

# Mpumalanga: Informal settlements Status (2013)



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**The Housing Development Agency (HDA)**

Block A, Riviera Office Park,  
6 – 10 Riviera Road,  
Killarney, Johannesburg  
PO Box 3209, Houghton,  
South Africa 2041  
Tel: +27 11 544 1000  
Fax: +27 11 544 1006/7

**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.

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# 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 Mpumalanga 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>.

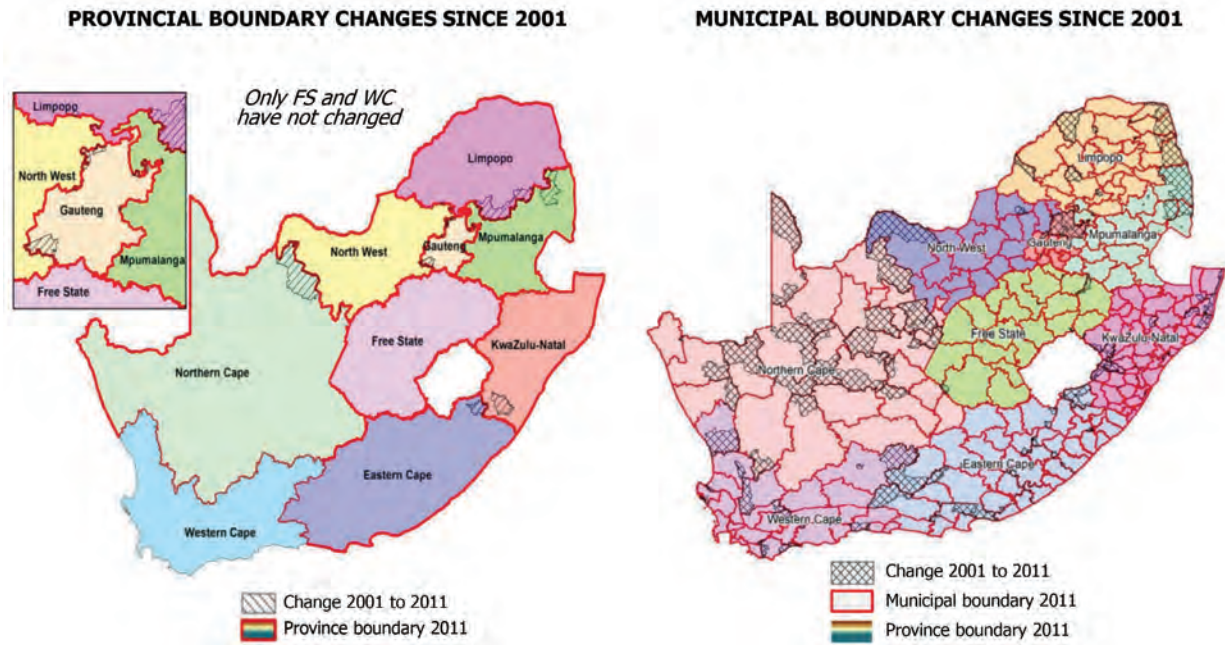
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<sup>2</sup> Angela Ngyende of Statistics South Africa provided on-going assistance in this regard



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. 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>
Ekurhuleni Metropolitan Municipality*	"As a basic characteristic, the occupation of the land is unauthorised. In addition, the use of the land may be unauthorised, and in most cases the construction standards do not comply with building regulations."
Buffalo City Metropolitan Municipality**	"Areas where groups of housing units have been constructed on land that the occupants have no legal claim to, or occupy illegally; Unplanned settlements and areas where housing is not in compliance with current planning and building regulations (unauthorized housing)."

Source: \* Study into supporting informal settlements, Main Report, 28 August 2004 Prepared for Department of Housing, Pretoria by the University of the Witwatersrand Research Team

Source: \*\* Buffalo City Metropolitan Municipality Draft Integrated Development Plan 2012/13

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 Mpumalanga

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 Mpumalanga has increased from 785,424 in 2001 to 1,075,488 in 2011. At the same time the total population has increased from 3,365,554 in 2001 to 4,039,939 in 2011. Households have grown faster than the individual population (3.2 CAGR<sup>3</sup> for households compared to 1.8% for individuals) and household sizes have continued to decline from 4.7 in 1996, to 4.3 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 17% of all households were comprised of one person living alone while in 2011 27% of all households were comprised of one person.

One-person households are more common in farm and urban areas than in tribal or traditional areas. In 2011 in Mpumalanga 38% of households living in areas demarcated as farm areas<sup>5</sup> and 30% of households living in areas demarcated as urban areas were one-person households whereas in areas demarcated as tribal or traditional 22% of households were one-person households. These one-person households are in many cases attached to other households living elsewhere. According to the IES, 51% of one person households in the Mpumalanga either send or receive remittances indicating financial interdependency across dwelling-based households, the highest proportion of one person households relative to all other provinces<sup>6</sup>. 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 has been a net out-migration of 44,159 individuals from the Mpumalanga province between 2006 and 2011. The majority of out-migrants (60%) have moved to Gauteng.

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

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

<sup>5</sup> Eight per cent of all Mpumalanga households live in farm areas

<sup>6</sup> For one person households in the country as a whole, this proportion is 40%

TABLE 3 ESTIMATED PROVINCIAL MIGRATION STREAMS OF PEOPLE IN MPUMALANGA: 2006 – 2011				
	Out-migration		In-migration	
	Province in 2011	Percentage	Province in 2006	Percentage
Gauteng	99 764	60%	42 729	35%
Limpopo	16 938	10%	26 462	22%
KwaZulu-Natal	15 327	9%	17 340	14%
North West	11 521	7%	10 716	9%
Eastern Cape	6 433	4%	11 535	10%
Western Cape	5 777	4%	3 464	3%
Northern Cape	5 214	3%	2 479	2%
Free State	3 931	2%	6 021	5%
<b>Total</b>	<b>164 905</b>	<b>100%</b>	<b>120 746</b>	<b>100%</b>

Net migration: -44 159

Ratio of in-migration to out-migration 0.7

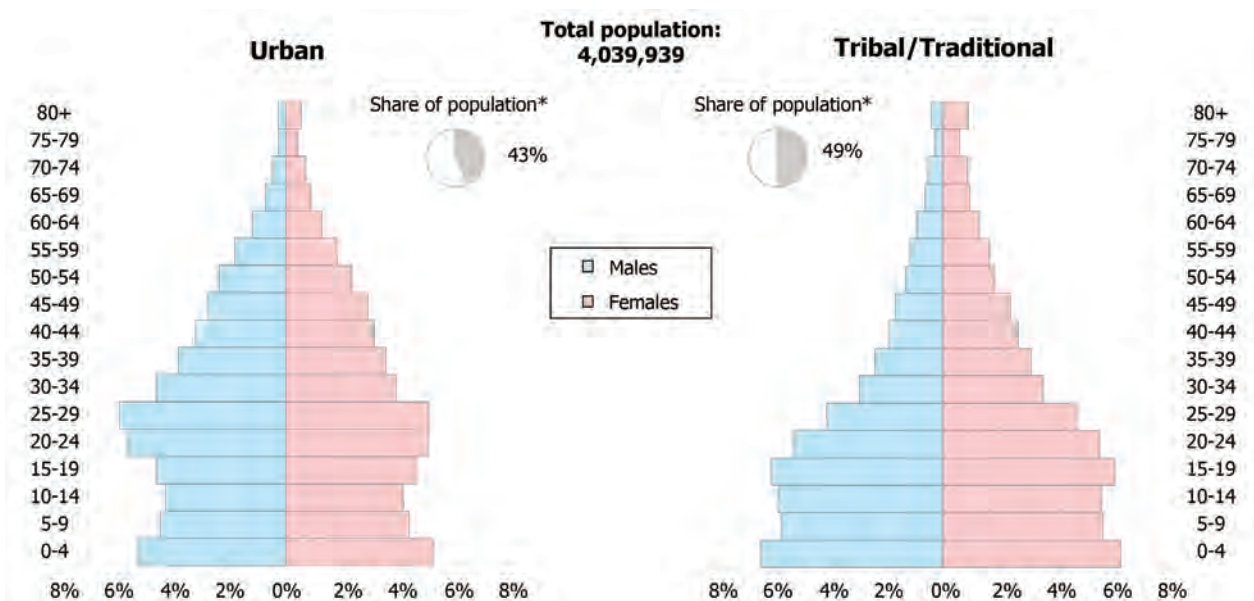
Source: Stats SA mid-year population estimates 2011

Note: These estimates do not incorporate foreign migrants

According to the 2011 Census, in urban areas in Mpumalanga 7% of the population have moved from a different province and 11% of the population have moved from within the province since 2001 (2% moved from outside South Africa). In tribal or traditional areas in Mpumalanga only 1% of the population have moved from a different province since 2001 and 4% of the population have moved from within the province since 2001 (1% moved from outside South Africa). There is a noticeable difference in the population pyramids in urban compared to tribal or traditional areas as a result.

CHART 2

## POPULATION PYRAMID: MPUMALANGA



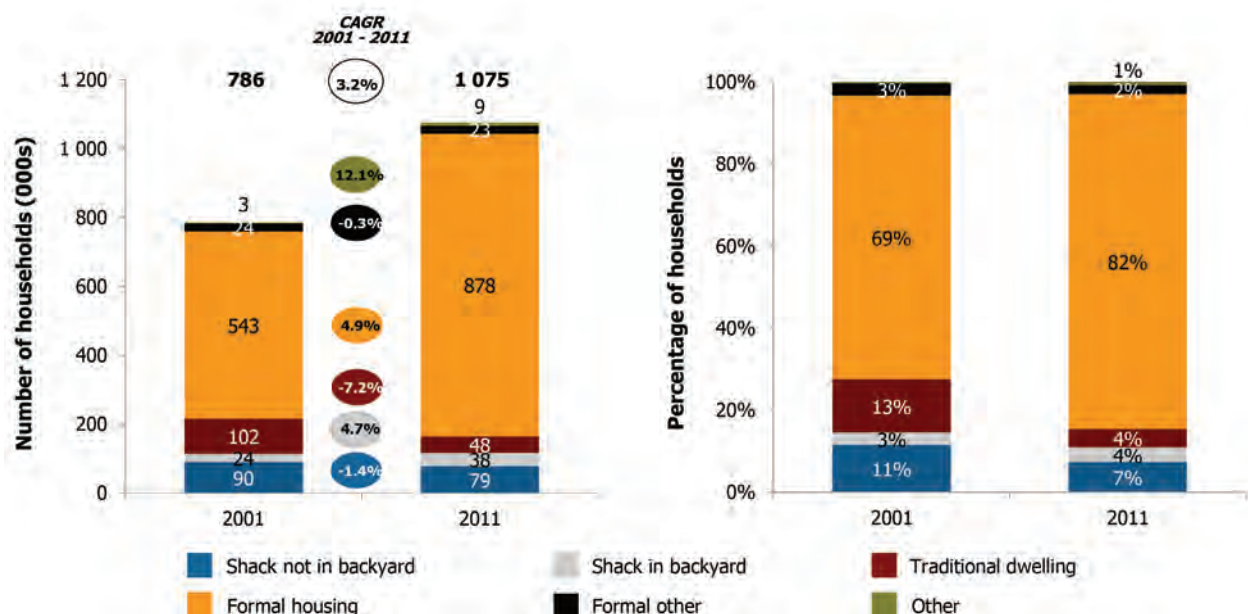
Source: Census 2011

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

The total number of households living in formal dwellings has increased by 334,290 over the ten years between 2001 and 2011<sup>7</sup>. The number of households living in shacks not in backyards declined by 11,545 over the same period (in 2001 there were 90,077 households living in shacks not in backyards compared to 78,532 in 2011) while the number of households in traditional dwellings saw a more dramatic decline, by 53,510 households since 2001.

The proportion of households living in formal dwellings has increased significantly from 72% in 2001 to 84% in 2011. The proportion of households living in shacks not in backyards has declined from 11% in 2001 to 7% in 2011, and the proportion living in traditional dwellings declined from 13% to 4% during the same period.

CHART 3 TYPE OF MAIN DWELLING IN MPUMALANGA



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 27 000 housing units. The balance, namely 308 000 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.

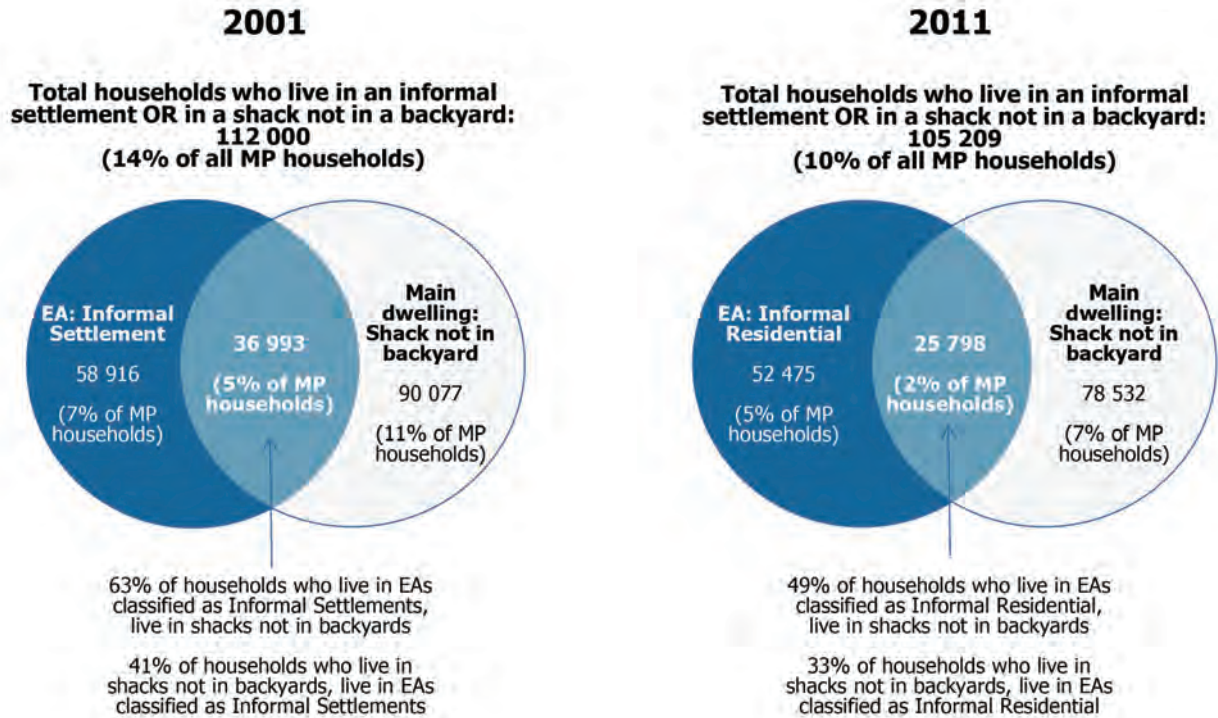
With regard to EAs, 58,916 households lived in areas demarcated by Stats SA as informal settlements in 2001 compared to 52,475 who lived in areas demarcated as informal residential<sup>8</sup> in 2011. Thus, it appears that the number of households living in informal settlements, as proxied either by dwelling type (shack not in backyard) or EA (informal residential) has decreased in Mpumalanga.

<sup>7</sup> 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

<sup>8</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 MPUMALANGA



Source: Census 2001, Census 2011

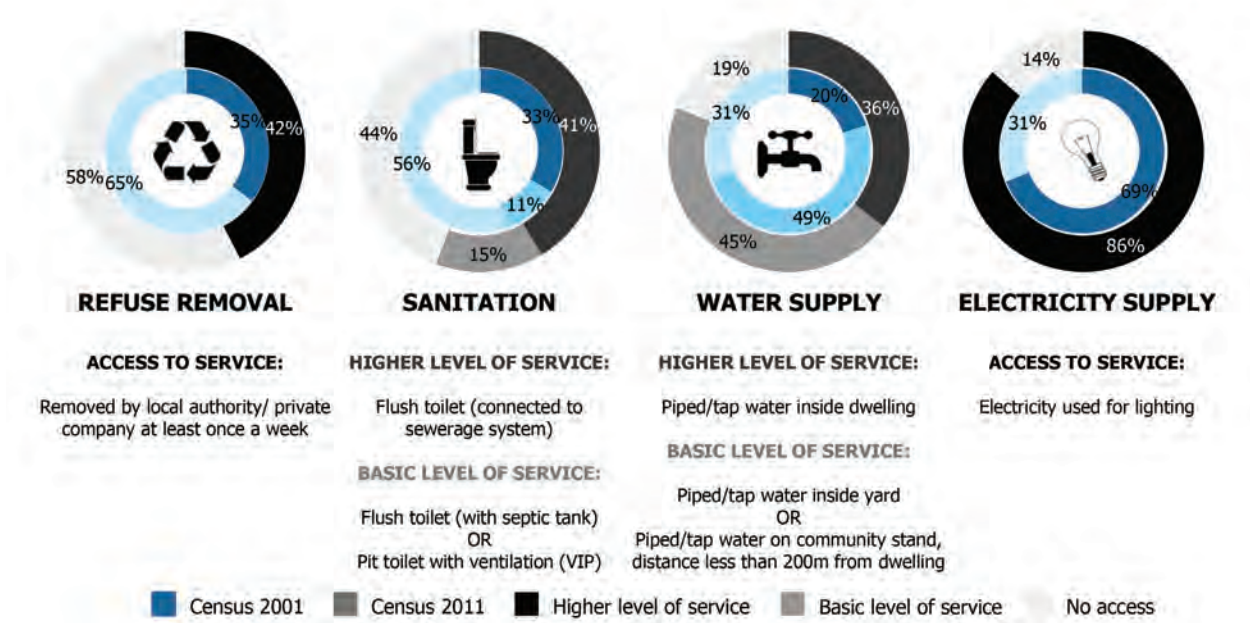
At the same time there has been a significant increase in the number of households living in backyard shacks. The number of households living in this type of dwelling has increased at a rate of 4.7% per year, albeit off a low base. In terms of total households, Census 2011 indicates at total of 38,274 households living in shacks in backyards, compared to 24,107 in 2001.

Across the province, the proportion of households who had access to refuse removal services increased from 35% in 2001 to 42% in 2011, while access to sanitation and piped water also improved noticeably. Likewise, access to electricity increased from 69% of all households in 2001 to 86% in 2011.



CHART 5

## ACCESS TO SERVICES MPUMALANGA 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 14% of households in Mpumalanga rented their primary dwellings. This had increased to 20% in 2011 with the most visible increases for those in formal dwellings and backyard shacks.

TABLE 4

## HOUSEHOLDS LIVING IN MPUMALANGA: TENURE STATUS BY TYPE OF MAIN DWELLING

	Census 2001			Census 2011			
	Owned	Rented	Occupied rent-free	Owned	Rented	Occupied rent-free	Other
Formal dwelling	66%	15%	20%	62%	20%	15%	3%
Traditional dwelling	49%	7%	44%	51%	8%	36%	5%
Shack in backyard	46%	29%	25%	41%	38%	18%	3%
Shack not in backyard	46%	16%	39%	47%	19%	29%	4%
Other	37%	23%	40%	33%	36%	21%	9%
<b>Total</b>	<b>60%</b>	<b>14%</b>	<b>25%</b>	<b>59%</b>	<b>20%</b>	<b>17%</b>	<b>3%</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

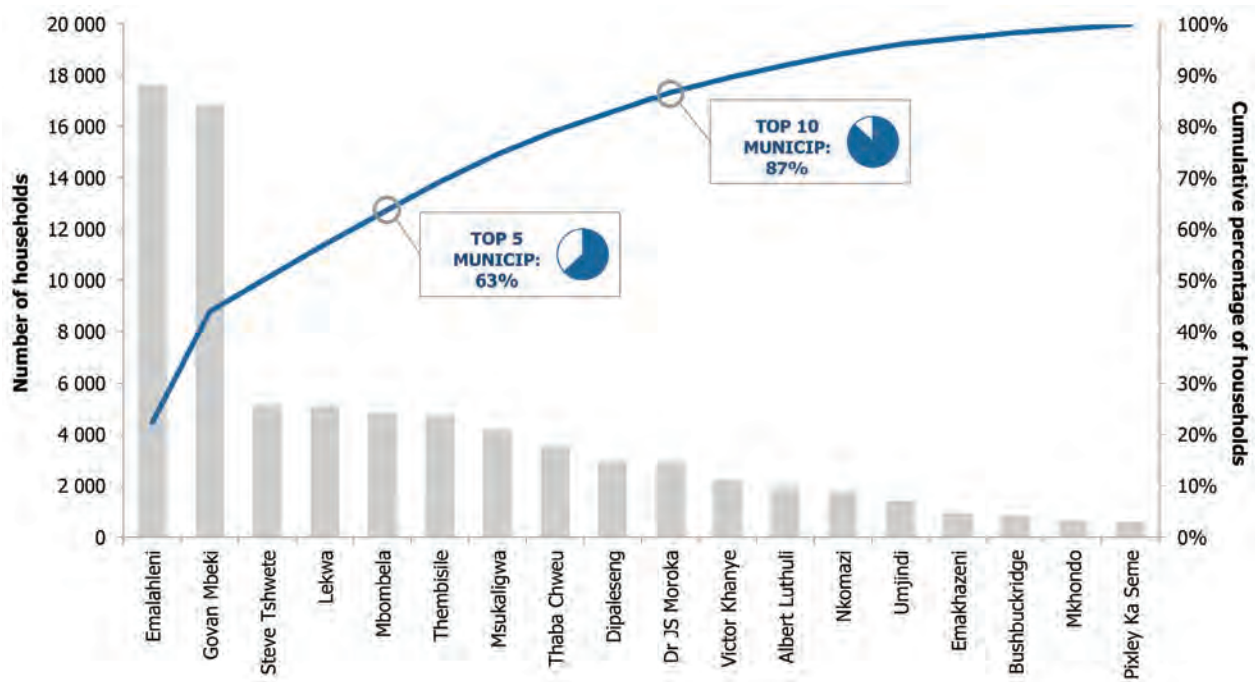
# Number of households living in informal settlements in Mpumalanga

The data indicates that there are a total of 78,532 households, containing 224,123 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 decreased in Mpumalanga.

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. Over 34,000 households living in shacks not in backyards (44%) live in the local municipalities of Emalahleni and Govan Mbeki.

CHART 6

## HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS BY LOCAL MUNICIPALITY IN MPUMALANGA



Source: Census 2011

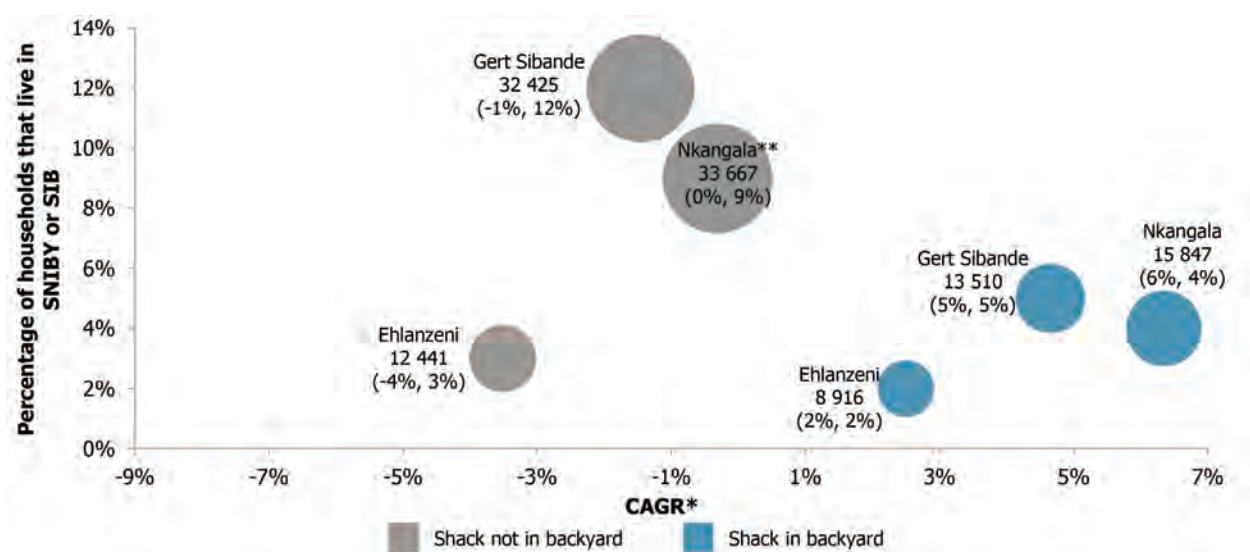
At a district municipality level, Gert Sibande has both the highest proportion of households who live in shacks not in backyards (12%) and shacks in backyards (5%). The number and proportion of households living in shacks not in backyards by district municipality is summarised below.

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
Nkangala	33 667	9%	15 847	4%
Gert Sibande	32 425	12%	13 510	5%
Ehlanzeni	12 441	3%	8 916	2%
<b>Mpumalanga</b>	<b>78 532</b>	<b>7%</b>	<b>38 274</b>	<b>4%</b>

Source: Census 2011

The number of shacks not in backyards has declined between 2001 and 2011 for Ehlanzeni (CAGR: -4%) and Gert Sibande (CAGR: -1%). The number of shacks not in backyards in Nkangala remained constant during this time. In contrast, there has been growth in households living in shacks in backyards in all three district municipalities within the province.

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: Nkangala district municipality had 33 667 households living in shacks not in backyards in 2011. This has remained constant between 2001 and 2011. 9% of households in Nkangala live in shacks not in backyards

According to the 2011 Census<sup>9</sup>, roughly 47% of households living in shacks not in backyards in Mpumalanga regard themselves as owners, with 29% 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 say they rent their dwellings<sup>10</sup>.

<sup>9</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>10</sup> Four per cent responded 'other' – there is no indication as to what this entails

## PART 5

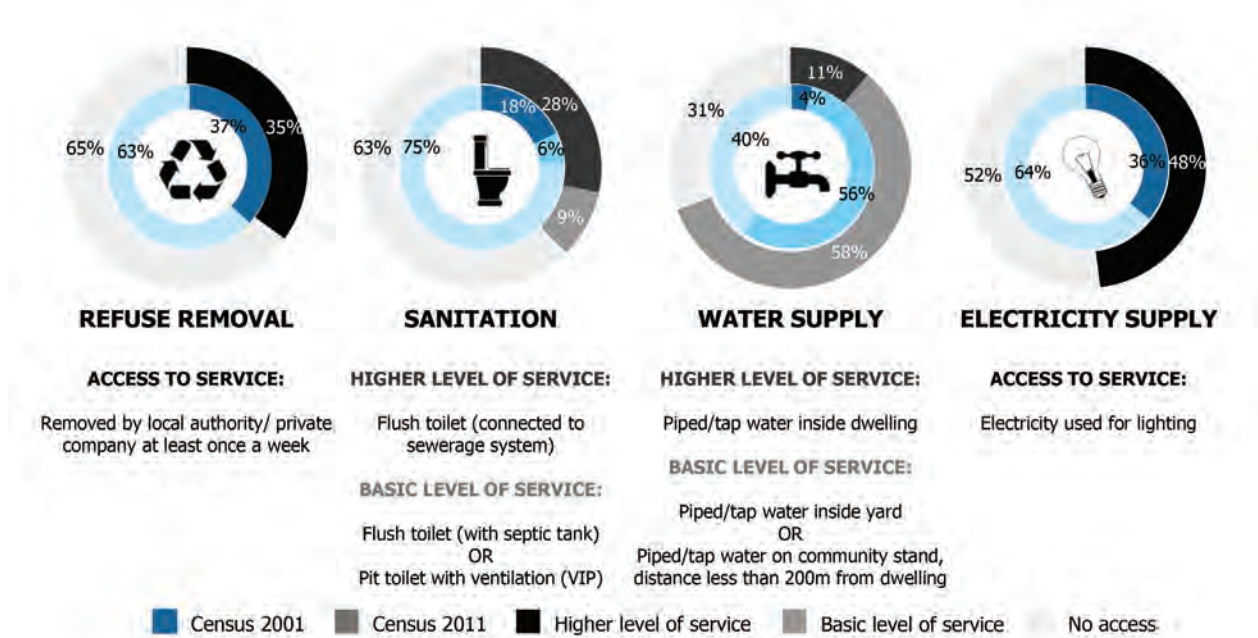
# Profiling informal settlements in Mpumalanga

### 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 MPUMALANGA 2001 VS. 2011: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS



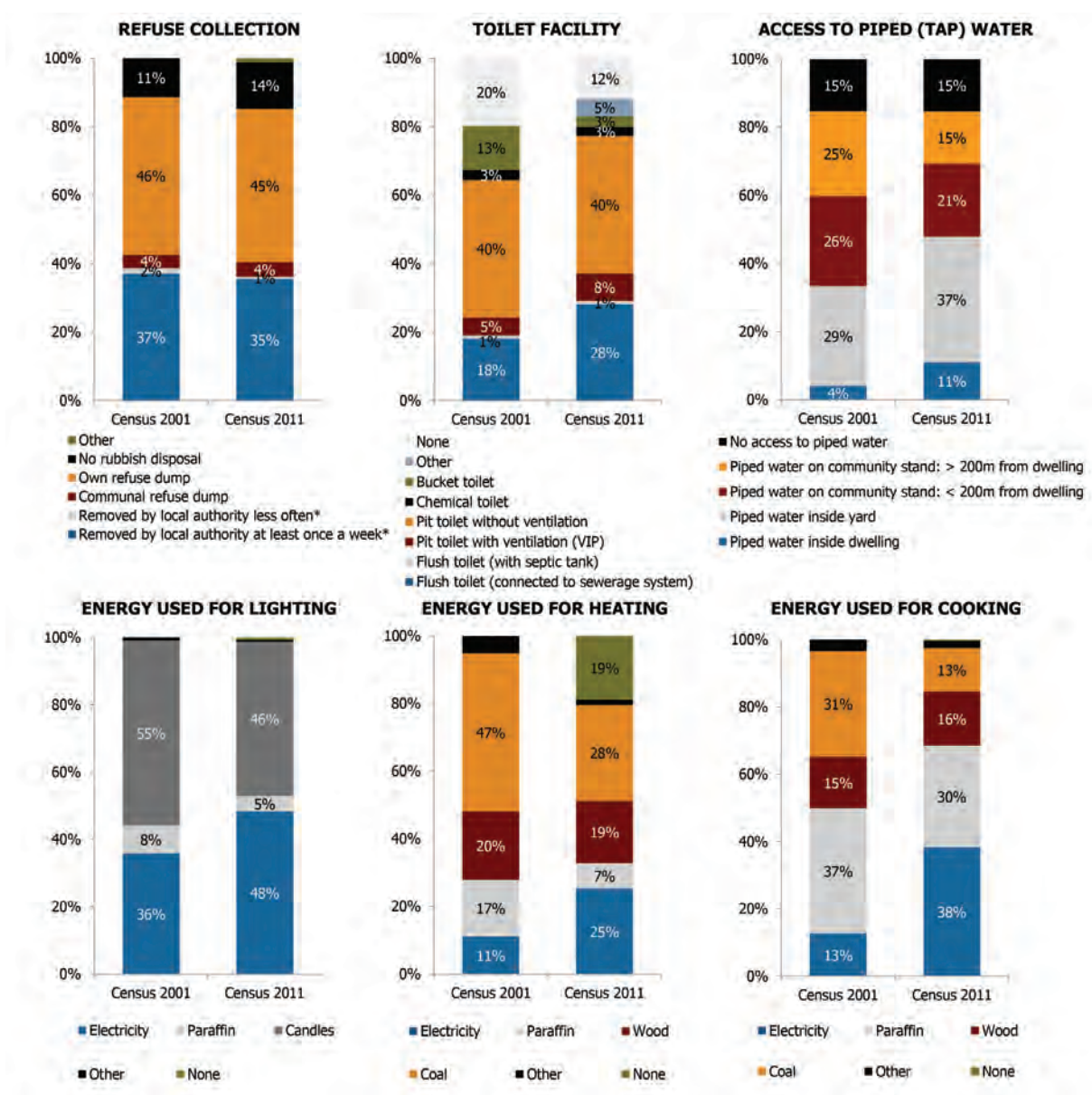
Source: Census 2001, Census 2011

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 Mpumalanga appear to live under better conditions than in 2001. Aside from the marginal decline in access to refuse removal, there have been noticeable improvements in access to sanitation, water and electricity for households living in shacks not in backyards in Mpumalanga although there are still many who have no access to services. More detailed data on the nature of services is summarised in the charts below.

CHART 9

### ACCESS TO SERVICES IN MPUMALANGA: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS



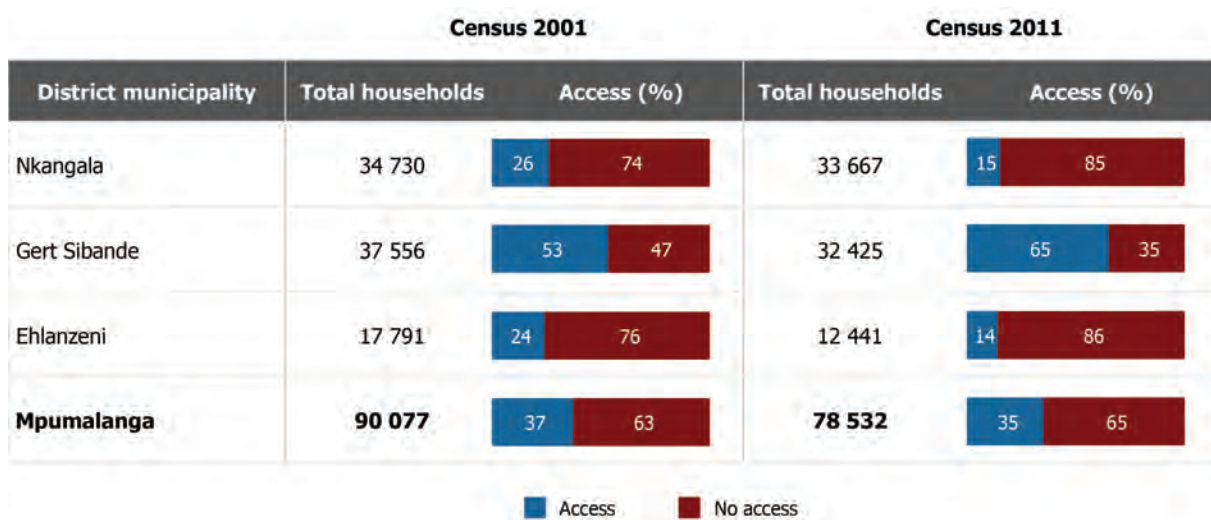
Source: Census 2001, Census 2011

\* 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 Nkangala and Ehlanzeni, but has improved in Gert Sibande. In addition, access to refuse removal in 2011 for households in shacks not in backyards in Gert Sibande (65%) far exceeds that in Nkangala (15%) and Ehlanzeni (14%).



CHART 10

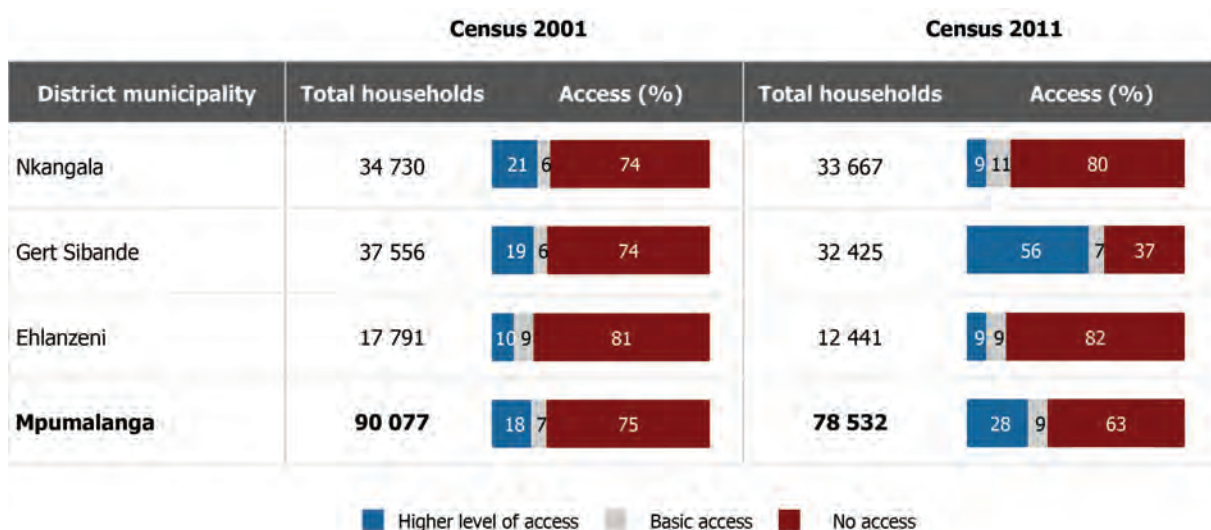
**ACCESS TO REFUSE REMOVAL IN MPUMALANGA: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**

Source: Census 2001, Census 2011

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

Access to sanitation improved for the Mpumalanga province as a whole as a result of a significant improvement in higher level access to sanitation in Gert Sibande district municipality. However, access to sanitation declined in both Nkangala and Ehlanzeni.

CHART 11

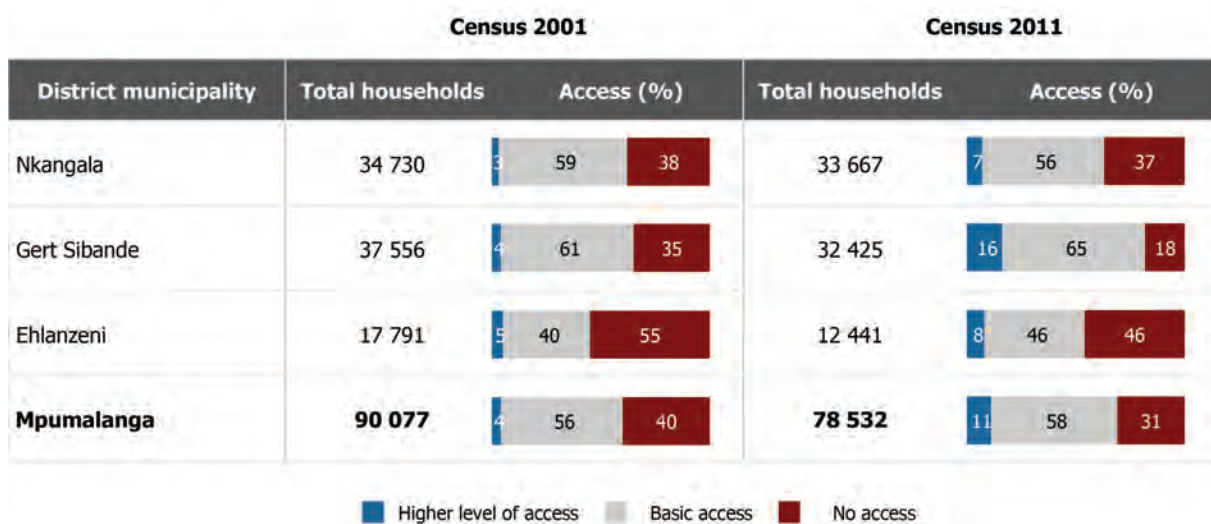
**ACCESS TO SANITATION IN MPUMALANGA: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**

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. Gert Sibande district municipality has the highest proportion of households with access to water within the province.

**CHART 12 ACCESS TO WATER IN MPUMALANGA: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**

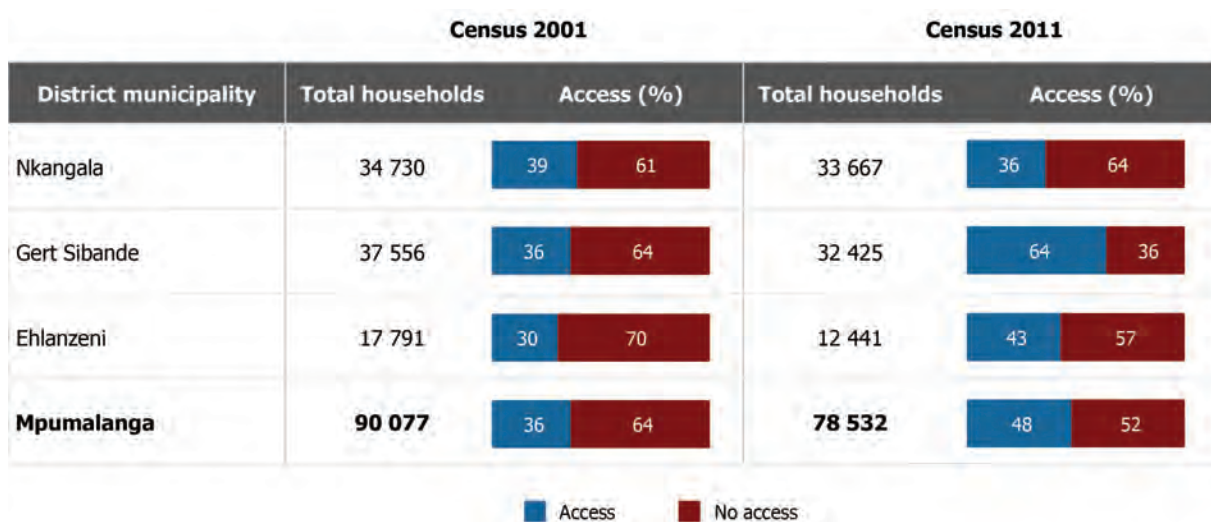


Source: Census 2001, Census 2011

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 Gert Sibande and Ehlanzeni since 2001 while it appears to have declined in Nkangala. At 36% that district municipality has the lowest proportion of households living in shacks not in backyards with access to electricity.

**CHART 13 ACCESS TO ELECTRICITY IN MPUMALANGA: HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS**



Source: Census 2001, Census 2011

Note: Access to electricity: Use electricity for lighting



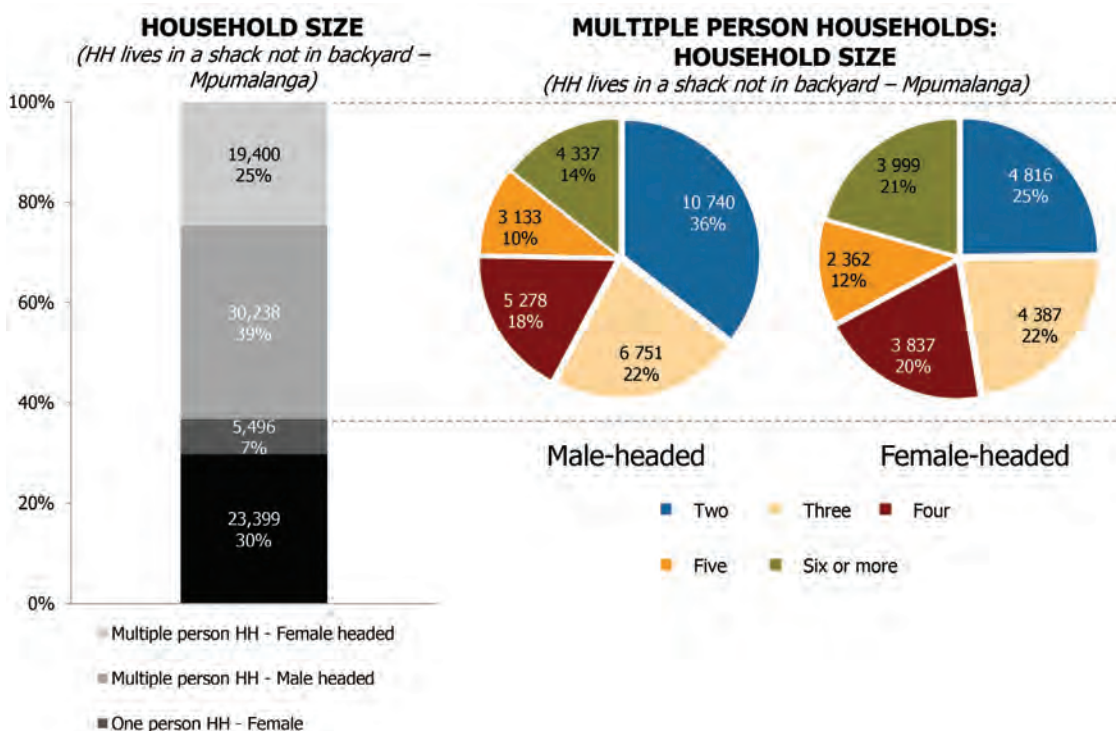
## 5.2 Household characteristics

The average household size for households who live in shacks not in backyards at 2.8 is 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 37% of households who live in shacks not in backyards in Mpumalanga are one-person households; for households in the province as a whole this proportion is 27%.

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. Just over two thirds of households (68%) are male-headed. Of those households comprising more than one person, female-headed households are noticeably larger.

CHART 14

### HOUSEHOLDS LIVING IN SHACKS NOT IN BACKYARDS IN MPUMALANGA: SIZE OF HOUSEHOLD, BY GENDER OF HOUSEHOLD HEAD



Source: Census 2011

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, 13% of all multi-person households who live in shacks not in backyards in Mpumalanga live in over-crowded conditions. Using this definition, Mpumalanga has the lowest proportion of households living in shacks not in backyards that live in overcrowded conditions relative to all other provinces.

## 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 51,935 children under the age of 18 who live in informal residential EAs accounting for 3% of all children in Mpumalanga. There is a slight skew towards very young children in informal residential areas; 34% 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 MPUMALANGA				
Age group of children	Children in Informal residential EAs	Percentage	All children	Percentage
0 - 4	17 708	34%	461 559	30%
5 - 6	6 191	12%	173 122	11%
7 - 10	10 244	20%	309 194	20%
11 - 14	9 956	19%	316 803	21%
15 - 17	7 836	15%	254 726	17%
<b>Total</b>	<b>51 935</b>	<b>100%</b>	<b>1 515 405</b>	<b>100%</b>

Source: Census 2011

According to the census, 81% of children under the age of 15 in informal residential EAs in Mpumalanga have both parents still living<sup>11</sup> (the corresponding proportion for the province as a whole is 80%<sup>12</sup>).

School attendance for those aged 7 to 17 living in informal residential EAs is high. Ninety two per cent of all children aged 7 to 17 living in informal residential EAs in Mpumalanga currently attend an educational institution. This proportion is slightly lower than for the province as a whole primarily as a result of lower attendance in the 15 to 17 age group; 85% of children living in informal EAs in this age group attend an educational institution compared to 90% for the province as a whole.

TABLE 7 CHILDREN AGED 7 - 17 YEARS IN MPUMALANGA: ATTENDANCE OF CHILDREN AT AN EDUCATIONAL INSTITUTION		
Children 7 - 17	Informal residential EA	All children
7 - 10	95%	95%
11 - 14	95%	95%
15 - 17	85%	90%
<b>Total*</b>	<b>92%</b>	<b>94%</b>

Source: Census 2011

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

<sup>11</sup> For children in the country as whole living in informal residential EAs this proportion is 81%

<sup>12</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 a quarter of all individuals who live in informal residential EAs moved between 2001 and 2011. Of these, 18% corresponding to 5,966 individuals have moved from outside South Africa. The table below summarises findings in this regard.

TABLE 8 MIGRATION IN MPUMALANGA	
Total number of people who moved between 2001 and 2011	565 575
Number of people who moved between 2001 and 2011 who live in informal EAs	33 987
Proportion of those who live in informal EAs who moved between 2001 and 2011	23%
Proportion of total who moved between 2001 and 2011 who live in informal EAs	6%
Provinces most moved from (informal EAs)	Mpumalanga (56%) Outside of SA (18%)

Source: Census 2011

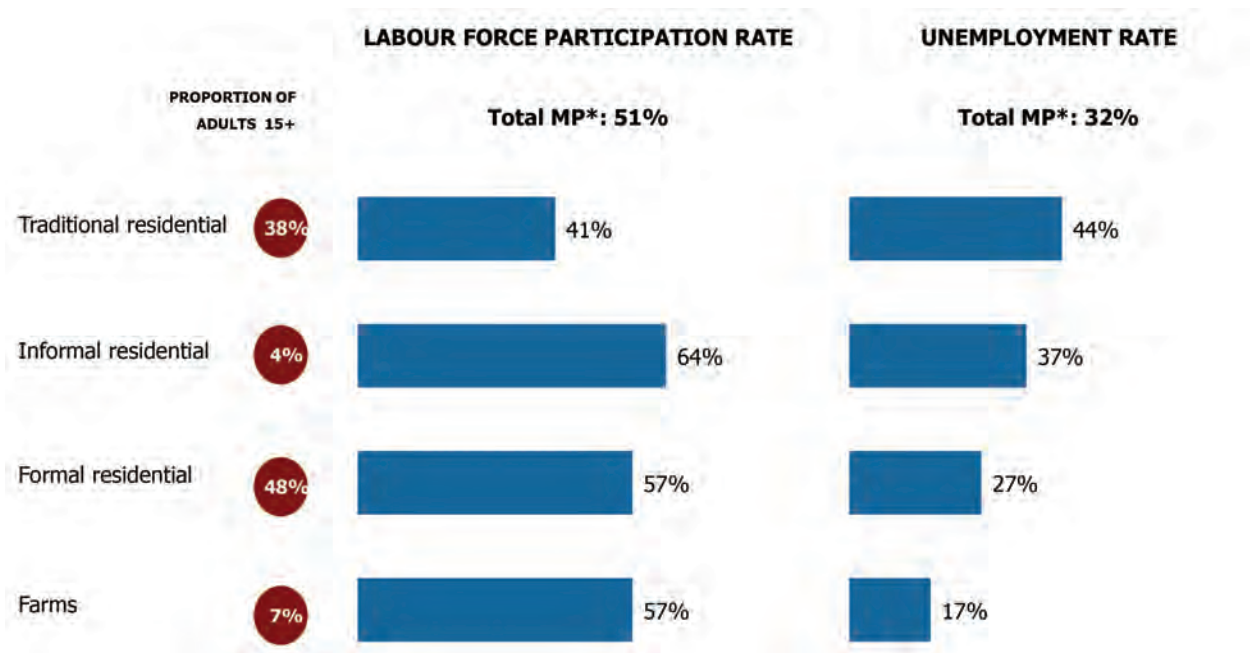
## 5.5 Employment and income

### 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 and unemployment rates are higher in informal residential EAs than in formal residential EAs. 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 MPUMALANGA: LABOUR FORCE PARTICIPATION RATES AND UNEMPLOYMENT RATES BY TYPE OF ENUMERATION AREA



Source: Census 2011

Note: \* Total MP also includes: Collective living quarters (1%), Commercial (0%), Vacant (0%), 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 MPUMALANGA: PERCENTAGE OF EMPLOYED ADULTS 15+				
	Formal Sector	Informal Sector	Private household	Don't know
Informal residential EA	63%	17%	17%	3%
All employed adults in province	69%	17%	12%	2%

Source: Census 2011

There is no data on the specific industries of employment.

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

TABLE 10

**ADULTS 15+ IN MPUMALANGA: 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	9%	61%	26%	3%	0%	7%	42%	33%	17%	1%
Unemployed	8%	65%	24%	2%	0%	7%	55%	33%	5%	0%
Discouraged work-seeker	8%	68%	22%	1%	0%	8%	57%	31%	3%	0%
Other not economically active	13%	71%	14%	2%	1%	11%	63%	19%	4%	4%
<b>Total adults 15+</b>	<b>12%</b>	<b>64%</b>	<b>21%</b>	<b>2%</b>	<b>0%</b>	<b>12%</b>	<b>52%</b>	<b>26%</b>	<b>9%</b>	<b>2%</b>

Source: Census 2011

**5.5.2 Income**

According to the 2011 Census 36% 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>13</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>14</sup>. A far more detailed source of data on incomes is the IES<sup>15</sup>. That data source indicates that 17% of households living in shacks not in backyards in Mpumalanga 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. The IES has a total of 110 household respondents who live in shacks not in backyards in the province.

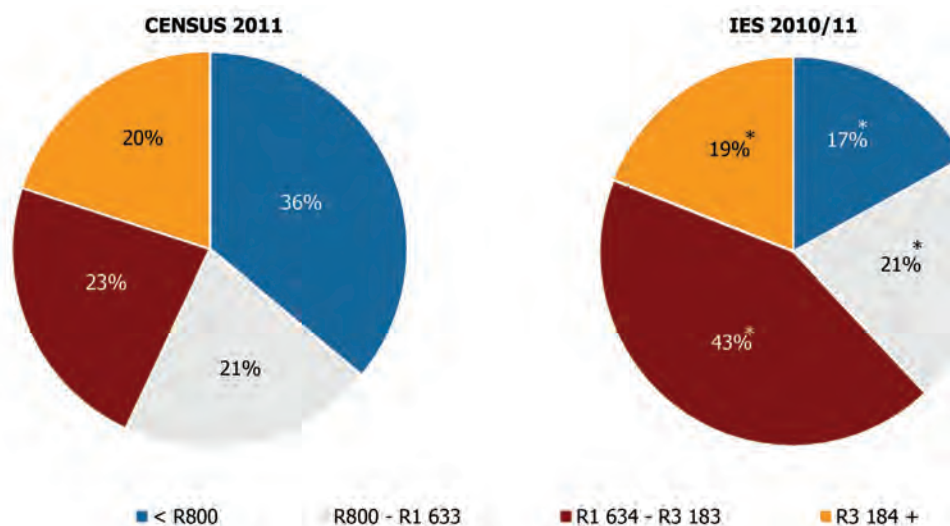
<sup>13</sup> "What is the income category that best describes the gross monthly or annual income of (name) before deductions and including all sources of income? (e.g. Social grants, UIF, remittances, rentals, investments, sales or products, services, etc.)"

<sup>14</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>15</sup> Analysis of income in the IES excludes imputed rentals for housing

CHART 16

### HOUSEHOLD LIVES IN A SHACK NOT IN BACKYARD IN MPUMALANGA: MONTHLY HOUSEHOLD INCOME<sup>16</sup>



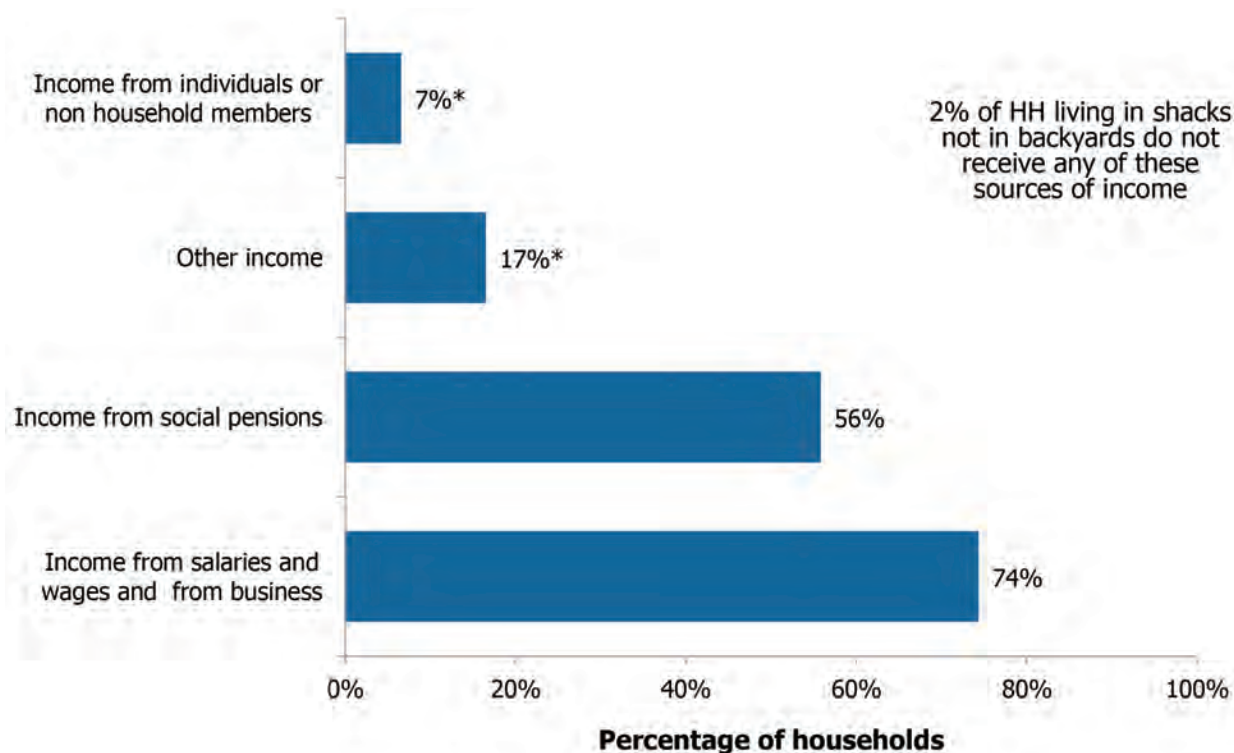
Source: Census 2011, IES 2010/11 (\* less than 40 observations)

While there are differences between Census 2011 and the IES, both data sources indicate that around 80% of households earn less than R3 184 per month. According to the IES, 83% 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 56% receive government grants.

CHART 17

### HOUSEHOLD LIVES IN A SHACK NOT IN BACKYARD IN MPUMALANGA: SOURCES OF INCOME



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

Note: Analysis excludes income from imputed rentals

<sup>16</sup> In the IES 2010/11 for the province as a whole, these proportions are: < R800 (16%), R800 - R1 633 (18%), R1 634 - R3 183 (21%), R3 184 - R6 366 (19%), R6 367 + (27%). In the Census 2011 they are: < R800 (28%), R800 - R1 633 (19%), R1 634 - R3 183 (20%), R3 184 - R6 366 (13%), R6 367 + (20%)



## 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, 48% of households in shacks not in backyards in Mpumalanga 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 42% 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 are no estimates available from Mpumalanga province itself.

### 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>17</sup>. The informal settlements layer was last updated in November 2011. The data indicates there are 229 informal settlements in Mpumalanga; 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 75 polygons categorised as Dense Informal in Mpumalanga, covering a total area of 7.8 square kilometres.

### 6.3 Summary of estimates

According to LaPsis 2011 estimates there are 229 informal settlements in Mpumalanga province; there are no provincial estimates available for comparison.

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<sup>17</sup> AfriGIS was given informal settlements data by the provincial departments of housing to create the map layers

TABLE 11 NUMBER OF INFORMAL SETTLEMENTS	
	Number of informal settlements
	LaPsis 2011: Informal settlements atlas
Ehlanzeni	82
Gert Sibande	101
Nkangala	46
<b>Mpumalanga</b>	<b>229</b>

Note: According to Eskom's Spot Building Count last updated in November 2011, there are 75 polygons in Mpumalanga 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:

<b>Range</b>	<b>Proxy values calculated</b>
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)



**The Housing Development Agency (HDA)**

Block A, Riviera Office Park,  
6 – 10 Riviera Road,  
Killarney, Johannesburg  
PO Box 3209, Houghton,  
South Africa 2041  
Tel: +27 11 544 1000  
Fax: +27 11 544 1006/7



**[www.thehda.co.za](http://www.thehda.co.za)**