



**ISULABANTU Phase 4: Project Management, Procurement and Skills
Enhancement in Community-led Upgrading in Durban, South Africa**

**PHASE 4 REPORT
ADVISORY BOARD MEETING
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1. Executive Summary

In South Africa (SA), around 50% of the population lives in urban centres, where more than 2,700 informal settlements exist (Misselhorn, 2008). Due to rapid urbanisation and population growth, informal settlements have formed a major challenge of the urban landscape, exacerbating issues related to poverty, inadequate infrastructure, housing and poor living conditions. Reflections on past upgrading efforts in SA suggest that top-down policies have not been successful to date. By contrast, participatory techniques in the design and construction of housing, have been used to enhance community empowerment and a sense of local ownership. However, participation and collaboration can mean various things for informal housing upgrading and often the involvement of local communities is limited to providing feedback in already agreed development decisions from local authorities and construction companies.

The ISULabaNtu project lies under the umbrella of sustainable bottom-up urban regeneration. The overall research (and the research presented in this summary document) adopts a postcolonial perspective to urban transformations and explores community-led approaches for informal settlements upgrading in the Durban metropolitan area (McEwan, 2009; Pieterse, 2010; Watson, 2013). However, the research is framed around the holistic view that informal settlement upgrading is not about physical housing *per se* but rather a socio-technical approach that delivers social capital, livelihood development, empowerment and skills to local residents.

In particular, Phase 4 explores the concept of ‘self-building’ in the context of community-led upgrading in Durban. Participatory action research methods have been applied to ‘co-produce’ knowledge with residents and community researchers in three case studies in the Durban metropolitan area, namely: Namibia Stop 8 (Phase 1), Piesang River and Havelock. The research seeks to identify critical success factors in managing community-led informal settlements upgrading projects, discussing the crucial roles of stakeholder management and project governance. It also seeks to understand the balance between formal and informal forms of procurement, uncovering the challenge to acquire ‘the right resources at the right time’, exploring links with local industry and/or construction practice and considering the constraints involved in the process of complying with rigid municipality processes. The findings seek to build capacity for both local communities seeking to improve their quality of life and for local authorities seeking to enhance their upgrading planning programmes, plans and policies.

Chapter 2 provides background to this study, including key definitions and a literature review on the history of upgrading models and case studies of upgrading in Durban.

Chapter 3 offers definitions of community participation and procurement, both in the UK and South African context, including an elaboration on informal procurement.

Chapter 4 presents the methodology and introduces the three case studies.

Chapter 5 outlines findings and a cross case analysis from all three case study sites.

Chapter 6 contains a discussion, focusing on the main inefficiencies within the current municipality procurement processes and the key methods for obtaining goods and services in the three case study sites.

Chapter 7 offers concluding remarks.

2. Introduction and background to this study

Access to suitable housing in South Africa has been one of the major topics in post-apartheid South Africa and commitments to deliver housing to the poor were made through the Housing White Paper of 1994. The Reconstruction and Development Program (RDP) 1994 and The Constitution of South Africa 1996 made assurances to reduce the housing crisis. Despite those efforts, there were nearly 2.2 million informal dwellings across the country in 2016 (STATSSA, 2016), making up 12.9% of all dwellings. Kwa-Zulu Natal's proportion of informal dwellings stood at 8.5%, which is one of the lowest in South Africa, with a clear trend of the increase in the number of households living in formal and traditional dwellings (STATSSA Census, 2016).

This paper analyses three case studies which are in the Durban Metropolitan Area: Namibia Stop 8, Havelock and Piesang River. The City of Durban is one of the poorest metropolitan areas in South Africa with pressures from rapid urbanisation, limited resources and unstable political, social and economic constraints (100 Resilient Cities, 2017). Durban's climate is often affected by heat waves and heavy rainfall with the expectation that climate change will intensify both, resulting in catastrophic effects on fragile informal settlements that cannot adapt (Roberts, 2008).

This phase (4) of the wider project has been informed by the previous two phases (1 & 2), with phase 1 seeing the selection of the three case studies, as well as policy and stakeholder analysis. Phase 2 focussed on mapping the urban transitions through community participation. Phase 4 ran in parallel to phase 3 which looked at the environmental management systems in the three settlements.

This report investigates, in more detail, the formal procurement processes within the South African house building context to gain a thorough insight into the government's legislation frameworks. The report also analyses the informal housing procurement routes which are investigated in a literary study and further through the field work data collection. Skills improvement among settlement inhabitants is also explored. These provide an understanding of the overall process and obstacles which are faced through the participatory upgrading of homes in South Africa.

2.1 Aim

The overall aim of Phase 4 is to investigate the formal and informal procurement routes to obtain building materials and services when conducting self-build construction work in the three case studies, as well as the enhancement of skills which occurs in the process of community-led upgrading. Finally, the goal is to establish an understanding of the relationships between stakeholders creating a clearer vision of the barriers and drivers related to self-building.

2.2 Research Objectives

The objectives to realise the aims of Phase 4 are:

1. To define self-building in the context of community-led upgrading in the Durban metropolitan area;

2. To investigate the informal procurement process in three selected self-build projects;
3. To analyse the municipality procurement processes adopted in eThekweni municipality;
4. To evaluate the role of the municipality, NGO's and other key actors involved and the links between informal and formal procurement.
5. To identify and evaluate the skills gained through the self-building process and the impact on project management and procurement.

2.3 Definitions

Informal settlements are considered a major concern for many urban city managements, as they pose health and environmental risks, both to the informal dwellers and also to those living in the same or surrounding neighbourhoods. Informal settlements are defined by physical, social and legal characteristics; hence, it becomes difficult to define the term 'adequate' housing in the Durban context (Housing Development Agency, 2013). Many scholars emphasise the dwelling type (shacks with poor performing building materials), whilst others refer to the issue of land tenure (The Housing Development Agency, 2015). In SA, a clear departure from the Apartheid terminology included the term 'slum' being replaced by 'informal settlements' (Huchzermeyer, 2011). Informal settlements are related mostly to the legal standing of the scheme; namely, settlements that mushroom on vacant land, within and around places of opportunities, without proper planning, building regulations or standard construction methods (Khalifa, 2015). Informal settlements have been traditionally considered as 'urban substandard' offering housing to the urban poor and referring to the poor living conditions, health risks and environmental hazards. However, Roy (2011) suggests a progressive interpretation of informal settlements as spaces of habitation, livelihood, self-organisation and politics. Informal settlements are complex, popular and spontaneous neighbourhoods (Huchzermeyer, 2011) offering an immediate response to housing and with their location critical for the socio-economic activities of the involved community. This concept moves away from the pathology of informal settlements, envisaging a potential in terms of dynamic places of living.

Housing has been a key challenge for the post-apartheid period in SA, with the commitment to provide access to adequate housing for all (Department of Human Settlements, 2009). Migration and poverty are major causes of informal settlements, as dwellers cannot afford to build or buy their own houses or to access formal housing schemes (Mutisya & Yarime, 2011; Wekesa, Steyn & Otieno, 2011). Misselhorn (2008:5) emphasises that *"it is important that any analysis of the current situation is premised on an appreciation for why informal settlements exist and what functionality they afford to those who reside in them"*.

Focusing on the Durban metropolitan area, 2016 Census data report that 13.29% of all households at eThekweni municipality live in informal settlements (STATSSA, 2016). eThekweni's urbanisation has over time incorporated low-density urban settlements and

adjoining farmlands. This structure has been influenced by an extreme topography; the city centre is fragmented, and economic opportunities are spatially segregated from formal housing and residential spaces (eThekweni Municipality, 2016). Post-Apartheid consequences have therefore led to spatial inequalities, social segregation and various housing typologies (Western, 2002; Williams, 2000). These include high-density residential developments, such as inner-city flats in abandoned buildings, private rental housing schemes in informal settlements and social housing schemes. There are also subsidised houses in urban townships, informal backyard shacks adjacent to formal housing on both public- and privately-owned land, and rural housing dwellings. Some of the negative consequences of spatial fragmentation and low-density include an inefficient public transport system with high transport costs per low-income household, inefficient infrastructure and overall environmental pollution.

2.4 History of upgrading models

Physical upgrading of informal settlements takes two general approaches: demolition and relocation or *in-situ* development (Del Mistro & Hensher, 2009). Demolition and relocation is the process of moving inhabitants from their settlements to another 'greenfield' site. However, a growing body of literature favours *in-situ* upgrading as this involves the formalisation of informal settlements in their original location (Del Mistro & Hensher, 2009; Huchzermeyer, 2006; Massey, 2014). One of the main critiques of demolition and relocation is the macro-economic target of the government to meet the physical aspects of housing shortage and infrastructure provision and not the improvement of poor living conditions. This has led to conflicts and significant socio-economic disruption with little regard to displacement, poverty, vulnerability and the impact of these actions on social inclusion. *In-situ* upgrading is the process undertaken to improve the conditions of an informal settlement in its current location through the provision of basic services and secure tenure to people. *In-situ* models can be wide-ranging, from simply dealing with land tenure to incremental housing improvement and/or the provision of site-and-services associated with formal settlements.

In SA, the post-apartheid period offered various top-down approaches to low-cost housing provision. Government authorities have been responsible for decision-making on behalf of the local inhabitants. Top-down models have been criticised as unsustainable in the sense that they continue the legacy of segregation in housing delivery, as they have not engaged directly with low-income communities, and have not understood in depth the social capital required and the nature of the vulnerabilities of the affected populations (Huchzermeyer, 2011).

2.5 Upgrading case studies in Durban

Informal settlement upgrading in South Africa is dominated by the work of the South African Shack/ Slum Dwellers International Alliance (SDI). The approach of SDI and its community partners are explored by Bolnick and Bradlow (2010), Bradlow (2015), Mitlin and Mogaladi (2013). Focusing on the Durban metropolitan area, analysis on informal settlement upgrading has been presented by Van Horen (2000) and Charlton (2006), who

focus on Besters Camp, a settlement where community participation in planning was attempted but with poor tenure arrangements. Charlton (2006) and Patel (2013) discuss Ntuthukoville in Pietermaritzburg-Msunduzi, Briardene, Cato Crest and Zewlisha case studies. These highlight the value of 'informal continuity'; i.e. sustained activity after formal upgrading and criticise the lack of capacity at a municipality level, which reinforces power relations that may not serve or be relevant to all community groups and individuals. Cross (2006) and Huchzermeyer (2006) emphasise the resistance, reluctances and/or inaction of local government despite national policy and legislation promoting community-led upgrading (e.g. 'Breaking New Ground'). The Abahlali baseMondolo (Shack Dwellers) Movement which began in Durban in 2005 has also successfully contributed to securing provision of water, electricity and sanitation in a number of informal settlements in eThekweni (Abahlali.org, 2019).

3. Community participation and community-led upgrading

Community participation can *"be thought of as an instrument of empowerment"* (Samuel, 1986). There is a growing body of literature which encourages participatory techniques, as a key method to enhance a sense of local ownership within an upgrading project (Aron *et al.* 2009; Botes & Van Resburg, 2000; El-Masri & Kellet, 2001; Frischmann, 2012). Self-reliance is also a relevant term associated with community participation and self-help activities. It refers to communities defining and making their own choices through shared knowledge, skills enhancement and planning activism. However, even though 'bottom-up', participatory methods for community upgrading are often discussed theoretically in international development discourses, the tools, methodologies and processes needed to ensure a successful upgrade on the ground have not seen widespread dissemination or uptake, particularly in the Durban metropolitan area.

Self-help housing, or community-led upgrading, involves practices in which low-income groups resolve their housing needs mainly through their own resources in terms of labour and finance topping up government subsidies (Marais, Ntema & Venter, 2008). Self-help activities are interrelated to community self-reliance and are not new to SA, as since the 1950s incremental, step-by-step, self-building approach on serviced sites was considered the cheapest and most efficient solution to slum upgrading (Landman & Napier, 2010). Community participation derives from self-help activities and refers to grassroots planning processes where the local populations decide themselves about the future of their own settlement (Lizarralde & Massyn, 2008). This is in line with the views expressed by the project community members who, during phase 1 interviews, said: *"[community-led upgrading] is where the community itself chooses which projects need to be priorities for the upgrade through the enumeration of the informal settlements, where the control of the projects is fully in the hands of the community ranging decision making, design of the layout through the consultation with professionals within the SDI. The communities themselves, in many cases, approach the municipality to get help with, and they establish a partnership that is beneficial for both the parties. The community-led approach is where people come first, and they drive initiatives"* (Phase 1 Report).

Often in practice community participation often remains “*formal, legalised and politicised*” (Jordhus-Lier & de Wet, 2013). In informal settlements, key conceptual and practical challenges hinder active community participation. Residents value nine factors in informal settlements: comfort, cost, environment, facilities, local economy, safety, security, social value and space (Jay & Bowen, 2011). In practice, there is often lack of social and physical resources, as well as conflicting interests in individual and community expectations from the involvement in development projects (Emmett, 2000). In addition, these nine factors need to be viewed in relation to livelihood creation and employment opportunities, particularly in the case of relocation (Hunter and Posel, 2012). Muchadenyika (2015) discusses the problematic relationship between local communities and local authorities and governments, whereby issues of legislation, politics, power and identity play a major role in resource management, distribution and implementation of the upgrading project. Patel (2015) describes the effect of devolved housing allocation leading to exclusion of non-favoured groups in Durban, thus negatively affecting community engagement. Devolved housing increases competition between residents around ethnicity, nationality and/or political party views.

3.1 Procurement Defined

Procurement for house construction is unique to many industries in respect to the volume and variety of materials, plant, workforce segmentation, involvement with the public and private sectors and stakeholders (Cartlidge, 2009). Watermeyer (2003) explored the magnitude of procurement processes within the house building sector and exposed the necessity of a sustainable framework which allows for the creation of employment, local materials, resources and more production.

3.1.1 UK Construction Procurement

It is pertinent to highlight the reasoning behind using the UK construction sector as a comparison. Firstly, a large pool of literature relating the progression of the UK’s construction sector, this allows us to relate this information to the current models used in South Africa. Secondly, the UK construction sector is one of the key sectors for the UK economy, employing over 2.9 million people (~9%). With an output of over £90bn/ZAR\$1.56tr (7.7% of the country’s GDP) (ONS, 2017). When compared with the South African formal construction sector is valued at \$6.8bn/ZAR100bn which is ~8% of South Africa’s GDP (STATS SA, 2017). Through data gathered by CIDB (2017) the construction sector employs 1.3 million people. 430,000 comprise from the informal sector which equals to ~10% of total employment in South Africa. Through this analysis the statistics, both countries construction sectors are comparable in size and contribution to the nation’s Gross Domestic Product (GDP). However, the UK construction sector has seen more economic growth and stability (Foreign & Commonwealth Office, 2018).

The next paragraphs consist of a dissemination of the UK institutions/governing bodies and procurement processes, prior to the discussion of the South African house building sector and its procurement processes.

The UK construction industry has three main institutions: Royal Institute of Chartered Surveyors (RICS), Royal Institute of British Architects (RIBA) and Chartered Institute of Building

(CIOB). These professional bodies aim to ensure that associated professionals are trained to an adequate standard, maintain training and ethical practice to protect the reputation of the profession and the end user. This aims to foster trust for the public domain and also for organisations (CIOB, 2015). As explored in early reports such as Latham (1994) and Egan (1998) key areas which were highlighted as shortfalls of the industry. Examples exposed were:

- Lacking cohesion between a segmented workforce;
- Need for quality driven focus;
- Requirement for improved communication;
- Clarity of information and processes.

The RIBA Plan of Work 2013 provides one of the major designs and construction management models used in the UK. RIBA Plan of Work allows all stakeholders within the construction process to understand where the project has progressed to within the scope. The plan has eight stages “each with clear boundaries, and details the tasks and outputs required at each stage.” (RIBA, 2013).

The Plan of Work recognises procurement as one of the “Core Objectives” and a principle activity, therefore requiring a higher level of information. This model accommodates all major procurement routes (refer to Table 1). Due to the complexity and variety of modern construction, the model is now more versatile allowing for stages of work to overlap or vary depending on the procurement route selected.

3.1.2 Established UK Procurement Routes

Construction projects involve long project durations, with complex contracts and numerous stakeholders (Oyegoke, et al., 2009). The selection of the most suitable procurement route is important and depends on many factors which need to be considered on a project by project basis. The major procurement route contracts used in the UK, according to data produced by a RIBA Plan of Work (2013), are:

- Traditional contract 86%
- Single-stage design and build 41%
- Two-stage design and build 39%
- Management contract 18%
- Private Finance Initiative (PFI) 10%

For the purpose of this paper, the most commonly used UK procurement routes - Traditional and Single & Two Stage Design and Build Contracts – will be analysed and discussed. Table 1 Highlights key aspects of the procurement routes:

| Procurement Route | Definition |
|-------------------|------------|
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| | |
|---|---|
| Traditional Contract | <p>This is a single stage procurement route which the project is developed in accordance with to detail design level by the consultant team which has been selected by the client. The consultant team will produce tender documentation, bills of quantities, drawings etc. The prospective contractors are then invited to submit their tenders based on the completed design.</p> <p>The traditional contract route is normally on a lump-sum basis, the contractor takes away the financial risk away from the clients and is responsible for any unforeseen costs and can be held liable for penalties should the project overrun (Ashworth, 2013).</p> |
| Single-Stage/ Two Stage Design and Build Contract | <p>Within the design and build contract the main contractor is appointed by the client to manage all the construction processes. This method allows for a full life cycle project management method where the contractor has knowledge from conception to completion. This allows for the contractor to have further knowledge and responsibility over the buildability and costs.</p> <p>Two methods can be applied for the design and build route which are the single stage and two stage design and build methods. Fundamentally, the difference between the two is the single or two stage tender submission. Single stage requires all of the design information to be available to price the work and ensure an accurate tender submission can be formulated. The two-stage tender aims to include the chosen contractor from as early in the design stage as possible as this will allow the contractor to contribute their experience regarding the buildability (Ashworth, 2013).</p> |

Table 1. UK procurement routes defined.

3.2 Introduction to South African House Building Context

The formal house building sector in South Africa is a valuable sector to the South African economy providing employment and contributing over 8% of the GDP (STATS SA, 2017). There is also a significant housing demand across South Africa as 1.1 million households live in informal houses across South Africa (SACN, 2006). This scenario persists despite commitments made by the government to end the housing backlog by 2014, and many other initiatives and drivers which have been attempted. They provide significant lessons and will be discussed in this section.

The Reconstruction and Development Programme (RDP) is a socio-economic policy framework which was implemented by the elected government of 1994. The programme aimed to provide 1 million houses within 5 years, by building new housing, or funding the purchase of existing houses. This approach resulted in fully-serviced housing units with freehold title rights to citizens (Del Mistro & Hensher, 2009). However, due to the scale and complexity, the project was not as successful as it had been intended due to budget shortages,

low productivity and poor satisfaction from residents (Landman & Napier, 2010). Huchzermeyer (2006) adds that public sector housing delivery gave hope to the people, allowing citizens to rely on the government to provide them with subsidies through the trust embedded within the commitments made in 1994. The author also explored in more depth the restricting factors relating to the difficulties in upgrading informal settlements through the public sector programmes. Some issues found were:

- Location of the townships is often in the periphery of the cities resulting in displacement of the low-income workers from work opportunities, family and support groups (Bolnick & Bradlow, 2011);
- The services and internal finishes have been of poor quality resulting in costly remedial work (Goebel, 2007);
- The RDP houses produced were found to be too small (30m²), lacking services, within close proximity to neighbours, poorly lit streets, inadequate connection with infrastructure, and were not considered fit for purpose for residence (Manomano, 2013).

3.3 South African Procurement Methods

Hauptfleisch and Sigle (2009) argue that *“procurement processes in South Africa are plentiful and complex due to the overlap and combination of methods used in practice”* (p.10). They contend that the traditional, or conventional, process originated in the times of the British colonial rule and is still present in a similar form to that in Britain (ibid.).

It is integral to expose and understand what formal procurement is within the context of South Africa. Formal construction procurement methods, within the post-apartheid South African context, have been adopted with the objective that the procurement process should be *“fair, equitable, transparent, competitive and cost-effective”* (McCrudden, 2004) as stated in the new Constitution of South Africa (1996: section 217). However, contradictions to this are still prevalent as exposed by Lizarralde & Root (2008). The authors discuss that the introduction of stringent processes and applications have reduced the opportunity for small formal construction companies or informal construction companies/workers, which cannot afford the initial capital or training to have access to projects.

Public sector bodies clearly outline what is expected from the house building sector, following a rigid process, with more regulation and transparency which has been organised through a number of government frameworks, legislations and programmes. For the private sector, the emphasis is directed more to efficiency and the end result over the process (Lizarralde, 2011). However, there are three legal processes which must be abided by to allow construction companies the legal right to work within the public sector, which are; Construction Development Board, National Home Builder Registration Council and National Department of Housing. Other programmes and frameworks are included within this section for further understanding.

3.4 South African Policy Analysis

The frameworks and policies which have been outlined are some of the fundamental processes which provide formal housing delivery. The efficiency of these policies has been

explored by Magoro & Brynard (2010) and Pauw & Wolvaart (2009) with a focus on the Preferential Procurement Act 2000. This is a vital policy for contractors and for the delivery of low-cost housing. However, the authors expose complexities and difficulties of implementing the policy in the context of low-cost housing and meeting the demand of the housing shortage. The critique of the policy was based on an evaluation of the frameworks' ambiguities and the lack of clarity on key words which leads to misinterpretation. Magoro & Brynard (2010) explored how this can be exploited and developed into corruption through various methods i.e. organisations creating deceitful documentation or officials irregularly changing ratings. As contended by Magoro & Brynard (2010): *"The fundamental goal of these reforms was to redress the injustices of the past by empowering those who had previously been excluded from participating in the procurement system."*

The work of Pauw & Wolvaart (2009) contains an analysis of the five principles relating to public procurement which are also in the constitution. These are: fair, equitable, transparent, cost-effective and competitive. The authors disseminate the contradictions and limitations of the Preferential Procurement Policy Framework Act, resulting in findings on the framework being unconstitutional and legally invalid.

Both Magoro & Brynard (2010) and Pauw & Wolvaart (2009) find similarities, with the key one being the importance of procurement processes remaining competitive. This reiterates that the points-based system needs to be reviewed to ensure an accurate measure provision for each contractor.

**Construction
Development
Board (CIDB)**

The CIDB is a public entity which was established by Act of Parliament in 2000, with the aim to improve industry standards, improves economic growth, capacity development underpinned by consistent and ethical procurement practices (CIDB, 2017). It forms a regulated framework for all public-sector work within the construction industry, attempting to ensure all projects comply with the CIDB's Uniformity in Construction Procurement. All contracts are required by law to register with the CIDB in order to combat issues relating to competition and corruption. This forms the Register of Contractors (ROC). The ROC categorizes contractors which relate to the business functional capacity within the sector using a grading scale of 1 – 9 from \$R650 000 up to grade nine which is over \$R130 000 000 (CIDB, 2017).

**National Home
Builder
Registration
Council (NHBRC)**

Construction companies wishing to work on public sector house building project must register with the NHBRC. Like the CIDB this is also an act which was passed by the parliament and any construction contractor which wishes to conduct housebuilding works needs to register with the NHBRC. This is to protect the consumer providing a warranty to the homeowners should the house builders not comply with their obligations (NHBRC, 2017).

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| Department Human Settlements | The purpose of the Department of Human Settlements is to develop a new housing stock using the national housing subsidies, aiming to deliver quality units and enhancing the environment. The Human Settlements Unit also manages the municipalities' rental stock and remedial programmes, such as title deeds (South African Government , 2018). |
| The Constitution of the Republic of South Africa, 1996 (Act No.108 of 1996). | Section 217 of the Constitution of the Republic of South Africa (Act 108 of 1996) establishes the following primary and secondary public-sector procurement system objectives: Primary - Procurement system is to be fair, equitable, transparent, competitive and cost effective. Secondary - Procurement policy may provide for: (i) categories of preference in the allocation of contracts; and (ii) the protection or advancement of persons, or categories of persons, disadvantaged by unfair discrimination. |
| The Preferential Procurement Policy Framework Act, 2000 | Is an act which was passed in 2000, by the South African Government for all procurement contract in the country. This Preferential Procurement Policy Framework was introduced with the intention to allow for a fair, equitable, transparent, competitive and cost effective (also stated within the New Constitution) procurement practices prioritising persons or organisations who/which have been disadvantaged (National Treasury , 2017). |
| The National Housing Code, 2009 | The 2009 reinforces the constitutional right to adequate housing for everyone and the obligation of the State to take reasonable steps in order to achieve the realisation of this right. It also reinforces the Preferential Procurement Policy Framework Act, 2000, and stresses the importance of procurement being “[...] <i>fair, equitable and transparent</i> ” (p. 15). |

3.5 Literature Expanding Informal Procurement

The heterogeneous nature of informal procurement processes and the self-build networks has been defined by Omenya (2007) as “[a] complex system or web system” which has developed, creating an informal structure which can provide materials and labour without relying on the public sector to assist. As Wells (1998) articulates, *“the informal construction sector comprises of unregistered and unprotected individuals and small enterprises that supply labour and contribute in various other ways to the output of the construction sector”*. The ability to construct suitable dwellings are often found within the settlement already with a variety of skilled or unskilled construction workers and self-taught builders who hold a wealth of knowledge (Lizarralde & Root, 2008). Bolnick & Bradlow (2011) elaborate the need to retain the knowledge gained over generations of

community building. However, it has also been found that the government do not wish to build on this experience, keeping the informal sector out of discussions and away from the production of housing.

3.6 Capacity and skills improvement for community-led upgrading

The capacity of a community and the existing skills can be an enabler of upgrading processes just like the lack thereof can be a barrier. To ensure leadership in upgrading efforts, capacity building and skills improvement of community members is critical and can determine the sustainability of such efforts. In a study of community-led housing in Bangkok and Mumbai, Rahman et al. (2016) stress the importance of participatory design which not only gives community members the ownership over decision-making but also provides an opportunity for them to develop both managerial and technical skills required to perform the construction. Das (2015) highlights weak or inadequate skills along with poor education and training offered as an obstacle in a community-led slum upgrading through community-managed microfinance. McGranahan (2013) has examined community-driven sanitation improvement in a number of poor urban neighbourhoods in Pakistan and India. In the case of the Orangi Pilot Project in Pakistan and an initiative led by the Indian Slum Dwellers Federation in Mumbai, addressing the challenge of the lack of local technical skills in constructing and maintaining sanitary facilities was critical to the projects' success. Bhatkal and Lucci (2015) in their report on community-driven development in Thailand's slums have observed that an inclusive design process itself cannot ensure sustainability of such efforts if there is no long-lasting capacity within the communities to manage the processes and funds. Tailored skills improvement should therefore be fully integrated into community-led slum upgrading, particularly targeting the needs of the poorest and most vulnerable community members. A study of informal settlement upgrading in Zimbabwe has also shown the positive impacts on the communities who learnt mapping techniques and GIS technology use in the course of initial stages of settlement upgrading which then boosted their job opportunities (Chitekwe-Biti et al., 2012). Through a community-based model for the delivery of social services in Kebbi, Nigeria, 562 communities benefited with quality of life improvements as a result of getting more educational and health facilities as well as access to clean water (Muhammad, 2016). One of the recommendations stemming from the study was for local and international stakeholders working to promote community-based programmes to focus on improving education and skills of those communities which can additionally boost their quality of life through better employment.

In line with the above examples from literature, this report points towards the need to ensure that capacity building and skills enhancement is integrated into community-led processes for settlement upgrading as otherwise the sustainability of the achieved outcomes might be compromised due to the common lack of the necessary technical and management skills ahead of such participatory processes taking place.

4. Methodology

The research adopted a participatory action research method, utilising 'co-production of knowledge' as the process through which residents in selected case study areas in the Durban metropolitan area have an active role in research (Mitlin, 2008; Ostrom, 1996).

Fieldwork in three case studies, Namibia Stop 8 (Phase 1), Havelock and Piesang River, was conducted to assess the level of 'good available practice' in community-led upgrading of informal settlements in the Durban metropolitan area. The case study selection criteria involved community leadership, presence of an active support organisation, community self-organisation practices (e.g. saving groups), good documentation of historical development and upgrading models used in the past.

4.1 Selection of case studies

In this section the three case studies will be presented. They were selected during phase 1 of the project and have been examined under phases 2, 3 and 4.

Namibia Stop 8

Located in the northern region of eThekweni on the outskirts of Durban, South Africa, Namibia Stop 8 was built in 2010-2014 by community contractors who delivered 2,500 dwellings providing homes for 10,000 people (SDI South African Alliance, 2012). Residents had been moved there from two settlements: Namibia and Stop 8. The housing provided was a mixture of government RDP which were 40sqm and FEDUP provided houses which were larger at 56sqm. Namibia Stop 8 has water supply, a sewage system, and access to electricity.



Figure 1. Example of housing in Namibia Stop 8.



Figure 2. Example of housing in Namibia Stop 8.

Piesang River



Figure 3. Example of housing in Piesang River.



Figure 4. Example of housing in Piesang River.

Piesang River is a settlement located 25km north of Durban city centre. Incrementally upgraded with formal structures in the early 1990's a variety of building types were constructed, such as two-story flats, cottages, and single-story houses. Houses have access to water supply, sewage system and electricity.

Havelock

Havelock is an informal settlement which is located 8km from Durban city centre, with an estimated 200 dwellings and approximately 400 people living in the settlement (Slum Dwellers International, 2012). The settlement sits on privately owned and municipality owned land. The settlement has various hazards such as: illegal electrical connections, dangerous electrical cables sprawled across paths, fire hazards and flooding. The municipality have installed ablution blocks and a detail enumeration has been conducted for the proposed re-blocking of the settlement.



Figure 5. Example of housing and paths in Havelock.



Figure 6. Example of live wires in Havelock.

4.2 Research Design

Sproull (2002) presents the benefits of the pilot tests highlighting “the number of unexpected events which can occur throughout a research study” and the pilot study acts in mitigating

some of the risks, albeit does not solve all of them. This approach proved to be beneficial and highlighted areas for improvement, which were addressed before conducting the fieldwork. It also allowed for engagement with the wider research team prior to commencing the fieldwork.

4.2.1 Stakeholder interviews

Data collected was analysed through the use of thematic content analysis methods. Qualitative data has been gathered through interviews, meetings with the local community, committee members, municipality officials, NGO's and industry practitioners. External stakeholder interviews were conducted with a representative of 100 Resilient Cities, and the second one with the Project Manager and Planner from eThekweni Human Settlements Department who is responsible for informal settlement (IS) upgrading in Durban. These were semi-structured interviews with open-ended questions.

Parallel to these, household interviews in the case study communities were conducted. These provided first hand exposure to the informal processes adopted within the case studies and also how the formal policy and governance influence the delivery of self-built houses.

4.2.2 Focus group discussions

Between February 2017 and May 2017, empirical data was gathered by means of household focus group discussions complemented with three additional focus groups with external stakeholders from eThekweni municipality and the construction industry in Durban. Focus group discussions were facilitated by The Community Organisation Resource Centre (CORC), uTshani Fund and FEDUP, who are involved in a variety of activities. These discussions with eThekweni Municipality, the Project Preparation Trust and other practitioners working in the building sector, provided distinct participants' perspectives on regulatory process, community processes, barriers and drivers of informal settlement upgrading. The objective was to examine community-led approaches in informal settlement upgrading in Durban and understand the benefits and challenges of inclusive participatory approaches to the project management, the design and construction of the top structures.

Another focus group session was conducted with Community Researchers from each case study, representatives from Federation of the Urban and Rural Poor (FEDUP), academics from the University of KwaZulu-Natal (UKZN) and MSc students from UKZN. This session took place before the interviews site visits were conducted, allowing for discussions surrounding the household interviews, relating to the appropriateness of questions, translation errors and also ensuring the wider research team had a good understanding of the research aims and objectives.

4.2.3 Household interviews

Household interviews were conducted in two rounds: first in February 2017 (a total of 58 interviews) and then in June 2018 (a total of 99 interviews) thus exceeding the intended 40-50 interviews per case study. The full breakdown is demonstrated in Figure 7. A pre-set standard questionnaire was conducted with participants in Namibia stop 8, Havelock and Piesang River. The questionnaire included multiple choice questions, ranked scale

questions and possibility of open-ended discussions. A consent form including an explanation of the research and ethical guidelines was given and discussed with participants prior to the interviews.

The aim of the questionnaire was to assess the level of knowledge residents possess regarding the formal house building procurement strategies and to understand further the informal procurement routes used within the communities. At least one supervisor (up to four) and two multilingual fieldworkers from local institutions and organisations (uTshani Fund, UKZN, Community Researchers) provided assistance with interviews, site visits and discussions. This was essential in order to mitigate possible language and cultural barriers limiting the methods application.

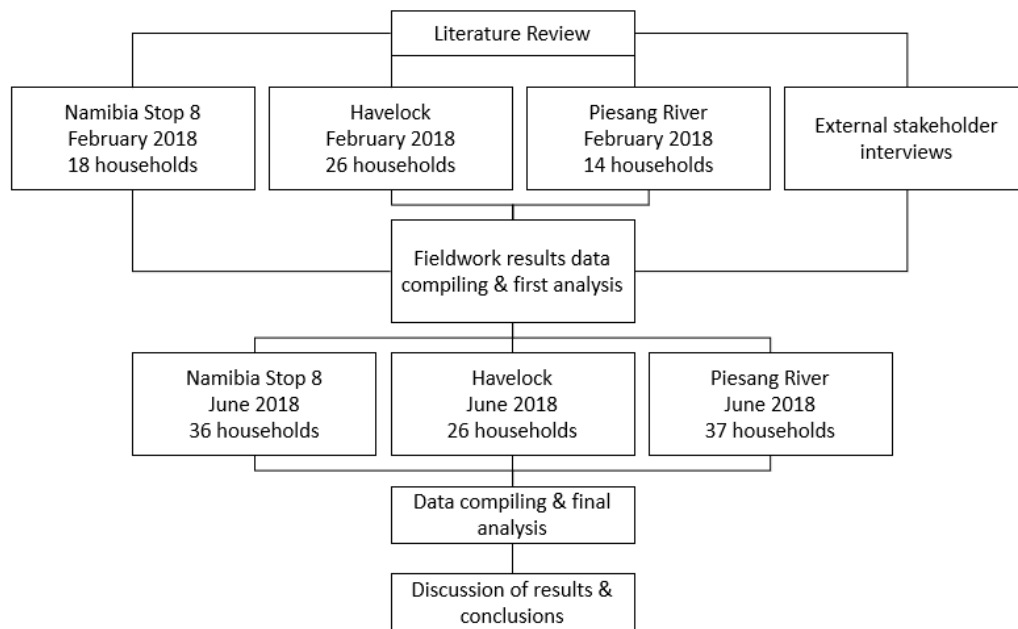


Figure 7. Flow chart representing the research methodology.

4.2.4 Samples

The target sample size for the conduction of interviews in each community was set between 40-50. This was considered a feasible number considering time frame and unforeseen circumstances, while also allowing for a significant sample of data collection. Table 3 shows number of interviews targeted:

| Case Study | Target Quantity |
|----------------|-----------------|
| Namibia Stop 8 | 40-50 |
| Havelock | 40-50 |
| Piesang River | 40-50 |

Table 2. Target quantity of household interviews.

5. Findings

5.1 Self-build houses in Namibia Stop 8

Located on Haffajee's Land in Inanda, a northern outskirt of Durban in the KwaZulu-Natal province, the first case study refers to Phase 1 of Namibia Stop 8, which was recently built (2010 to 2014). Namibia Stop 8 has been a greenfield project, where residents were largely moved from two neighbouring areas (Namibia and Stop 8) as part of a re-blocking exercise for services and housing. The housing that was built was a mixture of government-provided Reconstruction and Development Programme (RDP) housing and a small number of houses built through the Federation of the Urban and Rural Poor (FEDUP). uTshani Fund, partner of the SA SDI Alliance and support organisation provided the finance facilities to FEDUP, who acted as community contractors and led the provision of self-build housing. The site has piped water, electricity lines, access roads (although these do not reach all properties) and a sewage system. The area suffers from water shortage and electricity supply intermittency.

At a project preparation stage, the community undertook detailed profiling. Three women-led saving groups established an 'Urban Poor Fund' to finance the delivery of housing. A culture of continuous saving was developed so FEDUP households could provide funds for larger structures, tiles, ceiling board and/or furniture compared to the RDP houses. One FEDUP member mentioned that *"...with group savings we want to make sure that everything is going according to the plan [...] you are building your own thing and you make sure it is done properly [...] we are also able to hire more people to help with construction and ensure hardware stores deliver the building materials that we need"*.



Figure 8. An example of a self-build house (with extensions) in Namibia Stop 8.

The project involved 96 houses using the participatory People's Housing Process model that is predicated on a community-driven participatory approach. FEDUP construction was slower but this collaborative approach delivered substantially larger (56sqm), better-designed and better-sized houses than those constructed under the government-driven RDP model (40sqm). FEDUP households developed a sense of ownership and control and invested in self-building through helping community contractors and builders. This made the construction process quicker and reduced labour costs. Initially, FEDUP leaders built a demonstration house asking community members to give feedback on the foundation,

structure and material selection. People that were offered RDP houses had little input on those discussions and overall the self-building process.

In terms of building materials and construction techniques FEDUP houses demonstrate concrete blocks, wooden roof trussing, tiles, plastering inside and out, and floor screeding. For example, RDP houses were unplastered and residents argued that the foundations are poor. FEDUP houses have bigger wooden windows and are plastered. RDP houses required additional waterproof paint on walls and doors for rain protection, which was done privately and if the residents could afford this extra cost. As a community leader stated *“the majority of people continued to live in the houses after the upgrading, while the comparative figures for the municipality houses are about 50%. This is because paying someone to do it is more expensive than doing it yourself”*. The construction method entails delivery by community contractors and the establishment of construction management teams (CCMTs), supervised by uTshani Fund and approved professional contractors, who ensured technical support. In terms of procurement, CCMTs and uTshani Fund compared three local hardware stores in Kwabester, Mtshebheni and KwaMashu, and chose the supplier (who was the sole provider of all materials) based on a cost-benefit assessment of quality and cost.

However, FEDUP households pointed out a number of challenges and lessons learned. Residents are still awaiting their title deeds from the municipality. For instance, they are reluctant to rent their house as they do not trust potential tenants without formal tenure recognition. From a technical perspective, FEDUP foundations copied the RDP module, thus being rather small and needed to be extended during construction. There was also no guttering for rainwater collection or ventilation strategy; for example, trees could provide thermal comfort and prevent overheating in the house. Another non-technical challenge involved the lack of wider community trust. Building materials were stolen during the construction process, particularly single units, such as doors and windows. Residents had to move back to the old house until this was fixed, thus increasing frustration. Moreover, not all FEDUP members contributed to the self-building approach and some were controlling others leading to conflict and/or trust issues. There was also the issue of access and connectivity to the main road and lack of spatial integration. Households developed a culture of fencing their yards due to the lack of pathways, thus hindering community development. In terms of construction, technical support would enable a better redesign of the roof and therefore save resources (e.g. timber) that could be used elsewhere. The community emphasised the need for training or hiring skilled workers for future upgrading projects. Lastly, it was noted that the Youth was not engaged in group savings post project completion. This inevitably meant that the knowledge and skills that CCMTs developed were lost.

5.2 Project management in Piesang River

Piesang River is a historic informal settlement, similar to Namibia Stop 8, which pioneered strong elements of community leadership and negotiation with the SA government around housing delivery. Piesang River is located near the townships of Inanda and KwaMashu, 25km northwest of Durban. The settlement was established through the

purchase of land and its subdivision, following by the gradual settling of adjacent land in the 1970s-80s. Civic structures were formed in the late 1980s by the United Democratic Front, eventually leading to land regularisation and the extension of infrastructure into the settlement (Huchzermeyer, 2004).

Since the early 1990s, Piesang River has undergone a gradual process of formal development involving multiple actors. In the early 1990s until 1995 the civic organisation in Piesang River was supported by the Built Environment Support Group (local NGO) acting as project manager for the development of infrastructure and site allocation. The Homeless People's Federation (and its supporting NGO, People's Dialogue) later rose to prominence in Piesang River, prioritising the construction of individual houses for its members; and at around the same time the NGO Habitat for Humanity established itself in the settlement, offering loan funding for housing construction. The local authority eventually organised the election of a representative committee to resolve some of the tensions and differences between the priorities of these organisations, and to resolve questions about which households would have to be relocated.

The reason behind community-led building was to improve the living conditions in mud houses and issues with water shortage. Women in Piesang River are empowered. They initiated group savings and are responsible for book keeping and treasury management. Group saving started with the women asking residents to contribute from 50cents per person per day. Group savings demonstrated to the government that Piesang River is an organised community worth supporting. Subsidies were then received from the Government through uTshani. In particular, uTshani Fund enabled FEDUP to support housing construction through a process of pre-financing (bridging finance) by making a loan to assist 'sweat equity' (time and labour) allowing beneficiaries to repay the loan at a later stage. Thereafter, the community undertook the actual construction of the houses. As a community leader argued: *"FEDUP did not wait for the government to deliver housing, we put effort and we succeeded. Also, we decided not to pay the construction professionals and therefore we were able to save and build larger houses"*.

FEDUP leaders built a cardboard module with four rooms of the 'ideal house'. This caused conflict with RDP residents that had only two rooms (40sqm). A Steering Committee was established which divided semi-skilled inhabitants into seven groups of four to ten members (which was easier to manage), and each according to their specific skills; namely:

- technical (design and construction): bricklaying, foundation, plumbing;
- management: supporting labour, finance (book keeping), quantity surveying and costing; and
- social facilitation: mobilisation, negotiation and communication around a 'shared' vision.



Figure 9. The upgrading process in Piesang River.

The Steering Committee managed the whole building project, but the skills learned from individual FEDUP members involved mostly bricklaying and saving. As a FEDUP member stated: *“...we were taught to do things that are difficult to achieve when working alone [...] we were taught to negotiate about land, electricity, water and construction. FEDUP houses do not have cracks and are of better quality compared to the RDP ones”*

Piesang River demonstrates that women can also be involved in project management and construction of houses. For instance, women were trained on how to lay out the foundation of the houses. FEDUP brought professional (skilled) builders on-site to provide assistance and on-site training to the individual groups. The community felt that training members would save money compared to hiring professional builders for the construction. The community was open to learn new skills (e.g. bricklaying) and this process facilitated formal skills transferring to the community. In contrast to Namibia Stop 8, FEDUP members engaged in training youth groups and managed to pass on the culture of savings to the next generation. In terms of the construction method and selection of building materials, houses are quite similar to Namibia Stop 8. FEDUP community leaders commented that criteria for the procurement strategy included price, quality, durability, cost (affordability), and safety when visited different hardware stores for a quote.

Nevertheless, households pointed out a number of challenges and lessons learned. FEDUP households still have not received their title deeds which has caused some issues when installing water meters. The community had to hire a private company to connect them to the main water pipe and, at the time of data collection, there was still a lack of clarity on how the metering and charging of water supply works. Piesang River features double storey buildings; however, their construction was not successful. One community member mentioned that accepting customs and culture in the upgrading process is key: *“People prefer to live in their own houses and the double storey construction caused issues with older and disabled people”*. Another challenge was the need of additional reinforcing metal to support the structure, which increased total costs in addition to a suspended concrete floor. In terms of community engagement and participation, residents point out that it was challenging to carry on investing in group savings and labour when an individual house was completed. Quite often people were not willing to participate after their house was built.

5.3 Socio-economic and physical challenges in Havelock

The informal settlement of Havelock originates as far back as 1986 when a jobseeker in the area decided to build a house on the site in lack of other places to stay. The land had been overgrown by trees and bushes prior to the subsequent construction of informal houses on the steep terrain with a river located at the bottom of it. The land is partly owned by the municipality and partly privately, with the private owners initially wanting to demolish the early shacks which were mainly built using mud and materials found in the bushes. However, the abundance of water from the river, which overflows during heavy rains, and the problems that it causes discouraged private owners from reclaiming the land and carrying out the demolition. It currently houses 200 self-built houses with approximately 400 inhabitants.

Unlike Piesang River and Namibia Stop 8, Havelock has not undergone an upgrading process (at the time of the writing of this report) despite on-going attempts to negotiate efforts to include the settlement in the upgrading discussions of the city. The previously set up saving schemes have not been successful due to lack of long-term commitment of the dwellers and additionally challenged by high unemployment and reliance on temporary jobs. Prioritisation of the basic needs ahead of the future upgrading savings has added to the set of obstacles. The settlement also faces other challenges which hinder the upgrading process, among them: lack of community cohesion and mutual trust, resulting in antagonistic attitudes within the settlement and in perceptions of relationships of the engaged community members with the external stakeholders; lack of continuity of capacity and skill building, as well as of the passing of the skills to the younger generations; a conflictive relationship with the formal neighbourhoods who do not support improvement and upgrading efforts claiming that would turn the settlement into a permanent one and additionally decrease the value of their properties (which they already see as negatively affected); attitudes of the inhabitants, many of whom see Havelock as their temporary accommodation rather than a permanent one which makes it difficult to exert long-term commitment and planning, and continued engagement.

Despite the feeling of temporality there is a clear (expressed) need to improve the living conditions in the settlement which is prone to flooding, fire hazards and other accidents caused by uneven pathways, lack of places for children to play (with the road being the only alternative) and the overall density of houses. With the presence of professional bricklayers and people with construction skills, there is a certain level of capacity which the settlement dwellers perceive as an enabler of conducting an in-situ upgrading themselves. However, without any formal opportunities of getting involved, people get discouraged and whatever the existing capacity, it remains unused.

Even if help was to become immediately available to the households, lack of space to construct houses like other ones in the area is also perceived as a barrier. Services such as roads with speed bumps, public spaces (e.g. a playground for children), paved pathways and a way of separating the settlement from the overflowing river were seen as highly important. Potential building materials for the houses that would have to be offered, as expressed by focus group participants, would have to be fireproof so as to protect from the fire hazards stemming mostly from the wires of illegal electrical connections in the settlement, and the use of paraffin stoves. Strong foundations able to

withstand flooding were also a critical necessity mentioned in the discussion. A preference for more expensive materials was expressed in order to ensure long-term quality and durability of the improved houses rather than getting cheap materials which would have to be frequently replaced or added. This long-term thinking about building materials and ways of improving the physical conditions of the houses was in contrast to the feeling of the settlement being only a temporary place to live, one where *“we know that we will not be [in] here for the rest of our lives”* – a sentiment expressed by one of the respondents and shared by many others in the settlement. To date, however, only cheap, reclaimed materials from dumps and from networks of contacts have been used for building the houses and doing any improvements. What is stopping the dwellers from seeking more expensive and solid materials is also the fear of fire and the potential loss of those materials. Inability to afford them is also a problem. Effectively, only temporary fixes are applied to the houses with the use of cheaper, easily accessible building materials.

Interest in gardening and setting up an NGO to assist with gardening efforts in the settlement was also expressed.

As some people living in Havelock still have their rural homes they frequently go back to and only stay in the settlement out of convenience, to be close to the place of work, dealing with the attitudes of little to no long-term commitment, lack of community spirit and cohesion, antagonisms within and outside of the settlement, as well as the public-private ownership of the land on which the houses have been built all remain a challenge for the upgrading efforts of the Havelock settlement.

5.4. Household interviews (February 2018): Analysis and Results

As discussed in the previous Chapter, qualitative data was collected through the household interviews and external stakeholder interviews, focus groups discussions and pilot test. This chapter will present the findings from 157 household interviews which were conducted in February and June 2018:

| | |
|----------------|--------------------------------------|
| Namibia Stop 8 | 54 households (February + June 2018) |
| Havelock | 52 households (February + June 2018) |
| Piesang River | 51 households (February + June 2018) |
| Total | 157 |

Table 3. Total number of household interviews.

There have been eight questions selected from the questionnaires which have been found to be most significant. The results will be presented for each case study, following this a cross case analysis aims to highlight the similarities, differences and requirements of each case study.

Namibia Stop 8

1. **Conducted any construction work on the house?** 41 out of the 54 household's interviews had conducted construction work to the house.
2. **Who conducted the work?** Three different responses were given; Trade, Self-build, FEDUP. 2 households listed out more than one option.

Who conducted the work?

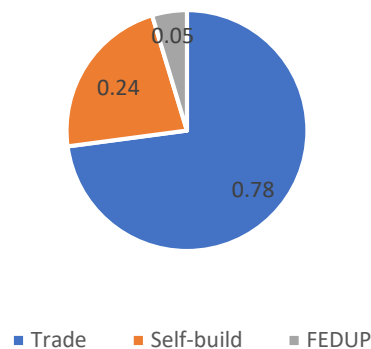


Figure 10. Who conducted the work? Namibia Stop 8.

3. **What were the materials purchased?** The materials which were purchased varied due to the different upgrades and maintenance works required to each dwelling. Key materials used:
 - Cement
 - Sand
 - Blocks/bricks
 - Paint
 - Corrugated metal sheeting
 - Wood
 - Floor tiles
4. **How many suppliers were compared?** Most commonly one, two or three supplier's prices are compared when considering purchasing materials or services. 7% of participants compared more than 4+ quotations were received and more commonly the first price has been accepted.

How many suppliers or services were compared?

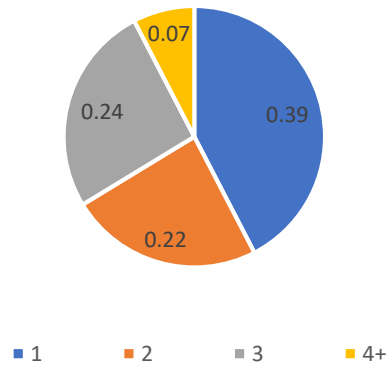


Figure 11. How many suppliers or services were compared? Namibia Stop 8.

- 5. Cost compared with expected/ initial cost?** For the majority of participating households, the expected construction costs were higher than anticipated, although only two more said the cost was lower than anticipated.

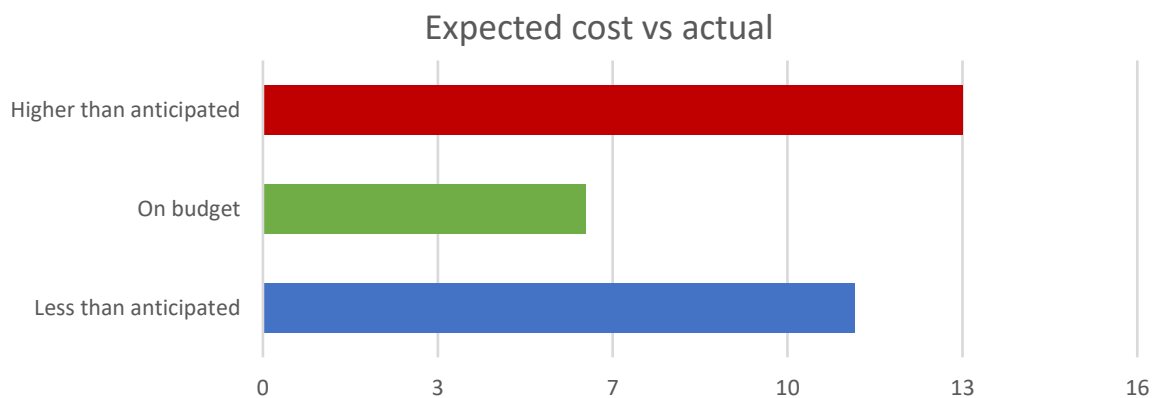


Figure 12. Expected cost vs actual cost Namibia Stop 8.

- 6. Did the work start and finish as expected?** Out of the 41 households who completed this question, 35 stated that the work was completed on time.
- 7. Final satisfaction with the work?** It was found that 76% of responses were positive regarding their final satisfaction of work. However, one participant of the questionnaire stated they were not satisfied as there are still lots of issues relating to boundaries (e.g. the neighbouring property has invaded their land). Another participant stated the lack of space during the construction process and the high financial cost were reasons for dissatisfaction. Yet another one said installed pipes were leaking and she had to do a lot of required work herself.

8. **Training:** Only five of the households which were interviewed stated that they have received guidance or training from external bodies (i.e. FEDUP). The training which was received included drawing of house plans. There was a strong desire from the community for more training to be received. The type of training which is sought by the residents is:

- Advice for extending the property
- Welding
- General building skills
- How to fix pipes
- Administration skills

House 9 stated: *“as we were given these houses and what we do is up to us”*. Two residents stated they would like to be taught skills which could form employment.

Piesang River

1. **Construction works:** 44 of the 51 households interviewed had conducted construction work to the house.

2. **Who conducted the work?** Households have most commonly used trade services to complete the work as highlighted in table 6:

| | |
|-------------------|-----------|
| NGO | 3 |
| Trade | 36 |
| Self-build | 6 |
| RDP | 1 |

3.

Table 4. Who conducted the work? Piesang River. (2 households chose more than one option).

3. **Source of materials:** A varied response, with use of network found to be the most common route of obtaining materials:

- Through advertisement on the radio which stated free delivery
- Friend informed one household where to purchase asbestos
- FEDUP provided materials for three of the households
- Natal Builders were selected by FEDUP to be used on the projects.

Source of materials

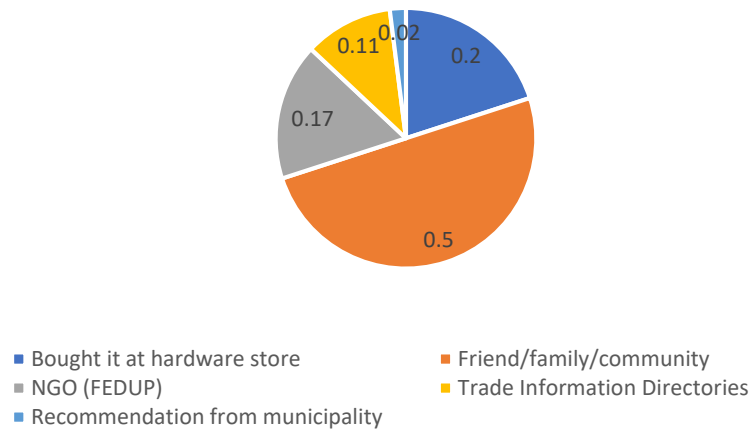


Figure 13. Source of materials in Piesang River.

4. **What were the materials used?**

- Asbestos
- Blocks
- Cement
- Corrugated iron
- Facia board
- Paint
- Plaster
- Rafter
- Sand
- Tiles

5. **How many suppliers were compared?** Piesang River residents were more likely to compare/evaluate suppliers compared to Havelock and Namibia Stop 8 finding that 63% of residents choose to compare 3 suppliers and 16% choose to compare 4+ suppliers of service providers:

How many suppliers or service providers were compared?

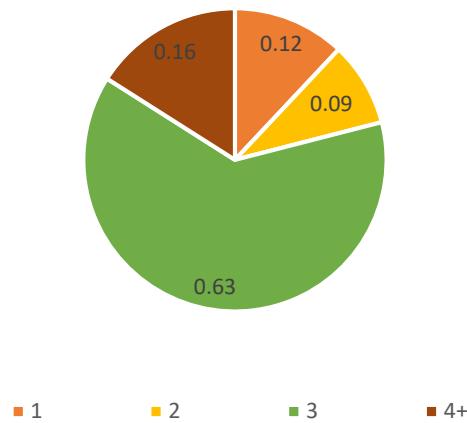


Figure 14. No. of suppliers or service providers compared in Piesang River.

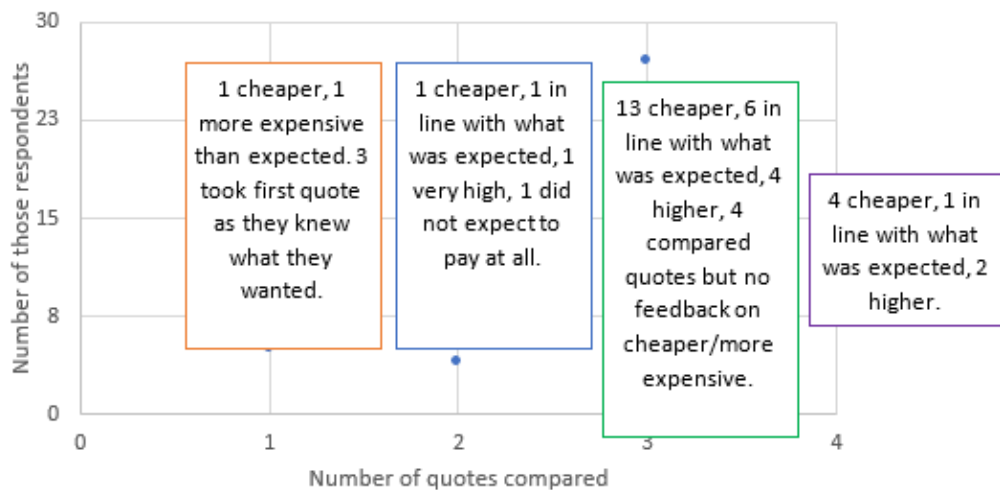


Figure 15. Comparison analysis of no. quotations and feedback on price, Piesang River.

6. Cost compare with expected/ initial cost? It was found that the final cost of the construction work completed was found to be lower than anticipated for the majority of respondents.

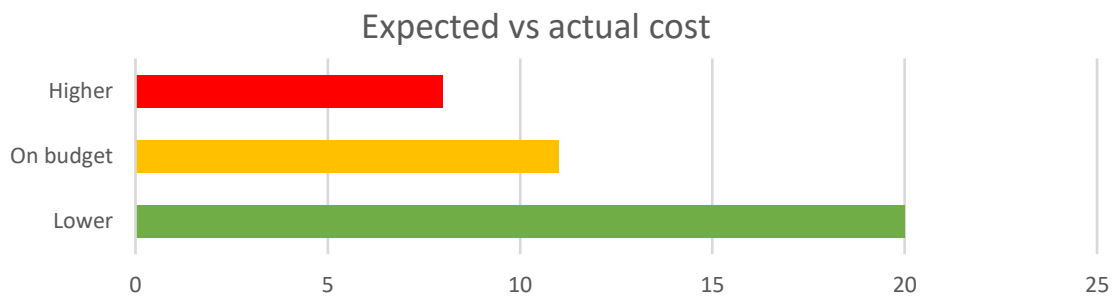


Figure 16. Expected vs actual cost Piesang River.

Key findings:

- More expensive because could not pay in instalments
- Price comparison was correct after comparing more than one offer
- *“Did not expect to have to pay but had to allow the house to be habitable”* – House 3
- Cheaper as could pay in instalments and delivery was free (3 households)

7. Final satisfaction with the work?

43 households were satisfied with the work vs 6 who were not. Some of the negative aspect reported were the following:

- The builder did not commit to the project
- Poor workmanship/ did not know how to complete the task proficiently
- Taking money without completing work

Some of the positive aspects highlighted were the following:

- Good builders which they would refer
- Improvements to their house

8. Training

19 out of 41 household interviews reported to have received training or guidance. The training was predominately conducted by FEDUP, the skills taught on the training sessions were:

- Material protection (stop cement from getting wet)
- Concrete mixing/ pouring
- Building techniques
- Group saving

The community felt that those training sessions were positive, the information delivered beneficial and they were able to apply this knowledge immediately in their own property. All households would like to receive further training and skill development, in the areas of:

- Tiling
- Woodwork
- Fencing
- Education for young adults (skills for employability)

Key findings:

House 8: *"we want more people within the community to have skills to reduce the number of people who come from outside of the community."*

Havelock

1. Conducted any construction work on the house? 45 out of the 52 households interviewed had conducted construction work to the house.

2. Who conducted the work? The majority completed the work by themselves or with assistance from family or community members.

| | |
|------------|----|
| NGO | 1 |
| Other | 3 |
| Trade | 12 |
| Self-build | 29 |

Table 5. Who conducted the work? Havelock.

3. Source of materials: The materials which were acquired varied due to the different upgrades and maintenance requirements of each dwelling. Some examples:

House 11: Hired a community member who works at a factory where they manufacture boards

House 14: *"especially friends who work in construction who give tips when companies are throwing away materials to collect"*

Source of materials

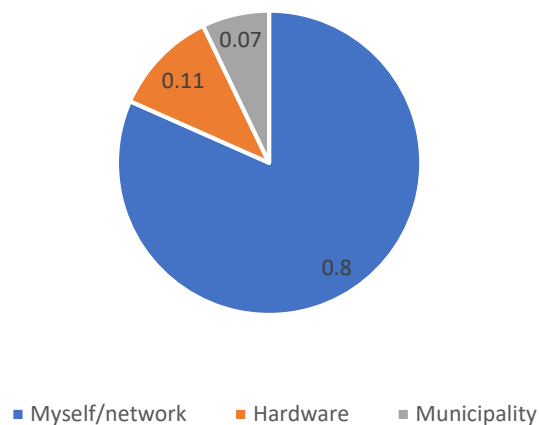


Figure17. Source of materials in Havelock.

4. How many suppliers were compared? The number of suppliers or services which residents compared prior to committing to purchase the goods or services. Zero indicates that the participant received the goods or services for free.

How many services or suppliers were compared?

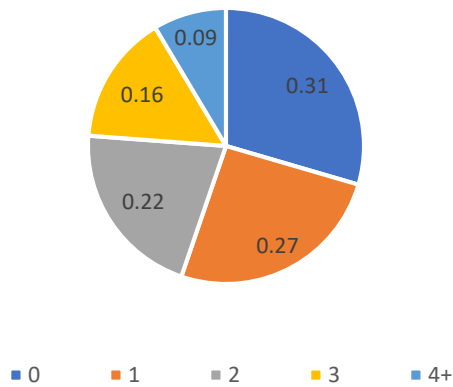


Figure 18. How many suppliers or services were compared? Havelock.

5. What materials were purchased? The materials in Havelock differed from the materials which were used in both Namibia Stop 8 and Piesang River. Referring to the case study analysis (Table 9), it is important to note this case study is an informal settlement which has been completely self-built, compared to the formal primary structure which were delivered in Namibia Stop 8 and Piesang. The materials used were:

- Cement
- Clothing
- Corrugated iron
- Mud
- Plastic (bags, sheeting)
- Ply boards
- Sand
- Tent covering
- Wood

6. Cost compare with expected/ initial cost?

Only 30 households who conducted construction answered this question. The remaining ones referred to the fact they did not pay for the materials but rather sourced from their networks meaning there was no estimated cost they could compare the final cost or effort to. Out of the 30 households who did make an estimation, 33% said the cost was lower than anticipated, 20% said it was on budget and 47% said it was higher than expected.

House 10 (self-built): Higher, *"spent over 2000 rand and it is still leaking."*

House 15: Higher, was looking for the cheapest materials and labour. *"When you are building you do not expect to spend a lot of money."* Tried to *"look for local and near so as to avoid delivery costs."*

7. Final satisfaction with the work?

79% of interviewee highlighted they were satisfied with the work conducted.

There is a correlation between the number of quotations received and the final cost incurred, as seen in the table below. When one to two quotations have been conducted there was ~80% more likely to result in higher quote. When compared with three and four quotations it was found that it was around ~80% more likely for the final price to be on budget or lower. As highlighted in the figures below.

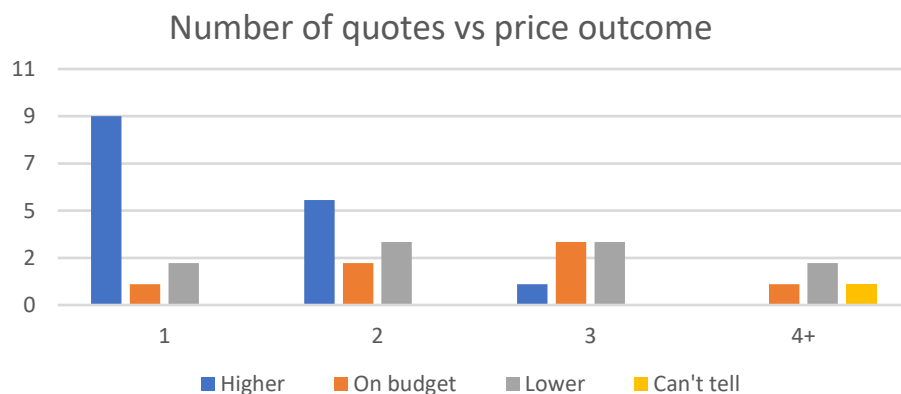


Figure 19. Comparison of the number of quotes compared and final price outcome (higher, on budget, lower, can't tell).

Number of quotes vs timeliness of work completion

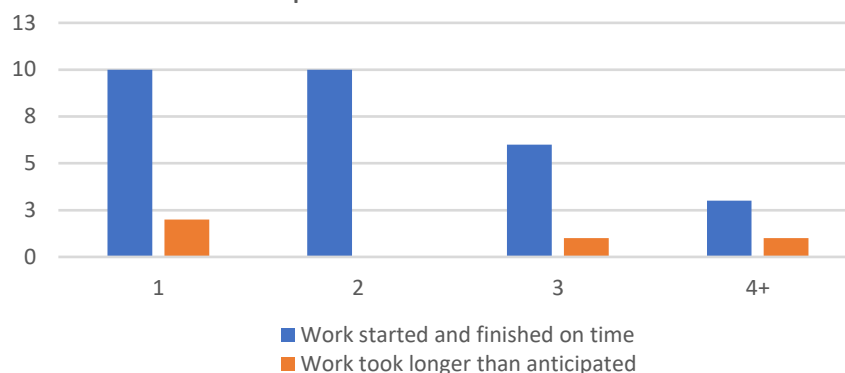


Figure 20. Comparison of the number of quotes compared and the outcome of work conducted: on time or longer than expected.

Number of quotes vs satisfaction with work conducted

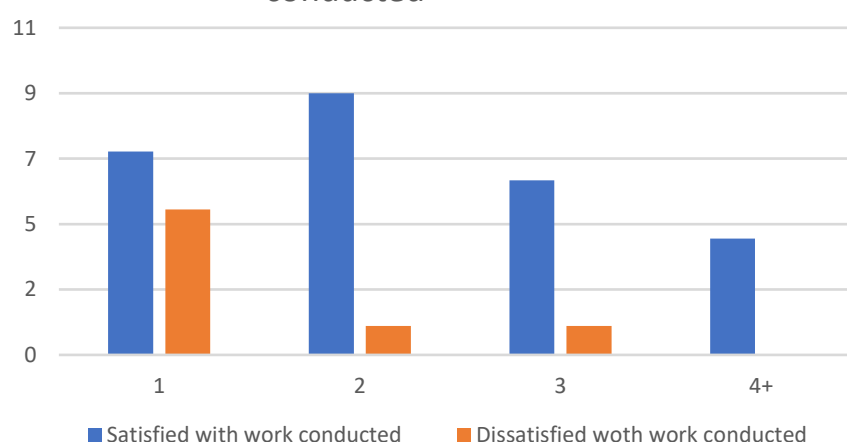


Figure 21. Comparison of the number of quotes compared and the satisfaction with the work conducted.

8. Training: Only 13 out of 52 households had received formal guidance/ training from an external body. The municipality had help Havelock rebuild after a fire, training community members on fire safety and fire-resistant materials. Another member highlighted that an NGO named Community Organisation Resource Centre (CORC) had helped the community, training them on enumeration skills, group savings, fire prevention and demographics data (to inform also the municipality).

Two other members mentioned they have learned their building skills through shared knowledge between family and community. They felt this had empowered them to be able to build and maintain their shack by themselves.

Desired skills highlighted were:

- Bricklaying
- Information on how to obtain materials
- Administration

- Building skills which could lead to employment (possibly related to the high youth unemployment rates in the community)

5.5 Cross Case Analysis

The cross-case analysis for the household interviews aims to compare the practices made within each of the case studies to understand similarities, difference and other findings which arise from the research. This following section will present the findings from questions asked in the household questionnaires. That data has then been cross examined against the other case studies.

Who Conducted the Construction Work?

This question gave an insight into the extent the work was being conducted by the household or outsourced or completed by others (e.g. municipality, NGO). The data presented is in percentages due to the deviation of the number of households interviewed among the three case studies highlighted in Chart 9:

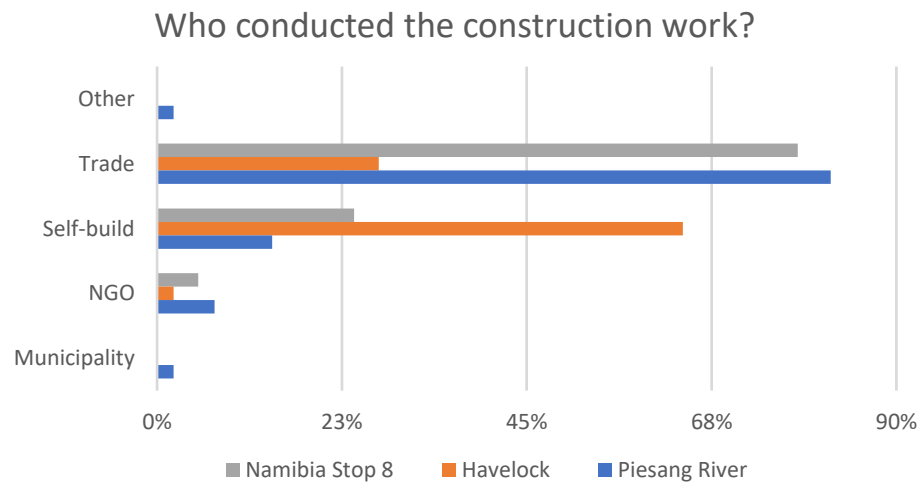


Figure 22. Visual representation of who conducted the construction work in all three case studies.

The findings reveal who the stakeholders are that are conducting the construction work and highlight the level of self-building and input from each stakeholder.

Material Source

The questions which related to the source of materials allowed an understanding of the flow of materials and their source and what the existent networks are. They also enabled gaining a deeper understanding of the networks and extended stakeholders which facilitate the self-building. Chart 10 shows the material source:

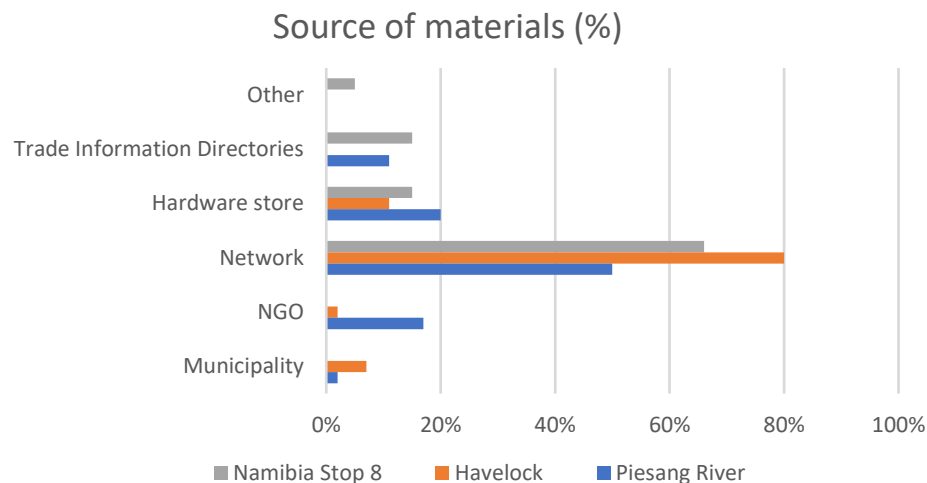


Figure 23. Highlights the findings of material source in the three case studies.

The findings inform on the supply chain, which is used by the residents, highlighting that Havelock utilised the network more than the other two case studies and that Piesang River received materials from an NGO (FEDUP), whilst the municipality have provided materials post disaster to residents in Havelock. Trade Information Directories were utilised in Namibia Stop 8 and Piesang River but not in Havelock.

Material choices

Multiple materials were observed across the three case studies. Table 9 shows the different materials used in each of the communities. It should be noted again that there is a clear difference of housing types between the case studies. Havelock is an informal settlement composed of shacks and the formal houses (RDP & FEDUP) in Namibia Stop 8 and Piesang River are brick-built housing units. Regarding upgrading, Table 9 shows that residents use similar materials to the ones from their original and traditional houses when upgrading their formal units. In Havelock the spectrum of materials used was broader, sometimes not conventionally used for housebuilding (e.g. clothing).

| Material choices | Cement | Sand | Blocks | Paint | Corrugated Metal/ Zinc | Wood | Tiles | Plastic | Mud | Poles | Iron rods | Clothing | Facia Boards | Asbestos | Plaster |
|------------------|--------|------|--------|-------|------------------------|------|-------|---------|-----|-------|-----------|----------|--------------|----------|---------|
| Namibia Stop 8 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | ✓ | ✓ | |
| Havelock | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| Piesang River | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ✓ | ✓ | ✓ | |

Table 6. Selection of materials cross case.

Cost Compare Vs Final Price

As demonstrated earlier in the chapter, the analyses show that there is a link between the number of quotations for materials/services and the level of satisfaction regarding the final result, with higher satisfaction of the final cost and quality of work related to higher number of quotations by those who had to purchase the materials.

Training and Development

As illustrated in Chart 11 below, within each community there was an average of 28% of the participants who had received a form of guidance from external bodies. More than two thirds had not received any training or guidance related to self-building.

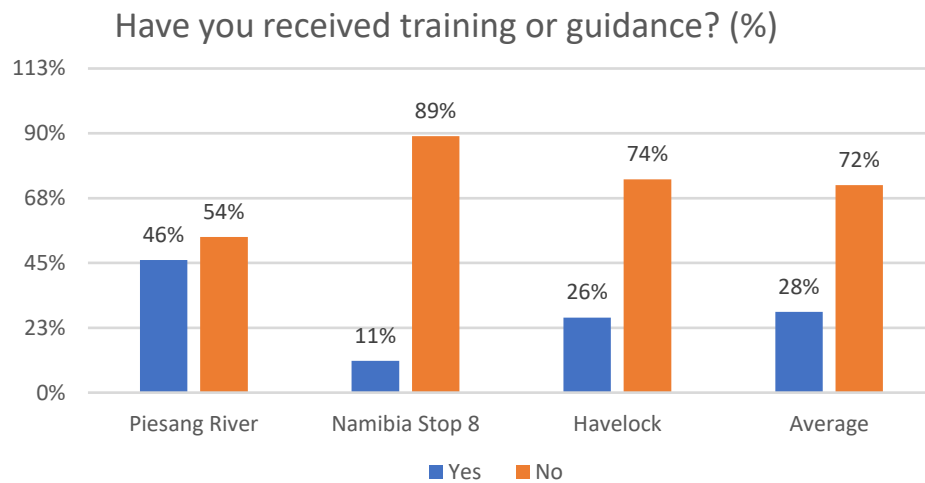


Figure 24. Received guidance and training across all case studies.

Furthermore, it has been stated within each community that there is a requirement for provisions of training and development programme. A variety of different subject areas were pointed out which consisted of the following:

- General building maintenance skills
- Bricklaying
- Tiling
- Woodwork
- Fencing
- Administration/Computer skills

In all three communities there was also a significant number of respondents concerned about the need for skills to be taught to the younger generations in order to enhance employment opportunities. This aspect of skills development in the process of community-led upgrading has proven to be critical for the success of such efforts and the sustainability of them, as well as the ability of the community to continue or undertake similar efforts in the future with greater ease.

6. Discussion: A new approach to informal settlement upgrading

6.1. Main inefficiencies within the current municipality procurement processes and their impacts

The information presented in the literature review provided evidence to suggest inefficient delivery of housing through the RDP housing¹ programme despite the large volume of housing delivered. The focus for the household interviews relating to this topic was to understand the level of engagement the municipality has conducted with members of the three communities. Furthermore, interviews with municipal officials and professionals were conducted to understand their perspectives and experience.

The importance of the local government was outlined by Interviewee B who stated: *“you have a local government and a state; they are mandated to provide services and to respond”*. This reinforces the importance of the local government action. Furthermore, it was made evident in most household interviews and focus groups with CORC and FEDUP that there is a need for improvements to the municipal interaction with the community and vice versa. This is fundamental to the improved delivery of housing, services and further clarity of all parties’ plans and alignment of agendas.

This leads to the topic of communication, which is crucial to these discussions, as it was expected to draw honest reflections of experiences and expand from existing literature. Whilst interviewing the municipality regarding the shortcomings of the delivery of housing, they elaborated: *“We have the silo mentality of working, where we are not connected, and it is killing the end product and there is no kind of bond.”*

This discussion continued, and it was explained how there is no alignment between individual departments and complex political agendas which need to be navigated, along with long bureaucratic processes. Departmental communication issues are then magnified by the time they reach the communities due to the extended time scales and increased tension.

On two instances (House 18 and 21) it was stated that after a fire emergency relief was provided by the municipality. However, house 18 stated that they did not receive the materials in time and sourced their own materials to rebuild. House 21 did not manage to receive any materials from the municipality as the supply ran out and had to later obtain materials independently. Through discussions with eThekweni officials, it was stated that in an event of an emergency: *“The disaster teams are the first to respond [followed by] a quick enumeration [that] will be done to see who has been affected.”*

This statement outlines that in the case of Havelock the system did not work, and the enumeration was either not accurate or the distribution of materials was not efficient. Throughout the focus group discussions with uTshani Fund, FEDUP and CORC, attention was drawn to the comparison of the municipal approach relating to post disaster reconstruction processes. *“So, the municipality are again feeling challenged by others. They offer support but our processes [CORC/FEDU], bottom-up community led is immediately an issue. The*

¹ RDP housing refers to the subsidised housing programme that was introduced by the ANC through the “Reconstruction and Development Programme” (RDP) in 1994.

municipality want to come and deliver the emergency materials. As where we would have processes, re-blocking in the case of a disaster, if it was a fire which destroyed dwellings to rethink their space and how they can lay it out more effectively and that would undermine our processes if the municipality just come and deliver materials and people haphazardly do their own thing again and you lose that opportunity to do that re-blocking.”

During the focus group with eThekweni officials, it was explained that the municipal tendering process for public works ensures that there are various additional requirements measured against the tendered price submitted. These are: Black Economic Empowerment (BEE), percentage of women in the work force, number of young adults and evidence of how the company will transfer benefits to the local community. An example of this would be skills development and mentorship. The municipality will then grade the contractor post completion against criteria for future contracts. This is a very beneficial practice which would be able to develop necessary skills for community members and allow for the retention of skills and labour in the communities creating a more reliable network of construction workers who have empathy for the local community and the community can trust their workmanship and businesses with their financial investments.

The research undertaken has broadly highlighted some of the major inefficiencies which were also discovered within the literature review. Further investigation is necessary to enumerate the possible long-term impacts of the inefficiencies highlighted in this report. However, it is clear that the internal municipal communication methods need immediate improvement and a new dynamic to align departments. It is also important for the external communication with NGOs, private sector and residents.

6.2. Key methods for obtaining goods and services by residents in Namibia Stop 8, Havelock and Piesang River, and the associated barriers and drivers

Results relating to the informal context allowed for a diverse range of information from each of the three case studies. Each community was found to have its unique processes and requirements. However, there was a large difference between the supply chain and material usage when comparing Havelock to Namibia Stop 8 and Piesang River due to the remarkable difference in building typologies as stated in the case study analysis.

For this reason, the collective source of materials and type of materials used was found to be varied. It was found that formal building materials (e.g. bricks, blocks, cement) were most commonly used in Namibia Stop 8 and Piesang River when compared to the materials which have been used in Havelock (e.g. wood panels, clothing, mud). Respondents to the questionnaire in Havelock often referred to their dwelling as “shelter” which highlights the temporary or uncertain nature of the community. Properties of building materials utilised were water tightness, security of the dwelling in the shortest possible time and adapting to materials available.

Regarding the supply of materials in Havelock, 80% were sourced through their network while only 15% of primary source materials were purchased (these are mainly obtained via their network within the construction, manufacturing and waste industry).

Through this network the residents were able to make use of disposed waste and construction materials at Havelock Road (a cul-de-sac entrance road to the settlement). This area, however, was also used as an informal waste disposal, e.g. diapers, food waste, tree residuals. The community had to stop companies and formal residents from using the site for any waste disposal. This impacted the free material flow to the community.

It was exposed that when buying materials, the fees for delivery were very high and constituted an added expense which was not initially accounted for. Due to poor infrastructure provisions getting to and from various merchants to compare costs and materials is also very time consuming and expensive. This reduces the quantity and quality of materials which are available to residents.

The exercise of comparing prices for goods and services needs to be practiced further by residents. It was exposed in the household questionnaires that, overall, with a higher number of quotations received, the satisfaction of work and price satisfaction is improved. Education for residents relating to best practice when purchasing materials and services is needed and the cost savings and quality improvements will prove very beneficial. The ability to leverage competition could additionally improve the price and satisfaction outcomes in the process of upgrading.

Current estimates in eThekweni municipality indicate that there are about 327,615 households in 476 informal settlements, without any clear plans for upgrading or signs of a participatory process (eThekweni Municipality, 2015). As asserted by Mark Misselhorn in an interview: *"You have to accept that informal settlements are part of the city. You need to communicate with local communities and learn to work with them in various ways. Very few settlements can be formalised and upgraded to conventional RDP houses"*. An innovative participatory action planning approach is proposed by the Housing Development Agency and has been endorsed during the focus group discussions with external stakeholders. This is because full upgrading with services and subsidised housing is not a viable option for SA in general, and Durban metropolitan area, in particular. This approach also underpins that the challenge to upgrading is not just housing but a manifestation of structural social change and political endurance. In this context, key principles of the *new approach* to informal settlement upgrading involve (The Housing Development Agency, 2015):

- *city wide*: inclusive of all the informal settlements;
- *incremental*: with a range of different improvement as opposed to the traditional housing delivery;
- *in-situ*: considering relocation as a last resort;
- *partnership-based*: instead of purely state-service oriented;
- *participatory and more community driven*: collaborative informal settlement action, co-management to develop acceptable solutions;
- *programmatic and area-based*: instead of project delivery focused;
- *context related*: differentiated, situationally responsive (as opposed to the 'one-size-fits-all'); and
- *statutory and regulatory flexible*: working with and not against informality.

The above summarised approach has been consolidated and adopted in the form of a strategy (eThekweni Municipality, 2017) by the 100 Resilient Cities Programme (100RC) for the city of Durban. The 100 RC team has recognised the need to rethink new perspectives on informality and accepting it as part of the city. Informal settlement is such a dynamic space that changes continuously and requires appropriate planning strategies that involve (in a meaningful way) the residents. Currently, the housing targets (performance goals) are reducing the approach to informal settlements to a mere set of numbers (delivery target). The key strategy to address this challenge is represented by collaboration and partnership between the local Government and all the other main stakeholders. As once again put forwarded by Mark Misselhorn: *“Lack of political will is a key factor in lack of city-wide incremental participatory upgrading [...] and even if political will is present you need to establish the capacity to engage between multiple departments and structures. There needs to be a lot of integration and coordination between social services, social development and government departments for successful housing upgrades. [...] To establish a successful upgrading project, people need to have access to social fabric and social capital”*. There is a lack of understanding about the dynamics of informal settlements and there is a need for coordinating all the interventions from the different departments of the municipality. Moreover, the involvement of communities in the planning is generally poor and that implies a high level of mistrust between the municipality and the community. Communities are very different and thus responses need to be diversified. Progressive and integrated human settlement policies can be undermined by a focus on numbers (housing targets). Additionally, housing only is not the sole problem and hence the change of the Department of Housing to the Department of Human Settlements, which reflects the need for more holistic approach along with breaking away from pre-existing frameworks, which might have been developed within theories and assumptions which are no longer relevant, in order to design a scalable process of upgrading models with a theory of change of *what is possible to build* (Interview with Mark Misselhorn, 2017). Finally, lack of skills and the need for capacity building to ensure projects sustainability, as well as long-term funding are a big challenge. Community’s ability to build more efficiently should also be leveraged.

7. Conclusions

Phase 4 focused on informal procurement processes in community-led upgrading projects, which have been examined through the perspectives of residents, municipality and NGOs. Best available practices of community driven upgrading interventions have also been analysed and compared with formal/municipal-led interventions. The investigation exposed the methods used for obtaining goods and services in the three case studies and highlighted some of the barriers and drivers of the process adopted. It is evident that there is a requirement for further training and development for construction skills and knowledge to be shared on best practice relating to the purchase of materials and services. The continued work from FEDUP and CORC have provided a foundation of knowledge for a lot of residents through savings groups and training sessions. The continuation of such training in line with further support offered from the municipality could see improvements in the processes adopted enhancing the time, cost and quality of the self-built approaches.

A key objective was to analyse the municipal procurement processes, it was found through research conducted within the literature review that there were a lot of inefficiencies within the current municipal tendering and procurement processes. This was confirmed throughout this research and inefficiencies were highlighted despite the good intentions and policies which have been implemented. Shortcomings were found in the tendering process, internal and external communication, as well as training and development for residents.

Phase 4 set also out to evaluate the roles of key stakeholders in the three case studies as this would provide further literature on the links between the informal and formal procurement methods adopted and the impacts each stakeholder has in the process. It was outlined in the literature review that the informal system has a large network and exposed the impact which the NGOs have within the South African context. This was confirmed within the primary research. The findings demonstrated that the NGOs, namely: uTshani, CORC and FEDUP, have filled the gaps which the municipality have been unable to through bottom-up approaches to the delivery of housing.

South Africa has an agenda for slum management and response, particularly under the post 2015 UN Sustainable Development Goals (e.g. SDG11) and the Habitat III New Urban Agenda. This document sought to provide recommendations on how the above experiences and lessons learned from 'good available practice' in community-led approaches could be effectively incorporated into the existing upgrading programmes, such as the new Integrated Urban Development Framework and the efforts for city-wide participatory upgrading of informal settlements as part of the 100 Resilient Cities initiative in Durban. eThekweni municipality has currently ambitious targets to achieve due to an increasing backlog on housing delivery. Focus group participants claimed that there are currently about 535 informal settlements, which translate to 25% of population in the KwaZulu-Natal province. Most informal settlements are upgradeable and are already part of the urban form. The government perspective on informal settlement demographics and policy suggests that conventional upgrading (i.e. state funded housing with a full package of services) with tenure security and formal town planning is an unviable solution due to the increasing backlog; cost; complex land schemes; higher density; and long-time scales. This is why an incremental, city-wide, partnership-based participatory upgrading approach is proposed with lessons learned from communities that have undertaken (even partially) aspects of community-led upgrading.

All three case studies pioneered strong elements of community leadership due to a set of participatory methods embedded in project preparation and project implementation. These include community profiling and enumerations, saving groups, community-driven project management, and 'sweat equity' (time and labour) of beneficiaries. The above processes created a legacy for the local people in terms of income generation, skills upgrade, and sense of ownership since the early planning stages. A key success factor has to do with skills enhancement and 'learning by doing'. Continuous improvement enabled community organisations (e.g. FEDUP) to ensure less costs and better quality in the construction of the houses.

Finally, it is important to note that the level of a successful upgrading project is measured differently between local authorities and communities. For eThekweni municipality, it refers mainly to successful delivery of infrastructure and services. Empirical data from the two communities, instead, revealed that a successful project is about full ownership of the

upgrading, social cohesion, livelihood development and tenure security (ultimately, by obtaining the title deeds). This means that upgrading is not just housing delivery but a consideration and development of social fabric, such as access to job opportunities, health facilities, schools, and public transport. eThekweni municipality has practiced limited community led approaches and currently acts as a mere housing *provider*, instead of being an *enabler*. It is therefore essential to build capacity and invest in further training in both communities and local authorities by understanding the minimum preconditions that unlock community participation in an upgrading project.

Currently the government-led upgrading of informal settlements is not providing the results intended. Future research should look further into the implementation of more progressive bottom-up approaches working with the communities, municipalities and NGOs to align objectives to co-produce quality, cost effective housing upgrades.

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Appendices

Appendix A – Household Question Template



UNIVERSITY OF
WESTMINSTER

Date: Time: Community:

1.0 PRE-QUESTIONNAIRE

1. Who is the head of the household?
2. What is your age?
3. How many people live in the household?
4. What are their ages?
5. What is your gender?
6. What education have you completed?
 - a. Primary
 - b. Secondary
 - c. Tertiary
 - d. Other (what education?)
7. What is your occupation?
8. How long have you lived in this community?
9. How long have you lived in this house?
10. Is your house rental or owned?
11. What is your average monthly income?
12. Do you have any other assets, such as a car or tradeable goods?
13. How much do you interact with your community?
 - a. Youth groups
 - b. Church
 - c. Volunteering

- d. Attending community meetings
 - e. Other (If other, what?)
14. How well connected do you feel within the community?
- a. Not connected at all
 - b. Somewhat connected
 - c. Connected
 - d. Very connected

2.0. HOUSING CONSTRUCTION/ BUILDING MATERIALS

15. Since living in this house have you developed it in any way (i.e. extension, interior fit out, maintenance)?
- a. Yes
 - b. No
16. If YES. What work has been conducted?
17. Who conducted the work
- a. Trade
 - b. Yourself/family
 - c. Local NGO Charity
- Who? _____
- d. Local municipality provided
- Who? _____
18. How did you find this experience?
- 19.
- a. What materials have you used?
 - b. What was your main criteria for the materials selected?
 - i. Quality
 - ii. Quantity
 - iii. Cost
 - iv. Aesthetics
 - v. Time
 - vi. Fire safety
 - vii. Water resistance
 - viii. Sustainability
 - ix. Other: _____

20. How did you buy construction materials and services that you have used?

- a. Through family and friends
 - b. Trade information directories
 - c. Recommendations from the municipality
 - d. Other: _____
21. Before you commit to buying materials or services. How many prices do you compare?
- a. 1
 - b. 2
 - c. 3
 - d. 4+
22. How did the final cost relate to your expected? (was it higher or was it lower than you anticipate?)
23. Did the work conducted start and finish to your expected/ agreed timescale?
- a. Yes
 - b. No
24. The final outcome of the work conducted, what was your satisfaction of the quality of the work?

3.0 SKILLS AND DEVELOPMENT

25. Have you received guidance from the municipality, NGO's, Community leaders or other bodies on methods to secure materials or construction services for your upgrading?
- a. Yes
 - b. No
26. How has conducted this training?
27. What was taught
28. How relevant and beneficial has it been for you/ how has it impacted you?
29. Is there any training or development which you would benefit from?

Appendix B – Municipality Interview Transcript

External Stakeholder Interview – Municipality

David: perfect I have given you both a sheet which gives you an overview of the Phase 4 overview of what I'll be covering today

Claudia: so far we've been talking a lot about self-build self-help housing and informal procurement and formal procurement yesterday we had a focus group with uTshani Fund and FEDUP, federation of the urban poor the way they do things and the way they procure the materials and the way they organise things for the community in terms of facilitation and but of course it's very relevant how you do the miscibility and how this can be potentially revised new no also let's start from this and will start to talk about the new updates

David: one thing that keeps popping up the current impacts of self-build houses in informal settlements and the impact on title deeds, the perception from residents and we've heard the reception from the

uTshani fund and I'd love to hear from the planning departments and municipality how title deeds are currently being looked at for residents in self-build housing, informal settlements, RDP or FEDUP Housing.

Muzi: regarding what I know about the issue of title deeds there is still a big backlog, title deeds seemed not to give one any sort of advantage in gaining access to a house or anything like that it gives them ownership in the backlog still there is an enormous backlog one of the challenges we still engage with your land Assembly and we still have a department which are defining ownership as there is layers and layers and layers of ownership issues which they still need to resolve regarding the transferring of land as you know most of the land would have been donated for housing or if it was without any form of title which we are still waiting for it to be transferred properly. we are still working with the Silo mentality which is not enough sort of no proper engagement or alignment between us and the land assembly guys and other spheres of government those issues come from and contribute to such delays like I said. we find that if you are looking at transferring of land, the Department of urban culture which are responsible for the handover of land and all of these departments in my opinion just seem to have this alignment issue which still visible like I said with this silo mentality of working so as far as I know from a planning perspective which is still were huge task we do not do it ourselves but this is something that has to guide us with regards to that it issue in terms of the handover whether it's a structure or whatever the case is but it impacts the end product yes we know without the title deed you cannot register a property you cannot sell the property you cannot do such things such as get a bond. speaking from that perspective it's still a challenge it would be nice if we had someone from the land assembly to today's more deeply into the nitty gritty issues as we come through with the plan initiative and we get stuck when it comes to the ownership we can plan and we can do all sorts of things but it boils down to ownership of land. that's all I can say from a planning perspective which the plan is with the challenges that we're still face with. people won't come out straight and say that, I don't know if I've covered some of your question but.

David: it does that covers a lot thank you

Nkululeko: Moso has covered the main parts but maybe to prolong the issue of title deed itself in self build housing to this country there is still a bit of a challenge because we have not fully embraced the self-build housing with the government process with the houses of predominantly been driven by the state. The policy of housing and the perception that housing is driven by the state you get a secure house which you can then trade off and used as a commodity which is what we're saying you can get a bond by getting a title deed this is a quality house which is to this amount in a rent and this is what I can use as a quantitative to get a loan. it is a little bit of a challenge with self-build housing, land tenure which is where will provide the incremental services and people will complete their houses without planning permission and planning approval and you know banks will not approve a loan without an approved plan of a house this creates a challenge for anyone that is living in an informal settlement who is looking to improve their house through self-help housing what am I going to use as a collateral if I want to start a business I think in that aspect for me personally I think it creates a challenge for those people who are in the self-help housing. areas such as we have a lot of examples, people living in (Best??) someone living there doesn't have a title deed is he going to then transfer that house to his siblings when they grow up who is going to be the owner who was going to be owning that.

Claudia: actually in Piesang they don't have you

Nkululeko: yes in Piesang they do not have it yet. and Muzii highlighted the fact that the Department of human settlements there is a huge backlog when it comes to title deeds which they have highlighted in there outcome 8 which they must try and fast track the issue of title deeds because people are occupying a house without a right

David: because they are unaware of their property boundaries etc.

Claudia: if I remember the backlog is around 70000 to 80000

Nkululeko: it's actually on the outcome 8 and the department the national department of human settlements is committing itself to issue the 80000 title deeds over the next three years because. the first one is 2014 to 2018 and the final one is. no it was Zuma and we are currently in the last face and the Department of human settlements now needs to show us proof that they have been able to achieve. these objectives of 80000 title deed. I doubt that because we are keep on building houses and I don't think we're going to keep up. and the back wheel keeps on increasing

Muzi: b it's like we're chasing Moving Target and I don't know how we're going to catch up it's like we're chasing Moving Target and I don't know how we're going to catch up

David: do you know off the top of your head what the current volume of houses are which of being output by the government

Nkululeko: the Department of national human cells does not know the number of houses which are being constructed they have an estimate but the figures that you here are 3 3.5 million which are being built but they are still building but there are also constraints

Muzi: it is slow because of the budget and there has never been too much has increased prices keep increasing but the top structure. funding has caught up with the increasing price. we cannot build if we don't have no money.

Claudia: and every year it is crazy we are experiencing inflation and all of these things.

Muzi:I'm not sure that the top structure is still 110000

Nkululeko: it is 160000 now

Claudia: 160000

Nkululeko: including the services and the infrastructure.

David: . how does just a quick one how does schools and access to schools affect people who don't have title deeds do they still get the access for the children if they're not registered in the area

Nkululeko: do you mean if if you got a house are you going to get access to a school

David: well if the children are living in an area but there is no evidence of them living there if they haven't told or so

Nkululeko: if you have a South African green barcoded identification key it is mandated in the constitution that everyone has a right to decent quality education even if you are not even a South African but you can prove that you are in the country you can

Musi: you can also use it via the counsellor with a grant some sort of proof that you staying in that Ward

Nkululeko: which means you are recognised with and you are recognised by the counsellor and the community as the council is politically elected

David: . procurement route Focus I'm curious of how the policy tenders procured materials what is the complete process I have read about the preferred at the current policy in 2000 is that something that you are still using heavily is it working? how's that currently working within the housing?

Nkululeko: Can you unpack the preferential, who specifically or which areas

David: how does. the housing we talked about the 160,000 for the services in the housing and the top structure how does this get procured and how are services tendered for within the municipality

Nkululeko: you follow a Project Life Cycle and you initiate the housing project you'll have the first phase which you're doing the planning you get your technical team service consultants who will do the detailed feasibility study, they will do the layout plans, and submit your rational.

Musi: I think that in itself and then Sword of informs the layout of the services and the services which are required because of the layout plan and the approval of the general plan which will then be used for the procurement of services and what the layer will be an approved and then you move to the next phase where are in construction

Nkululeko: then you move to your implementation where are you be using your quantity surveyors and your contractors and your quantify the amount of bricks and mortar which will be looking to put up your top searches once that is costed you will ensure to tender for that these are the skilled people that we require from the contractors and you'll be rolling out of particular product which will be rolling out 200 houses and people or tender for that over 30 day. They all be listed if they meet the requirements which have been set out with any government contract if it's for the months of power tea or province or national government that's the process

Musi: just to add all of this is done through the supply chain management, they do the prices and they have to be measured against certain requirements which are BEE (Black Economic Empowerment) the points where you have to have met for when you tender for your services and that's how they will procure there will also be a preference on a company with a high percentage of women within the company the number of youths you must also show how it will benefit the local community. for example, if I am the main contractor and I tender for the work I've must show clearly that when I say require subcontractors I will be using local labour for digging trenches or other manual work. all of those conditions are putting and I guess they will be your preferential procurement which will be put into the tender whenever the state or municipality is developing an area you prioritise the needs of the local labour.

David: that must improve the local community and they will get training for that

Nkululeko: tyeah you see in South Africa we have a department which is called public works which has, have a problem where they provide funding for skills transfer full community LED projects through public works. (not sure of the term) ? community participation workers? CWP? that fund, **to give you an example in our or incremental services program** basically it is there is a provision which has been made by buy Grand provision by the public works Office which ensures that when a main contractor goes to site he must transfer skills by mentoring and up and coming contractors "Wake up and leave". funding which is provided by public works for initiatives like that too for skills transfer

David: and ensure that they have got that transfer of knowledge and they can start their own contract

Nkululeko: of course and they get grading's and when the projects are done they and get graded for future works

David:and get certified?

Nkululeko: Yes, they get certified

Claudia: and also I've been told by the national department of human settlements is also organising a lot of training programmes going around even in rural areas and training so all this I think there is a lot which is happening in terms of training and skills announcement it's a matter of aligning and there seems like there is a problem of alignment. discuss it with them is nice and training with them for specific skills in construction and

Miso: I've seen a lot of that the Ngo say in Cape Town there is a lot of those projects which are happening in terms of skills transfer via NGO which (teach) procure..

David: so meeting at the meeting yesterday residents there from FEDUP and uthsani they talked younger members of the younger members of the community would love to have the opportunity to be certified and understand more and have the acknowledgement of their skills which can add the value

Claudia: because there is also the problem to get the certification so that you've got the training and the other it is difficult to get a job

Muzi: I think also your national Housing in NHBRC they also regulate a lot of that as well in terms of certification we have a lot of people which are building but not certified and that also has devastating repercussions as well because when you're looking and monitoring such structures and that comes down to land use management where you have contraventions of building regulations and so forth. and that goes back to looking at certificates.

David: in an somebody to go to site and see the work or would they have to come to your offices

Muzi: you see there's a process, so say you want to extend your property ideally speaking and this I'm saying because of experience this depends on the type of area you stay. it's different in urban areas as the so called Township areas as there is different as people tend to continue upgrading their properties without informing the municipality. so then there is a contravention as there is a town planning scheme which is in place and regulates these areas too building line controls and so forth but like I said in the Township areas compared to the Urban areas which there is monitoring which is done which is different which is different to the municipality doesn't sustainably monitor in the Township areas as they do in the Urban areas as people are able to get away with making these alterations.

but ideally speaking yes you do need to inform the municipality say through an architect or draughtsperson which then have to submit a plan a building plan which shows your alterations and so forth, and that building plan what obviously go through the same process if it is then legible and deemed to be built.

the difference is when it comes to your urban areas which the same process applies even though there's is a on a daily basis monitoring which is being done for anyone who is doing alterations. and people will pick up the changes immediately because they go there. . as opposed to a Township it is still an issue because I'm telling you this because I was a land use manager myself and you'll find that people just do extensions without submitting any plans or so forth so now you have to go in there but understandably so the side switch and sizes of houses in Township areas are designed to be very small. and that comes to apartheid planning, if you go to these sites they average around 300 square metres at a family that's growing they want more space so what they do they put a backyard building without having to inform the municipality. and the densities increase very quickly., as opposed to in the Urban areas which you have 500 and above square meters sides they are fine they have the room to move they have the space yet the family is so small in the Township areas. the families are cramped up and there is no space and our bylaws are still not flexible enough to and it's the same scheme which is applied to both rural and urban areas. but this is not in a fair process because of such issues which emanated from the so-called apartheid planning.

Claudia: but the problem which we are being told by their communities which are also the boundaries they are not clear not clearly defined when they start building just for example Namibia Stop 8 there was the first phase were also the municipality built some houses. about 100 houses. no 200 houses at the same time there was the uTshani Fund supported which also supported and facilitated of another one hundred housing 92 houses so there was the problem still of defining the boundaries so now people for example want to do a small extension or a porch or even to have a small garden in front of the house it is a little bit tricky as they do not know if that is part of their house and they have not received yet but I could do it so they do not know exactly what is going on and that is of course causing conflict tensions and then there is also a problem on having some communal spaces where everyone I don't know grow some garden of course there. of course the title deeds and the land problems which are also related to many tensions.

Muzi: this is true Because like we've been saying there is a lot of encroachment in such areas where there is no clearly defined boundaries and someone will go and put a front of someone else's property and then creates these tensions and so forth.

Claudia: there are people that want to have more space to for religious or cultural reasons for the traditional. , so I also are also as they are living their very cramped. like in Piesang, 11 people were living in one house of course you need more space you cannot just live there with two rooms. I think it's the problem the current policy which is and there is no real flexibility they talk about this starter/ start house which is not clear how you can incrementally builds this house because if it is supposed to be a starter house you start from something which is 40 square metres unit and then should be able to increase and should be able to extend the house but then it is considered to be illegal because it is not.

Muzi: they are not favourable

Claudia: so it is a little bit of disconnect from what is on paper in the policy the intention which is very good of course to promote incremental housing is very good for them why do you not allow them to build 20% more or you know in case you can prove that you are living there I don't know I'm just. this with living there with another two people or families grow.

David: like standardised upgrades? and put design in the pre-approved plan

Muzi it's quite challenging because there is also a social dynamic which is not aligned to the policy where we find it back to the bylaws which says religious activities which need that kind of space which is a social dynamic which is not a policy.

David: and that's what we learnt with Piesang River was that there is two story houses that were built people did not enjoy living above each other one person does not get the land and does not get the land to grow crops and doesn't have the space for the children

Claudia: sorry guys we have to move (change of rooms)

****Continued****

David: there's only a couple more questions anyway so we won't keep you for too much longer. We covered a lot and a lot of the questions already so thank you. I find that the current dynamic here and government structure for housing is very similar for the UK. the planning structure for the UK is very similar for the UK and I was going through with Claudia the Sans

Claudia: the building standard.

David: very close to what we've got back home

Muzi: so one can apply for a job in the UK?

Claudia: because basically in South Africa they have inherited from the British system so the procurement systems is exactly the same so you will be very, year you could definitely apply that.

David: one thing I was interested in as the support for small contractors and the guidance that they are giving and what facilitates them to get new contracts and I know that there's a lot of contractors which don't have much capacity they still be able to tender and obtain works through the municipal housing programmes.

Nkululeko: Yeah, hey do yes if one believes they are capable we will always find avenues to submit their tender documents also if their tender is taken out the contractor gets the opportunity to come on site and ask questions and get clarity how to tender what is expected of them to tender and you will be surprised.

David: so you can put together some other contractors into a package of works, and allow them to work

Nkululeko: yes

David: also regarding communities in informal settings I have heard lots of stories about how they acquire goods and methods of them obtaining there resources I am interested in how the Municipality . count they receive emergency resources if they get flooded with damaged. is the municipality to able to assist them?

Nkululeko: Yeah, we have got a policy in the housing could which is emergency relief problem, basically this provides relief in case of emergencies say shack fire like

Claudia: Nkululeko where can I find the risk management policy for example in case of flooding and these things, and what has been implemented buy Ethekewini. because for student who is doing his study

Nkululeko: is it not online?

Claudia: I haven't checked it's for Student, I am unsure if he has checked

Nkululeko: yeah check online it should be online

Claudia: ok so shouldn't be online, but in case I should speak with someone. I know there is the risk management unit, do you know someone that I can speak to?

Nkululeko: not personally but we can find out for you, probably best if you look at the offices. do you know where they are? it is opposite Durban bus terminal station not far away from here you know where you pay your electricity account it's just opposite there

Claudia: today I just want to know what the protocol is for example flooding fire normally what happens say there is a fire disaster

Nkululeko: normally what happens say there's a fire disaster (emergency services) and the disaster first to respond. in the way of fire engines to fight the fire and a quick enumeration will be done to see who's been affected

Claudia: do you have a software to predict flooding?

Nkululeko: I am sure they do have.

Muzi: remember the last when we had the huge storm the weather station or some office did predict that the storm was coming and they graded it and I think they got it through that system where they could tell that there was a heavy storm coming in fact a lot of these areas.

Nkululeko: funnily enough that was a heavy storm last year the worst storm with ever have and I did not hear of any reports coming from informal settlements that are their houses were flooded and people were swept away I did not hear. did you hear Muzi?

Muzi: I did but not a large scale

Claudia: I think I've heard informally I know in Havelock that they had been struggling but that was informally notified

Nkululeko: how were there many \ houses collapsing or being washed away. it was more so informal housing affected than the shacks.

Muzi: because normally fire is more of a problem with the shacks.

Nkululeko: when we have big fires in December or November in Foreman Road. and the disaster units responded as well.

Muzi: but we probably should have more in terms of..

Claudia: do you know if we have any drone imagery for monitoring?

Nkululeko: I know that this is in the pipeline for the city, but I don't think it's anything related to disaster management but I remember

Claudia: clearly there is someone more than one. my question is, how to deal with the Expectations because now the community is living in informal settlements expecting and expecting something

Nkululeko: expecting houses? well it's easier the municipality need to get people who are waiting for housing the fact that people have expectation because somebody went there and created this expectation and if you read Cyril's speech he said. we must all change and have send me to do that work. The municipality need to send people out there to the people and convince them that this is a trajectory that they are heading and this thing of Three Houses is unsustainable and it's against the people need to communicate with the people

Claudia: yes and offered training I think we speaking even with the community members we asked them what about if we provide/ if the municipality were to provide materials would you be willing to build. and they said yes of course, some of them have skills they can build and it's just a matter of organising better because clearly. I'm aware it's not easy and you have to monitor that they are building according to complying with the regulations so it means that the municipal officials and the community need to collaborate and

Nkululeko: and strike a balance

Claudia: yes and some Ngo to work together and facilitate it's not easy to organise and work with these massive committees there are so many different agendas within these Communities and politics inside the communities.

Muzi: when she can get that alignment right and get a buying from different sectors and form that relationship it can be done because like I said before we have the Silo mentality of working where we are not connected and it is killing the end product and there is no kind of Bond

Claudia: yes there's no bond in there's no communication so there's a lot of misunderstanding sometimes because you were doing your own agenda for good trying to help his people and from their perspective

you are doing nothing because maybe you did not and they're still waiting for the house and of course there is this misunderstanding I do not know that there is a backlog. it's difficult because how do we make this Bond work.