

North West: Informal settlements Status (2013)



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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.

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List of abbreviations

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

PART 1

Introduction

In terms of the HDA Act No. 23, 2008¹, 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 North West province.

¹ 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

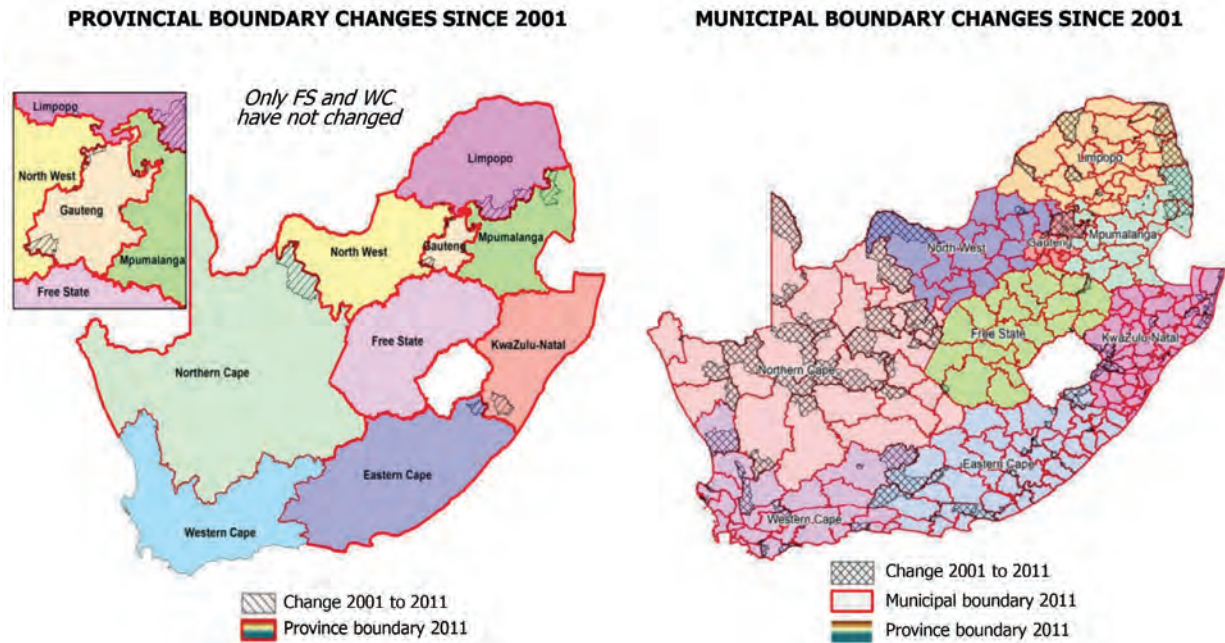
Currently the 2011 Census data is available for analysis using Statistics South Africa's SuperWEB or SuperCROSS software. This system is not fully interactive; not all variables can be cross tabulated. By way of example, education and employment data cannot be analysed by type of main dwelling people 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 Africa².

² 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 North West 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"> • Illegality and informality; • Inappropriate locations; • Restricted public and private sector investment; • Poverty and vulnerability; and • Social stress
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

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 North West

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 North West has increased from 760,588 in 2001 to 1,062,015 in 2011. At the same time the total population has increased from 2,984,098 in 2001 to 3,509,953 in 2011. Households have grown faster than the individual population (3.4% CAGR³ for households compared to 1.6% for individuals) and household sizes have continued to decline from 4.6 in 1996, to 3.9 in 2001, and 3.3 in 2011⁴. Driving the growth in the trend towards smaller average household sizes is the noticeable increase in the proportion of one-person households. In 2001 23% of all households in the North West province were comprised of one person living alone while in 2011 31% of all households were comprised of one person.

Surprisingly according to the 2011 Census, one-person households are more common in tribal or traditional areas than in urban areas. In 2011 in the North West 33% of households living in areas demarcated as tribal or traditional were one-person households compared to 31% of households living in areas demarcated as urban areas. These one-person households are in many cases attached to other households living elsewhere. According to the IES 41% of one person households in the North West 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.

Migration, presumably for economic reasons, has played a significant part in shaping the population distribution across the province. According to Statistics South Africa's 2011 mid-year population estimates, there was a net out-migration of 19,168 individuals from the North West province between 2006 and 2011. The majority of out-migrants (57%) have moved to Gauteng

³ Compound annual growth rate

⁴ Census 2011 Statistical release – P0301.4 (revised)

TABLE 3 ESTIMATED PROVINCIAL MIGRATION STREAMS OF PEOPLE IN THE NORTH WEST: 2006 – 2011				
	Out-migration		In-migration	
	Province in 2011	Percentage	Province in 2006	Percentage
Gauteng	101 430	57%	49 544	31%
KwaZulu-Natal	21 830	12%	7 941	5%
Free State	15 623	9%	22 541	14%
Limpopo	12 306	7%	25 596	16%
Mpumalanga	10 716	6%	11 521	7%
Northern Cape	9 402	5%	10 703	7%
Eastern Cape	4 836	3%	28 139	18%
Western Cape	3 319	2%	4 309	3%
Total	179 462	100%	160 294	100%

Net migration: -19 168

Ratio of in-migration to out-migration 0.9

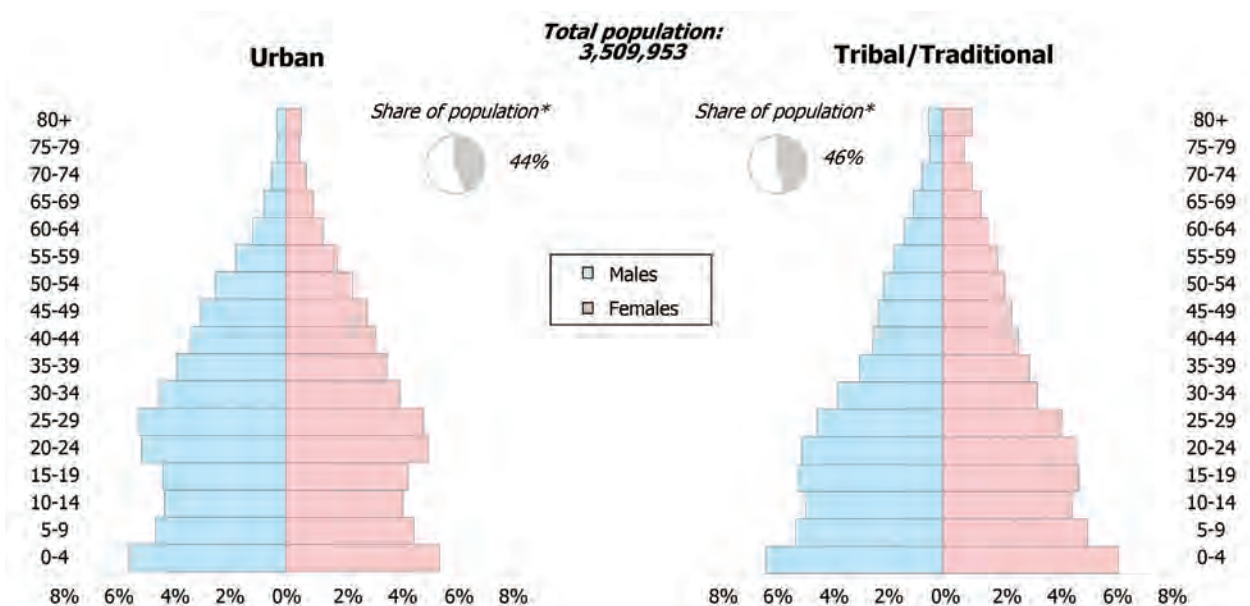
Source: Stats SA mid-year population estimates 2011

Note: These estimates do not incorporate foreign migrants

According to the 2011 Census, in the North West 6% of the population moved from a different province between 2001 and 2011. A further 10% have moved within the province since 2001. Migration patterns have an impact on the composition of the population. A higher proportion of the population in tribal or traditional areas is under the age of 15, while in urban areas the proportion of young adults is higher.

CHART 2

POPULATION PYRAMID: NORTH WEST

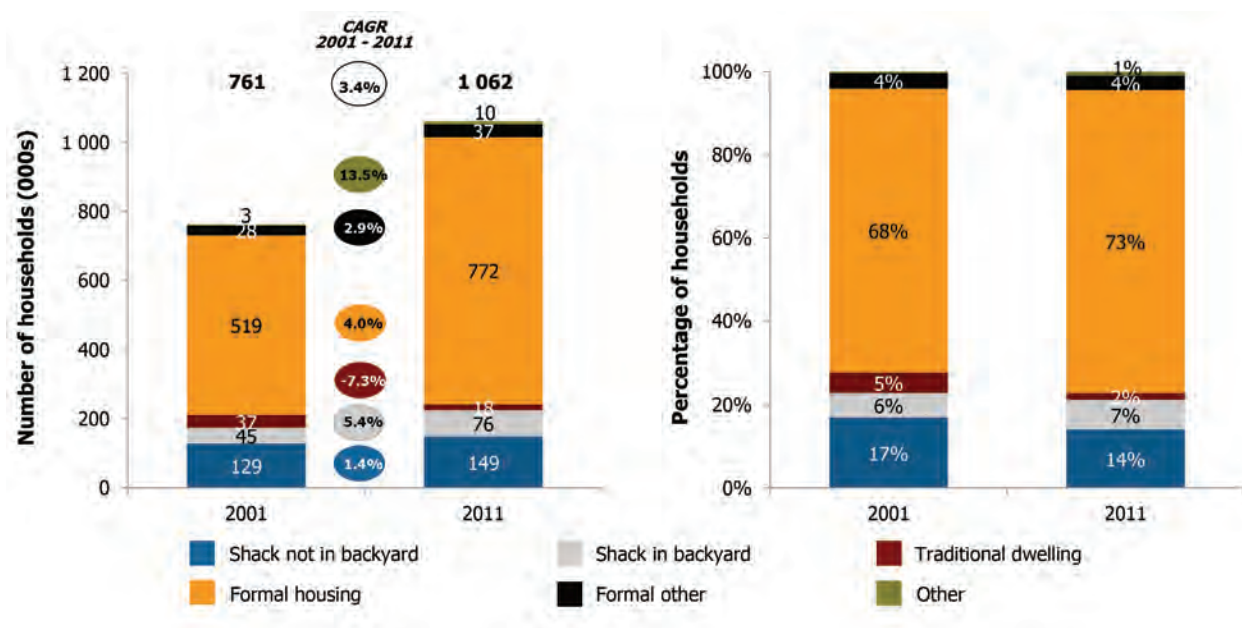


Source: Census 2011

The total number of households living in formal dwellings has increased by 262,412 over the ten years between 2001 and 2011. The proportion of households living in formal dwellings⁵ has increased from 72% in 2001 to 77% in 2011. The proportion of households living in shacks not in backyards has declined from 17% in 2001 to 14% in 2011.

CHART 3

TYPE OF MAIN DWELLING IN THE NORTH WEST



Source: Census 2001, Census 2011

Note: Formal housing contains: House or brick/concrete structure on a separate stand or yard, Town / cluster / semi-detached house, Flat or apartment. Formal other contains: House/flat/room in backyard, Room/flatlet on a property or larger dwelling/servants quarters/granny flat

The additional number of households living in formal housing is a useful proxy for the growth in the housing stock. Between 2001 and 2011 Stats SA reports that formal private sector residential new build amounted to approximately 39 000 housing units. The balance, namely 214 000 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.

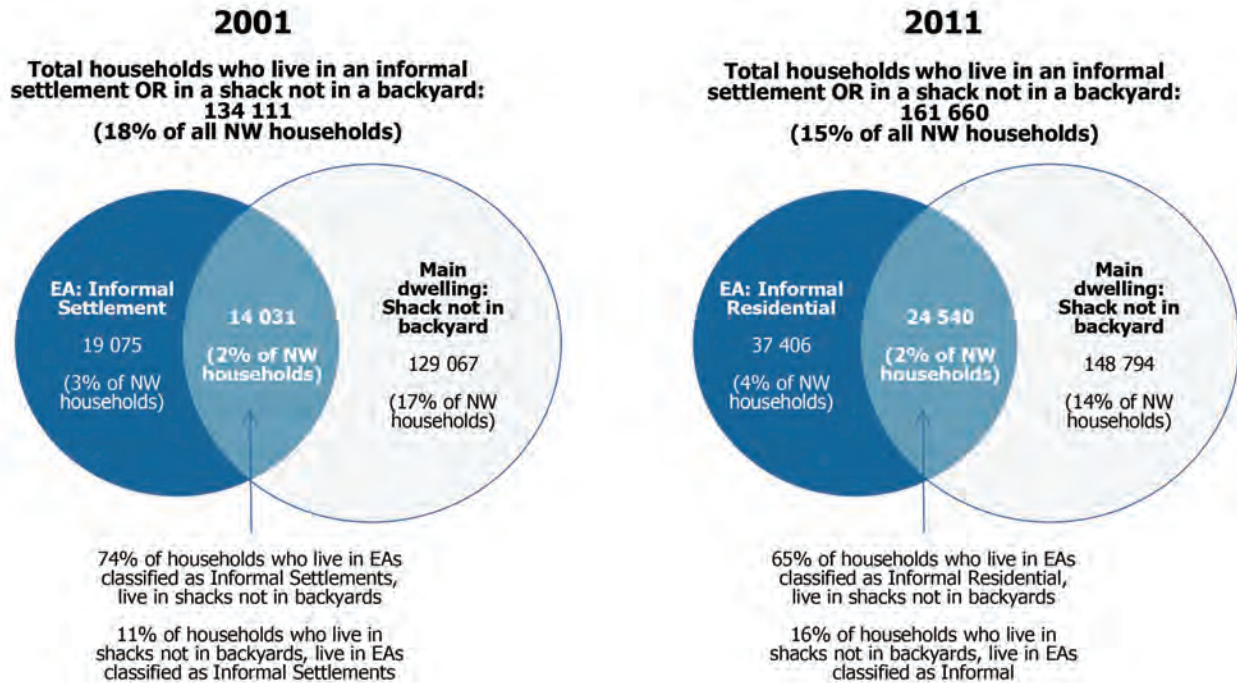
It appears that the number of households living in informal settlements, as proxied either by dwelling type (shack not in backyard) or EA (informal residential), has increased in the North West province. In 2001 there were 129,067 households living in shacks not in backyards compared to 148,794 in 2011. With regard to EAs, 19,075 households lived in areas demarcated by Stats SA as informal settlements in 2001 compared to 37,406 in 2011 in areas demarcated as informal residential⁶.

⁵ Formal dwelling contains: House or brick/concrete structure on a separate 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

⁶ 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 NORTH WEST



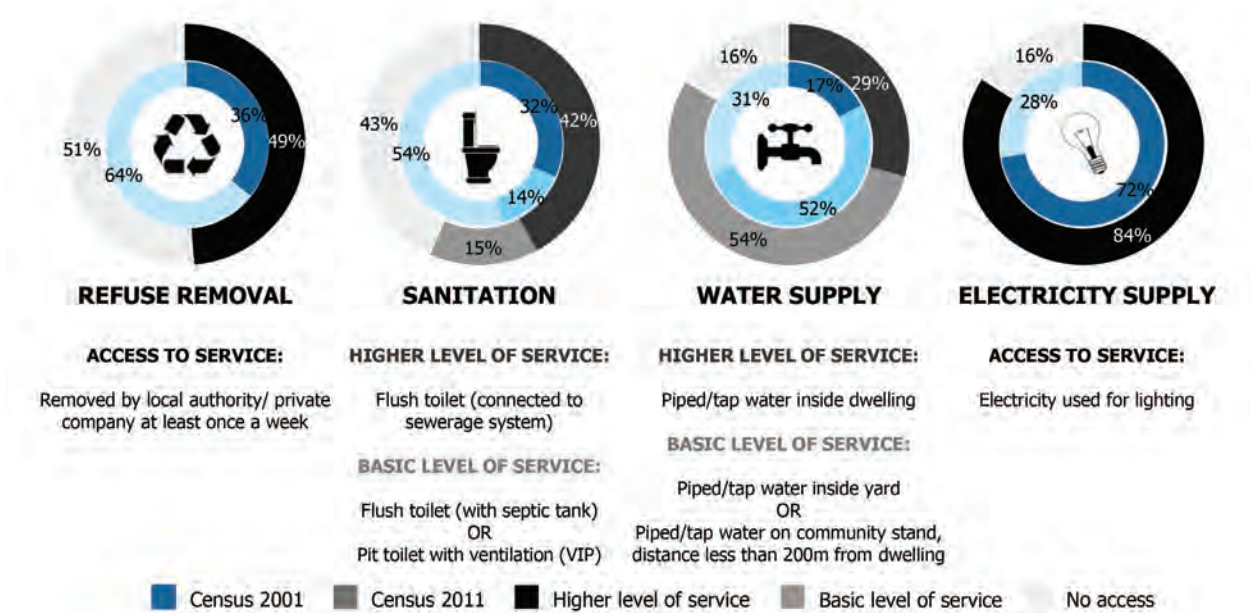
Source: Census 2001, Census 2011

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 5.4% per year, albeit off a low base. In terms of total households, Census 2011 indicates a total of 76,182 households living in shacks in backyards compared to 44,879 in 2001.

Across the province, the proportion of households who had access to refuse removal services increased from 36% in 2001 to 49% in 2011, while access to sanitation and piped water also improved noticeably. Likewise, access to electricity increased from 72% of all households in 2001 to 84% in 2011.

CHART 5

ACCESS TO SERVICES IN THE NORTH WEST 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 noticeable shift towards rental accommodation. In 2001 roughly 16% of households in the North West rented their primary dwellings. This had increased to 24% in 2011.

TABLE 4 HOUSEHOLDS LIVING IN THE NORTH WEST: TENURE STATUS BY TYPE OF MAIN DWELLING

	Census 2001			Census 2011			
	Owned	Rented	Occupied rent-free	Owned	Rented	Occupied rent-free	Other
Formal dwelling	61%	15%	24%	55%	23%	19%	3%
Traditional dwelling	48%	7%	45%	60%	10%	25%	5%
Shack in backyard	39%	39%	22%	31%	50%	16%	6%
Shack not in backyard	56%	12%	32%	51%	19%	26%	3%
Other	47%	16%	37%	35%	29%	31%	3%
Total	58%	16%	26%	52%	24%	20%	3%

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

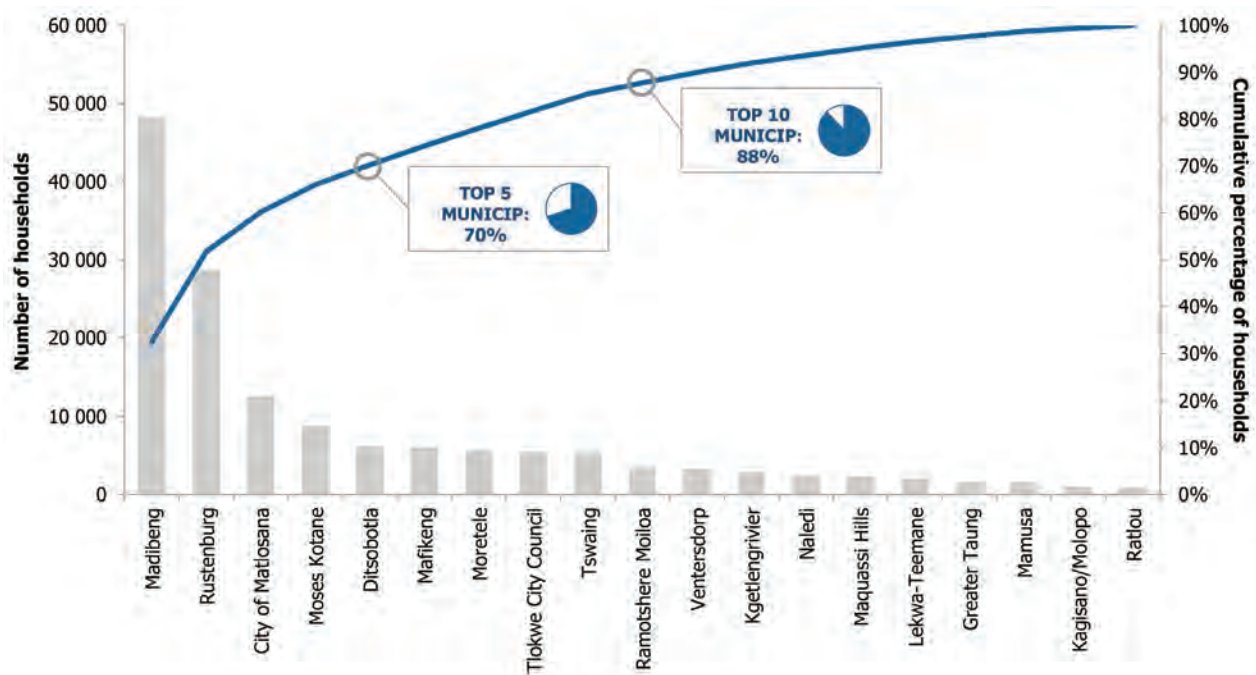
Number of households living in informal settlements in the North West

The data indicates that there are a total of 148,794 households, containing 430,136 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 North West.

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. Together Madibeng and Rustenburg account for 52% of households living in shacks not in backyards in the province. These two local municipalities house approximately 34% of households in the province in total.

CHART 6

HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS BY LOCAL MUNICIPALITY IN THE NORTH WEST



Source: Census 2011

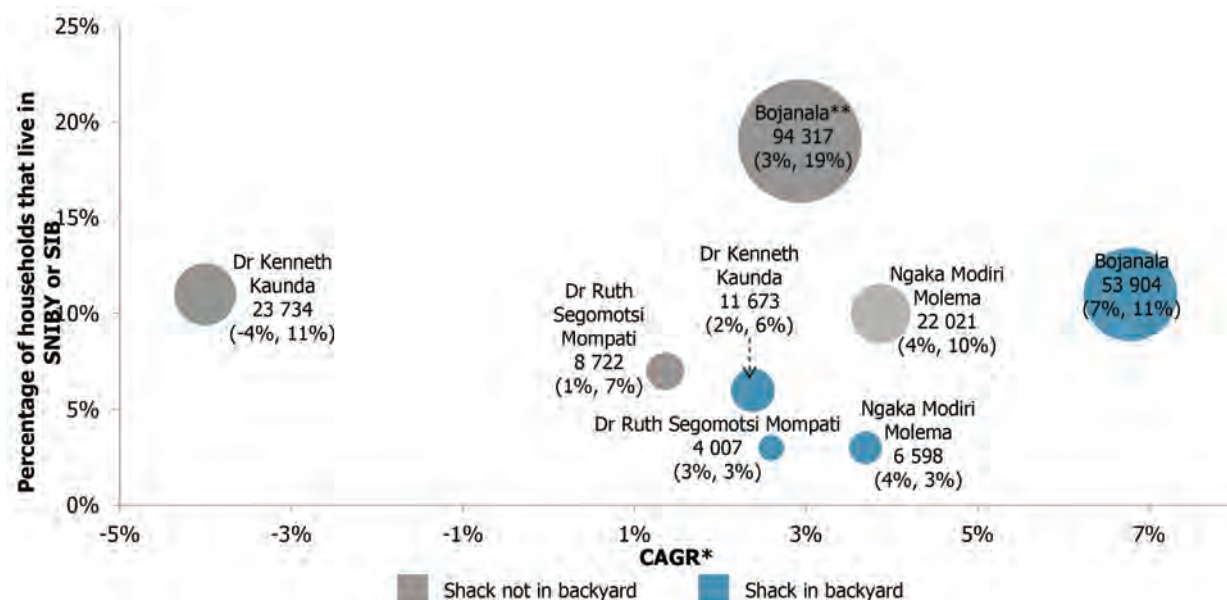
Bojanala district municipality has the highest proportion of households who live in shacks not in backyards (19%) across the district municipalities in the North West. The number and proportion of households living in shacks not in backyards by district municipality is summarised below. Together, shacks in backyards and shacks not in backyards accommodate 21% of all households in the Province⁷.

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
Bojanala	94 317	19%	53 904	11%
Dr Kenneth Kaunda	23 734	11%	11 673	6%
Ngaka Modiri Molema	22 021	10%	6 598	3%
Dr Ruth Segomotsi Mompati	8 722	7%	4 007	3%
North West	148 794	14%	76 182	7%

Source: Census 2011

The fastest growing municipalities with regard to the total number of households living in shacks not in backyards have been Ngaka Modiri Molema and Bojanala. With the exception of the shacks not in backyards in Dr Kenneth Kaunda district municipality, across all municipalities the number of households living in shacks not in backyards and shacks in backyards has grown over the 10 years from 2001 to 2011.

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: Bojanala district municipality had 94 317 households living in shacks not in backyards in 2011. This has grown by a rate of 3% compounded annually between 2001 and 2011. 19% of households in Bojanala live in shacks not in backyards

⁷ This is the highest proportion across all provinces

According to the 2011 Census⁸, roughly 51% of households living in shacks not in backyards in the North West regard themselves as owners, with 26% who say they occupy the dwelling for 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. Nineteen per cent of households living in shacks not in backyards say they rent their dwellings⁹.

⁸ 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"

⁹ Three per cent responded 'other' – there is no indication as to what this entails

PART 5

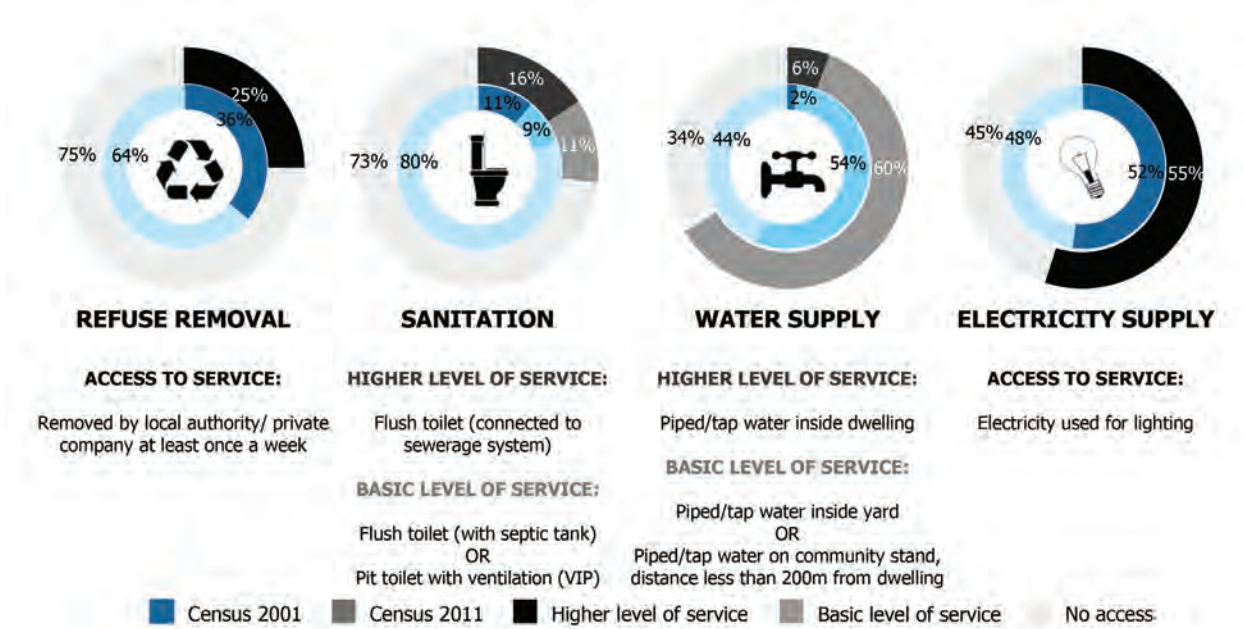
Profiling informal settlements in the North West

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 NORTH WEST 2001 VS. 2011: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS



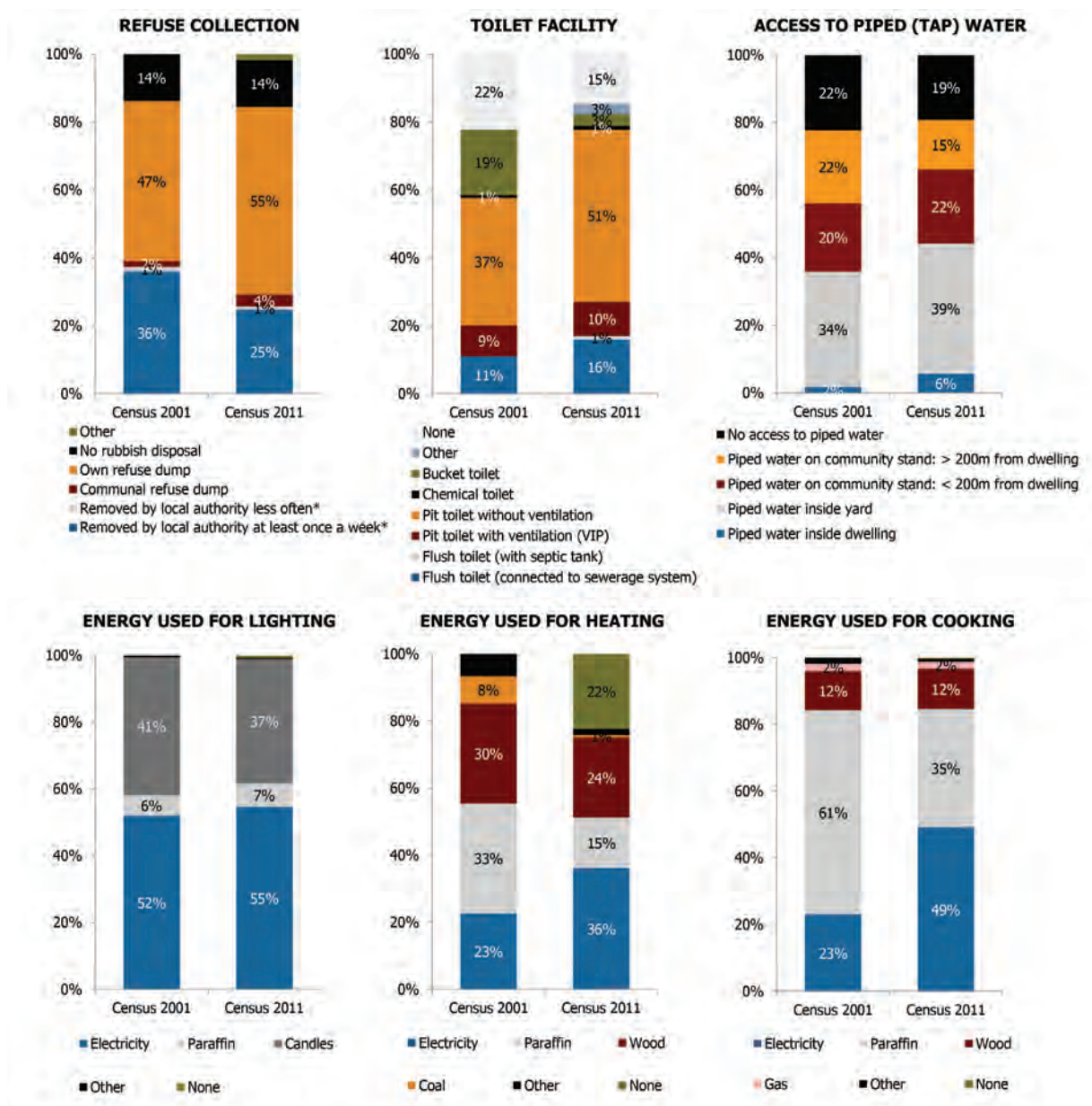
Source: Census 2001, Census 2011

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

Access to water, sanitation and electricity has improved for households living in shacks not in backyards in the North West province since 2001. More detailed data on the nature of services is summarised in the charts below.

CHART 9

ACCESS TO SERVICES IN THE NORTH WEST: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS

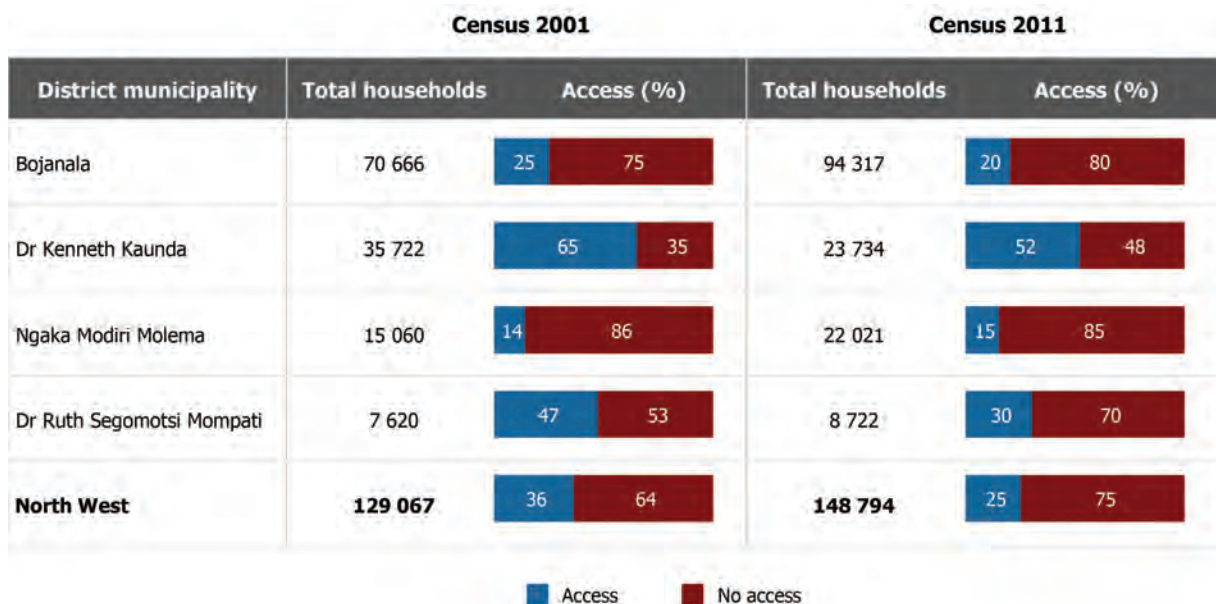


Source: Census 2001, Census 2011

* 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 Ngaka Modiri Molema where there has been a marginal increase in access to refuse removal since 2001.

CHART 10 ACCESS TO REFUSE REMOVAL IN THE NORTH WEST: 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. In Dr Kenneth Kaunda, access to flush toilets has increased significantly. This district municipality has the highest level of access to sanitation for households in shacks not in backyards in the province. In that district 30% of households living in shacks not in backyards do not have access to basic sanitation services. This is in comparison to 85% of households in shacks not in backyards in Ngaka Modiri Molema, the district municipality with the lowest level of access to sanitation.

CHART 11 ACCESS TO SANITATION IN THE NORTH WEST: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS

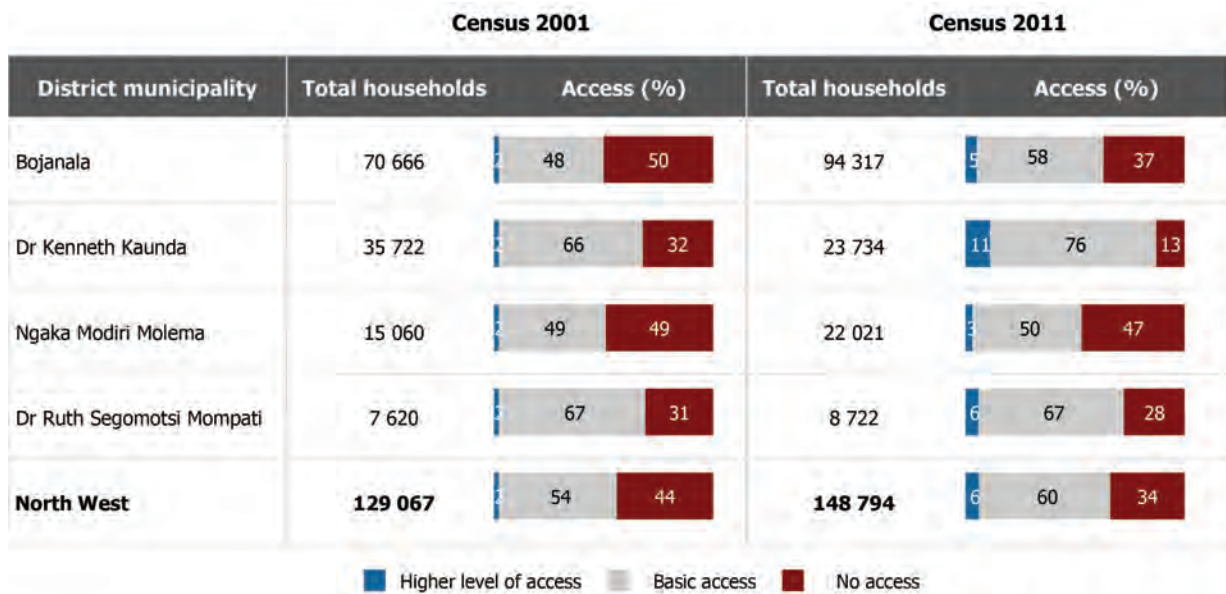


Source: Census 2001, Census 2011

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.

CHART 12 ACCESS TO WATER IN THE NORTH WEST: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS

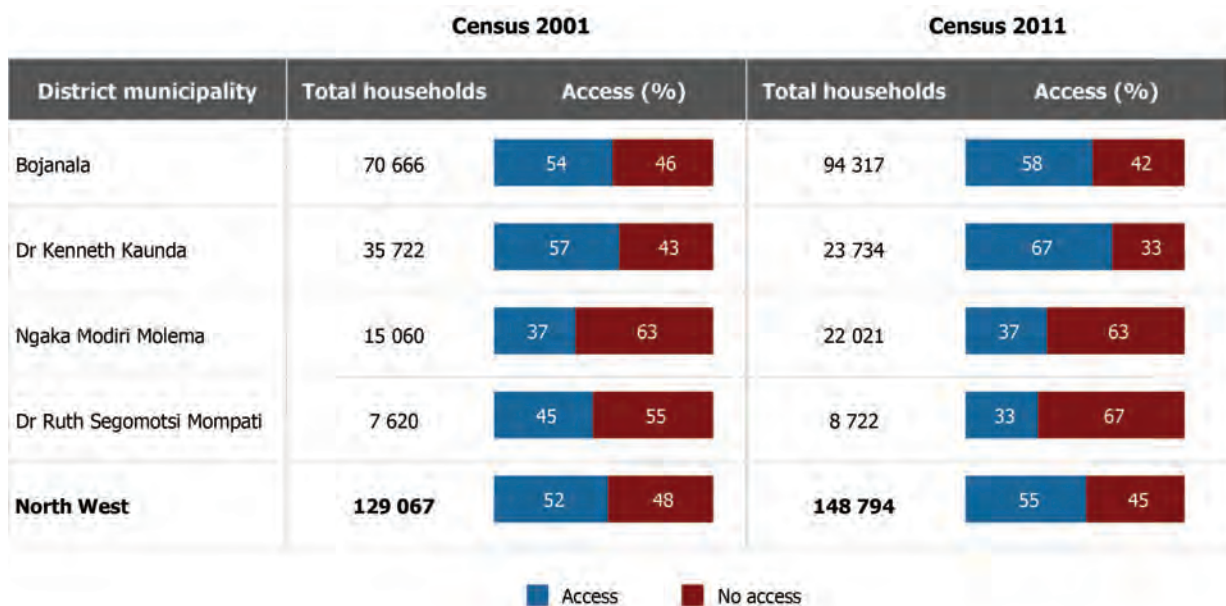


Source: Census 2001, Census 2011

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 Bojanala and Dr Kenneth Kaunda, remained constant in Ngaka Modiri Molema and declined in Dr Ruth Segomotsi Mompoti since 2001.

CHART 13 ACCESS TO ELECTRICITY IN THE NORTH WEST: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS



Source: Census 2001, Census 2011

Note: Access to electricity: Use electricity for lighting

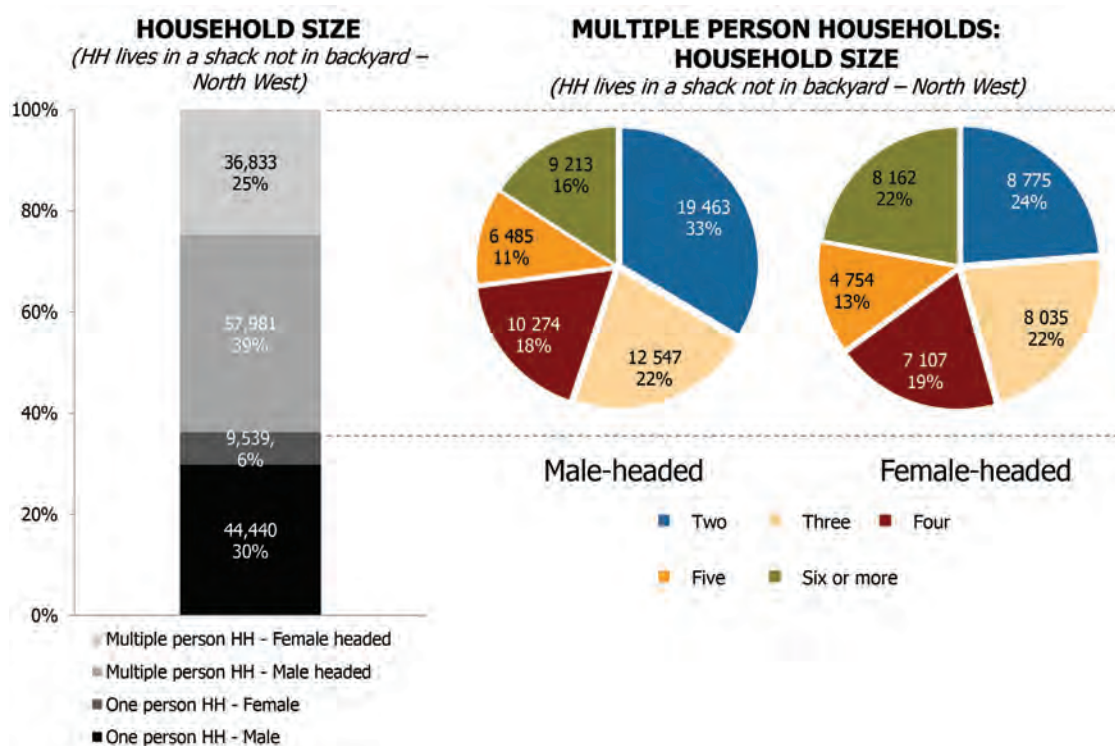
5.2 Household characteristics

The average household size for households who live in shacks not in backyards at 2.9 is slightly lower than the provincial average of 3.1. This reflects a slightly higher proportion of one-person households who live in shacks not in backyards. Census 2011 indicates that roughly 36% of households who live in shacks not in backyards in the North West are one-person households; for households in the province as a whole this proportion is 31%.

The size distribution of households living in shacks not in backyards together with data on the gender of the head of the household is summarised below. Over two thirds of households (69%) are male-headed. Of those households comprising more than one person, female-headed households are slightly larger.

CHART 14

HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS IN THE NORTH WEST: 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, 26% of all multi-person households who live in shacks not in backyards in the North West 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 36,164 children under the age of 18 who live in informal residential EAs accounting for 3% of all children in the North West. There is a slight skew towards very young children in informal residential areas; 38% of all children are under the age of five, compared to 33% for the province as a whole.

TABLE 6 NUMBER AND PERCENTAGE OF CHILDREN BY AGE GROUP IN THE NORTH WEST				
Age group of children	Children in Informal residential EAs	Percentage	All children	Percentage
0 - 4	13 858	38%	404 347	33%
5 - 6	4 406	12%	143 539	12%
7 - 10	7 445	21%	251 768	20%
11 - 14	6 064	17%	240 708	20%
15 - 17	4 390	12%	188 708	15%
Total	36 164	100%	1 229 071	100%

Source: Census 2011

According to the census, 83% of children under the age of 15 in informal residential EAs in the North West have both parents still living¹⁰ (the corresponding proportion for the province as a whole is 80%¹¹).

Eighty four per cent of children aged 7 to 17 living in informal residential EAs in the North West currently attend an educational institution. School attendance for those aged 7 to 17 living in informal residential EAs is lower than for the province as a whole. The most significant difference is in the 15 to 17 age group where 70% of children that live in informal EAs are attending an educational institution relative to 85% for the province as a whole.

TABLE 7 CHILDREN AGED 7 - 17 YEARS IN THE NORTH WEST: ATTENDANCE OF CHILDREN AT AN EDUCATIONAL INSTITUTION		
Children 7 - 17	Informal residential EA	All children
7 - 10	89%	94%
11 - 14	89%	94%
15 - 17	70%	85%
Total*	84%	91%

Source: Census 2011

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

¹⁰ For children in the country as whole living in informal residential EAs this proportion is 81%

¹¹ 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 30% of all individuals who live in informal residential EAs moved between 2001 and 2011. Of these, 19% corresponding to 6055 individuals have moved from outside South Africa. The table below summarises findings in this regard.

TABLE 8 MIGRATION IN THE NORTH WEST	
Total number of people who moved between 2001 and 2011	630 408
Number of people who moved between 2001 and 2011 who live in informal EAs	31 071
Proportion of those who live in informal EAs who moved between 2001 and 2011	30%
Proportion of total who moved between 2001 and 2011 who live in informal EAs	5%
Provinces most moved from (informal EAs)	North West (46%) Outside of SA (19%)

Source: Census 2011

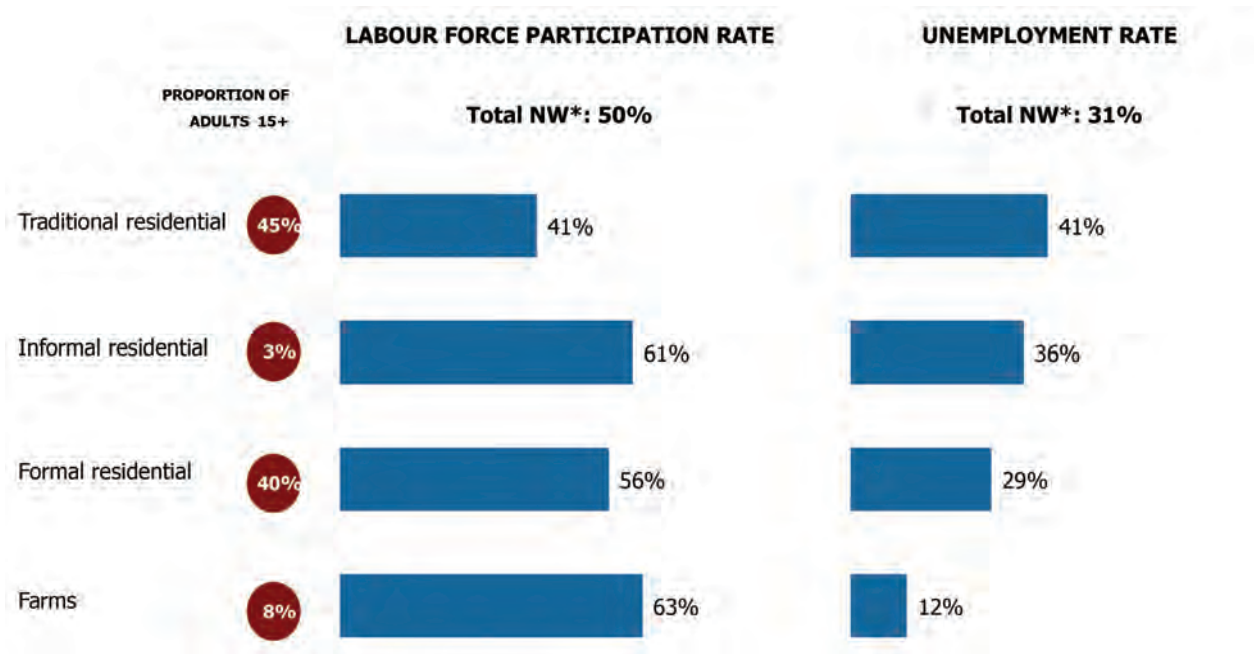
5.5 Employment and income

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 NORTH WEST: LABOUR FORCE PARTICIPATION RATES AND UNEMPLOYMENT RATES BY TYPE OF ENUMERATION AREA



Source: Census 2011

Note: * Total NW also includes: Collective living quarters (2%), 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 is employed in the formal sector compared to all employed adults.

TABLE 9

SECTOR OF WORK IN THE NORTH WEST: PERCENTAGE OF EMPLOYED ADULTS 15+

	Formal Sector	Informal Sector	Private household	Don't know
Informal residential EA	63%	16%	17%	3%
All employed adults in province	68%	15%	15%	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 province as a whole. Eighty two per cent of employed adults living in informal EAs in the North West do not have a matric.

TABLE 10

ADULTS 15+ IN THE NORTH WEST: 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%	71%	17%	1%	0%	7%	48%	30%	14%	1%
Unemployed	9%	74%	15%	1%	0%	5%	61%	29%	4%	0%
Discouraged work-seeker	12%	74%	12%	1%	0%	8%	66%	23%	3%	0%
Other not economically active	20%	69%	9%	1%	1%	11%	65%	16%	3%	5%
Total adults 15+	15%	70%	13%	1%	1%	10%	57%	23%	7%	3%

Source: Census 2011

5.5.2 Income

According to the 2011 Census 37% 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 bands¹². Household income as reported by the Census is a derived variable, calculated by adding together the individual incomes of all members of the household¹³. A far more detailed source of data on incomes is the IES¹⁴. That data source indicates that 25% 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.

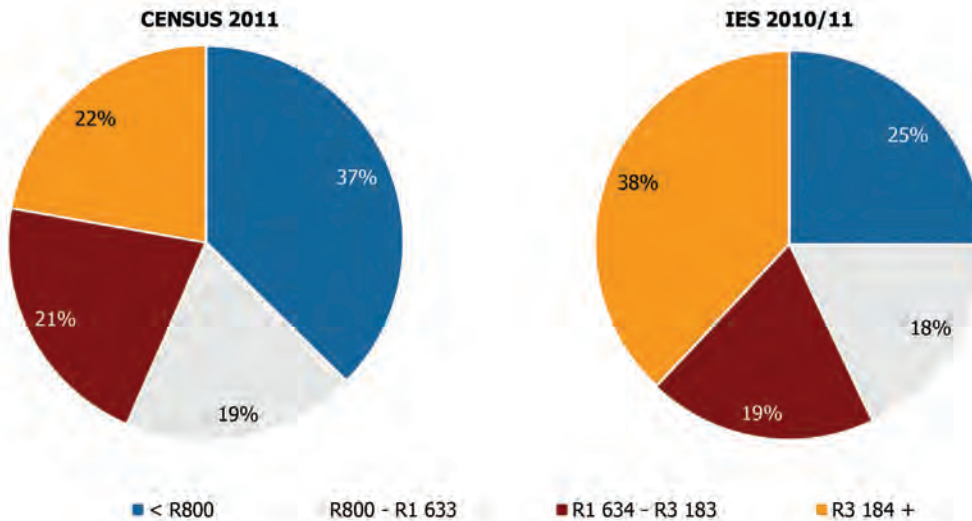
¹² "What is the income category that best describes the gross monthly or annual income of (name) before deductions and including all sources of income? (e.g. Social grants, UIF, remittances, rentals, investments, sales or products, services, etc.)"

¹³ 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

¹⁴ Analysis of income in the IES excludes imputed rentals for housing

CHART 16

HOUSEHOLD LIVES IN A SHACK NOT IN BACKYARD IN THE NORTH WEST: MONTHLY HOUSEHOLD INCOME¹⁵



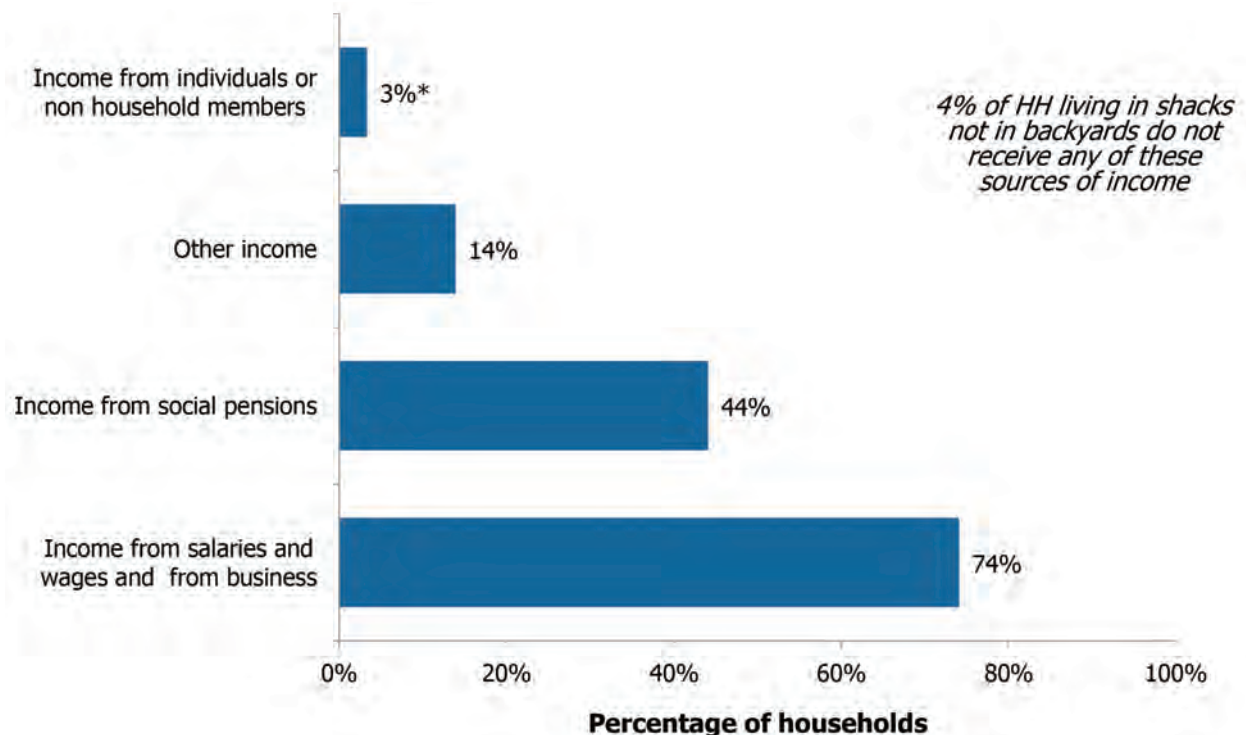
Source: Census 2011, IES 2010/11

According to the IES, 66% 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 44% receive government grants.

CHART 17

HOUSEHOLD LIVES IN A SHACK NOT IN BACKYARD IN THE NORTH WEST: SOURCES OF INCOME



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

Note: Analysis excludes income from imputed rentals

¹⁵ In the IES 2010/11 for the province as a whole, these proportions are: < R800 (17%), R800 - R1 633 (21%), R1 634 - R3 183 (19%), R3 184 - R6 366 (18%), R6 367 + (25%). In the Census 2011 they are: < R800 (28%), R800 - R1 633 (19%), R1 634 - R3 183 (20%), R3 184 - R6 366 (15%), R6 367 + (18%)

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, 24% of households in shacks not in backyards in the North West 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, around 39% 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. Additionally, data is available from the North West province.

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 AfriGIS¹⁶. The informal settlements layer was last updated in November 2011. The data indicates there are 175 informal settlements in the North West; none of these have a household or 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 51 polygons categorised as Dense Informal in the North West, covering a total area of 7.7 square kilometres.

6.3 Provincial data: North West

Note: Provincial estimates from North West have not changed since the previous informal settlements study in 2011 by Eighty20. Data coverage and methodologies summarised below are taken directly out of that study.

At the time of the previous study, North West province was in the process of updating its 2009 estimates of the number of informal settlements in the province. No updates in that regard were provided to the project team for this study. Those estimates indicated a total of 150 informal settlements in the province containing just over 66,000 dwelling units which housed a population of 264,270 individuals.

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

TABLE 1.1 NORTH WEST PROVINCE: 2009 ESTIMATES					
Municipality (district and local)	Settlements (#)	Area (ha)	Dwelling units	Population (#)	% Share Pop (District)
Bojanala Platinum District Municipality					
Kgetlengrivier	7	88.1	2 049	8 196	5.1%
Madibeng	36	332.26	11 442	45 768	28.2%
Moretele	-	-	-	-	-
Moses Kotane	3	52.22	1 930	7 720	4.8%
Rustenburg	31	769	25 102	100 394	61.9%
Sub-Total	77	1242	40 523	162 078	100.0%
Dr Kenneth Kaunda					
Maquassi Hills	7	20.05	740	2 960	9.5%
Matlosana	11	86.71	2 352	9 408	30.3%
Tlokwe	6	78.9	2 223	9 052	29.2%
Ventersdorp	8	65.04	2 403	9 612	31.0%
Sub-Total	32	250.7	7 718	31 032	100.0%
Ngaka Modiri-Molema					
Ditsobotla	6	83.09	3 169	12 676	33.3%
Mafikeng	2	75.62	789	3 156	8.3%
Ramotshere	3	31.72	1 173	4 692	12.3%
Ratlou	-	-	-	-	-
Tswaing	8	116.78	4 399	17 596	46.2%
Sub-Total	19	307.21	9 530	38 120	100.0%
Ruth Mompoti					
Greater Taung	-	-	-	-	-
Kagisano	2	34.89	1 288	5 152	15.6%
Lekwa-Teemane	1	35.06	1 295	5 180	15.7%
Mamusa	13	84.38	2 729	10 916	33.0%
Molopo	2	19.03	703	2 812	8.5%
Naledi	4	68.99	2 245	8 980	27.2%
Sub-Total	22	242.35	8 260	33 040	100.0%
TOTAL	150	2 042	66 031	264 270	

Source: North West province

6.4 Summary of estimates

There are some discrepancies between the various estimates of the number of informal settlements in the North West province. The most significant discrepancy is in Ngaka Modiri Molema; LaPsis estimates 46 informal settlements compared to the provincial estimate of 19. It is not clear whether the definitions of informal settlements are aligned.

TABLE 12 NUMBER OF INFORMAL SETTLEMENTS		
	Number of informal settlements	
	LaPsis 2011: Informal settlements atlas	Provincial estimates 2009
Bojanala	61	77
Dr Kenneth Kaunda	32	32
Dr Ruth Segomotsi Mompati	36	22
Ngaka Modiri Molema	46	19
North West	175	150

Note: According to Eskom's Spot Building Count last updated in November 2011, there are 51 polygons in the North West province classified as "Dense Informal"

According to provincial estimates from 2009 there were around 66,000 dwelling units in informal settlements in the North West province in that year. This is far below the 2011 Census estimate of nearly 149,000 households living in shacks not in backyards.

TABLE 13 NUMBER OF HOUSEHOLDS/DWELLING UNITS IN INFORMAL SETTLEMENTS			
	Number of households in informal settlements		Number of dwelling units in informal settlements
	Census 2011: HH in shacks not in backyards	Census 2011: HH in informal residential EAs	Provincial estimates 2009
Bojanala	94 317	23 578	40 523
Dr Kenneth Kaunda	23 734	4 515	7 718
Dr Ruth Segomotsi Mompati	8 722	5 945	8 260
Ngaka Modiri Molema	22 021	3 368	9 530
North West	148 794	37 406	66 031

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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