




A Baseline assessment for future impact evaluation of informal settlements targeted for upgrading

SUMMARY REPORT



human settlements
planning, monitoring
and evaluation

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Abbreviations & Acronyms

BNG	Breaking New Ground
CBO	Community Based Organisations
CWP	Community Work Programme
DHS	Department of Human Settlements
EC	Eastern Cape
EPWP	Expanded Public Works Programme
FBO	Faith Based Organisations
FGD	Focus Group Discussions
FS	Free State
GP	Gauteng Province
HDA	Housing Development Agency
HIV	Human Immunodeficiency Virus
HSRC	Human Sciences Research Council
KII	Key Informant Interviews
KZN	Kwazulu-Natal (RSA Province)
LP	Limpopo Province
MDG	Millennium Development Goals
MP	Mpumalanga
NC	Northern Cape
NDP	National Development Plan
NGO	Non-Government Organisation
NHBRC	National Home Builders Registration Council
NW	North West
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
SANCO	South African National Civil Organisations
SDG	Sustainable Development Goals
Stats SA	Statistics South Africa
TB	Tuberculosis
TOC	Theory of Change
TOR	Terms of Reference
UBA	Uncontrolled Before and After
UISP	Upgrading Informal Settlements Programme
UN	United Nations
WC	Western Cape
WHO	World Health Organisation

Policy Summary

The upgrading of informal settlements programme (UISP) was designed in 2004, and its implementation has been in progress since then. The UISP is anchored on the foundational policies and programmes of post-apartheid housing vision as encapsulated in the Reconstruction and Development Programme (RDP), the South African Constitution, the White Paper on Housing (1994) the Housing Act (1997), Breaking New Ground (BNG) and other strategic documents of the Department of Human Settlements (DHS). The UISP also draws its principles from international experience on upgrading as articulated in various frameworks of the UN Habitat. The programme was designed in the context of the Millennium Development Goals (MDGs) and before the global economic recession hence, there is a need to integrate the notions of the current global and local development approaches in its revision. The revised UISP needs to be aligned to the Sustainable Development Goals (SDGs) and the National Development Plan (NDP).

This study reveals that informal settlements cannot be considered as temporary transit settlements of individuals seeking opportunities in urban areas. They are home to the urban poor who neither have access to subsidised housing nor to the private rental market, which remains beyond their reach. While the UISP has been valuable, there is a need for a policy on the upgrading of informal settlements. As international and local experience suggests, effective upgrading programmes are those where communities are involved from the planning to the implementation of the programme. The current design of the UISP does not provide an indication of stakeholder involvement in its design. The ex post design of the Theory of Change (TOC) and the logical framework reinforce the low level of stakeholder participation in the design of the UISP. Revisions to the UISP need to ensure that a wide range of stakeholders are involved in its formulation because when targeted beneficiaries can identify with the programme, then participation in its implementation and success becomes easier to achieve.

The vision of the UISP is implicit rather than explicit. In revising the UISP, there is a need to ensure that the programme contains a clearly articulated vision and mission that guides the implementation teams and agencies to achieve the specified programme objectives. The current UISP objectives are insufficiently specific, measureable, achievable, realistic and/or time bound (SMART). Despite the DHS' setting the target of eradicating informal settlements by 2014, there were no specific targets set in terms of what the interventions proposed in the UISP should achieve. Consequently, more than 10 years following its inception, it has not been possible to clearly establish the impact of the UISP at national level. In revising the UISP, there is a need to ensure that targets are specified to allow for the measurement of the outcomes of the programme.

The baseline study findings point to high levels of deprivation amongst the most vulnerable who happen to be poor, African (87.6%), female (53.1%) and young (69.4% below 35 years), in informal settlements in terms of most of the development indicators. Fewer households in informal settlements have access to water, sanitation and electricity compared to the national averages of access. Food

security is a serious challenge in informal settlements, with most households borrowing to meet their food and nutrition needs. So deprived are informal dwellers that they cannot secure credit to improve their dwellings, and they do not improve their dwellings unless it is absolutely critical. This is despite the fact that adequate housing is a right entrenched in the Bill of Rights. The assumption that informal dwellers can finance the consolidation of their dwellings without state subsidies would appear to be erroneous. From a policy perspective, the UISP is relevant and essential as it targets the most deprived populations in cities and towns, and provides poor populations with services essential for their survival. There is a need, therefore, to ensure that consolidation subsidies are spread widely enough for the majority of residents to benefit from the programme.

1. Introduction

This report presents the baseline status of informal settlements targeted for upgrading throughout the nine provinces: Eastern Cape (EC), Free State (FS), Gauteng Province (GP), Mpumalanga (MP), Limpopo (LP), Northern Cape (NC), North West (NW), KwaZulu-Natal (KZN) and Western Cape (WC). This summary report is based on the full report which is available from the Department of Human Settlements. This section of the summary report provides the background context to informal settlements in South Africa and defines the approach of the baseline study to the challenge of informal settlements in the country. The ensuing sections of this summary report provide an outline of the findings presented in the full report, as well as the recommendations of the baseline study.

1.1 Study Purpose

The purpose of the study was to collect data for use by the Department of Human Settlements (DHS) to address the following:

- Strengthen implementation and improve the performance of the DHS' Upgrading of Informal Settlements Programme (UISP)
- Determine the nature and sustainability of the UISP outcomes, and
- Determine measureable impacts on beneficiaries and communities of the UISP

The study, as articulated in the terms of the terms of reference (TOR), aimed to collect baseline data on informal settlements targeted for upgrading. Such baseline data should be useful in future for i) assessment of the implementation process followed, and ii) assessing the effectiveness and impact of the UISP.

1.2 Study Objectives

The baseline study's objectives were to:

1. Establish the current status of selected informal settlements
2. Identify key indicators for use in the assessment and future evaluation of informal settlements
3. Unravel the TOC underlying the UISP in responding to informal settlements
4. Assess whether the TOC underlying the UISP is appropriate and valid for the South African context of informal settlements
5. Contribute to the existing body of literature on the state of informal settlements in South Africa

As a baseline assessment, the fundamental question posed was: *What is the status of informal settlements targeted for upgrading?*

The baseline study had a number of sub-questions including the following:

1. Is the TOC for UISP valid and appropriate for the South African context?
2. Who are the stakeholders critical to implementation of upgrading?
3. What are the current institutional arrangements in the community?

4. What are the possible upgrading options in each settlement?
5. What is the level of community participation in each settlement?
6. What are the current tenure arrangements in the informal settlement?
7. What are the available financing options for informal settlement upgrading?
8. What infrastructural and basic services are available and what is their state?
9. What are the levels of security and safety in the informal settlements?
10. What social capital and social networks exist in the specific informal settlement?
11. What is the level of social cohesion?

The sub-questions allowed the study to address the following:

1. Establish the state of tenure security and households' sense of belonging as it relates to the city/municipal jurisdiction
2. Determine the extent of personal investment that households make in their residential space
3. Establish the level of access to basic services, and quality of life of informal settlement dwellers
4. Explore households' sense of security, and
5. Examine the state of social capital

2. METHODOLOGY

This was a cross-sectional baseline study that employed both quantitative and qualitative approaches because of its complexity and multi-components. The quantitative methods included a household survey conducted using a structured questionnaire and an initial environmental scanning of the selected informal settlements. The qualitative component included documents review, Focus Groups Discussions (FGDs) and Key Informant Interviews (KIIs) that were conducted using a semi-structured FGD and KII guide respectively. The study's instruments were pilot tested before conducting the study in all nine provinces of South Africa with informal settlements (and by extension households) that had been targeted for upgrading as the target population (Annexes 1 and 2).

2.1 Theory of Change Underlying the UISP

Drawing on the existing policy documents, this report unravelled the TOC that underlies the UISP. The report identified the ultimate outcomes, intermediate outcomes, project activities, and the UISP's required outputs. Although the objectives of the UISP are valid, there is a need for specificity in articulating the desired impact of the UISPs. At a broader level, the institutional framework and the roles and responsibilities of different stakeholders required in the implementation of the UISP have also been identified. Although the activities of the UISP are clearly identified, the programme design needs to be improved by clearly articulating the ultimate goal and broadening the range of its stakeholders, such as other government departments, non-governmental organisations and grassroots organisations which should be involved in the implementation of the programme.

3. FINDINGS

3.1 Demographic Profile and Security of Tenure

The key objectives of the UISP are to ensure security of tenure, health and safety, and community empowerment for informal dwellers, the underlying principle being ‘to enhance the concept of citizenship, incorporating both rights and obligations, by recognising and formalising the tenure rights of residents within informal settlements’ (DHS, 2009:13). To understand security of tenure, this section examines the demographic profile of residents of informal settlements targeted for upgrading and security of tenure in the settlements.

The majority of residents in the interviewed households were Black African (n = 7 246) followed by Coloured (n = 1 007). The White, Indian/Asian and “Other” population groups recorded less than 10 household members each. In terms of nationality, 95.2% of household members were South Africans, while only 4.3% were “other Africans” with 0.5% being “other”. Sampled households had more female household members than male counterparts across all provinces. However, in five of the nine provinces more than fifty percent of households were headed by a male. The province with the highest female headship (61.0%) was the Free State, with Northern Cape, KwaZulu-Natal and Eastern Cape having more than 50.0% of female-headed households (56.2%, 54.7% and 53.5%, respectively). The average household size was 3.75 members, which was higher than the national average of 3.4, according to the 2011 census. Provincially, KwaZulu-Natal had the highest average household size of 4.53, followed by the Northern Cape with 4.03 household members. Free State recorded the lowest household size of 3.35 household members.

The study documented that 1.3% of household members aged 20 to 24 years did not have any schooling. The majority of people (85.5%) residing in the sampled settlements were reported to be able to read and write. Provincially, the Western Cape recorded the highest literacy rate at 94.4%, followed by the Free State at 88.9%. Mpumalanga and Limpopo had the highest percentages of people who could not read and write, 21.8% and 20.4%, respectively. In terms of enrolment, for those younger than 19 years of age, 78.7% were likely to be at either in a crèche or primary/high school. About 35.1% of those aged between 0 and 4 years were reported to be enrolled in a crèche. Over 90.0% of those aged between 5 and 12 years were likely to be enrolled in primary school, while 85.6% of those between 13 and 19 years were likely to be enrolled in high school.

Females were less likely to be married and more likely to be divorced or separated than their male counterparts. In addition, males were more likely than females to be in companionship, either being married or living together. The highest percentage (23.9%) of household heads living together (not married) was reported among those aged between 25 and 34 years, followed by those aged from 35 to 44 years and from 18 to 24 years old, at the rates of 16.8% and 13.5%, respectively. KwaZulu-Natal (56.2%) and Limpopo (46.1) had the highest per-

centage of household heads who were single or never married. The Free State recorded the highest percentage of married (civil and traditional marriages) with 43.5%. Furthermore, divorces or cases of separated couples were highest in the Free State (7.2%), Northern Cape (5.8%) and North West (4.6%). The Western Cape had the highest number of cohabitation at 17.9%, followed by Gauteng and Mpumalanga (16.2%, each). Mpumalanga also recorded the highest percentage (11.8%) of household heads that were widowed.

3.2 History, Age and Location of the Settlements

In relation to the question on the period that residents across the provinces had lived in informal settlements, most (46.8%) of the respondents had lived in the informal settlement for more than eleven years, while 28.6% had lived there for between 0-5 years and 24.6% had lived there for between 5 to 10 years. In other words, the majority of informal dwellers (71.4%) had lived in their settlements for more than five years. It appears, therefore, that informal dwellers did not live in the settlements on a temporary basis but rather that the majority of the respondents were long-term residents in the informal settlements. As the baseline study participants confirmed, there were people who had lived in the informal settlements for so long that they had raised their families there and a third generation was also being raised in informal settlements.

With regard to how did the informal settlement dwellers come to live in their current settlements, most of the respondents cited "Forced to relocate", "Availability of land" and "Better chance of receiving RDP housing" as the three main reasons for coming to live in their present settlements, with 40.6%, 32.6% and 31.0% of cases, respectively (Annexure 3, Section 3, Table A3.8). Better access to government services (26.6%) and proximity to employment (24.6%) were also among those reasons which were recorded in over 20.0% of cases. It is worth noting that infrastructure and housing services such as proximity to clinics/schools, electricity, transport, water and sanitation were less likely to be cited (recorded in less than 5.0% of cases) among the three main reasons for coming to live in the current settlement.

In terms of whether the residents were the first ones to occupy their current dwelling, most respondents (53.8%) replied in the affirmative. Most of all (n = 2 320) respondents indicated that they had previously lived in a brick/concrete block structure on a separate stand or yard (n = 947) and were followed by those who had lived in shack/plastic/semi-permanent material/cardboard/corrugated iron type of dwelling (n = 763). Fewer respondents have lived in traditional dwellings/hut/structure made of traditional materials/wattle and daub (n = 448).

To understand the housing careers of informal dwellers, the baseline study also sought to establish where in terms of location residents had lived before residing in the current settlement. The majority of participants (26.6%) indicated that they had lived in a different city within the same province; others lived in another town in the same province (17.8%) and fewer respondents indicated that they had lived in a different town in a different province (13.3%). These

findings suggested that migration among informal dwellers was from city to city, the so-called urban to urban migration phenomenon within the same province. Inter-provincial migration was less frequent.

3.3 State of Tenure and Security

Dwelling sharing and settlement on public/private land

Understanding the extent to which dwellings and sites in informal settlements were shared is important, as this is useful to municipalities in planning both for the upgrading of the settlement and also for allocating resources for consolidation of top structures. Among those who responded (n = 2 302), the majority (79.1%) indicated that their dwelling/stand was not shared. Among the households who shared the dwelling or stand, the majority were in Kwa-Zulu-Natal (26.5%), Western Cape (25.7%) and Gauteng (22.1%). These are the provinces with large metros and also high concentrations of informal settlements. The sharing of dwellings or stands can also be seen to reflect high densities in the informal settlements, the acute shortage of housing and the need for decongesting informal settlements in these regions during the implementation of the UISP.

To establish whether the residents of the informal settlements studied had security of tenure, respondents were asked about the type of occupation rights they had. Of the respondents who answered this question (n = 2 290), most (n = 1 329) indicated that they occupied their sites/dwellings rent-free (56.0%), followed by those who had recognition of rights from the city (n = 387; 19.5%) and those who occupied fully owned and fully paid-off sites (n = 237; 11.6%). Despite informal residents indicating that they had specific forms of tenure, the majority (58.9%) had no documentation to prove that they had the right to occupy their sites. Where land was owned by traditional authority, it remained under communal ownership and individuals did not get title deeds to their parcels of land. Households had to get permission to occupy land from the chief but not title deeds. The provision of security of tenure through the issuing of title deeds is one of the objectives of the UISP. Land under traditional authority is communally owned, and the chiefs are the custodians of such land. If the outcomes of the UISP are to be achieved, there will be a need to negotiate the upgrading of informal settlements under traditional authority and also resolve the issuing of title deeds as an outcome of the UISP. In areas where there was commercial farming such as Limpopo and Mpumalanga, the reference to “the farmer” had racial connotations, and often referred to as the White farmers. The different forms of land ownership in the same provinces suggested that, if upgrading is to occur, municipalities would need to negotiate with the different land owners before any development can be implemented. Where the municipality does not own the land, the negotiation could take a lengthy period before an agreement is reached and the land is released and packaged for development.

Among the respondents who answered the question on whether there were any obstacles to land ownership (n = 2 328), the majority indicated that there were none (61.7%). Most of the respondents (n = 472) who identified the nature of the obstacle(s) indicated the category of "Other" (n = 253; 60.4%) as a key obstacle to land ownership. There is a need for further exploration to understand the key obstacles to land ownership among informal dwellers. Among those who responded in the affirmative on the nature of the obstacle(s), income was cited among the key obstacles to landownership by a large proportion of households in Free State (73.0%), Western Cape (32.7%), and Mpumalanga (27.4%).

Financing options for informal settlement upgrading

The baseline study asked about the sources of housing finance and if households wanted to improve their dwellings. Among those who responded, the majority indicated that they would not borrow money to improve their dwellings (n = 1 418; [68.9%]). The other common responses were government subsidy (10.2%), formal bank (6.3%) and "other" (8.5%). These findings are consistent with the qualitative findings which indicated that the informal dwellers did not borrow money to improve their dwellings but rather to meet their basic needs such as food, school fees and health care.

To understand the baseline status of informal settlements, it was important to establish whether residents had ever applied for a housing subsidy. Among those who responded (n = 2 316), a few (35.1%) confirmed that they had applied for a housing subsidy. The majority (62.7%) indicated that they had not. The provinces with households that had ever applied for a housing subsidy were: North West (59.0%), Western Cape (54.7%), Mpumalanga (47.4%), Eastern Cape (33.8%), and Northern Cape (45.0%).

Extent of personal investment made by households in their residential space

Households were asked to indicate the extent of investments they had made in their residential space in the 12 months preceding the interview. Most households (87.0%) indicated that no improvements had been made. Most of the improvements made were to the roof (n = 120; 35.3%) additional rooms (n = 94; 24.4%) and "other" improvements (n = 50; 11.9%). On average, households spent about R3 255.23 on the improvements per year.

In the informal settlements that were included in the baseline study, participants explained how they had invested in their dwellings using a range of housing finance sources. Additional types of investment emerged from the discussions with the residents of different provinces. Participants argued that they borrowed credit not only for food but also for the purchase of building materials for rebuilding their dwellings after disasters such as fires or floods. Participants argued that households make very pragmatic decisions. Torn between meeting basic needs such as food, school fees and clothing, making investments in the dwellings became a luxury that did not come close to their priorities. The high poverty levels among informal dwellers confirmed that they depended on social grants to meet their basic needs, such as

food. Hunger was a reality in the informal settlements, and as participants in Tswaing indicated, sometimes they did not even have enough money to purchase mealie meal which, in the South African context, is considered a basic commodity and is priced to be affordable to the poorest of the poor.

4. ACCESS TO BASIC SERVICES IN INFORMAL SETTLEMENTS TARGETED FOR UPGRADING

The UISP is designed to implement in situ upgrading of existing settlements in both urban and rural municipalities. The programme is focussed not only on providing the top structure but also to ensure that basic infrastructure and services are available for the informal dwellers. Therefore, this assessment sought to establish baseline indicators with regard to access to drinkable water; access to sanitation services; access to refuse removal; sources of lighting and heating; access to emergency services; experience with environmental challenges, and satisfaction with services. The current status of these highlighted basic services and social infrastructure was established by asking a set of related questions. Key findings are presented in this section of this summary report.

4.1 Access to Drinkable Water

The majority (55.0%) of the respondents relied on public or communal taps for water, while 19.1% had access to piped water on site or in the yard. Only 12.8% enjoyed access to piped water in their dwellings. With regard to accessibility of water, 59.9% of the respondents said their water source was less than 200 metres away, while only 1.6% of the respondents had to travel a distance of more than one kilometre. Over a fifth (22.2%) of the households had water sources within the dwelling. Residents in informal settlements were generally satisfied with the quality of the water that they were drinking. They thought that the water was safe to drink (93.6%); clear in colour (93.5%), good in taste (93.5%) and free from bad smells (92.3%).

Residents were asked if they treated water before drinking it and by far the majority (93.3%) said "No, never". Less than 10.0% of the residents treated their water before drinking it, with a minority (4.0%) always treating the water before drinking. The most common method of water treatment was by boiling (79.4%) while a small proportion (14.8%) opted for chemical cleaning. The low levels of self-treatment of water were largely because most communities had access to municipal water.

The reported main source of drinking water by the majority of respondents was the municipality (83.6%), while 10.3% of the respondents did not know the supplier of the water. The majority of respondents who were supplied with water by the municipality did not pay the municipality for it (68.4%) for a variety of reasons; only 15.6% of respondents paid for the water, while 15.9% were "not sure". This is probably due to the free basic services policy particularly in communal areas. Of those respondents who identified the municipality as their main source of water, 47.6% reported interruptions to municipal water supply in the last 12 months, and 66.6% reported interruptions that were longer than two days.

4.2 Access to Sanitation Services

Thirty-five percent of households used a “pit latrine without a ventilation pipe” or “long drop”. In households that had access to communal flush toilets, the toilets were connected to a municipal sewage system (22.4%), with the majority being in the Western Cape (83.4%). Approximately half (50.3%) of respondents reported that they share their toilet facilities. The mean number of people sharing a toilet was 39 (ranging from 2 person to 3 000 persons sharing). Limpopo had the highest mean number of households sharing a toilet facility (mean 881.0± [SD] 160.55), [range of number of people sharing 2-1 000] and Gauteng the second highest mean (57.3± [SD] 249.88). The highest number of people sharing a toilet facility was recorded in Gauteng where one facility was shared by 3 000 people.

Most of these facilities were located on-site (45.3%), or outside the yard (33.0%), and only 21.8% were located within the dwelling. These rates varied considerably by province. Limpopo had the highest rate of the off-site type of toilet location, followed by Western Cape and KwaZulu-Natal. Respondents cited “toilet unsafe to use due to health risks” as the biggest challenge they experienced with the type of facility used (46.9%). Forty-four percent of respondents reported that their toilet facility was unsafe due to the risk of violence. More men (57.1%) than women (42.9%) reported challenges with the toilets.

Only 3.4% of respondents reported having a bathroom or shower in their dwellings. Of those who reported having a bathroom or shower in their dwellings, only 41.5% shared this facility with another household. The mean number of people sharing bathroom/shower facilities was 3.33, ranging from 1 to 15 people.

4.3 Access to Refuse Removal

In response to the question: “Is rubbish or litter lying around a problem in this area?”, 70.9% saw litter as a problem, with 46.8% of respondents indicating that it was a serious problem. What was also noticeable was that 28.3% of the respondents said that they did not have litter lying around in their area. Litter was reported to be a serious problem among residents in the Free State (65.9%), followed by the Eastern Cape (59.7%), Northern Cape (56.9%), Limpopo (47.9%) and North West (35.6%). In Mpumalanga, 31.8% of the respondents reported that rubbish lying around was not a serious problem, and a similar rate was reported in Limpopo (32.8%). On the other hand, 56.9% of the respondents in the Western Cape reported that rubbish lying around was not a problem in their area; corresponding figures for KwaZulu-Natal was 38.2% and 27.3% for Gauteng. With regard to ways of disposing of rubbish, 30.9% of the respondents reported that the local authority/a private company removed the garbage at least once a week, 12.3% burnt it in a communal pit, 12.5% dumped or left it lying anywhere, 17.4% said it was removed by the municipality once a week and 7.0% put it in their own refuse dump.

4.4 Sources of Lighting and Heating

Access to or use of electricity

With regard to access to electricity, 51.3% of respondents reported that they did not have access to electricity. Of those who had access to electricity, 81.2% reported that the supply was via a metered connection to the house, while 9.5% of dwellings connected from a neighbour's house, and 7.5% connected from the street. The average number of electricity outages experienced by households per week was 2.44 (\pm [SD] 2.52) days ranging from 1 to 20 days. Translated to hours per day, the mean number of hours without electricity per day was 16.55 (\pm [SD] 8.86), ranging from 1 to 24 hours.

Main sources of heating, cooking and lighting

In relation to energy sources, 29.7% of households in informal settlements targeted for upgrading used paraffin as their main source of heating. This was followed closely by electricity at 28.4% and wood at 15.5%. The main source for cooking energy used by households in informal settlements was found to be paraffin (40.7%) and electricity (40.9%); combined, these accounted for 81.6% of respondents using these sources of energy. About 9.4% of the households used wood. A smaller proportion of the households used gas (less than 7.0%) and even less frequently generators (diesel) or coal.

Most of the households (44.3%) used electricity as the main source for lighting, and less frequently paraffin (23.8%) and candles (27.4%). With regard to adequacy of household energy needs, 48.2% reported that they had adequate source of lighting, followed by 48.5% for cooking and 47.6% for heating.

The majority (74.3%) of respondents reported that they did not have enough money to pay for the energy they needed, followed by the scarcity of firewood (5.0%), unavailability of gas or paraffin in the shops (4.7%), and a limited supply of electricity to the households (3.9%).

4.5 Access to Emergency Services

Provincially, the ability of respondents of informal settlements to access emergency services without difficulty exceeded the 80% rate in two provinces, namely KwaZulu-Natal and the Western Cape. The lowest percentage of access (57.5%) was reported in the Free State. Household residents were asked to rate the responsiveness of the emergency services in their settlements when such were needed. The police was more available to respond (40.6%), followed by ambulances (36.5%), and lastly fire brigades (30.9%). What was significant was that none of the services exceeded 50.0% availability.

4.6 Environmental Challenges in Settlements

Respondents were asked to highlight environmental challenges in their settlements with regard to fire. Overall, almost one out of three household respondents had experienced fire in

their dwelling while living in the current informal settlement. Most of the fires in their dwellings were related to the use of candles (38.6%), paraffin or gas stoves (34.8%), illegal electricity connections (11.4%), or arson (10.2%). Flooding was another environmental challenge that residents of informal settlements faced. In the Eastern Cape, 63.5% of households experienced flooding in the year preceding the interview, while the North West was the least affected province by floods (8.7%). In relation to the reported or perceived cause(s) of flooding, storms accounted for 48.5%, with poor or lack of drainage in the area accounting for 36.2% of cases. Mudslides were also reported as problematic in some provinces, with only 7.0% of the households interviewed having been affected by this. Although only 7.0% of households across all provinces were affected by mudslides, this was particularly problematic in the Eastern Cape (31.9%) and KwaZulu-Natal (17.2%).

4.7 Satisfaction with Services in the Informal Settlements

The respondents' perception of services varied considerably, not only in the degree of satisfaction/dissatisfaction, but also in the type of services provided. The two service types with the highest affirmative (satisfied) responses were "household water quality" (44.8%) and "supply of water" (35.3%). The corresponding services that residents were dissatisfied with were housing (31.5%), employment opportunities (34.0%) and sanitation services (31.3%). Furthermore, the rate for "very dissatisfied" respondents was even higher (range 30.5%-50.0%) for seven of the 13 areas of service provision the questions asked related to.

Overall, informal settlements lack basic services for decent human existence and this was evident with regard to living conditions, availability of water and sanitation, access to electricity and social services. It was therefore not surprising that the respondents' general level of satisfaction with services was mostly low. The variable availability of the services was also due to the fact that some settlements were in the early stages of upgrading and therefore had some services.

In the absence of specific norms and standards for upgrading informal settlements for South Africa, and even internationally, it is not easy to find credible comparators to the observed basic services status indicators. This is a fundamental omission to the UISP and needs to be addressed if future progress and impact assessments are to be conducted effectively.

5. PHYSICAL ENVIRONMENTAL VULNERABILITIES

Risk and vulnerability

Most informal settlements were located in areas that were either vulnerable to flooding or fire, next to heavy industrial or service infrastructure (e.g. slimes dams, railway or road reserves), or subject to negative geotechnical conditions or planning constraints such as wetlands. Campbell and Rethabiseng in the Northern Cape and Gauteng respectively, are examples of informal settlements located close to dams or flood plains which make them prone to flooding.

Some informal settlements were located near dumping sites, which posed serious health risks in terms of polluted air. Some dwellers depended on such dumping sites for their livelihood. The Dumping Site informal settlement in Randfontein is an example of this.

Statistics on the type of dwelling, materials of the roofs and walls, as well the condition thereof, was collected based on the observation of fieldworkers. Most households (75.5%) were staying in shacks made of semi-permanent material. Only 17.6% of households stayed in a brick structure, while 5.6% stayed in dwellings made of wattle and daub. The walls of informal dwellings were mostly constructed of corrugated iron (66.8%), and secondly of cement blocks/concrete (10.7%). Brick walls were observed in 8.4% of cases, whereas plastic walls were found in 3.5% of households. The observed roof materials of dwellings were predominantly corrugated iron (84.5%). Other materials were observed in a few cases, namely cement (5.4%) and plastic or cloth (2.7%). The walls and roofs of dwellings required attention because most were weak or very weak (range 33.1% and 26.2% respectively). Conversely, very few dwellings (17.6%) had walls that were in a good or very good condition. Roofs were mostly in a weak or very weak condition (combined total 58.5%), while only 3.2% were in a very good condition. The roofs of most dwellings required attention and posed a risk to the occupants.

Vulnerability to fire

The use of combustible materials such as paraffin or candles, for whatever reason, increases the fire risk in a household. Respondents who reported a fire indicated that it was mostly caused by flammable solvents such as paraffin (34.8%) or candles (38.6%). Illegal connections and “other” reasons as a cause of a fire made up a further 21.6%. Risk and vulnerability to fire was furthermore increased by the type of building material used (flammable) and the density of houses and shacks. Many shacks were built with non-permanent materials, which is an indication of the uncertainty of the duration of stay (UN-Habitat, 2003).

Vulnerability to flooding

Fieldwork observations recorded that many informal settlements were located in areas vulnerable to flooding, due to being located in wetlands. Furthermore, the baseline study showed that the causes of floods were mostly storms (48.5%), poor drainage (36.2%) and being situated in a flood plain (14.2%).

Geotechnical conditions

The geology of the sampled informal settlements showed that few settlements were located on dolomite, shale or sand, which are considered unsafe. Shale and dolomite are considered to be prone to expansion which can cause damage due to continual heave and shrinkage. Freedom Square and Afghanistan Section in Gauteng are located on dolomite and chart. Dolomite is a collapsible soil which can cause damage due to differential settlement. In the

Northern Cape, Rainbow Valley and Skerpdraai are located on sand. Settlements located on shale only were mostly situated in Gauteng and KwaZulu-Natal.

Planning constraints (zoned agricultural land)

Poortjie, an informal settlement in KwaZulu-Natal, is located in an agricultural area, and the type of upgrading proposed for this settlement is an agro-village. This will not only enable people to get jobs but also encourage small- to medium-scale farming. According to the municipality, bulk water supply was already available and sewer upgrading was covered by Mkhambathini Wastewater Works and Reticulation. The process was however slow because of legal procedures pertaining to the expropriation of the identified land strip.

6. HEALTH, FOOD AND NUTRITION SECURITY

Improving health and safety is among the key objectives of the UISP, and this report addressed the key indicators for health, food and nutrition in the informal settlements targeted for upgrading and sampled for this baseline study.]

6.1 Burden of Disease (Selected Indicators)

Nearly 6.0% of the respondents had experienced the death of a child younger than one year of age. Only 73 households (3.4%) reported to have experienced the death of a child younger than five years of age, 153 households (5.4%) experienced a miscarriage or still birth or abortion, and 178 (5.9%) households reported that they had experienced TB. There were marked differences in the reported infant mortality, miscarriages or abortion, and TB across the provinces. Infant mortality was highest in the Northern Cape at 14.2%, followed by Mpumalanga, KwaZulu-Natal, Gauteng and Free State at 10.9%, 7.2%, 6.4% and 6.1% respectively. Mpumalanga had the highest reported mortality of children under 5 years of age at 7.4%, and the Western Cape had the lowest rate at 0.5%. Reported miscarriages or abortion rates were highest in the Northern Cape (14.3%), and lowest in North West at 1.3%. Reported TB rates were high in Mpumalanga, the Northern Cape and Eastern Cape at 24.0%, 12.8% and 11.4% respectively. This could probably be as a result of exposure of household members to mining activities in their province and or migrant labourer work.

6.2 Household Food and Nutrition Status

Food availability and types

Respondents were asked if they had experienced specific food and nutrition challenges in the last 12 months preceding the interview. Nearly eighty percent (79.2%) of the respondents reported that they were either “sometimes” or “always” worried about running out of food, with one out of five households (21.6%) reporting that there always was a concern that the household would run out of food. Nearly six out of ten (59.1%) households were sometimes unable to eat healthy and nutritious food, with almost one out of five (20.0%) households being always unable to eat healthy and nutritious food. The rates of a household sometimes

“only eating a few healthy foods”, “skipping meals”, “ate less”, “run out of food”, “being hungry but did not eat”, and “went without eating a whole day” varied from 42.4% to 59.1%.

Under 5s children’s food and nutrition situation

In 53.3% and 13.8% of the households respectively, children younger than 5 years of age did not “sometimes” or “always” eat healthy and nutritious food because of lack of money or other resources. Furthermore, 53.1% and 12.8% respectively, of the households reported children younger than 5 years of age “sometimes” or “always” not being given enough food because of a lack of money or other resources.

6.3 General Health

Occurrence of illnesses or injury during the 4 weeks preceding the interview

Overall, just over one out of six (13.8%) households in the baseline study reported a household member having suffered an illness or injury during the 4 weeks preceding the interview, with a trend for females (16.5%) to have a higher rate than males (15.3%) of such an incident. Provincial analysis showed North West as having the highest prevalence (18.4%) of people who suffered an illness or injury, followed by the Northern Cape (17.4%) with the Western Cape having the lowest rate (11.6%). The majority of the selected household respondents reported flu as the main cause of illness (47.0%), followed by high blood pressure (6.4%), HIV infection (5.5%), tuberculosis (4.5%), and injury (4.2%). Nearly 10.0% of household respondents reported suffering from “other” medical conditions such as stroke, STIs, or headaches. Significant provincial variations were also observed for all medical conditions, except flu.

Prevalence of tobacco smoking

The study enquired about how often each household member smoked tobacco. The majority never smoked (81.7%), 17.8% (combined total) smoked “often” or “sometimes” and 0.4% for “don’t know”. Categorised by gender, the majority (88.6%) of the females had never smoked; 4.4% often smoked and 6.8% smoked “sometimes” only. Of the males, 15.8% “often” smoked tobacco, and 10.0% smoked “sometimes”. Overall, 9.4% of household members smoked “often”.

Prevalence of alcohol consumption

Of the 7 854 household members, 82.0% “never” consumed alcohol, and 18.0% “often” or “sometimes” consumed alcohol. There were gender differences in alcohol consumption, with 8.4% of males and 2.4 % of females consuming alcohol “often”. More females (89.3%) “never” consumed alcohol as compared to males (74.6%). The pattern of having “never” consumed alcohol was generally similar across the provinces, with minor differences in the frequency of consuming alcohol “sometimes” or “often”.

Prevalence of substance abuse

Substance abuse (e.g. drugs) is a major societal problem especially amongst the youth in South Africa. The household respondents were asked whether any of their household members abused any substances (e.g. drugs): 95.3% were indicated as “never” abused any substance and only 3.9% (combined total) acknowledged as abusing substances “often” or “sometimes” with 0.9% for “don’t know”. Of the 3 805 female household members, 0.4% reported as “often” abusing substances, 2.4% as only abusing substances “sometimes” and 96.9% as having “never” abused any substances. Substance abuse was relatively higher in males with 1.4% and 4.7% having reported that they “often” and “sometimes” abused substances, respectively. The pattern of reported substance abuse was generally similar across provinces, although the Northern Cape had the highest rate of substance abuse (6.7%) on a “sometimes” basis.

State of general health

The study sought to establish the general state of the health of household members compared to that of the previous year. Only 10.3% (combined total) of the dwellers’ health compared to one year ago was reported as either “somewhat worse” or “much worse”, 47.8% of respondents reported their general health as being “about the same”, and 42.0% as either “much better” or “somewhat better”.

Prevalence of diarrhoeal diseases

Household respondents were asked if their household members had any episodes of diarrhoea in the last month; only 2.7% experienced diarrhoea. Mpumalanga had the highest reported cases of diarrhoea (6.5%), followed by the Western Cape at 4.8%. The Free State (1.0%) and the Northern Cape and Gauteng with (2.2%, each) had the least number of reported cases of diarrhoea. The number of reported diarrhoeal cases was higher in places where “Other” sources of water (which included springs and open wells) at 4.0%, followed by public tap water at 3.0% were used. The problem related to the use of public taps may likely be not so much the tap per se but rather the hygiene aspects related to the water container and storage. To explore the types of diarrhoeal diseases informal dwellers suffered from, they were asked if they had seen blood or mucous in the stool. Of the 236 household members that were reported experiencing diarrhoea, 2.8% (n = 11) had blood, 16.7% (n = 51) had mucous, 6.5% (n = 7) had both blood and mucous in the stool. About 25.9% (n = 63) of household members had also experienced vomiting.

Prevalence of respiratory diseases

Data was collected of household members to ascertain if they had ever experienced breathing problems and/or chest infections in the month preceding the interview. Of the 7 816 informal dwellers, 4.5% had such symptoms. The latter rates ranged from 2.6% in the Free State and Limpopo, to 13.3% in North West. Of the 396 household members who experienced

respiratory illness, 53.7% had a cough. This pattern was similar across provinces with the rates of coughing being highest in Limpopo (98.0%), the Free State (88.3%) and Northern Cape at 64.1%. A similar pattern of rates and provincial distributions was recorded for those who experienced “breathing with a sound” (60.6%) or had “rapid breathing” (56.0%). With regard to those who experienced “breathing with a sound”, Mpumalanga recorded the highest percentage with 88.4%. The Eastern Cape had the highest percentage (78.6%) of household members who were reported to having experienced “rapid breathing”

The results provide a broad impression about the current state of health, as well as of food and nutrition security in informal settlements. The number of reported deaths of children under 1 year ($n = 161$) and 5 years of age ($n = 73$) if converted to per 1 000 live births becomes significantly higher than the general population of 23.6 (2013) and 34.3 (2013) per 1 000 live births (Stats SA, 2015), respectively, confirming that health outcomes among informal dwellers are generally worse compared to the general population. About 1.0% ($n = 450\ 000$) of the South African population develops active TB per year compared to the reported 5.9% in the informal settlements targeted for upgrading.

7. CRIME AND SAFETY

The UISP identifies safety among its key objectives. Activities linked to improving safety include the provision of basic infrastructural services such as water, sanitation, electricity and waste removal. The lack of adequate services (water, sanitation, lighting and related facilities) predisposes girls and women to attacks particularly at night as they access toilets, fetch water from communal standpipes or even return home from errands (Amnesty International, 2010; Corburn & Hildebrand, 2015; Gonçalves et al, 2015). Understanding crime in informal settlements is critical to making interventions that not only address the issues of access but also crime that might arise from inadequate infrastructural services.

7.1 Description of Crime in Informal Settlements

A total of 62.0% of the respondents indicated that crime was a “serious problem” in their settlements. However, 22.7% of respondents were of the view that crime was “not a serious problem”, and 13.1% indicated that it was “not a problem at all”.

7.2 Respondents’ Perceptions of Safety against Criminals in Informal Settlements

More than half (51.0%) of the respondents felt “unsafe” within their own informal settlement, while 24.4% and 21.6% of the respondents felt “fairly safe” and “safe”, respectively. Only 3.0% of the respondents felt “very safe” in their community.

7.3 Feeling of Safety against Criminals in Own Home

Nearly four out six of the respondents (37.9%) did not feel “safe” in their own homes. Those respondents who felt “fairly safe” and “safe” were almost equal at 30.2% and 26.6%, respectively.

7.4 Experiences of Crime in the 12 Months Preceding the Interview

Of the respondents who had experienced crime in the 12 months preceding the interview, 15.2% reported that their houses had been broken into. Only 2.6% of households had experienced arson, 1.8% reported that a family member had been murdered in their communities, while 7.0% of the respondents indicated that a family member had been a victim of a crime. Among household members who were reported to have experienced crime, theft was the highest (53.1%) crime committed against them. This was followed by mugging at 24.1%. All other crimes were reported to being experienced by less than 10.0% of the household members, with rape being the lowest at 0.3%. The majority (56.6%) of the household members did not know the perpetrators of the crime, while for almost a quarter (22.8%) the perpetrators were gang members from their own settlement. These were followed by perpetrators who were gang members outside their own settlement (3.2%), a neighbour (8.5%), household members (4.2%) and "Other" (4.2%). The police were identified as perpetrators at the lowest rate of 0.5%. Almost half (48.9%) of household members who experienced crime experienced it at home, while a further (45.2%) experienced it in the settlement in which they live. Less than 2.9% of household members experienced crime in a neighbouring settlement, or 2.9% elsewhere.

7.5 Safety of Women, Children and Other Vulnerable Groups in Informal Settlements

Just under 6 out of 10 (59.3% combined total) of respondents were of the view that it was "safe" for women and children to walk around in their settlement by themselves during the day, and only 40.7% felt it was "not safe" for them to walk unaccompanied during the day. With regard to the sex of the respondents, it was found that the responses were not gender based. For instance, male respondents who felt that it was fairly safe for women and children to walk alone were slightly less than female respondents, 26.5% and 28.1% respectively, while 31.6% of male respondents compared to 26.2% of female respondents felt it was safe. The prevalence of gender-based violence across the settlements was 24.0%. Limpopo province had the highest reported gender-based violence at 31.4%, followed by North West (30.5%) and the Free State at 29.1%.

Mob justice violence was reported by 41.7% of the respondents. Gauteng province was leading with regard to mob justice and violence (56.2%), followed by Mpumalanga at 46.5%. The Northern Cape recorded the lowest rate (18.6%).

7.6 Dealing with Crime in Informal Settlements

About 44.4% of respondents indicated that their communities were doing something to reduce the crime in their communities, while 59.7% of them also employed other mechanisms to deal with crime. Less than half (44.8%) of respondents reported crime to the police, and more than half (55.9%) of the respondents indicated that they trusted the ability of the police

to reduce crime effectively in their areas. The police response to issues related to crime were indicated by 32.7% of the respondents as being moderately “responsive”, followed by 17.9% of the respondents who indicated that the police were “very responsive”, and, respectively, 32.5% and 16.9% who indicated that the police were “rarely responsive” or “not responsive” to issues related to crime.

7.7 Crime Trends in Informal Settlements over the Year Preceding the Study

A total of 43.5% of the respondents were of the view that crime in their settlements had “increased”, and 30.7% indicated that crime in their areas had “decreased”. Those who indicated that crime in their communities had “stayed the same”, constituted 25.8% of the respondents. Although crime was on the increase nationally at the rate of 42.0% of affirmative responses, the national police responsiveness was relatively moderate at a rate of 33.9%.

8. ECONOMIC ACTIVITIES

8.1 Economic Activity Recorded in the Survey

Statistics reported on employment and business activities in the baseline study considered those household members who were of working age (15 to 64 year olds). Household members who worked for a wage, salary, commission or any payment in kind (including paid domestic work) during the calendar week preceding the survey, amounted to 1 317. In terms of the gender division, 62.8% of these were males, while the counterpart consisted of females. Unemployment was highest in the Northern Cape (83.6%) while the Western Cape had the lowest levels of unemployment at 45.9%. On average, 68.8% of household members in the informal settlements targeted for upgrading were unemployed.

Household respondents were asked whether household members ran or did any kind of business, big or small, for themselves or with one or more partners during the calendar week preceding the interview, and an average of 8.2% of household members were involved. Most of such businesses were run by individuals in the Free State with 13.9% (n = 503), Limpopo with 11.7% (n = 173) and Gauteng 9.3% (n = 1 745). A question about whether household members helped, without being paid, in any kind of business run by their household, without being paid, showed that males (57.8%) were more likely than females (42.2%) to do so (n = 197). The majority of respondents, however, did not participate in business activities without getting paid.

In the week preceding the interview, most household members (32.5%) would have liked to work more hours in their current job than they actually worked (n = 1 617), provided the extra hours would have been paid for. Another 14.0% were reported to have been willing to work extra hours in an additional job. Many household members (25.8%) were not willing to work extra hours. The results also showed that the organization or business or branch where household members worked were mostly in the informal sector (43.3%), while 42.1% were in the formal sector (n = 1 551). Another 14.6% of respondents reported not being sure whether

household members' place of employment was in the formal or informal sector.

In terms of participation in a government or municipal job creation programme or Expanded Public Works Programme (EPWP) in the 6 months preceding the interview (n = 1 299), most household members (83.6%) did not participate. A percentage of 14.4% had participated in such a programme. The n value for this response includes those of working age and excludes those who were employed.

The majority of households (n = 2 098) perceived that conditions around unemployment got "much worse" in the past two years (50.0%). Another 23.4% believed it got "somewhat worse", while 15.8% believed it remained "about the same". Only 2.0% believed that unemployment conditions got "much better". The majority of households (52.3%) indicated that their main source of income was salaries or wages. Another 26.0% indicated that grants were their main source of income, while 6.4% received income from a business (n = 2 162). The monthly household income question was answered by 2 228 household respondents. The majority of household respondents (47.5%) indicated a household income of between R1 and R2 000, while 8.5% had no monthly income and 3.5% were not sure.

In establishing the assets within households, six items were arbitrarily selected from a list of 35 items derived from the living standards measure. Extremely few households (only 2.3%) had hot running water in their households. Most households had a mattress (81.2%) or a cell phone (75.9%). Almost forty percent (38.7%) of households had a stove without an oven in their dwellings, while 44.9% had a TV and 27.9% had a radio. Households were asked about their perceptions about the poverty level of their own household three years ago and today (n = 2 341 and n = 2 340 respectively). The majority of households felt that they were on the poorest level both now (41.1%) and three years ago (42.2%).

8.2 Borrowing and Savings

Questions about borrowing, savings and credit aimed to provide an indication of financial behaviour of individuals and households in informal settlements.

Borrowing

The baseline study results revealed that household members who contracted a loan or bought anything on credit over the past 12 months preceding the interview amounted to 18.2% (n = 2 607). The purpose for which a loan was taken varied, but 21.4% of such loans were obtained for clothing or furniture appliances (n = 444). Other consumer goods constituted 28.2% of loans and, in comparison, agricultural land or equipment constituted 0.4% of the purpose of loans. Housing upgrades was reported by 8.2% of respondents as the purpose of loans. National reports on credit analysis show that most people accessed credit for retail apparel (about 10.0%) while retail/furniture constituted 2.7% of credit access. Other consumer goods made up 2.6% of credit (XDS, 2012).

Different kinds of guarantees were required by the lender or credit provider; about 63.5% of lenders did not require anything as a guarantee, and almost 14.2% of household members were required to work for the proportion of money that they borrowed. An ID or passport was reported as required for 9.8% of household members and the guarantee of housing or buildings constituted less than one percent (n = 428). Household respondents were furthermore asked whether household members had the option to use their land or house as a collateral or guarantee for loans, but only 5.7% (n=425) had the option. The majority of people did not have such an option.

Households were further asked whether they had run out of money to meet their day-to-day expenses in the 12 months preceding the interview. The total number of respondents across all the nine provinces was 2 278. The three provinces with the highest rates (above 70.0%) were the Eastern Cape (77.9%), KwaZulu-Natal (75.9%), and North West (71.7%), with the Northern Cape having the lowest rate (48.5%). In general, more than 50.0% of households experienced shortages in their daily financial needs. The coping strategies that households adopted to deal with a lack of money included a number of options. Most respondents (63.3%) resorted to borrowing money from a neighbour or relative. This was followed by those who begged for basics and looked for extra work or income (17.2% and 15.6%, respectively). About 24 responses (2.4% of cases) were recorded for those who had to resort to stealing as a coping strategy to deal with a lack of money. Among those who borrowed money, the vast majority of respondents (87.5%) paid back the money which they borrowed (n = 1 138).

Savings

Household respondents indicated that the type of savings institution household members used to borrow money from ranged from banks to credit associations. Banks were the most prominent institutions for keeping savings accounts (50.7%), followed by rotating savings and credit associations or stokvels with 40.7% (n = 397); a small percentage of household members (3.7%) used cooperatives as their savings institutions of choice.

The purpose(s) for saving money included buying property (n = 357), house improvement (n = 361) and general house or plot maintenance (n = 342). Females favoured borrowing money for general house or plot maintenance and buying property, in comparison to their male counterparts. Females (28.9%) were also planning to use their savings for general house or plot maintenance, and for males the “yes” percentage was 28.2%. In relation to housing improvement as an option, 27.9% of male and 27.3% of female household members were planning to use their savings for that purpose. Buying of property constituted 22.2% for males and 27.2% for females.

8.3 Microenterprises

The majority of household members (15 years of age or older) who operated such businesses, had no schooling or tertiary education as their highest education level (10.5%, each), with 9.3% of household members operating their own businesses having a completed primary education. A question about the operation of business enterprises revealed that the most common type of enterprise operated by households were spaza shops (37.1%), while 19.0% did hawking. Almost 5.0% of the respondents operated hair salons, while 31.0% operated “other” enterprises. Most of the household members’ enterprises (79.7%) did not employ extra people in the four weeks preceding the interview, and provided work for the specific household member only (n = 119). Only 5.5% of the household members employed one other person, while 10.6% employed two people. The national average for own-account workers and contributing family workers in total employment was 10.0% in 2011, and the objective was to reduce it to 5.0% (Statistics South Africa 2013).

9. SOCIAL CAPITAL AND COMMUNITY EMPOWERMENT

Community participation and related concepts such as social capital and social cohesion are among the key principles of the UISP. This section examines the social context of informal settlements targeted for upgrading by exploring issues on social capital, social cohesion, community participation and empowerment. The purpose of presenting such information is to understand how social capital and networks work for the informal residents and how these can be harnessed in the process of upgrading to provide better outcomes for the residents. Explicating the levels of community participation helps shed light on how residents are involved in decision making and formulating solutions for tackling their housing challenges. The underlying assumption is that where the community is cohesive and residents collectively tackle their challenges, development is likely to be more sustainable than in contexts where there exists neither social cohesion nor a collective approach to tackling challenges.

9.1 Social Capital

In understanding the state of social capital in informal settlements the study asked a number of questions in the household questionnaire such as: *How important is it for you to help people whether by sharing time, or money; do you or any other member of the household get help from anyone; what sort of help do you or your household members get; who provides the help; are there people who help you in your community; what type of help do you or your household members give; to whom do you or your household members give; are there people you help in the community; do you expect (immediately or in future) that if you help someone in your community, they should also help you in return.* These questions address social capital in terms of trust, reciprocity and social networks. The questions also help to understand how people in the informal settlements interacted, how they assisted one another and with what motives.

Most (80.3%) respondents of the informal settlements targeted for upgrading reported that it was important to help people whether through sharing money or time. Very few (10.8%) respondents thought that it was not important to help people. In terms of whether the household got help from anyone, more than half (51.7%) of the respondents indicated that they received help from other members of the community, while 47.6% indicated that they had not received any type of help. In responding to what sort of help household members received, money was the most cited (66.7%), followed by groceries (22.3%), "Other" (4.1%) and child minding (4.1%). The sources of help most respondents mentioned were neighbours (75.3%), family (20.1%), and "other" (1.8%). Government/non-governmental organisations were mentioned by 0.2% of respondents as sources of help, while church/religious groups were mentioned by 0.8% of the respondents. About 84.7% of respondents indicated that there were people in the community who gave them help and only 14.6% indicated they did not get help.

Social capital is about relationships, connection and reciprocity. Among those who responded ($n = 2\,337$), 56.8% provided help to others and 42.6% did not help. The type of help that the household members were reported to give ($n = 1\,159$) was in terms of money (60.4%), groceries (27.3%), clothes (3.1%) and child minding (3.4%). The recipients of help from the households were mainly neighbours (62.8%), family (29.9%), and relatives (2.3%). In understanding the type of relationships, bonding and bridging capital, it was important to know whether informal settlement respondents expected those whom they had helped to reciprocate. Interestingly, only 39.9% expected those they had helped to return the favour, and 60.1% did not expect anything in return ($n = 2\,299$).

9.2 Social Networks

Understanding the state of social capital entails identifying the type of groups/networks with which residents associated in the different informal settlements. Participants were asked to describe the extent of their involvement in groups such as soccer clubs, political parties, school committees and youth groups. The common groups or networks identified included churches, the South African National Civic Association; fitness clubs; sport specific clubs (netball, soccer, volleyball, baseball); political parties and drama clubs. The findings of the focus groups were consistent with those of the quantitative data which showed that the most active groups/networks in informal settlements were religious organisations (17.0%), national political parties (15.4%), burial societies (14.1%), stokvels (11.8%) and health volunteers (10.1%).

Churches seemed to be the places where informal settlement residents met. It was also in the churches that residents sought refuge from vices, such as the harmful use of alcohol. Although political parties were mentioned as groupings to which informal residents belonged, participants argued that political parties created division among the residents. Previous work by the DHS indicated the importance of churches in the lives of informal dwellers, and the

current study seems to reinforce such findings. With regard to household participation in the existing social networks, the qualitative data confirmed the findings of the quantitative data which show that household participation in the community groups was highest in religious groups (56.9%), burial societies (44.1%), local national political parties (33.1%), stokvel (24.9%), and resident associations (15.9%).

To understand the levels of participation in the groupings that existed, household respondents were asked to indicate whether they had attended meetings in the groups that they belonged to in the 12 months preceding the interview. The responses showed that the most common organisations that had the greatest attendance were religious organisations (22.9%), burial societies (17.7%), local national political parties (16.9%), stokvel (10.7%), and resident associations (8.8%). The reasons for low participation rates were related to the challenges of daily survival.

9.3 Trust and Solidarity

In the sampled informal settlements, trust and solidarity were discussed in terms of community members living peacefully together, treating each other with respect and kindness and valuing the humanity in fellow residents. Those who reported that people in the informal settlements treated one another with respect were about 61.0% (combined total; strongly agree and agree), 23.6% were neutral (neither agree nor disagree), while 14.4% generally disagreed (strongly disagree and disagree) with the statement, and the remaining 1.0% were non-committal (“do not know”). Although trust and reciprocity existed in informal settlements in the form of residents being able to reach out to their neighbours, respecting one another and extending kindness to one another, such attitudes were strategic and helped in the survival of residents. Expectations of reciprocity amongst informal residents were as high as 40.0%.

The extent to which group members interacted and assisted one another was also examined. Respondents reported that they would contact their group members if they wanted something done in 83.7% of the cases, while 79.3% of the cases reported that they would contact their group members if they needed a job. The study also sought to document which were the most utilised sources of information in the community. Most of the respondents (64.3%) reported knowing most people in the groups that they are involved in, while a few (35.7%) described knowing few people.

Social networks are complex, and categorising them as either supportive or weak, can conceal complexities and nuances that occur within the respective networks. While most people appeared to have supportive networks, there were those who could identify specific networks to which they belonged. The spatial elements also limited the social networks that individuals and households could rely upon.

9.4 Social Cohesion and Inclusion

The level of social cohesion in informal settlements was measured by how respondents rated the level of community spirit (togetherness): 56.0% of respondents said the community spirit was good (combined total; very good and good), 32.5% reported it was average, and 11.4% reported it was poor (combined total; very poor and poor). Civic engagement as an indicator for assessing social cohesion in informal settlements was examined in the current baseline study by asking about participation in a range of political activities at the grassroots level. The findings indicated that 82.2% of respondents/household members had voted in local government elections, 18.2% had contacted the elected representative, only 4.1% had contacted newspapers, radio or TV to generate interest in a problem, 5.2% had participated in information campaigns (HIV awareness), and 26.0% had participated in a protest.

Among respondents who indicated that they had not voted ($n = 431$), the reasons advanced for not voting included not being a South African citizen (60.1%), the notion that “whether the respondents voted or not it made no difference” (8.8%), did not register (7.0%), fear of political intimidation (4.3%), and “Other” (19.9%). In relation to violence as a reflection of the level of social cohesion, participants were asked whether the protests had led to violence in their settlement, with 44.7% having confirmed that protest had led to violence and destruction, while 48.1% reported that there had been no violence.

Housing was cited by most respondents as the main reason for protesting in all the provinces, with cases of over 60.0%. The majority of respondents who cited housing as the reason for protesting were in KwaZulu-Natal (86.5%), Limpopo (81.3%) and the Eastern Cape (79.1%). After housing, water was second most common reason for protesting, with Mpumalanga (92.1%), Limpopo (74.2%) and the Northern Cape (54.4%) citing it as a reason for protest. Electricity was the third most common reason for protest. The highest proportion of respondents who cited electricity as a problem, was in Limpopo (83.3%), the Northern Cape (69.8%), and Free State (67.1%). A large proportion of cases in Limpopo (71.9%) cited sanitation as a key reason for the protests.

Social exclusion as an indicator of lower levels of social cohesion is measured by establishing the existence of discrimination and the basis of discrimination in a society. In the informal settlements, very few respondents (8.2%) described themselves as being members of a discriminated group. Those who reported discrimination were further asked the basis on which they were discriminated against and three common cases were: tribe/ethnicity (33.2%), unemployment (31.9%), and language (23.9%).

In understanding how households were integrated and involved in the community, respondents were asked how they were involved in resolving problems in their community. The mul-

multiple responses indicated that 87.5% of the cases attended ward meetings, 39.1% spoke to their ward councillor, and 30.9% participated in service delivery protests. The large proportion of cases which cited ward committees as the main avenue for resolving community conflict, suggests that informal residents still have faith in the system. The three main reasons cited for not being interested in participating in resolving the needs of the community were: not having time (23.3%), venues not being suitable (22.5%), and the fact that authorities did not take participation seriously (20.5%). In responding to the question on how likely it was for the community to co-operate and resolve the problems, community leaders provided responses which can be categorised into i) communities coming together to plan how to resolve their challenges, ii) the community acts collectively to resolve challenges and iii) the municipality comes to resolve the challenges in the informal settlements. In some settlements the communities, instead of collectively resolving challenges, simply called the relevant authorities to resolve their challenges, thus exercising their civic duty. What was surprising was that most of the settlements that fell into the category of those where low levels of cohesion existed were in the provinces with predominantly rural areas (Mpumalanga, North West and the Free State), with only one settlement in Gauteng. Thus low levels of social cohesion cannot be said to be a function of the urbanity or rurality of informal settlements but rather of individual settlement characteristics.

The three most important structures that represented the interests and demands of the community were the ward committee (47.7%), political parties (18.7%) and the South African National Civic Organisation (SANCO) (9.0%). Other important structures cited were the residents' associations (6.8%) and church groups (3.8%). The homeless people's federation and trade unions constituted less than 1.0% each (0.5% and 0.4%, respectively).

9.5 Community Participation

The UISP underscores the importance of community participation in all the stages of upgrading. The insider knowledge that communities have of their communities is considered important in the settlement design and the installation of infrastructural services, provision of dwellings, and social facilities in informal settlements. In the baseline study, there were settlements where the participation took specific forms and there were also settlements which reported minimal or no participation.

Informal residents organised and planned on how to resolve the challenges that confronted them. This was despite varying levels of commitment by the residents of the informal settlements. Informal dwellers further noted that although they were able to work together, there was minimal communication with local government. The participation of local communities in development projects was also done through development agencies such as the Johannesburg Development Agency (JDA), an entity of the City of Johannesburg.

To establish the level of community participation in the upgrading of informal settlements, the baseline study asked respondents whether the community had a say in the upgrading process. This was a multiple response question, which meant that one respondent had a chance of choosing more than one option. In this study, the level/type of toilets, level of water services and provision of electricity were the most common upgrading processes in which the community had a say, with rates of 85.6%, 84.3% and 84.8% respectively. Informal dwellers were least involved in making decisions about multipurpose halls (48.1%), building materials (50.4%) and the size of dwellings (59.1%).

Violence is also a factor that affects social cohesion, and in the informal settlements sampled respondents were asked what forms of violence and harassment existed in their communities. Out of 1 229 responses, 25.0% confirmed that there was organised violence, 36.0% indicated there was non-organised violence, and 38.4% reported there was no violence. The different forms of violence (organised and unorganised) pointed to the need for greater security in these areas. Violence increases the vulnerability of informal dwellers, particularly women and children. Areas where violence is endemic are known to the security forces and these are considered “red” (dangerous) zones where even the police dread to venture. The research team had the experience of being attacked by an organised gang in the Western Cape, and that meant that data collection could not proceed in the specific settlement.

9.6 Community Empowerment

The different grassroots organisations had programmes addressing the different dimensions of poverty. The programmes targeted the most pressing needs of informal settlement dwellers such as health, education and care for the sick and elderly, nutrition, and awareness raising. The organisations were functional in the communities and they could be harnessed in the upgrading process to provide support, capacity or even to skill members such as the youth. The local formations that were not mentioned in response to this question and which emerged in discussions with the communities included the resident committees and the ward committees. The resident committees deal with issues related to adequate housing in the informal settlements. The ward committees make decisions regarding the settlements and such decisions range from who is allowed entry into the settlement to how development should take place in the settlement. In embarking on any development in informal settlements, the development agents need to understand the structure of the existing organisations and their function in the informal settlement, and also how such structures can be involved in the upgrading of informal settlements in South Africa.

While a range of structures existed in the informal settlements, participants who responded to the question (n = 1 920) identified ward committees and political parties as the most representative by most participants (47.7% and 18.7% respectively). SANCO and church groups

(3.8%) were also identified as important structures that represent community interests. These findings suggest that residents of informal settlements still have faith in the structures of representative democracy. Instructive as that is, both the quantitative and qualitative findings confirmed that grassroots organisations consistently emerge as representing the interests of communities.

9.7 Stakeholders Critical to the Upgrading of Informal Settlements

In each settlement, the existing Non-Government Organisations (NGOs), Community Based Organisations (CBOs), Faith Based Organisations (FBOs), state departments, civil society, civic representatives and the local authorities are critical to the upgrading of informal settlements. The NGOs, CBOs and FBOs worked with community members to provide support where it was required. These NGOs also seem to have a wider reach among the community members and therefore their perspectives are important in the planning phase of upgrading. Local organisations are vital to the upgrading of informal settlements in South Africa, and as such organisations are reservoirs of social capital necessary in mobilising communities for development. The local organisations help to identify the critical stakeholders that need to be consulted and involved in the upgrading of informal settlements. Some of the local stakeholders might not be readily identifiable and only through the process of stakeholder mapping in the communities could identity be established.

10. ATTITUDES TOWARDS FOREIGNERS

The notion of foreigners in South Africa is a complex and contested one, and the qualitative findings from this baseline study reflected on the issues around defining who is and who is not a foreigner. Community perspectives suggested that continental Africans (Black) are considered to be foreigners. A participant noted that in fact, Africans from places such as Mozambique and Zimbabwe were the ones considered to be foreigners. However, the people from Botswana, Lesotho and Swaziland were not considered to be foreigners because their countries were geographically close to South Africa. One answer might be related to the languages spoken in Swaziland, Lesotho and Botswana (isiSwati, Sesotho, and Setswana), which are recognised as official languages in South Africa. Southern Sotho (Sesotho) and Setswana are similar to the Northern Sotho (Sepedi), while isiSwati is similar to Zulu and Xhosa (Nguni languages). While the Ndebele language of Zimbabwe is similar to the Ndebele and Zulu languages of South Africa, it remains a paradox why Zimbabwean nationals are considered foreigners. We argue that the definition and distinctions of who is and is not a foreigner from the perspective of informal residents is a reflection of how they make sense of the different African nationals in the country. The distinctions between “local foreigners” and “foreign foreigners” is also a reflection of how informal settlement dwellers make sense of the geo-political divide within the region.

Friendships between South Africans and foreigners

The majority of South African respondents (60.1%) indicated that they didn't have any friends who

were foreigners. This was somewhat lower than foreigners (66.8%) who, by comparison, indicated that they didn't have any friends who were South African. The data, therefore, showed that an overwhelming majority of both South Africans and foreigners did not engage in friendships and this had a risk of lesser integration. When respondents were asked whether they thought that the relationship between locals and foreigners had improved, 25.5% indicated that it had greatly improved even though the respondents perceived the number of foreigners as having greatly increased over several years (37.6%). It can therefore be said that there are factors that need to be identified which disconnect foreigners or citizens towards one another. According to this study, this can be linked to their perception about what they believed the other was taking away from them (for instance jobs, houses). When respondents were asked to rate the attitude of people in their settlement towards foreigners (from very friendly to very hostile), the majority of respondents indicated that attitudes of people toward foreigners was "friendly" (48.0%), compared to those who indicated that the attitudes were "neither friendly nor hostile" (28.2%), and those that indicated the attitudes were "hostile" (7.3%).

Informal residents' attitudes towards foreigners

The attitudes of informal settlement dwellers towards foreigners are complex and hard to classify. The descriptions of these attitudes by the informal residents suggest that a range of attitudes exist and these vary by settlement and also by province. What was however evident was that, within the same settlement and province, a range of attitudes existed, and therefore it was difficult to say that specific attitudes were confined to certain settlements or provinces.

Positive attitudes towards foreigners

Certain aspects of attitudes towards foreigners could be described as positive, and the notion of positive attitudes towards foreigners was based on the language/terms used in describing the relationship between the local population in informal settlements and the immigrants who also lived in these communities. Study participants in different informal settlements used terms such as "good" "give", "they don't bother anyone", "our brothers", "people just like us", "skilled", "kind", "our brothers-in-law", "our children", "our grandchildren", "we are all Africans". These terms provided an idea that positive attitudes towards foreigners abound in informal settlements.

From the extracts, foreigners were depicted as kind and caring to the people whose help was asked for, when necessary. The kindness of foreigners thus endeared them to the local people with whom they interacted. As a result, study participants noted that they did not have any concerns with the immigrants. More revealing was how the residents of informal settlements described the foreigners: "they are brothers", "grandchildren", "in-laws" and "they are God's people". The kinship ties that informal settlement residents have had with the African immigrants suggested that on an individual level, both local people and foreigners interacted and the relationships were endearing. In fact, the established kinship had changed the attitudes of informal residents who now considered foreigners as part of their family networks.

Beyond kinship ties, there was an understanding that both local and immigrant communities had a common African identity which encompassed and defined both citizens and foreigners. The self-identification of informal residents as Africans, just as the immigrants situated them in the broader African continent, implied a shared past, shared values and the recognition of a shared destiny on the continent. The notion of a common African identity thus erased the differences that divided informal settlement residents and foreigners (African immigrants) along national boundaries.

The notion of a shared African identity thus included those encompassed by such an identity and simultaneously excluded those outside the shared African identity. Such understandings of identity suggested that while informal settlements have been considered to be spaces of exclusion, they can be spaces of inclusion where the “others” excluded from the mainstream economy and its workings, finds a shared identity not based on ethnicity or nationality but on the shared experiences of living in spaces of exclusion. The notion of a shared identity in which all people are “God’s people” pointed to the recognition that beyond political, ethnic or national boundaries the divine, spiritual element ultimately explained how informal residents perceived their identity. Those living in informal settlements were concerned not about ethnic or national identity politics but their suffering and relegation to the margins of the affluent society. The positive attitudes towards foreigners in informal settlements help to dispel the generalisations that informal settlement residents are xenophobic.

Negative attitudes toward foreigners

Worth noting was the fact some discussants expressed more than one view, and, in fact, both positive and negative views were expressed in the same focus groups and by the same participants. What was valuable was that when the negative views were expressed, participants proceeded to explain their perceptions. Thus the same individuals who expressed negative attitudes would in the same sentence also express positive attitudes. In some instances it was not clear what the attitudes of the individuals and communities were because participants would merely express shock and dismay at the attacks against foreign nationals and carefully reiterated that such attacks were not happening in their own communities but rather in other places far from their own communities. The notion, therefore, that xenophobia happened out there but not in their own community might have been an attempt for the communities to distance themselves from the acts of violence that were reported in the informal settlements.

The negative perceptions about foreigners in these extracts are related to the role of African immigrants in the economy. The immigrants were perceived to resist employing locals in their shops. The underlying connotation was that they were insular and kept to themselves while using township space and customers to build their wealth. Also evident was the fact that foreigners were perceived as being so competitive in business that they forced local traders out of business. The foreign traders were portrayed as only being interested in profit. Foreigners’ workers were also considered to be an obstacle for collective bargaining. They were viewed as accepting low wages, suspected of

doing things in unorthodox ways that locals do not understand, and which resulted in locals being dismissed from work. Immigrants were portrayed as dominating, taking charge and wanting to “rule”. Immigrants were perceived as not co-operating with local workers in demanding higher wages. The view that immigrant workers were not involved in collective bargaining and that they remained working when locals were dismissed, resulted in immigrants being perceived negatively.

In terms of perceptions by local South Africans on whether foreigners benefited from South African recourses as an indicator of how attitudes were manifested, the quantitative data indicated that the majority of respondents were conflicted about whether foreigners benefited from RDP houses, or they did not contribute to the economy, or were stealing our jobs, or had legal documentation, or were involved in illegal activities, or that they should be sent to their countries of origin. For example, the percent of the respondents who disagreed that foreigners benefited from RDP houses was 29.5%, with 12.9% strongly disagreeing with the statement. However, 21.1% of the respondents agreed with the statement. In addition, 21.0% of the respondents agreed with the statement that migrants contributed to the economy, compared to 22.8% of the respondents who did not agree with the statement. With regards to the statement that foreigners were stealing local jobs, 25.6% of the respondents disagreed. With regards to whether foreigners were involved in illegal activities, 21.4% of the respondents disagreed and 18.3% of respondents agreed with the statement.

Manifestation of attitudes towards foreigners

There was a difference in how quantitative respondents addressed the issue of how attitudes were manifested. In the quantitative data, respondents disagreed that derogatory terms were used by locals to refer to migrants as *makwerekwere*, for example, that propaganda was used to address migration issues, that hate speech was used against foreigners, that violence was used against foreigners, that migrant shops and businesses that belonged to foreigners were looted and destroyed. The majority of respondents (68.6%) reported that the attitude towards foreigners did not manifest through the use of derogatory terms such as referring to foreigners as *makwerekwere*. Furthermore, 82.2% of the respondents reported that the attitude toward foreigners was not manifested through propaganda against foreigners. Those who reported that the attitude toward foreigners was not manifested through hate speech against foreigner constituted 79.8%. When respondents were asked whether violence against foreigners was manifested, 82.6% said no and when asked if looting and destruction of shops and businesses that belonged to foreigners were also common manifestations of attitudes, 79.0% said no. In fact, the information shared in the quantitative data deepened the analysis of the qualitative data and revealed nuances in how attitudes were manifested. The most glaring manifestation of the attitudes towards foreigners was the resistance by the locals to refer to African immigrants by their names and the widespread tendency to derogatory labels such as *makwerekwere* – widely used in the literature.

The hostile and prejudicial attitudes towards foreigners were manifested in attacks directed at them in the informal settlements and elsewhere. The general perception was that violence directed against

immigrants happened in other places; in Gauteng and Durban. When violence broke out in Durban, the same kind of violence broke out in Zamani informal settlement but the residents reported being able to quickly contain it. In other informal settlements in KZN, the study participants were of the view that violence against African immigrants was happening in other places but not in their own settlements. The hostility and violence directed at African immigrants was due to their perceived vulnerability – they are ‘illegal’ and the perceived illegality and reporting crimes against them to the police was similar to exposing their illegality.

The findings of this baseline study do not reflect the voices of the immigrants to be able to confidently claim a comprehensive understanding of the manifestation of attitudes towards the immigrants. Further research including the voices of the immigrants is required to understand how attitudes towards them are manifested.

Perceptions of locals towards the role of foreigners in South Africa

Informal settlement dwellers reported that foreigners played an important economic role in their communities. The low prices of goods in informal settlements helped the residents get by on meagre resources. The notion that the informal residents needed the foreigners because of the low prices points to the symbiotic relationship between the foreign traders and the local population in the informal settlements. Foreigners were considered to possess skills that could be transferred to the local population if both the locals and foreigners worked collaboratively.

11. RECOMMENDATIONS

The recommendations from this study relate to the status of informal settlements targeted for upgrading, the theory of change and areas for further research:

1. The UISP, as it currently stands, needs to be revised to address existing gaps such as lack of a clearly articulated vision, mission and the end goals of the programme.
2. The baseline study partially assessed the design of the UISP. Policy/programme design assessment should ideally be conducted at least two years after implementation of the programme. The current attempt at assessing the design of the UISP occurred ten years after its implementation and in this baseline study the design assessment was only partial. This baseline assessment also calls for a comprehensive design assessment of the UISP.
3. The UISP needs to include smart objectives, intended outputs and outcomes based on agreed upon norms and standards of informal settlement upgrading. There is a need for specific UISP targets to ensure that the envisaged change is measureable and that specific timelines for achieving the envisaged change are also specified in the programme.

4. Data on informal settlements in some instances does not exist, or it is inconsistent and inaccurate. The labelling of RDP projects as informal settlements distorts the available information; the sharing of names among informal settlements presents counting and tracing problems. There is a need to ensure that:
 - a. Municipalities have a record of all informal settlements within their jurisdiction.
 - b. The informal settlements are clearly identified with unique names to avoid mis-counting.
 - c. Data related to key variables on informal settlements in each municipality is collected.
5. It is recommended that the National Department of Human Settlements (DHS) should:
 - a. Create a template for the information required on each informal settlement so that the information collected across municipalities and provinces is consistent to create a national database.
 - b. Use GIS teams from the DHS to verify the data on informal settlements to ensure that the information in the database of informal settlements is always up-to-date.
 - c. Consider that while the conceptual definition of an informal settlement is clear from the UN definitions and the UISP, the size is not clear. The need for scope therefore arises from the fact that settlements that had less than 50 households were left out of the sample for the study. There is a need for both municipalities and the DHS to clarify at what point a settlement qualifies to be considered an informal settlement eligible for upgrading.
6. With regard to future impact evaluations, the baseline assessment developed a wide range of indicators based on the UISP and established the status of informal settlements before upgrading. The same indicators need to be used for establishing the effectiveness and impact of upgrading the sampled informal settlements:
 - a. With such a large number ($n=78$) of informal settlements where baseline data is available, the DHS can employ the experimental design evaluation where some settlements are used as treatment and controls in assessing the impact of upgrading the sampled informal settlements.
 - b. The indicators developed need to be utilised in the impact evaluation to determine the level of change that is attributable to upgrading in general, and the UISP in particular.
7. The magnitude and levels of deprivation in informal settlements suggest that:
 - a. The DHS needs to formulate a policy that addresses growth of informal settlements and their upgrading in South Africa.
 - b. The Treasury/DHS needs to increase funding for the UISP, in particular, and to municipalities to help deal with the challenges in informal settlements, and improve the quality of life of residents who live there.

8. The demographic profile of informal settlement residents who are predominantly African, female and young (below 35 years) has implications for the disaggregation of national data into key variables such as race, gender and age. Such a disaggregation is important in the design of appropriate interventions and the effective targeting of such interventions in order to have the greatest impact in addressing the significant challenges faced by informal settlement residents.
9. Most informal dwellers are long-term residents in such areas with up to three generations living in the informal settlements. Lack of and inadequate services in the settlements puts residents at risk of illness and injury.
 - a. Municipalities need to provide communities with adequate infrastructural services to ensure health and safety.
 - b. There is a need to employ a decongestion policy during upgrading to allow for decent structures, spaces and services to be provided to the targeted (in situ) households.
10. Informal dwellers share sites and dwellings with tenants and sub-tenants. The UISP needs to clearly outline the processes for ensuring that such residents are also provided for during the upgrading and consolidation of top structures.
11. The fact that government was identified as the main funder for adequate housing points to the need to create awareness about other sources of funding that households can access to reduce the dependency on the housing subsidy programme. The DHS in partnership with the National Housing Finance Corporation and retail banks need to provide financial education to ensure that households are aware of the housing finance options available. In partnership with the National Home Builders Registration Council (NHBRC), the DHS also needs to create awareness about the available range of affordable housing construction technologies that can shelter households at a much lower cost than the conventional “brick and mortar” approach to housing provision
12. The revised UISP needs to effectively involve the relevant stakeholders in informal settlements. These include grassroots organisations that work with informal dwellers, private developers involved in implementing the UISP, the different tiers of government that have specific roles such as financing (DHS), provincial DHS (accrediting municipalities to implement UISP), national DHS (custodian of human settlement policies and programmes), agencies such as the Housing Development Agency (HDA), and the NHBRC that regulate building norms and standards.

13. The lack of knowledge about municipal by-laws and whether these were applicable to the informal settlements points to the existence of an information gap among residents. Municipalities must ensure that informal residents within their jurisdiction know and understand the municipal by-laws and the relevance of these to the residents. Such engagements will also contribute to building better relationships with informal dwellers.
14. Although informal dwellers acknowledged that they had a recognised form of tenure, they had no proof of their tenure status. The regularisation of tenure for informal dwellers needs to be completed on a progressive basis to ensure that dwellers have security and that their sites are not immediately tradable to people with a higher income. An incremental approach to tenure and documentation that legitimises security of tenure for informal residents is required.
15. Lack of documentation that proves tenure makes informal residents vulnerable to eviction by individuals or institutions that might lay claim to their land. Where municipalities have granted tenure, whether in the form of permission to occupy the land or other such proof, residents need to be issued with the necessary documentation that proves their tenure in order to contribute to a better sense of security and safety.
16. There is a need for the UISP to also consider security of tenure of informal dwellers living on land under traditional authority.
17. The existence of different forms of land ownership in the same province suggested that, if upgrading is to occur, municipalities would need to negotiate with different land owners before any development can be implemented.
18. In terms of identifying land suitable for settlement, the “one-size-fits-all” approach cannot be adopted in the upgrading of informal settlements as the conditions in each settlement are different and/or unique. Settlement specific conditions need to be considered in establishing whether a settlement is suitable for upgrading or relocation. Where informal settlements are located on farms, for example in KZN, the local government needs to establish eco-villages to ensure that residents have a source of livelihood through farming.
19. Confirmation of land ownership is not an adequate criterion on which upgrading can be decided upon and the following is necessary:
 - a. There is a need to establish the suitability of the land for human settlement, which is a function of the NHBRC.
 - b. Local government together with the NHBRC should investigate the geo-technical conditions in informal settlements targeted for upgrading to avoid disasters in

- areas that are characterised by shale and dolomite.
- c. Where reinforced strip foundations for dwellings are required, these should be approved by the NHBRC.
 - d. Where relocations are required, these should be expedited through the assistance of the Housing Development Agency which needs to identify alternative land for relocation. The latter should be done in a way that does not destroy the social networks and cohesion of communities.
 - e. Informal settlements located in areas prone to flooding require that the drainage system is functional and that water is diverted away from the dwellings.
 - f. Informal settlements located in areas prone to mudslides need to be relocated to avoid the loss of life and injury.
20. Informal settlements experience a range of environmental challenges ranging from strong winds that destroy dwellings and furniture, littering, unhealthy living conditions due to being located near or on dumping sites, unstable soil conditions due to being located on mine dumps, vulnerability as a result of being located on flood plains and areas prone to mudslides. In such cases, the following are recommended:
- a. Littering should be addressed through the provision of waste disposal bins at strategic points in the informal settlements.
 - b. However, a more sustainable solution would be to accompany the provision of waste disposal facilities with an environmental education programme to ensure that residents understand the importance of keeping their environment clean and the link to their general health and wellbeing.
21. The majority of informal dwellers do not borrow money to improve their dwellings. The only improvements informal residents make to their dwellings (e.g. roofing) are those critical to their health and safety. The inability of informal dwellers to make any improvements to their dwellings suggests that there is a need for local government to assist residents with building materials to ensure their personal and environmental health, safety and security. Building technologies that foster job creation and labour-intensive building should be encouraged. Construction methods that allow non-destructive and expansion techniques are recommended so that the changing household requirements can be taken into consideration and provide flexible housing.
22. Informal settlements represent high levels of deprivation and pockets of poverty on the fringes of affluent urban areas with limited basic services, and therefore:
- a. The upgrading process should put greater emphasis on ensuring that informal dwellers have access to basic services such as water, sanitation and electricity and hence reduce their vulnerabilities to diseases and conditions of poverty. This needs to be supported through norms and standards and closer monitoring of

- upgrading plans.
- b. The provision of infrastructural services to informal dwellers needs to take into account the densities and distances between the dwellings as this can make a difference in reducing gender-based violence targeted at women, and also help reduce illnesses related to the lack of and poor sanitation.
23. The UISP identifies in situ upgrading as the option for most settlements. There is a need to consider physical and environmental challenges and the density of informal settlements in determining the upgrading options. In situ upgrading cannot be implemented in settlements located on mine dumps or areas where waste from cities is dumped. In such instances, relocation would be the more viable option. Informal settlement upgrade programmes should consider all factors related to a community before embarking on upgrade. These factors include proximity to services and schools, work opportunities, residents' skills and sustainable development.
24. With regards to the health, food and nutrition status of informal settlements residents, the following is recommended:
- a. For informal settlements that are far away (more than 5 km) from the nearest health facility, the Department of Health should establish points for regular mobile clinic visits and/or increase community outreach programmes by the Ward Based Community Outreach Teams.
 - b. The Department of Education through its school health programme should not only provide supplementary feeding but also screen children for all basic health ailments, and include health education.
 - c. The Department of Social Development needs to intensify its outreach activities in informal areas so as to identify households that are eligible for government support and make referrals in cases that require health or police interventions.
 - d. Depending on the location of the informal settlement and the availability of land, the Department of Agriculture should introduce the idea of community food gardens to enhance food availability and accessibility to informal dwellers.
25. Informal dwellers have access to bonding social capital. Bonding social capital is valuable in ensuring that informal residents have a sense of connectedness to those among whom they live. Bridging social capital in informal settlements is valuable in ensuring that residents are connected to resources within the settlement. However, the connection to resources outside the informal settlements remains limited. There is a need to link informal dwellers to more valuable forms of bridging social capital.
26. Linking social capital in informal settlements is limited. The linking institutions accessible to informal settlement dwellers are state-related and specifically designed to

support upgrading. Beyond this, informal dwellers have little social capital that can unlock opportunities beyond the informal settlement. There is a need to link informal settlement residents to more non-state institutions for sustainable development in their contexts.

27. The current UISP seems to be tightly aligned with the macroeconomic policies (neo-liberal free market) but not with the national development plans or agenda, which is more developmental. Communities need state support before they can begin to help themselves. There is a need to create linkages with the relevant national development policies and programmes to enhance the potential impact of upgrading of informal settlements as envisaged in the underlying theory of change and programme logic.
28. DHS should establish multi-agency working groups to deal with issues of integration and social solidarity/cohesion among foreign national and local South Africans as a preventive measure to potential scapegoating and xenophobic violence. This should include diversity and attitudinal training on xenophobia as well as dissemination of information to informal settlement dwellers about the foreign nationals' contributions to the community. The key stakeholders in such an agency would include the immigrants, NGOs that work with immigrant populations, local leaders, the United Nations High Commission for Refugees (UNHCR), local and national government led by the Department of Home Affairs, among other stakeholders.
29. The provision of power (electricity/solar/wind) is critical in addressing the perennial winter fires which are often the result of using candles for lighting and paraffin stoves for space heating. The provision of electricity/solar/wind power is not just a function of local government. The Department of Energy needs to devise solutions to ensure that solar power is harnessed for use in informal settlements where it can have the greatest impact in saving lives while also providing a clean and affordable source of energy. How solar power is implemented in informal settlements and other resource-poor settings should be a function of collaborative efforts between the Departments of Energy, and DHS.
30. The increase in crime in informal settlements has not been accompanied by a similar increase in police response, which might be explained by the conditions in the informal settlements. Where informal settlements exist, there is a need for local government to ensure that paths between the dwellings in informal settlements are wide enough for emergency vehicles to pass through.
31. The level and risk of crime is generally higher in informal settlements because of the

population densities, poverty and lack of basic services such as street lighting and shared water and sanitation facilities. Introducing basic services and supporting community initiatives for reducing and reporting crime, will assist in reducing crime and the incidence of mob-justice.

32. Much of the borrowing informal settlement residents seek is for accessing consumer goods, including food. Informal settlements represent the areas of highest levels of deprivation within cities and towns. Local government together with NGOs need to set up food and nutrition support programmes to ensure that no one in informal settlements is without food, which is a basic human right.
33. A range of networks and groupings exists in informal settlements and these should be identified in each informal settlement targeted for upgrading in order to reach as many residents as possible for participation in the upgrading process and ensure sustainability in the settlement.
34. Unemployment rates are high in informal settlements and the rate is higher for women compared to men. There is a need for the state to create employment opportunities that target informal dwellers, and women in particular.
35. The Expanded Public Works Programme (EPWP) and (Community Work Programme) CWP seem to have minimal impact on employment in informal settlements. Therefore, the focus should rather be on constructing dwellings using building technologies that are labour-intensive in order to create jobs and empower communities.
36. The participation of informal dwellers in ward committees represents a partial element of participation in making decisions regarding their settlements. It is important to ensure the participation of communities in the whole value chain of informal settlement upgrading, as doing so would ensure that dwellers own both the process and the products of upgrading thus contributing to their empowerment as well as the sustainability of the resulting developments.

ANNEXURE 1a

DETAILED METHODOLOGY

This was a cross-sectional baseline study that employed both quantitative and qualitative approaches because of its complexity and multi-components. The quantitative methods included a household survey conducted using a structured questionnaire and an initial environmental scanning of the selected informal settlements. The qualitative component included documents review, focus group discussions and key informant interviews that were conducted using a semi-structured FGD guide and key informant interview guide. The study was conducted in all nine provinces of South Africa, with informal settlements (and by extension households) that were targeted for upgrading as the target population.

Description Box

“Informal Settlements Targeted for Upgrading” means informal settlements that were included in business plans of metros and local municipalities as planned for upgrading based on the lists provided by provinces, as well as metros in 2014.

1.1 Documents and literature review

A documents and literature review was conducted to systematically establish the international context, the national housing policy trajectory, programmatic and general context of the housing sector in South Africa and more specifically the UISP. The review was important in establishing the Theory of Change for the UISP, and it is this theory of change that guided the baseline study in terms of critical results areas, indicators, and the underlying assumptions that explained the programme logic and pathways.

1.2 Data preparation for sampling

The data preparation begun with the initial sampling frame provided together with the Terms of Reference (TOR). Since the initial sampling frame provided by DHS had gaps and was inconsistent with the fields it provided, it was eventually discarded and a list of informal settlements from the different provinces was sourced by DHS. The second data set was also problematic as the information was inconsistent: some provinces provided lists of projects and planned units while others provided informal settlements; still others provided information for specific municipalities rather than the whole province. This data set was deemed to be inconsistent and incomplete. The HSRC team went to the NUSP offices after recommendation from the DHS team but could not get the geocoded informal settlements that could be used for sampling. The DHS & DPME team went to provinces to establish the correct list. However, this exercise did not yield satisfying results. Although the third dataset (different spread sheets from each province in 2014) was not adequate, it was nevertheless usable and other datasets were used to supplement it.

In each province, the following fields were extracted from these spreadsheets if they existed: province name, district name, municipality name, informal settlement name, X and Y coordinates and number of households. In cases where the name of the province or district or municipality was not provided, it was added, if possible. The data was kept in separate files for each province, and thereafter cleaning was done based on the informal settlement name. Records containing the same name, e.g. Thembalethu Zone 9, Kanana Ext 11 or Maquassi Hills Ext 13, were deleted. This was done to ensure that the same settlement does not get selected more than once in the sample. In North West, projects span across settlements and since there was no information about which settlements were included, the project names were used as was provided. After cleaning the data from all provinces, the total number of informal settlements targeted for upgrading for the whole country was 1 185.

1.3 Sampling of Informal Settlements Targeted for Upgrading

Stratified random sampling was applied to obtain a national representative sample of informal settlements targeted for upgrading. The informal settlements were stratified into provinces, and the informal settlements were randomly selected for each strata (province) using the SPSS software. It is important to note that the sample size is a function of the number of settlements targeted per province and not of the total number of informal settlements in any province. Therefore, there are more settlements selected in the Northern Cape than in Mpumalanga, because there were more settlements targeted for upgrading in the Northern Cape at the time the sample was selected (Table A1.1). The total number of informal settlements targeted for upgrading was 1 185 ($n = 1\ 185$) and as proposed in the HSRC technical offer, a 10% sample size equated to 119 informal settlements ($n = 119$). In order to obtain proportional representation (PR) by province, the following formula was used:

$$(PR = \frac{\text{Provincial } N}{\text{Total } N} \times \text{Sample size})$$

Table A1.1: Total number of informal settlements (N) and selected settlements (n) per province

Province	N	n
Eastern Cape	180	18
Free State	74	7
Gauteng	408	41
KwaZulu-Natal	80	8
Limpopo	34	3
Mpumalanga	14	2
North West	70	7
Northern Cape	69	7
Western Cape	256	26
South Africa	1185	119

1.4 Geo-coding and defining outer boundaries for informal settlements

In instances where X and Y coordinates were not provided for settlements, the HSRC team called local municipalities to request information about the exact location of such informal settlements. All selected informal settlements were then geo-coded, and the defined boundaries of informal settle-

ments were drawn, using World Imagery and Google Earth, as well as information from local municipalities, such as street names and directions about the extent of the informal settlement. Stats SA sub-place boundaries data were used where possible. Even the NUSP list for the Northern Cape informal settlements did not have coordinates, hence local municipalities were also called to get the exact location of places. Some municipalities, such as City of Johannesburg, Ekurhuleni and City of Tshwane, provided data on informal settlements in a shapefile format. Therefore no boundary delineations were required.

1.5 Household sampling

The following formula was used to determine the appropriate sample size for households for this baseline study (Naing et al, 2006; Suresh & Chandrashekara, 2012).

$$N = \frac{Z^2 \cdot P(1-p) \cdot D}{E^2}$$

In this study, a 2% margin of error was used, together with a 95% confidence level, therefore $Z_{\alpha/2}$ is 1.96. For the design effect (D), 1 is usually used for simple random sampling but in this study a value of 2 was used because stratified random sampling was employed. The value of P is normally taken from previous studies using a similar population, however, a P of 50% was used as the prevalence or proportion for some of the indicators were not known or found in the literature. The incidence of diarrhoea was, for example, 2% in children under the age of five years (Stats SA, 2010). To extrapolate this figure to the total population, would rely on gross assumptions and was therefore not considered as an indicator. In addition, the P of 50% is also a conservative estimate. This resulted in a sample size of 4 802.

This sample size was further adjusted to account for non-responses as well as missing data (degree of attrition). This was adjusted using the following formula:

$$N = \frac{n}{1-q}$$

Where N is the final adjusted sample size and n is sample size while q is the expected proportion of non-response or attrition. A non-response rate of 10% was assumed. The final adjusted sample size for this study was therefore 5 336 households across the country. This number 5 336 was divided by the 119 informal settlements to get a fixed number of households to be visited in each informal settlement. This resulted in 44.8 households and was rounded to 45. Therefore, a random sample of 45 households was selected from each of the 119 informal settlements targeted for upgrading and this yielded an overall sample of 5 355 households. An additional 45 households were also sampled from each of the 11 mining areas, hence 495 households. The overall households to be visited in this baseline study were 5 850 from the 130 settlements. However, not all sampled settlements were visited due to time and budgetary constraints, as well as service delivery protests. Hence, the fieldwork team managed to visit 78 settlements and 3 330 households across the country.

The reasons behind using a fixed number opposed to proportion to size in the selection of the visiting points were; firstly, sizes of informal settlements varied significantly, i.e. some informal settlements had more than 3 000 households while others had less than 100 households. Therefore, smaller informal settlements would have fewer households to be visited which might not be sufficient for the purpose of monitoring and evaluation in subsequent years. Furthermore, the decision was also based on the 23 October 2014 sampling workshop discussion that recommended that a minimum of 30 households should be visited to provide higher chances of obtaining enough households during the second phase (after 3 to 5 years when the impact evaluation study will be conducted). Secondly, if the proportion to size or 10% sample of households approach was utilised, informal settlements with a large number of households would automatically have a large number of households selected for interviewing. In cases where there were more than one household in a selected visiting point, the Kish grid was used to select the household to be visited during fieldwork (Kish, 1965). For future impact evaluations, household locations were geocoded during the survey and where such information was not captured, it can be supplemented by contact telephone numbers. The questionnaire collected information on the contact details of the household head, as well as secondary and tertiary contact names and numbers.

1.6 Record of households

After defining the outer boundaries for selected informal settlements as indicated earlier, the dwelling frame of Statistics South Africa (Stats SA) and Eskom household data were used to obtain the total number of households in each informal settlement. Where none of the datasets had any records for households, the HSRC team manually digitised the household locations using World Imagery and Google Earth images. Because the two data sources are approximately two years old, it was expected that there might be differences between the data and the situation on the ground. This is due to the very nature of informal settlements which can be established or disappear in the very short time.

Table A1.2 shows the number of households in each of the visited informal settlements across the country. The table has two columns with household counts: one with data provided by DHS and one containing counts from HSRC. The DHS count refers to the number of households in a settlement that is targeted for upgrading and might not be the same as the total of all households in the settlement. The HSRC counts were done using satellite imagery. The two columns differ from each other because firstly, not all households in a settlement will necessarily be upgraded. Secondly, informal settlements change all the time and neither of the counts might reflect reality on the ground. Settlements with no household count for those targeted for upgrading are empty in the DHS column. The HSRC household count was to be used for post-study weighting of the main fieldwork results.

Table A1.2: Household counts in sampled informal settlements

Province	Informal settlement	Municipality	DHS HH	HSRC HH
Eastern Cape	Amalinda Forest	Buffalo City		491
Eastern Cape	Dacawa (Mdantsane Zone 18)	Buffalo City		237
Eastern Cape	Ford & Msimango	Buffalo City	2500	1391
Eastern Cape	Joe Slovo Extention	Nelson Mandela Bay		191
Eastern Cape	Kyga/Greenbushes	Nelson Mandela Bay		246
Eastern Cape	Loerie	Kouga		49
Eastern Cape	Middle/Blikkiesdorp	Nelson Mandela Bay		467
Eastern Cape	Qaqawuli	Nelson Mandela Bay		1077
Eastern Cape	Walmer Q	Nelson Mandela Bay		908
Eastern Cape	Khayamnandi	Nelson Mandela Bay		200
Free State	Block A	Moqhaka	44	46
Free State	DND	Matjhabeng	88	59
Free State	MK Square	Mangaung	490	57
Free State	Phokeng & Kgotha	Matjhabeng		385
Free State	Selossha Ext. 14 (Bultfontein 1)	Mangaung		598
Free State	Tshiamo D	Maluti-a-phofung	540	723
Free State	Unit 3	Matjhabeng	88	162
Gauteng	Chris Hani Ext.4	City of Johannesburg		668
Gauteng	Dark City	City of Johannesburg		509
Gauteng	Dark City	City of Johannesburg		509
Gauteng	Diepsloot West Ext.6	City of Johannesburg		589
Gauteng	Drieziek Ext.3	City of Johannesburg		8275
Gauteng	Dumping Site	Randfontein	116	741
Gauteng	Freedom Square	Ekurhuleni		1489
Gauteng	Ivory Park - Zone 1	City of Johannesburg		682
Gauteng	Kopanong Ext 1	City of Tshwane		348
Gauteng	Kudube Zone 5	City of Tshwane		949
Gauteng	Madelakufa 2 (Isekelo)	Ekurhuleni		259
Gauteng	Mafelandawonye 3	City of Johannesburg		692
Gauteng	Mayfield Ext 1 (Mangosotho/Zenzele)	Ekurhuleni		6769
Gauteng	New Eersterus Proper	City of Tshwane		1699
Gauteng	New Eersterus X2	City of Tshwane		1421
Gauteng	Orlando Park (Not Coalyard)	City of Johannesburg		198
Gauteng	Plot 45 Pienaarspoort	City of Tshwane		143
Gauteng	Rethabiseng	City of Tshwane		553
Gauteng	Soshanguve KK 2	City of Tshwane		236
Gauteng	Stinkwater X4	City of Tshwane		1359
Gauteng	Thintwa/Emalahleni	Ekurhuleni		279
Gauteng	Tokyo Sexwale (Reiger Park Ext 9)	Ekurhuleni		1788
Gauteng	Tsakane Ext 19 overflow	Ekurhuleni		158
Gauteng	Tswaiing Village	City of Tshwane		597
Gauteng	Wierda Caravan Park	Ekurhuleni		214

KwaZulu-Natal	Mazakhele Phase 2	UMuziwabantu		1043
KwaZulu-Natal	Babanango Phase 3	Ulundi		653
KwaZulu-Natal	Cato Crest In situ Upgrade	eThekwini	1500	3282
KwaZulu-Natal	Fairleigh Siyahlala	Newcastle	1300	1321
KwaZulu-Natal	Poortjie	Mkhambathini	481	62
KwaZulu-Natal	Sibongile Buffer strip (Muzomusha)	Endumeni	222	347
KwaZulu-Natal	Umlazi infill phase 1 Part 4	eThekwini	3526	48
KwaZulu-Natal	Zamani 2A	eThekwini	1171	359
Limpopo	Mohlakaneng Ext 106	Polokwane		2275
Limpopo	Roosenekal B	Elias Motsoaledi	150	79
Limpopo	Vaalwater Ext 3	Modimolle	500	494
Mpumalanga	Khayelisha/Kwazanele	Msukaligwa	500	72
Mpumalanga	Matsulu B	Mbombela	250	685
North West	Bokamoso 4	Rustenburg		1053
North West	Glaudina New	Mamusa	40	486
North West	Kanana Ext 11	City of Matlosana		891
North West	Kanana Ext 13	Matlosana	133	2692
North West	Mafikeng PHP	Mafikeng		249
North West	Migdol	Mamusa	26	629
North West	Oukasie Ext 5	Madibeng	82	371
Northern Cape	7de Laan	Dikgatlong		163
Northern Cape	Augrabies	Kai !Garib		183
Northern Cape	Campbell	Siyancuma		128
Northern Cape	Louisvale	//KharaHais		314
Northern Cape	Rainbow Valley	Siyancuma	513	559
Northern Cape	Skerpdraai	Gamagara	300	321
Northern Cape	Transit Camp	Sol Plaatje	323	821
Western Cape	Asazani	Overstrand		559
Western Cape	Atlantis Witsand	City of Cape Town		1468
Western Cape	Chester Williams	Drakenstein		69
Western Cape	Kingston Town	Drakenstein		52
Western Cape	Kudu Street	Drakenstein		62
Western Cape	Nyanga Upgrade	City of Cape Town		162
Western Cape	Overhills	Overstrand		329
Free State	Nyakallong*	Matjhabeng		200
Gauteng	Bekkersdal Afghanistan section*	Westonaria		511
Limpopo	Roosenekal*	Elias Motsoaledi		109

*Mining settlements

1.7 Data management and analysis

1.7.1 Data collection instruments

The design of the study instruments used in collecting the data during fieldwork was informed by the questions set in the terms of reference. The research team constructed questions based on the objectives of the UISP. Thus the study instruments covered twelve modules to ensure that the domains of assessment aligned with the objectives of the UISP. In addition,

the wave of xenophobic violence a few months before the fieldwork necessitated the inclusion of a module to explore the attitudes of informal settlement dwellers towards foreigners and how the residents thought that the challenges of violence and intolerance to differences in their communities can be resolved. The fieldwork covered twelve modules which were included in the household questionnaire (Annexure 4) instruments as follows: Household roster; Education; Economic activity; Health, nutrition and food security; Borrowing, credit and savings; Microenterprises; Housing and tenure; Infrastructure and service delivery; Residential satisfaction; Social capital, networks, participation and empowerment; Crime and safety and; Attitudes towards foreigners

The instruments used in collecting empirical data were household questionnaires, key informant interviews (KII) with municipalities and community leaders, and focus group discussions (FGD) with residents of informal settlements. Municipal officials were those identified by the departments of human settlements in each municipality. The officials are referred to as such because once the rank is identified in this report it amounts to disclosing their actual identity and this goes against ethical conduct of research. The community leaders were identified through the meetings that the teams held with the community representatives before the commencement of data collection in each informal settlement. In each settlement selected for FGDs, the participants were recruited with the help of the gatekeepers. In qualitative research, gatekeepers are individuals that are considered to be knowledgeable about the research setting, are known and trusted by study participants and who can negotiate access to the research site (Devers & Frankel, 2000). The research team would on arrival explain the type of FGD (male or female) required, the number of participants and the age range of the participants required for the discussion to take place. Using the eligibility criteria identified in the study protocol FGDs were conducted in selected informal settlements across the nine provinces.

The data collection instruments were tested during the pilot of this study which was conducted in April 2015. The content of the data collection instruments was validated against the TORs. The second phase of validation entailed checking the content of the data collection against the objectives of the UISP. All the data collection instruments were presented to and approved by the DHS and DPME teams. After this process, the pilot study was conducted in two settlements, urban and rural, to test the instruments. The pilot results were also presented to the DHS and DPME team. The approved tools were refined and used in the training of the fieldworkers.

1.7.2 Data collection

Data collection took place between June and September 2015. The overall target for this baseline study was to visit 5 850 households in the 130 selected settlements across the country. However, not all sampled settlements were visited due to time and budgetary con-

straints, as well as service delivery protests. The fieldwork team visited 78 settlements and 3 330 households across the country. In cases where there were more than one household in a selected visiting point, the Kish grid was used to select the household to be visited during fieldwork.

1.7.3 Data checking

Once data were collected, quality checked and edited in the field, household questionnaires were then sent back to Pretoria (HSRC head office). The data were further checked by office data checkers and recorded before being submitted to the Data Capturing Centre of the Research Methodology and Data Centre in the HSRC. The questionnaires were packed in informal settlement boxes (one box per informal settlement).

1.7.4 Data capturing

A dedicated Data Capture Centre official was assigned to develop data capturing design template. Upon completion of this design template, the research team met with the Data Capturing Centre management team for finalising the template. Then data capturers were trained in data capturing using the Census and Survey Processing System (CSPPro) software programme. The household questionnaires were then systematically allocated to data capturers for manual data entry. After completion of data capturing, the Data Capturing Centre management team went through verification and cleaning process to make sure that outliers and inconsistencies in the dataset were identified. In cases where there were inconsistencies, the questionnaires had to be re-captured. After this verification process, data were converted from CSPPro to Statistical Package for Social Sciences (SPSS) by the Data Capturing Centre management team and sent to the research team for further data cleaning and verification, as well as analysis. The household questionnaires were also repacked according to their respective informal settlement boxes and sent back to the research team.

1.7.5 Data cleaning

Household questionnaires from Data Capturing Centre were re-checked and recorded by office data checkers. The data was then subjected for further data verification and cleaning by the research team. This was done by running frequencies in SPSS to determine duplicate records, outliers and inconsistencies in the captured dataset. These questionnaires with outliers and inconsistencies were then picked from their respective informal settlement boxes for verification and further cleaning of the database.

1.7.6 Data weighting

Due to the fact that there were 1 185 informal settlements targeted for upgrading and only 10% was sampled from each province, this meant that settlements did not have equal chance of being sampled. Therefore, sample weights were applied to correct this potential bias due to unequal sampling probabilities. Further, sample weights were applied at household level

as households in the sampled settlements did not have equal chance of being selected. In addition, not all sampled settlements and households were realised. Therefore, the sample weights were computed based the realised settlements and interviewed households. The final weight was computed by multiplying informal settlement weight by household weight. It is important to note that weights were only applied to the main sample (2 380 households) and not to the additional mining settlements (113 households) as they were not part of the informal settlements targeted for upgrading.

1.7.7 Data analysis

For data analysis, both Stata and SPSS programs were used to get descriptive statistical analyses in the form of frequencies of responses and cross tabulations. Microsoft Excel was also used for further formulation of tables and figures for this baseline report. It is important to note that all tables and figures in this baseline report present unweighted counts and weighted percentages.

1.7.8 Response rate

Of the 3 330 visited households (3 202 from the main sample and 128 from mining areas), the majority of visited households, 3 088 (93.0%) were valid, while 242 (7.0%) were invalid. Invalid households could include households that had been destroyed, vacated, business enterprise buildings or churches. Among the 3 088 valid households, 2 493 (81.0%) were interviewed, while only 108 (3.0%) refused to take part in the study. The “Other” category constituted about 15.0% of the valid households. The other category included “No one at home”, “No one eligible”, “No one living there” and “Incapacitated”. Out of the 2 493 interviewed households, 2 380 households were from the main sample, while 113 households were from the mining settlements. It is important to note that only the households from the main sample are included in the weighted data. Data from additional mining settlements (113 households) was not included in this baseline report as it did not form part of the sample design. Table A1.3 shows the final response rate for the main sample by province. Free State (99.2%) and KwaZulu-Natal (99.1%) had the highest response rate, while the Northern Cape had the lowest percentage with 89.8%. The Northern Cape also had the highest refusal rate (10.2%), followed by Gauteng (5.9%). Mpumalanga was the only province with no refusals. There were around 8 900 household members residing in the 2 380 interviewed households across the country. It is worth noting that sometimes the total sample (n) for both household level analysis and individual level analysis varies from the above-mentioned figures (2 380 households and 8 900 persons). The reason for this variation is because some household respondents did not respond to all questions for household level analysis and also household respondents did not provide all required information about their household members for individual level analysis.

Table A1.3: Response rate by province

Province	Interviewed		Refused	
	Number (n)	Percentage (%)	Number (n)	Percentage (%)
Western Cape	207	97.2	6	2.8
Eastern Cape	318	96.1	13	3.9
Northern Cape	168	89.8	19	10.2
Free State	261	99.2	2	0.8
KwaZulu-Natal	209	99.1	2	0.9
North West	199	97.5	5	2.5
Gauteng	867	94.1	54	5.9
Mpumalanga	60	100.0	0	0.0
Limpopo	91	94.8	5	5.2
Total	2380	95.7	106	4.3

1.8 Qualitative methods

Qualitative component had four different components: a) Focus Group Discussions, b) Key Informant Interviews, c) Settlement photographing, and d) Environmental scanning.

1.8.1 Key informant interviews (KIIs)

The study designed two types of key informant interview guides. One set was administered among community leaders (n=26) and the second set was administered among municipal officials (n = 23) responsible for human settlements in the areas sampled for the study.

The community key informant guide covered topics such as the background of the specific informal settlement, origin of the residents in the settlement, reasons for settling in the specific settlement, tenure arrangements, upgrading process, availability of basic infrastructural services such as water, sanitation, drainage and waste removal. In addition to exploring the material conditions of residents in the informal settlements, the study also sought to establish the levels of social cohesion among the informal dwellers. Questions were asked about participation in service delivery protests and causes of the protests; levels of violence and destruction of property during service delivery protests and whether the communities always resolve challenges through violence. The study also sought to establish the type of environmental challenges and municipal responses to disasters in the settlements. Also explored in the key informant guides were elements of the environment and access to the city, which covered aspects such as the mode of transport, accessibility, affordability and quality of the transport.

Housing finance was also covered, included elements such as sources of income, sources of housing finance, credit, participation in informal credit-saving schemes and whether the sources of finance and credit are in anyway invested into home improvement. Social capital covered questions related to linking and bonding capital, social networks and the value that informal residents attach to their social networks and social cohesion. The module on

attitudes towards foreigners explored how informal dwellers resolved differences with one another, levels of tolerance towards foreigners and how the police were dealing with the presence of foreigners in the informal settlements. Also explored were elements of policy and the views of communities on state policy towards immigrants, and community perspectives on state response on intolerance towards foreigners, and how different tiers should deal with the prevailing attitudes towards foreigners.

The questions posed to the key informants at community level were similar to those posed to the municipal officials. The difference in the two key informant guides was in the level of detail required from municipal officials, for example, the questions on infrastructural services, the upgrading process and empowerment, as well as tenure arrangements were much more detailed in the municipal key informant guide than in the key informant guide administered to the community leaders. The questions in the municipal KII were a mix of open-ended and semi-structured questions, and the community key informant guide comprised of open-ended questions.

1.8.2 Focus group discussions (FGDs)

Thirty-six FGDs were planned with sampled communities across the nine provinces. Twenty-five FGDs were conducted. Gauteng had the highest number of FGDs conducted (5) while the Northern and Western Cape had the least (1 each). Each focus group comprised between six to ten participants; men and women of different age groups. In total, 178 people participated in the FGDs.

The FGD guide was similar to the KII guide for community leaders. The FGD guide included general questions about living conditions including poverty in the settlements, who were considered to be poor, and how the poor survive in the informal settlement. These were followed by questions on tenure arrangements, the upgrading and empowerment process, availability of infrastructural services, housing finance, social capital, community participation and safety, community mobilisation and the perceptions and attitudes towards foreigners.

1.8.3 Response rate

The qualitative component of the study included 23 FGDs that were conducted with both male and female participants (n = 171) in selected informal settlements targeted for upgrading (Table A1.4).

Table A1.4: Profile of FGDs participants by province and enumeration area

FGD	Gender	Number of Participants
EC. JOE SLOVO	Females	8
FS. MAFIKENG	Females	7
FS.UNIT 3	Females	7
FS.MK SQUARE	Males	8
GP.DIEPSLOOT	Males	7
GP.FREEDOM SQUIRE	Males	5
GP.MADELAKUFA	Females	10
GP.ORLANDO	Males	7
GP.TSWAING	Females	6
KZN. BABANANGO	Females	10
KZN.FAIRLAEIGHS	Males	8
KZN.POORTJIE	Males	9
KZN.ZAMANI.	Females	8
LP.MOHLAKANENG	Males	8
LP.ROOSSENEKAL	Males	6
LP.VAALWATER	Females	5
MP.KWAZANELE	Males	8
MP.MATSULU	Females	10
NC.PROMISED LAND	Females	10
NW.GLAUDINA	Females	6
NW.KANANA	Males	9
WC.DRANKENSTEIN	Females	10
Per gender		
Gender	FGD	Participants
Males	11 FGDs	81 Participants
Females	12 FGDs	90 Participants
Total	23	171 Participants

In addition to FGDs, interviews were conducted with key informants in the selected municipalities (n = 22) and communities (n = 24) (Tables A1.5 and A1.6)

Table A1.5: Profile of Key Informants – Community by enumeration area

KII Community	Gender	Number of Participants
FS.UNIT 3	Female	1
FS.MK SQUARE	Male	1
GP.DIEPSLOOT	Male	1
GP.FREEDOM SQUIRE	Female	1
GP.MADELAKUFA	Male	1
GP. TSAKANE	Female	1
GP.ORLANDO	Female	1
GP.RETHABISENG	Male	1
GP.NEW EESTERUS	Female	1
KZN. BABANANGO	Female	1
KZN.FAIRLAEIGHS	Male	1
KZN.POORTJIE	Female	1

LP.MOHLAKANENG	Male	1
LP.ROOSSENEKAL	Female	1
LP.VAALWATER	Female	1
MP.KWAZANELE	Female	1
NC.PROMISED LAND	Female	1
NC. CAMPBELL 1	Male	1
NC. CAMPBELL 2	Male	1
NW.MAFIKENG	Male	1
NW.GLAUDINA	Male	1
NW.KANANA	Male	1
WC.NYANGA	Male	1
Per Gender		
Males	12	
Females	11	
Total	23 respondents	

Table A1.6: Profile of Key Informants – Municipality by enumeration area

KII Municipality	Gender	Participants
EC Cambridge	Male	1
EC Joe Slovo	Male	1
FS MK Square	Male	1
FS Tshiame D	Male	1
FS Unit 3	Male	1
GP Rethabiseng	Male	1
KZN Fairleighs	Male	1
KZN Babanango	Female	1
KZN Cato Crest Umlazi	Male	1
KZN Zamani	Male	1
KZN Poortjie	Male	1
KZN Mazakhele	Male	1
KZN Sibongile Bufferstrip	Male	1
LP Roosenekal	Male	1
LP Mohlakaneng	Male	1
MP Kwazanele	Male	1
MP Matsulu	Male	1
NC Promised Land	Male	1
NW Glaudina	Male	1
NW Kanana Ext 13	Male	1
NW Mafikeng	Male	1
WC Nyanga	Female	1
Per Gender		
Males	20	
Females	2	
TOTAL	22	

1.9 Photographs

In this study, photographs of informal settlements were taken to capture the environment before upgrading. Photography as a research instrument augmented the textual evidence with pictorial representations of the context of informal settlements at baseline. Photography provides its own type of narrative which aids readers to better understand the context described. Confronted with the reality of informal settlements where crime is rife and the danger of being mugged for cameras so real, the researchers found different ways of documenting the baseline status of the informal settlements. Each research team was issued with a tablet to assist in communicating, as well as in taking the photographs. The photographs were submitted to the research team in real time, which meant that even if the tablet was stolen, the study already had the pictorial evidence of the informal settlements.

In Gauteng, using tablets was not always possible. Settlements were described as so dangerous that even the police do not venture into them. In such settlements, the research teams risked and used their own cell phones to take pictures of the settlements that they visited. In most instances, it was only safe to take photographs in the presence of community gatekeepers who would then answer any questions posed by community members about the photos being taken. At least 236 photographs of informal settlements were taken.

1.10 Environmental scanning

The Environmental Scan was initially designed to inform the fieldwork. However, it proved difficult to gather all information before the fieldwork, and the scan was used as a detailed post-survey settlement database. Following the sample design, the HSRC team called local municipalities to request information about the exact location of informal settlements for which the team had no X and Y coordinates. All selected informal settlements were then geocoded and the outer boundaries were drawn, using World Imagery and Google Earth as a backdrop, together with information from local municipalities, such as street names and directions about the extent of the informal settlement. The Stats SA sub-place boundary data were used where possible. Some municipalities such as City of Johannesburg, Ekurhuleni and City of Tshwane provided data on informal settlements in a shape file format. Therefore, no boundary delineations were required. This process of requesting information about the exact location of informal settlements was a success, with responses coming mainly from GIS personnel and town planners within the local municipalities. The Environmental Scan checklist was designed to observe conditions in each settlement, and completed by the fieldwork teams. Responses were recorded in a spreadsheet to facilitate analysis and interpretation, and include 75 settlements from the main sample, as well as three settlements from the mining towns. Environmental scanning entailed providing information about availability and access to basic services, the location of each informal settlement, roads, water, storm water drainage, electricity connection, risk and vulnerability of the informal settlements.

1.11 Ethics approval

The study received approval from the Research Ethics Committee (REC) of the HSRC (Research Ethics Committee Reference No: No REC 9/21/05/14).

1.12 Baseline study limitations

The baseline study focused on informal settlements that were targeted for upgrading. The findings cannot be generalised to the whole population of people living in informal settlements in South Africa, as the final weights were not subjected to benchmarking. The data on the total number of such people living in informal settlements in South Africa was not available for benchmarking. Therefore, the study can only be generalised to people living in informal settlements which were targeted for upgrading based on the 2014 list obtained from the DHS. The findings of the sub-group analyses need to be interpreted with caution due to the resultant small number of observations. Some of the sampled informal settlements did not have boundaries and thus their boundaries had to be delineated by the HSRC GIS team, in consultation with local municipal officials and should not be considered as their official proclaimed boundaries. It is important to note that this process might have resulted in under- or over-counting of households in some informal settlements. Furthermore, data collection took place between June and September 2014, which could result in seasonal trends in responses for outcome indicators such as health (e.g. flu), crime and economic activities.

ANNEXURE 1b

DETAILED DATA PREPARATION AND SAMPLING PROCESS

This section presents the data preparation and sampling approach for the study, taking into account the fact that the purpose is to develop baseline indicators for use in assessing the impact of upgrading in future. The section first discusses data preparation and thereafter the methodological approach is used in sampling per province.

1.1 Data preparation

The data preparation begun with the initial sampling frame provided together with the Terms of Reference (TOR). Since the initial sampling frame had gaps in and was inconsistent with the fields it provided, it was eventually discarded and a list of informal settlements from the different provinces was sourced by DHS. The second data set was problematic too, as the information was inconsistent. Some provinces provided lists of projects and planned units, while others provided informal settlements. Still others provided information for specific municipalities rather than the whole province. This data set was deemed to be inconsistent and incomplete. The DHS & DPME team went to provinces to establish the correct list. However, this exercise did not yield satisfying results. Although the third data set (different spreadsheets from each province) was not adequate, it was nevertheless usable and other datasets were used to supplement it. The DHS provided the following data files for this third data set in 2014:

- Eastern Cape: Eastern Cape Outcome 8 Informal Settlements Report_1.xlsx
- Free State: UISP Free State Database.xls
- Gauteng
 - CityofJohannesburg_Moabi Formalization Templates.xls
 - CityOFTshwane_Number of Informal Settlements per Region_1.xlsx
 - EkuRhuleniMetroEMM INFORMAL SETTLEMENTS INFORMATION (Current).xlsx
 - GautengProvincial_Informal Settlement Final Stats.xlsx
- KwaZulu-Natal: KZN Copy of LATEST DATABASE_IS_UPGRADE (2) .xlsx V3 06 08 2014.xlsx
- Limpopo: Copy of DATABASE_IS_UPGRADE.xlsx
- Mpumalanga: Mpumalanga Upgrading of Informal Settlements Database - NDHS Done. xls
- North West: Informal Settlements Planned 201415 NW.xlsx
- Northern Cape: Northern Cape Database_14 04 15.xlsx
- Western Cape: Western Cape.xls

In each province, the following fields were extracted from these spreadsheets if they existed: province name, district name, municipality name, informal settlement name, X and Y coordinates and number of households. In cases where the name of the province or district or municipality was not provided, it was added if possible. Based on recommendations agreed on during the sampling workshop between HSRC, DHS and DPME on 23 November 2014, the

HSRC project team had to revisit the data files for the following provinces: Gauteng, Eastern Cape and Northern Cape. Below is the description of what was done for each of the three provinces in response to the recommendations and agreements from the abovementioned workshop.

In the case of Gauteng, the “GautengProvincial_Informal Settlement Final Stats.xlsx” file was used to get the informal settlements from non-metro areas. Informal settlements from metro areas were obtained from the individual metropolitan files as per DHS recommendation. For the City of Tshwane, the tabs named “Region 1” to “Region 7” in the “CityOFTshwane_Number of Informal Settlements per Region_1.xlsx” file were added up to get the total number of informal settlements for this metro. For the City of Johannesburg, the tab called “MASTERLIST” in the “CityofJohannesburg_Moabi Formalization Templates.xls” was considered to obtain informal settlements targeted for upgrading. These separate metro files and non-metro data from the “GautengProvincial_Informal Settlement Final Stats.xlsx” were combined to get the final list of informal settlements for the whole province. For the Eastern Cape, the tab called “SUB TOTALS” which contained all the districts was used instead of the tab named “2010”, which contained only informal settlements from Nelson Mandela Bay Metro. As agreed with the DHS, all informal settlements in the Northern Cape that had less than 150 households were deleted from the provincial list. This was motivated by the recommendation that traveling to settlements with small numbers of households might inflate fieldwork costs.

The data was kept in separate files for each province and thereafter cleaning was done based on the informal settlement name. Records containing the same name, e.g. Thembaletu Zone 9, Kanana Ext 11 or Maquassi Hills Ext 13, were deleted. This was done to ensure that the same settlement does not get selected more than once in the sample. In North West, projects span across settlements and since there was no information about which settlements were included, the project names were used as is. After cleaning the data from all provinces, the total number of informal settlements targeted for upgrading for the whole country was 1 185 (see Table 1).

1.2 Sampling of informal settlements targeted for upgrading

Sampling for Impact Evaluation

It is of critical importance in the sampling approach of both informal settlements and households to construct a sample that allows to credibly detect a given effect size within evaluation budget constraints (Khandker et al, 2010). Worth noting, however, is that this particular study is not an impact evaluation but a baseline assessment that will facilitate a future impact evaluation to the extent possible.

The Need for Randomisation

It is important to randomise the selection of informal settlements that are exposed and those not exposed to a treatment (in this case UISP) to measure effect. Randomisation allows for

removal of systematic pre-existing differences so that only chance determines which informal settlement is allocated to the treatment group and control group. The effect of the treatment is then assessed by looking at the difference between the mean measure in the treatment group and in the control group.

Ideally, the selection process has two stages, and in this study it will be expanded to three: i) selection of Primary Sampling Units (PSU), in this case, informal settlements targeted for upgrading; ii) the selection of Units of Analysis, in this case households within the selected informal settlements (PSU); iii) the selection of a relevant household on a stand where there is more than one household, using the Kish grid.

Practical considerations for sampling of informal settlements for future impact assessment of UISP

While it is theoretically possible to use the above sample size calculation formula to establish the number of informal settlements targeted for upgrading for future impact evaluation, there are a number of key practical considerations that made it impossible to do so.

First, the UISP was designed and implemented without an explicit theory of change (TOC) and explicit targets which would have provided clarity on the principal outcome metric. Furthermore, the outcome metric in the proposed TOC is a compound metric, that is, “sustainable human settlements with improved quality of life for households” with no specific indicators and set targets.

Second, the UISP was not designed and implemented as an experiment with clear cases and controls to allow for credibly measuring effect size. It is indeed outside the scope of the project team to prospectively determine which informal settlements will actually be upgraded and which ones will not be upgraded, as this depends on the provincial and municipal plans and implementation. The focus of the study is only on those informal settlements that have been targeted for upgrading and hence our sampling frame as described above.

Third, the sampling frame of informal settlements targeted for upgrading had a number of key data variables unavailable upfront, such as the project phase and commitment of budgets which would have given some indication of how many would be upgraded (cases) in 3 or 5 years, and how many would still be not upgraded (controls) when the impact study will hopefully be done. Knowing the project phases would have assisted in identifying those settlements that were going to be upgraded in the short-to medium term, and those that were going to be upgraded in the long term.

Fourth, the number of households in each of the informal settlements was available in some provinces and not in others, which meant that selection of households could only be done after the GIS mapping to establish the boundaries of the selected settlements and then counting the number of dwellings/households in each informal settlement (size of settlement).

Fifth, the selection of informal settlements targeted for upgrading needed to take into account monitoring and evaluation needs of the DHS by geographical area. Therefore, the geographic spread of the selected informal settlements had to be taken into account in the selection process.

Consequently, the sampling approach described below is based on the assumption that not all of the informal settlements selected for the study will actually be upgraded in 3 or 5 years' time when the impact evaluation will be conducted. Those informal settlements that would have been upgraded will become the treatment cases and those not yet upgraded become or contribute to the controls. This means that the number of settlements selected must be large enough to ensure that there will be sufficient numbers of upgraded and not upgraded settlements. The attendant risk of this approach is the remote possibility of all the settlements having been upgraded by the time of the impact evaluation and also not having sufficient geographic spread of controls to take into account the contextual differences that are critical to explaining change or no change. To retain some power in the study sample, the PSU were selected randomly within a province and the households were also selected randomly as described later. The steps outlined above provide a quasi-experimental design for the study.

Sampling approach

Stratified random sampling was applied to obtain a representative national sample of informal settlements targeted for upgrade. The selection of informal settlements was done using the SPSS software and the random selection option was used for each provincial file. The sample size is a function of the number of settlements targeted per province. Therefore, there are more settlements selected in the Northern Cape than in Mpumalanga, because there are more settlements targeted in the Northern Cape. The total number of informal settlements targeted for upgrading was 1 185 (N = 1 185) and as proposed in the technical offer, a 10% sample size equated to 119 informal settlements (n = 119) (Table A1b). In order to obtain proportional representation (PR) by province the following formula was used:

$$PR = \left(\frac{\text{Provincial } N}{\text{Total } N} \right) \times \text{Sample size}$$

Table A1b: Total number of informal settlements and selected settlements per province
Financial Sustainability of SHIs

Province	N	n
Western Cape	256	26
Eastern Cape	180	18
Northern Cape	69	7
Free State	74	7
KwaZulu-Natal	80	8
North West	70	7
Gauteng	408	41

Mpumalanga	14	2
Limpopo	34	3
South Africa	1185	119

How informal settlements were selected per province

In order to select the mentioned number of informal settlements in each province (Table 1), random sampling was performed using SPSS. Further adjustments, such as re-running of the random selection, were considered in cases where the initial random selection did not fulfil the purpose of monitoring and evaluation, such as selected informal settlements coming from only one district out of five in a particular province. This part of the research design is the only place where researchers intervened to obtain required outputs and which can be regarded as quasi-experimental.

It is worth noting that it was only in two provinces that the initial random sampling was satisfactory, i.e. Mpumalanga and Eastern Cape. For the Free State, the initial random sampling of seven informal settlements was not satisfactory as it did not provide a good geographic distribution, and a re-run was done until an optimal selection was reached. The final sample has three informal settlements from Lejweleputswa, two from Mangaung, one from Thabo Mofutsanyane and Fezile Dabi districts. This was found to be satisfactory, as many informal settlements targeted for upgrading in this province were both from Lejweleputswa and Mangaung, a mining area and metro area respectively. In addition, all four districts with informal settlements targeted for upgrading were covered. In Limpopo, a re-run was also performed until an optimal selection was reached, as the first or initial sampling of the three informal settlements came from two districts out of three and two out of six municipalities. The final selection came from all three districts that have informal settlements targeted for upgrading, which was found to be reasonable enough for monitoring and evaluation.

For Gauteng, the initial random sample was also not satisfactory as it had some informal settlements with fewer households, i.e. 26 and 30 households, which would not be appropriate for the purpose of this study. The optimal sample contained informal settlements with more than 100 households where this field had information. In addition, at least all five districts of the province are represented in the sample. It is necessary to mention, though, that most of the informal settlements were from the three metro districts. The other consideration was that the informal settlements should not be from the same area or location. However, this criterion had to be compromised or relaxed in order to reach an optimal sample for Gauteng. This is evidenced by the inclusion of Tsakane, Ekurhuleni and Soshanguve, City of Tshwane informal settlements in the final sample.

For KwaZulu-Natal, eight informal settlements from the 10 districts were reached after several random sampling runs. It is believed the current sample of informal settlements is appropriate enough for monitoring and evaluation as it covers at least six of the 10 districts that

have informal settlements targeted for upgrading. Only eThekweni has more than one (three) informal settlements while all other five districts including uMgungundlovu has one informal settlement each. This is reasonable as almost half of the informal settlements in the province come from eThekweni metro.

For the Northern Cape, as informal settlements with the households less than 150 were already excluded from the eligible selection, geographic distribution was the major criterion that was considered for adjusting the sample to be optimal for monitoring and evaluation. Like in other provinces, the initial random sample did not yield appropriate results, hence several runs had to be conducted. The final sample has seven informal settlements from all five districts of the province, with Francis Baard and Pixley ka Seme having two informal settlements, while the other three have one each.

For North West, as per the findings by the DHS and DPME team who visited provinces for clarification of information regarding informal settlements targeted for upgrading, only projects information was available. This presented a challenge as the DHS and DPME team found that a project may consist of households from different informal settlements. Therefore, a consensus agreement from the 23 October 2014 sampling workshop was that sampling should be done, using these projects as they are and the exact details will be revealed during fieldwork and environmental scanning. The first random sample was not satisfactory, hence more runs were performed. The final sample has seven informal settlements from all four districts of the province.

Lastly, for the Western Cape, several random sampling runs were also performed in order to get an appropriate sample for monitoring and evaluation. The final 26 informal settlements that were selected come from all six districts of the province. It is worth noting that only two informal settlements were selected from the City of Cape Town. The reason behind this was that the City of Cape Town provided projects, not informal settlements, and almost half of these projects had the "N2 Gateway" name in them. The remaining five districts provided informal settlements with necessary information as requested.

Mining towns

Based on the Integrated Sustainable Human Settlements in Mining Towns progress report of September 2014, the total number of informal settlements in mining towns was 62 (N = 62). These were located in 11 municipalities, and in order for each municipality to be represented, one informal settlement was randomly selected in each municipality.

ANNEXURE 1c

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