

# Northern Cape: Informal settlements Status (2013)



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**Acknowledgements**

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**DISCLAIMER**

Reasonable care has been taken in the preparation of this report. The information contained herein has been derived from sources believed to be accurate and reliable. The Housing Development Agency does not assume responsibility for any error, omission or opinion contained herein, including but not limited to any decisions made based on the content of this report.

# Contents

<b>1 Introduction</b>	<b>3</b>
<b>2 Overview of census and survey data</b>	<b>4</b>
2.1 Limitations of the Statistics South Africa data	4
2.2 Definition of informal settlements	5
<b>3 A context for the findings: Broad housing trends 2001 to 2011 in the Northern Cape</b>	<b>8</b>
<b>4 Number of households living in informal settlements in the Northern Cape</b>	<b>13</b>
<b>5 Profiling informal settlements in the Northern Cape</b>	<b>16</b>
5.1 Access to services	16
5.2 Household characteristics	20
5.3 Children in informal settlements	21
5.4 Migration	22
5.5 Employment and income	22
5.6 Housing waiting lists and subsidy housing	26
<b>6 Other non-survey data sources</b>	<b>27</b>
6.1 Land and Property Spatial Information System (LaPsis)	27
6.2 Eskom's Spot Building Count (also known as the Eskom Dwelling Layer)	27
6.3 Summary of estimates	27
<b>7 Appendix: Statistics South Africa Surveys</b>	<b>29</b>
7.1 Censuses 2011 and 2001	29
7.2 Census 2011: Derived household income	30
7.3 General Household Survey 2011	30
7.4 Income and Expenditure Survey 2010/11	31

# List of abbreviations

<b>EA</b>	Enumeration Area
<b>GHS</b>	General Household Survey
<b>HDA</b>	Housing Development Agency
<b>IES</b>	Income and Expenditure Survey
<b>LaPsis</b>	Land and Property Spatial Information System
<b>NDHS</b>	National Department of Human Settlements
<b>PSU</b>	Primary Sampling Unit
<b>Stats SA</b>	Statistics South Africa

## PART 1

# Introduction

In terms of the HDA Act No. 23, 2008<sup>1</sup>, the Housing Development Agency ("HDA"), is mandated to assist organs of State with the upgrading of informal settlements. As part of the informal settlements upgrading programme, the HDA commissioned this report to update existing analysis on the profile of informal settlements in South Africa, nationally and provincially as well as for some of the larger municipalities. The analysis draws heavily on newly released Census 2011 data and also explores other data sources available at a national, provincial and municipal level to characterise conditions in informal settlements and to identify key trends. This report summarises available data for the Northern Cape province.

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<sup>1</sup> The HDA Act No.23, 2008, Section 7 (1) k

## PART 2

# Overview of census and survey data

This chapter describes the key data sources used in this study and outlines relevant limitations of the data as a precursor to exploring the data in more detail. As noted in the introduction, a primary objective of the study is to explore findings of the recently released 2011 Census with respect to informal settlements in South Africa, and to use that data to assess trends in terms of the number of households that live in informal settlements, their characteristics and access to basic services. The 2011 Census is thus the core data set explored in this review.

Aside from census data, the analysis is supplemented by other survey data sources including the 2010/11 Income and Expenditure Survey as well as the 2011 General Household Survey.

## 2.1 Limitations of the Statistics South Africa data

Currently the 2011 Census data is available for analysis using Statistics South Africa's SuperWEB or SuperCROSS software. This system is not fully interactive; not all variables can be cross tabulated. By way of example, education and employment data cannot be analysed by type of main dwelling people live in. There are also variables that appear in the questionnaire that are not available at all for analysis. Most pertinent to this analysis, these include construction material of main dwelling, age of the dwelling and relationship to the head of the household. The 2011 Census 10% sample which will allow for a full interactive analysis will only be available towards the end of 2013.

As noted a key objective is to identify trends. Because of provincial and municipal boundary changes since 2001 the comparison of the Census 2011 with previous censuses requires alignment of that data to 2011 municipal boundaries. Statistics South Africa has not yet publicly re-released Census 2001 data in line with these adjusted boundaries. Tables were produced with assistance from Statistics South Africa<sup>2</sup>.

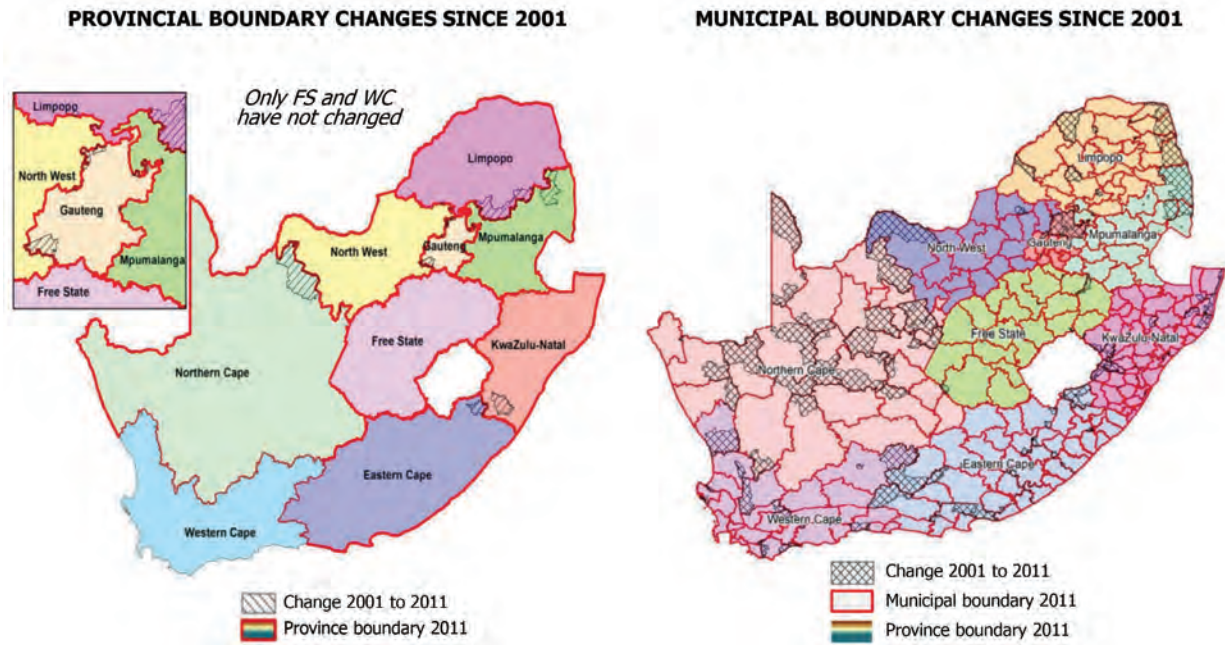
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<sup>2</sup> Angela Ngyende of Statistics South Africa provided on-going assistance in this regard



CHART 1

## PROVINCIAL AND MUNICIPAL BOUNDARY CHANGES SINCE 2001



Source: Map sourced from Stats SA's "Census 2011 Methodology and highlights of key results"; Data sourced from MDB (Municipal Demarcation Board) 2011

Aside from census data, as mentioned previously the analysis is supplemented by other survey data sources including the 2010/11 Income and Expenditure Survey as well as the 2011 General Household Survey. These data sources may contain a bias, with older, better established informal settlements over-represented as the underlying sample frames may not include newer settlements.

## 2.2 Definition of informal settlements

As a starting point it is critical to have a working definition of "informal settlements" that can be used to identify an appropriate proxy variable across the census and survey data sets. There are a number of definitions, some of which are summarised in the table below. Note there is no specific definition for the Northern Cape province. While there is some variance across definitions, in most cases definitions emphasise the dwelling type; with temporary structures or dwellings that are built out of rudimentary materials as a dominant feature of informal settlements. In addition, several definitions refer to ownership of the land, the nature of land tenure and formal demarcation.

TABLE 1 DEFINITIONS OF INFORMAL SETTLEMENTS	
Data source	Definition of an informal settlement
Statistics South Africa	<p>"An unplanned settlement on land which has not been surveyed or proclaimed as residential, consisting mainly of informal dwellings (shacks)."</p> <p>Definition of an informal dwelling : "A makeshift structure not approved by a local authority and not intended as a permanent dwelling"</p>
National Department of Human Settlements	<p>The 2009 National Housing Code's Informal Settlement Upgrading Programme identifies informal settlements on the basis of the following characteristics:</p> <ul style="list-style-type: none"> <li>• Illegality and informality;</li> <li>• Inappropriate locations;</li> <li>• Restricted public and private sector investment;</li> <li>• Poverty and vulnerability; and</li> <li>• Social stress</li> </ul>
City of Tshwane Metropolitan Municipality*	<p>"Informal settlement means one shack or more constructed on land, with or without the consent of the owner of the land or the person in charge of the land."</p> <p>"Shack means any temporary shelter, building, hut, tent, dwelling or similar structure which does not comply with the provisions of the National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977), the regulations promulgated under that Act and the Municipality's Building Control By-laws and which is primarily used for residential purposes."</p>
Mookgophong Local Municipality (Limpopo)**	"Dense settlements comprising communities housed in self constructed shelters under conditions of informal tenure."
Thabazimbi Local Municipality (Limpopo)***	"Unplanned settlements where informal housing (i.e. structures not in compliance with building regulations) is constructed on land that occupants have no legal claim to (at least initially), and on which few, if any, services exist."

Source: \* City of Tshwane Metropolitan Municipality, By-laws Relating to the Management and Control of Informal Settlements, Definitions

Source: \*\* IDP 2011/12

Source: \*\*\* Housing Strategy 2010

A further challenge relates to the boundaries of the settlement itself. Unlike suburbs which are formally proclaimed and demarcated, the boundaries of an informal settlement can be fluid particularly as the settlement grows. In some cases large areas are divided into a number of settlements, although it is not always clear on what basis the boundaries between settlements have been determined.

Census and survey data is not typically gathered and reported for settlements as such. Rather the data is collected from households that are located within a given Enumeration Area ("EA"). An EA is specific area allocated to one fieldworker to gather survey or census data in an allotted period of time. EAs typically contain between 100 and 250 households. EAs form the basis of sub-places which can be aggregated into larger areas known as main places, then into local municipalities, districts and provinces.

In some cases an informal settlement will coincide with a sub-place while in others a settlement might coincide with an EA. More commonly, however, there is no direct match between a settlement as defined by a community or municipality and a sub-place or an EA. Stats SA survey and census data therefore cannot enable us to explore individual informal settlements as a defined unit of analysis.



An analysis of informal settlements based on Stats SA survey and census data requires researchers to use a proxy variable. In the census there are two candidates. The first is based on the enumeration area while the second is based on the nature of the dwelling.

With regard to EAs Stats SA classifies each of the 103,576 EAs into one of ten EA Types in line with the status of the majority of visible dwellings at the time of demarcation. These are summarised in the table below.

TABLE 2 2011 ENUMERATION AREA TYPES	
2011 EA types	EA land-use/zoning
Formal residential	Single house; Town house; High rise buildings
Informal residential	Unplanned squatting
Traditional residential	Homesteads
Farms	
Parks and recreation	Forest; Military training ground; Holiday resort; Nature reserves; National parks
Collective living quarters	School hostels; Tertiary education hostel; Workers' hostel; Military barrack; Prison; Hospital; Hotel; Old age home; Orphanage; Monastery
Industrial	Factories; Large warehouses; Mining; Saw Mill; Railway station and shunting area
Smallholdings	Smallholdings/Agricultural holdings
Vacant	Open space/ stand
Commercial	Mixed shops; Offices; Office park; Shopping mall; CBD

Source: Statistics South Africa

While some informal settlements are located in areas demarcated as urban informal areas, many are not. A further disadvantage of this proxy is that it is not available in other Stats SA surveys.

The second option is to use shacks not in a backyard as a proxy variable. This too is an imprecise proxy; some dwellings located in informal settlements are formal dwellings, or backyard shacks.

There are clearly weaknesses in both proxies. In the interests of aligning with other analysis and the common practice within municipalities, we will predominantly, although not exclusively, rely on shacks not in a backyard as a proxy for households living in informal settlements. As noted in the introductory comments, not all analysis can be undertaken by dwelling type given the limitations relating to the format of available Census 2011 data.

## PART 3

# A context for the findings: Broad housing trends 2001 to 2011 in the Northern Cape

Before reviewing data for informal settlement specifically it is useful to explore key trends with regard to the growth in the number of households, as well as the primary dwellings they occupy for the province as a whole.

As noted by many researchers, any analysis of households must be prefaced by a comment on the nature of households and the interdependency between housing opportunities and household formation. A household is not an exogenous variable. In forming households, individuals respond to various factors, including economic and housing opportunities.

According to census data the number of households in the Northern Cape has increased from 245,086 in 2001 to 301,405 in 2011. At the same time the total population has increased from 991,919 in 2001 to 1,145,861 in 2011. Households have grown faster than the individual population (2.1% CAGR<sup>3</sup> for households compared to 1.5% for individuals) and household sizes have continued to decline from 4.6 in 1996, to 4.0 in 2001, and 3.8 in 2011<sup>4</sup>. Driving the growth in the trend towards smaller average household sizes is the noticeable increase in the proportion of one-person households. In 2001 15% of all households were comprised of one person living alone while in 2011 23% of all households were comprised of one person.

Surprisingly one-person households are more common in tribal or traditional areas than in urban areas in the Northern Cape. In 2011 in the Northern Cape 21% of households living in areas demarcated as urban areas were one-person households. In contrast 27% of households in areas demarcated as tribal or traditional were one-person households. These one-person households are in many cases attached to other households living elsewhere. According to the IES 31% of one person households in the Northern Cape either send or receive remittances indicating financial interdependency across dwelling-based households. How many of these households would reconstitute as multiple member households (including families) if suitable accommodation became available is a matter of conjecture.

According to Statistics South Africa's 2011 mid-year population estimates, there was a net out-migration of 17,592 individuals from the Northern Cape between 2006 and 2011. The majority of out-migrants moved to the Western Cape (21%), Gauteng (19%) or the Eastern Cape (19%).

<sup>3</sup> Compound annual growth rate

<sup>4</sup> Census 2011 Statistical release – P0301.4 (revised)

TABLE 3 ESTIMATED PROVINCIAL MIGRATION STREAMS OF PEOPLE IN THE NORTHERN CAPE: 2006 – 2011				
	Out-migration		In-migration	
	Province in 2011	Percentage	Province in 2006	Percentage
Western Cape	12 941	21%	9 559	22%
Gauteng	11 549	19%	7 904	18%
Eastern Cape	11 375	19%	3 358	8%
North West	10 703	18%	9 402	22%
Free State	6 795	11%	4 900	11%
Limpopo	2 826	5%	821	2%
Mpumalanga	2 479	4%	5 214	12%
KwaZulu-Natal	1 917	3%	1 835	4%
Total	60 585	100%	42 993	100%

Net migration: -17 592

Ratio of in-migration to out-migration 0.7

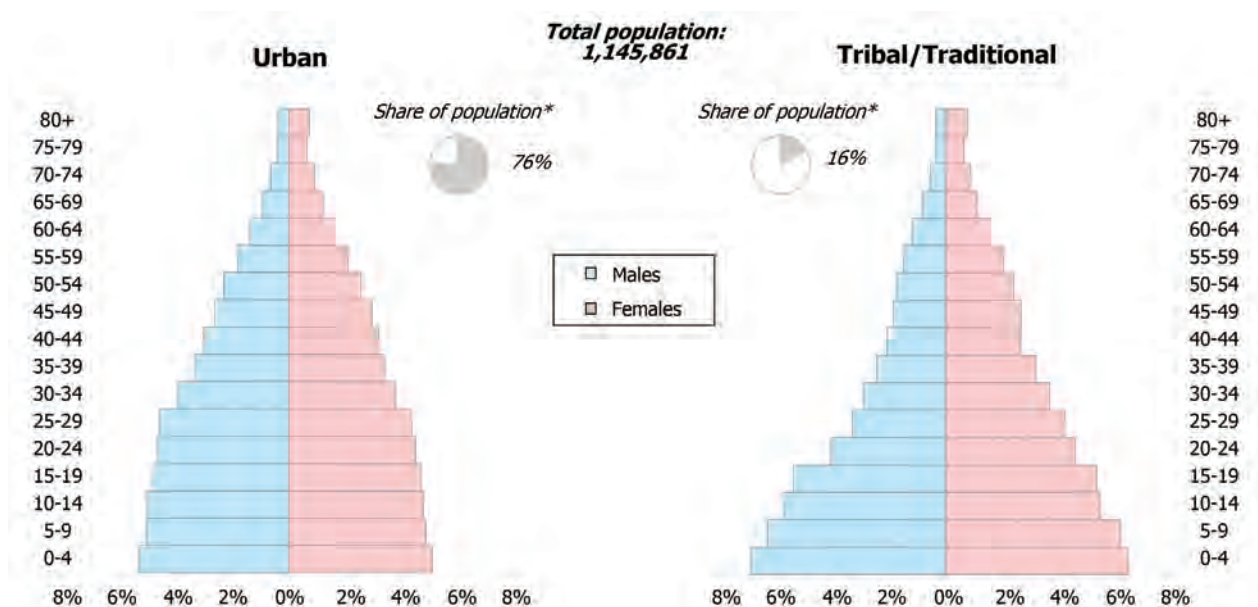
Source: Stats SA mid-year population estimates 2011

Note: These estimates do not incorporate foreign migrants

According to the 2011 Census, in the Northern Cape 5% of the population have moved from a different province since 2001 (1% moved from outside of South Africa). There is a noticeable difference in the population pyramids in urban compared to tribal or traditional areas. In tribal or traditional areas a higher proportion of the population is under the age of 15<sup>5</sup>. In addition, there are noticeably more women than men of working age.

CHART 2

## POPULATION PYRAMID: NORTHERN CAPE



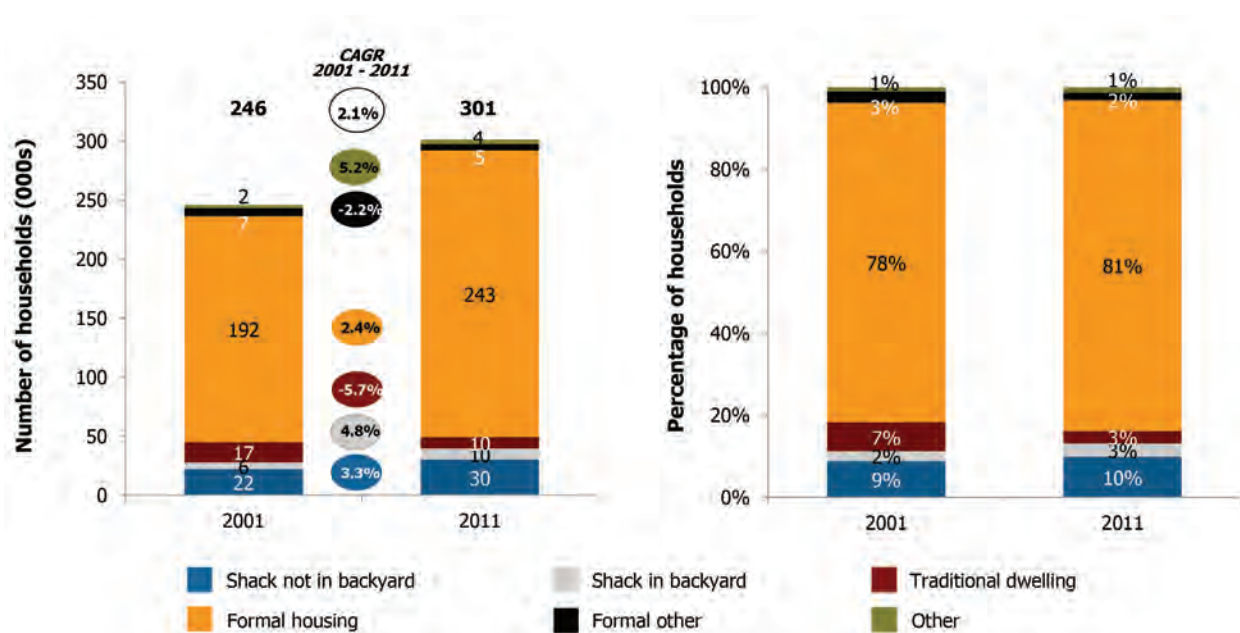
Source: Census 2011

Note: \*The remaining 8% of the population live on farms

<sup>5</sup> In tribal or traditional areas in the province, 37% of the population is under the age of 15 compared to 30% in urban areas

The total number of households living in formal dwellings has increased by 49,880 over the ten years between 2001 and 2011 although the proportion of households living in formal dwellings has remained static. In 2001 81% of households lived in formal dwellings<sup>6</sup>. By 2011 this had increased slightly to 82%. The proportion of households living in shacks not in backyards has increased marginally from 9% in 2001 to 10% in 2011.

CHART 3 TYPE OF MAIN DWELLING IN THE NORTHERN CAPE



The additional number of households living in formal housing is a useful proxy for the growth in the housing stock. Over that period Stats SA reports that formal private sector residential new build amounted to approximately 6 000 housing units. The balance, namely 45 000 units, are either units that are not registered with Stats SA or are units that have been built by the State as part of its extensive RDP housing delivery programme.

It appears that the number of households living in informal settlements, as proxied either by dwelling type (shack not in backyard) or EA (informal residential), have increased in the Northern Cape. In 2001 there were 21,788 households living in shacks not in backyards compared to 30,047 in 2011. With regard to EAs, 9,768 households lived in areas demarcated by Stats SA as informal settlements in 2001 compared to 9,839 in 2011 in areas demarcated as informal residential<sup>7</sup>.

<sup>6</sup> Formal dwelling contains: House or brick/concrete structure on a stand or yard, Town / cluster / semi-detached house, Flat or apartment, House/flat/room in backyard, Room/flatlet on a property or larger dwelling/servants quarters/granny flat

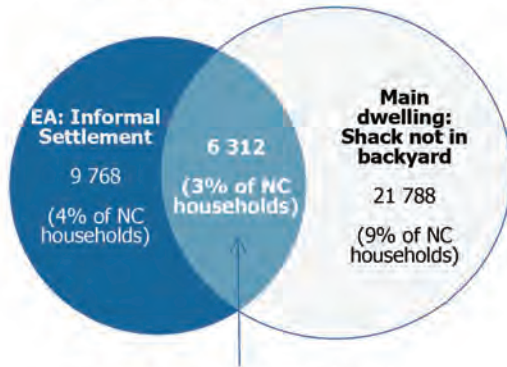
<sup>7</sup> The name changes in some EA types (including 'Informal settlement EA' changing to 'Informal residential EA') are due to a change in terminology and not a change in methodology

CHART 4

## HOUSEHOLDS LIVING IN INFORMAL SETTLEMENTS IN THE NORTHERN CAPE

2001

**Total households who live in an informal settlement OR in a shack not in a backyard:**  
**25 244**  
**(10% of all NC households)**

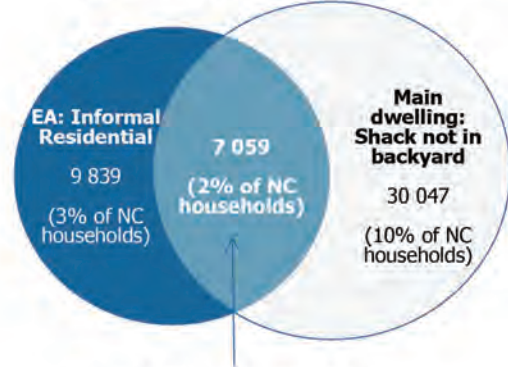


65% of households who live in EAs classified as Informal Settlements, live in shacks not in backyards

29% of households who live in shacks not in backyards, live in EAs classified as Informal Settlements

2011

**Total households who live in an informal settlement OR in a shack not in a backyard:**  
**32 827**  
**(11% of all NC households)**



72% of households who live in EAs classified as Informal Residential, live in shacks not in backyards

23% of households who live in shacks not in backyards, live in EAs classified as Informal Residential

Source: Census 2001, Census 2011

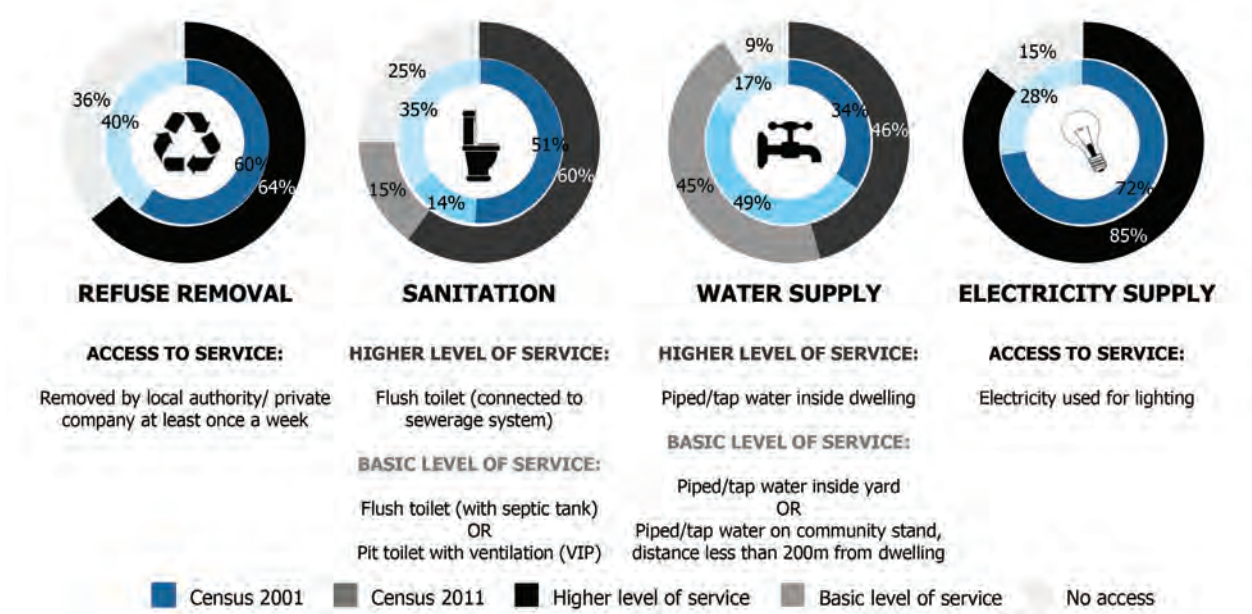
At the same time there has been a significant increase in the number of households living in backyard shacks. The number of households living in this type of dwelling has increased at a rate of 4.8% per year, albeit off a low base. In terms of total households, Census 2011 indicates a total of 9,558 households living in shacks in backyards, compared to 5,954 in 2001.

Across the province, the proportion of households who had access to sanitation and piped water improved noticeably. Likewise, access to electricity increased from 72% of all households in 2001 to 85% in 2011.



CHART 5

## ACCESS TO SERVICES IN THE NORTHERN CAPE 2001 VS. 2011: ALL HOUSEHOLDS



Source: Census 2001, Census 2011

Note: There is no indication as to the location of the toilet (in the dwelling, in the yard, and so on)

Census data also indicates a decline in dwelling ownership in the Northern Cape. In 2001 roughly 61% of households in the Northern Cape owned their primary dwellings. This had decreased to 55% in 2011.

TABLE 4

## HOUSEHOLDS IN THE NORTHERN CAPE: TENURE STATUS BY TYPE OF MAIN DWELLING

	Census 2001			Census 2011			
	Owned	Rented	Occupied rent-free	Owned	Rented	Occupied rent-free	Other
Formal dwelling	63%	17%	20%	57%	20%	18%	4%
Traditional dwelling	70%	6%	24%	57%	7%	19%	18%
Shack in backyard	50%	25%	25%	40%	30%	24%	6%
Shack not in backyard	41%	9%	50%	43%	8%	42%	7%
Other	27%	23%	50%	34%	27%	27%	12%
<b>Total</b>	<b>61%</b>	<b>16%</b>	<b>24%</b>	<b>55%</b>	<b>19%</b>	<b>21%</b>	<b>5%</b>

Source: Census 2001, Census 2011

The balance of the document will explore some of the key trends highlighted in this overview in more detail specifically with regard to informal settlements.

## PART 4

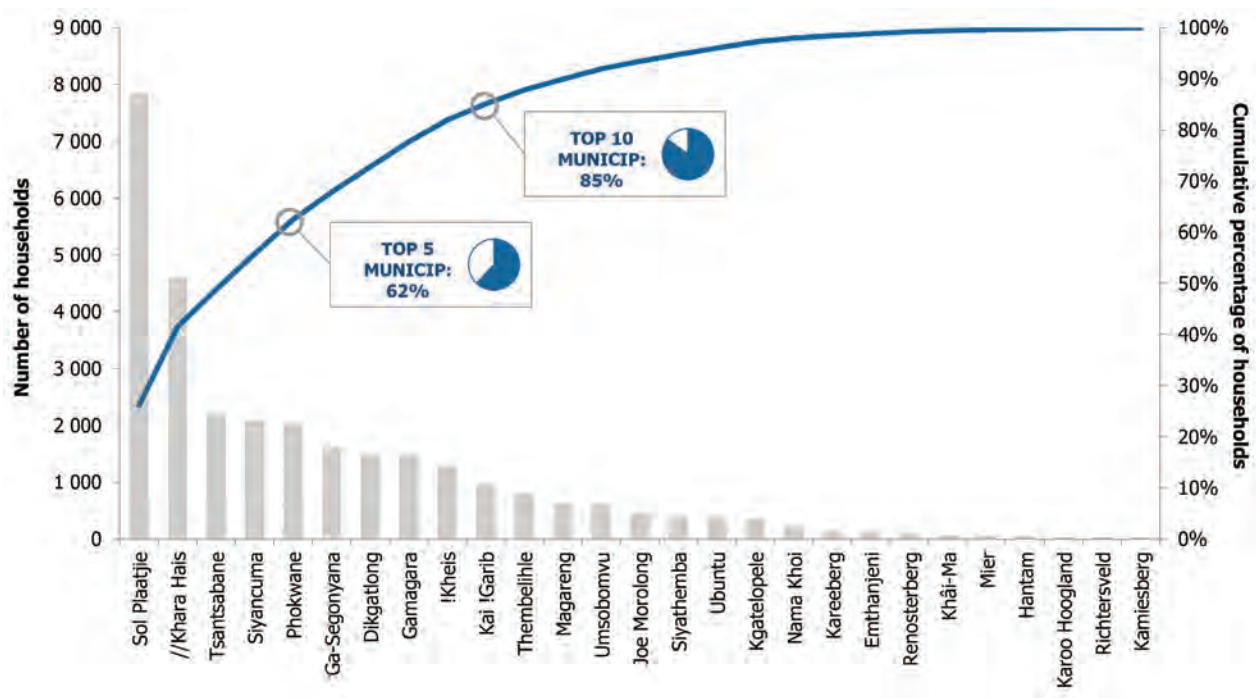
# Number of households living in informal settlements in the Northern Cape

The data indicates that there are a total of 30,047 households, containing 99,262 individuals who live in shacks not in backyards. As noted in the previous chapter, census data indicates that the number of households living in shacks not in backyards has increased in the Northern Cape.

Provincial statistics mask very different housing conditions, and significant shifts at a district and local municipality level. The data indicates that shacks not in backyards tend to be concentrated in key municipalities. An estimated 62% of households living in shacks not in backyards in the Northern Cape are concentrated within five local municipalities within the province.

CHART 6

### HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS BY LOCAL MUNICIPALITY IN THE NORTHERN CAPE



Source: Census 2011

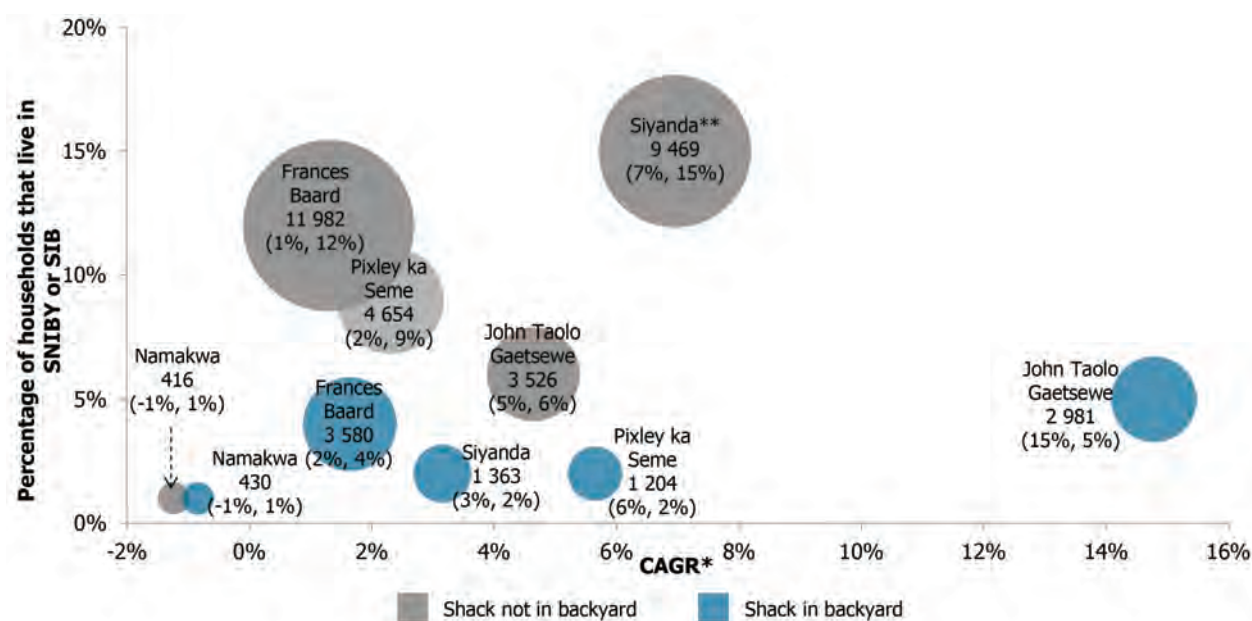
Siyanda has the highest proportion of households who live in shacks not in backyards (15%) across the district municipalities in the province, while Frances Baard has the highest number of households living in shacks not in backyards. The number and proportion of households living in shacks not in backyards by district municipality is summarised below. Together, shacks in backyards and shacks not in backyards accommodate 13% of all households in the province.

Municipality	Shack not in a backyard		Shack in a backyard	
	Number of HH	Percentage of HH that live in SNIBY	Number of HH	Percentage of HH that live in SIB
Frances Baard	11 982	12%	3 580	4%
Siyanda	9 469	15%	1 363	2%
Pixley ka Seme	4 654	9%	1 204	2%
John Taolo Gaetsewe	3 526	6%	2 981	5%
Namakwa	416	1%	430	1%
<b>Northern Cape</b>	<b>30 047</b>	<b>10%</b>	<b>9 558</b>	<b>3%</b>

Source: Census 2011

The fastest growing municipalities, with regard to the total number of households living in shacks not in backyards, have been Siyanda and John Taolo Gaetsewe, both off relatively low bases. All district municipalities in the Northern Cape experienced positive annual growth in the number of households living in shacks in backyards and shacks not in backyards between 2001 and 2011, aside from Namakwa (which has very few households living in shacks).

**CHART 7 HOUSEHOLDS LIVING IN SHACKS BY DISTRICT MUNICIPALITY: GROWTH RATES**



Source: Census 2001, Census 2011

Note: Bubble size represents total households 2011 in SNIBY or SIB. Labels in brackets (x%, y%) : x% refers to CAGR\*, y% refers to households in SNIBY or SIB as a proportion of total households

Note: \*Compound annual growth rate

Note: \*\* Read as: Siyanda district municipality had 9 469 households living in shacks not in backyards in 2011. This has grown by a rate of 7% compounded annually between 2001 and 2011. 15% of households in Siyanda live in shacks not in backyards

According to the 2011 Census<sup>8</sup>, roughly 42% of households living in shacks not in backyards in the Northern Cape regard themselves as owners, with 43% who say they occupy the dwelling rent-free. There is no data to determine whether self-assessed ownership reflects formal status and if not, through what mechanisms the household has come to own the dwelling. Eight per cent of households say they rent their dwellings<sup>9</sup>.

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<sup>8</sup> In the questionnaire, the following statement is included with the question: "Refers to the main dwelling structure only and not to the land that it is situated on"

<sup>9</sup> Six per cent responded 'other' – there is no indication as to what this entails

## PART 5

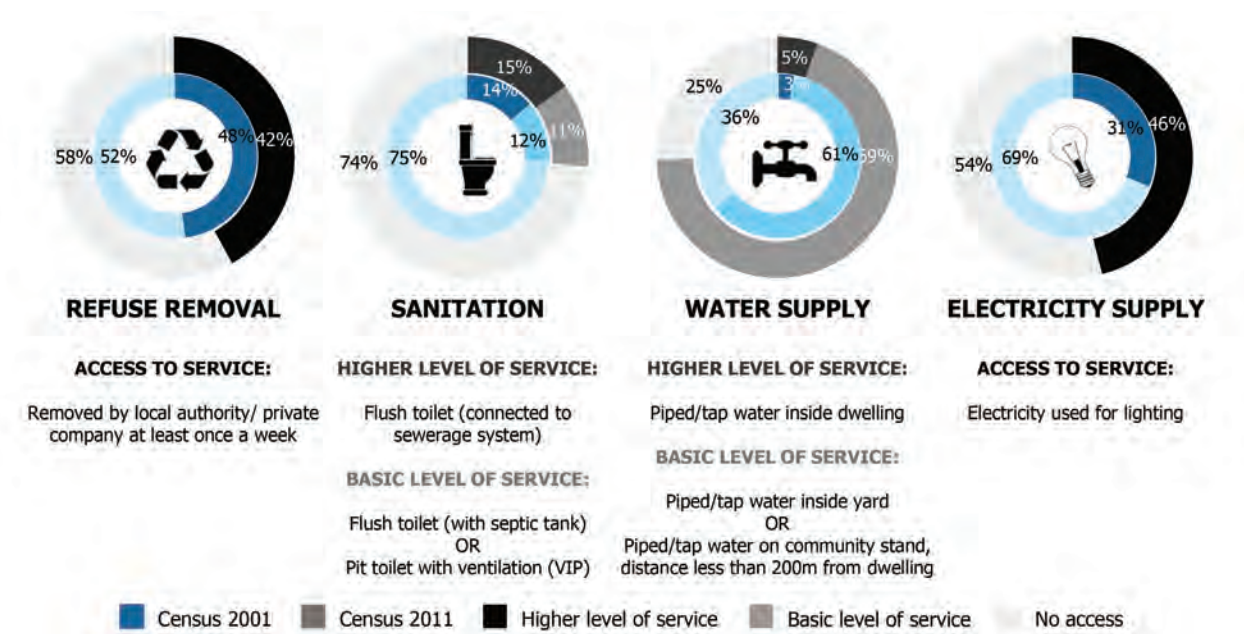
# Profiling informal settlements in the Northern Cape

### 5.1 Access to services

Access to water and sanitation services have been categorised into higher and basic levels of service. Current and historic levels of access are summarised below for households living in shacks not in backyards.

CHART 8

**ACCESS TO SERVICES IN THE NORTHERN CAPE 2001 VS. 2011: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**



Source: Census 2001, Census 2011

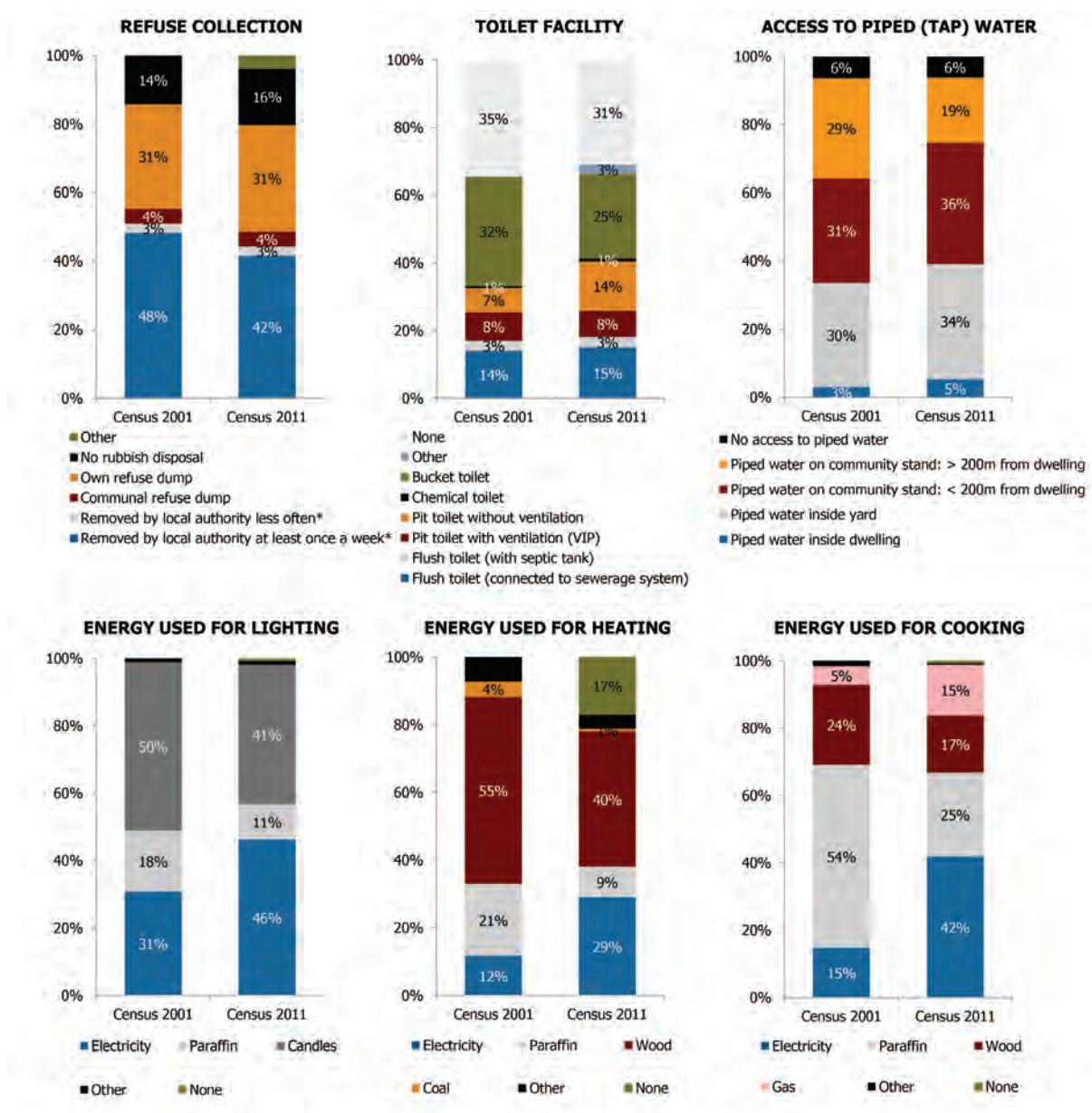
Note: There is no indication as to the location of the toilet (in the dwelling, in the yard, and so on)



On average households living in shacks not in backyards in the Northern Cape have better access to electricity and water than they did in 2001. However, access to refuse removal has declined while there has been no improvement in access to sanitation. More detailed data on the nature of services is summarised in the charts below.

CHART 9

### ACCESS TO SERVICES IN THE NORTHERN CAPE: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS

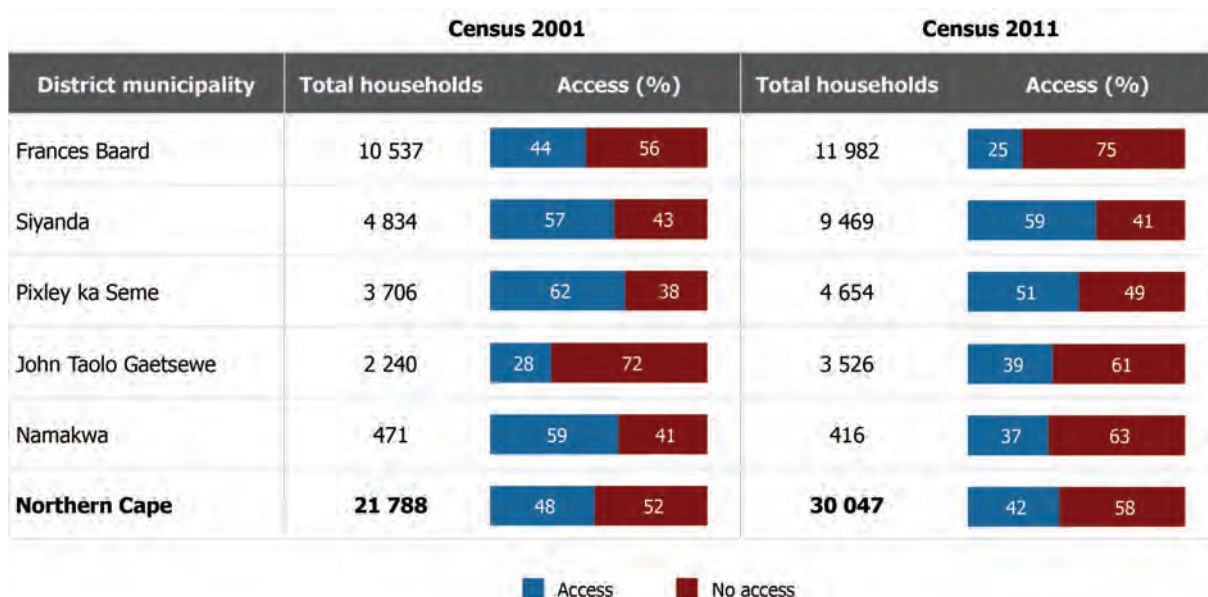


Source: Census 2001, Census 2011

\* In the Census 2011 these include refuse removed by private company

There are noticeable differences across the province in terms of levels of access and rates of change with regard to municipal services. Measured in terms of the proportion of households, access to refuse removal for those living in shacks not in backyards has declined in all district municipalities except in Siyanda and John Taolo Geatsewe.

**CHART 10 ACCESS TO REFUSE REMOVAL IN THE NORTHERN CAPE: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**

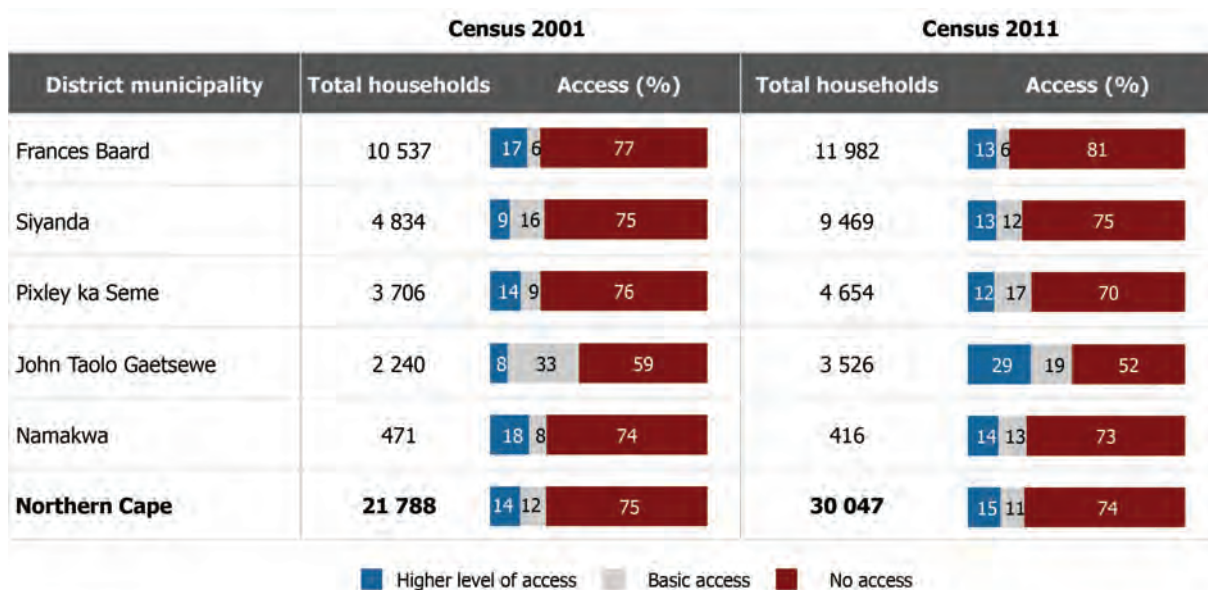


Source: Census 2001, Census 2011

Note: Access to refuse removal: Removed by local authority/private company at least once a week

Access to sanitation differs within the province with John Taolo Gaetsewe having the highest level of access and Frances Baard the lowest, relative to other district municipalities in the province.

**CHART 11 ACCESS TO SANITATION IN THE NORTHERN CAPE: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**

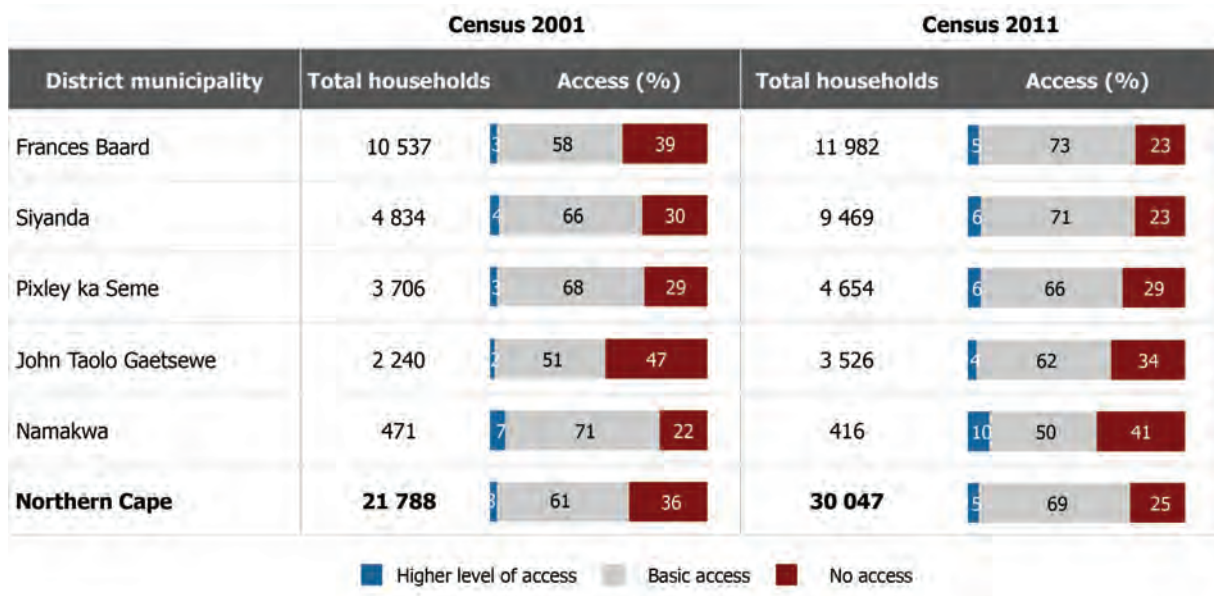


Source: Census 2001, Census 2011

Note: Higher levels of service: Flush toilet (connected to sewerage system); Basic levels of service: Flush toilet (with septic tank) / Pit latrine with ventilation (VIP)

Access to basic levels of water services has improved in all district municipalities since 2001, other than in Pixley ka Seme and Namakwa, which contains a low number of households living in shacks not in backyards.

**CHART 12 ACCESS TO WATER IN THE NORTHERN CAPE: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**

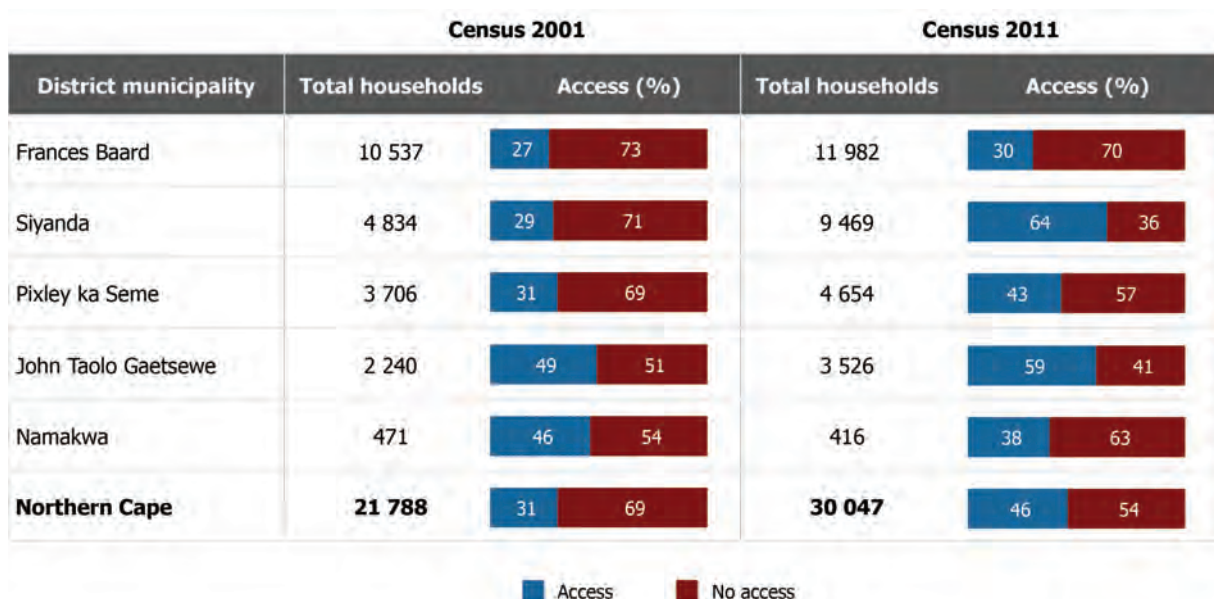


Source: Census 2001, Census 2011

Note: Higher levels of service: Piped (tap) water inside dwelling; Basic levels of service: Piped (tap) water inside yard / Piped (tap) water on community stand: distance less than 200m from dwelling

Access to electricity has improved in all district municipalities, aside from Namakwa, since 2001. Siyanda district municipality had the most dramatic improvement in access to electricity, with 64% of households living in shacks not in backyards with access to electricity for lighting in 2011 compared to 29% in 2001.

**CHART 13 ACCESS TO ELECTRICITY IN THE NORTHERN CAPE: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**



Source: Census 2001, Census 2011

Note: Access to electricity: Use electricity for lighting



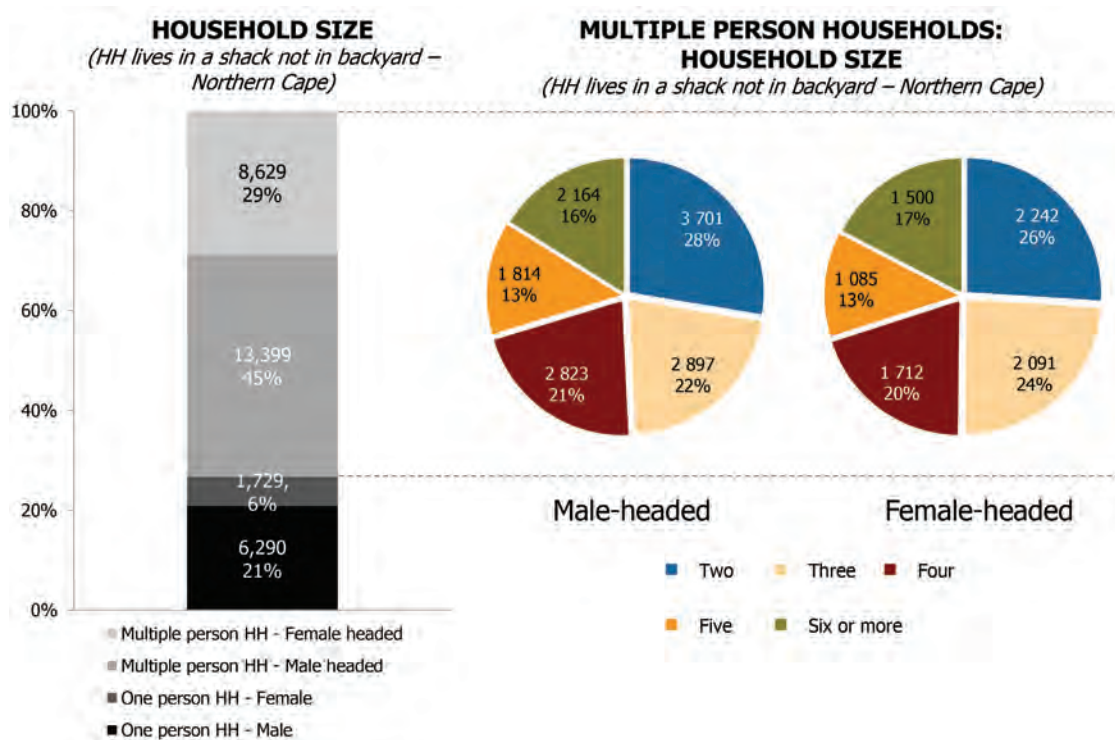
## 5.2 Household characteristics

The average household size for households who live in shacks not in backyards at 3.1 is slightly lower than the provincial average of 3.4. This reflects the high proportion of one-person households who live in shacks not in backyards. Census 2011 indicates that roughly 27% of households who live in shacks not in backyards in the Northern Cape are one-person households; for households in the province as a whole this proportion is 23%.

The size distribution of households living in shacks not in backyards from the census together with data on the gender of the head of the household is summarised below. Two thirds of households (66%) are male-headed.

CHART 14

### HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS IN THE NORTHERN CAPE: SIZE OF HOUSEHOLD, BY GENDER OF HOUSEHOLD HEAD



Data on number of rooms in the dwelling together with data on the number of people who live in the household can be used to assess over-crowding. Assuming that dwellings that contain more than two individuals per room are over-crowded, 27% of all multi-person households who live in shacks not in backyards in the Northern Cape live in over-crowded conditions.

## 5.3 Children in informal settlements

Census 2011 data on children has only been released for EAs, and not by dwelling type. The analysis of children therefore focuses on informal residential EAs. Census data indicates that there are 13,953 children under the age of 18 who live in informal residential EAs accounting for 3% of all children in the Northern Cape. There is a slight skew towards very young children in informal residential areas; 33% of all children are under the age of five, compared to 30% for the province as a whole.

TABLE 6 NUMBER AND PERCENTAGE OF CHILDREN BY AGE GROUP IN THE NORTHERN CAPE				
Age group of children	Children in Informal residential EAs	Percentage	All children	Percentage
0 - 4	4 638	33%	121 918	30%
5 - 6	1 759	13%	47 489	12%
7 - 10	3 132	22%	88 548	22%
11 - 14	2 659	19%	87 418	21%
15 - 17	1 764	13%	65 384	16%
<b>Total</b>	<b>13 953</b>	<b>100%</b>	<b>410 757</b>	<b>100%</b>

Source: Census 2011

According to the census, 86% of children under the age of 15 in informal residential EAs in the Northern Cape have both parents still living<sup>10</sup> (the corresponding proportion for the province as a whole is 83%<sup>11</sup>).

School attendance for those aged 7 to 17 living in informal residential EAs is high, and is not significantly different than for the province as a whole. Ninety per cent of children aged 7 to 17 living in informal residential EAs in the Northern Cape currently attend an educational institution.

TABLE 7 CHILDREN AGED 7 - 17 YEARS IN THE NORTHERN CAPE: ATTENDANCE OF CHILDREN AT AN EDUCATIONAL INSTITUTION		
Children 7 - 17	Informal residential EA	All children
7 - 10	95%	94%
11 - 14	94%	93%
15 - 17	76%	81%
<b>Total*</b>	<b>90%</b>	<b>90%</b>

Source: Census 2011

Note: \* Total school attendance aged 7 - 17. Census reports this for children aged 5 and up

<sup>10</sup> For children in the country as whole living informal EAs this proportion is 81%

<sup>11</sup> For children in the country as a whole this proportion is 80%



## 5.4 Migration

Census 2011 contains data on how long individuals have lived in their current dwellings but analysis using the current variables available make this difficult to interpret. Nevertheless we can look at those individuals who moved into their current dwelling after 2001 and who currently reside in informal residential EAs (data on migration by type of dwelling is not available). Roughly 14% of all individuals who live in informal residential EAs moved between 2001 and 2011. The table below summarises findings in this regard.

TABLE 8 MIGRATION IN THE NORTHERN CAPE	
Total number of people who moved between 2001 and 2011	189 540
Number of people who moved between 2001 and 2011 who live in informal EAs	4 770
Proportion of those who live in informal EAs who moved between 2001 and 2011	14%
Proportion of total who moved between 2001 and 2011 who live in informal EAs	3%
Provinces most moved from (informal EAs)	Northern Cape (72%) North West (6%)

Source: Census 2011

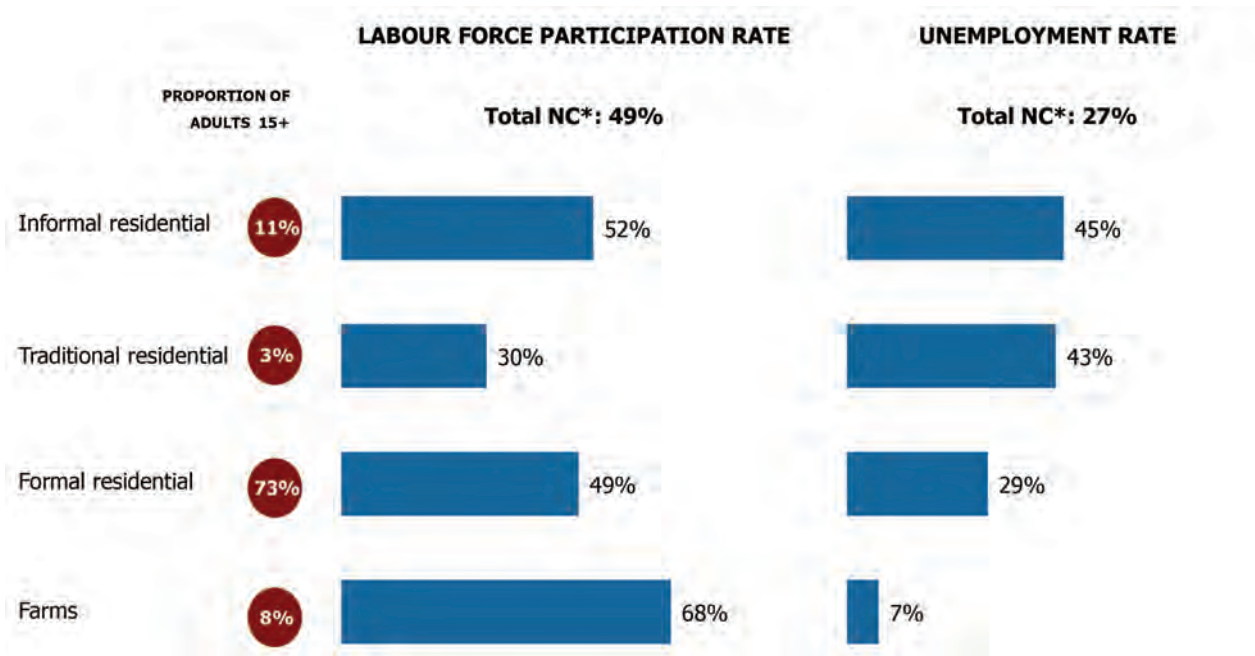
## 5.5 Employment and income

### 5.5.1 Employment

Census 2011 data on employment has only been released for EAs, and not by dwelling type. The analysis of employment therefore focuses on informal residential EAs. According to Census 2011, labour force participation rates are higher in informal residential EAs than in formal residential EAs and unemployment rates are noticeably higher. This is consistent with informal settlements acting as 'arrival cities' accommodating those seeking an entry point into the labour market.

CHART 15

### ADULTS AGED 15+ IN THE NORTHERN CAPE: LABOUR FORCE PARTICIPATION RATES AND UNEMPLOYMENT RATES BY TYPE OF ENUMERATION AREA



Source: Census 2011

Note: \* Total NC also includes: Collective living quarters (1%), Commercial (0%), Vacant (1%), Industrial (0%), Small holdings (1%), Parks and recreation (0%). Brackets show proportion of adults 15+ living in EA type

On the whole, a lower proportion of employed adults living in informal residential EAs are employed in the formal sector compared to all employed adults.

TABLE 9

### SECTOR OF WORK IN THE NORTHERN CAPE: PERCENTAGE OF EMPLOYED ADULTS 15+

	Formal Sector	Informal Sector	Private household	Don't know
Informal residential EA	62%	18%	16%	3%
All employed adults in province	72%	15%	11%	2%

Source: Census 2011

There is no data on the specific industries of employment.

Education levels are noticeably lower for adults aged 15 or older who live in informal residential EAs than for adults in the Northern Cape as a whole. Seventy seven per cent of employed adults living in informal EAs in the Northern Cape do not have a matric.

TABLE 10

**ADULTS 15+ IN THE NORTHERN CAPE: EDUCATION LEVEL BY EMPLOYMENT STATUS**

	Informal residential EA					All adults				
	No schooling	Less than Matric	Matric	Technikon, University or other post matric	Other	No schooling	Less than Matric	Matric	Technikon, University or other post matric	Other
Employed	11%	66%	21%	1%	0%	7%	50%	29%	14%	1%
Unemployed	11%	72%	16%	1%	0%	6%	65%	25%	4%	0%
Discouraged work-seeker	12%	75%	12%	0%	0%	8%	69%	20%	2%	0%
Other not economically active	21%	69%	9%	1%	0%	10%	69%	14%	2%	5%
<b>Total adults 15+</b>	17%	68%	14%	1%	0%	10%	60%	21%	7%	3%

Source: Census 2011

**5.5.2 Income**

According to the 2011 Census 35% of households living in shacks not in backyards earn less than R800 per month. However the quality of census data on household income is relatively poor. Each respondent is asked to report their individual income in one of twelve fairly wide bands<sup>12</sup>. Household income as reported by the Census is a derived variable, calculated by adding together the individual incomes of all members of the household<sup>13</sup>. A far more detailed source of data on incomes is the IES<sup>14</sup>. That data source indicates that 19% of households living in shacks not in backyards earned less than R800 in 2011. However, a limitation of the IES is its sample frame, which is drawn from the Census 2001. The data source may well contain a bias towards older more established informal settlements, which may contain a higher earning sample of households. A further limitation of the IES is the small sample size. There are a total of 67 household respondents who live in shacks not in backyards in the Northern Cape.

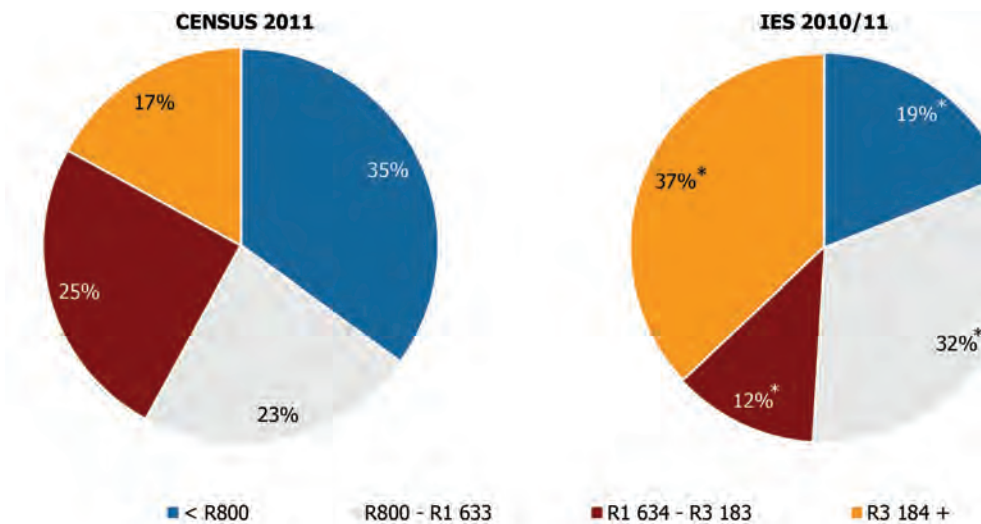
<sup>12</sup> "What is the income category that best describes the gross monthly or annual income of (name) before deductions and including all sources of income? (e.g. Social grants, UIF, remittances, rentals, investments, sales or products, services, etc.)"

<sup>13</sup> As individual incomes were recorded in intervals rather than exact amounts, a fixed amount was allocated to each range in order to calculate household income. This is summarised in the appendix

<sup>14</sup> Analysis of income in the IES excludes imputed rentals for housing

CHART 16

### HOUSEHOLD LIVES IN A SHACK NOT IN BACKYARD IN THE NORTHERN CAPE: MONTHLY HOUSEHOLD INCOME<sup>15</sup>



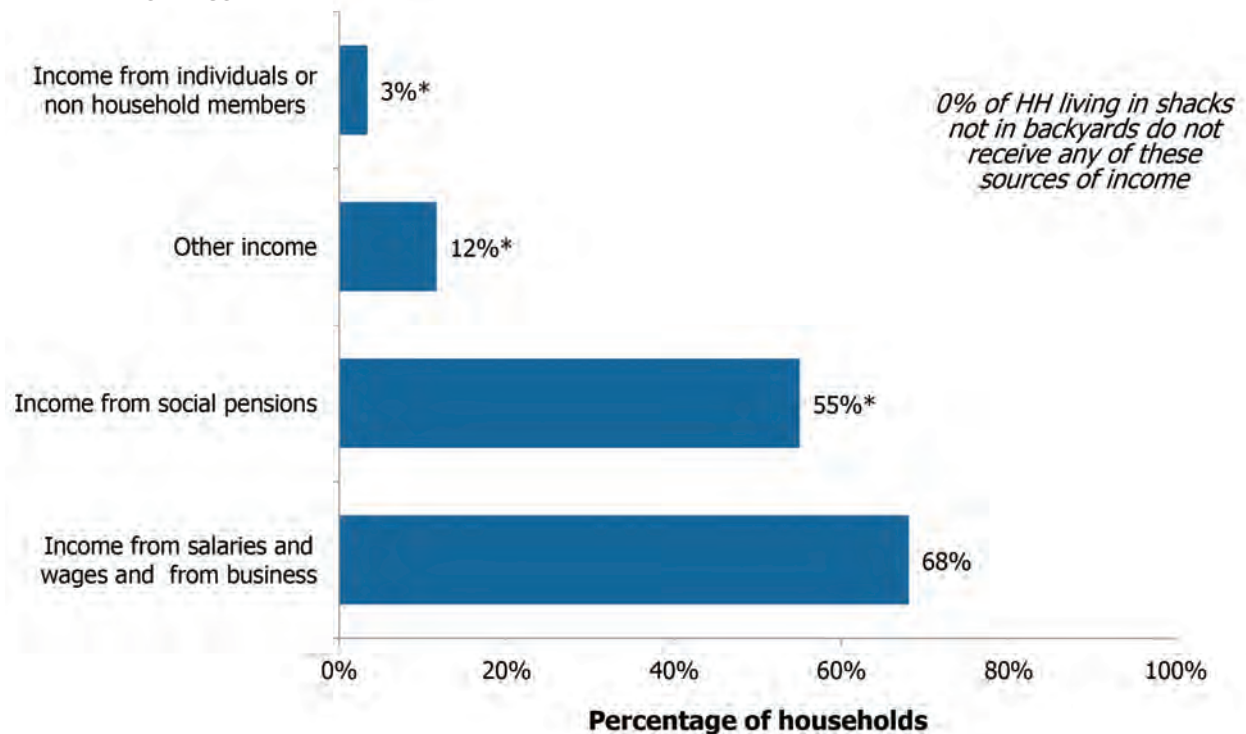
Source: Census 2011, IES 2010/11 (\* less than 40 observations)

According to the IES, 68% of households in shacks not in backyards in the province have a household income of less than R3 500 per month.

The IES indicates that the primary income source for households living in shacks not in backyards in the province is salaries/wages. Around 55% receive government grants.

CHART 17

### HOUSEHOLD LIVES IN A SHACK NOT IN BACKYARD IN THE NORTHERN CAPE: SOURCES OF INCOME



Source: IES 2010/11 (\* less than 40 observations)

<sup>15</sup> In the IES 2010/11 for the province as a whole, these proportions are: < R800 (10%), R800 - R1 633 (17%), R1 634 - R3 183 (19%), R3 184 - R6 366 (19%), R6 367 + (34%). In the Census 2011 they are: < R800 (22%), R800 - R1 633 (19%), R1 634 - R3 183 (21%), R3 184 - R6 366 (15%), R6 367 + (23%)

## 5.6 Housing waiting lists and subsidy housing

There is no data available in the census on housing waiting lists and subsidy housing. According to the GHS, 58% of households in shacks not in backyards in the Northern Cape have at least one member on the waiting list for an RDP or state subsidised house. Data from the same survey can be used to quantify the number of households who live in shacks not in backyards that might be eligible to obtain a subsidised house. Criteria include a household income of less than R3 500 per month, a household size of more than one individual, not having another dwelling, and no previous housing subsidy received. Using these criteria, 58% of households living in shacks not in backyards in the province appear to qualify for subsidy housing.



## PART 6

# Other non-survey data sources

Other non-survey data sources have been explored, including the Housing Development Agency and Eskom. There is no other settlement or household level data available from the Northern Cape or its municipalities.

### 6.1 Land and Property Spatial Information System (LaPsis)

LaPsis, an online system developed by the HDA, builds on data gathered by the NDHS and overlays onto it land and property data including cadastre, ownership, title documents and deeds (from the Deeds Office), administrative boundaries (from the Demarcation Board) and points of interest from service providers such as AfriGIS<sup>16</sup>. The informal settlements layer was last updated in November 2011. The data indicates there are 32 informal settlements in the Northern Cape; 13% of these have a household and shack count.

### 6.2 Eskom's Spot Building Count (also known as the Eskom Dwelling Layer)

Eskom has mapped and classified structures in South Africa using image interpretation and manual digitisation of high resolution satellite imagery. Where settlements are too dense to determine the number of structures given the resolution of the satellite imagery the area is categorised as a 'Dense Informal' area. These areas are often informal settlements although Eskom does not have a specific definition in that regard. Identifiable dwellings and building structures are mapped by points while dense informal settlements are mapped by polygons. The dataset was last updated in November 2011.

Data provided by Eskom revealed 94 polygons categorised as Dense Informal in the Northern Cape, covering a total area of 7.6 square kilometres.

### 6.3 Summary of estimates

According to LaPsis 2011 estimates there are 32 informal settlements in the Northern Cape province; there are no provincial estimates available for comparison.

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<sup>16</sup> AfriGIS was given informal settlements data by the provincial departments of housing to create the map layers

TABLE 1.1 NUMBER OF INFORMAL SETTLEMENTS	
	Number of informal settlements
	LaPsis 2011: Informal settlements atlas
Frances Baard	12
John Taolo Gaetsewe	-
Namakwa	11
Pixley ka Seme	1
Siyanda	8
Northern Cape	32

Note: According to Eskom's Spot Building Count last updated in November 2011, there are 94 polygons in the Northern Cape classified as "Dense Informal"

## PART 7

# Appendix: Statistics South Africa Surveys

## 7.1 Censuses 2011 and 2001

### Census 2011

- Demarcation → Classification → Listing (Dwelling Unit, Business, Park, and so on)
- Demarcation for the 2011 Census involved subdividing the country into Place Names and Enumeration Areas based on specifications of administrative boundaries, size and population density
- Data used in the demarcation process included Dwelling Frame data from Stats SA and various external data sources, including:
  - Aerial photography, satellite imagery
  - Addresses (Place Names)
  - Cadastral data
  - Administrative boundaries
- Demarcation produced a total of 103,576 EAs which were classified into ten EA Types in line with the status of the majority of visible dwellings at the time of demarcation:
  - Formal residential
  - Informal residential
  - Traditional residential
  - Farms
  - Smallholdings
  - Industrial
  - Parks and Recreation
  - Vacant
  - Collective living quarters
  - Commercial
- The EAs were demarcated according to specific rules and guidelines per EA Type. Where the data was incomplete or missing, Spot 5 satellite images were used resulting in some larger EAs being split further during the verification and listing fieldwork

### Census 2001

- Demarcation for the Census in 2001 resulted in ten EA Types based on its geographic location as well as the land use and type of dominant dwellings within each EA
- Ten EA Types were categorised in 2001:
  - Urban settlement
  - Informal settlement
  - Tribal settlement
  - Farms
  - Smallholdings
  - Industrial
  - Recreational
  - Vacant
  - Institution + Hostel
- The name changes in some EA Types is due to a change in terminology and not a change in methodology

### Censuses 2001 & 2011

- Enumerator Area Summary Books were printed, containing a map and/or aerial photographs of each EA, an orientation map for each EA (route from the nearest town), a list of all dwellings in the EA with their addresses where applicable, or some type of identifying description
- The EA Summary Book is used during the listing phase to record each residential and non-residential structure found in the EA as well as vacant stands
- In the instance of collective living quarters, each room / ward / cell / dormitory / section was listed
- Extra dwellings found not on the list were to be added and enumerated

## 7.2 Census 2011: Derived household income

Household income in the Census is a derived variable, calculated by adding together the individual incomes of all members of the household. The result for each household is then reallocated into the relevant income category. A fixed amount had to be allocated to each income range in order to derive household income. These amounts were as follows:

Range	Proxy values calculated
No Income	0
R1 - R 4 800	3 200
R 4 801 – R 9 600	7 200
R 9 601 – R 19 200	13 576
R 19 201 – R 38 400	27 153
R 38 401 – R 76 800	54 306
R 76 801 – R 153 600	108 612
R 153 601 – R 307 200	217 223
R 307 201 – R 614 400	434 446
R 614 401 – R1 228 800	868 893
R1 228 801 – R2 457 600	1 737 786
R2 457 601 or more	4 915 200

## 7.3 General Household Survey 2011

- The 2011 GHS is a survey covering a broad array of topics including housing conditions, tenure and access to services, household composition, grants, disability, education and schooling, health and access to health facilities, general indicators of well-being and employment
- In some instances, small sample sizes limit the extent to which data can be interrogated
- In the case of the Western Cape, the sample for all households is 2,898 while the sample size for households in shacks not in backyards is 161
- The sample frame is based on Census 2001 EA level data
- This has been augmented throughout the past decade through additional listings, including work done for the 2007 Community Survey
- There are continuous changes across Primary Sampling Units (PSUs)
- PSUs comprise several EAs grouped according to geotype
- Three different sample designs were used over the years: 2002-2004, 2005-2007, 2008-present
- Sample may be biased toward older, more established settlements if the sample design does not explicitly incorporate newer informal settlements
- The target population of the GHS is private households in all provinces of South Africa as well

as residents in workers' hostels. The survey does not cover other collective living quarters such as students' hostels, old age homes, hospitals, prisons and military barracks

## 7.4 Income and Expenditure Survey 2010/11

- The 2010/11 IES is a survey of income and expenditure patterns
- It is based on a combination of the diary and recall methods of capture
- In some instances, small sample sizes limit the extent to which data can be interrogated
- In the case of the Free State, the sample for all households is 2,172 while the sample size for households in shacks not in backyards is 172
- This survey was conducted between September 2010 and August 2011
- The sampling frame for the IES 2010/11 was obtained from Stats SA's Master Sample based on the 2001 Census Enumeration Areas (EAs). The Master Sample is designed to cover all households living in private dwelling units and workers living in workers' quarters in South Africa
- The IES 2010/11 sample is based on an extended sample of 3,254 PSUs which consist of the 3,080 PSUs in the Master Sample and an additional 174 urban PSUs selected from the PSU frame
- The estimates in the IES have not been weighted to Census 2011; rather the survey has been weighted to mid-March 2011 population estimates
- The IES uses an integrated weighting system not tailored to estimate households; therefore it is advisable to use proportions and averages rather than actual population numbers
- Stats SA is confident that estimates are representative of the sample on the ground and that shacks are covered well in the IES (as well as the Census)



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