



Quest for nodal development
Evidence from Census 2001 and Census 2011

Report 03-10-14



**Statistics
South Africa**



The South Africa I know, the home I understand

Quest for nodal development

Evidence from Census 2001 and Census 2011

Statistics South Africa

Report No. 03-10-14 (2001–2011)

Pali Lehohla
Statistician-General

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Preface

This report is a consolidation of descriptive analysis done on the rural nodes (as identified by the Integrated Sustainable Rural Development Programme (ISRDP)) and the urban nodes (as identified by the Urban Renewal Programme (URP)) using Census 2001 and Census 2011 data. The analysis includes detailed information of each node presented in tables, graphs and maps. This consolidated report presents aggregated information on the rural and urban nodes and compares them with non-nodal areas to better understand the gains achieved through the ISRDP and URP programmes. For further information and analysis on these nodes, readers are encouraged to refer to the detailed analysis available on the Stats SA website (www.statssa.gov.za).



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1. Introduction

The advent of democracy in 1994 came with a need to restructure South Africa economically, socially and spatially to address the imbalances and inequalities manufactured by the apartheid system. Spatially, during the apartheid system, rural areas were excluded from economic and infrastructural development. This exclusion was as a result of apartheid laws such as the Group Areas Act, No. 36 of 1966. The rural population, due to this exclusion, was significantly disadvantaged in terms of work opportunities, quality education, basic services, etc.

Within the urban landscape, South Africa had what is called townships. Townships were established to house the labour force, majority being black Africans, followed by Coloureds. These were somewhat closer to the Central Business Districts (CBDs) of towns and cities, but still required considerable commuting to and from the CBDs. They were characterised by high population density and lack of basic services. With the abolishment of the apartheid system and its laws (including the Group Areas Act of 1966 and the Natives Resettlement Act, No. 19 of 1954,) urbanisation increased as the rural population flocked to the towns and cities in search of work. This led to further high population density in urban townships and put further stress on the quality and availability to basic services. In addition, there was a rise in the number of informal settlement established around towns and cities.

In an attempt to address the challenges of infrastructure development, access to basic services and economic activity in both rural areas and urban townships, the post-apartheid government conceptualised and implemented (in selected areas) two specific programmes, namely the Integrated Sustainable Rural Development Programme (ISRDP) in eighteen (18) rural areas and the Urban Renewal Programme (URP) in eight (8) urban townships. This report looks at the progress of development in these selected areas between 2001 and 2011 using census data.

1.1 Background

In 2001, the government identified 13 specific rural areas – over the years these have increased to 18 – which were earmarked for accelerated development under the ISRDP and 8 urban townships earmarked for accelerated development under the URP. The 26 selected areas were then referred to as nodes; 18 rural nodes and 8 urban nodes. Table 1 indicates both rural and urban nodes as well as the provinces they belong to.

Urban and rural nodes are distributed in all provinces of South Africa except in North West where there is neither a rural nor urban node. The rural nodes were selected in the poorest parts of the country found in seven provinces, namely, Western Cape, Northern Cape, Eastern Cape, Free State, KwaZulu-Natal, Mpumalanga and Limpopo. They are characterised by inadequate infrastructure, poor means of communication, poor access to basic services, poor living conditions, high levels of unemployment, lack of adequate facilities and predominantly occupied by black Africans. The urban nodes, on the other hand, were selected in five provinces, namely, Western Cape,

Eastern Cape, Northern Cape, KwaZulu-Natal and Gauteng. They are characterised by high levels of poverty and crime, depleted infrastructure, shortage of housing, inadequate operational and maintenance budgets and low internal economic opportunities.

Table 1: Rural and urban nodes by province

Province	Rural nodes	Urban nodes	
		Municipality	Node
Western Cape	Central Karoo	City of Cape Town	Khayelitsha Mitchell's Plain
Eastern Cape	OR Tambo	Nelson Mandela Metro	Motherwell
	Alfred Nzo	Buffalo City	Mdantsane
	Joe Gqabi		
	Chris Hani		
	Amathole		
Northern Cape		Sol Plaatjie	Galeshewe
Free State	Thabo Mofutsanyane		
KwaZulu Natal	UMkhanyakude	eThekweni Metro	Inanda Kwa-Mashu
	Zululand		
	uThukela		
	uMzinyathi		
	uMgungundlovu		
	Sisonke		
	Ugu		
Gauteng		City of Johannesburg	Alexandra
Mpumalanga	Ehlanzeni		
Limpopo	Mopani		
	Greater Sekhukhune		

1.2 Purpose of the report

The purpose of this report is two-fold. First, it is to provide a detailed analysis of the plight of the citizens living in the nodes over a ten year period (2001 and 2011). Second, it is to compare development in the nodes relative to the development in other areas not selected as nodes between 2001 and 2011.

2. Data sources and methods

This report is based on the results of the two censuses conducted in 2001 and 2011. Census 2001 was the second census conducted in post-democratic South Africa and Census 2011 was the third. Both censuses were conducted using de facto census methodology, meaning that people were counted where they were found on the census night. Data collection took place from 9th to the 31st of October of each year (2001 and 2011). Face-to-face interviews were conducted with respondents. Self-administration was permitted as per respondents' preferences. The completed questionnaires were then scanned and transferred into a database for editing and analysis.

Analysis of data was done using two statistical packages, namely the Statistical Analyses System (SAS) and SuperCross.

This report seeks to provide information on the poverty levels and living conditions of the nodal population between 2001 and 2011. Selected development indicators such as education, employment, living conditions, and poverty levels are explored using frequency tables and cross tabulations to study development in the nodes over the ten year period. The choice of indicators used is limited by the availability and comparability of data items across Census 2001 and Census 2011.

The report also seeks to provide information on the performance of the nodes compared to non-nodes during the same period of time (between 2001 and 2011). Statistical tests for differences in the performance of the two are conducted to establish statistical significance. Two separate approaches were adopted for the selection of non-nodal areas used for these comparisons.

For rural nodes, a rural node is equivalent to a district municipality, e.g. uMkhanyakude, which is a district municipality in KwaZulu-Natal was selected as a node whilst uThungulu, also a district municipality in KwaZulu-Natal is not a node. The results from the eighteen selected nodes are then compared with the results from the districts not classified as nodes. Districts that are not part of the ISRDP are referred to as “rural non-nodes” in this report. The percentage change between the two points, 2001 and 2011, is compared to study the direction and rate of change for the rural nodes and the rural non-nodes.

For urban nodes, on the other hand, an urban node is a township, which is a ‘main place’ found within a municipality. For comparison of urban nodes to urban non-nodes, we selected townships that were not part of the URP. The townships selected for comparison with the urban nodes are referred to as “urban non-nodes” in this report. The urban non-nodes used for comparisons with urban nodes are selected based on their proximity to the urban nodes and their poverty levels. The selected urban non-nodes have to be in the same municipality as the urban node, and had similar levels of poverty as the urban node in 2001. As done for the rural nodes, the percentage change between the two points is compared to study the direction and rate of change between the urban nodes and the urban non-nodes. A z-score test is also used to determine statistical significance. Table 2 indicates townships that are selected as urban non-nodes to be used for comparison with urban nodes based on their South African Multidimensional Poverty Index (SAMPI) headcounts at base year (2001) as calculated and published by Statistics South Africa (2014).

Table 2: Urban nodes and urban non-nodes per province and municipality

Province	Municipality	Urban nodes	SAMPI headcount 2001	Urban non-nodes	SAMPI headcount 2001
Western Cape	City of Cape Town	Khayelitsha	20,5	Gugulethu	18,9
		Mitchell's Plain	11,5	Kraaifonten	12,3
				Brankenfell	11,6
				Fisantkraal	13,3
Eastern Cape	Buffalo City	Mdantsane	17,8	Phakamisa	19,1
				Berlin	26,4
	Nelson Mandela Bay	Motherwell	21,8	KwaNobuhle	16,2
				iBhayi	18,9
Northern Cape	Sol Plaatjie	Galeshewe	12,3	Ritchie	17,5
				Motswedimosa	30,9
KwaZulu-Natal	eThekweni	Inanda	30,9	Ximba	30,5
		Kwa-Mashu	17,3	Mpumalanga	18,9
				iQadi	18,8
				Umlazi	18,3
Gauteng	City of Johannesburg	Alexandra	13,2	Orange Farm	16,9
				Diepsloot	30,7

3. Limitations

There are three main limitations to this report. The first pertains to boundary changes between 2001 and 2011 resulting in some nodes losing areas that fell within them in 2001 and, inversely, some gaining areas that were not part of the nodes. The second limitation pertains to data availability. The census data did not allow any analysis on infrastructural development in the nodes. Lack of data items on proximity to critical facilities such as schools, hospitals, supermarkets, etc., as well as places of work and public transport limited the report greatly. The third limitation of the report relates to data comparability. The report only used indicators that were comparable across the two censuses. It is important to note, however, that the comparison of employment data from Census 2001 and Census 2011 is being made with caution as the 2001 questions did not deal with issues of the informal sector.

4. Key findings

The key findings of this report are summarised into three main points. These three points pertain to comparisons between the rural and urban nodes, comparisons between the nodes and the non-nodes, and lastly, the selection of the nodes.

Regarding comparisons between the rural nodes and urban nodes, the report found that there were improvements in all the development areas covered (i.e. education, economic activity, living conditions and poverty) in both rural and urban nodes between 2001 and 2011. This however, excluded school attendance in the urban nodes where the proportion of children aged 7 to 15 years attending an educational institution dropped from 94.6% in 2001 to 92.4% in 2011. The report also found visible inequalities regarding access to water and sanitation between rural and urban nodes. Whilst access to water and sanitation improved both in rural and urban nodes between 2001 and 2011, there are still very low proportions of households in the rural nodes that have access to these services compared to the proportions observed in the urban nodes.

Regarding comparisons between the nodes and the non-nodes, the report found that, on average, the nodes were doing poorly on education, employment, living conditions and poverty compared to the non-nodes in 2001. The difference between the two is found to be statistically significant. This difference may be viewed as a justification for the selection of these areas to be identified as nodes. Ten years later, in 2011, the report found that the nodes are still doing poorly compared to non-nodes. This difference between the nodes and the non-nodes is also found to be statistically significant. This indicates that, despite the implementation of the ISRDP and URP, the nodes didn't catch up with the non-nodes.

Regarding the selection of the nodes, the report found that there were areas that had higher multidimensional poverty headcounts than some selected nodes but were not identified as nodes. These areas include Dr Ruth Segomotsi Mompati district municipality and Vhembe district municipality that were not identified as rural nodes, but were worse off than some of the identified rural nodes. In addition, townships such as Diepsloot and Motswedimosa were not identified as urban nodes yet being worse off than some identified urban nodes. This may highlight some of the data gaps that existed in 2001.

5. Findings

This section is sub-divided into five main sections, namely demographics, education, economic activity, living conditions, and multidimensional poverty. Each of the five sections begins with a review of the status of the nodes in 2001 and in 2011 and then proceeds to compare the nodes with their non-nodal counterparts.

5.1 Demographics

In 2001, the total population of South Africa was estimated at 44.8 million. Of this population, 14.9 million was found in the nodal areas; 13.9 million in rural nodes and 1.6 million in urban nodes. By 2011, the population of South Africa had grown to 51.8 million, of which 15.5 million people were living in the nodal areas. Of importance to note, while the population in the rural nodes increased by 4.8%, there was a decrease in the population in urban nodes by 0.5% between 2001 and 2011. Both rural and urban nodes experienced a decline among the population aged 0 – 17 years, whilst other age groups experienced an increase in population size. This is with the exception of the age group 18 – 34 among the population of urban nodes that experienced a marginal decline in population size during this time period. It is also important to note the considerable increase in those aged 65 years and older living in the urban nodes between 2001 and 2011 (see Table 3).

Table 3: Distribution of the population in South Africa, rural and in urban nodes by age group: 2001 and 2011

Age group	South Africa			Rural nodes		Urban nodes			
	Total population 2001	Total population 2011	% change	Total population 2001	Total population 2011	% change	Total population 2001	Total population 2011	% change
0 – 17	17 382 879	18 067 972	3,9	6 306 767	5 948 312	-5,7	563 460	520 752	-7,6
18 – 34	13 534 492	16 498 464	21,9	3 425 873	3 913 284	14,2	580 636	578 515	-0,4
35 - 64	11 687 195	14 438 134	23,5	2 804 701	3 231 141	15,2	435 808	460 030	5,6
65+	2 215 211	2 765 991	24,9	731 826	812 197	11,0	40 565	52 437	29,3
Total	44 819 778	51 770 560	15,5	13 269 167	13 904 935	4,8	1 620 470	1 611 735	-0,5

Figures 1, 2 and 3 show population pyramids for the total population of South Africa as well as the rural and urban nodes in 2001 and 2011. Overall, figures 2 and 3 show that the rural and urban nodes epitomise coexistence of two populations that are at different stages of demographic transition within the South African population. While the population of rural nodes is characterized by a broad based age-structure, which is typical of developing country populations, the population of urban nodes is characterized by an age structure that bulges in the middle ages, a feature that is a characteristic of populations from industrialized nations. Figure 1, on the other hand, shows that the South African population is gradually transforming from the typical developing country population age-structure towards the typical developed country age-structure. There is a long history underlying this transformation, but it will not be discussed here because it is outside the scope of this report.

Figure 1: Population structure in South Africa: 2001 and 2011

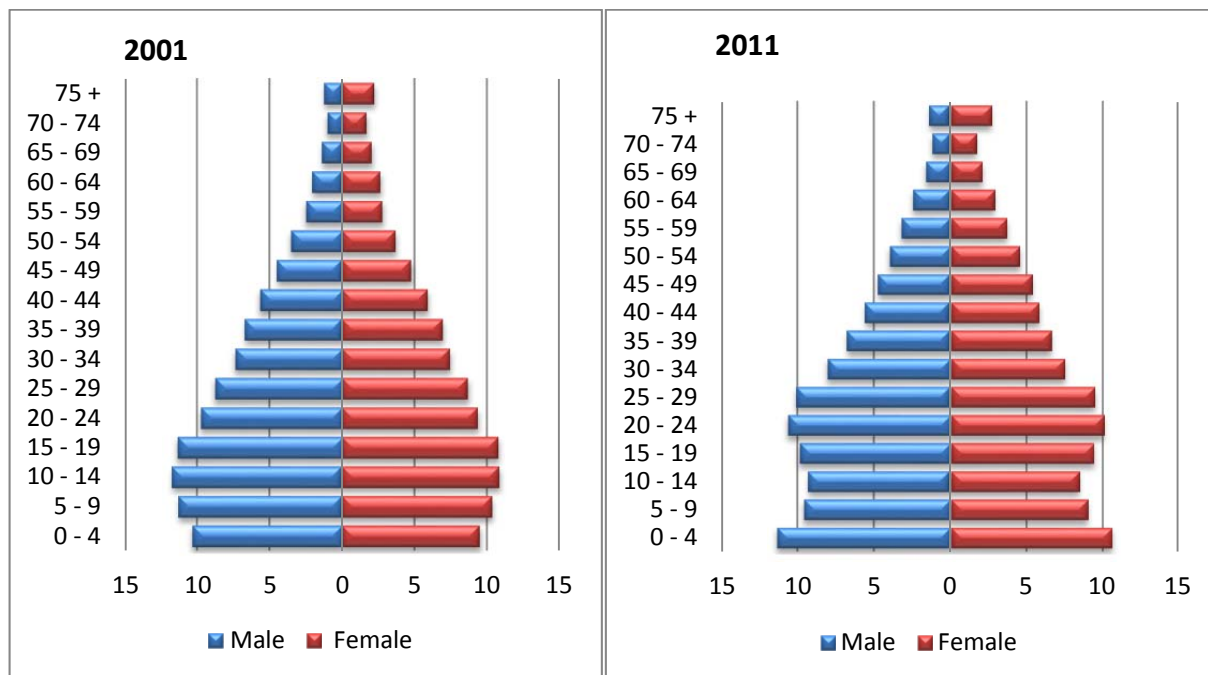


Figure 2: Population structure in the rural and urban nodes: 2001

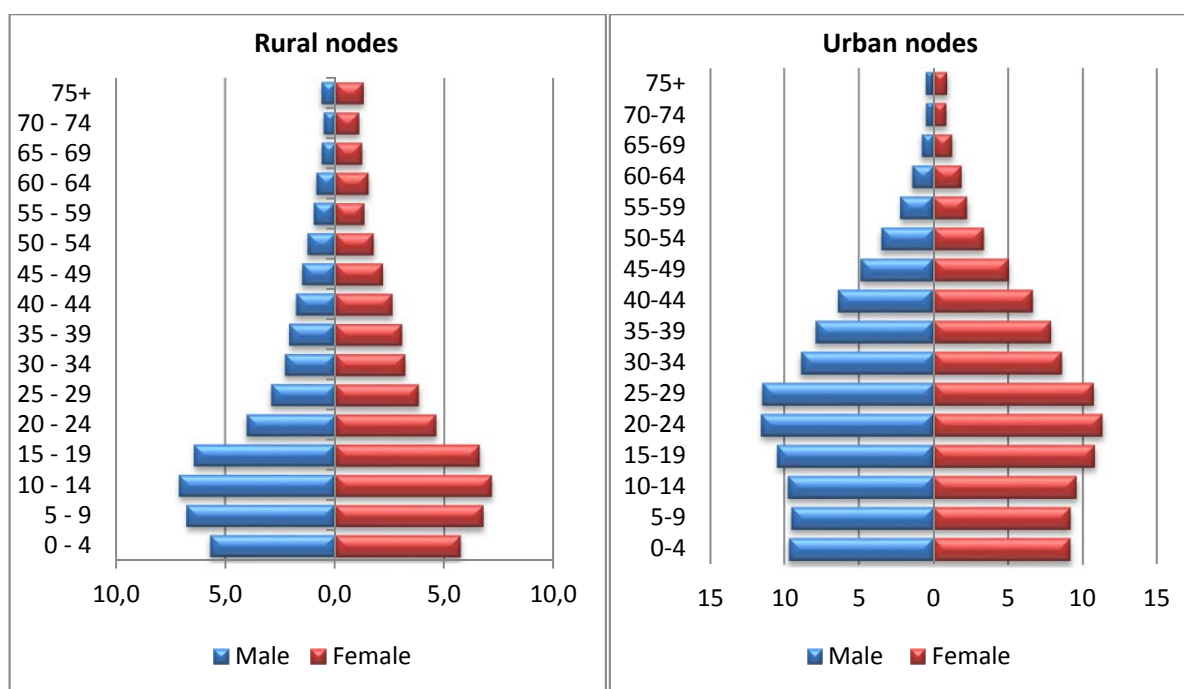


Figure 2 indicates a visible bottom heavy age structure in the rural nodes whilst the age structure is visibly middle heavy in the urban nodes in 2001.

Figure 3: Population structure in the rural and urban nodes: 2011

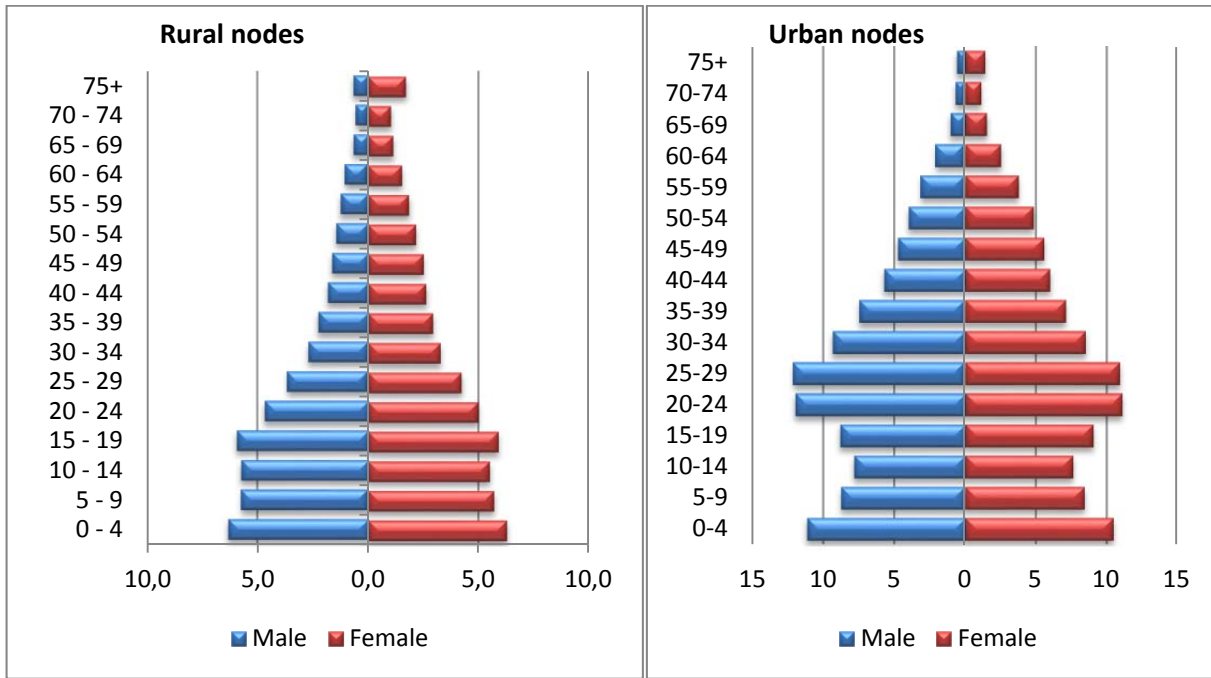
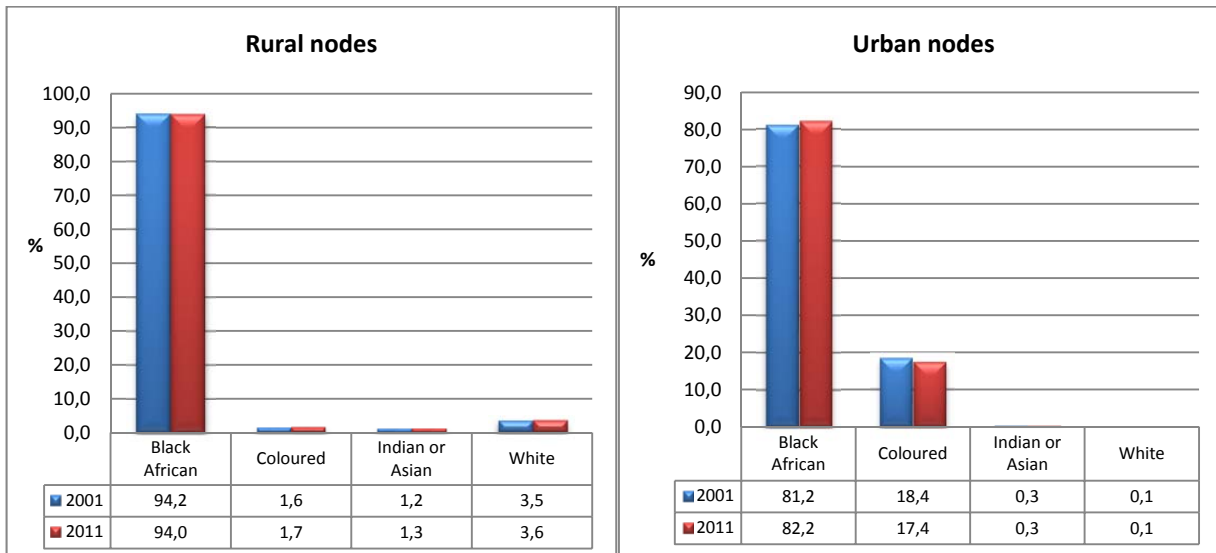


Figure 4 shows the distribution of the population of rural and urban nodes according to population group. The data indicates that black Africans form the majority of the population in the nodal areas. In the rural nodes, more than 90% of the population is black African. Meanwhile, more than 80% of the population in the urban nodes is black African and about 18% is coloured.

Figure 4: Distribution of the population in rural and urban nodes by population group: 2001 and 2011



In summary, the results indicate an increase of 4.8% in the rural nodal population and a decrease of 0.5% in the urban nodal population. The age structure indicates a bottom heavy structure in the rural nodes where the younger population of ages 0 to 19 have the highest proportions. On the other hand, the age groups with the highest proportions in the urban nodes are 20 to 24 years and 25 to 29 years. This may be a manifestation of the location

of the urban nodes – their proximity to economic and educational opportunities. Lastly, black Africans form the overwhelming majority of the population in the nodes.

5.2 Education

Section 5.2 presents the education profile in both rural and urban nodes. The section looks at the changes that occurred in terms of the education status of the nodal population between 2001 and 2011. It further compares these changes with the changes that occurred in the selected non-nodal areas.

5.2.1 Education profile of the nodal population

Basic education is a fundamental right in South Africa (The Constitution of the Republic of South Africa, 1996). It is, therefore, compulsory for children aged 7 to 15 years to be enrolled in an educational institution. There are various programmes in the country that are designed to support learners and their families to ensure that universal enrolment is achieved. These programmes include, among others, no fee schools and feeding schemes at schools. Figure 5 presents proportions of children aged 7 to 15 years attending an educational institution in rural and urban nodes. The results indicate that in 2001, the proportion of children aged 7 to 15 years attending an educational institution in the urban nodes was higher than the national average. However, whilst nationally the proportion increased slightly from 93.4% in 2001 to 93.9% in 2011, a decline in the proportion of children attending an educational institution in the urban nodes is observed in the same period, from 94.6% to 92.3%. This decline is found among children aged 12 and 13 years. In the rural nodes, an increase from 92.7% in 2001 to 94.2% in 2011 in the proportion of children aged 7 to 15 years attending an educational institution is observed. In fact, in 2011 the proportion of such children was higher in the rural nodes compared to the national average. This could be attributed to compulsory education and no fee schools, as well as to initiatives such as feeding schemes, which make it easier and more affordable for children coming from disadvantaged households to go to school.

Figure 5: Proportion of children aged 7 to 15 years who are attending an educational institution: 2001 and 2011

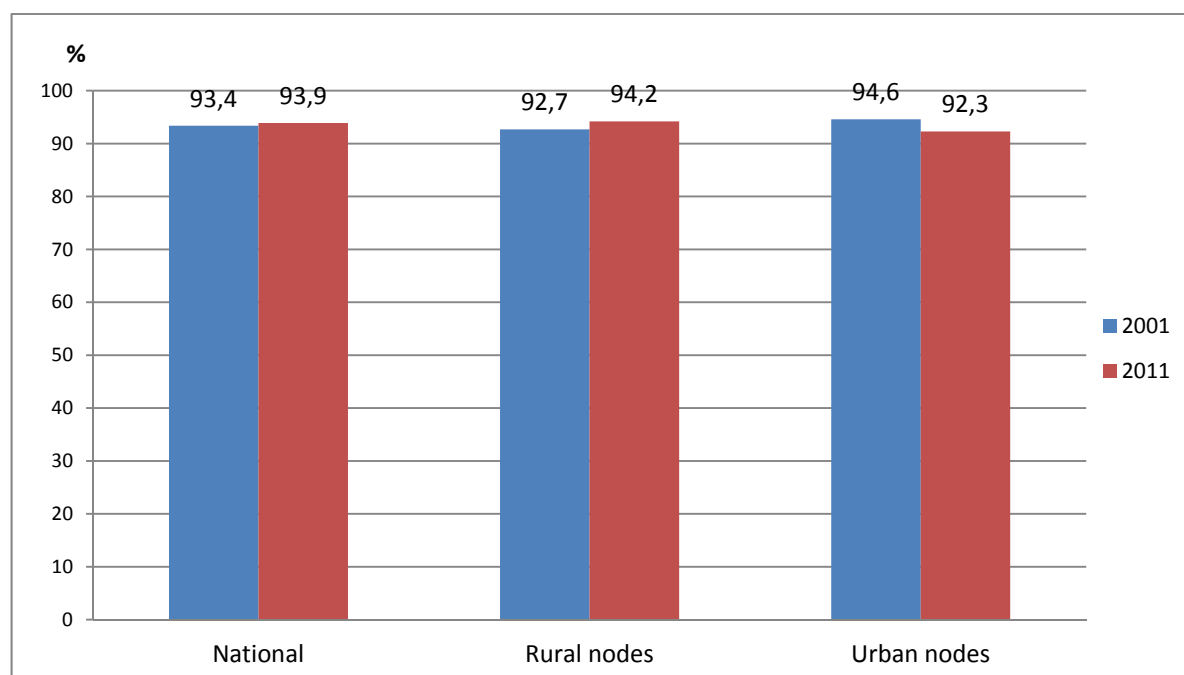


Table 4: Percentage distribution of the population aged 20 years and above in South Africa, in the urban nodes and in the rural nodes by highest level of education: 2001 and 2011

Highest level of education	National		Rural nodes		Urban nodes	
	2001	2011	2001	2011	2001	2011
No schooling	17.9	8.6	31.7	15.9	7.0	3.4
Some primary education	16	12.3	19.2	17.2	16.7	9.9
Primary education	6.4	4.6	6.1	5.2	8.6	4.8
Some secondary education	30.8	33.9	24.9	32.4	43.4	43.3
Secondary education (Grade 12)	20.4	28.9	12.8	22.0	20.0	32.5
Tertiary qualification	8.4	11.8	5.2	7.3	4.3	6.1

Table 4 reveals a good story. The table indicates a decrease in the proportion of people with lower levels of education and an increase in the proportion of the population aged 20 years and above with higher levels of education in both rural and urban nodes. While this is an indication that South Africa is moving towards achieving the targets outlined in the National Development Plan (NDP) regarding education, more effort needs to be put on increasing proportions of people with tertiary qualifications and reducing proportions of those with low levels of education. In the rural nodes, more than 3 in 10 people (33.1%) have no education or did not complete primary education. Most people, nationally and in the nodes, have some secondary education as their highest level of education.

5.2.2 Comparisons of the education profile between nodes and non-nodes

Table 4 above presents a positive picture in terms of improvements in the education profile of the nodal population. Table 5 therefore attempts to compare whether there are any differences between the nodes and non-nodes in terms of the education profile. At the time of the selection of the nodes, the proportion of the population in the rural nodes aged 20 years and older with no schooling was higher than that of the non-nodes and the proportion of those with higher educational levels in the nodes was lower than that of the non-nodes. These differences were found to be statistically significant, which then justifies the selection of the nodes as these areas were found to be doing poorly in education compared to the non-nodes. In 2011, however the situation was still the same with the exception of tertiary qualifications. In 2011, there were no significant differences between the urban nodes and the urban non-nodes with regards to the proportion of the population aged 20 years and older with some secondary education and with tertiary qualifications. This means that, by 2011 the urban nodes had caught up with the urban non-nodes on some secondary education and tertiary qualifications.

Table 5: Comparisons of the education profile (population aged 20 years and above) between nodes and non-nodes: 2001 and 2011

	No schooling	Some primary education	Completed primary education	Some secondary education	Completed secondary education (Grade 12)	Tertiary qualification
2001						
Rural nodes	31.7	19.2	6.1	24.9	12.8	5.2
Non-nodes	19.3	18.5	7.0	30.1	18.3	6.8
Difference	12.4*	0.7*	0.9*	5.2*	5.5*	1.6*
2011						
Rural nodes	15.9	17.2	5.2	32.4	22.0	7.3
Non-nodes	19.1	18.5	7.1	30.2	18.3	6.8
Difference	3.2*	1.3*	1.9*	2.2*	3.7*	0.5*
2001						
Urban nodes	7.0	16.7	8.6	43.4	20.0	4.3
Urban non-nodes	13.5	15.8	7.8	38.4	22.3	5.5
Difference	6.5*	0.9*	0.8*	5.0*	2.3*	1.2*
2011						
Urban nodes	3.4	9.9	4.8	43.3	32.5	6.1
Urban non-nodes	7.3	13.6	4.9	40.2	32.4	8.6
Difference	3.9*	3.7*	0.1	3.1*	0.1	2.5*

p<0.05

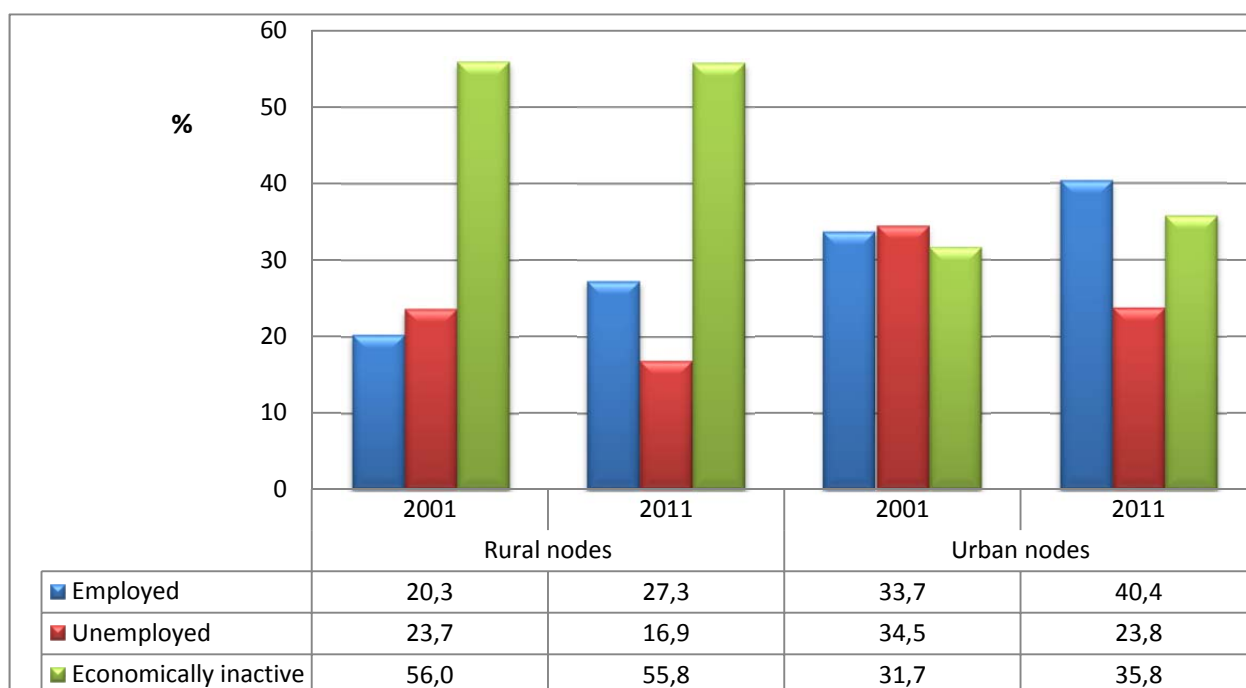
5.3 Economic activity in the nodes

This section provides the labour market status of the nodal population aged 15 to 64 years. The official definition of unemployment – which is: persons who are within the economically active population who did not work during the seven day prior to the interview; want to work and are available to start work within a week; and have taken active steps to look for work or start some form of self-employment within the four weeks prior to the interview – is used throughout the report. As highlighted in Section 3, it is important to point out that the comparison of employment data from Census 2001 and Census 2011 is being made with caution as the 2001 questions did not deal with issues around the informal sector. The merits of the comparison will therefore depend on whether the informal sector was a significant factor in the employment dynamics of the rural nodes.

5.3.1 Labour market status in rural and urban nodes

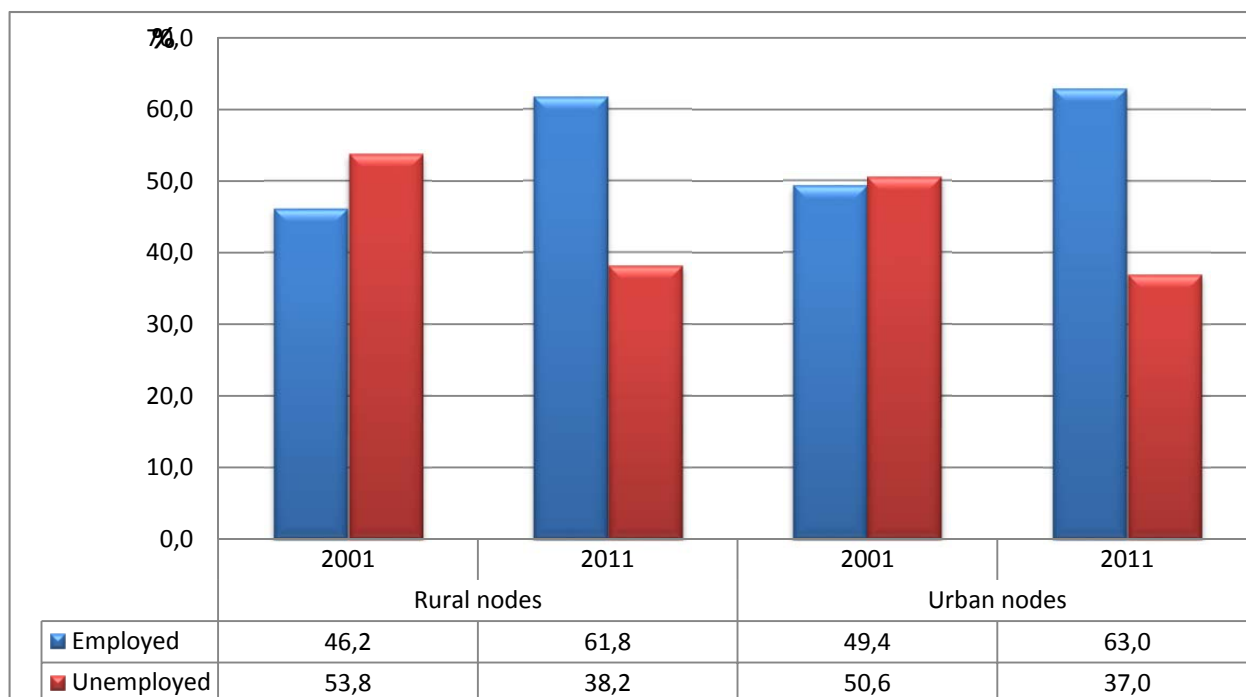
Figure 6 presents the distribution of the population of working age in South Africa and in the nodes by labour market status, while Figure 7 indicates employment rates and unemployment rates in the nodes. Figure 6 indicates a different distribution pattern of the population of working age between 2001 and 2011 in the rural nodes and the urban nodes. In 2001, in the rural nodes, the majority of the working age population is formed by the economically inactive population, followed by the unemployed and then the employed. In the urban nodes, in 2001, most the working age population was unemployed, followed by those who were employed and then the economically inactive. In 2011, the economically inactive in the rural nodes still formed the majority of the working age population, followed by the unemployed and then the employed. In the urban nodes in 2011, most were employed, followed by the economically inactive and then the unemployed.

Figure 6: Percentage distribution of the population of working age (15 – 64 years) in rural and urban nodes by labour market status: 2001 and 2011



In terms of employment, Figure 7 indicates that the unemployment rate for the rural nodes was higher than that in the urban nodes both in 2001 and 2011. Significant increases in the employment rate of the economically active population (aged 15 to 64 years) are observed in both the rural and the urban nodes. This increase, specifically in the rural nodes, suggests positive outcomes of rural development programmes targeting job creation. A reduction in unemployment between 2001 and 2011 in both rural and urban nodes is observed.

Figure 7: Percentage distribution of the economically active population (15 to 64 years) in rural and urban nodes by employment status: 2001 and 2011



5.3.2 Comparisons of the employment status of the economically active population between the nodes and non-nodes

Unemployment in South Africa remains a major challenge. Although there was a reduction in unemployment over the 10 year period (2001 to 2011) in the nodes, it is interesting to see how the non-nodes performed in this area compared to the nodes. The unemployment rate in the rural nodes in 2001 was significantly higher than in the non-nodes. On the other hand, the unemployment rate in the non-urban nodes was significantly higher than in urban nodes in 2001. Whilst there were reductions in unemployment rates between 2001 and 2011 in the nodes, when compared to the non-nodes in 2011, significantly higher rates were still observed in the nodes compared to the non-nodes. It is however important to note that in 2011, even though the difference in the unemployment rate between urban nodes and urban non-nodes is significant, the z-score test for the difference indicates a weak statistical significance at 0.05 level. This indicates that despite significant differences in 2001 between the urban

nodes and the urban non-nodes regarding unemployment, by 2011 the nodes were close to catching up with the non-nodes.

Table 6: Comparisons of the employment status between the nodes and the non-nodes: 2001 and 2011

Employment status	2001			2011		
	Rural nodes	Non-nodes	Difference	Rural nodes	Non-nodes	Difference
Employment	46.2	59.2	13.0*	61.8	70.3	8.5*
Unemployment	53.8	40.8	13.0*	38.2	29.7	8.5*
	Urban nodes	Urban non-nodes	Difference	Urban nodes	Urban non-nodes	Difference
Employment	49.4	44.5	4.9*	63.0	62.5	0.5*
Unemployment	50.6	55.5	4.9*	37.0	37.5	0.5*

* p < 0.05

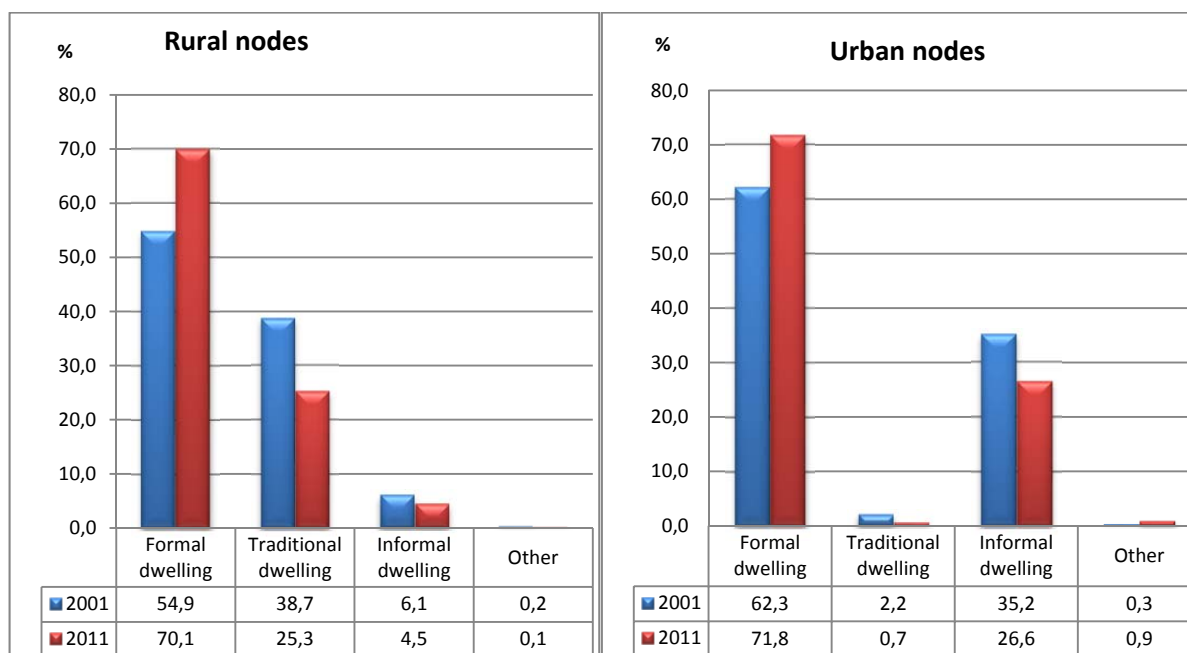
5.4 Living conditions in the nodal areas

This section covers the living circumstances of the households in the nodal areas with regard to housing and access to basic services such as water, electricity, sanitation and refuse removal. The country’s overarching socio-economic policy framework, outlined in the Reconstruction and Development Programme (RDP) that was started in 1996 and now carried forward through the NDP, requires the government to provide adequate housing, electricity, telecommunications, piped water and sanitation to all households, particularly among the groups that were disadvantaged during the apartheid era. According to the National Development Plan, access to adequate housing, reliable electricity, safe water supplies, accessible public transport, and hygienic and dignified sanitation facilities remains a daily challenge for many South Africans, particularly in poor rural and peri-urban communities.

5.4.1 Housing and access to basic services in rural and urban nodes

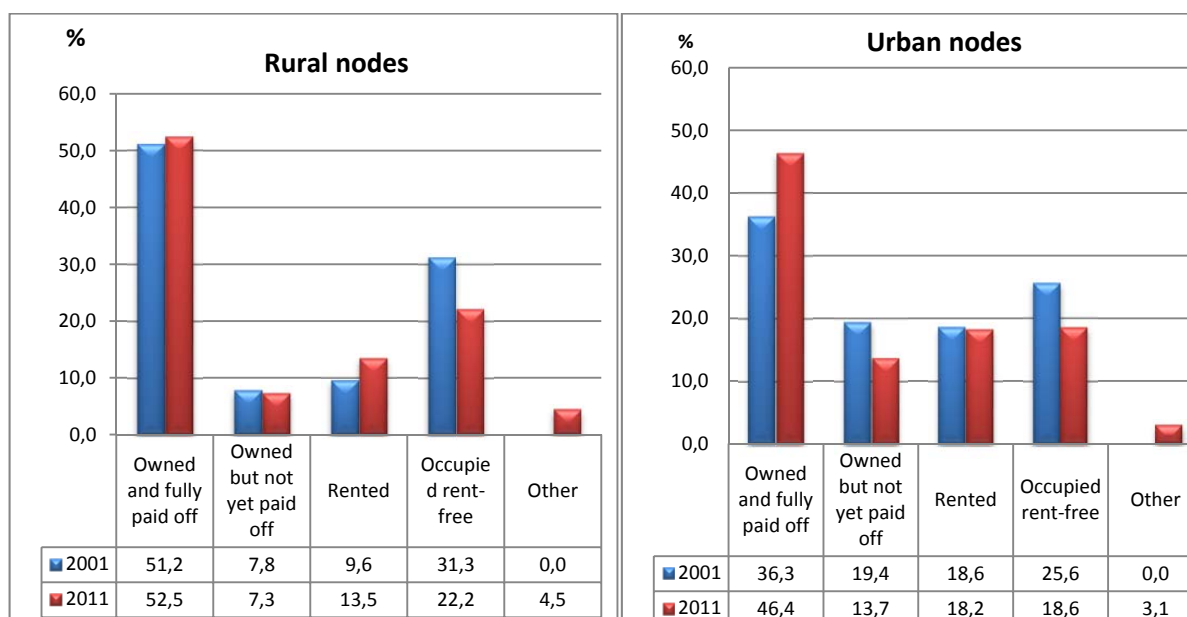
Through the RDP, the government of South Africa has been providing free housing to low income earners since 1996. This programme ensures decent housing to all South Africans and specifically deals with the increasing number of households residing in informal settlements. Figure 8 illustrates the progress made in increasing the proportion of households living in formal dwellings between 2001 and 2011 in both rural and urban nodes. This is matched by a decrease in the proportion of households living in traditional dwellings and informal dwellings between 2001 and 2011 in both rural and urban nodes.

Figure 8: Percentage distribution of households in rural and urban nodes by type of dwelling: 2001 and 2011



In addition to decent housing, ownership of assets (e.g. a house) is important as this can be used as collateral for securing credit. Access to credit allows households to survive economic shocks and provides them with a platform to start a small business and/or improve their living conditions. Ownership of houses increased in the nodal areas between 2001 and 2011. In the rural nodes, households that reported owning dwelling units that they resided in increased from 59.0% in 2001 to 59.8% in 2011. Similarly in the urban nodes, the proportion of house ownership increased from 55.7% in 2001 to 60.1% in 2011 (Figure 9).

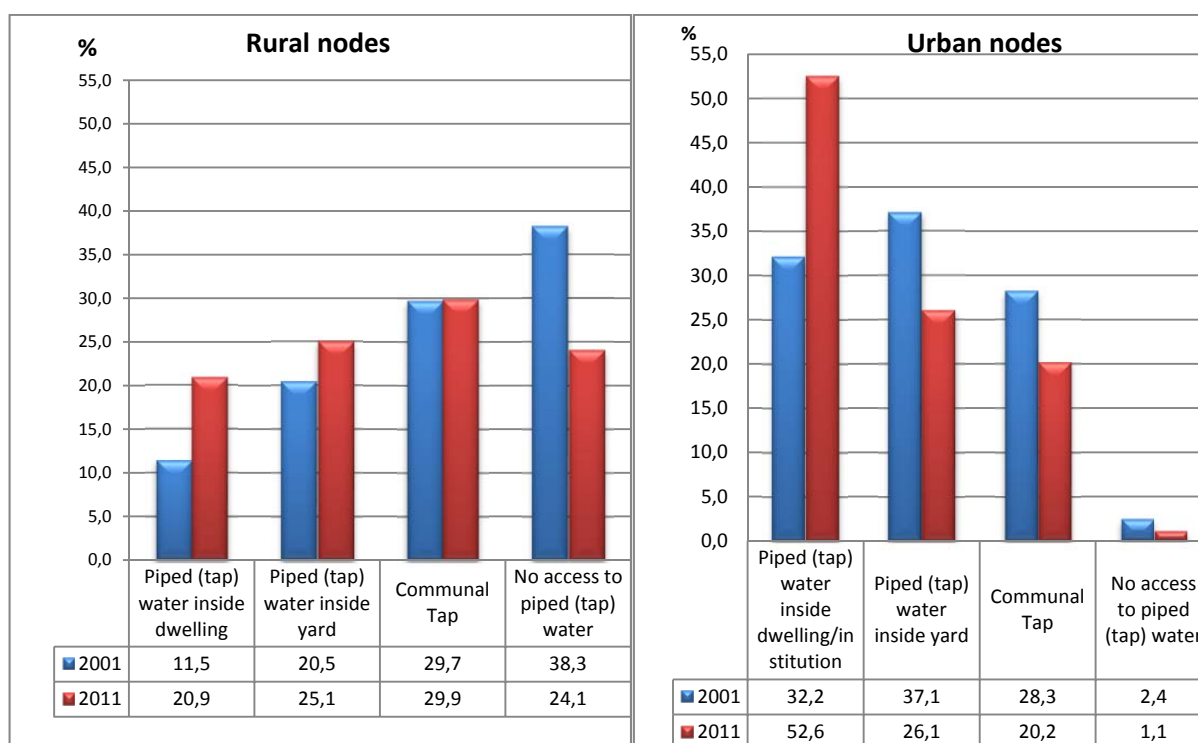
Figure 9: Percentage distribution of households in rural and urban nodes by tenure status: 2001 and 2011



Access to basic services such as piped water, decent sanitation, refuse removal by local authority, and electricity are all important indicators of a household's living conditions. One of the main aims of the URP is to create a quality urban environment where people can live with dignity and pride. This portion of the report presents a picture of whether there have been any improvements in the nodes between 2001 and 2011 with regard to access to basic services.

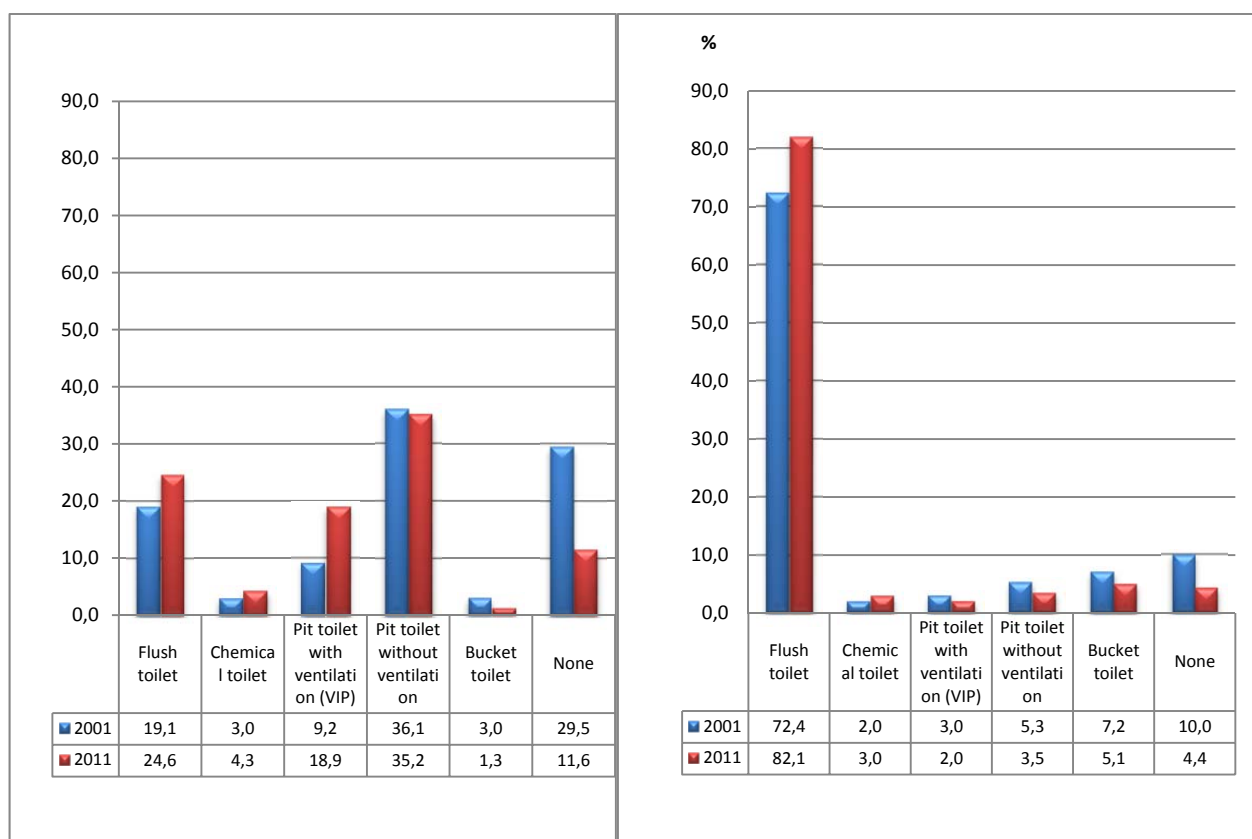
While the results in Figure 8 indicate an increase in the percentage of households with access to piped water inside the dwelling for households both in rural and urban nodes, the inequality between households in rural nodes and households in urban nodes is pronounced. In 2011, the majority of the households (52.6%) in the urban nodes had access to piped water inside the dwelling whereas only one out of five households (20.9%) had access in the rural nodes. At the other end of the spectrum, only 1% of the households in the urban nodes had no access to piped water whereas in the rural nodes, about 24.1% (or one in every four) of the households did not have access to piped water.

Figure 10: Percentage distribution of households in rural and urban nodes by main source of water: 2001 and 2011



In terms of sanitation in the nodes, the results indicate different circumstances for households in rural nodes and households in urban nodes. Whilst Figure 11 shows an increase in the percentage of households using flush toilets in both rural and urban nodes between 2001 and 2011, there was an increase in the percentage of households using pit latrines (with or without ventilation pipes) in the rural nodes in the same period; in urban nodes, a decrease is observed. In both rural and urban nodes, a decrease in the percentage of those using bucket toilets and those without toilets is observed during this time period.

Figure 11: Percentage distribution of households in rural and urban nodes by type of toilet facility: 2001 and 2011



Great strides have been made in the 10 years (2001 to 2011) in terms of providing electricity to household in the nodes (Table 7). In both rural and urban nodes, the proportion of households using electricity for cooking, heating, and/or lighting increased during this time period. Over the same period, the proportion of those using solid fuels like wood, animal dung and candles, as well as those using paraffin decreased. In the rural nodes, the proportion of households using electricity for cooking, heating and lighting increased by 31.7%, 20.6% and 24.8% respectively. The proportion of those using wood for cooking and heating decreased by 17.3% and 13.9% respectively, between 2001 and 2011 in the rural nodes.

Similarly, in the urban nodes, the proportion of households using electricity for cooking, heating and lighting increased by 28.7%, 16.0% and 14.9% respectively. Again, the proportion of those using paraffin for cooking, heating and lighting decreased by 29.6%, 9.5% and 9.4% respectively.

Table 7: Percentage distribution of households in rural and urban nodes by source of energy they use for cooking, heating and lighting: 2001 and 2011

Source of energy	Cooking			Heating			Lighting		
	2001	2011	% change	2001	2011	% change	2001	2011	% change
Rural nodes									
Electricity	24.3	56.0	31.7	22.6	43.2	20.6	50.9	75.7	24.8
Gas	3.2	3.4	0.2	1.0	1.9	0.9	0.3	0.3	0.0
Paraffin	18.8	7.5	-11.3	14.2	12.3	-1.9	10.1	3.8	-6.3
Wood	48.5	31.1	-17.4	53.5	39.6	-13.9	-	-	-
Coal	2.2	0.6	-1.6	4.2	1.8	-2.4	-	-	-
Animal dung	2.4	1.0	-1.4	1.7	0.9	-0.8	-	-	-
Candles	-	-	-	-	-	-	37.8	20.5	-17.3
Solar	0.2	0.1	-0.1	0.2	0.2	0.0	0.3	0.6	0.3
Other	0.4	0.1	-0.3	2.5	0.0	-2.5	0.5	0.0	-0.5
Urban nodes									
Electricity	56.5	85.2	28.7	50.6	66.6	16.0	74.5	89.4	14.9
Gas	3.3	5.1	1.8	1.0	2.3	1.3	0.3	0.3	0.0
Paraffin	38.5	8.9	-29.6	38.6	29.1	-9.5	16.1	6.7	-9.4
Wood	0.4	0.2	-0.2	3.3	1.3	-2.0	-	-	-
Coal	0.3	0.1	-0.2	0.8	0.2	-0.6	-	-	-
Animal dung	0.5	0.1	-0.4	0.2	0.1	-0.1	-	-	-
Candles	-	-	-	-	-	-	8.8	3.4	-5.4
Solar	0.3	0.2	-0.1	0.3	0.3	0.0	0.1	0.2	0.1
Other	0.2	0.1	-0.1	5.3	0.0	-5.3	0.1	0.0	-0.1

5.4.2 Comparisons of the standard of living of households between nodes and non-nodes

Whilst the results in Section 5.4.1 indicate improvements with regards to access to formal dwellings and basic services in both rural and urban nodes, Section 5.4.2 addresses the question of whether [or not], the nodes caught up with the non-nodes during the same period. With regard to the rural nodes, the results in Table 8 indicate that, in 2001, the nodes were doing poorly in terms of access to formal dwellings and basic services compared to the non-nodes. Analysis shows that this difference was statistically significant. In 2011, the nodes were still doing poorly compared to the non-nodes and the difference was also statistically significant. With regard to urban nodes and urban non-nodes, whilst nominally, the differences were not as pronounced for access to formal dwelling and piped water inside the dwelling on on-site, the z-score test indicates that these differences are statistically significant both in 2001 and 2011.

Table 8: Comparisons of improvements in access to formal dwellings and basic services between nodes and non-nodes: 2001 and 2011

Access to basic services and formal housing	2001			2011		
	Nodes	Non-nodes	Difference	Nodes	Non-nodes	Difference
Rural						
Formal dwelling	54.9	74.8	19.9*	70.1	82.9	12.8*
Access to piped water inside the dwelling or on site	32.0	69.7	37.7*	46.0	80.9	34.9*
Access to a flushed toilet	22.1	56.2	34.1*	30.2	67.3	37.1*
Access to electricity for lighting	51.5	56.7	5.2*	76.6	80.4	3.8*
Urban						
Formal dwelling	62.3	62.5	0.2*	71.8	68.8	3.0*
Access to piped water inside the dwelling or on site	69.3	68.3	1.0*	78.7	80.0	1.3*
Access to a flushed toilet	74.4	60.1	14.3*	85.1	69.1	16.0*
Access to electricity for lighting	76.2	74.9	1.3*	89.6	87.7	1.9*

p<0.05*

5.5 Multidimensional poverty in the nodes

Both the urban and rural nodes were selected for accelerated development based on their high poverty levels in the late 1990s to early 2000s. The ISRDP and the URP were part of government’s poverty reduction strategies to rectifying the legacy of underdevelopment in these areas. This section presents poverty levels in the nodes in 2001 and 2011 based on the South African Multidimensional Poverty Index (SAMPI). The SAMPI is a domesticated version of the global Multidimensional Poverty Index (MPI) which captures severe deprivations that each person or household faces with respect to education, health and living standards. Statistics South Africa customised the MPI to the South African situation such that the SAMPI is made up of four dimensions, (i.e. health, education, standard of living, and economic activity) and eleven indicators as highlighted in Table 9.

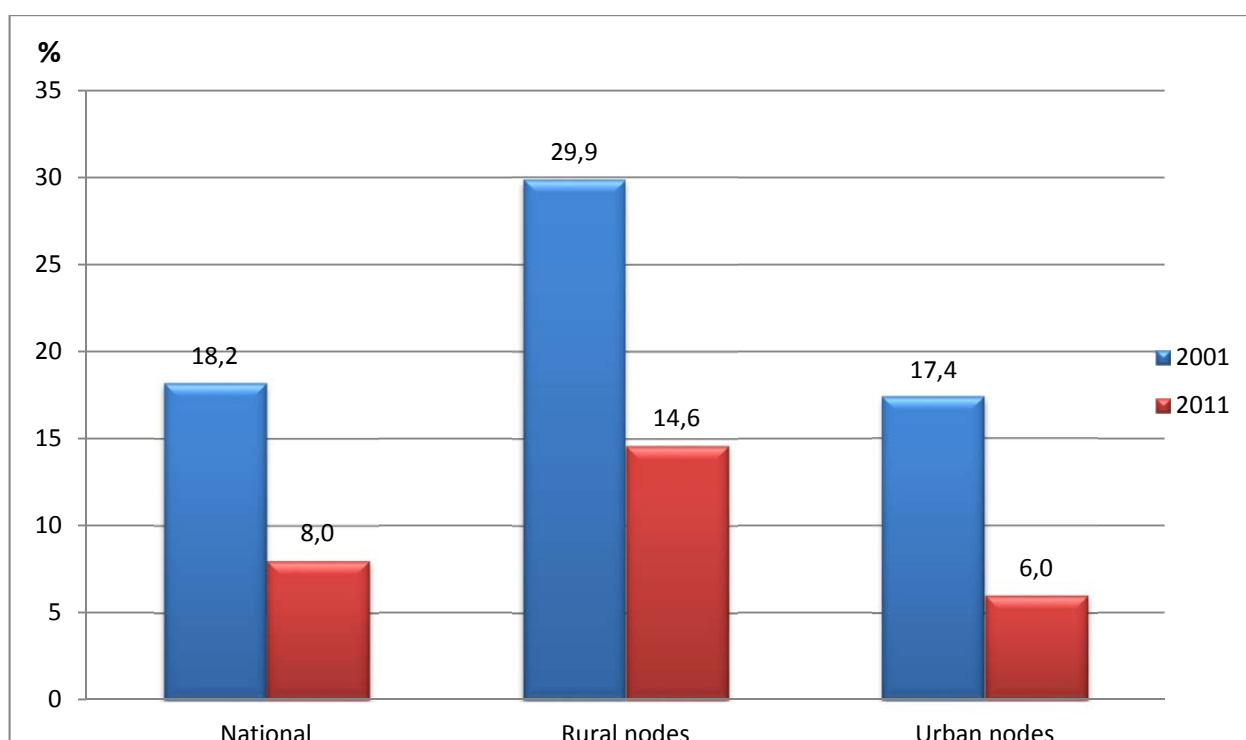
Table 9: The dimensions and indicators the SAMPI

Dimension	Indicator
Health	Child mortality
Education	Years of schooling School attendance
Standard of living	Fuel for lighting Fuel for heating Fuel for cooking Water access Sanitation type Dwelling type Asset ownership
Economic activity	Unemployment

5.5.1 Multidimensional poverty levels in the nodes

The results of Census 2001 indicate that 18.2% of households in South Africa were multidimensionally poor in 2001. This figure decreased to 8.0% in 2011 (see Figure 12). The decrease in multidimensional poverty is also observed in rural and urban nodes. In the rural nodes, 29.9% of the households were multidimensionally poor in 2001. By 2011, this figure had decreased by 15.3% (to 14.6%). Multidimensional poverty decreased in the urban nodes from 17.4% in 2001 to 6.0% in 2011. The multidimensional poverty headcount was higher in the rural nodes and lower in the urban nodes when compared to the national average during this time period.

Figure 12: Multidimensional poverty levels in South Africa, rural and urban nodes: 2001 and 2011



One of the advantages of the SAMPI is its ability to decompose information such that it informs on the contribution of each indicator towards multidimensional poverty. This is useful information for planning and policy implementation as drivers of poverty can be identified and be addressed directly. Figure 13 below indicates the contribution of each dimension to poverty in both the rural and urban nodes. The results show that the biggest contributor towards poverty in the urban nodes is unemployment, whereas the rural nodes are still grappling with the issue of service delivery. When looking at both the rural and urban nodes in 2001 and 2011, the contribution of the education and living conditions dimensions decreases, while the contribution of unemployment increases. A further disaggregation of this information to indicator level reveals the main drivers of poverty being unemployment and education (particularly years of schooling) in both rural and urban nodes (see Figure 14).

Figure 13: Contribution of each dimension towards poverty in rural and urban nodes: 2001 and 2011

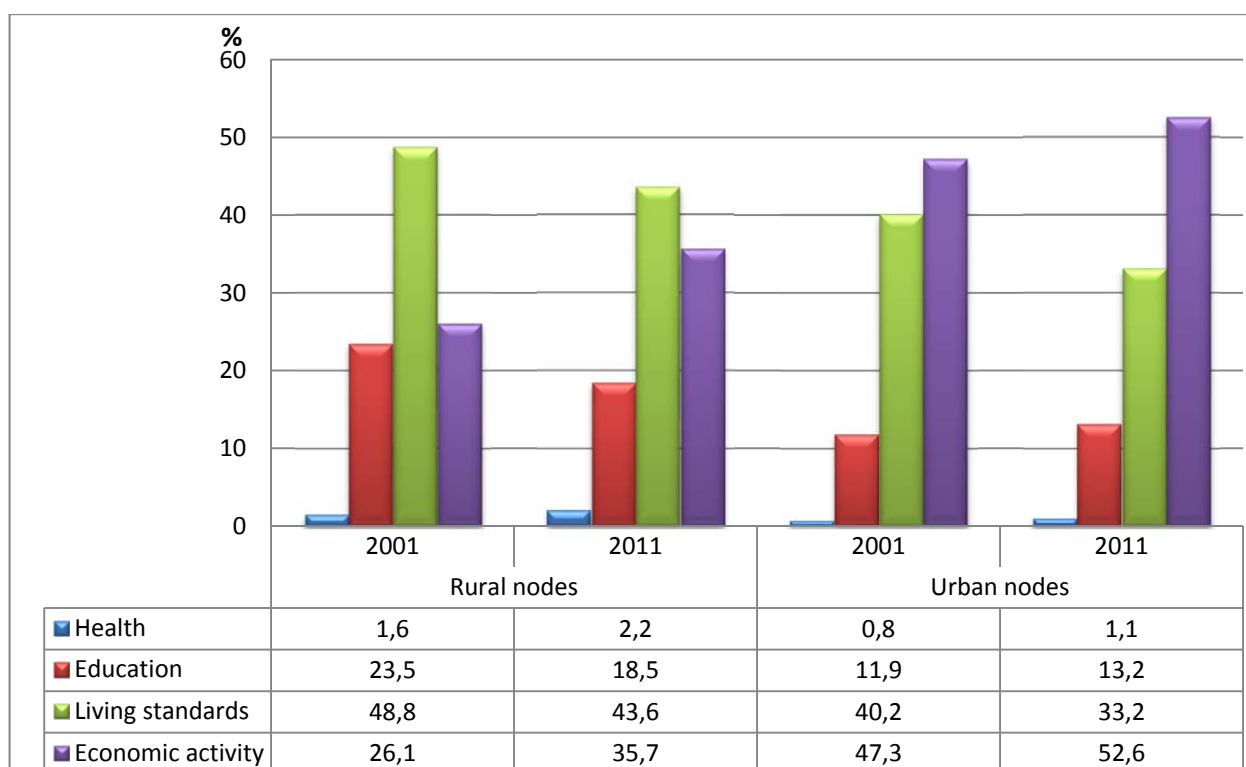
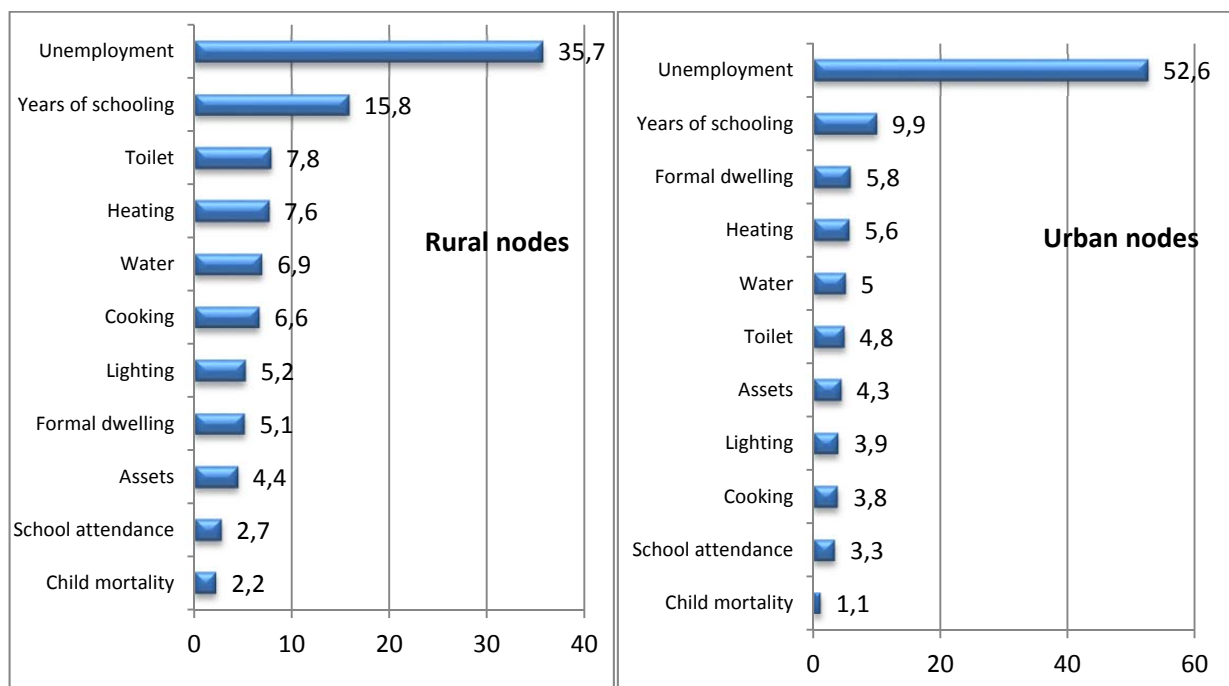


Figure 14: Contribution of each indicator to poverty in rural and urban nodes: 2011



5.5.2 Comparisons of multidimensional poverty reduction in the nodes and non-nodes: 2001 and 2011

Section 5.5.1 indicates a reduction in multidimensional poverty between 2001 and 2011 in both rural and urban nodes. Both rural nodes and urban nodes benefited from the numerous poverty reduction strategies employed by government. When comparing rural nodes and rural non-nodes, the results indicate higher poverty levels in the rural nodes compared to non-nodes. This would then justify the selection of nodes. However, ten years later, the poverty levels are still (statistically) significantly higher than that of the non-nodes even though poverty was generally reduced between 2001 and 2011. A different pattern is observed with the urban and urban non-nodes. In 2001, on average, the selected urban non-nodes had higher multidimensional poverty headcounts compared to the urban nodes. Unlike in the rural areas, by 2011, the urban non-nodes still had significantly higher poverty levels compared to nodes. This gives rise to questions about the suitability of the selection criteria for urban non-nodes.

Table 10: Comparisons of multidimensional poverty reduction in the nodes and non-nodes: 2001 and 2011

Year	Rural nodes	Non-nodes**	Difference
2001	29.9	15.4	14.5*
2011	14.6	6.4	8.2*
	Urban nodes	Urban non-nodes	Difference
2001	17.4	20.0	2.6*
2011	6.0	6.8	0.8*

*p < 0.05

5.5.3 Further insights about the rural and urban nodes based on SAMPI headcounts

A detailed analysis of poverty levels in each node reveals an interesting finding. The nodes were selected in 2001 based on their high poverty levels. Data however reveal that, there were areas that were not identified as non-nodes that were worse off than the nodes, meaning that they had higher levels of multidimensional poverty than that of the nodes. Table 11 shows the twenty poorest districts in South Africa. In 2001, Dr Ruth Segomotsi Mompati district was the 11th poorest district in the country and in 2011 it ranked the 10th poorest, yet this district was not identified as a node. Similarly, Vhembe district was the 14th poorest in 2001 and the 13th poorest in 2011 and yet was also not identified as a node during the period 2001 to 2011. Districts such as Central Karoo and Ehlanzeni did not feature in the 20 poorest districts, however, they form part of the areas selected as nodes.

Table 11: The poorest twenty districts in South Africa sorted by 2011 poverty headcount

District	2001 Headcount	2011 Headcount
Alfred Nzo	44,7%	25,6%
uMzinyathi	42,5%	23,7%
O.R.Tambo	43,6%	21,1%
uMkhanyakude	40,1%	20,4%
Sisonke	36,8%	19,3%
Amathole	34,9%	18,7%
Joe Gqabi	34,0%	16,8%
Chris Hani	32,0%	15,6%
Ugu	28,3%	15,1%
Dr Ruth Segomotsi Mompati	28,6%	13,7%
uThukela	27,0%	13,7%
iLembe	27,4%	13,2%
Vhembe	25,0%	13,0%
Zululand	30,3%	12,8%
Ngaka Modiri Molema	21,0%	12,3%
John Taolo Gaetsewe	28,6%	11,4%
Greater Sekhukhune	22,1%	11,3%
Mopani	25,6%	11,3%
uThungulu	25,7%	11,0%
Buffalo City	20,9%	9,3%

Similarly, with regards to urban nodes, townships such as Berlin in Buffalo City, which was not selected as a node had a higher level of multidimensional poverty compared to Mdantsane which was identified as a node in Buffalo City. Both Richie and Motswedimoa townships in Sol Plaatjie had higher levels of multidimensional poverty compared to Galeshewe which was identified as a node in the same municipality. In the City of Johannesburg, Diepsloot’s multidimensional poverty headcount was estimated at 30.7% in 2001 and was not identified as a node,

whilst Alexandra, which had a poverty level of 13.2% in the same year, was identified as a node (see Table 2). This anomaly in the selection of nodes may point to data gaps that existed 15 years ago (in 2001).

6. Summary

In 2001, the government of South Africa identified 13 district municipalities (that was later increased to 18) and 8 townships for accelerated development under the ISRDP and the URP auspice. The 18 district municipalities are referred to as rural nodes and the 8 townships are referred to as urban nodes. The nodes were selected based on their high levels of poverty and underdevelopment. This report examined development in these nodes for the period 2001 to 2011 using Census 2001 and Census 2011 data. In addition to looking at development in the nodes, the report further compared the rate of development between nodes and other areas not identified as nodes, that is, results from the 18 rural nodes are compared with results from other district municipalities not identified as nodes. Similarly, the results from the 8 urban nodes were compared with results for selected urban townships not identified as nodes.

The data showed different age structures in rural and urban nodes. Whilst the age structure in the rural nodes closely resembled the national one, where the younger age groups of 0 – 19 years form most of the population, the age structure in the urban nodes indicated a different picture. People in the age groups 20 to 29 years represented the largest proportion of the population. This age group is characterised by people seeking higher education and work opportunities. The proximity of the urban nodes to such opportunities may be the reason for such an age structure in urban nodes to occur.

The report also found that in both rural and urban nodes, great strides have been made in terms of education. An increase in the proportion of the population who have some secondary education, completed secondary education, and tertiary qualification was observed. This was matched by a decrease in the proportion of those with lower levels of education. Whilst these improvements were observed in both rural and urban nodes, the proportions of those with higher educational qualification in the rural nodes is still very low. The proportion of those with lower educational levels in rural areas is relatively high when compared to urban nodes. It is important to note that the proportion of children aged 7 to 15 years attending an educational institution in the rural nodes was higher than that of the urban nodes and even higher than the national average. Such an improvement in the rural nodes may be attributed government programmes such as no fee schools and feeding schemes. Also, of importance is a decrease in the proportion of children aged 7 to 15 years attending an educational institution in the urban nodes between 2001 and 2011.

Regarding economic activity, the results indicated that the majority of the population of working age in the rural nodes were not economically active. A pronounced reduction in the unemployment rate was observed in the rural

nodes. Similarly to the rural nodes, the urban nodes increased their employment rate and decreased the unemployment rate during the period 2001 and 2011.

Regarding the living conditions of households in the nodes, the results painted a positive picture. In both rural and urban nodes, there were improvements with regard to formal housing, water, sanitation, electricity and refuse removal between 2001 and 2011. Special attention should be given to access to piped water inside the dwelling or on site and access to flush toilets in the rural nodes. Intensification of programmes that provides free basic services to indigent households is necessary, especially in the rural nodes. Awareness campaigns on the registration of households as indigent are still crucial for the success of these and future programmes.

The results of the SAMPI in the nodes also told a good story of poverty reduction between 2001 and 2011 in both rural and urban nodes. The SAMPI revealed that the main drivers of poverty in the rural and urban nodes are not the same. While unemployment drives poverty in the urban nodes, lack of basic services is the main driver of poverty in rural nodes.

When all these results in the nodes were compared with the results from the selected non-nodes it appeared that the nodes did not do specifically better than the non-nodes with regard to education, economic activity, living conditions and multidimensional poverty. The differences between the nodes and the non-nodes in both 2001 and 2011 were statistically significant. This means that, ten years after the implementation of the ISRDP and the URP, the nodes have not caught up with the non-nodes and thus, the overall success of these programmes less clear.

In addition to the comparisons between the nodes and the non-nodes, the results indicate that there were areas that were worse-off than some nodes in 2001, but were not included in the ISRDP and URP programmes as nodes. These include Dr Ruth Segomotsi Mompati district and Vhembe district municipality that were not identified as rural nodes and Berlin in Buffalo City, as well as Richie and Motswedimoa townships in Sol Plaatjie, which were not identified as urban nodes despite being worse off than some nodes.

7. Conclusion

Great strides towards improving the lives of the population living in the nodes have been made between 2001 and 2011. The plight of the households in both the rural and urban nodes is changing for the better. However, the nodes have not caught up with the non-nodes ten years after the implementation of the ISRDP and the URP except with regards the proportion of the population aged 20 years and above with some secondary education and those with some tertiary qualifications.