuna umsebenzi	
9	Angiqashiwe kodwa angifuni umsebenzi	

Uma ngabe <u>uqashiwe</u>, phendula umbuzo wesi-9 kodwa uma ngabe ungaqashiwe, phendula umbuzo we-10.

9. Bonisa ukuthi uqashwe kanjani.[Phawula ☑ ibhokisi elilodwa kuphela]

1	Ngiyazisebenzela (ngenza noma ngithengisa impahla)	
2	Nginomqashi oyedwa ongikhokhelayo	
3	Ngisebenzela abaqashi abambalwa ngesikhathi senyanga eyodwa	

10. Bonisa ukuthi uhleli isikhathi esingakanani ungaqashiwe. [Iminyaka engu-_____][nezinyanga ezingu-_____].

ISIGABA C: IZINDLU KANYE NEZIMO ZOKUPHILA

11. Yisho uhlobo lwendlu ohlala kulona kumanje? [Phawula ☑ ibhokisi elilodwa kuphela].

1	Indlu yezitini	
2	Umjondolo wamazenke	
3	Ingolunye uhlobo (cacisa)	

12. Yisho inani lamagumbi akha ingxenye yaleli khaya. [Amagumbi angu-_____].

13. Yisho inani lamalungu omndeni ahlala nawe, ngokuhambisana nohlobo ngalunye lweminyaka elandelayo. [Bhala impendulo ebhokisini ngalinye]

1	Inani labantu abadala abangephezu kweminyaka yobudala engama-60	
2	Inani labantu abadala abangephezu kweminyaka yobudala engaphezu kweyi-18 kodwa engaphansi kwengama-60	
3	Inani lezingane ezingaphansi kweminyaka yobudala eyi-18	

14. Yisho ukuthi yiyiphi indawo owawuhlala kuyona maduzane nje ngaphambi kokuthuthela e-Orange Farm. [Phawula ☑ ibhokisi elilodwa kuphela].

1	Indawo yasemaphandleni ese-Gauteng	
2	Indawo yasemaphandleni ekwesinye isifundazwe	
3	Indawo yemijondolo ese-Gauteng	
4	Indawo yemijondolo ekwesinye isifundazwe	
5	Ilokishi elise-Gauteng	
6	Ilokishi elikwesinye isifundazwe	
7	Ngihleli kulendawo yemijondolo iminyaka yonke yokuphila kwami	

15. Bonisa ngesilinganiso ukusuka ku-1 ukuya ku-5, ngobubanzi bokuthi izitatimende ezilandelyo zibonise izizathu zokuthi kungani wena nomndeni wakho nathuthela e-Orange Farm.

	IZIZATHU ZOKUTHUTHELA E-ORANGE FARM	1. Akwenzeki sampela	2. Ngobubanzi obuncane	3. Ngobubanzi obulingene	4. Ngobubanzi obukhulu	5. Ngobubanzi obukhulu kakhulu
1	Ubumpofu					
2	Ukungabi nomsebenzi					
3	Ukuba seduzane namathuba ebhizinisi angekho semthethweni					
4	Ukuba seduzane namathuba omsebenzi asemthethweni					
5	Ukuthola indawo eshibhile yokuqasha					
6	Ukuba khona komhlaba wamahhala noshibhile ukwakha indlu					
7	Ukuba seduzane namathuba ezemfundo					
8	Ukwandisa amathuba okuthola indlu ye-RDP					
9	Umndeni wami wakhishwa kwenye indawo yokuhlala eyimijondolo					
10	Ezinye [cacisa]					

16. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ububanzi bokweneliseka kwakho nge-Orange Farm njengendawo . [Phawula ☑ ibhokisi elilodwa kuphela].

1	Angenelisekile kakhulu kabi	
2	Angenelisekile kakhulu	
3	Angiqinisekanga	
4	Ngeneliseke ngokwanele	
5	Ngemeliseke kakhulu kabi	

17. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ukuthi izitatimende ezilandelayo zibonisa kanjani izimo umndeni wenu ohlala ngaphansi kwazo.

	IZIMO ZOKUPHILA ZEKHAYA	1 Nanini	2 Kwesinye isikhathi	3 Kaningi	4 Kaningi kakhulu	5 Ngaso sonke isikhathi
1	Indlu yethu inezinkinga ngezilwane eziyinkathazo (isib. amagundane).					
2	Indlu yethu ayisihlinzeki [ngokuzungeleza komoya okuhle].					
3	Indlu yethu ayisinikezi ukukhuseleka okuhle maqondana nesimo sezulu esibi.					
4	Sihlala sinovalo ngokuphathelene nezigebengu.					
5	Sihlala sinovalo lokuthi sizokhishwa endlini.					
6	Siqashise okungenani igumbi elilodwa.					

ISIGABA D: UBUMPOFU, INDLALA KANYE NEZEMPILO

18. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-4 ukuthi ungabuchaza kanjani ubumpofu ekhaya lakho. [Phawula ☑ ibhokisi elilodwa kuphela].

1	Simpofu kakhulu kabi	
2	Simpofu kakhulu	
3	Simpofu	
4	Asikho mpofu	

19. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ukuthi ubumpofu ngaphakathi kwekhaya lakho bushintshile, uma uqhathanise nangenkathi uthuthela e-Orange Farm. [Phawula ☑ ibhokisi elilodwa kuphela].

1	Okwamanje isiyimbi kakhulu	
2	Ngokokunye isiyimbi	
3	Isafana nje	
4	Ngokokunye isingconywana	
5	Isingcono kakhulu	

20. Bonisa inani lamalungu omndeni wakho athola isabelo sezenhlalonhle.[Inani labantu]_____.

21. Bonisa inani lamalungu omndeni anikelayo ngokwezezimali maqondana nemali engenayo yekhaya lakho [Inani labantu]_____.

22. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ukuthi kungabe izitatimende ezilandelayo zibonisa umbono wakho maqondana nemali engenayo ngenyanga ngayine ekhaya lakho.

	IMALI ENGENAYO EKHAYA	1. Akwenzeki sampela	2. Ngobubanzi obuncane	3. Ngobubanzi obulingene	4. Ngobubanzi obukhulu	5. Ngobubanzi obukhulu kakhulu
1	Imali ngenayo yekhaya yenyanga ngenyanga ifinyelela izidingo zethu eziyisisekelo zezithuthi, ukudla, amanzi kanye namandla kagesi wokupheka kanye nowokukhanyisa ikhaya lethu.					

23. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ukuthi izitatimende ezilandelayo ziyichaza kanjani indlala ekhaya lakho.

	INDLALA	1. Nanini	2. Kwesinye	3. Kaningi	4. Kaningi	5. Ngaso
1.	Siyalamba, kodwa asidli ngoba asinayo imali yokuthenga ukudla okwanele.					

ISIGABA E: AMANZI, UKUHAMBISA INDLE KANYE NAMANDLA KAGESI

24. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ububanzi obuchazwa yizitatimende ezilandelayo ukuchaza ukufinyelela amanzi, ukuhambisa indle kanye namandla kagesi ekhaya lakho.

	AMANZI, OKUHAMBISA INDLE KANYE NAMANDLA KAGESI	1. Nanini	2. Kwesinye	3. Kaningi	4. Kaningi	5. Ngaso
1	Ikhaya lami alinawo amandla okufinyelela emanzini ahlanzekile okuphuza nanele [isib. amanzi avela empompini].					
2	Ikhaya lami lisebenzisa indawo esendle, amabhakede noma izikhwama zamapulasitiki njengendlu yangasese.					
3	Uhlobo lwezindlu zangasese ezisetshenziswa ngumndeni wami aziphephile maqondana nabesifazane kanye nezingane.					
4	Uhlobo lwezindlu zangasese ezisetshenziswa ngumndeni wami aziphephile ngokwezempilo.					
5	Ukuze sipheke, umndeni wami usebenzisa imithombo yamandla kagesi engaba yingozi [isib. okuyilawo ayimbangela enkulu yezingozi zomlilo emphakathini wethu].					
6	Ukuze sipheke, umndeni wami usebenzisa imithombo yamandla kagesi engabangi intuthu noma ubungozi kwezempilo.					
7	Ukuze sikhanyise indlu yethu, umndeni wami usebenzisa imithombo yamandla kagesi engaba nobungozi [isib. okuyilawo ayimbangela enkulu yezingozi zomlilo emphakathini wethu].					
8	Ukuze sikhanyise indlu yethu, umndeni wami awusebenzisi imithombo yamandla kagesi ebanga intuthu noma elimaza impilo yethu.					

ISIGABA F: INDAWO YENHLALO

25. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ububanzi bezinselele ezilandelayo zendawo yenhlalo e-Orange Farm.

	IZINSELELE ZENDAWENI YENHLALO	1. Akwenzeki sampela	2. Ngobubanzi obuncane	3. Ngobubanzi obulingene	4. Ngobubanzi obukhulu	5. Ngobubanzi obukhulu kakhulu
1	Izikhukhula					
2	Ukungcola komoya					
3	Ukugcwala kakhulu [abantu abaningi kakhulu abahlala endaweni encane]					
4	Ukungcola okugcwele yonke indawo					
5	Amanzi ahambia indle ageleza yonke indawo					
6	Abantu abasebenzisa indawo esendle noma iziqu zemifula njengezindlu zangasese					
7	Izindlu ezisha zingqongqe ngenxa yamakhandlela nezitofu zikaphalafini					
8	Izindlu ezisha zingqongqe ngenxa yokuxhunywa kukagesi okungekho semthethweni					
9	Izindlu ezakhiwa ezindaweni ezingaphephile [isib. Ezindaweni ezinamanzi, eziqwini zemifula, ezintabeni]					
10	Ukuqhubeka nokulimaza indawo yenhlalo [isib. umhlaba, izihlahla, imifula]					
11	Ukuqubuka kwezifo ngenxa yendawo eyinhlalo engcolile [isib. ikholera, i-hepatitis E]					
12	Okunye [cacisa]					

26. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ukuthi izitatimende ezilandelayo zibonisa kanjani imibono yakho maqondana nendawo yenhlalo lapho uhlala khona.

	INDAWO YENHLALO	1. Angivumi kakhulu	2. Angivumi	3. Angiqinisekanga	4. Ngiyavuma	5. Ngivuma kakhulu
1	Ubumpofu benza ukuthi abantu banganaki maqondana nendawo yenhlalo abahlala kuyo.					
2	Amaphrojekthi okuyingilizisa abhekelwa phansi kulo mphakathi.					

ISIGABA G: UMPHAKATHI

27. Bonisa ngesilinganiso esisuka ku-1 ukuya ku-5 ukuthi izitatimende ezilandelayo zibonisa kanjani imibono yakho maqondana nomphakathi ohlala kuwo.

	IZITATIMENDE MAQONDANA NOMPHAKATHI WAKHO	1. Angivumi kakhulu	2. Angivumi	3. Angiqinisekanga	4. Ngiyavuma	5. Ngivuma kakhulu
1	Ngikhathazekile ngekusasa lezingane ezikhula kulendawo eyimijondolo.					
2	Kukhona ukubambisana [**izinhlangano ezingaphezu kweyodwa**-isib. uhulumeni, umasipala, ama-NGO, umphakathi] ukwehlisa indlala maqondana nezingane.					
3	Kukhona ukubambisana kokwehlisa indlala maqondana nabantu abadala					
4	Kukhona ukubambisana ukwehlisa ubumpofu					
5	Kukhona ukubambisana ukwehlisa ubugebengu					
6	Kukhona ukubambisana ukwenza ngcono ukufinyelelwa kwamathuba emisebenzi kanye nemali engenayo					
7	Kukhona ukubambisana ukwenza ngcono ukufinyelela izindlu ezinesithunzi					
8	Kukhona ukubambisana ukwenza ngcono ukufinyeleleka kwamanzi ahlanzekile, naphephile kanye nanele					
9	Kukhona ukubambisana ukwenza ngcono ukufinyeleleka kwezindlu zangasese					
10	Kukhona ukubambisana ukwenza izindlu zangasese zomphakathi ziphephe					
11	Kukhona ukubambisana ukwenza ngcono ukufinyeleleka kwemithombo yamandla kagesi ukukhanyisa amakhaya engeyona ingozi [isib engeyona imbangela enkulu yezingozi zemililo emphakathini wami]					
12	Kukhona ukubambisana ukwenza ngcono ukufinyeleleka kwemithombo yamandla kagesi ukuze kukhanyiswe amakhaya engalimazi ezempilo yabantu					
13	Kukhona ukubambisana ukwenza ngcono ukufinyeleleka kwemithombo yamandla kagesi ukuze kuphekwe engenabo ubungozi [isib. Angeyona imbangela enkulu yezingozi zemililo emphakathini wami]					

	IZITATIMENDE MAQONDANA NOMPHAKATHI WAKHO	Angivumi kakhulu	Angivumi	Angiqinisekanga	Ngiyavuma	Ngivuma kakhulu
14	Kukhona ukubambisana ukwenza ngcono ukufinyeleleka kwemithombo yamandla kagesi engalimazi ezempilo yabantu					
15	Kukhona ukubambisana ukwenza ngcono izimo zezenhlalo emphakathini wami					
16	Osopolotiki babonisa ukunaka ekuletheni ukuthuthukiswa kwalendawo eyimijondolo uma kuyisikhathi sokhetho.					

Sibongela ukubamba iqhaza kwakho.

Appendix 9: Questionnaire for household participants (Oshiwambo)

Onomola yomusholondondo gwomapulo	

OMUSHOLONDONDO GWOMAPULO GWAAKUTHIMBINGA OOYENE YOMAGUMBO MOVENDUKA

Omusholondondo gwomapulo nguka otagu gongele omayiyuvo goye kombinga yehumithokomeho, lyopankalathano, lyopamahupilo nolyopamudhingoloko muumbashu weni notali ku pula ominute 20 sigo 25 lwaampo opo wu mane oku li udhitha.

ONTOPOLWA A

UUYELELE KOMBINGA YONDJOKONONANKALAMWENYO YOYE

Omapulo agehe to tula okangombe ☑ mokaketha taka opalele nenge to udhitha ehala ndyoka lyaa na sha _____ ndyoka lya gandjwa.

1. Ngoye omukwashike koludhi? [Tula okangombe ☑ mokaketha kamwe akeke].

1 Omulumentu		2 Omukiintu		3 Ogoludhi lulwe	

2. Owu na oomvula ngapi? _____ [oomvula].

3. Elaka lyoonyoko olini? _____ [elaka].

1 Okahandja Park		2 OBabilon		3 OKilimanjaro	

4. Owa kala peni? [Tula okangombe☑ mokaketha kamwe akeke].

5. Moombashu muno owa kala mo ethimbo li thike peni? _____ [oomvula].

6. Omuthika gwoye gwondjokana oguni? [Tula okangombe ☑ mokaketha kamwe akeke].

1	Ine hokana/ine hokanwa	
2	Onda kala nomumati nenge nomukadhona gwandje	
3	Onda hokana/ onda hokanwa	
4	Onde ethiwa	
5	Onda hengana	
6	Onda silwa	

ONTOPOLWA B: ELONGO NIILONGA

7. Ulike kutya owa hulila mongapi? [Tula okangombe ☑ mokaketha kamwe akeke].

1	Inandi enda moskola	
2	Onda hulila moondondo dhopevi	
3	Onda mana oondondo dhopevi	
4	Onda hulila mosekondele	
5	Onda hulila momatilika	
6	Onda hulila mootundi dhelongo lyaakuluntu	
7	Onda hulila moshiputudhilo shopombanda	

8. Ulike kutya oho longo shike [Tula okangombe ☑ mokaketha kamwe akeke].

1	Omulongwa	
2	Onda penzelwa	
3	Ohe kala owala megumbo	
4	Ohandi ilongele kungaye mwene ihe ote kongo iilonga	
5	Ohandi ilongele kungaye mwene ihe ite kongo iilonga	
6	Ohandi longo owala omathimbo gamwe	
7	Ondi na iilonga tayi kalelele	
8	Kandi na iilonga note kongo iilonga	
9	Kandi na iilonga ihe kongo iilonga	

Ngele owa kutwa yamukula epulo 9 ihe ngele ino kutwa, yamukula epulo 10.

9. Ulika kutya iilonga yoye oya tya ngiini [Tula okangombe ☑ mokaketha kamwe akeke].

1	Ohandi ilongele kungaye mwene (Ohe longo nenge ohe landitha iinima)	
2	Ohandi longele omugandji gwiilonga gumwe	
3	Ohe longele aagandji yiilonga oyendji momwedhi gumwe	

10. Ulike kutya owa kala ethimbo li thike peni waa na iilonga _____ [oomvula] _____ [oomwedhi].

ONTOPOLWA C: EGUMBO NONKALO MU WA KALA

11. Ulika kutya owu na egumbo lyoludhi luni moka wa kala ngashingeyi [Tula okangombe ☑ mokaketha kamwe akeke].

1	Egumbo lyekuma	
2	Okambashu kiipeleki	
3	Egumbo lyoludhi lulwe (li tumbula kondandalunde)	

12. Ulika kutya megumbo lyaandjeni omu na oondunda ngapi_____ [omwaalu gwoondunda].

13. Ulika kutya megumbo lyaandjeni omu na aantu yangapi yoomvula kehe tadhi landula. [Nyola eyamukulo mokaketha kehe].

1	Omwaalu gwaantu ye na oomvula dha konda po-60	
2	Omwaaalu gwaakuluntu ya konda poomvula 18 ihe inaa gwanitha oomvula 60	
3	Omwaalu guunona wu li kohi yoomvula 18	

14. Ulike kutya owa li wa kala peni nale manga inoo ya muumbashu muka. [Tula okangombe ☑ mokaketha kamwe akeke].

1	Onda li nda kala momikunda moKhomas	
2	Onda li nda kala momikunda moshitopolwa shilwe shi ili	
3	Onda li nda kala muumbashu moKhomas	
4	Onda li nda kala muumbashu moshitopolwa shilwe shi ili	
5	Onda li nda kala molukanda moKhomas	
6	Onda li nda kala molukanda moshitopolwa shilwe shi ili	
7	Nkee nda za omo owala nda kala muumbushu	

15. Ulika pashiyelekitho okuza pu-1 sigo oku-5 kutya omatompelo taga landula otaga opalele shi thike peni okutembukila kwoye naanegumbo lyoye muumbashu

	Omatompelo gokukala muumbashu	1. Aawe	2. Hasho naaanaa	3. Osho ngaa	4. Osho lela	5. Osho lelalela
1	Oluhepo					
2	Okwaaniilonga					
3	Okukala popepi noompito dhokulanditha					
4	Okukala popepi noompito dhokumona iilonga					
5	Okumona ehala li na ombiliha nokuhiila					
6	Omu na evi lyoshali nenge li na ombiliha nokutunga egumbo					
7	Okukala popepi noompito dhelongo					
8	Okutaneka oompito yokumona egumbo lya kwathelwa paimaliwa kepangelo					
9	Aanegumbo lyetu oya li ya tidhwa koombashu dhilwe dhi ili					
10	Etompelo lilwe [Li tumbula kondandalunde]					

16. Ulika koshiyelekitho shokuza ku-1 sigo 5 kutya owu uvitile ombili onkalo yomoombashu shi thike peni. [Tula okangombe ☑ mokaketha kamwe akeke].

1	Inandi panda mo nande	
2	Inandi panda mo naanaa	
3	Kandi shi wo	
4	Onda panda mo ngaa	
5	Onda panda mo unene	

17. Ulika koshiyelekitho shokuza pu-1 sigo opu -5 nkene omatumbulo taga landula taga holola onkalo moka aanegumbo lyoye ya kala.

	Onkalo yaanegumbo lyoye	1 Aawe	2 Omalupita	3 Olundji ngaa	4 Olundjilundji	5 Aluhe
1	Ohatu hepekwa kiiyonaguli (ngaashi oombuku).					
2	Egumbo lyaandjetu ka li na ombepo ya gwana.					
3	Egumbo lyaandjetu inali gamenwa konkalo yombepo ombwiinayi.					
4	Ohatu kala twa tila aafuthi.					
5	Ohatu kala twa tila tu tidhwe momalukalwa					
6	Ohatu hiilitha ondunda yimwe					

ONTOPOLWA D: OLUHEPO, ONDJALA NUUNDJOLOWELE

18. Ulika pashiyelekitho shokuza pu 1- sigo opu-4 omuthika gwoluhepo megumbo lyaandjeni. [Tula okangombe ☑ mokaketha kamwe akeke].

1	Otwa hepa nayi	
2	Otwa hepa unene	
3	Otwa hepa kashona	
4	Inatu heap	

19. Ulika pashiyelekeitho shokuza pu 1 sigo oku 5 nkene oluhepo lwa guma aanegumbo lyoye oku shi yelekanitha nethimbo we ya okutula moombashu muka. [Tula okangombe ☑ mokaketha kamwe akeke].

1	Onkalo oya nayipala unene ngashingeyi	
2	Onkalo ngashingeyi oya nayipala kashona	
3	Otu li owala ngaashi twa kala	
4	Otu li hwepo kashona	
5	Otu li nawa lela	

20. Ulika omwaalu gwaanegumbo lyoye mboka haa mono iimaliwa yokwiikwatha nayo kepangelo. _____ [omwaalu gwaantu].

21. Ulika omwaalu gwaantu haa eta mo iiyemo megumbo lyoye_____ [omwaalu gwaantu].
22. Ulika pashiyelekitho shokuza ku-1 sigo oku-5 ngele iitsa tayi landula otayi hokolola iiyemo yoomwedhi yaanegumbo lyoye.

	Iiyemo yaanegumbo lyaandjeni	1. Hasho nandenade	2. Hasho nanaaa	3. Osho ngaa	4. Osho lela	5. Osho lelelela
1	Iiyemo yetu yokomwedhi ohayi tsakanitha oompumbwe dhetu dhopetindi dhiiyenditho, dhiikulya, dhomeya nolusheno lwokuteleka nokuminikila egumbo.					

23. Ulika pashiyelekitho shokuza pu 1- sigo oku-5 nkene iitsa tayi landula tayi hokolola ondjala megumbo lyoye.

	Ondjala	1. Nandenande	2. Omalupita	3. Olundji ngaa	4. Olundjilundji	5. Aluhe
1.	Ohatu si ondjala ihe ihatu li shaashi katu na iimaliwa ya gwana yokulanda iikulya.					

ONTOPOLWA E: OMEYA, UUYOGOKI NIITEMITHO

24. Ulika pashiyelekeithio shokuza pu-1 sigo opu -5 kutya iitsa tayi landula otayi opalele ngiini okumona omeya, uuyogoki niitemitho yokutelekitha nokuminikilitha maandjeni.

	Omeya, Uuyogoki nIitemitho	1. NandenadeNe	2. Omathimbo	3. OluIndji	4. Olundjilundji	5. Aluhe
1	Aanegumbo lyandje ihaa mono omeya omawanawa nokunwa [hol. Omeya gokopomba].					
2	Aanegumbo lyandje ohaa iwatelele miihwa, momayemele nenge momapulastika.					
3	Uundjugo mboka hawu longithwa kaanegumbo lyandje kawu shi uuwanawa nokulongithwa kaakiintu nuunona.					
4	Uundjugo mboka hawu longithwa kaanegumbo lyandje inawu yela.					
5	Aanegumbo lyandje ngele taa teleke iikulya ohaa longitha iitemitho mbyoka ya nika oshiponga noonkondo [Oshiholelwa, iitemitho mbyoka hayi eta iiponga yomililo noonkondo momudhingoloko gwetu.].					
6	Aanegumbo lyandje ohaa telekitha iitemitho mbyoka ihaayi zi olwithi nenge inaayi nika oshiponga kuundjolowele wetu.					
7	Megumbo lyaandjetu ohatu minikilitha iitemitho mbyoka ya nika oshiponga noonkondo oshiholelwa iitemitho mbyoka hayi etitha noonkondo iiponga yomililo momudhingoloko gwetu].					
8	Megumbo lyaandjetu ohatu minikilitha iitemitho mbyoka ihaayi zi olwithi nenge ihaayi yono uundjolowele wetu.					

ONTOPOLWA F: OMUDHINGOLOKO

25. Ulika pashiyelekitho shokuza pu-1 sigo oku-5 kutya omaupyakadhi taga lundula owe ga tsakaneka molukanda shi thike peni.

	Uupyakadhi womomudhingoloko	1. Nandenade	2. Omalupita	3. Omalupita	4. Olundji	5. Olundjilundji
1	Omafundja					
2	Omakakeko gombepo					
3	Endumbakano lyaantu [Aantu oyendji yu udhagana mehala eshona]					
4	Iiyagaya ya napakana shaa mpoka					
5	Omeya gonyata taga kunguluka shaa mpoka					
6	Aantu haa iwatelele miihwa nenge momilamba					
7	Omagumbo ohaga fikwa po kuulehite nokomasiga goparafina					
8	Omagumbo ohaga pi po komalusheno ngoka inaaga tulwa mo pamautho					
9	Omagumbo ga tungwa momahala ga nika oshiponga (ngaashi momahala haga tala ma omeya, momilamba, koondundu]					
10	Eyonagulo lyomudhingoloko lyaa na ezimbuko [ngaashi eyonagulo lyevi, lyomiti, lyomilonga].					
11	Etukuko lyomikithi hali etwa komudhingoloko gwa luudha [omikithi ngaashi okolera, nomukithi gwehuli (ohepatiti E]					
12	Uupyakadhi wulwe [wu tumbula kondandalunde]					

26. Ulika pashiyelekitho shokuza pu-1 sigo oku-5 nkene iitsa tayi landula tayi holola omundhingoloko moka wa kala.

	OMUDHINGOLOKO	1. Ite tsu kumwe nande	2. Ite tsu kumwe	3. Kandi shi wo	4. Ote tsu kumwe	5. Ote tsu kumwe
1	Oluhepo ohalu etitha aantu ya kale kaaye na ko nasha nomudhingoloko moka ya kala.					
2	Oopoloyeka dhokulongulula iinima kadhi niwe nadho moshitopolwa shika.					

ONTOPOLWA G: OSHIGWANA

27. Ulika pashiyelekitho okuza pu-1 sigo oko -5 nkene iitsa tayi landula tayi holola omayiyuvo goye kombinga yoshigwana sheni.

	IITSA TAYI POPI KOMBINGA YOSHIGWANA	1. Hasho nanedenande	2. Hasho lelalela	3. Kandi shi wo	4. Osho	5. Osho lelela
1	Ohandi ipula nonakuyiwa yuunona mboka tawu putukile muumbashu.					
2	Opu na omahangano (**ge vulithe pulimwe** – ngaashi epangelo, muni, omahangano gaa shi gopapangelo, aakwashigwana] ngoka taga shunitha pevi ondjala mokati kaanona.					
3	Opu na omahangano taga longele kumwe ga shunithe pevi ondjala mokati kaakuluntu.					
4	Opu na omahangano taga longele kumwe ga shunithe pevi ondjala.					
5	Opu na omahangano taga longele kumwe ga shunithe pevi iimbuluma.					
6	Ope na omahangano taga longele kumwe ga monene aantu oompito dhiilonga niiyemo yi li hwepo					
7	Opu na omahangano taga longele kumwe ga monene aantu omalukale ge li hwepo					
8	Opu na omahangano taga longele kumwe ga monene aantu omeya omawanawa.					
9	Open a omahangano taga longele kumwe ga mone aantu uundjugo wu li hwepo.					
10	Opu na omahangano taga longele kumwe ga tule uundjugo waaheye pomuthika gu li nawa.					
11	Opu na omahangano taga longele kumwe opo ga monene aanamagumbo iitemitho mbyoka inaayi nika oshiponga momagumbo gawo [oshiholelwa iitemitho mbyoka ihaayi etitha iiponga yomililo unene moshitopolwa shetu].					
12	Opu na omahangano taga longele kumwe ga monene aanamagumbo iitemitho yomomagumbo mbyoka ihaayi yono uundjolowele womuntu.					
13	Opu na omahangano taga monene aanamagumbo iitemitho yokutelekitha iikulya mbyoka inaayi nika oshiponga [ngaashi iitemitho mbyoka ihaayi etitha unene iiponga yomililo moshitopolwa shetu].					

	IITSA TAYI POPI KOMBINGA YOSHIGWANA	1. Hasho nanedenande	2. Hasho lelalela	3. Kandi shi wo	4. Osho	5. Osho lelela
14	Opu na omahangano ngoka taga monene aanamagumbo iitemitho yokuteleka yi li hwepo mbyoka itaayi yono uundjolowele waantu.					
15	Opu na omahangano gokuhwepopeka onkalo yomudhingoloko gwetu					
16	Aanapoloitika ohaa itula mo owala mokweetitha ehumokomeho muumbashu muka uuna omahogololo ge li popepi.					

Tangi unene sho wa li wa kutha ombinga mokuudhitha omapulo ngaka.

Appendix 10: Questionnaire for EHPs, HSPs and NPO practitioners

Questionnaire number	

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study

QUESTIONNAIRE FOR PRACTITIONERS

This questionnaire gathers your views on the social, economic and environmental issues in the informal settlements where you work and will take 10 to 15 minutes to complete.

SECTION A: BIOGRAPHICAL DETAILS

Please answer all questions by ticking ☑ the appropriate box or completing the blank _____ space provided.

1. What is your gender? [Tick ☑ one box only].

1 Male		2 Female		3 Other	

2. What is your age? _____ years.

3. What is your primary occupation? [Tick ☑ one box only].

1	Environmental health practitioner	
2	Town planner	
3	Development planner	
4	NPO volunteer or staff	
5	Other [specify]	

4. How many years have you worked with informal settlement communities? _____ [years].

5. At which organisation do you work? [Tick ☑ one box only].

1 City of Windhoek	
2 Hisa	
3 Nathaniel Maxuilili	
4 City of Johannesburg	
5 Camp Sizanani	

6. How many years have you worked at this organisation? _____ [years].

7. Indicate your role in relation to the informal settlements where you work. [Tick ☑ all that apply].

1.	Counselling	
2.	Disaster relief	
3.	Life skills training	
4.	Informal settlements upgrading	
5.	Environmental health education	
6.	Environmental health surveillance	
7.	Hunger alleviation projects	
8.	Early childhood development	
9.	Income generating projects	
10.	Alcohol and drug rehabilitation	
11.	Other [specify]	

SECTION B: THE GROWTH OF INFORMAL SETTLEMENTS

8. Indicate on a scale of 1 to 5 how the following factors reflect your views on what contributes to the growth of informal settlements where you work.

	FACTORS THAT CONTRIBUTE TO THE GROWTH OF INFORMAL SETTLEMENTS	1. Strongly disagree	2. Disagree	3. Unsure	4. Agree	5. Strongly agree
1	Poverty					
2	Unemployment					
3	Migration and rapid urbanisation					
4	Unaffordable land in urban areas					
5	Unaffordable housing					
6	Erecting shacks to rent out					
7	Erecting shacks to sell to others					
8	Erecting shacks with the view of increasing chances of getting housing from the government.					
9	Erecting shacks with the view of starting informal businesses in and around informal settlements.					
10	Other [specify]					

SECTION C: WATER, SANITATION AND ENERGY

9. Indicate on a scale of 1 to 5 the extent to which you think the following statements reflect access to water, sanitation and energy for informal settlement communities where you work.

	WATER, SANITATION AND ENERGY FOR INFORMAL SETTLEMENT COMMUNITIES	1. Not at all	2. To a small extent	3. To a moderate extent	4. To a great extent	5. To a very great extent
1	They largely have access to adequate clean and safe water.					
2	They largely treat water as a scarce resource that should not be wasted.					
3	They largely have access to toilets.					
4	There are safety concerns surrounding the use of toilets in informal settlements.					
5	Some use the bush, buckets or plastic bags due to a lack of access to toilets.					
6	They largely have access to energy sources for cooking and lighting homes that do not harm their health.					
7	They largely have access to energy sources that are not potentially dangerous [e.g. that are not a major cause of shack fires].					

SECTION D: ENVIRONMENTAL SUSTAINABILITY

10. Indicate on a scale of 1 to 5 the extent to which the following are the significant environmental challenges in the informal settlements where you work.

	ENVIRONMENTAL CHALLENGES IN INFORMAL SETTLEMENTS	1. Not at all	2. To a small extent	3. To a moderate extent	4. To a great extent	5. To a very great extent
1	Flooding					
2	Shack fires					
3	Raw sewage					
4	Overcrowding					
5	Indoor air pollution					
6	Outdoor air pollution					
7	Uncollected garbage					
8	Environmental degradation					
9	Shacks that are built in hazardous places					
10	Open defecation (using the open bush for toilets)					
11	Other [specify]					

11. Indicate on a scale of 1 to 5 how the following statements reflect your views on informal settlement communities and the environment in the informal settlements where you work.

	INFORMAL SETTLEMENTS COMMUNITIES AND THE ENVIRONMENT IN INFORMAL SETTLEMENTS	1. Strongly disagree	2. Disagree	3. Unsure	4. Agree	5. Strongly agree
1	Informal settlement communities live with a greater risk of human made hazards.					
2	They live with a greater risk of natural disasters.					
3	They live with a greater risk of disease outbreaks.					
4	People living in poverty do not care about the poor state of the environment in which they live.					
5	In their attempt to survive, poor communities do considerable damage to the physical environment.					
6	There is little environmental education in informal settlements.					
7	Realising sustainable environments for informal settlement communities has implications for my profession.					

SECTION E: CHALLENGES IN RENDERING SERVICES TO INFORMAL SETTLEMENT COMMUNITIES

12. Indicate on a scale of 1 to 5 how the following reflect the challenges that you face in rendering services to informal settlement communities where you work.

	CHALLENGES IN RENDERING SERVICES TO INFORMAL SETTLEMENT COMMUNITIES	1. Strongly disagree	2. Disagree	3. Unsure	4. Agree	5. Strongly agree
1	Safety concerns					
2	Language barriers					
3	Budgetary constraints					
4	Limited human resources to deliver services					
5	Limited community participation					
6	The haphazard set up of informal settlements					
7	A lack of expertise on how to intervene in informal settlements.					
8	Lack of political will to develop informal settlements					
9	Lack of ownership of communal infrastructure in informal settlements [e.g. public toilets, taps].					
10	The high rate at which informal settlements are growing.					
11	The extent at which informal settlement communities are setting up shacks far away from basic services.					
12	A lack of collaborative partnerships amongst stakeholders that deliver social, economic and environmental interventions in informal settlements.					
13	Other [specify]					

SECTION F: COMMUNITY SUSTAINABILITY

13. Indicate on a scale of 1 to 5 how the following statements reflect your views on community sustainability for informal settlement communities where you work.

	COMMUNITY SUSTAINABILITY FOR INFORMAL SETTLEMENT COMMUNITIES	1. Strongly disagree	2. Disagree	3. Unsure	4. Agree	5. Strongly agree
1	I worry about the future of children growing up in informal settlements.					
2	There are partnerships [**more than one organisation** -e.g. the government, municipality, NGOs, community members etc.] to reduce hunger amongst children.					
3	There are partnerships to reduce hunger amongst adults.					
4	There are partnerships to reduce poverty.					
5	There are partnerships to reduce crime.					
6	There are partnerships to improve access to employment and income.					
7	There are partnerships to improve access to decent housing.					
8	There are partnerships to improve access to adequate clean and safe water.					
9	There are partnerships to improve access to toilets.					
10	There are partnerships to make public toilets safer.					
11	There are partnerships to improve access to energy sources for lighting homes that are not potentially dangerous [e.g. that are not a major cause of shack fires].					
12	There are partnerships to improve access to energy sources for lighting homes that do not harm people's health.					
13	There are partnerships to improve access to energy sources for cooking that are not potentially dangerous [e.g. that are not a major cause of shack fires].					
14	There are partnerships to improve access to energy sources for cooking that do not harm people's health.					
15	There are partnerships to improve the environmental conditions in informal settlements.					
16	Political leaders only show interest in bringing development to informal settlements when it is time for elections.					

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Appendix 11: Assent letter child participants qualitative study Namibia

15 May 2018
Researcher: Peggie Chiwara
Cell phone number: 0843493879
Email: pegichiwara@gmail.com

ASSENT LETTER

Hello,

My name is Peggie Chiwara. I am a doctoral student at the University of Pretoria. I am doing a study that will help me understand what sustainable development would look like for Babillon, Kilimanjaro and Okahandja Park informal settlements. In this study, I would like to involve children like yourself from HISA/ Nathaniel Maxuilili. Please take time to read through this letter as it will help you understand what will happen in this study and your rights as a participant.

What will happen in the study?

If you agree to join the study, you will be asked to sit for a discussion with five other children of about the same age as you. The discussion will be done at HISA/Nathaniel Maxuilili on a date and time to be announced. The discussion will take between 45 minutes and one hour and will be voice recorded so that I clearly understand all the important information that you share.

Is there anything to be afraid of?

There is nothing to be afraid of in joining the study and there will be no danger to you or to your family. It may be hard for you to talk about your experiences of living in your community, as this may bring to mind memories that may cause you sadness. You will be free not to answer any questions that make you feel uncomfortable. If you join the group discussions and feel sad after doing so, you can talk to me and I will listen to you. If I cannot make you feel better, I will ask a social worker from the Ministry of Gender Equality and Child Welfare to see you for counselling.

Are there any benefits for joining the study? 

You will not receive any money or gifts for your participation but if you agree to participate in this study, you will help me find ways of making the lives of children and grown-ups in your community better.

What rights do I have? 

Whilst your parent or guardian may give their permission for your participation in the study, you do not have to be part of the study if you do not want to. If you do, it should be your own choice and no one should force you to do so. You will be free to excuse yourself forever from the study at any time if you so wish and will not be punished for doing so.

Who will know that I joined the study? 

Your parent or guardian will know that you have joined the study as they will give their permission for this. They will however not know the answers that you will write in the questionnaire. Other children who are part of the study will also know that you are in the study as they will see you in the group. I will use the information that you share in writing a report on the study for the university, book chapters, conference presentations and academic journals. Your name and the names of other children will not appear in any of these writings so that others will not know who you are. After I complete the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years. If the data is used during this time, it will only be for research purposes.

Any questions? 

If you have any questions or would want me to explain anything better, you are welcome to phone or text me on my contact details above.
Would you like to join the study?

 Yes ☐ I would like to join the study.  No ☐ I would not like to join the study.

If you would like to join the study, you can write your name and today's date below.

_____ _____
Name of child Date

_____ _____
Name of researcher Date

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Faculty of Humanities
Department of Social Work and Criminology

Appendix 12: Assent letter child participants qualitative study South Africa

15 May 2018
Researcher: Peggie Chiwara
Cell phone number: 0843493879
Email: pegichiwara@gmail.com

ASSENT LETTER

Hello,

My name is Peggie Chiwara. I am a doctoral student at the University of Pretoria. I am doing a study that will help me understand what sustainable development would look like for Orange Farm informal settlement. In this study, I would like to involve children like yourself from Camp Sizanani. Please take time to read through this letter as it will help you understand what will happen in this study and your rights as a participant.

What will happen in the study?

If you agree to join the study, you will be asked to sit for a discussion with five other children of about the same age as you. The discussion will be done at Camp Sizanani on a date and time to be announced. The discussion will take between 45 minutes and one hour and will be voice recorded so that I clearly understand all the important information that you share.

Is there anything to be afraid of? 

There is nothing to be afraid of in joining the study and there will be no danger to you or to your family. It may be hard for you to talk about your experiences of living in Orange Farm, as this may bring to mind some memories that may cause you sadness. You will be free not to answer any questions that make you feel uncomfortable. If you join the group discussions and feel sad after doing so, you can talk to me and I will listen to you. If I cannot make you feel better, I will ask a counsellor at Camp Sizanani to see you for counselling.

Are there any benefits for joining the study? 

You will not receive any money or gifts for your participation but if you agree to participate in this study, you will help me find ways of making the lives of children and grown-ups in your community better.

What rights do I have? 

Whilst your parent or guardian may give their permission for your participation in the study, you do not have to be part of the study if you do not want to. If you do, it should be your own choice and no one should force you to do so. You will be free to excuse yourself forever from the study at any time if you so wish and will not be punished for doing so.

Who will know that I joined the study? 

Your parent or guardian will know that you have joined the study as they will give their permission for this. They will however not know the answers that you will write in the questionnaire. Other children who are part of the study will also know that you are in the study as they will see you in the group. I will use the information that you share in writing a report on the study for the university, book chapters, conference presentations and academic journals. Your name and the names of other children will not appear in any of these writings so that others will not know who you are. After I complete the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years. If the data is used during this time, it will only be for research purposes.

Any questions? 

If you have any questions or would want me to explain anything better, you are welcome to phone or text me on my contact details above.

Would you like to join the study?

 Yes ☐ I would like to join the study.  No ☐ I would not like to join the study.

If you would like to join the study, you can write your name and today's date below.

_____	_____
Name of child	Date
_____	_____
Name of researcher	Date

Appendix 13: Assent letter child participants quantitative study Namibia

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Faculty of Humanities
Department of Social Work and Criminology

14/05/2018
Researcher: Peggie Chiwara
Cell phone number: 0813291020
Email: pegichiwara@gmail.com

ASSENT LETTER

Hello,
My name is Peggie Chiwara. I am a doctoral student at the University of Pretoria. I am doing a study that could assist me in understanding how sustainable development can look like for Babilon, Kilimanjaro and Okahandja Park informal settlements. In this study, I would like to involve children like you from HISA/Nathaniel Maxuilili. Please take time to read through this letter as it will help you understand what will happen in the study and your rights as a participant.

What will happen in the study?

If you agree to join this study, you will sit in a group with other children from HISA/ Nathaniel Maxuilili. Each child will be asked to complete a questionnaire that asks a list of questions about your experiences living in your community and on how the environment and the lives of children and grown-ups in your informal settlement can be made better. This exercise will take between 10 to 15 minutes to complete.

Is there anything to be afraid of? 

There is nothing to be afraid of in joining the study. There will be no danger to you, other children or your family. You will not be required to write your name on the questionnaire and there will be no wrong or right answers to the exercise. It may be hard for you to answer questions that ask about life in your community as this may bring to mind some sad memories. You will be free not to answer any questions that make you feel uncomfortable. If you complete the questionnaire and feel sad after doing so, you can talk to me and I will listen to you. If needed, I will ask a social worker at the Ministry of Gender Equality and Child Welfare to see you for counselling.

Are there any benefits for joining the study? 

You will not receive any money or gifts for your participation in the study. If you agree to participate, you will help me suggest ways of making the environment and the lives of children and grown-ups in your community better.

What rights do I have? 

While your parent or guardian may give their permission for your participation in the study, you do not have to participate if you do not want to. If you do, it should be your own choice and no one should force you to participate. You will be free to excuse yourself from the study at any time if you so wish and will not be punished for doing so.

Who will know that I joined the study? 

Your parent or guardian will know that you have joined the study as they will give their permission for this. They will however not know the answers that you will write in the questionnaire. Other children who are part of the study will also know that you are in the study as they will see you in the group. I will use the information that you share in writing a report on the study for the university, book chapters, conference presentations and academic journals. Your name and the names of other children will not appear in any of these writings so that others will not know who you are. After I complete the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years. If the data is used during this time, it will only be for research purposes.

Any questions? 

If you have any questions or would want me to explain anything better, you are welcome to phone or text me on 0813291020 or send me an email on the following address: pegichiwara@gmail.com

Would you like to join the study?

Yes ☐

No ☐

If you answered yes, you can write your name and today's date below.

_____ _____

Name of child Date

_____ _____

Name of researcher Date

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Faculty of Humanities
Department of Social Work and Criminology

Appendix 14: Assent letter child participants quantitative study South Africa

14/05/2018
Researcher: Peggie Chiwara
Cell phone number: 0843493879
Email: pegichiwara@gmail.com

ASSENT LETTER

Hello, 

My name is Peggie Chiwara. I am a doctoral student at the University of Pretoria. I am doing a study that could assist me in understanding how sustainable development can look like for Orange Farm informal settlement. In this study, I would like to involve children like you from Camp Sizanani. Please take time to read through this letter as it will help you understand what will happen in the study and your rights as a participant.

What will happen in the study?

If you agree to join this study, you will sit in a group  with other children from Camp Sizanani. Each child will be asked to complete a questionnaire  that asks a list of questions about your experiences living in Orange Farm and on how the environment and the lives of children and grown-ups in Orange Farm could be made better. This exercise will take between 10 to 15 minutes to complete.

Is there anything to be afraid of? 

There is nothing to be afraid of in joining the study. There will be no danger to you, other children or your family. You will not be required to write your name on the questionnaire and there will be no wrong or right answers to the exercise. It may be hard for you to answer questions that ask about life in Orange Farm, as this may bring to mind some sad memories. You will be free not to answer any questions that make you feel uncomfortable. If you complete the questionnaire and feel sad after doing so, you can talk to me and I will listen to you. If needed, I will ask a Camp Sizanani counsellor to see you for counselling.

Are there any benefits for joining the study? 

You will not receive any money or gifts for your participation in the study. If you agree to participate, you will help me suggest ways of making the environment and the lives of children and grown-ups in Orange Farm better.

What rights do I have? 

While your parent or guardian may give their permission for your participation in the study, you do not have to participate if you do not want to. If you do, it should be your own choice and no one should force you to participate. You will be free to excuse yourself from the study at any time if you so wish and will not be punished for doing so.

Who will know that I joined the study? 

Your parent or guardian will know that you have joined the study as they will give their permission for this. They will however not know the answers that you will write in the questionnaire. Other children who are part of the study will also know that you are in the study as they will see you in the group. I will use the information that you share in writing a report on the study for the university, book chapters, conference presentations and academic journals. Your name and the names of other children will not appear in any of these writings so that others will not know who you are. After I complete the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years. If the data is used during this time, it will only be for research purposes.

Any questions? 

If you have any questions or would want me to explain anything better, you are welcome to phone or text me on 0843493879 or send me an email on the following address: pegichiwara@gmail.com

Would you like to join the study?

Yes ☐

No ☐

If you answered yes, you can write your name and today's date below.

_____ _____

Name of child Date

_____ _____

Name of researcher Date

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Department of Social Work and Criminology

Appendix 15: Informed consent letter parents and guardians qualitative study

17/05/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
Cell phone: +27843493879 or +264813291020

Informed consent letter - Parents and Guardians

Qualitative Study

Dear Parent/Guardian,

My name is Peggie Chiwara. I am a doctoral student at the University of Pretoria in South Africa. I am doing a study that will assist me in understanding how sustainable development would look like for informal settlement communities in Okahandja Park, Babilon, Kilimanjaro and Orange Farm. In this study, I would like to involve your child and other children who attend programmes at HISA and Nathaniel Maxuilili in Windhoek, Namibia and Camp Sizanani in Orange Farm, South Africa. Please take time to read through this letter as it will help you understand what will happen in the study and your child's rights as a participant.

Title of the study
Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study.

What will happen in the study?
If you give permission for your child to join the study, he/she will sit for a discussion with five other children from HISA/Nathaniel Maxuilili or Camp Sizanani who are aged between 13 and 17 years. The discussion will be about the children's experiences living in an informal settlement and on how the environment and the lives of children and grown-ups in your informal settlement could be made better. The discussion will be voice recorded with the children's consent, so that I do not miss any important information that they share. The

discussion will likely take between 45 minutes and one hour and will be done at HISA, Nathaniel Maxulili and Camp Sizanani on a date and time to be announced.

Risks and discomforts

There will be no danger to your child, other children or to your family. It may however be hard for children to talk about their experiences living in an informal settlement as this may bring to mind some sad memories. Your child will be free not to answer any questions that may make him/her feel uncomfortable. If your child feels sad after joining the study, he/she will be encouraged to talk to me. If needed, I will send him/her to the social worker at the Ministry of Gender Equality and Child Welfare in Windhoek or Camp Sizanani in Orange Farm for counselling.

Are there any benefits for joining the study?

Your child will not receive any money or gifts for his/her participation. If you give permission for your child to participate in this study, your child's contributions will assist me in suggesting ways of making the environment and the lives of children and adults in your community better.

Participants' rights

Even after giving your permission, your child will only participate if he/she wants to and will sign an assent form to indicate that he/she fully understands this. Participation in the study will therefore be your child's own choice. If your child agrees to participate, he/she will be free to excuse him/herself from the study at any time if he/she so wishes and will not be punished for doing so.

Confidentiality

I will use the information that your child shares in writing a report on the study for the University of Pretoria, conference presentations, book chapters and academic journals. Your child's name and the names of other children will not appear in any of these writings. Instead, I will use an imaginary name in place of your child's name so that others will not know who your child is. After I have completed the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years where after it will be destroyed. If the data is used during this period, it will only be for research purposes.

Any questions?

If you have any questions or would want me to explain anything further, you are welcome to phone or text me on my number above. You can also send me an email to pegichiwara@gmail.com

CONSENT DECLARATION BY PARENT/GUARDIAN

I, _____ hereby give permission for my child

_____ (write name of child) to participate in the study.

_____ _____

Signature parent/guardian Date

_____ _____

Signature researcher Date

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Department of Social Work and Criminology

Appendix 16: Informed consent letter parents and guardians qualitative study (isiZulu)

04/06/2018
Our Ref: Peggie Chiwara
E-mail: pegichiwara@gmail.com
Tel: 0843493879

IsiZulu Informed Consent Letter: Parents and Guardians
Qualitative study
Ifomu Lemvume Elinolwazi: Labazali/Labalondolozi

Mzali/Mlondolozi Othandekayo,
Ingane yakho ngaloku iyamenywa ukuba ingenele isikhathi sokuxoxisana/ukugcwalisa iphepha lemibuzo eliyingxenye yocwaningo lwezifundo zobudokotela ezenziwa nguNkz Peggie Chiwara, oyisitshudeni saseNyuvesi yasePitoli. Kulolu cwaningo, ngithanda ukubandakanya ingane yakho, kanye nezinye izingane zaseNkambini yaseSizanani futhi ngibenze babelane ngemibono yabo yokuthi indawo eyindalo kanye nezimpilo zezingane kanye nabantu abadala kungenziwa ngcono kanjani emijondolo yenu. Sicela uthathe isikhathi ukufunda le ncwadi ngoba inikeza ulwazi lokuthi lolu cwaningo luzokwenziwa kanjani kanye namalungelo ingane yakho ezonikezwa wona njengombambiqhaza kulolu cwaningo.

Isihloko Socwaningo

Ukuxhaswa kwemiphakathi nendalo okuhlalwa kuyo kwemiphakathi yasemijondolo eNamibhiya kanye naseNingizimu Afrika: Ucwaningo lokuqhathanisa lwemisebenzi yezenhlalonhle.

Kuzokwenzakalani ocwaningweni?
Uma unikeza imvume yokuthi ingane yakho ijoyine ucwaningo, ingane yakho izocelwa ukuba ihlale emaqenjini ezingxoxo nezinye izingane ezinhlanu ezivela eNkambini yaseSizanani ezineminyaka ephakathi kweyi-13 ukuya kweyi-17 yobudala. Ingxoxo izothatha isikhathi esiphakathi kwemizuzu engama-45 kanye nehora futhi kuzorekhodwa amazwi ngemvume yabo ukuze ngingashiywa yinoma yiluphi ulwazi olusemqoka ababelana ngalo. Loku kuzokwenzeka eNkambini iSizanani ngosuku nesikhathi esisazomenyezelwa.

Izingozi kanye nokuphatheka kabi

Akusoze kwaba nobungozi enganeni yakho, kwezinye izingane noma emndenini wakho. Kungenzeka kodwa ukuba kube nzima ukuthi izingane zabelane ngesipiliyoni sazo sokuphila

emijondolo ngoba lokhu kungaletha emqondweni izinkumbulo ezingemnandi. Ingane yakho ikhululekile ukuthi ingaphenduli yinoma yimuphi umbuzo oyenza ukuthi izizwe ingaphathekile kahle. Uma ingane yakho izizwa idanile emva kokungena ocwaningweni, izogqugquzelwa ukuba ikhulume nami. Uma kudingeka, ngingayithumela kumeluleki eNkampini yaseSizanani ukuze ayeluleke.

Kukhona yini ezinye izinzuzo zokungena ocwaningweni?
Ingane yakho asoze yathola yinoma yiyiphi imali noma izipho ngokubamba iqhaza kwayo kuloku. Uma unikeza imvume enganeni yakho ukuthi ibambe iqhaza kulolu cwaningo, imibono yengane yakho izongisiza ukuphakamisa izindlela zokwenza indalo kanye nezimpilo zezingane nabantu abadala emijondolo yenu ibe ngcono.

Amalungelo ababambiqhaza
Nangemuva kokukunikeza imvume, ingane yakho izobamba iqhaza kuphela uma ifuna futhi izosayina ifomu le mvume ukubonisa ukuthi uyakuqondisisa loku ngokuphelele. Ukubamba iqhaza ocwaningweni kumele kube ukhetho lwengane yakho. Uma ngabe ingane yakho iyavuma ukubamba iqhaza, izokhululeka ukuzikhulula ocwaningweni nganoma yisiphi isikhathi uma ithanda futhi ayisoze yajeziswa ngokwenza loku.

Ubumfihlo
Ngizosebenzisa lolu lwazi ingane yakho eyabelana ngalo ukubhala umbiko ngokuphathelene nocwaningo lweNyuvesi yasePitoli kanye namajenali ezifundiswa. Amazwi okurekhodiwe kokuxoxisana akusoze kwasakazwa emsakazweni, kumabonakude, ku-inthanethi noma kokokuxhumana kwezehlalonhle (i-*social media*) kodwa kuzosetshenziswa ukwenza okutholiwe maqondana nocwaningo. Igama lengane yakho kanye namagama ezinye izingane asoze avezwa kunoma yikuphi kwaloku okubhaliwe. Kunalokho, ngizosebenzisa igama elicatshangiwe endaweni yegama lengane yakho ukuze abanye bangazi ukuthi ingane yakho ingubani. Emva kokuba sengiluqedile ucwaningo, ngizongenisa lonke ulwazi eNyuvesi yasePitoli lapho luzogcinwa luphephile iminyaka engama-15 bese kuthi emva kwaloko lushabalaliswe. Uma idatha yocwaningo isetshenziswe ngalesi sikhathi, kuyoba kuphela ngezinjongo zocwaningo.

Kukhona yini imibuzo onayo?
Uma ngabe unanoma yimiphi imibuzo noma ufuna ngikuchazele yinoma yini ngokwengeziwe, uvumelekile ukuba ungishayele noma ungithumele i-sms kule namba 0843493879. Ungaphinde futhi ungithumele i-imeyili ekhelini elilandelayo: pegichiwara@gmail.com

Ukufunga Okuyimvume Okwenziwa ngabazali/Ngabalondolozi
Mina, _____, ngalokhu nginikeza imvume yokuthi ingane yami _____ (bhala igama lengane) ukuthi ibambe iqhaza kulolu cwaningo.

_____	_____
Isignesha yomzali/yomlondolozi	Usuku
_____	_____
Isignesha yomcwaningi	Usuku

Appendix 17: Informed consent letter parents and guardians qualitative study (Oshiwambo)

04/06/2018
Our Ref: Peggie Chiwara
Email: pegichiwara@gmail.com
Cellphone: 0813291020

Oshiwambo Informed Consent letter: Parents and Guardians
Qualitative study
Ombaapila Yepitiko Lyekongo Lyomauyelele

Omuvali/ Omutekuli omusimanekwa,
Okanona koye otaka indilwa ke ye koonkundathana dhomapulapulo geilongo lyuundohotola lyaMee Peggie Chiwara, omulongwa moUniversiti yaPretoria, Meilongo ondika onda hala ndika kwatele mo okanona koye nosho wo uunona wulwe po HISA/Nathaniel Maxuilili soup kitchen opo wu gandje omayiyuvo gawo nkene omudhingoloko nonkalamwenyo yaanona naakuluntu tayi vulu okuhwepopekwa molukanda lweni. Lesha nawa ombaapila ndjika oshoka otayi gandja uuyelele nkene ekonakono ndika tali ka ningwa nuuthemba mboka okanona koye taka ka pewa uuna taka ka kutha ombinga mekonakono ndika.

Oshipalanyolo shekonakono ndika
Okukaleka po omudhingoloko omwaanawa gwaakwashigwana yomomalukanda gomoNamibia nogomoSouth Africa: Ekonakono lyokuyelekanitha iilonga yonkalathano.

Omikalo dhokugongela uuyelele
Ngele owa gandja eziminino okanona koye ka kuthe ombinga mekonakono ndika okanona koye otaka ka indilwa ka ye moonkundathana nuunona wulwe wa za po HISA/Nathaniel Maxuilili soup kitchen wu na oomvula dhi li pokati ko-13 no-17. Oonkundathana ndhika otadhi ka kwata owili nominute 45 notadhi ka kwatwa nokakwatamawi paziminino lyaanona mbaka opo ndaa hununthe po nande uuyelele wa simana mboka taa gandja. Okuyamukula omapulo huka otaku ka ningwa po HISA/Nathaniel Maxuilili mesiku nomethimbo ndyoka tali ka tseyithwa komeho.

Omaupyakadhi nokwaauvombili
Okanona koye, uunona wulwe nenge aanamagumbo itaa ka adhika nande kuupyakadhi washa. Ashike otashi ka kala oshidhigu kuunona okuhokolola onkalo yawo yomolukanda shaashi shika otashi wu dhimbulutha iiningwanima iiwinayi yomolukanda. Okanona koye otaka kala ke na uuthemba wokwaayamukula omapulo ngoka tage ka uvitha nayi. Ngele okanona koye oka tameke ka yemata konima yokumana okuyamukula omapulo, otaka ka tsuwa omukumo ka kundathane

nangame. Ngele osha pumbiwa, otashi vulika ndi tume okanona haka komuhungimwenyo opo ka ka hungwe omwenyo.

Omauwanawa
Okanona koye itaka ka pewa iimaliwa nenge omagano sho taka ka kutha ombinga mekonakono ndika. Shaa wa gandja eziminino okanona koye ka kuthe ombinga mekonakono ndika, iiyetwapo yokanona koye otayi ka kwathela ndje ndi ka ninge omathaneko gokuhwepopeka omudhingoloko nonkalamwenyo yaanona noyaakuluntu yomomalukanda.

Uuthemba waakuthimbinga
Nonando owu gandje eziminino, okanona koye otaka vulu ashike okukutha ombinga mekonakono ndika ngele ka hala, onkene otaka ka pulwa ka shaine ofooloma yeziminino opo ka holole kutya oku uvite ko thiluthilu shoka tashi ningwa. Okanona koye otaka ka kutha ombinga mekonakono ndika pahalo lyako kene. Ngele okanona koye oka zimine ka kuthe ombinga mekonakono ndika, otaka ka manguluka okuza mo mekonakono ndika ethimbo kehe ka hala noitaka ka geelwa nande ngele oki ikutha mo mekonakono ndika.

Iiholekwa
Uuyelele mboka okanona koye taka ka gandja, otandi ke wu longitha mokunyola omushangwa gweilongo lyandje moUniversiti yaPretoria nomokunyola iinyolwa yilwe yopaulongelwe miifo yopaulongelwe. Oonkundathana ndhoka dha kwatwa mokakwatamawi itadhi ka leshwa koradio, kotiivii, kointaneta nenge kiikundaneki yopankalathano. Edhina lyokanona koye nomadhina guunona wulwe itaga ka holoka nande momishangwa dhandje. Ngame otandi ka nyola ashike edhina lilwe peha lyokunyola edhina lyokanona koye opo aantu yaa mone kutya okanona koye oko ka gandja uuyelele. Shaa nda mana ekonakono ndika, otandi ka gandja uuyelele awuhe koUniversiti yaPretoria hono tawu ka pungulwa uule woomvula 15 nokonima uuyelele mbuka otawu ka ekelwahi. Nge otailongifwa pefiimbo eli, otailongifwa ashike ninima inasha no.

Okuninga omakwatathano naakongi yomauyelele
Ngele owu na omapulo natango nenge wa hala ndi ku yelithile sha, oto vulu okudhengela ndje ongodhi nenge wu tumine ndje okatumwalaka kongodhi ndji 0813291020. Oto vulu wo okutumina ndje oiimeila kondjukithi tayi landula: pegichiwara@gmail.com

Eziminino
Ngame, _____, otandi gandja mpaka eziminino opo okanona kandje _____ (nyola edhina lyokanona) ka kuthe ombinga mekonakono ndika.

_____ _____
Eshainokaha Esiku

_____ _____
Edhina lyomuyakulipekapeki Esiku

Appendix 18: Informed consent letter parents and guardians quantitative study

17/05/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
Cellphone +27843493879 or +264813291020

Informed Consent Letter: Parents and Guardians
Quantitative Study

Dear Parent/Guardian,

My name is Peggie Chiwara. I am a doctoral student at the University of Pretoria in South Africa. I am doing a study that will assist me in understanding how sustainable development could look like for informal settlement communities in Babilon, Kilimanjaro and Okahandja Park in Windhoek, Namibia and Orange Farm in South Africa. In this study, I would like to involve your child, together with other children who benefit from the programmes offered by HISA and Nathaniel Maxuilili in Windhoek or Camp Sizanani in Orange Farm. Please take time to read through this letter as it will help you understand what will happen in this study and your child's rights.

Title of the study

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study.

What will happen in the study?

If you give permission for your child to join the study, he/she will sit in a group with other children from HISA and Nathaniel Maxuilili in Namibia or Camp Sizanani in Orange Farm. Each child will then receive a questionnaire with a set of questions to be completed. The questions are about the study, and in particular on children's experiences living in your informal settlement, and also how the environment and the lives of children and adults in your community could be improved. This exercise will take between 10 to 15 minutes to complete and will be done at HISA, Nathaniel Maxuilili or Camp Sizanani on a date and time to be announced.

Risks and discomforts

There will be no danger to your child, other children or to your family. It may however be hard for children to answer questions that ask about their experiences as this may bring to mind some unhappy memories. Your child will be free not to answer any questions that may make him/her feel uncomfortable. If your child feels sad after joining the study, he/she will be encouraged to talk to me. If needed, I will send him/her to a social worker for counselling at the Ministry of Gender Equality and Child Welfare in Windhoek or Camp Sizanani in Orange Farm.

Are there any benefits for joining the study?
Your child will not receive any money or gifts for his/her participation. If you give permission for your child to participate in this study, your child's contributions will assist me in suggesting ways of making the environment and the lives of people in your informal settlement better.

Participants' rights
Even after giving your permission, your child will only participate if he/she wants to. He/she will be required to sign an informed assent letter to indicate that he/she fully understands this. Participation in the study will therefore be your child's own choice. Even after your child has agreed to participate in the study, he/she will be free to excuse him/herself from the study at any time if he/she so wishes and will not be punished for doing so.

Confidentiality
I will use the information that your child shares in writing a report on the study for the University of Pretoria, book chapters, conference chapters and academic journals. Your child's name and the names of other children will not appear in any of these writings so that others will not know who your child is. After I have completed the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years where after it will be destroyed. If the data is used during this time, it will only be for research purposes.

Any questions?
If you have any questions or would want me to explain anything further, you are welcome to phone or text me on +264813291020 or +27843493879. You can also send me an email on the following address: pegichiwara@gmail.com

CONSENT DECLARATION BY PARENT/GUARDIAN

I_____ hereby give permission for my child

_____(write name of child) to participate in this study.

_____ _____
Signature parent/guardian Date

_____ _____
Signature researcher Date

Appendix 19: Informed consent letter parents and guardians quantitative study (isiZulu)

04/06/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
0843493879

IsiZulu Informed Consent Letter: Parents and Guardians
Quantitative study
Ifomu Lemvume Elinolwazi: Labazali/Labalondolozi

Mzali/Mlondolozi Othandekayo,
Ingane yakho ngaloku iyamenywa ukuba ingenele isikhathi sokuxoxisana/ukugcwalisa iphepha lemibuzo eliyingxenye yocwaningo lwezifundo zobudokotela ezenziwa nguNkz Peggie Chiwara, oyisitshudeni saseNyuvesi yasePitoli. Kulolu cwaningo, ngithanda ukubandakanya ingane yakho, kanye nezinye izingane zaseNkambini yaseSizanani futhi ngibenze babelane ngemibono yabo yokuthi indawo eyindalo kanye nezimpilo zezingane kanye nabantu abadala kungenziwa ngcono kanjani emijondolo yenu. Sicela uthathe isikhathi ukufunda le ncwadi ngoba inikeza ulwazi lokuthi lolu cwaningo luzokwenziwa kanjani kanye namalungelo ingane yakho ezonikezwa wona njengombambiqhaza kulolu cwaningo.

Isihloko Socwaningo
Ukuxhaswa kwemiphakathi nendalo okuhlalwa kuyo kwemiphakathi yasemijondolo eNamibhiya kanye naseNingizimu Afrika: Ucwaningo lokuqhathanisa lwemisebenzi yezenhlalonhle.

Kuzokwenzakalani ocwaningweni?
Uma unikeza imvume yokuthi ingane yakho ijoyine ucwaningo, ingane yakho izonikezwa iphepha le mibuzo ukuze iligcwalise. Imibuzo iphathelene nocwaningo, futhi ikakhulukazi ngesipiliyoni sezingane ezihlala e-Orange Farm. Kanye futhi nokuthi, indalo eyindawo yokuhlala kanye nezimpilo zezingane kanye nabantu abadala emphakathini wakho ingenziwa ngcono kanjani. Lo msebenzi uzothatha ngaphakathi kwemizuzu engama-20 ukuya kwengama-30. Loku kuzokwenzeka eNkambini iSizanani ngosuku nesikhathi esisazomenyezelwa.

Izingozi kanye nokuphatheka kabi
Akusoze kwaba nobungozi enganeni yakho, kwezinye izingane noma emndenini wakho. Kungenzeka kodwa ukuba kube nzima ukuthi izingane zabelane ngesipiliyoni sazo sokuphila emijondolo ngoba lokhu kungaletha emqondweni izinkumbulo ezingemnandi. Ingane yakho ikhululekile ukuthi ingaphenduli yinoma yimuphi umbuzo oyenza ukuthi izizwe ingaphathekile kahle.

Uma ingane yakho izizwa idanile emva kokungena ocwaningweni, izogqugquzelwa ukuba ikhulume nami. Uma kudingeka, ngingayithumela kumeluleki eNkampini yaseSizanani ukuze ayeluleke.

Kukhona yini ezinye izinzuzo zokungena ocwaningweni?
Ingane yakho asoze yathola yinoma yiyiphi imali noma izipho ngokubamba iqhaza kwayo kuloku. Uma unikeza imvume enganeni yakho ukuthi ibambe iqhaza kulolu cwaningo, imibono yengane yakho izongisiza ukuphakamisa izindlela zokwenza indalo kanye nezimpilo zezingane nabantu abadala emijondolo yenu ibe ngcono.

Amalungelo ababambiqhaza
Nangemuva kokukunikeza imvume, ingane yakho izobamba iqhaza kuphela uma ifuna futhi izosayina ifomu le mvume ukubonisa ukuthi uyakuqondisisa loku ngokuphelele. Ukubamba iqhaza ocwaningweni kumele kube ukhetho lwengane yakho. Uma ngabe ingane yakho iyavuma ukubamba iqhaza, izokhululeka ukuzikhulula ocwaningweni nganoma yisiphi isikhathi uma ithanda futhi ayisoze yajeziswa ngokwenza loku.

Ubumfihlo
Ngizosebenzisa lolu lwazi ingane yakho eyabelana ngalo ukubhala umbiko ngokuphathelene nocwaningo lweNyuvesi yasePitoli kanye namajenali ezifundiswa. Amazwi okurekhodiwe kokuxoxisana akusoze kwasakazwa emsakazweni, kumabonakude, ku-inthanethi noma kokokuxhumana kwezehlalonhle (i-*social media*) kodwa kuzosetshenziswa ukwenza okutholiwe maqondana nocwaningo. Igama lengane yakho kanye namagama ezinye izingane asoze avezwa kunoma yikuphi kwaloku okubhaliwe. Kunalokho, ngizosebenzisa igama elicatshangiwe endaweni yegama lengane yakho ukuze abanye bangazi ukuthi ingane yakho ingubani. Emva kokuba sengiluqedile ucwaningo, ngizongenisa lonke ulwazi eNyuvesi yasePitoli lapho luzogcinwa luphephile iminyaka engama-15 bese kuthi emva kwaloko lushabalaliswe.

Kukhona yini imibuzo onayo?
Uma ngabe unanoma yimiphi imibuzo noma ufuna ngikuchazele yinoma yini ngokwengeziwe, uvumelekile ukuba ungishayele noma ungithumele i-sms kule namba 0843493879. Ungaphinde futhi ungithumele i-imeyili ekhelini elilandelayo: pegichiwara@gmail.com

Ukufunga Okuyimvume Okwenziwa ngabazali/Ngabalondolozi
Mina, _____, ngalokhu nginikeza imvume yokuthi ingane yami _____ (bhala igama lengane) ukuthi ibambe iqhaza kulolu cwaningo.

_____	_____
Isignesha yomzali/yomlondolozi	Usuku
_____	_____
Isignesha yomcwaningi	Usuku

Appendix 20: Informed consent letter parents and guardians quantitative study (Oshiwambo)

07/06/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
0813291020

Oshiwambo Informed Consent Form: Parents and Guardians
Quantitative study
OMBAAPILA YEPITIKO LYEKONGO LYOMAUYELELE

Omuvali/ Omutekuli omusimanekwa,
Okanona koye otaka indilwa ku udhithe omapulo geilongo lyuundohotola lyaMee Peggie Chiwara, omulongwa moUniversiti yaPretoria, Meilongo ondika onda hala ndika kwatele mo okanona koye nosho wo uunona wulwe po HISA/Nathaniel Maxuilili Soup Kitchen opo wu gandje omayiyuvo gawo nkene omudhingoloko nonkalamwenyo yaanona naakuluntu tayi vulu okuhwepopekwa molukanda lweni. Lesha nawa ombaapila ndjika oshoka otayi gandja uuyelele nkene ekonakono ndika tali ka ningwa nuuthemba mboka okanona koye taka ka pewa uuna taka ka kutha ombinga mekonakono ndika.

Oshipalanyolo shekonakono ndika
Okukaleka po omudhingoloko omwaanawa gwaakwashigwana yomomalukanda gomoNamibia nogomoSouth Africa: Ekonakono lyokuyelekanitha iilonga yonkalathano.

Omikalo dhokugongela uuyelele
Ngele owa gandja eziminino okanona koye ka kuthe ombinga mekonakono ndika okanona koye otaka ka pewa omapulo ke ga yamukule. Omapulo oge na sha nekonakono ndika notaga pula unene ontseyo yokanona kombinga yonkalo yomolukanda lweni. Otaga pula wo nkene omudhingoloko nonkalamwenyo yaanona noyaakuluntu tayi vulu okuhwepopekwa. Okuyamukula omapulo ngaka otaku ka kwata ominute dhi li pokati ko-20 no-30. Okuyamukula omapulo huka otaku ka ningwa po HISA/Nathaniel Maxuilili soup kitchen mesiku nomethimbo ndyoka tali ka tseyithwa komeho.

Omaupyakadhi nokwaauvombili
Okanona koye, uunona wulwe nenge aanamagumbo itaa ka adhika nande kuupyakadhi washa. Ashike otashi ka kala oshidhigu kuunona okuhokolola onkalo yawo yomolukanda shaashi shika otashi wu dhimbulutha iiningwanima iiwinayi yomolukanda. Okanona koye otaka kala ke na uuthemba wokwaayamukula omapulo ngoka tage ka uvitha nayi. Ngele okanona koye oka tameke ka yemata konima yokumana okuyamukula omapulo, otaka ka tsuwa omukumo ka kundathane

Room 21.1, Level 10, Humanities Building
University of Pretoria, Private Bag X20
Hatfield 0028, South Africa
Tel +27 (0)12 420 2320 / 2030
Email antoinette.lombard@up.ac.za
www.up.ac.za

nangame. Ngele osha pumbiwa, otashi vulika ndi tume okanona haka komuhungimwenyo opo ka ka hungwe omwenyo po HISA/Nathaniel Maxuilili Soup Kitchen.

Omauwanawa

Okanona koye itaka ka pewa iimaliwa nenge omagano sho taka ka kutha ombinga mekonakono ndika. Shaa wa gandja eziminino okanona koye ka kuthe ombinga mekonakono ndika, iiyetwapo yokanona koye otayi ka kwathela ndje ndi ka ninge omathaneko gokuhwepopeka omudhingoloko nonkalamwenyo yaanona noyaakuluntu yomomalukanda.

Uuthemba waakuthimbinga

Nonando owu gandje eziminino, okanona koye otaka vulu ashike okukutha ombinga mekonakono ndika ngele ka hala, onkene otaka ka pulwa ka shaine ofooloma yeziminino opo ka holole kutya oku uvite ko thiluthilu shoka tashi ningwa. Okanona koye otaka ka kutha ombinga mekonakono ndika pahalo lyako kene. Ngele okanona koye oka zimine ka kuthe ombinga mekonakono ndika, otaka ka manguluka okuza mo mekonakono ndika ethimbo kehe ka hala noitaka ka geelwa nande ngele oki ikutha mo mekonakono ndika.

Iiholekwa

Uuyelele mboka okanona koye taka ka gandja, otandi ke wu longitha mokunyola omushangwa gweilongo lyandje moUniversiti yaPretoria nomokunyola iinyolwa yilwe yopaulongelwe miifo yopaulongelwe. Oonkundathana ndhoka dha kwatwa mokakwatamawi itadhi ka leshwa koradio, kotiivii, kointaneta nenge kiikundaneki yopankalathano. Edhina lyokanona koye nomadhina guunona wulwe itaga ka holoka nande momishangwa dhandje. Ngame otandi ka nyola ashike edhina lilwe peha lyokunyola edhina lyokanona koye opo aantu yaa mone kutya okanona koye oko ka gandja uuyelele. Shaa nda mana ekonakono ndika, otandi ka gandja uuyelele awuhe koUniversiti yaPretoria hono tawu ka pungulwa uule woomvula 15 nokonima uuyelele mbuka otawu ka ekelwahi.

Okuninga omakwatathano naakongi yomauyelele

Ngele owu na omapulo natango nenge wa hala ndi ku yelithile sha, oto vulu okudhengela ndje ongodhi nenge wu tumine ndje okatumwalaka kongodhi ndji 0813291020. Oto vulu wo okutumina ndje oiimeila kondjukithi tayi landula: pegichiwara@gmail.com

Eziminino

Ngame, _____, otandi gandja mpaka eziminino opo okanona kandje _____ (nyola edhina lyokanona) ka kuthe ombinga mekonakono ndika.

_____ _____

Eshainokaha Esiku

_____ _____

Edhina lyomuyakulipekapeki Esiku

Appendix 21: Informed consent letter household participants qualitative study

17/05/2018
Our Ref: Peggie Chiwara
Email: pegichiwara@gmail.com
Cellphone: 0813291020

Informed consent letter - Household participants
Qualitative Study

Dear participant,

You are hereby invited for an interview session as part of a doctoral study by Ms Peggie Chiwara, a student at the University of Pretoria in South Africa. The study will assist the researcher in understanding how sustainable development could look like for Babilon, Kilimanjaro and Okahandja Park informal settlements in Namibia and informal settlement communities in Orange Farm, South Africa. Please take time to read through this letter as it gives information on the study and your rights as a participant.

Title of the study

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study.

What will happen in the study?

The interviewer who will be the researcher will sit down with you for an interview. The interview will gather your views and suggestions on how the environment and the lives of children and adults in your informal settlement could be made better. The interview will take about an hour of your time and with your permission, will be voice recorded with so that I do not miss any important information that you share. You can choose to have the interview in English, Oshiwambo or isiZulu as an interpreter will be available for translation.

Risks and discomforts

There will be no danger to you or to your household. It may however be hard for you to share your experiences living in an informal settlement. You will be free not to answer any questions that may make you feel uncomfortable. If you experience some discomfort after joining the study, please free to let me know. If needed, I will arrange for a social worker at the Ministry of Health and Social Services in Windhoek or Department of Social Development in Orange Farm to see you for counselling.

Are there any benefits for joining the study?
You will not receive any money or gifts for your participation. Your contributions will assist me in suggesting ways of improving the environment and the lives of children and adults in your informal settlement.

Participants' rights
Participation in the study will be your own choice. If you agree to take part in the study, you will be free to withdraw from the study at any time if you so wish, without any negative consequences for yourself and your household.

Confidentiality
I will use the information that you share in writing a report on the study for the University of Pretoria, book chapters, conference presentations and for academic journals. Your name will not appear in any of these writings, instead, I will use an imaginary name in place of your name so that others will not know who you are. The voice recordings of the interviews will not be broadcasted on radio, television, internet or on social media but will be utilised to make findings for the study. After I have completed the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years, after which it will be destroyed. If the data is used during this period, it will only be for research purposes.

Any questions?
If you have any questions or would want me to explain anything further, you are welcome to phone or text me on +264813291020 or +27843493879. You can also send me an email on the following address: pegichiwara@gmail.com

CONSENT DECLARATION

I, _____ (write your name) hereby agree to participate in this study.

_____ _____
Signature participant Date

_____ _____
Signature researcher Date

Appendix 22: Informed consent letter household participants qualitative study (isiZulu)

04/06/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
0843493879

IsiZulu Informed Consent Letter: Household Participants
Qualitative Study
Ifomu Lemvume Elinolwazi: Ababambiqhaza Basekhaya

Mbambiqhaza othandekayo,
Ngaloku uyamenywa ukuba ungenele isikhathi sokuxoxisana lemibuzo eliyingxenye yocwaningo lwezifundo zobudokotela ezenziwa nguNkz Peggie Chiwara, oyisitshudeni saseNyuvesi yasePitoli. Lolu cwaningo luzokwenziwa emijondolo yase-*Orange Farm*. Sicela uthathe isikhathi ufunde le ncwadi ngoba inikeza ulwazi lokuthi lolu cwaningo luzokwenziwa kanjani kanye namalungelo akho njengombambiqhaza.

Isihloko Socwaningo

Ukuxhaswa kwemiphakathi nendalo okuhlalwa kuyo kwemiphakathi yasemijondolo eNamibhiya kanye naseNingizimu Afrika: Ucwaningo lokuqhathanisa lwemisebenzi yezenhlalonhle.

Kuzokwenzakalani ocwaningweni?
Umholi wokuxoxisana okuzokube kungumcwaningi noma umsizi womcwaningi uzohlala nawe phansi ukuze nixoxisana ukuze uligcwalise. Ukuxoxisana lizokuqoqa imibono kanye neziphakamiso zakho zokuthi indalo eyindawo yokuhlala kanye nezimpilo zezingane kanye nabantu abadala emphakathini wakho kungenziwa ngcono kanjani. Ukuxoxisana kuzothatha cishe ihora elilodwa lesikhathi sakho ngemvume yakho, ngizorekhoda izwi ukuze ngingaphuthelwa ngulwazi olusemqoka owabelana ngalo. Ungakhetha ukukhuluma esikhathini sokuxoxisana ngesiNgisi noma ngesiZulu ngoba utoloki uzokuba khona ukuhumusha.

Izingozi kanye nokuphatheka kabi
Asoze kube nangozi kuwe noma umndeni wakho. Kungaba nzima kodwa ukuthi wabelane ngesipiliyoni sakho sokuhlala emijondolo. Uzokhululeka ukungaphenduli yinoma yimiphi

imibuzo ekwenza ungaphatheki kahle. Uma uzizwa udanile emva kokujoyina ucwaningo, sicela ukhululeke ukungazisa bese ngizokuhlelela umsebenzi wezenhlalonhle KuMnyango Wezokuthuthukisa Ezenhlalonhle ukuze akubonelele ngokukweluleka.

Kungabe kukhona yini izinzuzo zokujoyina ucwaningo?

Awuzothola yinoma yiyiphi imali noma izipho ngokubamba iqhaza kwakho. Kodwa, uma uvuma ukubamba iqhaza ocwaningweni, imibono yakho izongisiza ukuphakamisa izindlela zokwenza indawo eyindalo kanye nezimpilo zezingane nabantu abadala emijondolo yenu ukuthi ibe ngcono.

Amalungelo ababambiqhaza

Ukubamba iqhaza ocwaningweni kuzakuba ngokuzithandela kwakho. Uma uvuma ukubamba iqhaza ocwaningweni, uzokhululeka ukuzihoxisa ocwaningweni nganoma yisiphi isikhathi ofisa ngaso, ngaphandle kwanoma yimiphi imiphumela emibi kuwe noma umndeni wakho.

Ubumfihlo

Ngizosebenzisa lolu lwazi owabelana ngalo ukubhala umbiko ngokuphathelene nocwaningo lweNyuvesi yasePitoli kanye namajenali ezifundiswa. Ngaphandle komcwaningi, ohola ukuxoxisana kanye nomhumushi, ukwaziswa kwakho kuzohlala kungaziwa kwabanye abantu. Igama lakho asoze lavezwa kunoma yikuphi kwaloku okubhaliwe, kunalokho, ngizosebenzisa igama elicatshangiwe endaweni yegama lakho ukuze abanye bangazi ukuthi ungubani. Amazwi okurekhodiwe kokuxoxisana akusoze kwasakazwa emsakazweni, kumabonakude, ku-inthanethi noma kokokuxhumana kwezehlalonhle (i-*social media*) kodwa kuzosetshenziswa ukwenza okutholiwe maqondana nocwaningo. Emva kokuba sengiluqedile ucwaningo, ngizongenisa lonke ulwazi eNyuvesi yasePitoli lapho luzogcinwa luphephile iminyaka engama-15 bese kuthi emva kwaloko lushabalaliswe. Uma idatha yocwaningo isetshenziswe ngalesi sikhathi, kuyoba kuphela ngezinjongo zocwaningo.

Kukhona yini imibuzo onayo?

Uma unanoma yimiphi imibuzo noma ufuna ngikuchazele okuthile ukwengeza kuloku, wamukelekile ukungishayela noma ungithumelele i-*sms* ku-0843493879. Ungangithumela futhi ne-imeyili ekhelini elilandelayo: pegichiwara@gmail.com

Isifungo semvume

Mina, _____, (bhala igama lakho) ngalokhu ngiyavuma ukubamba iqhaza kulolu cwaningo.

_____ _____

Isignesha yombambiqhaza Usuku

_____ _____

Isignesha yomcwaningi/yomsizi womcwaningi Usuku

Appendix 23: Informed consent letter household participants qualitative study (Oshiwambo)

07/06/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
0813291020

Oshiwambo Informed Consent Letter: Household Participants
Qualitative Study
Ombaapila Yepitiko Lyekongo Lyomauyelele

Efalomo

Oto indilwa wu yamukule omapulo gekonakono lyeilongo lyuundohotola lyaMee Peggie Chiwara omulongwa moUniversiti yaPretoria. Ekonakono ndika otali ka ningwa momalukanda taga landula: Babilon, Kilimanjaro nomOkahandja Park. Lesha nawa ombaapila ndjika oshoka otayi gandja uuyelele nkene ekonakono tali ka ningwa nuuthemba mboka to ka kala wu na ongokuthimbinga mekonakono ndika.

Oshipalanyolo shekonakono ndika

Okukaleka po omudhingoloko omwaanawa gwaakwashigwana yomomalukanda gomoNamibia nogomoSouth Africa: Ekonakono lyokuyelekanitha iilonga yonkalathano

Oshipalanyolo shepekapeko

Omupuli gwomapulo ngoka wo oye omuhitululikonakoni nenge omukwathelikonakoni otaka ka kuutumba nangoye pethimbo lyoonkudathana dhomapulapulo nenge e ku pe omapulo opo wu ga yamukule. Oonkundathana dhomapulapulo nenge omapulo otaga gongele omayiyuvo nomathaneko goye nkene omudhingoloko nonkalamwenyo yaanona noyaakuluntu tayi vulu okuhwepopekwa molukanda lweni. Oonkundathana ndhika otadhi ka kwata owili notadhi kwatwa nokakwatamawi paziminino lyoye opo ndaa hunuthe po nande uuyelele wa simana mboka to ka gandja. Okuyamukula omapulo otaku ka kwata ominute 20. Oto vulu wu yamukule omapulo nenge wu kuthe ombinga moonkundathana dhomapulapulo mOshiingiliasa nenge mOshiwambo, oshoka otapu ka kala omutoloki.

Omaupyakadhi nokwaauvombili

Ngoye nenge aanegumbo lyoye itaa ka adhika nande kuupyakadhi washa. Ashike otashi ka kala oshidhigu kungoye okuhokolola onkalo yoye yomolukanda shaashi shika otashi ku dhimbulutha iiningwanima iiwinayi yomolukanda. Oto ka kala wu na uuthemba wokwaayamukula omapulo ngoka tage ku uvitha nayi. Ngele owa tameke wa yemata konima yokumana okuyamukula omapulo, tseyithila ndje ashike opo ndi ithane omuhungimwenyo kUuministili wUundjolowele nOkankalonawayo opo e ku hunge omwenyo.

Omauwanawa

Ito ka ka pewa iimaliwa nenge omagano sho to ka kutha ombinga mekonakono ndika. Shaa wa gandja eziminino wu kuthe ombinga mekonakono ndika, iiyetwapo yoye otayi ka kwathela ndje ndi ka ninge omathaneko gokuhwepopeka omudhingoloko nonkalamwenyo yaanona noyaakuluntu yomomalukanda.

Uuthemba waakuthimbinga

Oto ka kutha ombinga mekonakono ndika pahalo lyoye mwene. Ngele owa zimine wu kuthe ombinga mekonakono ndika, oto ka kala wa manguluka okuza mo mekonakono ndika ethimbo kehe wa hala noito ka landulwa nande nenge aanegumbo lyoye ya landulwe.

Iiholekwa

Uuyelele mboka to ka gandja, otandi ke wu longitha mokunyola omushangwa gweilongo lyandje moUniversiti yaPretoria nomokunyola iinyolwa yilwe yopaulongelwe miifo yopaulongelwe. Oonkundathana ndhoka dha kwatwa mokakwatamawi itadhi ka leshwa koradio, kotiivii, kointaneta nenge kiikundaneki yopankalathano. Kakele kedhina lyomuhitululikonakoni, omupulapuli nomutoloki, edhina lyoye itali ka nyolwa nande momishangwa. Otandi ka nyola owala edhina lilwe opo kwaa monike kutya ongoye lye. Oonkundathana ndhoka dha kwatwa mokakwatamawi itadhi ka leshwa koradio, kotiivii, kointaneta nenge kiikundaneki yopankalathano. Shaa nda mana ekonakono ndika, otandi ka gandja uuyelele awuhe koUniversiti yaPretoria hono tawu ka pungulwa uule woomvula 15 nokonima uuyelele mbuka otawu ka ekelwahi. Nge otailongifwa pefiimbo eli, otailongifwa ashike ninima inasha no.

kuninga omakwatathano naakongi yomauyelele

Ngele owu na omapulo natango nenge wa hala ndi ku yelithile sha, oto vulu okudhengela ndje ongodhi nenge wu tumine ndje okatumwalaka kongodhi ndji 0813291020. Oto vulu wo okutumina ndje oiimeila kondjukithi tayi landula: pegichiwara@gmail.com

Eziminino

Aame_____ (edhina lyomukuthimbinga) otandi holola mpaka kutya onda lesha nondu uvite ko oshikalimo shomushangwa nguka gweziminino. Otandi zimine mpaka pahalo lyandje mwene opo ndi pulwe omapulo.

_____	_____
Eshainokaha	Esiku
_____	_____
Edhina lyomuyakulipekapeki	Esiku

Appendix 24: Informed consent letter household participants quantitative study

24/04/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
Cellphone: +264813291020 or +27843493879

Informed Consent Letter: Household Participants

Quantitative Study

Dear participant,

You are hereby invited to complete a questionnaire as part of a doctoral study by Ms Peggie Chiwara, a student at the University of Pretoria in South Africa. The study will assist the researcher in understanding how sustainable development could look like for Babilon, Kilimanjaro and Okahandja Park informal settlements in Namibia and informal settlement communities in Orange Farm, South Africa. Please take time to read through this letter as it gives information on the study and your rights as a participant.

Title of the study

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study.

What will happen in the study?

The researcher or her research assistant will hand you a questionnaire with a set of questions that you will complete on your own. You can choose to complete the questionnaire in English, Oshiwambo or isiZulu. You will not be required to write your name on this questionnaire. The questions are about the study, and in particular about your experiences living in an informal settlement and also how the environment and the lives of children and adults in your community can be improved. Completing the questionnaire will take between 20 to 25 minutes.

Risks and discomforts

There will be no danger to you or to your household. It may however be hard for you to share your experiences living in an informal settlement. You will be free not to answer any questions that may make you feel uncomfortable. If you experience some level of discomfort after joining the study, please feel free to let the researcher or her assistant know. If needed, they will arrange for a social

worker at the Ministry of Health and Social Services in Windhoek or the Department of Social Development in Orange Farm to see you for counselling.

Are there any benefits for joining the study?
You will not receive any money or gifts for your participation but your contributions will assist me in suggesting ways of making the environment and the lives of children and adults in your informal settlement better.

Participants' rights

Participation in the study will be your own choice. You will be free to withdraw from the study at any time if you so wish, without any negative consequences for yourself and your household.

Confidentiality

I will use the information that you share in writing a report on the study for the University of Pretoria, book chapters, conference presentations and academic journals. Your identity will remain anonymous to others and your name will not appear in any of these writings. After I have completed the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years, after which it will be destroyed. If the data is used during this period, it will only be for research purposes.

Any questions?
If you have any questions or would want me to explain anything further, you are welcome to phone or text me on +264813291020 or +27843493879. You can also send me an email on the following address: pegichiwara@gmail.com

CONSENT DECLARATION

I_____ (write your name) hereby agree to participate in this study.

_____ _____
Signature participant Date

_____ _____
Signature researcher/research assistant Date

Appendix 25: Informed consent letter household participants quantitative study (isiZulu)

04/06/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
0843493879

isiZulu Informed Consent Letter: Household Participants
Quantitative Study
Ifomu Lemvume Elinolwazi: Ababambiqhaza Basekhaya

Mbambiqhaza othandekayo,
Ngaloku uyamenywa ukuba ungenele isikhathi ukugcwalisa iphepha lemibuzo eliyingxenye yocwaningo lwezifundo zobudokotela ezenziwa nguNkz Peggie Chiwara, oyisitshudeni saseNyuvesi yasePitoli. Lolu cwaningo luzokwenziwa emijondolo yase*Orange Farm*. Sicela uthathe isikhathi ufunde le ncwadi ngoba inikeza ulwazi lokuthi lolu cwaningo luzokwenziwa kanjani kanye namalungelo akho njengombambiqhaza.

Isihloko Socwaningo
Ukuxhaswa kwemiphakathi nendalo okuhlalwa kuyo kwemiphakathi yasemijondolo eNamibhiya kanye naseNingizimu Afrika: Ucwaningo lokuqhathanisa lwemisebenzi yezenhlalonhle.

Kuzokwenzakalani ocwaningweni?
Umholi wokuxoxisana okuzokube kungumcwaningi noma umsizi womcwaningi uzohlala nawe phansi uzokunikeza iphepha lemibuzo ukuze uligcwalise. Iphepha lemibuzo lizokuqoqa imibono kanye neziphakamiso zakho zokuthi indalo eyindawo yokuhlala kanye nezimpilo zezingane kanye nabantu abadala emphakathini wakho kungenziwa ngcono kanjani. Ukugcwalisa iphepha le mibuzo kuzothatha imizuzu engama-20 esikhathi sakho. Ungakhetha ukugcwalisa iphepha lemibuzo ngesiNgisi noma ngesiZulu ngoba utoloki uzokuba khona ukuhumusha.

Izingozi kanye nokuphatheka kabi

Asoze kube nangozi kuwe noma umndeni wakho. Kungaba nzima kodwa ukuthi wabelane ngesipiliyoni sakho sokuhlala emijondolo. Uzokhululeka ukungaphenduli yinoma yimiphi imibuzo ekwenza ungaphatheki kahle. Uma uzizwa udanile emva kokujoyina ucwaningo, sicela ukhululeke ukungazisa bese ngizokuhlelela umsebenzi wezenhlalonhle KuMnyango Wezokuthuthukisa Ezenhlalonhle ukuze akubonelele ngokukweluleka.

Kungabe kukhona yini izinzuzo zokujoyina ucwaningo?

Awuzothola yinoma yiyiphi imali noma izipho ngokubamba iqhaza kwakho. Kodwa, uma uvuma ukubamba iqhaza ocwaningweni, imibono yakho izongisiza ukuphakamisa izindlela zokwenza indawo eyindalo kanye nezimpilo zezingane nabantu abadala emijondolo yenu ukuthi ibe ngcono.

Amalungelo ababambiqhaza

Ukubamba iqhaza ocwaningweni kuzakuba ngokuzithandela kwakho. Uma uvuma ukubamba iqhaza ocwaningweni, uzokhululeka ukuzihoxisa ocwaningweni nganoma yisiphi isikhathi ofisa ngaso, ngaphandle kwanoma yimiphi imiphumela emibi kuwe noma umndeni wakho.

Ubumfihlo

Ngizosebenzisa lolu lwazi owabelana ngalo ukubhala umbiko ngokuphathelene nocwaningo lweNyuvesi yasePitoli kanye namajenali ezifundiswa. Ngaphandle komcwaningi, ohola ukuxoxisana kanye nomhumushi, ukwaziswa kwakho kuzohlala kungaziwa kwabanye abantu. Igama lakho asoze lavezwa kunoma yikuphi kwaloku okubhaliwe, kunalokho, ngizosebenzisa igama elicatshangiwe endaweni yegama lakho ukuze abanye bangazi ukuthi ungubani. Amazwi okurekhodiwe kokuxoxisana akusoze kwasakazwa emsakazweni, kumabonakude, ku-inthanethi noma kokokuxhumana kwezehlalonhle (i-*social media*) kodwa kuzosetshenziswa ukwenza okutholiwe maqondana nocwaningo. Emva kokuba sengiluqedile ucwaningo, ngizongenisa lonke ulwazi eNyuvesi yasePitoli lapho luzogcinwa luphephile iminyaka engama-15 bese kuthi emva kwaloko lushabalaliswe.

Kukhona yini imibuzo onayo?

Uma unanoma yimiphi imibuzo noma ufuna ngikuchazele okuthile ukwengeza kuloku, wamukelekile ukungishayela noma ungithumelele i-*sms* ku-0843493879. Ungangithumela futhi ne-imeyili ekhelini elilandelayo: pegichiwara@gmail.com

Isifungo semvume

Mina, _____, (bhala igama lakho) ngalokhu ngiyavuma ukubamba iqhaza kulolu cwaningo.

_____	_____
Isignesha yombambiqhaza	Usuku
_____	_____
Isignesha yomcwaningi/yomsizi womcwaningi	Usuku

Appendix 26: Informed consent letter household participants quantitative study (Oshiwambo)

24/04/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
0813291020

Oshiwambo Informed Consent Letter: Household Participants
Quantitative study
OMBAAPILA YEPITIKO LYEKONGO LYOMAUYELELE
Momagumbo

Efalomo

Oto indilwa wu kuthe ombinga moonkundathana nenge wu yamukule omapulo gekonakono lyeilongo lyuundohotola lyaMee Peggie Chiwara omulongwa moUniversiti yaPretoria. Ekonakono ndika otali ka ningwa momalukanda taga landula: Babylon, Kilimanjaro nomOkahandja Park. Lesha nawa ombaapila ndjika oshoka otayi gandja uuyelele nkene ekonakono tali ka ningwa nuuthemba mboka to ka kala wu na ongokuthimbinga mekonakono ndika.

Oshipalanyolo shekonakono ndika

Okukaleka po omudhingoloko omwaanawa gwaakwashigwana yomomalukanda gomoNamibia nogomoSouth Africa: Ekonakono lyokuyelekanitha iilonga yonkalathano

Oshipalanyolo shepekapeko

Omupuli gwomapulo ngoka wo oye omuhitululikonakoni nenge omukwathelikonakoni otaka ka kuutumba nangoye pethimbo lyoonkudathana dhomapulapulo nenge e ku pe omapulo opo wu ga yamukule. Oonkundathana dhomapulapulo nenge omapulo otaga gongele omayiyuvo nomathaneko goye nkene omudhingoloko nonkalamwenyo yaanona noyaakuluntu tayi vulu okuhwepopekwa molukanda lweni. Oonkundathana ndhika otadhi ka kwata owili notadhi kwatwa nokakwatamawi paziminino lyoye opo ndaa hunuthe po nande uuyelele wa simana mboka to ka gandja. Okuyamukula omapulo otaku ka kwata ominute 20. Oto vulu wu yamukule omapulo nenge wu kuthe ombinga moonkundathana dhomapulapulo mOshiingiliasa nenge mOshiwambo, oshoka otapu ka kala omutoloki.

Omaupyakadhi nokwaauvombili

Ngoye nenge aanegumbo lyoye itaa ka adhika nande kuupyakadhi washa. Ashike otashi ka kala oshidhigu kungoye okuhokolola onkalo yoye yomolukanda shaashi shika otashi ku dhimbulutha iiningwanima iiwinayi yomolukanda. Oto ka kala wu na uuthemba wokwaayamukula omapulo ngoka tage ku uvitha nayi. Ngele owa tameke wa yemata konima yokumana okuyamukula omapulo, tseyithila ndje ashike opo ndi ithane omuhungimwenyo kUuministili wUundjolowele nOkankalonawayo opo e ku hunge omwenyo.

Omauwanawa

Ito ka ka pewa iimaliwa nenge omagano sho to ka kutha ombinga mekonakono ndika. Shaa wa gandja eziminino wu kuthe ombinga mekonakono ndika, iiyetwapo yoye otayi ka kwathela ndje ndi ka ninge omathaneko gokuhwepopeka omudhingoloko nonkalamwenyo yaanona noyaakuluntu yomomalukanda.

Uuthemba waakuthimbinga

Oto ka kutha ombinga mekonakono ndika pahalo lyoye mwene. Ngele owa zimine wu kuthe ombinga mekonakono ndika, oto ka kala wa manguluka okuza mo mekonakono ndika ethimbo kehe wa hala noito ka landulwa nande nenge aanegumbo lyoye ya landulwe.

Iiholekwa

Uuyelele mboka to ka gandja, otandi ke wu longitha mokunyola omushangwa gweilongo lyandje moUniversiti yaPretoria nomokunyola iinyolwa yilwe yopaulongelwe miifo yopaulongelwe. Kakele kedhina lyomuhitululikonakoni, omupulapuli nomutoloki, edhina lyoye itali ka nyolwa nande momishangwa. Otandi ka nyola owala edhina lilwe opo kwaa monike kutya ongoye lye. Oonkundathana ndhoka dha kwatwa mokakwatamawi itadhi ka leshwa koradio, kotiivii, kointaneta nenge kiikundaneki yopankalathano. Shaa nda mana ekonakono ndika, otandi ka gandja uuyelele awuhe koUniversiti yaPretoria hono tawu ka pungulwa uule woomvula 15 nokonima uuyelele mbuka otawu ka ekelwahi.

Okuninga omakwatathano naakongi yomauyelele

Ngele owu na omapulo natango nenge wa hala ndi ku yelithile sha, oto vulu okudhengela ndje ongodhi nenge wu tumine ndje okatumwalaka kongodhi ndji 0817984501. Oto vulu wo okutumina ndje oiimeila kondjukithi tayi landula: pegichiwara@gmail.com

Eziminino

Aame, _____, (edhina lyomukuthimbinga) otandi holola mpaka kutya onda lesha nondu uvite ko oshikalimo shomushangwa nguka gweziminino. Otandi zimine mpaka pahalo lyandje mwene opo ndi pulwe omapulo.

_____	_____
Eshainokaha	Esiku
_____	_____
Edhina lyomuyakulipekapeki	Esiku

Appendix 27: Informed consent letter research assistants quantitative study

07/06/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
+264813291020 or +27843493879

Informed Consent Letter: Research Assistants
Quantitative Study

Introduction

My name is Peggie Chiwara. I am a doctoral student in social work at the University of Pretoria in South Africa. I would like to invite your participation as a research assistant in my doctoral study that will explore how sustainable development could look like for informal settlement communities in Okahandja Park, Babilon and Kilimanjaro in Windhoek and Orange Farm in South Africa. If you are willing to assist in this study, you will need to give your informed consent and to subscribe to a code of ethics that respects participants' rights as outlined in this form. Please take time to read through this form as it gives information on how the study will be conducted and the rights of the study's participants.

Title of the study

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study.

Goal of the study

The goal of the study is to explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Procedures

If you agree to be a research assistant in this study, you will be required to administer questionnaires to household participants in Okahandja Park, Babilon and Kilimanjaro informal settlements in Namibia or Ward 3 in Orange Farm. Each individual respondent can choose to complete the questionnaire in English, Oshiwambo or isiZulu. Respondents will not be required to write their names on the questionnaire. The questions are about the study and in particular about the respondents' experiences living in an informal settlement and on how the environment and the lives of children and adults in their informal settlement could be improved. Completing the questionnaire with take between 20 and 25 minutes.

Risks and discomforts

There will be no danger to participants or their households if they participate in the study. It may however be hard for some participants to share their experiences of living in an informal settlement. Therefore, participants will be free not to answer any questions that may make them feel uncomfortable. Participants who may need counselling services by virtue of their participation in the study should be referred to a social worker at the Ministry of Health and Social Services in Windhoek or Department of Social Development in Orange Farm, for counselling.

Benefits

You will receive an agreed upon incentive for your services as a research assistant. However, there are no monetary or other rewards for the participants in this study.

Participants' rights

Participation in the study is entirely voluntary and participants will be free to withdraw from the study at any point, if they so wish, without any negative consequences for themselves and their households.

Confidentiality

Please note that all information that is gathered in the study must be treated as confidential. Participants' names and other personal information may not be given to anyone and will not appear in the publication of the research findings. I will use the information that participants share in writing a report on the study for the University of Pretoria, for book chapters, conference presentations and academic journals. After I have completed the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years, after which it will be destroyed. If the data is used during this period, it will only be for research purposes.

Right of access to the researcher

If you have any questions or would want me to explain anything further, you are welcome to phone or text me on 0813291020. You can also send me an email to pegichiwara@gmail.com

CONSENT DECLARATION

I, _____, hereby acknowledge that I have read and understood the contents of this informed consent letter. I agree to participate as a researcher assistant in this study, in a manner that respects the rights of the study's respondents.

_____	_____
Signature research assistant	Date
_____	_____
Signature researcher	Date

Appendix 28: Informed consent letter practitioners qualitative study

24/05/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
Cellphone: +27843493879 or +264813291020

Informed Consent Letter: Practitioners
Qualitative Study

Dear participant,

You are hereby invited for an interview session as part of a doctoral study by Ms Peggie Chiwara, a student at the University of Pretoria. The study will assist the researcher in understanding how sustainable development would look like for the informal settlement communities that you work with. Please take time to read through this letter as it gives information on how the study will be carried out and your rights as a participant.

Title of the study

Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study.

Background and goal of the study

Informal settlement communities face development challenges that have implications on the achievement of the sustainable development goals by the year 2030. The goal of the study is to explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Procedures

The researcher requires your participation in a one-on-one interview that will be scheduled for a time and place that is suitable for you, provided that it is free from noise and other distractions. The interview will take one hour or slightly more to complete and will be voice recorded with your permission, so that I do not miss any important information that you share.

Risks and discomforts

It is not the aim of this study to solicit from you any information that would put you at risk or cause you any discomfort. You will however be free not to answer any questions that may make you feel uncomfortable. If you experience some level of discomfort after joining the study, please free to let me know whether I can link you for counselling with a professional consultant in your area.

Benefits

There are no monetary or other rewards for participation in the study. However, your contributions will assist me in proposing ways of making the environment and the lives of informal settlement communities better.

Participants' rights

Your participation in the study is entirely voluntary and is based on your informed consent. You are free to withdraw from the study at any point, if you so wish, without any negative consequences for yourself or your organisation.

Confidentiality

I will use the information that you share in writing a report on the study for the University of Pretoria, book chapters, conference presentations and for academic journals. Your name will not appear in any of these publications, instead, I will use a pseudo name in place of your name so that your identity will remain anonymous to others. The voice recordings of the interviews will not be broadcasted on radio, television, internet or on social media but will be utilised to make findings for the study. After I have completed the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years, after which it will be destroyed. If the data is used during this period, it will only be for research purposes.

Right of access to the researcher

If you have any questions or would want me to explain anything further, you are welcome to phone or text me on my cellphone number as provided above. You can also send me an email on the following address: pegichiwara@gmail.com

Consent Declaration

I, _____, hereby agree to participate in this study.

_____	_____
Signature participant	Date
_____	_____
Signature researcher	Date

Appendix 29: Informed consent letter practitioners quantitative study

08/06/2018
Our Ref: Peggie Chiwara
pegichiwara@gmail.com
Cellphone: +27843493879 or +264813291020

Informed Consent Letter: Practitioners
Quantitative study

Dear participant,
You are hereby invited to complete a questionnaire as part of a doctoral study by Ms Peggie Chiwara, a student at the University of Pretoria. The study will assist the researcher in understanding how sustainable development could look like for the informal settlement communities that you work with. Please take time to read through this letter as it gives information on the study and your rights as a participant.

Title of the study
Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study.

Background and goal of the study
Informal settlement communities face development challenges that have implications on the achievement of the sustainable development goals by the year 2030. The goal of the study is to explore how environmental and community sustainability can be promoted for informal settlement communities in Namibia and South Africa.

Procedures
If you agree to participate in the study, the researcher will give you a questionnaire that you will complete in your own time. Completing the questionnaire will take between 15 to 20 minutes of your time. The questions relate to the social, economic and environmental issues in informal settlements and how the environment and the lives of informal settlement residents could be improved. You will not be required to write your name on the questionnaire. The researcher will collect the completed questionnaire from you at an agreed upon time.

Risks and discomforts
It is not the aim of this study to solicit from you any information that would put you at risk or cause you any discomfort. You will however be free not to answer any questions that may make you feel uncomfortable. If you experience some level of discomfort after joining the study, please feel free to let me know whether I can link you for counselling with a professional consultant in your area.

Benefits

There are no monetary or other rewards for participation in the study. However, your contributions will assist me in proposing ways of making the environment and the lives of informal settlement communities better.

Participants' rights

Your participation in the study is entirely voluntary and is based on your informed consent. You are free to withdraw from the study at any point, if you so wish, without any negative consequences for yourself or your organisation.

Confidentiality

I will use the information that you share in writing a report on the study for the University of Pretoria, book chapters, conference presentations and academic journals. Your identity will remain anonymous to others and your name will not appear in any of these publications. After I have completed the study, I will submit all information to the University of Pretoria where it will be safely kept for 15 years, after which it will be destroyed. If the data is used during this period, it will only be for research purposes.

Right of access to the researcher

If you have any questions or would want me to explain anything further, you are welcome to phone or text me on my mobile number as provided above. You can also send me an email on the following address: pegichiwara@gmail.com

CONSENT DECLARATION

I, _____, hereby agree to participate in this study.

_____ _____

Signature participant Date

_____ _____

Signature researcher Date

Appendix 30: Ethical clearance letter

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Research Ethics Committee

3 July 2018

Dear Ms Chiwara

Project:	**Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study**
Researcher:	**P Chiwara**
Supervisor:	**Prof A Lombard**
Department:	**Social Work and Criminology**
Reference number:	**13291069 (GW20160624HS)**

Thank you for the application that was submitted for ethical consideration.

I am pleased to inform you that the above application was **approved** by the **Research Ethics Committee** at a meeting held on 28 June 2018. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely

16/7/2018

Prof Maxi Schoeman
Deputy Dean: Postgraduate Studies and Ethics
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail:tracey.andrew@up.ac.za

CC: Prof A Lombard (Supervisor and HoD)

Research Ethics Committee Members: Prof MME Schoeman (Deputy Dean); Prof KL Harris; Dr L Blokland; Ms A dos Santos; Dr R Fasselt; Ms KT Govinder; Dr E Johnson; Dr C Panebianco; Dr C Puttergill; Dr D Reyburn; Dr M Taub; Prof GM Spies; Prof E Taljard; Ms B Tsolo; Dr E van der Klashorst; Dr G Wolmarans; Ms D Mokalapa

Appendix 31: Permission letter Orange Farm Ward 3

CITY OF JOHANNESBURG COUNCIL
COUNCILLOR L. MBUSO
WARD 03

22 May 2017

Att: Prof Antoinette Lombard

Dear Sir/Madam

This is to certify that I Cllr Mbuso the Ward 3 Coucillor in Orange Farm knows and grant permission to Ms Peggie Chiwara to do her research with community members of Orange Farm regarding *Environment and community sustainability for informal settlement communities in South Africa and Namibia.*

I would appreciate if she can be assisted by any institution to be more effective and efficient.

Should you require any other information, please feel free to contact me.

Your assistance is always appreciated

Yours truly,

Clr: L. Mbuso
Ward 03
076 409 2425
011 850 1008

OFFICE OF THE SPEAKER
22-05-2018

Appendix 32: Permission letter Tobias Hainyeko Constituency

KHOMAS REGIONAL COUNCIL

Tel: +264 61 218625 **TOBIAS HAINYEKO CONSTITUENCY**
Fax: +264 61 218638
Omuyapu Street: Erf 2303

Khomas Regional Council
P.O. Box 3379
Windhoek

19 January 2018

Dear Sir/Madam

TO WHOM IT MAY CONCERN

This letter serves to confirm that Ms Peggie Chiwara is permitted to conduct a research on the study called "A comparative Social Work Study of Environmental and community Sustainability in informal Settlements in Namibia and South Africa" in Tobias Hainyeko Constituency, Khomas Region, Namibia.

I am therefore appealing to the community leaders and community members (household) of Tobias Hainyeko Constituency to assist in this regard.

Please accord her the necessary support she may require.

Thanking you in anticipation.

Yours Sincerely

Hon. Christopher Likuwa
Councillor – Tobias Hainyeko Const.

TOBIAS HAINYEKO CONSTITUENCY KHOMAS REGION
2018 -01- 19
P.O. BOX 3379
WINDHOEK

Appendix 33: Permission letter City of Johannesburg

Joburg

City of Johannesburg
Department of Employee & Shared Services
Office of the Group Head: Group Human Capital Management

4th Floor, B Block
Metropolitan Centre
158 Civic Boulevard
Braamfontein

PO Box 1049
Johannesburg
South Africa
2000

Tel: +27(0) 11 407 7250
Fax: +27(0) 11 339 1979

www.joburg.org.za

Memorandum

TO	:	Peggie Chiwara University of Pretoria PHD in Social work
FROM	:	Enoch Mafuyeka Deputy Director: Employee Relations and Development
DATE	:	08 May 2018
SUBJECT	:	**RESPONSE ON THE REQUEST TO CONDUCT A RESEARCH ON TOPIC "ENVIRONMENTAL AND COMMUNITY SUSTAINABILITY FOR INFORMAL SETTLEMENT COMMUNITIES"**

The above matter refers to the letter received on the 26 April 2018 in which a request was made to conduct a research in the City of Johannesburg.

The City of Johannesburg hereby grants permission to conduct the above-mentioned study, on the provision that proof of granting ethical clearance be provided prior to commencement of the study.

Please note that on completion of the study, a copy of the research report should be submitted to the City of Johannesburg in honour of your commitment.

The City of Johannesburg wishes you the best during the period of research.

Please do not hesitate to contact us if we can be of further assistance.

Kind Regards

Enoch Mafuyeka
Deputy Director: Employee Relations and Development
Tel: (011) 407-7250
Email: Enochm@joburg.org.za

08/05/2018

Page 1 of 1

Appendix 34: Permission letter HISA

H pe Initiatives -NAMIBIA

Child Hope Initiative programme
P O Box 30565 Pioneers Park , whk Namibia
Tel/Fax 00264 61 247454/0812857493
Email patricia@hisanamibia.org

Children's hope project
P O Box 8969 Bachbredt
Tel061247454/ 0812857493
Website: www.hisa – Namibia.org

14/05/2018

Attention of : Prof A Lombard

Dear Proffesor A Lombard

RE: PERMISSION FOR P CHIWARA TO CONDUCT RESEARCH WITH HISA NAMIBIA BENEFICIARIES

I wish to respond to your letter referencing the above.

I would like to formally grant permission to Ms Peggy Chiwara to undertake research at Hope Initiatives SA . Our understanding is that the research will be conducted (as described in your letter) in the following manner:

1 .**Qualitative Phase**:

- Conduct 3 focus group discussions each with a group of six children aged between 13 and 17 years.
- Conduct 5 one-on-one interviews with HISA staff members and volunteers.

2. Quantitative phase:

• Administer questionnaires on the rest of the children from the same age group who did not participate in the focus group discussions.

• Administer questionnaires on the rest of the staff members and volunteers who did not participate in the interviews

3. Any other process that may be necessary to complete the research (to be communicated on time to HISA)

Please do not hesitate to contact the undersigned for any further information

Best Regards

Patricia Sola

HOPE INITIATIVES
TEL
14 MAY 2018
P.O.
HEAD OFFICE

Appendix 35: Permission letter Camp Sizanani

CAMP SIZANANI LIFE SKILLS
87 De Korte Street, Unit 705, 7th Floor
Braamfontein, JHB 2001
+27 (11) 339 1582

08 May 2018

UNIVERSITY OF PRETORIA - FACULTY OF HUMANITIES
DEPARTMENT OF SOCIAL WORK AND CRIMINOLOGY
Room 21.1 Level 10 Humanities Building
University of Pretoria, South Africa
Email: antoinette.lombard@up.ac.za

ATT: HEAD DEPARTMENT - SOCIAL WORK AND CRIMINOLOGY

Dear Professor Lombard,

RE: PERMISSION GRANTED FOR DOCTORAL STUDY WITH CHILDREN AND VOLUNTEERS FROM CAMP SIZANANI

I refer to your letter dated 03 May 2018. In your letter, you requested permission for Ms Peggie Chiwara, a student enrolled with the Department of Social Work and Criminology at the University of Pretoria, to conduct her Doctorial study with children and volunteers from Camp Sizanani Life Skills. I understand that the subject of Ms Chiwara's study is *Environmental and community sustainability for informal settlement communities in Namibia and South Africa: A comparative social work study*. I also understand that conducting focus group discussions, interviews and administering questionnaires to children and volunteers from the Camp Sizanani Youth Club in Orange Farm will add value to Ms Chiwara's study.

On behalf of Camp Sizanani Life Skills, I wish to inform you that we are delighted to grant permission to Ms Peggie Chiwara, to conduct her study with children and volunteers from our Orange Farm Youth Club, as stipulated in your letter. We also grant permission for Ms Peggie Chiwara to visit our Residential Camp and other Youth Club meetings (held in Soweto, Alexandra, and the Vaal, should she require further context on the Camp Sizanani Life Skills programmes and beneficiaries. To ensure that Ms Chiwara's time spent with Camp Sizanani is as productive as possible, we would like to request that:

1. The duration of Ms Chiwara's visits to our Youth Clubs, with the start and end date clearly stipulated, is communicated in writing.
2. Ms Chiwara emails the schedule of her visits to the Orange Farm youth club meetings and if applicable, the schedule of her visits to Camp Sizanani Youth Club meetings in other locations. This is to ensure that there are always volunteers assigned to support her during her study.
3. Ms Chiwara is officially introduced to all volunteers and children at the Youth Clubs that she will be visiting for her study.
4. Ms Chiwara attends the Youth Club debriefing sessions – held once a month at the Camp Sizanani offices.

To ensure that Camp Sizanani also derives some value from Ms Chiwara's presence onsite, we humbly request that she makes herself available, at least once a week to interact, share knowledge, mentor and supervise 3 Camp Sizanani staff members. These staff members are currently studying Auxiliary Social Work with the Luxe College of Social Work. All our office amenities will be made available to Ms Chiwara, including a desk, Wi-Fi and a laptop should she require one.

We are looking forward to welcoming Ms Peggie Chiwara to Camp Sizanani!

Kind Regards,

Mpumi Maesela
COUNTRY DIRECTOR - CAMP SIZANANI LIFE SKILLS
Email: mpumi@campsizanani.org.za
Tel: 011 339 1582
Cell: 082 951 2014

Appendix 36: Permission letter Nathaniel Maxuilili soup kitchen

SOCIAL AND YOUTH DEVELOPMENT DIVISION

59

C/o Hans Dietrich Genscher & Leonard Auala Street, Katutura
WINDHOEK, NAMIBIA

Tel: (+264) 61 290 3501

Enquiries: Mrs. MK Sheefeni

23 May 2018

University of Pretoria
Department of Social Work and Criminology
Private Bag X20
Pretoria

Dear Prof A. Lombard,

RE: PERMISSION FOR DOCTORAL STUDY TO BE CONDUCTED AT THE NATHANIEL MAXUILILI SOUP KITCHEN, WINDHOEK, NAMIBIA

Correspondence from your office dated 03 May 2018 refers.
After careful consideration, the Social and Youth Development Division has granted Ms. Chiwara permission to conduct her study in Windhoek with the beneficiaries and volunteers at the Nathaniel Maxuilili Soup Kitchen.

We therefore appeal to Ms. Chiwara to inform us in advanced the exact date of the study and the required role of the Division throughout the duration of the study.

Please note that a consent letter will be required to be sent out to all the parents of the beneficiaries at the Soup Kitchen as they are all minors prior to commencement of the study.

Sincerely

pp

Mr. J Kalundu

Manager:

Social and Youth Development Division

1

Appendix 37: Permission letter City of Windhoek

Department of Human Capital & Corporate Services
59
Corner of 5378 Independence Avenue and Garten Street
WINDHOEK, NAMIBIA
Tel: (+264) 61 290 2911 • Fax: (+264) 61 290 3212 • www.cityofwindhoek.org.na

ENQ:	Ms. ZM Ferreira	**PHONE:**	09 264 61 290 2592
DATE:	23 January 2018	**FAX:**	09 264 61 290 3212
		EMAIL:	fzm@windhoekcc.org.na

Dear City of Windhoek Officials,

RE: PERMISSION TO CONDUCT RESEARCH TITTLED "A COMPARATIVE SOCIAL WORK STUDY ON ENVIRONMENTAL AND COMMUNITY SUSTAINABILITY IN INFORMAL SETTLEMENTS IN NAMIBIA AND SOUTH AFRICA"

This letter serves as confirmation that **Ms. Peggie Chiwara (Student Number 13291069)**, a student at the University of Pretoria, pursuing a PhD in Social Work, has been granted permission to conduct her research on the above subject at the City of Windhoek.

The research paper intends to achieve the following objective:

- To explore and compare ways in which environmental and community sustainability are promoted in informal settlements in Namibia and South Africa.

As respondents of the study, City officials are therefore requested to render Ms Chiwara their cooperation and assistance. Should there be any queries, please feel free to contact the OD & HRD Division on the above contact details.

Yours Sincerely

Mr A Nikanor
Manager: OD & HRD

CITY OF WINDHOEK
HUMAN RESOURCES DEVELOPMENT
2018 -01- 23
NAME: Mr A. Nikanor
SIGNATURE:

All official correspondence must be addressed to the Chief Executive Officer