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Data Report for RESILIM Olifants: A Case Study 2014

Methods & summary of key data

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Section A: Data report for RESILIM Olifants Livelihoods Study

Introduction

This study examines the spatial patterns of poverty and local direct natural resource dependency¹ for the South African portions of the Olifants Catchment. In addition, the study is also collating basic census data on demographic characteristics for use in other components of the RESILIM project.

This study primarily draws on analysis of Census 2011 data to devise a vulnerability index that will be applied to the Olifants Basin. The data-driven vulnerability index, consists of two composite indices namely:

- A general poverty index, incorporating sub-indices of:
 - Population density.
 - Density of people who are not employed
 - Dependency ratio.
 - Density of low income households.
 - Consumption (Examining levels of ownership of various goods as a proxy for poverty).
 - Access to services (Specifically looking at access to electricity, decent sanitation, water supplies and refuse collection).
- Local direct natural resource dependency, incorporating sub-indices of:
 - Access to piped water.
 - Dependency on the environment for wood for cooking.
 - Dependency on the environment for wood for heating.
 - Dependency on the environment for building materials.

¹ Note that we are not implying that anyone is independent of natural resources (e.g. a person working in a town getting their water out of a tap may be very vulnerable to disruptions in supply, and poor quality water in rivers could result in increased water treatment costs with consequences for water prices and rates, which would have an impact on available income). However, this study is focussing on the poor, and particularly the rural poor, and hence we are deliberately most concerned about people who are directly dependent on local natural resources, and who are directly impacted by issues of availability/scarcity and quality of natural resources in their immediate environment.



The analysis is undertaken at a community level, which is the smallest discreet geographic unit recognized in the South African 2011 census². The indices are relative and compare the specific values for a particular values against a series of baseline values for communities in the Olifants basin and South Africa as a whole. The objective is to identify an efficient set of indicators of poverty and direct local natural resource dependency, with indicators identified and thresholds set at levels to meaningfully differentiate the focal rural communities. There is a strong spatial focus to allow the study to identify the specific communities which are most vulnerable. We will also have some additional descriptive statistics on issues such as health, education, women headed households and agricultural characteristics of communities.

The analysis is structured into the following main sections:

- Basic data analysis and summary. This provides the building blocks for subsequent analyses, as well as broader use of the data.
- A geographic summary of key poverty and direct local natural resource dependency issues. This examines the spatial variation of key social variable at a major hydrogeographic unit (i.e. the five major units namely the Upper Olifants, Middle Olifants - Agriculture, Middle Olifants - Sekhukhuneland, Middle Olifants - Steelpoort and Lower Olifants) and at the tertiary catchment level (i.e. for the 14 smaller specific tertiary catchments within the major units).
- A thematic summary of the key poverty and direct local natural resource dependency issues. This examines the variation of key social variables for the key types of communities found within the Olifants. These are:
 - Informal Settlement
 - Protected Area
 - Rural Formal Farm Economy
 - Rural Formal Non Farm Economy
 - Rural Formal Non Farm Economy (Mine/Power Stations)
 - Traditional Rural Non Farm Economy
 - Traditional Rural Non Farm Economy (Mine)
 - Traditional Settlement / Village / Associated Rural Areas
 - Traditional Urban
 - Urban Formal
 - Urban Formal Industrial and Mines

² While the current project was being undertaken StatsSA released a study *Statistics South Africa, 2014: The South African MPI - Creating a multidimensional poverty index using census data* Statistics South Africa, Pretoria, South Africa. Readers are referred to the study at <http://beta2.statssa.gov.za/publications/Report-03-10-08/Report-03-10-082014.pdf>. Although there are some similarities in intent (i.e. both studies aim to identify a broad based indication of poverty), there are a number of key differences:

A] The StatsSA study was undertaken at a municipal scale, whereas the current study was at an individual community level.

B] The StatsSA study focussed on a broad-based definition of poverty aimed at defining the absolute numbers of people below a poverty threshold. It set a number of criteria (e.g. If all adults in the household are unemployed) and they examined if households triggered at least 33% of these criteria. Its aim was to quantify the absolute number of people/households which met the multidimensional criteria of poverty. This contrasts with the current study which examines poverty in a relative sense - i.e. where are the poorest people compared to other people in the catchment.

C] The StatsSA study did not examine income or dependency ratios, and used a limited definition of unemployed (although they did include discouraged work seekers).

D] The StatsSA study did not examine local direct natural resource dependency.

E] There are some odd elements in the StatsSA study which we feel limit its usefulness. For example, it includes a health dimension which had a ¼ weighting of the study which was only triggered if a child under the age of 5 had died in the previous 12 months.



- Spatial assessment and prioritization based on the mapping of the vulnerability index, consisting of the general poverty index and the direct local natural resource dependency index.

As the study aims to be as spatially specific as possible³, the focus was utilizing data available across the whole catchment at a fine scale. Other national data (e.g. General Household Survey, Labour Force Survey, National Income Dynamics Study, Agricultural data), provide valuable background to the narrative, but cannot be included in the spatial assessment as they were either undertaken based on a small sample which was that extrapolated to large scale national or provincial units, or although they are based on comprehensive data are only available and reported at the municipal level.

The analysis method is largely based on a method developed for Conservation South Africa⁴ and applied in the Alfred Nzo and Namakwa districts of South Africa. Key variations/additions to the original method include refined consumption and access to service components of the general poverty index. These additions were developed based on discussions with David Neves (PLAAS).

This section of the report aims to:

- Provide an overview of the methods used in the numerical and spatial analysis of poverty and direct local natural resource dependency for the South African portions of the Olifants Catchment.
- Present the summary data (both numerical and spatial analyses) of the relevant Census 2011 data for the Olifants catchment.
- Provide sufficient metadata on the underlying spatial and numerical datasets to allow them to be used more broadly within RESILIM.

³ In other words, to identify the poorest and most locally resource dependent communities at the finest possible scale. Importantly, many of the broader datasets aggregate the information to such an extent that specific vulnerable communities are lost in an overall average. The current study is based on the underlying concept that there are specific hotspots of poverty, local direct natural resource dependence and overall vulnerability within the catchment. We feel that it is important to know where these communities are, in order to geographically prioritize responses. It should be noted that the approach taken by the study cannot, and is not attempting to, identify vulnerable individuals when they are scattered within broader communities that are better off.

⁴ Holness SD, Frazee S & Lupindo Y, 2014: Adapting to climate change in the Alfred Nzo District: Protecting Ecological Infrastructure to support Ecosystem-based Adaptation to climate change, Conservation South Africa.



General spatial approach to the analysis

Three key challenges needed to be overcome in the spatial analysis:

- The finest scale possible assessment of spatial trends in the data was required.
- Data needed to be summarized for planning units that were not conceptually or spatially linked to the units used by StatsSA in the Census 2011. The RESILIM project is heavily focused on catchment, water resource and hydrological issues, and therefore summaries need to be made for hydrologically relevant units.
- The data needed to be spatially summarized in a way which would allow later use for alternative spatial units (e.g. for a community, a municipality or for an area targeted by an NRM project).

The Census 2011 data is organized into a geographical hierarchy by StatsSA (See Figure 1). Data are collected for individual dwellings within small Enumeration Areas. Specific data are not released for these areas for reasons of confidentiality. Theoretically, these Enumeration Areas are agglomerated into Small Areas but in practice this level has not yet been completed. From a practical perspective, the smallest useable geographic unit is a Sub-Place which represents distinct communities or geographical areas. Theoretically, these Sub-Places consist of geographically specific communities with similar social characteristics. 22108 distinct Sub-Places are identified nationally, with 1355 being found in the Olifants basin. These areas are generally consistent/homogenous in terms of the type of community and specific individual informal settlements, formal urban areas, traditional rural villages and commercial farmland areas are identified. See Figure 2 for an example of a Sub-Place. These units are far more helpful for spatial analyses than the broader ward, local municipal, district municipal and provincial levels where communities with very different characteristics will be grouped together (e.g. a very affluent traditional urban suburb could be grouped with a nearby informal settlement). The units vary in size, with extensive areas of commercial farmland being treated as single units, while in densely settled areas specific small communities are delineated.

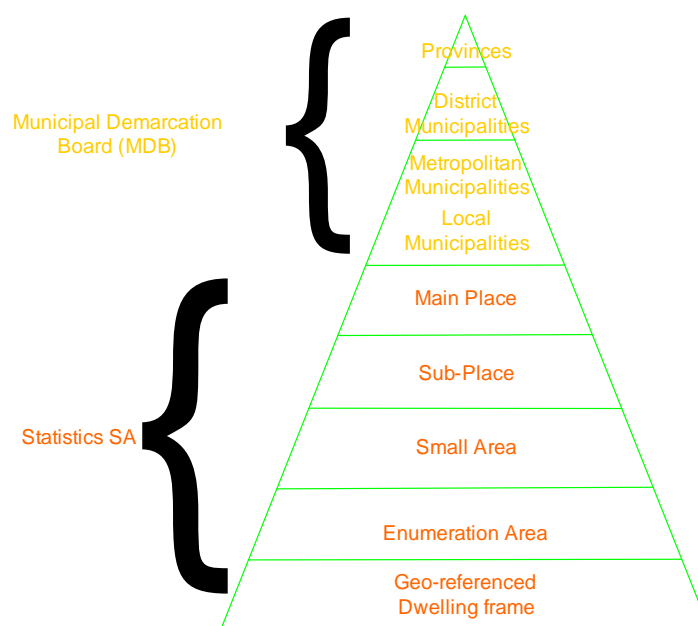


Figure 1: The geographical hierarchy used by StatsSA. Source StatsSA Census 2011 spatial metadata report.



Figure 2: An example of a Sub-Place. Mapareng in catchment B60 of the Lower Olifants.

The overall approach is summarized in Figure 3. The approach is based on the assumption that populations are evenly distributed across geographic units. At a larger scale this is clearly not true, but because of the small units used in Census 2011 and the fact that these units consist of largely consistent community types (e.g. an entire unit will consist of commercial farmland), we can use this approach successfully. The basic approach entails (1.) calculating a density for a particular variable (e.g. number of traditional dwellings per km²), (2.) overlaying the mapping units of the Census data (in this case Sub-Places) with the 380 hydrological units, (3.) calculating the area of each combined unit, and then (4.) recalculating numbers for each combined unit based on area and density, and then finally (5.) summing the data up for the hydrologically relevant units. This approach has the following benefits:

- This is a mathematically robust and repeatable approach for summarizing demographic variables for the planning units that are relevant for the current study. There is no estimation or guesswork involved.
- The underlying density data can be used to summarize the demographic data for alternate planning units should this is required for other components of the RESILIM project.
- The density data calculated for the data summary process are also directly used in the spatial assessment and prioritization process.

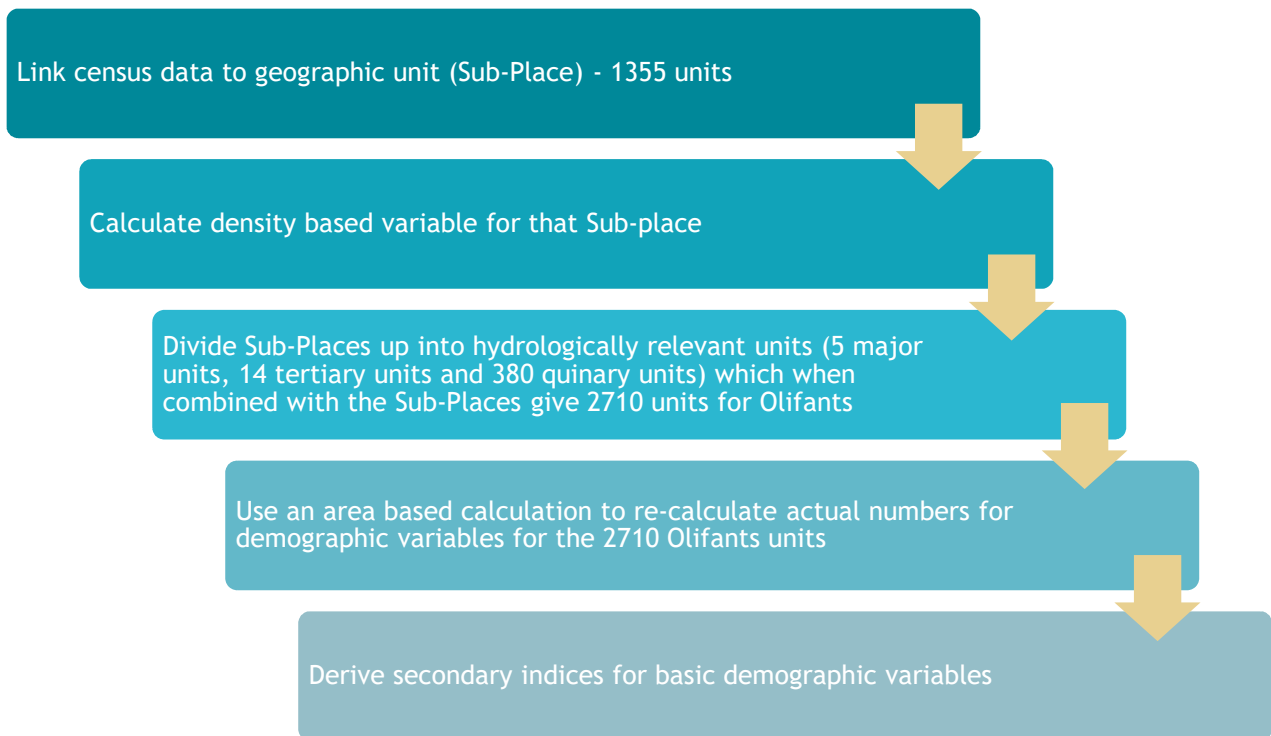


Figure 3: General approach used to analyse the Census 2011 data for the Olifants units.

Characterizing community type

StatsSA uses three general categories of community⁵, which are identified for each Enumeration Area:

1. **Urban** - A built-up area that is established through township establishment such as cities, towns, townships, small towns, and hamlets.
2. **Traditional** - Communally-owned land under the jurisdiction of traditional leaders. Settlements within these areas are villages.
3. **Farms** - Land allocated for and used for commercial farming including the structures and infrastructure on it.

Separately, the Enumeration areas are allocated a specific community type. These are:

1. **Formal residential** - Single houses, town houses, high rise flats, scheme housing, estates
2. **Informal residential** - Informal structures
3. **Traditional residential** - Villages in tribal areas
4. **Farms** - Commercial farms
5. **Parks and recreation** - State forests, nature reserves, and national parks.
6. **Collective living quarters** - School hostels, tertiary education hostels, workers hostels, military barracks, prisons, hospitals, hotels, old age homes, orphanages, monasteries.
7. **Industrial** - Factories, large warehouses, mining areas, saw mills, railway stations and shunting areas, airports.
8. **Small holdings** - Small holdings, agricultural holdings.
9. **Vacant** - Open areas within urban and traditional areas.
10. **Commercial** - Mixed CBD, office parks, shopping malls.

⁵ StatsSA Census 2011 spatial metadata report.



The general and specific community categories used by StatsSA are not very helpful in the Olifants catchment in the context of the current livelihoods study. Therefore a set of more relevant community types were developed. Where no real difference could be determined areas were grouped (e.g. protected areas in traditional, urban and farmlands were functionally similar), and in other areas sensible groupings were made based on geographic location (e.g. informal settlements in urban and peri-urban rural areas were grouped as there was no consistent difference between the two types). We identified 11 relevant community types (See **Error! Reference source not found.**).



TABLE 1: CLASSIFICATION SCHEME USED IN THE OLIFANTS STUDY. CATEGORIES DEVELOPED BY HOLNESS AND NEVES FOR THE CURRENT STUDY

StatsSA Specific Type	StatsSA Geographic Type	Notes on the category in the Olifants	Category - used in this study
Farms	Collective living quarters	Appear to be mostly prisons, some army bases, quite a few mines, very few protected areas.	Rural Formal Non Farm Economy
	Commercial	Very localized category - some mines, some airfields.	Rural Formal Non Farm Economy
	Farms	Commercial farms	Rural Formal Farm Economy
	Formal residential	Some mines, some residential estates, towns in protected areas.	Rural Formal Non Farm Economy (Mine/Power Stations)
	Industrial	Mostly mines.	Rural Formal Non Farm Economy
	Informal residential	Four informal settlements next to mines (category very incomplete).	Informal Settlement
	Parks and recreation	Protected areas, but including some resorts.	Protected Area
	Smallholdings	Appear indistinguishable from the specific category "farms".	Rural Formal Farm Economy
	Traditional residential	Only four areas mapped - seems very similar to other "farms".	Rural Formal Farm Economy
Traditional	Collective living quarters	A number of occurrences but not large geographically.	Traditional Rural Non Farm Economy
	Commercial	One large area in Olifants.	Traditional Urban
	Formal residential	Some of the built up areas within ex-homelands.	Traditional Urban
	Industrial	Mostly mines in ex-homeland areas.	Traditional Rural Non Farm Economy (Mine)
	Informal residential	11 Informal settlements in ex-homeland areas.	Informal Settlement
	Parks and recreation	Protected areas, but including some resorts.	Protected Area
	Smallholdings	Extremely rare category.	Traditional Settlement / Village / Associated Rural Areas
	Traditional residential	Extremely common - appears to be the peri-urban and village sections of ex-homelands.	Traditional Settlement / Village / Associated Rural Areas
Urban	Vacant	Rural areas outside of villages in tribal areas.	Traditional Settlement / Village / Associated Rural Areas
	Collective living quarters	Not very common in Olifants - mostly hostels, some prisons, some military facilities.	Urban Formal
	Commercial	Commercial urban centres outside of tribal areas.	Urban Formal
	Formal residential	Error in data - part of category below.	Urban Formal
	Industrial	Formal urban industrial areas outside of tribal areas.	Urban Formal Industrial and Mines
	Informal residential	Urban informal settlements outside of tribal areas.	Informal Settlement
	Parks and recreation	Protected areas, but including some resorts.	Protected Area
	Smallholdings	Does not appear to be different from "commercial farms"	Rural Formal Farm Economy
Vacant	On edge of towns.	Urban/Peri-Urban Undeveloped	



Characterizing community type geographically

StatsSA identified general types and specific types for Enumeration Areas (**Error! Reference source not found.**). Although the demarcation of Sub-Places aimed to create areas as homogeneous as possible according to the actual land use and dwelling types, in some cases quite different areas were combined together. We therefore had to determine an overall community type for each unit in the Olifants. This was based on the community type with the largest area in the Sub-Place. Vacant and unoccupied land was excluded from the area calculation so that the allocation was only based on types where people are potentially present. Unfortunately it is not possible to do this based on the Enumeration Area with the most people, as the demographic data are linked to the Sub-Place rather than the enumeration area. The general structure of the data results in some apparent anomalies in the data:

- In some cases a smaller formal urban area would be grouped with a larger informal settlement. This results in the informal settlement category including some households which don't fit in, such as households with formal dwelling structures and potentially high incomes. This anomaly arises from their geographic proximity.
- Maximum densities will be underestimated where the bulk of the population is in a very specific part of the Sub-Place. For example, where an informal settlement is associated with an industrial area or vacant land, the lower density areas effectively reduce the recorded density of population in the informal settlement. Nevertheless, this effect has been minimized by the approach taken, as the analysis is for the smallest possible units. Larger units such as wards would have resulted in greater dilution and generalization effects.

Overall, although these issues do impact on some calculations, the relative values and trends remain valid.

Summary of Settlement Types

Settlement types are shown in Figure 5. The areas of each type of settlement are summarized in Table 2, Table 3 and Table 4.



Summary Units

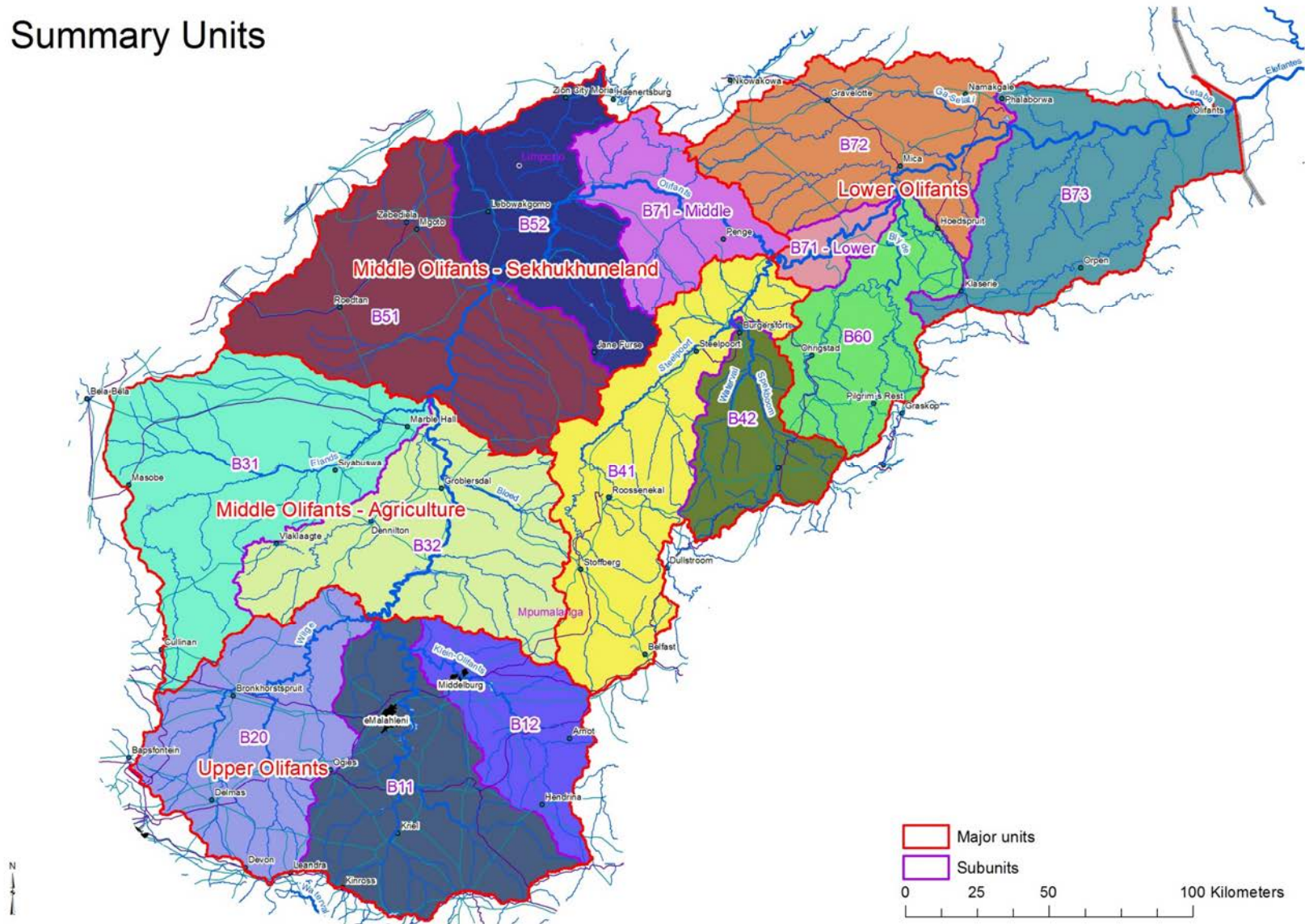


Figure 4: Major units and sub-units used for the high level summary of the livelihood characteristics of the people of the Olifants basin



Settlement Types

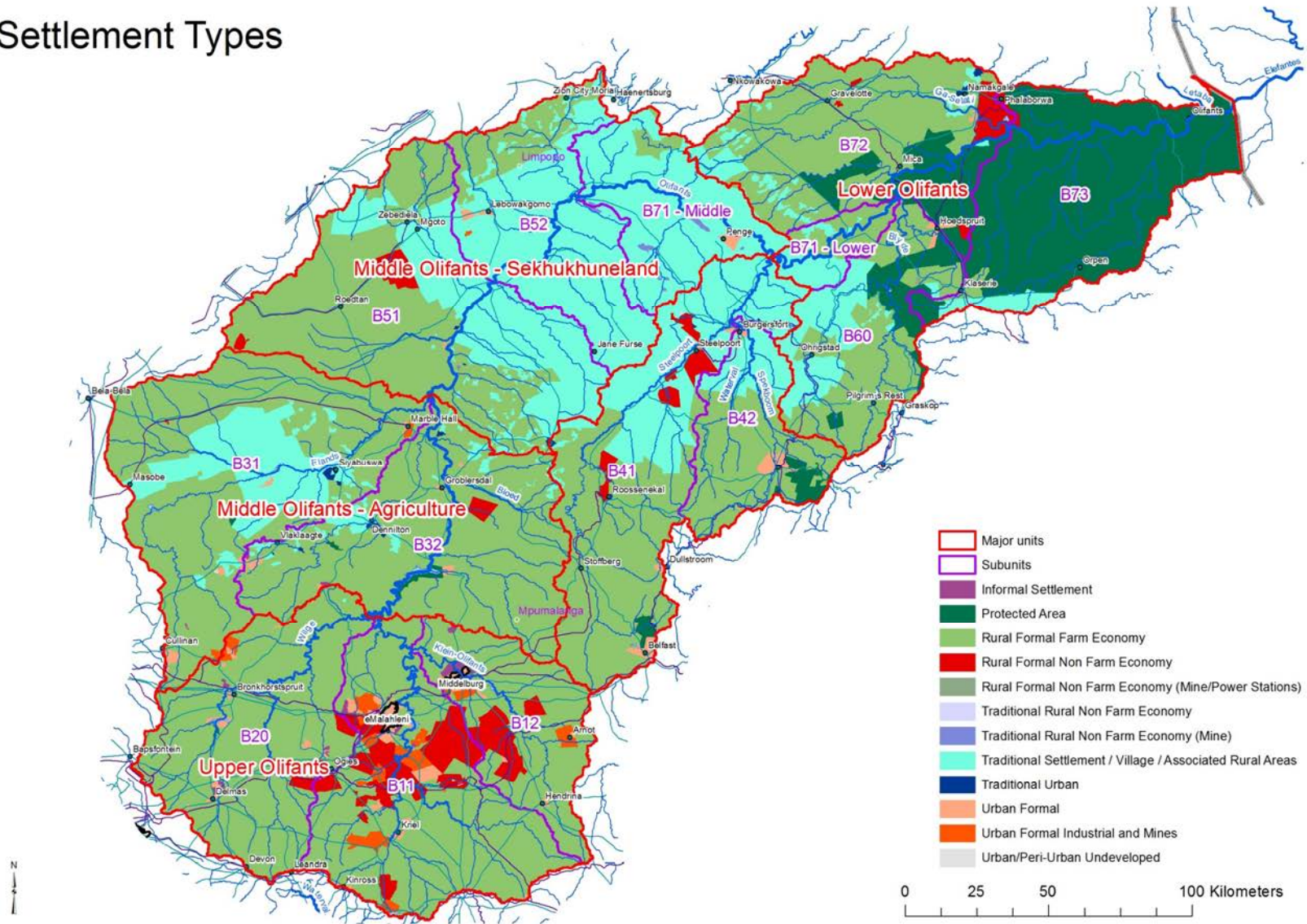


Figure 5: Settlement types for Sub-places based on StatsSA data classified according to the scheme outlined in Table 1



TABLE 2: AREAS OF EACH SETTLEMENT TYPE IN SQUARE KILOMETRES SUMMARIZED BY MAJOR UNITS AND SUB-UNITS.

	Informal Settlement	Protected Area	Rural Formal Farm Economy	Rural Formal Non Farm Economy	Rural Formal Non Farm Economy (Mine/Power Stations)	Traditional Rural Non Farm Economy	Traditional Rural Non Farm Economy (Mine)	Traditional Settlement / Village / Associated Rural Areas	Traditional Urban	Urban Formal	Urban Formal Industrial and Mines	Grand Total
Lower Olifants		5741.7	5011.2	223.2	6.5			1573.8	22.6	31.3		12610.1
B60		458.2	1601.6		4.5			764.9		16.9		2846.0
B71 - Lower		4.7	375.6					284.0				664.3
B72		921.2	2966.9	192.9	2.0			334.4	22.6	14.4		4454.4
B73		4357.6	67.1	30.3				190.4				4645.4
Middle Olifants - Agriculture	7.7	70.3	9168.7	48.0	0.7	0.4		1749.9	35.4	88.5	22.7	11192.3
B31	1.3	13.6	4483.8	1.2				1500.4	15.6	47.4	22.7	6085.8
B32	6.5	56.8	4684.9	46.8	0.7	0.4		249.5	19.8	41.1		5106.5
Middle Olifants - Sekhukhuneland		0.9	4610.6	133.9		0.7	43.1	7328.5	5.8	56.3	4.0	12183.8
B51		0.9	3823.7	133.9		0.4	1.5	2271.6	5.8	5.1	1.0	6243.9
B52			669.7			0.2	5.6	2831.4		22.6	3.0	3532.6
B71 - Middle			117.2				36.1	2225.5		28.5		2407.4
Middle Olifants - Steelpoort	0.2	176.6	4186.5	205.7		1.2	0.6	2416.1	5.1	137.8		7129.9
B41	0.1	44.2	2764.1	205.4		1.2	0.6	1963.7	5.1	65.3		5049.7
B42	0.1	132.5	1422.4	0.2				452.4		72.5		2080.2
Upper Olifants	72.3	8.9	9634.0	1058.4				1.2		321.8	368.3	11465.0
B11	16.0	0.8	3566.0	693.0						181.7	261.2	4718.7
B12	36.4		1949.4	259.5						67.4	78.5	2391.1
B20	20.0	8.0	4118.6	105.9				1.2		72.7	28.7	4355.1
Grand Total	80.3	5998.4	32611.0	1669.2	7.2	2.3	43.7	13069.5	68.8	635.6	395.1	54581.1

TABLE 3: AREAS OF EACH SETTLEMENT TYPE AS A PERCENTAGE OF MAJOR UNITS AND SUB-UNITS.

	Informal Settlement	Protected Area	Rural Formal Farm Economy	Rural Formal Non Farm Economy	Rural Formal Non Farm Economy (Mine/Power Stations)	Traditional Rural Non Farm Economy	Traditional Rural Non Farm Economy (Mine)	Traditional Settlement / Village / Associated Rural Areas	Traditional Urban	Urban Formal	Urban Formal Industrial and Mines	Grand Total
Lower Olifants	0.0	45.5	39.7	1.8	0.1	0.0	0.0	12.5	0.2	0.2	0.0	100.0
B60	0.0	16.1	56.3	0.0	0.2	0.0	0.0	26.9	0.0	0.6	0.0	100.0
B71 - Lower	0.0	0.7	56.5	0.0	0.0	0.0	0.0	42.8	0.0	0.0	0.0	100.0
B72	0.0	20.7	66.6	4.3	0.0	0.0	0.0	7.5	0.5	0.3	0.0	100.0
B73	0.0	93.8	1.4	0.7	0.0	0.0	0.0	4.1	0.0	0.0	0.0	100.0
Middle Olifants - Agriculture	0.1	0.6	81.9	0.4	0.0	0.0	0.0	15.6	0.3	0.8	0.2	100.0
B31	0.0	0.2	73.7	0.0	0.0	0.0	0.0	24.7	0.3	0.8	0.4	100.0
B32	0.1	1.1	91.7	0.9	0.0	0.0	0.0	4.9	0.4	0.8	0.0	100.0
Middle Olifants - Sekhukhuneland	0.0	0.0	37.8	1.1	0.0	0.0	0.4	60.1	0.0	0.5	0.0	100.0
B51	0.0	0.0	61.2	2.1	0.0	0.0	0.0	36.4	0.1	0.1	0.0	100.0
B52	0.0	0.0	19.0	0.0	0.0	0.0	0.2	80.2	0.0	0.6	0.1	100.0
B71 - Middle	0.0	0.0	4.9	0.0	0.0	0.0	1.5	92.4	0.0	1.2	0.0	100.0
Middle Olifants - Steelpoort	0.0	2.5	58.7	2.9	0.0	0.0	0.0	33.9	0.1	1.9	0.0	100.0
B41	0.0	0.9	54.7	4.1	0.0	0.0	0.0	38.9	0.1	1.3	0.0	100.0
B42	0.0	6.4	68.4	0.0	0.0	0.0	0.0	21.8	0.0	3.5	0.0	100.0
Upper Olifants	0.6	0.1	84.0	9.2	0.0	0.0	0.0	0.0	0.0	2.8	3.2	100.0
B11	0.3	0.0	75.6	14.7	0.0	0.0	0.0	0.0	0.0	3.9	5.5	100.0
B12	1.5	0.0	81.5	10.9	0.0	0.0	0.0	0.0	0.0	2.8	3.3	100.0
B20	0.5	0.2	94.6	2.4	0.0	0.0	0.0	0.0	0.0	1.7	0.7	100.0
Grand Total	0.1	11.0	59.7	3.1	0.0	0.0	0.1	23.9	0.1	1.2	0.7	100.0



TABLE 4: PERCENTAGE OF EACH SETTLEMENT TYPE THAT IS FOUND IN EACH OF THE MAJOR UNITS AND SUB-UNITS

	Informal Settlement	Protected Area	Rural Formal Farm Economy	Rural Formal Non Farm Economy	Rural Formal Non Farm Economy (Mine/Power Stations)	Traditional Rural Non Farm Economy	Traditional Rural Non Farm Economy (Mine)	Traditional Settlement / Village / Associated Rural Areas	Traditional Urban	Urban Formal	Urban Formal Industrial and Mines
Lower Olifants	0.0	95.7	15.4	13.4	90.2	0.0	0.0	12.0	32.8	4.9	0.0
B60	0.0	7.6	4.9	0.0	62.6	0.0	0.0	5.9	0.0	2.7	0.0
B71 - Lower	0.0	0.1	1.2	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0
B72	0.0	15.4	9.1	11.6	27.7	0.0	0.0	2.6	32.8	2.3	0.0
B73	0.0	72.6	0.2	1.8	0.0	0.0	0.0	1.5	0.0	0.0	0.0
Middle Olifants - Agriculture	9.6	1.2	28.1	2.9	9.8	17.3	0.0	13.4	51.4	13.9	5.7
B31	1.6	0.2	13.7	0.1	0.0	0.0	0.0	11.5	22.6	7.5	5.7
B32	8.0	0.9	14.4	2.8	9.8	17.3	0.0	1.9	28.8	6.5	0.0
Middle Olifants - Sekhukhuneland	0.0	0.0	14.1	8.0	0.0	29.6	98.6	56.1	8.4	8.9	1.0
B51	0.0	0.0	11.7	8.0	0.0	19.6	3.3	17.4	8.4	0.8	0.3
B52	0.0	0.0	2.1	0.0	0.0	10.1	12.7	21.7	0.0	3.6	0.8
B71 - Middle	0.0	0.0	0.4	0.0	0.0	0.0	82.6	17.0	0.0	4.5	0.0
Middle Olifants - Steelpoort	0.3	2.9	12.8	12.3	0.0	53.1	1.4	18.5	7.4	21.7	0.0
B41	0.1	0.7	8.5	12.3	0.0	53.1	1.4	15.0	7.4	10.3	0.0
B42	0.1	2.2	4.4	0.0	0.0	0.0	0.0	3.5	0.0	11.4	0.0
Upper Olifants	90.1	0.1	29.5	63.4	0.0	0.0	0.0	0.0	0.0	50.6	93.2
B11	20.0	0.0	10.9	41.5	0.0	0.0	0.0	0.0	0.0	28.6	66.1
B12	45.3	0.0	6.0	15.5	0.0	0.0	0.0	0.0	0.0	10.6	19.9
B20	24.8	0.1	12.6	6.3	0.0	0.0	0.0	0.0	0.0	11.4	7.3
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Basic demographic variables

Population and Density

Total population numbers and densities are summarized in this section in Table 5 to Table 8. Population densities for Sub-Places are mapped in Figure 6. Note that the density data is processed further in the spatial analysis section as it is a component of the general poverty index.

TABLE 5: AREA, POPULATION AND DENSITY FOR MAJOR UNITS AND SUBUNITS

	Area (km ²)	Population	Density (people/km ²)
Lower Olifants	12610.1	380288	30.2
B60	2846.0	40453	14.2
B71 - Lower	664.3	33107	49.8
B72	4454.4	247267	55.5
B73	4645.4	59461	12.8
Middle Olifants - Agriculture	11193.8	828572	74.0
B31	6087.3	490732	80.6
B32	5106.5	337840	66.2
Middle Olifants - Sekhukhuneland	12183.8	870785	71.5
B51	6243.9	377300	60.4
B52	3532.6	356961	101.0
B71 - Middle	2407.4	136524	56.7
Middle Olifants - Steelpoort	7129.9	333797	46.8
B41	5049.7	278222	55.1
B42	2080.2	55575	26.7
Upper Olifants	11465.1	854831	74.6
B11	4718.8	393434	83.4
B12	2391.1	211147	88.3
B20	4355.1	250251	57.5
Grand Total	54582.7	3268273	59.9

TABLE 6: PERCENTAGE AREA OF THE OLIFANTS BASIN AND PERCENTAGE OF TOTAL OLIFANTS BASIN POPULATION FOUND WITHIN EACH MAJOR UNIT AND SUBUNIT.

	Area (%)	Population (%)
Lower Olifants	23.1	11.6
B60	5.2	1.2
B71 - Lower	1.2	1.0
B72	8.2	7.6
B73	8.5	1.8
Middle Olifants - Agriculture	20.5	25.4
B31	11.2	15.0
B32	9.4	10.3
Middle Olifants - Sekhukhuneland	22.3	26.6
B51	11.4	11.5
B52	6.5	10.9
B71 - Middle	4.4	4.2
Middle Olifants - Steelpoort	13.1	10.2
B41	9.3	8.5
B42	3.8	1.7
Upper Olifants	21.0	26.2
B11	8.6	12.0
B12	4.4	6.5
B20	8.0	7.7
Grand Total	100.0	100.0



TABLE 7: AREA, POPULATION AND DENSITY OF EACH SETTLEMENT TYPE.

	Area (km ²)	Population	Density (people/km ²)
Informal Settlement	80.3	120007	1494.2
Protected Area	5998.4	4280	0.7
Rural Formal Farm Economy	32611.0	166686	5.1
Rural Formal Non Farm Economy	1669.2	33427	20.0
Rural Formal Non Farm Economy (Mine/Power Stations)	7.2	1782	248.8
Traditional Rural Non Farm Economy	2.3	591	257.9
Traditional Rural Non Farm Economy (Mine)	43.7	1477	33.8
Traditional Settlement / Village / Associated Rural Areas	13069.5	1902467	145.6
Traditional Urban	68.8	136455	1982.4
Urban Formal	635.6	871229	1370.7
Urban Formal Industrial and Mines	395.1	29871	75.6
Grand Total	54581.1	3268273	59.9

TABLE 8: AREA AND POPULATION OF EACH SETTLEMENT TYPE AS A PERCENTAGE OF THE OLIFANTS BASIN TOTAL

	Area (%)	Population (%)
Informal Settlement	0.1	3.7
Protected Area	11.0	0.1
Rural Formal Farm Economy	59.7	5.1
Rural Formal Non Farm Economy	3.1	1.0
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.1
Traditional Rural Non Farm Economy	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0
Traditional Settlement / Village / Associated Rural Areas	23.9	58.2
Traditional Urban	0.1	4.2
Urban Formal	1.2	26.7
Urban Formal Industrial and Mines	0.7	0.9
Grand Total	100.0	100.0



Population Density

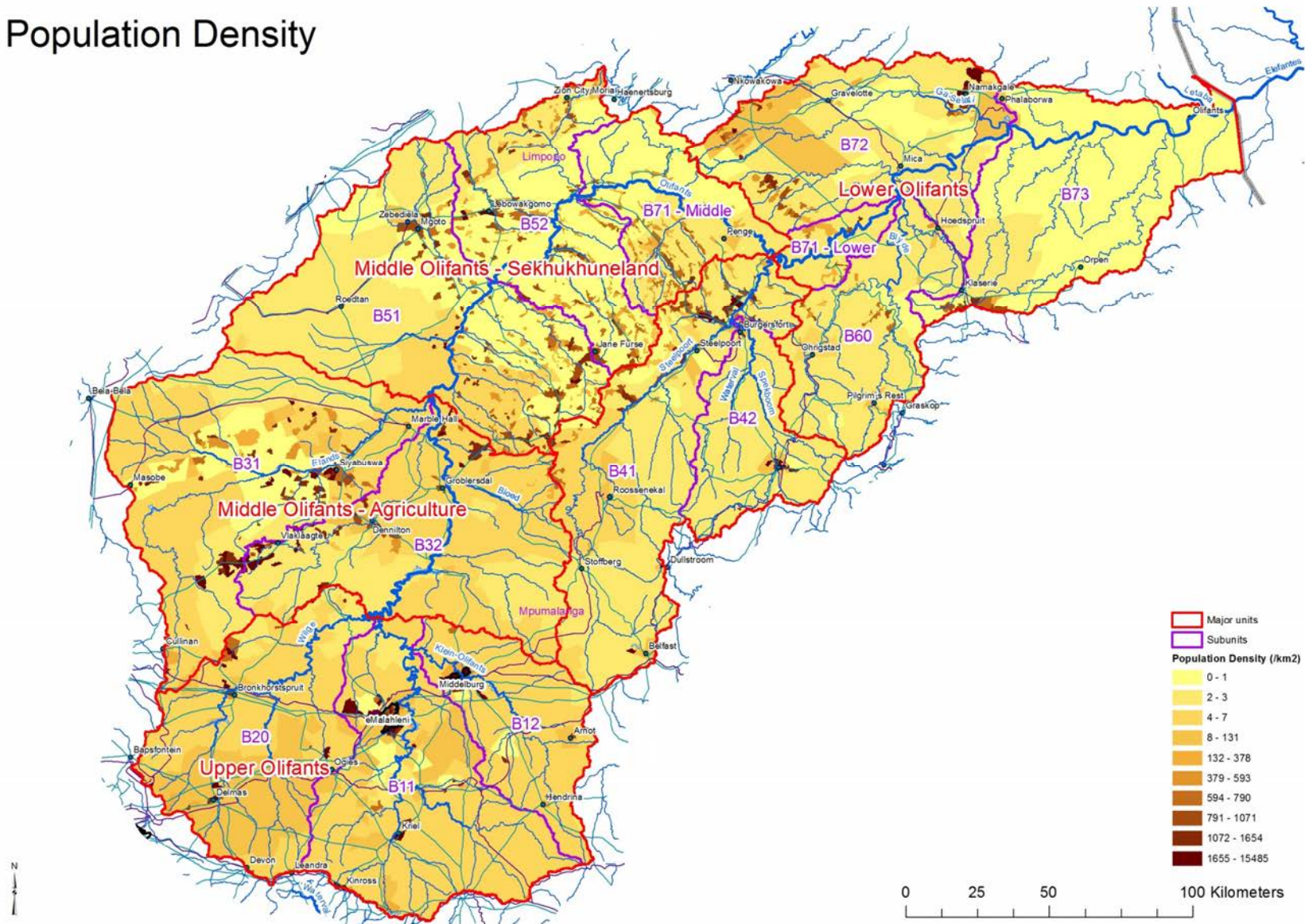


Figure 6: Population densities (people/km²) for Sub-Places within the Olifants Basin.



Population Groups

The distribution of different population groups across the Olifants basin are summarized in Table 9 to Table 11. The population group data are summarized for the different settlement types in Table 12 to

Table 14.

TABLE 9: TOTAL NUMBER OF PEOPLE IN EACH POPULATION GROUP FOR MAJOR UNITS AND SUBUNITS.

	Black African	Coloured	Indian or Asian	White	Other	Total
Lower Olifants	363626	975	633	14502	528	380263
B60	36944	301	88	2970	150	40453
B71 - Lower	32722	39	31	267	44	33102
B72	236367	554	430	9624	273	247248
B73	57593	80	85	1641	61	59460
Middle Olifants - Agriculture	807795	1779	2361	15006	1613	828553
B31	476678	1214	1365	10531	931	490719
B32	331117	565	996	4475	682	337834
Middle Olifants - Sekhukhuneland	865074	537	808	3429	859	870707
B51	374015	248	464	2065	480	377272
B52	355256	185	283	887	310	356921
B71 - Middle	135803	104	62	476	69	136514
Middle Olifants - Steelpoort	313682	2099	1167	16293	533	333774
B41	271203	747	507	5456	290	278202
B42	42479	1352	660	10837	243	55572
Upper Olifants	689519	15430	9926	136190	3779	854844
B11	312877	7447	5112	66230	1777	393444
B12	153343	5838	3607	47476	886	211149
B20	223299	2145	1207	22484	1116	250251
Grand Total	3039696	20820	14894	185419	7312	3268141

TABLE 10: PERCENTAGE OF PEOPLE IN EACH POPULATION GROUP FOR MAJOR UNITS AND SUBUNITS

	Black African	Coloured	Indian or Asian	White	Other	Total
Lower Olifants	95.6	0.3	0.2	3.8	0.1	100
B60	91.3	0.7	0.2	7.3	0.4	100
B71 - Lower	98.8	0.1	0.1	0.8	0.1	100
B72	95.6	0.2	0.2	3.9	0.1	100
B73	96.9	0.1	0.1	2.8	0.1	100
Middle Olifants - Agriculture	97.5	0.2	0.3	1.8	0.2	100
B31	97.1	0.2	0.3	2.1	0.2	100
B32	98.0	0.2	0.3	1.3	0.2	100
Middle Olifants - Sekhukhuneland	99.4	0.1	0.1	0.4	0.1	100
B51	99.1	0.1	0.1	0.5	0.1	100
B52	99.5	0.1	0.1	0.2	0.1	100
B71 - Middle	99.5	0.1	0.0	0.3	0.1	100
Middle Olifants - Steelpoort	94.0	0.6	0.3	4.9	0.2	100
B41	97.5	0.3	0.2	2.0	0.1	100
B42	76.4	2.4	1.2	19.5	0.4	100
Upper Olifants	80.7	1.8	1.2	15.9	0.4	100
B11	79.5	1.9	1.3	16.8	0.5	100
B12	72.6	2.8	1.7	22.5	0.4	100
B20	89.2	0.9	0.5	9.0	0.4	100
Grand Total	93.0	0.6	0.5	5.7	0.2	100



TABLE 11: DISTRIBUTION OF POPULATION GROUPS ACROSS THE MAJOR UNITS AND SUBUNITS (BY PERCENT).

	Black African	Coloured	Indian or Asian	White	Other
Lower Olifants	12.0	4.7	4.2	7.8	7.2
B60	1.2	1.4	0.6	1.6	2.1
B71 - Lower	1.1	0.2	0.2	0.1	0.6
B72	7.8	2.7	2.9	5.2	3.7
B73	1.9	0.4	0.6	0.9	0.8
Middle Olifants - Agriculture	26.6	8.5	15.8	8.1	22.1
B31	15.7	5.8	9.2	5.7	12.7
B32	10.9	2.7	6.7	2.4	9.3
Middle Olifants - Sekhukhuneland	28.5	2.6	5.4	1.8	11.7
B51	12.3	1.2	3.1	1.1	6.6
B52	11.7	0.9	1.9	0.5	4.2
B71 - Middle	4.5	0.5	0.4	0.3	0.9
Middle Olifants - Steelpoort	10.3	10.1	7.8	8.8	7.3
B41	8.9	3.6	3.4	2.9	4.0
B42	1.4	6.5	4.4	5.8	3.3
Upper Olifants	22.7	74.1	66.6	73.4	51.7
B11	10.3	35.8	34.3	35.7	24.3
B12	5.0	28.0	24.2	25.6	12.1
B20	7.3	10.3	8.1	12.1	15.3
Grand Total	100.0	100.0	100.0	100.0	100.0

TABLE 12: TOTAL NUMBER OF PEOPLE IN EACH POPULATION GROUP FOR EACH SETTLEMENT TYPE.

	Black African	Coloured	Indian or Asian	White	Other	Total
Informal Settlement	117644	1024	182	315	846	120012
Protected Area	3006	49	24	1159	43	4280
Rural Formal Farm Economy	134660	1067	340	29718	906	166691
Rural Formal Non Farm Economy	23486	479	279	9097	83	33424
Rural Formal Non Farm Economy (Mine/Power Stations)	1321	6	4	450	0	1781
Traditional Rural Non Farm Economy	526	6	2	57	0	591
Traditional Rural Non Farm Economy (Mine)	1088	21	0	355	13	1477
Traditional Settlement / Village / Associated Rural Areas	1894296	1598	2486	2219	1738	1902337
Traditional Urban	135678	190	244	106	229	136447
Urban Formal	701822	16165	10618	139304	3321	871231
Urban Formal Industrial and Mines	26170	213	716	2639	133	29871
Grand Total	3039696	20820	14894	185419	7312	3268141

TABLE 13: PERCENTAGE OF PEOPLE IN EACH POPULATION GROUP FOR EACH SETTLEMENT TYPE.

	Black African	Coloured	Indian or Asian	White	Other	Total
Informal Settlement	98.0	0.9	0.2	0.3	0.7	100
Protected Area	70.2	1.1	0.6	27.1	1.0	100
Rural Formal Farm Economy	80.8	0.6	0.2	17.8	0.5	100
Rural Formal Non Farm Economy	70.3	1.4	0.8	27.2	0.2	100
Rural Formal Non Farm Economy (Mine/Power Stations)	74.2	0.3	0.2	25.3	0.0	100
Traditional Rural Non Farm Economy	89.0	1.0	0.3	9.6	0.0	100
Traditional Rural Non Farm Economy (Mine)	73.7	1.4	0.0	24.0	0.9	100
Traditional Settlement / Village / Associated Rural Areas	99.6	0.1	0.1	0.1	0.1	100
Traditional Urban	99.4	0.1	0.2	0.1	0.2	100
Urban Formal	80.6	1.9	1.2	16.0	0.4	100
Urban Formal Industrial and Mines	87.6	0.7	2.4	8.8	0.4	100
Grand Total	93.0	0.6	0.5	5.7	0.2	100



TABLE 14: DISTRIBUTION OF POPULATION GROUPS ACROSS THE SETTLEMENT TYPES (BY PERCENT).

	Black African	Coloured	Indian or Asian	White	Other
Informal Settlement	3.9	4.9	1.2	0.2	11.6
Protected Area	0.1	0.2	0.2	0.6	0.6
Rural Formal Farm Economy	4.4	5.1	2.3	16.0	12.4
Rural Formal Non Farm Economy	0.8	2.3	1.9	4.9	1.1
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.0	0.0	0.2	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.0	0.1	0.0	0.2	0.2
Traditional Settlement / Village / Associated Rural Areas	62.3	7.7	16.7	1.2	23.8
Traditional Urban	4.5	0.9	1.6	0.1	3.1
Urban Formal	23.1	77.6	71.3	75.1	45.4
Urban Formal Industrial and Mines	0.9	1.0	4.8	1.4	1.8
Grand Total	100.0	100.0	100.0	100.0	100.0



Sex and female headed households

The distribution of males and females and female and male headed households across the Olifants basin are summarized in Table 15-to Table 17. The data are summarized for the different settlement types in Table 18 to Table 20.

TABLE 15: TOTAL NUMBERS OF PEOPLE OF EACH SEX AND SEX OF HOUSEHOLD HEADS (NUMBER OF HOUSEHOLDS) FOR MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

	Females	Males	Total Population	Female Headed Households	Male Headed Households	Total Households
Lower Olifants	201450	178838	380288	48743	54168	102910
B60	21150	19304	40453	5745	6461	12207
B71 - Lower	18304	14803	33107	5068	3585	8653
B72	130088	117179	247267	30437	36463	66900
B73	31909	27552	59461	7492	7658	15150
Middle Olifants - Agriculture	434753	393819	828572	98373	106815	205188
B31	255892	234840	490732	58408	65537	123945
B32	178861	158979	337840	39965	41278	81243
Middle Olifants - Sekhukhuneland	475013	395773	870785	119968	95789	215756
B51	206932	170368	377300	54000	40856	94856
B52	195239	161721	356961	49519	38483	88001
B71 - Middle	72842	63683	136524	16449	16450	32899
Middle Olifants - Steelpoort	170651	163146	333797	37016	49972	86988
B41	144045	134176	278222	31761	37394	69156
B42	26606	28969	55575	5255	12578	17833
Upper Olifants	410261	444570	854831	73795	175342	249136
B11	185201	208232	393434	32597	86689	119285
B12	102340	108806	211147	17848	41450	59299
B20	122719	127531	250251	23350	47203	70552
Grand Total	1692128	1576145	3268273	377894	482086	859980

TABLE 16: PERCENTAGE OF PEOPLE OF EACH SEX AND SEX OF HOUSEHOLD HEADS (PERCENTAGE OF HOUSEHOLDS) FOR MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

	Females	Males	Female Headed Households	Male Headed Households
Lower Olifants	53.0	47.0	47.4	52.6
B60	52.3	47.7	47.1	52.9
B71 - Lower	55.3	44.7	58.6	41.4
B72	52.6	47.4	45.5	54.5
B73	53.7	46.3	49.5	50.5
Middle Olifants - Agriculture	52.5	47.5	47.9	52.1
B31	52.1	47.9	47.1	52.9
B32	52.9	47.1	49.2	50.8
Middle Olifants - Sekhukhuneland	54.5	45.5	55.6	44.4
B51	54.8	45.2	56.9	43.1
B52	54.7	45.3	56.3	43.7
B71 - Middle	53.4	46.6	50.0	50.0
Middle Olifants - Steelpoort	51.1	48.9	42.6	57.4
B41	51.8	48.2	45.9	54.1
B42	47.9	52.1	29.5	70.5
Upper Olifants	48.0	52.0	29.6	70.4
B11	47.1	52.9	27.3	72.7
B12	48.5	51.5	30.1	69.9
B20	49.0	51.0	33.1	66.9
Grand Total	51.8	48.2	43.9	56.1



TABLE 17: DISTRIBUTION OF PEOPLE BY SEX AND SEX OF HOUSEHOLD HEADS FOR MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

	Females	Males	Female Headed Households	Male Headed Households
Lower Olifants	11.9	11.3	12.9	11.2
B60	1.2	1.2	1.5	1.3
B71 - Lower	1.1	0.9	1.3	0.7
B72	7.7	7.4	8.1	7.6
B73	1.9	1.7	2.0	1.6
Middle Olifants - Agriculture	25.7	25.0	26.0	22.2
B31	15.1	14.9	15.5	13.6
B32	10.6	10.1	10.6	8.6
Middle Olifants - Sekhukhuneland	28.1	25.1	31.7	19.9
B51	12.2	10.8	14.3	8.5
B52	11.5	10.3	13.1	8.0
B71 - Middle	4.3	4.0	4.4	3.4
Middle Olifants - Steelpoort	10.1	10.4	9.8	10.4
B41	8.5	8.5	8.4	7.8
B42	1.6	1.8	1.4	2.6
Upper Olifants	24.2	28.2	19.5	36.4
B11	10.9	13.2	8.6	18.0
B12	6.0	6.9	4.7	8.6
B20	7.3	8.1	6.2	9.8
Grand Total	100.0	100.0	100.0	100.0

TABLE 18: TOTAL NUMBERS OF PEOPLE OF EACH SEX AND SEX OF HOUSEHOLD HEADS (NUMBER OF HOUSEHOLDS) FOR MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

	Females	Males	Total Population	Female Headed Households	Male Headed Households	Total Households
Informal Settlement	55848	64159	120007	11884	29669	41553
Protected Area	1902	2378	4280	469	999	1468
Rural Formal Farm Economy	75550	91137	166686	13225	37077	50302
Rural Formal Non Farm Economy	14750	18677	33427	2059	7989	10048
Rural Formal Non Farm Economy (Mine/Power Stations)	773	1009	1782	201	557	758
Traditional Rural Non Farm Economy	229	362	591	72	185	257
Traditional Rural Non Farm Economy (Mine)	613	864	1477	158	322	480
Traditional Settlement / Village / Associated Rural Areas	1026549	875918	1902467	247430	218759	466190
Traditional Urban	72048	64407	136455	17367	19684	37051
Urban Formal	429804	441425	871229	82230	159786	242016
Urban Formal Industrial and Mines	14061	15810	29871	2799	7058	9857
Grand Total	1692128	1576145	3268273	377894	482086	859979



TABLE 19: PERCENTAGE OF PEOPLE OF EACH SEX AND SEX OF HOUSEHOLD HEADS (PERCENTAGE OF HOUSEHOLDS) FOR EACH SETTLEMENT TYPE.

	Females	Males	Female Headed Households	Male Headed Households
Informal Settlement	46.5	53.5	28.6	71.4
Protected Area	44.4	55.6	31.9	68.1
Rural Formal Farm Economy	45.3	54.7	26.3	73.7
Rural Formal Non Farm Economy	44.1	55.9	20.5	79.5
Rural Formal Non Farm Economy (Mine/Power Stations)	43.4	56.6	26.5	73.5
Traditional Rural Non Farm Economy	38.7	61.3	28.0	72.0
Traditional Rural Non Farm Economy (Mine)	41.5	58.5	32.9	67.1
Traditional Settlement / Village / Associated Rural Areas	54.0	46.0	53.1	46.9
Traditional Urban	52.8	47.2	46.9	53.1
Urban Formal	49.3	50.7	34.0	66.0
Urban Formal Industrial and Mines	47.1	52.9	28.4	71.6
Grand Total	51.8	48.2	43.9	56.1

TABLE 20: DISTRIBUTION OF PEOPLE BY SEX

	Females	Males	Female Headed Households	Male Headed Households
Informal Settlement	3.3	4.1	3.1	6.2
Protected Area	0.1	0.2	0.1	0.2
Rural Formal Farm Economy	4.5	5.8	3.5	7.7
Rural Formal Non Farm Economy	0.9	1.2	0.5	1.7
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.1	0.1	0.1
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.0	0.1	0.0	0.1
Traditional Settlement / Village / Associated Rural Areas	60.7	55.6	65.5	45.4
Traditional Urban	4.3	4.1	4.6	4.1
Urban Formal	25.4	28.0	21.8	33.1
Urban Formal Industrial and Mines	0.8	1.0	0.7	1.5
Grand Total	100.0	100.0	100.0	100.0



Age of individuals

The ages of individuals (summarized by age class) across the different major units and sub-units of the Olifants basin are summarized in Table 21 to Table 23. The data are summarized for the different settlement types in Table 24 to Table 26.

TABLE 21: NUMBER OF INDIVIDUAL IN EACH AGE CATEGORY FOR MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Lower Olifants	47968	40033	39125	41531	40115	33643	26042	22758	19486	16784	13375	11535	8743	6226	5062	3315	2597	1933	380272
B60	4526	3874	3808	4018	3915	3497	2833	2494	2230	2000	1635	1521	1214	996	780	492	348	264	40446
B71 - Lower	4358	3812	3618	3954	3500	2802	1956	1459	1321	1046	814	712	627	540	361	331	227	33104	
B72	31841	25822	25150	26593	26212	21936	17195	15128	12876	11025	8877	7536	5686	3688	2985	1974	1553	1173	247249
B73	7243	6524	6549	6966	6488	5407	4057	3468	2921	2439	1818	1664	1132	915	758	488	365	270	59472
Middle Olifants - Agriculture	99247	88176	83744	91423	81764	68250	52849	46868	40532	37995	31813	28432	24037	18015	13870	8330	6859	6375	828577
B31	58561	52065	49492	53707	47412	40006	31193	28243	25248	23451	19191	16610	13918	10498	8239	5001	4103	3776	490714
B32	40686	36110	34252	37716	34352	28244	21655	18625	15285	14544	12622	11821	10119	7516	5631	3329	2757	2599	337863
Middle Olifants - Sekhukhuland	117126	103761	97218	104350	78803	61779	47729	42160	36991	35266	29970	26663	23220	20177	17050	11106	8987	8349	870704
B51	51985	46479	43279	45778	33069	24614	19097	17458	15556	14817	13032	11598	10453	9197	7765	5160	4240	3710	377287
B52	46850	41606	39260	42666	32119	25262	19566	17435	15592	14865	12683	11426	9945	8598	7194	4622	3679	3548	356915
B71 - Middle	18290	15676	14678	15906	13615	11903	9065	7267	5843	4255	3639	2823	2383	2091	1325	1068	1091	136502	
Middle Olifants - Steelpoort	41971	34420	32691	34398	35635	32808	25546	20955	17078	15190	10900	9095	6855	5562	4214	2571	1984	1897	333770
B41	36291	29960	28390	29901	29865	26210	20252	16311	13266	11949	8543	7324	5731	4824	3668	2269	1750	1697	278202
B42	5680	4461	4301	4496	5770	6598	5293	4644	3812	3241	2357	1771	1123	738	546	301	234	200	55568
Upper Olifants	86698	70495	66627	72149	91802	96104	75515	65142	55589	49449	40774	31107	20647	12734	8993	5194	3219	2601	854840
B11	39044	30885	28970	31841	43854	46427	36094	30182	25212	23075	19548	14834	9466	5540	3909	2144	1319	1092	393434
B12	20699	16859	15982	17417	21993	23457	18536	16589	14478	12358	10391	7896	5400	3547	2446	1489	935	690	211163
B20	26955	22751	21675	22891	25955	26220	20885	18370	15899	14016	10836	8378	5782	3648	2638	1561	966	819	250243
Grand Total	393011	336885	319403	343852	328118	292584	227679	197883	169676	154684	126833	106831	83503	62715	49188	30516	23648	21156	3268163

TABLE 22: PERCENTAGE OF INDIVIDUALS IN EACH AGE CATEGORY FOR MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Lower Olifants	12.6	10.5	10.3	10.9	10.5	8.8	6.8	6.0	5.1	4.4	3.5	3.0	2.3	1.6	1.3	0.9	0.7	0.5	100
B60	11.2	9.6	9.4	9.9	9.7	8.6	7.0	6.2	5.5	4.9	4.0	3.8	3.0	2.5	1.9	1.2	0.9	0.7	100
B71 - Lower	13.2	11.5	10.9	11.9	10.6	8.5	5.9	5.0	4.4	4.0	3.2	2.5	2.2	1.9	1.6	1.1	1.0	0.7	100
B72	12.9	10.4	10.2	10.8	10.6	8.9	7.0	6.1	5.2	4.5	3.6	3.0	2.3	1.5	1.2	0.8	0.6	0.5	100
B73	12.2	11.0	11.0	11.7	10.9	9.1	6.8	5.8	4.9	4.1	3.1	2.8	1.9	1.5	1.3	0.8	0.6	0.5	100
Middle Olifants - Agriculture	12.0	10.6	10.1	11.0	9.9	8.2	6.4	5.7	4.9	4.6	3.8	3.4	2.9	2.2	1.7	1.0	0.8	0.8	100
B31	11.9	10.6	10.1	10.9	9.7	8.2	6.4	5.8	5.1	4.8	3.9	3.4	2.8	2.1	1.7	1.0	0.8	0.8	100
B32	12.0	10.7	10.1	11.2	10.2	8.4	6.4	5.5	4.5	4.3	3.7	3.5	3.0	2.2	1.7	1.0	0.8	0.8	100
Middle Olifants - Sekhukhuland	13.5	11.9	11.2	12.0	9.1	7.1	5.5	4.8	4.2	4.1	3.4	3.1	2.7	2.3	2.0	1.3	1.0	1.0	100
B51	13.8	12.3	11.5	12.1	8.8	6.5	5.1	4.6	4.1	3.9	3.5	3.1	2.8	2.4	2.1	1.4	1.1	1.0	100
B52	13.1	11.7	11.0	12.0	9.0	7.1	5.5	4.9	4.4	4.2	3.6	3.2	2.8	2.4	2.0	1.3	1.0	1.0	100
B71 - Middle	13.4	11.5	10.8	11.7	10.0	8.7	6.6	5.3	4.3	4.1	3.1	2.7	2.1	1.7	1.5	1.0	0.8	0.8	100
Middle Olifants - Steelpoort	12.6	10.3	9.8	10.3	10.7	9.8	7.7	6.3	5.1	4.6	3.3	2.7	2.1	1.7	1.3	0.8	0.6	0.6	100
B41	13.0	10.8	10.2	10.7	10.7	9.4	7.3	5.9	4.8	4.3	3.1	2.6	2.1	1.7	1.3	0.8	0.6	0.6	100
B42	10.2	8.0	7.7	8.1	10.4	11.9	9.5	8.4	6.9	5.8	4.2	3.2	2.0	1.3	1.0	0.5	0.4	0.4	100
Upper Olifants	10.1	8.2	7.8	8.4	10.7	11.2	8.8	7.6	6.5	5.8	4.8	3.6	2.4	1.5	1.1	0.6	0.4	0.3	100
B11	9.9	7.9	7.4	8.1	11.1	11.8	9.2	7.7	6.4	5.9	5.0	3.8	2.4	1.4	1.0	0.5	0.3	0.3	100
B12	9.8	8.0	7.6	8.2	10.4	11.1	8.8	7.9	6.9	5.9	4.9	3.7	2.6	1.7	1.2	0.7	0.4	0.3	100
B20	10.8	9.1	8.7	9.1	10.4	10.5	8.3	7.3	6.4	5.6	4.3	3.3	2.3	1.5	1.1	0.6	0.4	0.3	100
Grand Total	12.0	10.3	9.8	10.5	10.0	9.0	7.0	6.1	5.2	4.7	3.9	3.3	2.6	1.9	1.5	0.9	0.7	0.6	100



TABLE 23: DISTRIBUTION OF INDIVIDUAL IN EACH AGE CATEGORY (BY PERCENT) FOR MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+
Lower Olifants	12.2	11.9	12.2	12.1	12.2	11.5	11.4	11.5	11.5	10.9	10.5	10.8	10.5	9.9	10.3	10.9	11.0	9.1
B60	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.5	1.6	1.6	1.6	1.5	1.2
B71 - Lower	1.1	1.1	1.1	1.2	1.1	1.0	0.9	0.8	0.9	0.9	0.8	0.8	0.9	1.0	1.1	1.2	1.4	1.1
B72	8.1	7.7	7.9	7.7	8.0	7.5	7.6	7.6	7.6	7.1	7.0	7.1	6.8	5.9	6.1	6.5	6.6	5.5
B73	1.8	1.9	2.1	2.0	2.0	1.8	1.8	1.8	1.7	1.6	1.4	1.6	1.4	1.5	1.5	1.6	1.5	1.3
Middle Olifants - Agriculture	25.3	26.2	26.2	26.6	24.9	23.3	23.2	23.7	23.9	24.6	25.1	26.6	28.8	28.7	28.2	27.3	29.0	30.1
B31	14.9	15.5	15.5	15.6	14.4	13.7	13.7	14.3	14.9	15.2	15.1	15.5	16.7	16.7	16.8	16.4	17.3	17.8
B32	10.4	10.7	10.7	11.0	10.5	9.7	9.5	9.4	9.0	9.4	10.0	11.1	12.1	12.0	11.4	10.9	11.7	12.3
Middle Olifants - Sekhukhuneland	29.8	30.8	30.4	30.3	24.0	21.1	21.0	21.3	21.8	22.8	23.6	25.0	27.8	32.2	34.7	36.4	38.0	39.5
B51	13.2	13.8	13.6	13.3	10.1	8.4	8.4	8.8	9.2	9.6	10.3	10.9	12.5	14.7	15.8	16.9	17.9	17.5
B52	11.9	12.4	12.3	12.4	9.8	8.6	8.6	8.8	9.2	9.6	10.0	10.7	11.9	13.7	14.6	15.1	15.6	16.8
B71 - Middle	4.7	4.7	4.6	4.6	4.1	4.1	4.0	3.7	3.4	3.6	3.4	3.4	3.4	3.8	4.3	4.3	4.5	5.2
Middle Olifants - Steelpoort	10.7	10.2	10.2	10.0	10.9	11.2	11.2	10.6	10.1	9.8	8.6	8.5	8.2	8.9	8.6	8.4	8.4	9.0
B41	9.2	8.9	8.9	8.7	9.1	9.0	8.9	8.2	7.8	7.7	6.7	6.9	6.9	7.7	7.5	7.4	7.4	8.0
B42	1.4	1.3	1.3	1.3	1.8	2.3	2.3	2.3	2.2	2.1	1.9	1.7	1.3	1.2	1.1	1.0	1.0	0.9
Upper Olifants	22.1	20.9	20.9	21.0	28.0	32.8	33.2	32.9	32.8	32.0	32.1	29.1	24.7	20.3	18.3	17.0	13.6	12.3
B11	9.9	9.2	9.1	9.3	13.4	15.9	15.9	15.3	14.9	14.9	15.4	13.9	11.3	8.8	7.9	7.0	5.6	5.2
B12	5.3	5.0	5.0	5.1	6.7	8.0	8.1	8.4	8.5	8.0	8.2	7.4	6.5	5.7	5.0	4.9	4.0	3.3
B20	6.9	6.8	6.8	6.7	7.9	9.0	9.2	9.3	9.4	9.1	8.5	7.8	6.9	5.8	5.4	5.1	4.1	3.9
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 24: NUMBER OF INDIVIDUAL IN EACH AGE CATEGORY SUMMARIZED BY SETTLEMENT TYPE.

	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Informal Settlement	14459	10847	9269	10038	14184	14691	11606	9960	7590	6131	4175	2899	1736	963	619	390	224	218	120001
Protected Area	152	44	53	91	345	564	526	527	495	508	312	288	175	106	41	25	23	6	4280
Rural Formal Farm Economy	15758	11014	10419	12046	17916	18796	15382	13682	11707	10298	8450	7034	5275	3490	2397	1380	864	786	166693
Rural Formal Non Farm Economy	2647	2378	2438	2580	3351	3589	3036	2629	2486	2267	2018	1721	1018	528	353	188	113	87	33427
Rural Formal Non Farm Economy (Mine/Power Stations)	179	128	104	85	155	149	167	141	140	128	152	132	54	28	21	8	4	3	1778
Traditional Rural Non Farm Economy	30	10	8	17	65	73	73	58	69	52	70	35	6	11	5	4	4	1	591
Traditional Rural Non Farm Economy (Mine)	116	97	70	96	182	160	148	105	125	102	117	76	39	22	7	2	5	7	1476
Traditional Settlement / Village / Associated Rural Areas	252272	221603	209121	223716	183063	145030	111798	96348	81903	76548	63355	57337	49554	41088	33866	21779	17737	16232	1902350
Traditional Urban	16710	14067	13770	14678	14460	12146	9075	8378	7663	6582	5029	4319	3284	2336	1723	925	700	623	136468
Urban Formal	87649	74032	71696	78017	91206	93851	73082	63700	55432	50339	41775	31973	21874	13872	10006	5696	3903	3128	871230
Urban Formal Industrial and Mines	3039	2664	2455	2488	3191	3535	2786	2355	2067	1729	1380	1017	488	269	151	119	71	63	29869
Grand Total	393011	336885	319403	343852	328118	292584	227679	197883	169676	154684	126833	106831	83503	62715	49188	30516	23648	21156	3268163



TABLE 25: PERCENTAGE OF INDIVIDUALS IN EACH AGE CATEGORY FOR EACH SETTLEMENT TYPE.

	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Informal Settlement	12.0	9.0	7.7	8.4	11.8	12.2	9.7	8.3	6.3	5.1	3.5	2.4	1.4	0.8	0.5	0.3	0.2	0.2	100
Protected Area	3.6	1.0	1.2	2.1	8.0	13.2	12.3	12.3	11.6	11.9	7.3	6.7	4.1	2.5	1.0	0.6	0.5	0.1	100
Rural Formal Farm Economy	9.5	6.6	6.3	7.2	10.7	11.3	9.2	8.2	7.0	6.2	5.1	4.2	3.2	2.1	1.4	0.8	0.5	0.5	100
Rural Formal Non Farm Economy	7.9	7.1	7.3	7.7	10.0	10.7	9.1	7.9	7.4	6.8	6.0	5.1	3.0	1.6	1.1	0.6	0.3	0.3	100
Rural Formal Non Farm Economy (Mine/Power Stations)	10.1	7.2	5.8	4.8	8.7	8.4	9.4	7.9	7.9	7.2	8.5	7.4	3.0	1.6	1.2	0.4	0.2	0.2	100
Traditional Rural Non Farm Economy	5.1	1.7	1.4	2.9	11.0	12.4	12.4	9.8	11.7	8.8	11.8	5.9	1.0	1.9	0.8	0.7	0.7	0.2	100
Traditional Rural Non Farm Economy (Mine)	7.9	6.6	4.7	6.5	12.3	10.8	10.0	7.1	8.5	6.9	7.9	5.1	2.6	1.5	0.5	0.1	0.3	0.5	100
Traditional Settlement / Village / Associated Rural Areas	13.3	11.6	11.0	11.8	9.6	7.6	5.9	5.1	4.3	4.0	3.3	3.0	2.6	2.2	1.8	1.1	0.9	0.9	100
Traditional Urban	12.2	10.3	10.1	10.8	10.6	8.9	6.6	6.1	5.6	4.8	3.7	3.2	2.4	1.7	1.3	0.7	0.5	0.5	100
Urban Formal	10.1	8.5	8.2	9.0	10.5	10.8	8.4	7.3	6.4	5.8	4.8	3.7	2.5	1.6	1.1	0.7	0.4	0.4	100
Urban Formal Industrial and Mines	10.2	8.9	8.2	8.3	10.7	11.8	9.3	7.9	6.9	5.8	4.6	3.4	1.6	0.9	0.5	0.4	0.2	0.2	100
Grand Total	12.0	10.3	9.8	10.5	10.0	9.0	7.0	6.1	5.2	4.7	3.9	3.3	2.6	1.9	1.5	0.9	0.7	0.6	100

TABLE 26: PERCENTAGE OF EACH AGE TYPE FOUND IN EACH OF THE SETTLEMENT CATEGORIES.

	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+
Informal Settlement	3.7	3.2	2.9	2.9	4.3	5.0	5.1	5.0	4.5	4.0	3.3	2.7	2.1	1.5	1.3	1.3	0.9	1.0
Protected Area	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.0
Rural Formal Farm Economy	4.0	3.3	3.3	3.5	5.5	6.4	6.8	6.9	6.9	6.7	6.7	6.6	6.3	5.6	4.9	4.5	3.7	3.7
Rural Formal Non Farm Economy	0.7	0.7	0.8	0.8	1.0	1.2	1.3	1.3	1.5	1.5	1.6	1.6	1.2	0.8	0.7	0.6	0.5	0.4
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	64.2	65.8	65.5	65.1	55.8	49.6	49.1	48.7	48.3	49.5	50.0	53.7	59.3	65.5	68.8	71.4	75.0	76.7
Traditional Urban	4.3	4.2	4.3	4.3	4.4	4.2	4.0	4.2	4.5	4.3	4.0	4.0	3.9	3.7	3.5	3.0	3.0	2.9
Urban Formal	22.3	22.0	22.4	22.7	27.8	32.1	32.1	32.2	32.7	32.5	32.9	29.9	26.2	22.1	20.3	18.7	16.5	14.8
Urban Formal Industrial and Mines	0.8	0.8	0.8	0.7	1.0	1.2	1.2	1.2	1.2	1.1	1.1	1.0	0.6	0.4	0.3	0.4	0.3	0.3
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Household sizes

The size of households across the different major units and sub-units of the Olifants basin are summarized in Table 27 to

Table 29. The data are summarized for the different settlement types in Table 30 to Table 32.

TABLE 27: TOTAL NUMBERS OF HOUSEHOLDS OF DIFFERENT SIZES SUMMARIZED FOR MAJOR UNITS AND SUB-UNITS.

	1 person	2 people	3 people	4 people	5 people	6 people	7 people	8 people	9 people	10 or more	Total
Lower Olifants	26523	16395	15095	14942	10942	7607	4596	2799	1702	2271	102871
B60	4074	2156	1703	1569	1060	687	415	235	140	148	12187
B71 - Lower	1956	1307	1266	1312	1016	745	418	270	156	202	8648
B72	16860	10588	9941	9847	7211	4969	3016	1823	1117	1518	66890
B73	3633	2344	2186	2214	1655	1206	746	471	288	403	15146
Middle Olifants - Agriculture	49388	31777	27148	27164	22319	16585	10994	7388	4816	7561	205141
B31	30182	19594	16727	16507	13715	9807	6405	4222	2670	4091	123920
B32	19206	12183	10421	10657	8604	6778	4589	3166	2146	3470	81221
Middle Olifants - Sekhukhuneland	46830	30163	29997	31452	25659	19179	12483	7949	4796	6937	215444
B51	21681	13642	13149	13271	10850	8143	5413	3355	2049	3192	94745
B52	18188	12441	12372	13200	10706	8026	5100	3301	1936	2591	87861
B71 - Middle	6961	4080	4476	4980	4103	3010	1970	1294	811	1154	32837
Middle Olifants - Steelpoort	24489	12921	11390	11620	8992	6370	4146	2735	1724	2550	86939
B41	17472	9467	9210	9487	7701	5621	3722	2497	1581	2353	69112
B42	7017	3454	2180	2134	1291	749	424	239	143	197	17827
Upper Olifants	76644	50296	36234	33510	21203	12673	7371	4524	2662	3966	249082
B11	38775	24683	17270	15555	9597	5541	3172	1959	1061	1650	119263
B12	17790	12243	8751	8417	4991	2906	1703	984	606	895	59287
B20	20079	13370	10212	9538	6615	4226	2496	1580	995	1421	70532
Grand Total	223874	141552	119864	118688	89115	62415	39589	25396	15700	23284	859477



TABLE 28: PERCENTAGE HOUSEHOLDS OF DIFFERENT SIZES SUMMARIZED WITHIN EACH MAJOR UNIT AND SUB-UNIT.

	1 person	2 people	3 people	4 people	5 people	6 people	7 people	8 people	9 people	10 or more	Total
Lower Olifants	25.8	15.9	14.7	14.5	10.6	7.4	4.5	2.7	1.7	2.2	100
B60	33.4	17.7	14.0	12.9	8.7	5.6	3.4	1.9	1.1	1.2	100
B71 - Lower	22.6	15.1	14.6	15.2	11.8	8.6	4.8	3.1	1.8	2.3	100
B72	25.2	15.8	14.9	14.7	10.8	7.4	4.5	2.7	1.7	2.3	100
B73	24.0	15.5	14.4	14.6	10.9	8.0	4.9	3.1	1.9	2.7	100
Middle Olifants - Agriculture	24.1	15.5	13.2	13.2	10.9	8.1	5.4	3.6	2.3	3.7	100
B31	24.4	15.8	13.5	13.3	11.1	7.9	5.2	3.4	2.2	3.3	100
B32	23.6	15.0	12.8	13.1	10.6	8.3	5.7	3.9	2.6	4.3	100
Middle Olifants - Sekhukhuneland	21.7	14.0	13.9	14.6	11.9	8.9	5.8	3.7	2.2	3.2	100
B51	22.9	14.4	13.9	14.0	11.5	8.6	5.7	3.5	2.2	3.4	100
B52	20.7	14.2	14.1	15.0	12.2	9.1	5.8	3.8	2.2	2.9	100
B71 - Middle	21.2	12.4	13.6	15.2	12.5	9.2	6.0	3.9	2.5	3.5	100
Middle Olifants - Steelpoort	28.2	14.9	13.1	13.4	10.3	7.3	4.8	3.1	2.0	2.9	100
B41	25.3	13.7	13.3	13.7	11.1	8.1	5.4	3.6	2.3	3.4	100
B42	39.4	19.4	12.2	12.0	7.2	4.2	2.4	1.3	0.8	1.1	100
Upper Olifants	30.8	20.2	14.5	13.5	8.5	5.1	3.0	1.8	1.1	1.6	100
B11	32.5	20.7	14.5	13.0	8.0	4.6	2.7	1.6	0.9	1.4	100
B12	30.0	20.6	14.8	14.2	8.4	4.9	2.9	1.7	1.0	1.5	100
B20	28.5	19.0	14.5	13.5	9.4	6.0	3.5	2.2	1.4	2.0	100
Grand Total	26.0	16.5	13.9	13.8	10.4	7.3	4.6	3.0	1.8	2.7	100

TABLE 29: PERCENTAGE OF HOUSEHOLDS IN EACH HOUSEHOLD SIZE CATEGORY SUMMARIZED ACROSS MAJOR UNITS AND SUB-UNITS.

	1 person	2 people	3 people	4 people	5 people	6 people	7 people	8 people	9 people	10 or more
Lower Olifants	11.8	11.6	12.6	12.6	12.3	12.2	11.6	11.0	10.8	9.8
B60	1.8	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.6
B71 - Lower	0.9	0.9	1.1	1.1	1.1	1.2	1.1	1.1	1.0	0.9
B72	7.5	7.5	8.3	8.3	8.1	8.0	7.6	7.2	7.1	6.5
B73	1.6	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.7
Middle Olifants - Agriculture	22.1	22.4	22.6	22.9	25.0	26.6	27.8	29.1	30.7	32.5
B31	13.5	13.8	14.0	13.9	15.4	15.7	16.2	16.6	17.0	17.6
B32	8.6	8.6	8.7	9.0	9.7	10.9	11.6	12.5	13.7	14.9
Middle Olifants - Sekhukhuneland	20.9	21.3	25.0	26.5	28.8	30.7	31.5	31.3	30.5	29.8
B51	9.7	9.6	11.0	11.2	12.2	13.0	13.7	13.2	13.0	13.7
B52	8.1	8.8	10.3	11.1	12.0	12.9	12.9	13.0	12.3	11.1
B71 - Middle	3.1	2.9	3.7	4.2	4.6	4.8	5.0	5.1	5.2	5.0
Middle Olifants - Steelpoort	10.9	9.1	9.5	9.8	10.1	10.2	10.5	10.8	11.0	11.0
B41	7.8	6.7	7.7	8.0	8.6	9.0	9.4	9.8	10.1	10.1
B42	3.1	2.4	1.8	1.8	1.4	1.2	1.1	0.9	0.9	0.8
Upper Olifants	34.2	35.5	30.2	28.2	23.8	20.3	18.6	17.8	17.0	17.0
B11	17.3	17.4	14.4	13.1	10.8	8.9	8.0	7.7	6.8	7.1
B12	7.9	8.6	7.3	7.1	5.6	4.7	4.3	3.9	3.9	3.8
B20	9.0	9.4	8.5	8.0	7.4	6.8	6.3	6.2	6.3	6.1
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



TABLE 30: TOTAL NUMBERS OF HOUSEHOLDS OF DIFFERENT SIZES SUMMARIZED BY SETTLEMENT TYPE.

	1 person	2 people	3 people	4 people	5 people	6 people	7 people	8 people	9 people	10 or more	Total
Informal Settlement	15296	8283	5766	4633	3110	1858	1047	650	414	491	41548
Protected Area	1048	264	76	49	14	11	2	1	0	2	1468
Rural Formal Farm Economy	22770	11184	5653	4211	2104	1306	1019	677	479	885	50290
Rural Formal Non Farm Economy	3558	2204	1319	1326	694	418	206	130	68	120	10043
Rural Formal Non Farm Economy (Mine/Power Stations)	369	174	87	81	22	11	7	3	2	1	757
Traditional Rural Non Farm Economy	184	48	15	5	5	0	0	0	0	0	257
Traditional Rural Non Farm Economy (Mine)	220	86	43	56	35	22	8	6	1	1	478
Traditional Settlement / Village / Associated Rural Areas	99523	64610	64260	67051	55793	41668	27409	17797	11110	16538	465759
Traditional Urban	9331	5810	5462	5311	4021	2781	1641	1084	645	963	37049
Urban Formal	67743	47165	35890	34890	22555	13833	7976	4883	2890	4143	241969
Urban Formal Industrial and Mines	3831	1723	1294	1074	762	505	274	165	91	140	9859
Grand Total	223874	141552	119864	118688	89115	62415	39589	25396	15700	23284	859477

TABLE 31: PERCENTAGE HOUSEHOLDS OF DIFFERENT SIZES SUMMARIZED WITHIN EACH SETTLEMENT TYPE.

	1 person	2 people	3 people	4 people	5 people	6 people	7 people	8 people	9 people	10 or more	Total
Informal Settlement	36.8	19.9	13.9	11.2	7.5	4.5	2.5	1.6	1.0	1.2	100
Protected Area	71.4	18.0	5.2	3.4	1.0	0.8	0.1	0.1	0.0	0.1	100
Rural Formal Farm Economy	45.3	22.2	11.2	8.4	4.2	2.6	2.0	1.3	1.0	1.8	100
Rural Formal Non Farm Economy	35.4	21.9	13.1	13.2	6.9	4.2	2.1	1.3	0.7	1.2	100
Rural Formal Non Farm Economy (Mine/Power Stations)	48.7	23.0	11.5	10.7	2.9	1.5	0.9	0.4	0.3	0.1	100
Traditional Rural Non Farm Economy	71.6	18.7	5.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0	100
Traditional Rural Non Farm Economy (Mine)	46.0	18.0	9.0	11.7	7.3	4.6	1.7	1.3	0.2	0.2	100
Traditional Settlement / Village / Associated Rural Areas	21.4	13.9	13.8	14.4	12.0	8.9	5.9	3.8	2.4	3.6	100
Traditional Urban	25.2	15.7	14.7	14.3	10.9	7.5	4.4	2.9	1.7	2.6	100
Urban Formal	28.0	19.5	14.8	14.4	9.3	5.7	3.3	2.0	1.2	1.7	100
Urban Formal Industrial and Mines	38.9	17.5	13.1	10.9	7.7	5.1	2.8	1.7	0.9	1.4	100
Grand Total	26.0	16.5	13.9	13.8	10.4	7.3	4.6	3.0	1.8	2.7	100



TABLE 32: PERCENTAGE OF HOUSEHOLDS IN EACH HOUSEHOLD SIZE CATEGORY SUMMARIZED ACROSS DIFFERENT SETTLEMENT TYPES.

	1 person	2 people	3 people	4 people	5 people	6 people	7 people	8 people	9 people	10 or more
Informal Settlement	6.8	5.9	4.8	3.9	3.5	3.0	2.6	2.6	2.6	2.1
Protected Area	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rural Formal Farm Economy	10.2	7.9	4.7	3.5	2.4	2.1	2.6	2.7	3.1	3.8
Rural Formal Non Farm Economy	1.6	1.6	1.1	1.1	0.8	0.7	0.5	0.5	0.4	0.5
Rural Formal Non Farm Economy (Mine/Power Stations)	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	44.5	45.6	53.6	56.5	62.6	66.8	69.2	70.1	70.8	71.0
Traditional Urban	4.2	4.1	4.6	4.5	4.5	4.5	4.1	4.3	4.1	4.1
Urban Formal	30.3	33.3	29.9	29.4	25.3	22.2	20.1	19.2	18.4	17.8
Urban Formal Industrial and Mines	1.7	1.2	1.1	0.9	0.9	0.8	0.7	0.6	0.6	0.6
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Education levels

The education levels of individual across the different major units and sub-units of the Olifants basin are summarized in Table 33 to Table 35. The data are summarized for the different settlement types in Table 36 to Table 38..

TABLE 33: TOTAL NUMBERS OF INDIVIDUAL AT EACH EDUCATION LEVELS SUMMARIZED FOR MAJOR UNITS AND SUB-UNITS OF THE OLIFANTS BASIN.

	No schooling	Some primary	Completed primary	Some secondary	Grade 12/Std 10	Higher	Unspecified	Not applicable	Total
Lower Olifants	38065	94674	17275	109151	50022	18113	411	52567	380278
B60	3940	10185	1918	10759	6277	1915	58	5402	40453
B71 - Lower	4936	8492	1485	9878	3134	667	37	4463	33094
B72	23381	60986	11172	72355	31072	13275	272	34754	247267
B73	5808	15011	2700	16158	9539	2256	44	7947	59464
Middle Olifants - Agriculture	93679	213630	41544	223777	119442	29430	919	106146	828566
B31	51380	127059	24945	131386	72890	18525	612	63930	490726
B32	42299	86571	16599	92391	46552	10905	307	42216	337840
Middle Olifants - Sekhukhuneland	95492	226060	40181	252021	101743	32539	766	121947	870748
B51	45553	102854	18328	105518	40063	10831	295	53854	377297
B52	36470	89921	15761	102652	44842	17833	412	49047	356939
B71 - Middle	13469	33285	6092	43851	16837	3874	58	19046	136512
Middle Olifants - Steelpoort	29201	75506	15357	105105	48379	14274	386	45583	333791
B41	26110	65113	13025	89334	36045	9975	266	38351	278220
B42	3091	10393	2332	15771	12334	4299	120	7233	55572
Upper Olifants	49218	167935	37448	244098	181854	72134	2377	99763	854827
B11	18839	74298	17107	115484	84590	37870	1068	44187	393443
B12	11503	38067	8067	55664	51677	20882	747	24540	211145
B20	18876	55571	12275	72950	45588	13382	562	31035	250238
Grand Total	305654	777805	151805	934152	501439	166490	4859	426005	3268210

TABLE 34: PERCENTAGE OF INDIVIDUALS WITHIN EACH EDUCATION LEVEL SUMMARIZED WITHIN GEOGRAPHIC UNITS.

	No schooling	Some primary	Completed primary	Some secondary	Grade 12/Std 10	Higher	Unspecified	Not applicable	Total
Lower Olifants	10.0	24.9	4.5	28.7	13.2	4.8	0.1	13.8	100
B60	9.7	25.2	4.7	26.6	15.5	4.7	0.1	13.4	100
B71 - Lower	14.9	25.7	4.5	29.8	9.5	2.0	0.1	13.5	100
B72	9.5	24.7	4.5	29.3	12.6	5.4	0.1	14.1	100
B73	9.8	25.2	4.5	27.2	16.0	3.8	0.1	13.4	100
Middle Olifants - Agriculture	11.3	25.8	5.0	27.0	14.4	3.6	0.1	12.8	100
B31	10.5	25.9	5.1	26.8	14.9	3.8	0.1	13.0	100
B32	12.5	25.6	4.9	27.3	13.8	3.2	0.1	12.5	100
Middle Olifants - Sekhukhuneland	11.0	26.0	4.6	28.9	11.7	3.7	0.1	14.0	100
B51	12.1	27.3	4.9	28.0	10.6	2.9	0.1	14.3	100
B52	10.2	25.2	4.4	28.8	12.6	5.0	0.1	13.7	100
B71 - Middle	9.9	24.4	4.5	32.1	12.3	2.8	0.0	14.0	100
Middle Olifants - Steelpoort	8.7	22.6	4.6	31.5	14.5	4.3	0.1	13.7	100
B41	9.4	23.4	4.7	32.1	13.0	3.6	0.1	13.8	100
B42	5.6	18.7	4.2	28.4	22.2	7.7	0.2	13.0	100
Upper Olifants	5.8	19.6	4.4	28.6	21.3	8.4	0.3	11.7	100
B11	4.8	18.9	4.3	29.4	21.5	9.6	0.3	11.2	100
B12	5.4	18.0	3.8	26.4	24.5	9.9	0.4	11.6	100
B20	7.5	22.2	4.9	29.2	18.2	5.3	0.2	12.4	100
Grand Total	9.4	23.8	4.6	28.6	15.3	5.1	0.1	13.0	100



TABLE 35: PERCENTAGE OF INDIVIDUALS WITHIN EACH EDUCATION LEVEL SUMMARIZED ACROSS GEOGRAPHIC UNITS.

	No schooling	Some primary	Completed primary	Some secondary	Grade 12/Std 10	Higher	Unspecified	Not applicable	Total
Informal Settlement	9842	27961	6475	38606	19855	2452	169	14644	120005
Protected Area	340	493	158	888	834	399	5	1162	4280
Rural Formal Farm Economy	22746	36182	10059	46659	23838	7596	322	19279	166682
Rural Formal Non Farm Economy	1436	5446	1206	8442	7412	3582	114	5784	33422
Rural Formal Non Farm Economy (Mine/Power Stations)	118	388	73	448	390	165	6	193	1781
Traditional Rural Non Farm Economy	7	53	27	96	69	82	0	257	591
Traditional Rural Non Farm Economy (Mine)	65	203	37	308	280	139	5	439	1476
Traditional Settlement / Village / Associated Rural Areas	211825	501650	90738	552273	233687	53533	1424	257277	1902406
Traditional Urban	11062	31265	6018	38657	21163	10355	189	17749	136458
Urban Formal	46378	167535	35251	238521	188381	86716	2540	105918	871239
Urban Formal Industrial and Mines	1835	6629	1763	9255	5529	1472	85	3303	29869
Grand Total	305654	777805	151805	934152	501439	166490	4859	426005	3268210

TABLE 36: TOTAL NUMBERS OF INDIVIDUAL AT EACH EDUCATION LEVELS SUMMARIZED FOR DIFFERENT SETTLEMENT TYPES.

	No schooling	Some primary	Completed primary	Some secondary	Grade 12/Std 10	Higher	Unspecified	Not applicable	Total
Lower Olifants	12.5	12.2	11.4	11.7	10.0	10.9	8.5	12.3	11.6
B60	1.3	1.3	1.3	1.2	1.3	1.2	1.2	1.3	1.2
B71 - Lower	1.6	1.1	1.0	1.1	0.6	0.4	0.8	1.0	1.0
B72	7.6	7.8	7.4	7.7	6.2	8.0	5.6	8.2	7.6
B73	1.9	1.9	1.8	1.7	1.9	1.4	0.9	1.9	1.8
Middle Olifants - Agriculture	30.6	27.5	27.4	24.0	23.8	17.7	18.9	24.9	25.4
B31	16.8	16.3	16.4	14.1	14.5	11.1	12.6	15.0	15.0
B32	13.8	11.1	10.9	9.9	9.3	6.6	6.3	9.9	10.3
Middle Olifants - Sekhukhuland	31.2	29.1	26.5	27.0	20.3	19.5	15.8	28.6	26.6
B51	14.9	13.2	12.1	11.3	8.0	6.5	6.1	12.6	11.5
B52	11.9	11.6	10.4	11.0	8.9	10.7	8.5	11.5	10.9
B71 - Middle	4.4	4.3	4.0	4.7	3.4	2.3	1.2	4.5	4.2
Middle Olifants - Steelpoort	9.6	9.7	10.1	11.3	9.6	8.6	7.9	10.7	10.2
B41	8.5	8.4	8.6	9.6	7.2	6.0	5.5	9.0	8.5
B42	1.0	1.3	1.5	1.7	2.5	2.6	2.5	1.7	1.7
Upper Olifants	16.1	21.6	24.7	26.1	36.3	43.3	48.9	23.4	26.2
B11	6.2	9.6	11.3	12.4	16.9	22.7	22.0	10.4	12.0
B12	3.8	4.9	5.3	6.0	10.3	12.5	15.4	5.8	6.5
B20	6.2	7.1	8.1	7.8	9.1	8.0	11.6	7.3	7.7
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



TABLE 37: PERCENTAGE OF INDIVIDUALS WITHIN EACH EDUCATION LEVEL SUMMARIZED WITHIN EACH SETTLEMENT TYPE.

	No schooling	Some primary	Completed primary	Some secondary	Grade 12/Std 10	Higher	Unspecified	Not applicable	Total
Informal Settlement	8.2	23.3	5.4	32.2	16.5	2.0	0.1	12.2	100
Protected Area	8.0	11.5	3.7	20.8	19.5	9.3	0.1	27.2	100
Rural Formal Farm Economy	13.6	21.7	6.0	28.0	14.3	4.6	0.2	11.6	100
Rural Formal Non Farm Economy	4.3	16.3	3.6	25.3	22.2	10.7	0.3	17.3	100
Rural Formal Non Farm Economy (Mine/Power Stations)	6.6	21.8	4.1	25.2	21.9	9.3	0.3	10.8	100
Traditional Rural Non Farm Economy	1.2	9.0	4.6	16.2	11.7	13.9	0.0	43.5	100
Traditional Rural Non Farm Economy (Mine)	4.4	13.8	2.5	20.9	19.0	9.4	0.3	29.7	100
Traditional Settlement / Village / Associated Rural Areas	11.1	26.4	4.8	29.0	12.3	2.8	0.1	13.5	100
Traditional Urban	8.1	22.9	4.4	28.3	15.5	7.6	0.1	13.0	100
Urban Formal	5.3	19.2	4.0	27.4	21.6	10.0	0.3	12.2	100
Urban Formal Industrial and Mines	6.1	22.2	5.9	31.0	18.5	4.9	0.3	11.1	100
Grand Total	9.4	23.8	4.6	28.6	15.3	5.1	0.1	13.0	100

TABLE 38: PERCENTAGE OF INDIVIDUALS WITHIN EACH EDUCATION LEVEL SUMMARIZED ACROSS SETTLEMENT TYPES.

	No schooling	Some primary	Completed primary	Some secondary	Grade 12/Std 10	Higher	Unspecified	Not applicable
Informal Settlement	3.2	3.6	4.3	4.1	4.0	1.5	3.5	3.4
Protected Area	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3
Rural Formal Farm Economy	7.4	4.7	6.6	5.0	4.8	4.6	6.6	4.5
Rural Formal Non Farm Economy	0.5	0.7	0.8	0.9	1.5	2.2	2.3	1.4
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Traditional Rural Non Farm Economy (Mine)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Traditional Settlement / Village / Associated Rural Areas	69.3	64.5	59.8	59.1	46.6	32.2	29.3	60.4
Traditional Urban	3.6	4.0	4.0	4.1	4.2	6.2	3.9	4.2
Urban Formal	15.2	21.5	23.2	25.5	37.6	52.1	52.3	24.9
Urban Formal Industrial and Mines	0.6	0.9	1.2	1.0	1.1	0.9	1.7	0.8
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Health - ability to care for oneself

The ability of people to care for themselves is summarized across the different major units and sub-units of the Olifants basin are summarized in Table 39 to Table 41. The data are summarized for the different settlement types in Table 42 to Table 44

TABLE 39: ABILITY TO CARE FOR ONESELF, SUMMARIZED BY TOTAL NUMBERS OF PEOPLE FOR MAJOR UNITS AND SUB-UNITS.

	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Do not know	Cannot yet be determined	Unspecified	Not applicable	Total
Lower Olifants	298027	7694	2971	11535	2076	44673	8607	4687	380271
B60	31752	1000	309	1213	374	3873	1044	889	40454
B71 - Lower	26031	646	305	758	277	4217	763	108	33105
B72	193722	4427	1792	8553	1178	28978	5665	2935	247251
B73	46522	1620	566	1011	1011	7605	1135	755	59461
Middle Olifants - Agriculture	658698	16198	5329	22705	4622	92733	21276	7001	828562
B31	390317	8970	2812	12415	2501	55432	12867	5411	490726
B32	268381	7227	2517	10291	2121	37301	8409	1590	337837
Middle Olifants - Sekhukhuneland	666256	22393	8782	32633	6129	106542	22970	4993	870697
B51	286639	10218	4309	14807	3203	46759	9423	1916	377274
B52	275103	8370	3261	13415	2166	42800	9508	2282	356906
B71 - Middle	104514	3805	1212	4410	759	16983	4039	795	136517
Middle Olifants - Steelpoort	259804	6187	2303	10821	2423	37008	11606	3631	333783
B41	216333	5491	2147	9412	2209	32067	8489	2067	278214
B42	43472	696	156	1409	214	4942	3117	1564	55569
Upper Olifants	695480	9859	2921	15452	3109	80819	33985	13212	854836
B11	323322	4368	1299	7432	1129	36173	14486	5231	393440
B12	171521	2206	563	2815	808	19839	9530	3871	211152
B20	200637	3285	1059	5205	1172	24806	9969	4111	250244
Grand Total	2578265	62332	22306	93146	18358	361775	98444	33523	3268149

TABLE 40: ABILITY TO CARE FOR ONESELF, SUMMARIZED BY PERCENTAGE OF PEOPLE WITHIN MAJOR UNITS AND SUB-UNITS.

	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Do not know	Cannot yet be determined	Unspecified	Not applicable	Total
Lower Olifants	78.4	2.0	0.8	3.0	0.5	11.7	2.3	1.2	100
B60	78.5	2.5	0.8	3.0	0.9	9.6	2.6	2.2	100
B71 - Lower	78.6	2.0	0.9	2.3	0.8	12.7	2.3	0.3	100
B72	78.4	1.8	0.7	3.5	0.5	11.7	2.3	1.2	100
B73	78.2	2.7	1.0	1.7	0.4	12.8	1.9	1.3	100
Middle Olifants - Agriculture	79.5	2.0	0.6	2.7	0.6	11.2	2.6	0.8	100
B31	79.5	1.8	0.6	2.5	0.5	11.3	2.6	1.1	100
B32	79.4	2.1	0.7	3.0	0.6	11.0	2.5	0.5	100
Middle Olifants - Sekhukhuneland	76.5	2.6	1.0	3.7	0.7	12.2	2.6	0.6	100
B51	76.0	2.7	1.1	3.9	0.8	12.4	2.5	0.5	100
B52	77.1	2.3	0.9	3.8	0.6	12.0	2.7	0.6	100
B71 - Middle	76.6	2.8	0.9	3.2	0.6	12.4	3.0	0.6	100
Middle Olifants - Steelpoort	77.8	1.9	0.7	3.2	0.7	11.1	3.5	1.1	100
B41	77.8	2.0	0.8	3.4	0.8	11.5	3.1	0.7	100
B42	78.2	1.3	0.3	2.5	0.4	8.9	5.6	2.8	100
Upper Olifants	81.4	1.2	0.3	1.8	0.4	9.5	4.0	1.5	100
B11	82.2	1.1	0.3	1.9	0.3	9.2	3.7	1.3	100
B12	81.2	1.0	0.3	1.3	0.4	9.4	4.5	1.8	100
B20	80.2	1.3	0.4	2.1	0.5	9.9	4.0	1.6	100
Grand Total	78.9	1.9	0.7	2.9	0.6	11.1	3.0	1.0	100



TABLE 41: ABILITY TO CARE FOR ONESELF, SUMMARIZED BY PERCENTAGE OF PEOPLE ACROSS MAJOR UNITS AND SUB-UNITS.

	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Do not know	Cannot yet be determined	Unspecified	Not applicable
Lower Olifants	11.6	12.3	13.3	12.4	11.3	12.3	8.7	14.0
B60	1.2	1.6	1.4	1.3	2.0	1.1	1.1	2.7
B71 - Lower	1.0	1.0	1.4	0.8	1.5	1.2	0.8	0.3
B72	7.5	7.1	8.0	9.2	6.4	8.0	5.8	8.8
B73	1.8	2.6	2.5	1.1	1.3	2.1	1.2	2.3
Middle Olifants - Agriculture	25.5	26.0	23.9	24.4	25.2	25.6	21.6	20.9
B31	15.1	14.4	12.6	13.3	13.6	15.3	13.1	16.1
B32	10.4	11.6	11.3	11.0	11.6	10.3	8.5	4.7
Middle Olifants - Sekhukhuneland	25.8	35.9	39.4	35.0	33.4	29.4	23.3	14.9
B51	11.1	16.4	19.3	15.9	17.4	12.9	9.6	5.7
B52	10.7	13.4	14.6	14.4	11.8	11.8	9.7	6.8
B71 - Middle	4.1	6.1	5.4	4.7	4.1	4.7	4.1	2.4
Middle Olifants - Steelpoort	10.1	9.9	10.3	11.6	13.2	10.2	11.8	10.8
B41	8.4	8.8	9.6	10.1	12.0	8.9	8.6	6.2
B42	1.7	1.1	0.7	1.5	1.2	1.4	3.2	4.7
Upper Olifants	27.0	15.8	13.1	16.6	16.9	22.3	34.5	39.4
B11	12.5	7.0	5.8	8.0	6.2	10.0	14.7	15.6
B12	6.7	3.5	2.5	3.0	4.4	5.5	9.7	11.5
B20	7.8	5.3	4.7	5.6	6.4	6.9	10.1	12.3
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



TABLE 42: ABILITY TO CARE FOR ONESELF, SUMMARIZED BY TOTAL NUMBERS OF PEOPLE FOR EACH SETTLEMENT TYPE.

	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Do not know	Cannot yet be determined	Unspecified	Not applicable	Total
Informal Settlement	97364	1400	416	2482	769	13187	4204	186	120007
Protected Area	3017	20	4	15	6	121	78	1018	4280
Rural Formal Farm Economy	136172	2280	523	2400	723	14472	6558	3565	166693
Rural Formal Non Farm Economy	25530	317	77	289	138	2535	1399	3142	33427
Rural Formal Non Farm Economy (Mine/Power Stations)	1508	16	5	40	4	159	35	14	1781
Traditional Rural Non Farm Economy	322	3	1	1	0	20	5	239	591
Traditional Rural Non Farm Economy (Mine)	952	20	9	63	5	86	16	323	1474
Traditional Settlement / Village / Associated Rural Areas	1475121	45396	17414	65464	13211	232019	48527	5196	1902349
Traditional Urban	108797	2502	756	5109	497	14563	3153	1079	136456
Urban Formal	704936	10063	3004	16763	2933	81687	33338	18495	871219
Urban Formal Industrial and Mines	24546	315	98	521	71	2925	1130	266	29872
Grand Total	2578265	62332	22306	93146	18358	361775	98444	33523	3268149

TABLE 43: ABILITY TO CARE FOR ONESELF, SUMMARIZED BY PERCENTAGE OF PEOPLE WITHIN EACH SETTLEMENT TYPE.

	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Do not know	Cannot yet be determined	Unspecified	Not applicable	Total
Informal Settlement	81.1	1.2	0.3	2.1	0.6	11.0	3.5	0.2	100
Protected Area	70.5	0.5	0.1	0.3	0.1	2.8	1.8	23.8	100
Rural Formal Farm Economy	81.7	1.4	0.3	1.4	0.4	8.7	3.9	2.1	100
Rural Formal Non Farm Economy	76.4	0.9	0.2	0.9	0.4	7.6	4.2	9.4	100
Rural Formal Non Farm Economy (Mine/Power Stations)	84.7	0.9	0.3	2.2	0.2	8.9	2.0	0.8	100
Traditional Rural Non Farm Economy	54.5	0.5	0.2	0.2	0.0	3.4	0.8	40.4	100
Traditional Rural Non Farm Economy (Mine)	64.6	1.4	0.6	4.3	0.3	5.8	1.1	21.9	100
Traditional Settlement / Village / Associated Rural Areas	77.5	2.4	0.9	3.4	0.7	12.2	2.6	0.3	100
Traditional Urban	79.7	1.8	0.6	3.7	0.4	10.7	2.3	0.8	100
Urban Formal	80.9	1.2	0.3	1.9	0.3	9.4	3.8	2.1	100
Urban Formal Industrial and Mines	82.2	1.1	0.3	1.7	0.2	9.8	3.8	0.9	100
Grand Total	78.9	1.9	0.7	2.9	0.6	11.1	3.0	1.0	100



TABLE 44: ABILITY TO CARE FOR ONESELF, SUMMARIZED BY PERCENTAGE OF PEOPLE ACROSS SETTLEMENT TYPES.

	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Do not know	Cannot yet be determined	Unspecified	Not applicable
Informal Settlement	3.8	2.2	1.9	2.7	4.2	3.6	4.3	0.6
Protected Area	0.1	0.0	0.0	0.0	0.0	0.0	0.1	3.0
Rural Formal Farm Economy	5.3	3.7	2.3	2.6	3.9	4.0	6.7	10.6
Rural Formal Non Farm Economy	1.0	0.5	0.3	0.3	0.8	0.7	1.4	9.4
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Traditional Rural Non Farm Economy (Mine)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.0
Traditional Settlement / Village / Associated Rural Areas	57.2	72.8	78.1	70.3	72.0	64.1	49.3	15.5
Traditional Urban	4.2	4.0	3.4	5.5	2.7	4.0	3.2	3.2
Urban Formal	27.3	16.1	13.5	18.0	16.0	22.6	33.9	55.2
Urban Formal Industrial and Mines	1.0	0.5	0.4	0.6	0.4	0.8	1.1	0.8
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Health - use of chronic medication

The use of chronic medication across the different major units and sub-units of the Olifants basin is summarized in Table 45 to Table 47. The data are summarized for the different settlement types in Table 48 to Table 50.

TABLE 45: NUMBER OF PEOPLE ON CHRONIC MEDICATION SUMMARIZED BY MAJOR UNITS AND SUB-UNITS.

	Yes	No	Do not know	Unspecified	Not applicable	Total
Lower Olifants	25668	339182	2170	8575	4687	380283
B60	3349	34989	145	1078	889	40450
B71 - Lower	1998	30035	154	810	108	33104
B72	16863	220326	1580	5563	2935	247267
B73	3458	53833	291	1125	755	59462
Middle Olifants - Agriculture	68487	726998	4979	21112	7001	828577
B31	39536	430645	2691	12455	5411	490737
B32	28951	296353	2288	8658	1590	337840
Middle Olifants - Sekhukhuneland	44994	794303	4566	21895	4993	870750
B51	22977	341629	1797	8968	1916	377287
B52	17637	325975	1921	9134	2282	356949
B71 - Middle	4379	126699	848	3793	795	136514
Middle Olifants - Steelpoort	17619	297861	2027	12647	3631	333784
B41	13106	251650	1709	9680	2067	278211
B42	4512	46211	318	2967	1564	55573
Upper Olifants	87377	716926	4154	33164	13212	854833
B11	39568	333319	1510	13808	5231	393436
B12	22930	173122	1021	10204	3871	211148
B20	24878	210485	1622	9152	4111	250248
Grand Total	244144	2875270	17896	97392	33523	3268226

TABLE 46: PERCENTAGE OF PEOPLE ON CHRONIC MEDICATION SUMMARIZED BY MAJOR UNITS AND SUB-UNITS.

	Yes	No	Do not know	Unspecified	Not applicable	Total
Lower Olifants	6.7	89.2	0.6	2.3	1.2	100.0
B60	8.3	86.5	0.4	2.7	2.2	100.0
B71 - Lower	6.0	90.7	0.5	2.4	0.3	100.0
B72	6.8	89.1	0.6	2.2	1.2	100.0
B73	5.8	90.5	0.5	1.9	1.3	100.0
Middle Olifants - Agriculture	8.3	87.7	0.6	2.5	0.8	100.0
B31	8.1	87.8	0.5	2.5	1.1	100.0
B32	8.6	87.7	0.7	2.6	0.5	100.0
Middle Olifants - Sekhukhuneland	5.2	91.2	0.5	2.5	0.6	100.0
B51	6.1	90.5	0.5	2.4	0.5	100.0
B52	4.9	91.3	0.5	2.6	0.6	100.0
B71 - Middle	3.2	92.8	0.6	2.8	0.6	100.0
Middle Olifants - Steelpoort	5.3	89.2	0.6	3.8	1.1	100.0
B41	4.7	90.5	0.6	3.5	0.7	100.0
B42	8.1	83.2	0.6	5.3	2.8	100.0
Upper Olifants	10.2	83.9	0.5	3.9	1.5	100.0
B11	10.1	84.7	0.4	3.5	1.3	100.0
B12	10.9	82.0	0.5	4.8	1.8	100.0
B20	9.9	84.1	0.6	3.7	1.6	100.0
Grand Total	7.5	88.0	0.5	3.0	1.0	100.0



TABLE 47: PERCENTAGE OF PEOPLE ON CHRONIC MEDICATION SUMMARIZED ACROSS MAJOR UNITS AND SUB-UNITS.

	Yes	No	Do not know	Unspecified	Not applicable
Lower Olifants	10.5	11.8	12.1	8.8	14.0
B60	1.4	1.2	0.8	1.1	2.7
B71 - Lower	0.8	1.0	0.9	0.8	0.3
B72	6.9	7.7	8.8	5.7	8.8
B73	1.4	1.9	1.6	1.2	2.3
Middle Olifants - Agriculture	28.1	25.3	27.8	21.7	20.9
B31	16.2	15.0	15.0	12.8	16.1
B32	11.9	10.3	12.8	8.9	4.7
Middle Olifants - SekhukhuneLand	18.4	27.6	25.5	22.5	14.9
B51	9.4	11.9	10.0	9.2	5.7
B52	7.2	11.3	10.7	9.4	6.8
B71 - Middle	1.8	4.4	4.7	3.9	2.4
Middle Olifants - Steelpoort	7.2	10.4	11.3	13.0	10.8
B41	5.4	8.8	9.5	9.9	6.2
B42	1.8	1.6	1.8	3.0	4.7
Upper Olifants	35.8	24.9	23.2	34.1	39.4
B11	16.2	11.6	8.4	14.2	15.6
B12	9.4	6.0	5.7	10.5	11.5
B20	10.2	7.3	9.1	9.4	12.3
Grand Total	100.0	100.0	100.0	100.0	100.0

TABLE 48: NUMBER OF PEOPLE ON CHRONIC MEDICATION SUMMARIZED BY SETTLEMENT TYPE.

	Yes	No	Do not know	Unspecified	Not applicable	Total
Informal Settlement	8418	105974	1187	4242	186	120006
Protected Area	382	2805	12	63	1018	4280
Rural Formal Farm Economy	16015	139225	788	7094	3565	166687
Rural Formal Non Farm Economy	3447	25376	109	1352	3142	33426
Rural Formal Non Farm Economy (Mine/Power Stations)	190	1538	8	30	14	1780
Traditional Rural Non Farm Economy	30	316	2	3	239	590
Traditional Rural Non Farm Economy (Mine)	124	996	12	22	323	1477
Traditional Settlement / Village / Associated Rural Areas	114127	1723767	11301	48040	5196	1902431
Traditional Urban	10070	121373	736	3196	1079	136454
Urban Formal	88563	728248	3626	32291	18495	871224
Urban Formal Industrial and Mines	2780	25651	116	1059	266	29872
Grand Total	244144	2875270	17896	97392	33523	3268226



TABLE 49: PERCENTAGE OF PEOPLE ON CHRONIC MEDICATION SUMMARIZED WITHIN EACH SETTLEMENT TYPE.

	Yes	No	Do not know	Unspecified	Not applicable	Total
Informal Settlement	7.0	88.3	1.0	3.5	0.2	100
Protected Area	8.9	65.5	0.3	1.5	23.8	100
Rural Formal Farm Economy	9.6	83.5	0.5	4.3	2.1	100
Rural Formal Non Farm Economy	10.3	75.9	0.3	4.0	9.4	100
Rural Formal Non Farm Economy (Mine/Power Stations)	10.7	86.4	0.4	1.7	0.8	100
Traditional Rural Non Farm Economy	5.1	53.6	0.3	0.5	40.5	100
Traditional Rural Non Farm Economy (Mine)	8.4	67.4	0.8	1.5	21.9	100
Traditional Settlement / Village / Associated Rural Areas	6.0	90.6	0.6	2.5	0.3	100
Traditional Urban	7.4	88.9	0.5	2.3	0.8	100
Urban Formal	10.2	83.6	0.4	3.7	2.1	100
Urban Formal Industrial and Mines	9.3	85.9	0.4	3.5	0.9	100
Grand Total	7.5	88.0	0.5	3.0	1.0	100

TABLE 50: PERCENTAGE OF PEOPLE ON CHRONIC MEDICATION SUMMARIZED ACROSS SETTLEMENT TYPES.

	Yes	No	Do not know	Unspecified	Not applicable
Informal Settlement	3.4	3.7	6.6	4.4	0.6
Protected Area	0.2	0.1	0.1	0.1	3.0
Rural Formal Farm Economy	6.6	4.8	4.4	7.3	10.6
Rural Formal Non Farm Economy	1.4	0.9	0.6	1.4	9.4
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.1	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.7
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.1	0.0	1.0
Traditional Settlement / Village / Associated Rural Areas	46.7	60.0	63.1	49.3	15.5
Traditional Urban	4.1	4.2	4.1	3.3	3.2
Urban Formal	36.3	25.3	20.3	33.2	55.2
Urban Formal Industrial and Mines	1.1	0.9	0.6	1.1	0.8
Grand Total	100.0	100.0	100.0	100.0	100.0



Employment - status

Employment status of individuals across the different major units and sub-units of the Olifants basin is summarized in Table 51 to Table 53. The data are summarized for the different settlement types in Table 54 to Table 56. Note that this data feeds into the general poverty index. This is dealt with in the spatial prioritization section.

TABLE 51: EMPLOYMENT STATUS (NUMBER OF PEOPLE) SUMMARIZED BY MAJOR UNITS AND SUB-UNITS.

	Employed	Unemployed	Discouraged work-seeker	Other not economically active	Not applicable	Total
Lower Olifants	68390	46883	14977	103741	146292	380282
B60	8906	4234	1402	10812	15100	40454
B71 - Lower	3223	2758	1673	11575	13872	33101
B72	46977	30980	8581	66515	94210	247263
B73	9284	8911	3321	14838	23110	59464
Middle Olifants - Agriculture	140750	91319	34197	237687	324623	828575
B31	84262	53986	18871	141866	191751	490736
B32	56488	37333	15325	95821	132872	337839
Middle Olifants - Sekhukhuneland	92432	106596	35313	252635	383837	870811
B51	37622	39934	16853	111084	171815	377307
B52	38987	44746	14155	103683	155399	356970
B71 - Middle	15823	21915	4305	37868	56622	136534
Middle Olifants - Steelpoort	66509	42783	10361	88798	125337	333789
B41	45077	37854	9410	76999	108875	278215
B42	21432	4929	951	11800	16462	55574
Upper Olifants	292425	99962	22404	183474	256568	854833
B11	141525	48808	9340	80852	112907	393432
B12	78279	19409	4595	46222	62647	211152
B20	72621	31745	8469	56401	81014	250250
Grand Total	660505	387542	117251	866335	1236657	3268291

TABLE 52: EMPLOYMENT STATUS (PERCENTAGE) SUMMARIZED WITHIN MAJOR UNITS AND SUB-UNITS.

	Employed	Unemployed	Discouraged work-seeker	Other not economically active	Not applicable	Total
Lower Olifants	18.0	12.3	3.9	27.3	38.5	100
B60	22.0	10.5	3.5	26.7	37.3	100
B71 - Lower	9.7	8.3	5.1	35.0	41.9	100
B72	19.0	12.5	3.5	26.9	38.1	100
B73	15.6	15.0	5.6	25.0	38.9	100
Middle Olifants - Agriculture	17.0	11.0	4.1	28.7	39.2	100
B31	17.2	11.0	3.8	28.9	39.1	100
B32	16.7	11.1	4.5	28.4	39.3	100
Middle Olifants - Sekhukhuneland	10.6	12.2	4.1	29.0	44.1	100
B51	10.0	10.6	4.5	29.4	45.5	100
B52	10.9	12.5	4.0	29.0	43.5	100
B71 - Middle	11.6	16.1	3.2	27.7	41.5	100
Middle Olifants - Steelpoort	19.9	12.8	3.1	26.6	37.5	100
B41	16.2	13.6	3.4	27.7	39.1	100
B42	38.6	8.9	1.7	21.2	29.6	100
Upper Olifants	34.2	11.7	2.6	21.5	30.0	100
B11	36.0	12.4	2.4	20.6	28.7	100
B12	37.1	9.2	2.2	21.9	29.7	100
B20	29.0	12.7	3.4	22.5	32.4	100
Grand Total	20.2	11.9	3.6	26.5	37.8	100



TABLE 53: EMPLOYMENT STATUS (PERCENTAGE) SUMMARIZED ACROSS MAJOR UNITS AND SUB-UNITS.

	Employed	Unemployed	Discouraged work-seeker	Other not economically active	Not applicable
Lower Olifants	10.4	12.1	12.8	12.0	11.8
B60	1.3	1.1	1.2	1.2	1.2
B71 - Lower	0.5	0.7	1.4	1.3	1.1
B72	7.1	8.0	7.3	7.7	7.6
B73	1.4	2.3	2.8	1.7	1.9
Middle Olifants - Agriculture	21.3	23.6	29.2	27.4	26.3
B31	12.8	13.9	16.1	16.4	15.5
B32	8.6	9.6	13.1	11.1	10.7
Middle Olifants - Sekhukhuleni	14.0	27.5	30.1	29.2	31.0
B51	5.7	10.3	14.4	12.8	13.9
B52	5.9	11.5	12.1	12.0	12.6
B71 - Middle	2.4	5.7	3.7	4.4	4.6
Middle Olifants - Steelpoort	10.1	11.0	8.8	10.2	10.1
B41	6.8	9.8	8.0	8.9	8.8
B42	3.2	1.3	0.8	1.4	1.3
Upper Olifants	44.3	25.8	19.1	21.2	20.7
B11	21.4	12.6	8.0	9.3	9.1
B12	11.9	5.0	3.9	5.3	5.1
B20	11.0	8.2	7.2	6.5	6.6
Grand Total	100.0	100.0	100.0	100.0	100.0

TABLE 54: EMPLOYMENT STATUS (NUMBER OF PEOPLE) SUMMARIZED BY SETTLEMENT TYPE.

	Employed	Unemployed	Discouraged work-seeker	Other not economically active	Not applicable	Total
Informal Settlement	36175	19280	4831	22721	37000	120007
Protected Area	2706	54	21	1049	450	4280
Rural Formal Farm Economy	73568	11889	3143	31973	46110	166683
Rural Formal Non Farm Economy	12707	2581	813	8592	8732	33425
Rural Formal Non Farm Economy (Mine/Power Stations)	899	131	25	248	477	1780
Traditional Rural Non Farm Economy	259	35	0	224	73	591
Traditional Rural Non Farm Economy (Mine)	477	92	15	568	325	1477
Traditional Settlement / Village / Associated Rural Areas	215876	235973	81127	555711	813806	1902493
Traditional Urban	26163	17535	4886	37014	50857	136455
Urban Formal	280718	96471	21479	202566	269992	871227
Urban Formal Industrial and Mines	10956	3501	911	5669	8836	29872
Grand Total	660505	387542	117251	866335	1236657	3268291

TABLE 55: EMPLOYMENT STATUS (PERCENTAGE) SUMMARIZED WITHIN SETTLEMENT TYPES.

	Employed	Unemployed	Discouraged work-seeker	Other not economically active	Not applicable	Total
Informal Settlement	30.1	16.1	4.0	18.9	30.8	100
Protected Area	63.2	1.3	0.5	24.5	10.5	100
Rural Formal Farm Economy	44.1	7.1	1.9	19.2	27.7	100
Rural Formal Non Farm Economy	38.0	7.7	2.4	25.7	26.1	100
Rural Formal Non Farm Economy (Mine/Power Stations)	50.5	7.4	1.4	13.9	26.8	100
Traditional Rural Non Farm Economy	43.8	5.9	0.0	37.9	12.4	100
Traditional Rural Non Farm Economy (Mine)	32.3	6.2	1.0	38.5	22.0	100
Traditional Settlement / Village / Associated Rural Areas	11.3	12.4	4.3	29.2	42.8	100
Traditional Urban	19.2	12.9	3.6	27.1	37.3	100
Urban Formal	32.2	11.1	2.5	23.3	31.0	100
Urban Formal Industrial and Mines	36.7	11.7	3.0	19.0	29.6	100
Grand Total	20.2	11.9	3.6	26.5	37.8	100



Table 56: Employment status (percentage) summarized across settlement types.

	Employed	Unemployed	Discouraged work-seeker	Other not economically active	Not applicable
Informal Settlement	5.5	5.0	4.1	2.6	3.0
Protected Area	0.4	0.0	0.0	0.1	0.0
Rural Formal Farm Economy	11.1	3.1	2.7	3.7	3.7
Rural Formal Non Farm Economy	1.9	0.7	0.7	1.0	0.7
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.0	0.1	0.0
Traditional Settlement / Village / Associated Rural Areas	32.7	60.9	69.2	64.1	65.8
Traditional Urban	4.0	4.5	4.2	4.3	4.1
Urban Formal	42.5	24.9	18.3	23.4	21.8
Urban Formal Industrial and Mines	1.7	0.9	0.8	0.7	0.7
Grand Total	100.0	100.0	100.0	100.0	100.0



Employment - sector

Employment sector of individuals across the different major units and sub-units of the Olifants basin is summarized in Table 57 to Table 59. The data are summarized for the different settlement types in Table 60 to Table 62.

TABLE 57: EMPLOYMENT SECTOR (NUMBER OF PEOPLE) SUMMARIZED BY MAJOR UNITS AND SUB-UNITS.

	In the formal sector	In the informal sector	Private household	Do not know	Not applicable	Total
Lower Olifants	46987	12160	8777	1617	310734	380274
B60	5359	2215	1289	253	31335	40451
B71 - Lower	1852	963	347	132	29808	33102
B72	32948	7590	6061	1111	199550	247259
B73	6828	1392	1080	121	50041	59462
Middle Olifants - Agriculture	84113	30838	25046	3479	685106	828582
B31	49710	18560	15529	2050	404888	490737
B32	34403	12278	9517	1429	280218	337845
Middle Olifants - Sekhukhuneland	63074	19368	10181	1673	776434	870730
B51	24397	8342	4876	838	338828	377281
B52	27381	7463	4281	622	317191	356938
B71 - Middle	11296	3562	1025	213	120414	136510
Middle Olifants - Steelpoort	46210	11597	7812	1825	266336	333780
B41	30569	8420	5530	1212	232476	278206
B42	15641	3177	2283	613	33860	55574
Upper Olifants	220387	34662	34106	7961	557711	854827
B11	111522	14098	14642	3228	249936	393427
B12	58491	9232	9523	2500	131403	211149
B20	50373	11332	9941	2233	176372	250251
Grand Total	460771	108624	85922	16555	2596321	3268193

TABLE 58: EMPLOYMENT SECTOR (PERCENTAGE) SUMMARIZED WITHIN MAJOR UNITS AND SUB-UNITS.

	In the formal sector	In the informal sector	Private household	Do not know	Not applicable	Total
Lower Olifants	12.4	3.2	2.3	0.4	81.7	100
B60	13.2	5.5	3.2	0.6	77.5	100
B71 - Lower	5.6	2.9	1.0	0.4	90.0	100
B72	13.3	3.1	2.5	0.4	80.7	100
B73	11.5	2.3	1.8	0.2	84.2	100
Middle Olifants - Agriculture	10.2	3.7	3.0	0.4	82.7	100
B31	10.1	3.8	3.2	0.4	82.5	100
B32	10.2	3.6	2.8	0.4	82.9	100
Middle Olifants - Sekhukhuneland	7.2	2.2	1.2	0.2	89.2	100
B51	6.5	2.2	1.3	0.2	89.8	100
B52	7.7	2.1	1.2	0.2	88.9	100
B71 - Middle	8.3	2.6	0.8	0.2	88.2	100
Middle Olifants - Steelpoort	13.8	3.5	2.3	0.5	79.8	100
B41	11.0	3.0	2.0	0.4	83.6	100
B42	28.1	5.7	4.1	1.1	60.9	100
Upper Olifants	25.8	4.1	4.0	0.9	65.2	100
B11	28.3	3.6	3.7	0.8	63.5	100
B12	27.7	4.4	4.5	1.2	62.2	100
B20	20.1	4.5	4.0	0.9	70.5	100
Grand Total	14.1	3.3	2.6	0.5	79.4	100



TABLE 59: EMPLOYMENT SECTOR (PERCENTAGE) SUMMARIZED ACROSS MAJOR UNITS AND SUB-UNITS.

	In the formal sector	In the informal sector	Private household	Do not know	Not applicable
Lower Olifants	10.2	11.2	10.2	9.8	12.0
B60	1.2	2.0	1.5	1.5	1.2
B71 - Lower	0.4	0.9	0.4	0.8	1.1
B72	7.2	7.0	7.1	6.7	7.7
B73	1.5	1.3	1.3	0.7	1.9
Middle Olifants - Agriculture	18.3	28.4	29.1	21.0	26.4
B31	10.8	17.1	18.1	12.4	15.6
B32	7.5	11.3	11.1	8.6	10.8
Middle Olifants - Sekhukhuneland	13.7	17.8	11.8	10.1	29.9
B51	5.3	7.7	5.7	5.1	13.1
B52	5.9	6.9	5.0	3.8	12.2
B71 - Middle	2.5	3.3	1.2	1.3	4.6
Middle Olifants - Steelpoort	10.0	10.7	9.1	11.0	10.3
B41	6.6	7.8	6.4	7.3	9.0
B42	3.4	2.9	2.7	3.7	1.3
Upper Olifants	47.8	31.9	39.7	48.1	21.5
B11	24.2	13.0	17.0	19.5	9.6
B12	12.7	8.5	11.1	15.1	5.1
B20	10.9	10.4	11.6	13.5	6.8
Grand Total	100.0	100.0	100.0	100.0	100.0

TABLE 60: EMPLOYMENT SECTOR (NUMBER OF PEOPLE) SUMMARIZED BY SETTLEMENT TYPE.

	In the formal sector	In the informal sector	Private household	Do not know	Not applicable	Total
Informal Settlement	22404	6497	6484	1053	83570	120008
Protected Area	2185	188	337	45	1526	4280
Rural Formal Farm Economy	42764	16679	14067	1912	91266	166688
Rural Formal Non Farm Economy	9829	1487	1218	409	20485	33428
Rural Formal Non Farm Economy (Mine/Power Stations)	669	41	179	27	866	1782
Traditional Rural Non Farm Economy	260	0	1	1	329	591
Traditional Rural Non Farm Economy (Mine)	395	24	60	0	997	1476
Traditional Settlement / Village / Associated Rural Areas	135118	48521	31130	5110	1682503	1902382
Traditional Urban	19564	4124	2362	442	109967	136459
Urban Formal	219107	29823	29009	7269	586019	871228
Urban Formal Industrial and Mines	8477	1239	1075	287	18794	29871
Grand Total	460771	108624	85922	16555	2596321	3268193

TABLE 61: EMPLOYMENT SECTOR (PERCENTAGE) SUMMARIZED WITHIN SETTLEMENT TYPES.

	In the formal sector	In the informal sector	Private household	Do not know	Not applicable	Total
Informal Settlement	18.7	5.4	5.4	0.9	69.6	100
Protected Area	51.0	4.4	7.9	1.0	35.6	100
Rural Formal Farm Economy	25.7	10.0	8.4	1.1	54.8	100
Rural Formal Non Farm Economy	29.4	4.4	3.6	1.2	61.3	100
Rural Formal Non Farm Economy (Mine/Power Stations)	37.5	2.3	10.0	1.5	48.6	100
Traditional Rural Non Farm Economy	44.0	0.0	0.2	0.2	55.7	100
Traditional Rural Non Farm Economy (Mine)	26.8	1.6	4.1	0.0	67.5	100
Traditional Settlement / Village / Associated Rural Areas	7.1	2.6	1.6	0.3	88.4	100
Traditional Urban	14.3	3.0	1.7	0.3	80.6	100
Urban Formal	25.1	3.4	3.3	0.8	67.3	100
Urban Formal Industrial and Mines	28.4	4.1	3.6	1.0	62.9	100
Grand Total	14.1	3.3	2.6	0.5	79.4	100



TABLE 62: EMPLOYMENT SECTOR (PERCENTAGE) SUMMARIZED ACROSS SETTLEMENT TYPES.

	In the formal sector	In the informal sector	Private household	Do not know	Not applicable
Informal Settlement	4.9	6.0	7.5	6.4	3.2
Protected Area	0.5	0.2	0.4	0.3	0.1
Rural Formal Farm Economy	9.3	15.4	16.4	11.5	3.5
Rural Formal Non Farm Economy	2.1	1.4	1.4	2.5	0.8
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.0	0.2	0.2	0.0
Traditional Rural Non Farm Economy	0.1	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.1	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	29.3	44.7	36.2	30.9	64.8
Traditional Urban	4.2	3.8	2.7	2.7	4.2
Urban Formal	47.6	27.5	33.8	43.9	22.6
Urban Formal Industrial and Mines	1.8	1.1	1.3	1.7	0.7
Grand Total	100.0	100.0	100.0	100.0	100.0



Household Income annual

Annual household income across the different major units and sub-units of the Olifants basin is summarized in Table 63 to Table 65. The data are summarized for the different settlement types in Table 66 to Table 68. Data on household incomes were incorporated into the general poverty index. This is described in the spatial prioritization section.

TABLE 63: ANNUAL HOUSEHOLD INCOME SUMMARIZED BY NUMBERS OF HOUSEHOLDS PER INCOME BRACKET FOR MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R4800	R 4801 - R 9600	R 9601 - R 19 600	R 19 601 - R 38 200	R 38 201 - R76 400	R 76 401 - R153 800	R 153 801 - R307 600	R 307 601 - R 614 400	R 614 001 - R 1 228 800	R 1 228 801 - R 2 457 600	R 2 457 601 or more	Total
Lower Olifants	14723	6884	12768	23709	20691	9512	6882	4723	2254	450	151	143	102891
B60	1511	694	1213	3229	2718	1136	733	569	275	51	35	32	12197
B71 - Lower	1563	741	1387	2382	1644	426	265	172	46	12	7	7	8652
B72	9015	4143	8139	14852	13332	6625	5099	3499	1678	336	90	86	66893
B73	2634	1306	2029	3247	2998	1326	784	483	255	51	20	18	15150
Middle Olifants - Agriculture	30149	11503	20083	47296	46619	25251	13374	6986	2835	589	223	216	205123
B31	18999	7045	12045	28051	27459	14831	8357	4582	1851	395	149	142	123905
B32	11150	4458	8038	19246	19160	10419	5017	2404	984	194	74	74	81218
Middle Olifants - Sekhukhuneland	30800	14048	27369	53286	47359	19435	12029	7453	2893	514	225	186	215599
B51	13496	6353	12552	25436	21946	7013	4034	2681	936	169	94	75	94786
B52	12245	5429	10617	21395	19596	7799	5120	3635	1614	290	105	92	87937
B71 - Middle	5059	2266	4200	6456	5817	4623	2875	1137	344	56	25	20	32876
Middle Olifants - Steelpoort	12640	4541	8380	15800	16721	12480	8305	4839	2383	564	166	145	86964
B41	10514	4019	7566	13252	13352	9538	6019	3135	1326	233	96	90	69140
B42	2126	522	814	2548	3369	2942	2286	1704	1058	331	70	55	17824
Upper Olifants	33996	8124	13239	31482	43949	41751	31519	24159	14389	4625	1117	767	249116
B11	16208	3644	5911	13152	19889	20217	15853	12943	7842	2630	599	391	119279
B12	7582	1580	2514	6666	9397	9918	8441	6867	4366	1407	322	234	59294
B20	10206	2901	4813	11664	14663	11616	7225	4348	2181	588	196	142	70543
Grand Total	122308	45100	81839	171574	175339	108429	72109	48160	24755	6742	1883	1457	859693



TABLE 64: ANNUAL HOUSEHOLD INCOME SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS PER INCOME BRACKET FOR MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R4800	R 4801 - R 9600	R 9601 - R 19 600	R 19 601 - R 38 200	R 38 201 - R 76 400	R 76 401 - R 153 800	R 153 801 - R 307 600	R 307 601 - R 614 400	R 614 001 - R 1 228 800	R 1 228 801 - R 2 457 600	R 2 457 601 or more	Total
Lower Olifants	14.3	6.7	12.4	23.0	20.1	9.2	6.7	4.6	2.2	0.4	0.1	0.1	100
B60	12.4	5.7	9.9	26.5	22.3	9.3	6.0	4.7	2.3	0.4	0.3	0.3	100
B71 - Lower	18.1	8.6	16.0	27.5	19.0	4.9	3.1	2.0	0.5	0.1	0.1	0.1	100
B72	13.5	6.2	12.2	22.2	19.9	9.9	7.6	5.2	2.5	0.5	0.1	0.1	100
B73	17.4	8.6	13.4	21.4	19.8	8.7	5.2	3.2	1.7	0.3	0.1	0.1	100
Middle Olifants - Agriculture	14.7	5.6	9.8	23.1	22.7	12.3	6.5	3.4	1.4	0.3	0.1	0.1	100
B31	15.3	5.7	9.7	22.6	22.2	12.0	6.7	3.7	1.5	0.3	0.1	0.1	100
B32	13.7	5.5	9.9	23.7	23.6	12.8	6.2	3.0	1.2	0.2	0.1	0.1	100
Middle Olifants - Sekhukhuneland	14.3	6.5	12.7	24.7	22.0	9.0	5.6	3.5	1.3	0.2	0.1	0.1	100
B51	14.2	6.7	13.2	26.8	23.2	7.4	4.3	2.8	1.0	0.2	0.1	0.1	100
B52	13.9	6.2	12.1	24.3	22.3	8.9	5.8	4.1	1.8	0.3	0.1	0.1	100
B71 - Middle	15.4	6.9	12.8	19.6	17.7	14.1	8.7	3.5	1.0	0.2	0.1	0.1	100
Middle Olifants - Steelpoort	14.5	5.2	9.6	18.2	19.2	14.4	9.6	5.6	2.7	0.6	0.2	0.2	100
B41	15.2	5.8	10.9	19.2	19.3	13.8	8.7	4.5	1.9	0.3	0.1	0.1	100
B42	11.9	2.9	4.6	14.3	18.9	16.5	12.8	9.6	5.9	1.9	0.4	0.3	100
Upper Olifants	13.6	3.3	5.3	12.6	17.6	16.8	12.7	9.7	5.8	1.9	0.4	0.3	100
B11	13.6	3.1	5.0	11.0	16.7	16.9	13.3	10.9	6.6	2.2	0.5	0.3	100
B12	12.8	2.7	4.2	11.2	15.8	16.7	14.2	11.6	7.4	2.4	0.5	0.4	100
B20	14.5	4.1	6.8	16.5	20.8	16.5	10.2	6.2	3.1	0.8	0.3	0.2	100
Grand Total	14.2	5.2	9.5	20.0	20.4	12.6	8.4	5.6	2.9	0.8	0.2	0.2	100

TABLE 65: ANNUAL HOUSEHOLD INCOME SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS PER INCOME BRACKET ACROSS MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R4800	R 4801 - R 9600	R 9601 - R 19 600	R 19 601 - R 38 200	R 38 201 - R 76 400	R 76 401 - R 153 800	R 153 801 - R 307 600	R 307 601 - R 614 400	R 614 001 - R 1 228 800	R 1 228 801 - R 2 457 600	R 2 457 601 or more
Lower Olifants	12.0	15.3	15.6	13.8	11.8	8.8	9.5	9.8	9.1	6.7	8.0	9.8
B60	1.2	1.5	1.5	1.9	1.5	1.0	1.0	1.2	1.1	0.8	1.8	2.2
B71 - Lower	1.3	1.6	1.7	1.4	0.9	0.4	0.4	0.4	0.2	0.2	0.4	0.5
B72	7.4	9.2	9.9	8.7	7.6	6.1	7.1	7.3	6.8	5.0	4.8	5.9
B73	2.2	2.9	2.5	1.9	1.7	1.2	1.1	1.0	1.0	0.8	1.0	1.2
Middle Olifants - Agriculture	24.7	25.5	24.5	27.6	26.6	23.3	18.5	14.5	11.5	8.7	11.9	14.8
B31	15.5	15.6	14.7	16.3	15.7	13.7	11.6	9.5	7.5	5.9	7.9	9.7
B32	9.1	9.9	9.8	11.2	10.9	9.6	7.0	5.0	4.0	2.9	3.9	5.1
Middle Olifants - Sekhukhuneland	25.2	31.1	33.4	31.1	27.0	17.9	16.7	15.5	11.7	7.6	11.9	12.8
B51	11.0	14.1	15.3	14.8	12.5	6.5	5.6	5.6	3.8	2.5	5.0	5.1
B52	10.0	12.0	13.0	12.5	11.2	7.2	7.1	7.5	6.5	4.3	5.6	6.3
B71 - Middle	4.1	5.0	5.1	3.8	3.3	4.3	4.0	2.4	1.4	0.8	1.3	1.4
Middle Olifants - Steelpoort	10.3	10.1	10.2	9.2	9.5	11.5	11.5	10.0	9.6	8.4	8.8	9.9
B41	8.6	8.9	9.2	7.7	7.6	8.8	8.3	6.5	5.4	3.5	5.1	6.2
B42	1.7	1.2	1.0	1.5	1.9	2.7	3.2	3.5	4.3	4.9	3.7	3.8
Upper Olifants	27.8	18.0	16.2	18.3	25.1	38.5	43.7	50.2	58.1	68.6	59.3	52.6
B11	13.3	8.1	7.2	7.7	11.3	18.6	22.0	26.9	31.7	39.0	31.8	26.8
B12	6.2	3.5	3.1	3.9	5.4	9.1	11.7	14.3	17.6	20.9	17.1	16.0
B20	8.3	6.4	5.9	6.8	8.4	10.7	10.0	9.0	8.8	8.7	10.4	9.8
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



TABLE 66: ANNUAL HOUSEHOLD INCOME SUMMARIZED BY NUMBERS OF HOUSEHOLDS PER INCOME BRACKET FOR DIFFERENT SETTLEMENT TYPES.

	No income	R 1 - R4800	R 4801 - R 9600	R 9601 - R 19 600	R 19 601 - R 38 200	R 38 201 - R76 400	R 76 401 - R153 800	R 153 801 - R307 600	R 307 601 - R614 400	R 614 001 - R 1 228 800	R 1 228 801 - R 2 457 600	R 2 457 601 or more	Total
Informal Settlement	8335	2295	3575	7192	9514	6615	2836	876	235	38	25	12	41547
Protected Area	43	21	29	313	499	269	115	92	59	14	5	9	1468
Rural Formal Farm Economy	4517	1300	2676	14996	12573	6575	3254	2257	1401	438	178	125	50291
Rural Formal Non Farm Economy	1269	179	301	758	1342	1702	1490	1551	1050	302	56	51	10051
Rural Formal Non Farm Economy (Mine/Power Stations)	60	14	36	107	179	178	80	59	36	5	1	4	759
Traditional Rural Non Farm Economy	6	1	12	10	52	63	46	42	21	2	1	1	257
Traditional Rural Non Farm Economy (Mine)	24	9	30	35	53	89	94	95	37	10	4	0	480
Traditional Settlement / Village / Associated Rural Areas	70896	31150	58203	110440	103160	48295	25949	12439	4106	617	377	330	465962
Traditional Urban	5358	2169	3734	6940	6827	4399	3937	2539	939	117	34	46	37039
Urban Formal	30431	7581	12592	29422	38876	38314	33275	27727	16600	5120	1170	872	241981
Urban Formal Industrial and Mines	1370	380	652	1360	2264	1930	1032	481	271	80	32	7	9858
Grand Total	122308	45100	81839	171574	175339	108429	72109	48160	24755	6742	1883	1457	859693

TABLE 67: ANNUAL HOUSEHOLD INCOME SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS PER INCOME BRACKET FOR DIFFERENT SETTLEMENT TYPES.

	No income	R 1 - R4800	R 4801 - R 9600	R 9601 - R 19 600	R 19 601 - R 38 200	R 38 201 - R76 400	R 76 401 - R153 800	R 153 801 - R307 600	R 307 601 - R614 400	R 614 001 - R 1 228 800	R 1 228 801 - R 2 457 600	R 2 457 601 or more	Total
Informal Settlement	20.1	5.5	8.6	17.3	22.9	15.9	6.8	2.1	0.6	0.1	0.1	0.0	100
Protected Area	2.9	1.4	1.9	21.3	34.0	18.3	7.9	6.3	4.0	0.9	0.4	0.6	100
Rural Formal Farm Economy	9.0	2.6	5.3	29.8	25.0	13.1	6.5	4.5	2.8	0.9	0.4	0.2	100
Rural Formal Non Farm Economy	12.6	1.8	3.0	7.5	13.4	16.9	14.8	15.4	10.4	3.0	0.6	0.5	100
Rural Formal Non Farm Economy (Mine/Power Stations)	7.9	1.8	4.7	14.1	23.6	23.5	10.5	7.8	4.7	0.7	0.1	0.5	100
Traditional Rural Non Farm Economy	2.3	0.4	4.7	3.9	20.2	24.5	17.9	16.3	8.2	0.8	0.4	0.4	100
Traditional Rural Non Farm Economy (Mine)	5.0	1.9	6.2	7.3	11.0	18.5	19.6	19.8	7.7	2.1	0.8	0.0	100
Traditional Settlement / Village / Associated Rural Areas	15.2	6.7	12.5	23.7	22.1	10.4	5.6	2.7	0.9	0.1	0.1	0.1	100
Traditional Urban	14.5	5.9	10.1	18.7	18.4	11.9	10.6	6.9	2.5	0.3	0.1	0.1	100
Urban Formal	12.6	3.1	5.2	12.2	16.1	15.8	13.8	11.5	6.9	2.1	0.5	0.4	100
Urban Formal Industrial and Mines	13.9	3.9	6.6	13.8	23.0	19.6	10.5	4.9	2.7	0.8	0.3	0.1	100
Grand Total	14.2	5.2	9.5	20.0	20.4	12.6	8.4	5.6	2.9	0.8	0.2	0.2	100



TABLE 68: ANNUAL HOUSEHOLD INCOME SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS PER INCOME BRACKET FOR DIFFERENT SETTLEMENT TYPES.

	No income	R 1 - R4800	R 4801 - R 9600	R 9601 - R 19 600	R 19 601 - R 38 200	R 38 201 - R76 400	R 76 401 - R153 800	R 153 801 - R307 600	R 307 601 - R614 400	R 614 001 - R 1 228 800	R 1 228 801 - R 2 457 600	R 2 457 601 or more
Informal Settlement	6.8	5.1	4.4	4.2	5.4	6.1	3.9	1.8	0.9	0.6	1.3	0.8
Protected Area	0.0	0.0	0.0	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.6
Rural Formal Farm Economy	3.7	2.9	3.3	8.7	7.2	6.1	4.5	4.7	5.7	6.5	9.5	8.6
Rural Formal Non Farm Economy	1.0	0.4	0.4	0.4	0.8	1.6	2.1	3.2	4.2	4.5	3.0	3.5
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.3
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Traditional Rural Non Farm Economy (Mine)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.0
Traditional Settlement / Village / Associated Rural Areas	58.0	69.1	71.1	64.4	58.8	44.5	36.0	25.8	16.6	9.2	20.0	22.6
Traditional Urban	4.4	4.8	4.6	4.0	3.9	4.1	5.5	5.3	3.8	1.7	1.8	3.2
Urban Formal	24.9	16.8	15.4	17.1	22.2	35.3	46.1	57.6	67.1	75.9	62.1	59.9
Urban Formal Industrial and Mines	1.1	0.8	0.8	0.8	1.3	1.8	1.4	1.0	1.1	1.2	1.7	0.5
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Individual Income - monthly

Individual monthly income across the different major units and sub-units of the Olifants basin is summarized in Table 69 to Table 71. The data are summarized for the different settlement types in Table 72 to Table 74.

TABLE 69: MONTHLY INDIVIDUAL INCOME SUMMARIZED BY NUMBERS OF PEOPLE PER INCOME BRACKET FOR MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R 400	R 401 - R 800	R 801 - R 1 600	R 1 601 - R 3 200	R 3 201 - R 6 400	R 6 401 - R 12 800	R 12 801 - R 25 600	R 25 601 - R 51 200	R 51 201 - R 102 400	R 102 401 - R 204 800	R 204 801 or more	Unspecified	Not applicable	Total
Lower Olifants	166540	99018	12456	46721	13893	9206	8847	5745	1436	265	165	146	11132	4687	380257
B60	15504	9194	1454	6848	1918	1127	998	686	183	41	51	23	1533	889	40449
B71 - Lower	15878	9313	834	4538	520	280	309	177	35	8	8	8	1078	108	33093
B72	106735	65089	8398	29055	9031	6456	6532	4318	1041	184	84	99	7299	2935	247256
B73	28422	15423	1770	6280	2424	1343	1008	564	178	33	22	16	1223	755	59459
Middle Olifants - Agriculture	355090	218143	23297	114731	38025	20253	13581	7304	1651	340	263	213	28643	7001	828535
B31	213580	124531	13888	65143	22557	12508	8871	4792	1044	219	170	147	17847	5411	490708
B32	141510	93612	9409	49589	15468	7745	4710	2513	608	120	92	66	10796	1590	337827
Middle Olifants - Sekhukhuneland	391858	244828	24122	114696	18474	15600	14013	8732	1483	200	265	180	31178	4993	870622
B51	164609	113196	11242	54438	7316	4484	4545	2933	519	69	110	71	11798	1916	377248
B52	160143	97986	9494	46756	8091	6094	6760	4744	759	109	128	84	13448	2282	356878
B71 - Middle	67106	33646	3386	13501	3067	5023	2708	1055	205	22	27	24	5933	795	136497
Middle Olifants - Steelpoort	145566	71166	8598	35813	15221	13676	9912	5522	2049	362	196	142	21894	3631	333746
B41	127415	64506	7223	29787	10332	10044	6790	3303	942	133	112	83	15438	2067	278174
B42	18151	6661	1375	6026	4889	3632	3122	2219	1107	229	83	59	6455	1564	55572
Upper Olifants	340017	104178	24015	78213	64606	55890	45482	34210	13165	3186	1185	823	76632	13212	854815
B11	158374	45367	11002	32612	30363	27910	23185	18822	7423	1799	558	432	30357	5231	393437
B12	77649	19305	4912	17509	15846	15308	13431	10232	4137	1013	379	260	27295	3871	211148
B20	103993	39506	8101	28092	18397	12673	8865	5156	1606	374	248	130	18980	4111	250230
Grand Total	1399071	737333	92489	390174	150219	114626	91835	61512	19785	4353	2073	1503	169480	33523	3267976



TABLE 70: MONTHLY INDIVIDUAL INCOME SUMMARIZED BY PERCENTAGE OF PEOPLE PER INCOME BRACKET WITHIN MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R 400	R 401 - R 800	R 801 - R 1 600	R 1 601 - R 3 200	R 3 201 - R 6 400	R 6 401 - R 12 800	R 12 801 - R 25 600	R 25 601 - R 51 200	R 51 201 - R 102 400	R 102 401 - R 204 800	R 204 801 or more	Unspecified	Not applicable	Total
Lower Olifants	43.8	26.0	3.3	12.3	3.7	2.4	2.3	1.5	0.4	0.1	0.0	0.0	2.9	1.2	100
B60	38.3	22.7	3.6	16.9	4.7	2.8	2.5	1.7	0.5	0.1	0.1	0.1	3.8	2.2	100
B71 - Lower	48.0	28.1	2.5	13.7	1.6	0.8	0.9	0.5	0.1	0.0	0.0	0.0	3.3	0.3	100
B72	43.2	26.3	3.4	11.8	3.7	2.6	2.6	1.7	0.4	0.1	0.0	0.0	3.0	1.2	100
B73	47.8	25.9	3.0	10.6	4.1	2.3	1.7	0.9	0.3	0.1	0.0	0.0	2.1	1.3	100
Middle Olifants - Agriculture	42.9	26.3	2.8	13.8	4.6	2.4	1.6	0.9	0.2	0.0	0.0	0.0	3.5	0.8	100
B31	43.5	25.4	2.8	13.3	4.6	2.5	1.8	1.0	0.2	0.0	0.0	0.0	3.6	1.1	100
B32	41.9	27.7	2.8	14.7	4.6	2.3	1.4	0.7	0.2	0.0	0.0	0.0	3.2	0.5	100
Middle Olifants - Sekhukhuneland	45.0	28.1	2.8	13.2	2.1	1.8	1.6	1.0	0.2	0.0	0.0	0.0	3.6	0.6	100
B51	43.6	30.0	3.0	14.4	1.9	1.2	1.2	0.8	0.1	0.0	0.0	0.0	3.1	0.5	100
B52	44.9	27.5	2.7	13.1	2.3	1.7	1.9	1.3	0.2	0.0	0.0	0.0	3.8	0.6	100
B71 - Middle	49.2	24.6	2.5	9.9	2.2	3.7	2.0	0.8	0.1	0.0	0.0	0.0	4.3	0.6	100
Middle Olifants - Steelpoort	43.6	21.3	2.6	10.7	4.6	4.1	3.0	1.7	0.6	0.1	0.1	0.0	6.6	1.1	100
B41	45.8	23.2	2.6	10.7	3.7	3.6	2.4	1.2	0.3	0.0	0.0	0.0	5.5	0.7	100
B42	32.7	12.0	2.5	10.8	8.8	6.5	5.6	4.0	2.0	0.4	0.1	0.1	11.6	2.8	100
Upper Olifants	39.8	12.2	2.8	9.1	7.6	6.5	5.3	4.0	1.5	0.4	0.1	0.1	9.0	1.5	100
B11	40.3	11.5	2.8	8.3	7.7	7.1	5.9	4.8	1.9	0.5	0.1	0.1	7.7	1.3	100
B12	36.8	9.1	2.3	8.3	7.5	7.2	6.4	4.8	2.0	0.5	0.2	0.1	12.9	1.8	100
B20	41.6	15.8	3.2	11.2	7.4	5.1	3.5	2.1	0.6	0.1	0.1	0.1	7.6	1.6	100
Grand Total	42.8	22.6	2.8	11.9	4.6	3.5	2.8	1.9	0.6	0.1	0.1	0.0	5.2	1.0	100

TABLE 71: MONTHLY INDIVIDUAL INCOME SUMMARIZED BY PERCENTAGE OF PEOPLE PER INCOME BRACKET ACROSS MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R 400	R 401 - R 800	R 801 - R 1 600	R 1 601 - R 3 200	R 3 201 - R 6 400	R 6 401 - R 12 800	R 12 801 - R 25 600	R 25 601 - R 51 200	R 51 201 - R 102 400	R 102 401 - R 204 800	R 204 801 or more	Unspecified	Not applicable	Total
Lower Olifants	11.9	13.4	13.5	12.0	9.2	8.0	9.6	9.3	7.3	6.1	8.0	9.7	6.6	14.0	
B60	1.1	1.2	1.6	1.8	1.3	1.0	1.1	1.1	0.9	0.9	2.5	1.5	0.9	2.7	
B71 - Lower	1.1	1.3	0.9	1.2	0.3	0.2	0.3	0.3	0.2	0.2	0.4	0.5	0.6	0.3	
B72	7.6	8.8	9.1	7.4	6.0	5.6	7.1	7.0	5.3	4.2	4.1	6.6	4.3	8.8	
B73	2.0	2.1	1.9	1.6	1.6	1.2	1.1	0.9	0.9	0.8	1.0	1.1	0.7	2.3	
Middle Olifants - Agriculture	25.4	29.6	25.2	29.4	25.3	17.7	14.8	11.9	8.3	7.8	12.7	14.1	16.9	20.9	
B31	15.3	16.9	15.0	16.7	15.0	10.9	9.7	7.8	5.3	5.0	8.2	9.8	10.5	16.1	
B32	10.1	12.7	10.2	12.7	10.3	6.8	5.1	4.1	3.1	2.8	4.5	4.4	6.4	4.7	
Middle Olifants - Sekhukhuneland	28.0	33.2	26.1	29.4	12.3	13.6	15.3	14.2	7.5	4.6	12.8	12.0	18.4	14.9	
B51	11.8	15.4	12.2	14.0	4.9	3.9	4.9	4.8	2.6	1.6	5.3	4.7	7.0	5.7	
B52	11.4	13.3	10.3	12.0	5.4	5.3	7.4	7.7	3.8	2.5	6.2	5.6	7.9	6.8	
B71 - Middle	4.8	4.6	3.7	3.5	2.0	4.4	2.9	1.7	1.0	0.5	1.3	1.6	3.5	2.4	
Middle Olifants - Steelpoort	10.4	9.7	9.3	9.2	10.1	11.9	10.8	9.0	10.4	8.3	9.4	9.5	12.9	10.8	
B41	9.1	8.7	7.8	7.6	6.9	8.8	7.4	5.4	4.8	3.1	5.4	5.5	9.1	6.2	
B42	1.3	0.9	1.5	1.5	3.3	3.2	3.4	3.6	5.6	5.3	4.0	3.9	3.8	4.7	
Upper Olifants	24.3	14.1	26.0	20.0	43.0	48.8	49.5	55.6	66.5	73.2	57.2	54.8	45.2	39.4	
B11	11.3	6.2	11.9	8.4	20.2	24.3	25.2	30.6	37.5	41.3	26.9	28.8	17.9	15.6	
B12	5.6	2.6	5.3	4.5	10.5	13.4	14.6	16.6	20.9	23.3	18.3	17.3	16.1	11.5	
B20	7.4	5.4	8.8	7.2	12.2	11.1	9.7	8.4	8.1	8.6	12.0	8.7	11.2	12.3	
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	



TABLE 72: MONTHLY INDIVIDUAL INCOME SUMMARIZED BY NUMBERS OF PEOPLE PER INCOME BRACKET FOR DIFFERENT SETTLEMENT TYPES.

	No income	R 1 - R 400	R 401 - R 800	R 801 - R1 600	R 1 601 - R3 200	R 3 201 - R6 400	R 6 401 - R 12 800	R 12 801 - R 25 600	R 25 601 - R 51 200	R 51 201 - R 102 400	R 102 401 - R 204 800	R 204 801 or more	Unspecified	Not applicable	Total
Informal Settlement	50890	20972	4954	13249	11150	5749	2332	607	171	24	35	11	9671	186	120002
Protected Area	316	111	88	721	1069	413	225	126	43	11	9	7	123	1018	4280
Rural Formal Farm Economy	49371	18268	6983	40274	15584	7608	5053	3226	1363	352	220	135	14674	3565	166675
Rural Formal Non Farm Economy	12500	1637	584	2010	2261	2687	2407	2258	835	185	45	53	2821	3142	33425
Rural Formal Non Farm Economy (Mine/Power Stations)	596	202	39	228	205	227	120	80	20	2	6	1	41	14	1781
Traditional Rural Non Farm Economy	83	2	11	16	69	66	42	38	17	2	1	1	5	239	592
Traditional Rural Non Farm Economy (Mine)	405	138	23	82	44	113	101	113	17	8	4	0	106	323	1477
Traditional Settlement / Village / Associated Rural Areas	861837	548631	52225	240639	53530	37583	25394	12181	2186	286	413	322	61775	5196	1902198
Traditional Urban	63428	31068	4612	14552	5492	4243	4803	2799	347	36	38	49	3905	1079	136451
Urban Formal	348751	110874	21861	75419	57938	53849	50270	39497	14486	3374	1278	913	74219	18495	871225
Urban Formal Industrial and Mines	10893	5429	1110	2984	2876	2087	1088	588	299	73	25	10	2140	266	29870
Grand Total	1399071	737333	92489	390174	150219	114626	91835	61512	19785	4353	2073	1503	169480	33523	3267976

TABLE 73: MONTHLY INDIVIDUAL INCOME SUMMARIZED BY PERCENTAGE OF PEOPLE PER INCOME BRACKET WITHIN MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R 400	R 401 - R 800	R 801 - R1 600	R 1 601 - R3 200	R 3 201 - R6 400	R 6 401 - R 12 800	R 12 801 - R 25 600	R 25 601 - R 51 200	R 51 201 - R 102 400	R 102 401 - R 204 800	R 204 801 or more	Unspecified	Not applicable	Total
Informal Settlement	42.4	17.5	4.1	11.0	9.3	4.8	1.9	0.5	0.1	0.0	0.0	0.0	8.1	0.2	100
Protected Area	7.4	2.6	2.0	16.8	25.0	9.7	5.3	2.9	1.0	0.3	0.2	0.2	2.9	23.8	100
Rural Formal Farm Economy	29.6	11.0	4.2	24.2	9.4	4.6	3.0	1.9	0.8	0.2	0.1	0.1	8.8	2.1	100
Rural Formal Non Farm Economy	37.4	4.9	1.7	6.0	6.8	8.0	7.2	6.8	2.5	0.6	0.1	0.2	8.4	9.4	100
Rural Formal Non Farm Economy (Mine/Power Stations)	33.5	11.3	2.2	12.8	11.5	12.7	6.7	4.5	1.1	0.1	0.3	0.1	2.3	0.8	100
Traditional Rural Non Farm Economy	14.0	0.3	1.9	2.7	11.7	11.1	7.1	6.4	2.9	0.3	0.2	0.2	0.8	40.4	100
Traditional Rural Non Farm Economy (Mine)	27.4	9.3	1.6	5.6	3.0	7.7	6.8	7.7	1.2	0.5	0.3	0.0	7.2	21.9	100
Traditional Settlement / Village / Associated Rural Areas	45.3	28.8	2.7	12.7	2.8	2.0	1.3	0.6	0.1	0.0	0.0	0.0	3.2	0.3	100
Traditional Urban	46.5	22.8	3.4	10.7	4.0	3.1	3.5	2.1	0.3	0.0	0.0	0.0	2.9	0.8	100
Urban Formal	40.0	12.7	2.5	8.7	6.7	6.2	5.8	4.5	1.7	0.4	0.1	0.1	8.5	2.1	100
Urban Formal Industrial and Mines	36.5	18.2	3.7	10.0	9.6	7.0	3.6	2.0	1.0	0.2	0.1	0.0	7.2	0.9	100
Grand Total	42.8	22.6	2.8	11.9	4.6	3.5	2.8	1.9	0.6	0.1	0.1	0.0	5.2	1.0	100



TABLE 74: MONTHLY INDIVIDUAL INCOME SUMMARIZED BY PERCENTAGE OF PEOPLE PER INCOME BRACKET ACROSS MAJOR UNITS AND SUB-UNITS.

	No income	R 1 - R 400	R 401 - R 800	R 801 - R1 600	R 1 601 - R3 200	R 3 201 - R6 400	R 6 401 - R 12 800	R 12 801 - R 25 600	R 25 601 - R 51 200	R 51 201 - R 102 400	R 102 401 - R 204 800	R 204 801 or more	Unspecified	Not applicable
Informal Settlement	3.6	2.8	5.4	3.4	7.4	5.0	2.5	1.0	0.9	0.5	1.7	0.7	5.7	0.6
Protected Area	0.0	0.0	0.1	0.2	0.7	0.4	0.2	0.2	0.2	0.3	0.4	0.5	0.1	3.0
Rural Formal Farm Economy	3.5	2.5	7.5	10.3	10.4	6.6	5.5	5.2	6.9	8.1	10.6	9.0	8.7	10.6
Rural Formal Non Farm Economy	0.9	0.2	0.6	0.5	1.5	2.3	2.6	3.7	4.2	4.3	2.2	3.5	1.7	9.4
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.3	0.1	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.7
Traditional Rural Non Farm Economy (Mine)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.2	0.0	0.1	1.0
Traditional Settlement / Village / Associated Rural Areas	61.6	74.4	56.5	61.7	35.6	32.8	27.7	19.8	11.1	6.6	19.9	21.4	36.4	15.5
Traditional Urban	4.5	4.2	5.0	3.7	3.7	3.7	5.2	4.6	1.8	0.8	1.8	3.3	2.3	3.2
Urban Formal	24.9	15.0	23.6	19.3	38.6	47.0	54.7	64.2	73.2	77.5	61.6	60.8	43.8	55.2
Urban Formal Industrial and Mines	0.8	0.7	1.2	0.8	1.9	1.8	1.2	1.0	1.5	1.7	1.2	0.7	1.3	0.8
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Household Consumption

The ownership of goods by households is a proxy for household poverty and supplements reported income as a measure of poverty. Ownership of goods by households across the different major units and sub-units of the Olifants basin is summarized in Table 75 to Table 77. The data are summarized for the different settlement types in Table 78 to Table 80. The data were used to develop indices of ownership of goods which contributed to the general poverty index. Two indices were developed, one of selected goods (car, cell phone, radio, DVD and fridges) and one of all goods. The development of these indices is described in the spatial analysis section.

TABLE 75: OWNERSHIP OF GOODS AND SERVICES SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR MAJOR UNITS AND SUB-UNITS.

	Car		Cell phone		Computer		DVD player		Refrigerator		Radio		Satellite television		Electric/gas stove		Television		Vacuum cleaner		Washing machine	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Lower Olifants	82586	20327	10767	92140	90740	12176	44217	58700	32105	70815	40934	61974	84551	18363	36429	66485	30651	72261	96831	6071	89682	13233
B60	9441	2766	1543	10663	10685	1518	5745	6460	4415	7791	4442	7763	9405	2799	4196	8011	4257	7945	11209	993	9625	2583
B71 - Lower	7624	1030	1175	7479	8248	407	4297	4358	3505	5152	4128	4522	7619	1036	5118	3534	3395	5260	8489	164	8289	366
B72	53094	13809	6577	60319	58236	8670	28282	38626	20138	46769	26167	40737	54288	12615	22716	44189	19471	47431	62691	4209	57872	9029
B73	12427	2722	1472	13680	13571	1580	5894	9256	4048	11103	6197	8952	13238	1912	4399	10752	3526	11624	14443	705	13897	1254
Middle Olifants - Agriculture	158433	46745	21664	183504	178403	26765	87736	117438	50836	154343	59761	145411	176693	28485	44627	160558	48283	156880	190270	14913	151318	53863
B31	94828	29109	13017	110918	107009	16925	52567	71370	29819	94128	36884	87053	107519	16418	26254	97687	28078	95850	114162	9778	91557	32385
B32	63605	17636	8647	72587	71393	9840	35169	46068	21017	60214	22877	58358	69174	12067	18373	62871	20206	61030	76107	5135	59760	21478
Middle Olifants - Sekhukhuneland	177935	37818	31077	184667	198218	17504	96323	119411	66486	149273	82924	132811	166948	48792	75163	140571	64311	151414	208275	7458	187146	28585
B51	78459	16384	13982	80868	87852	6984	43010	51837	28719	66129	38101	56745	82942	11900	32385	62462	26126	68715	91609	3244	80961	13881
B52	72212	15795	12721	75272	79462	8533	37569	50421	24703	63306	31476	56506	64999	23001	28701	59290	24262	63730	84377	3610	75877	12118
B71 - Middle	27263	5640	4374	28528	30905	1986	15744	17153	13064	19839	13347	19559	19007	13890	14077	18819	13923	18969	32289	605	30308	2586
Middle Olifants - Steelpoort	66567	20416	8813	78170	75737	11240	38051	48937	30831	56154	35723	51267	51466	35513	28827	58154	30593	56392	80727	6259	68968	18018
B41	54367	14785	7362	61791	61837	7311	30788	38367	23851	45301	28776	40383	41068	28082	24525	44628	24607	44549	65816	3339	57147	12008
B42	12200	5631	1452	16379	13899	3929	7263	10570	6980	10853	6947	10884	10398	7431	4302	13525	5986	11843	14911	2920	11821	6010
Upper Olifants	161000	88145	17255	231886	193314	55827	98788	150358	81871	167278	76771	172374	178267	70862	63288	185851	63341	185798	200518	48620	145549	103598
B11	76083	43209	7794	111494	91067	28219	50497	68794	42440	76850	35655	83634	82655	36621	35562	83724	34807	84481	94144	25144	71241	48052
B12	34464	24837	3429	55871	43082	16221	18775	40529	13581	45719	13456	45841	41524	17774	8546	50757	9341	49958	44682	14619	29149	30150
B20	50453	20100	6032	64521	59165	11387	29516	41035	25850	44709	27659	42899	54088	16467	19181	51369	19193	51358	61692	8857	45159	25397
Grand Total	646520	213451	89575	770367	736413	123511	365115	494843	262130	597863	296112	563837	657925	202014	248335	611618	237179	622745	776621	83321	642663	217297



TABLE 76: OWNERSHIP OF GOODS AND SERVICES SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	Car		Cell phone		Computer		DVD player		Refrigerator		Radio		Satellite television		Electric/gas stove		Television		Vacuum cleaner		Washing machine	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Lower Olifants	80.2	19.8	10.5	89.5	88.2	11.8	43.0	57.0	31.2	68.8	39.8	60.2	82.2	17.8	35.4	64.6	29.8	70.2	94.1	5.9	87.1	12.9
B60	77.3	22.7	12.6	87.4	87.6	12.4	47.1	52.9	36.2	63.8	36.4	63.6	77.1	22.9	34.4	65.6	34.9	65.1	91.9	8.1	78.8	21.2
B71 - Lower	88.1	11.9	13.6	86.4	95.3	4.7	49.6	50.4	40.5	59.5	47.7	52.3	88.0	12.0	59.2	40.8	39.2	60.8	98.1	1.9	95.8	4.2
B72	79.4	20.6	9.8	90.2	87.0	13.0	42.3	57.7	30.1	69.9	39.1	60.9	81.1	18.9	34.0	66.0	29.1	70.9	93.7	6.3	86.5	13.5
B73	82.0	18.0	9.7	90.3	89.6	10.4	38.9	61.1	26.7	73.3	40.9	59.1	87.4	12.6	29.0	71.0	23.3	76.7	95.3	4.7	91.7	8.3
Middle Olifants - Agriculture	77.2	22.8	10.6	89.4	87.0	13.0	42.8	57.2	24.8	75.2	29.1	70.9	86.1	13.9	21.7	78.3	23.5	76.5	92.7	7.3	73.7	26.3
B31	76.5	23.5	10.5	89.5	86.3	13.7	42.4	57.6	24.1	75.9	29.8	70.2	86.8	13.2	21.2	78.8	22.7	77.3	92.1	7.9	73.9	26.1
B32	78.3	21.7	10.6	89.4	87.9	12.1	43.3	56.7	25.9	74.1	28.2	71.8	85.1	14.9	22.6	77.4	24.9	75.1	93.7	6.3	73.6	26.4
Middle Olifants - Sekhukhuneland	82.5	17.5	14.4	85.6	91.9	8.1	44.6	55.4	30.8	69.2	38.4	61.6	77.4	22.6	34.8	65.2	29.8	70.2	96.5	3.5	86.7	13.3
B51	82.7	17.3	14.7	85.3	92.6	7.4	45.3	54.7	30.3	69.7	40.2	59.8	87.5	12.5	34.1	65.9	27.5	72.5	96.6	3.4	85.4	14.6
B52	82.1	17.9	14.5	85.5	90.3	9.7	42.7	57.3	28.1	71.9	35.8	64.2	73.9	26.1	32.6	67.4	27.6	72.4	95.9	4.1	86.2	13.8
B71 - Middle	82.9	17.1	13.3	86.7	94.0	6.0	47.9	52.1	39.7	60.3	40.6	59.4	57.8	42.2	42.8	57.2	42.3	57.7	98.2	1.8	92.1	7.9
Middle Olifants - Steelpoort	76.5	23.5	10.1	89.9	87.1	12.9	43.7	56.3	35.4	64.6	41.1	58.9	59.2	40.8	33.1	66.9	35.2	64.8	92.8	7.2	79.3	20.7
B41	78.6	21.4	10.6	89.4	89.4	10.6	44.5	55.5	34.5	65.5	41.6	58.4	59.4	40.6	35.5	64.5	35.6	64.4	95.2	4.8	82.6	17.4
B42	68.4	31.6	8.1	91.9	78.0	22.0	40.7	59.3	39.1	60.9	39.0	61.0	58.3	41.7	24.1	75.9	33.6	66.4	83.6	16.4	66.3	33.7
Upper Olifants	64.6	35.4	6.9	93.1	77.6	22.4	39.7	60.3	32.9	67.1	30.8	69.2	71.6	28.4	25.4	74.6	25.4	74.6	80.5	19.5	58.4	41.6
B11	63.8	36.2	6.5	93.5	76.3	23.7	42.3	57.7	35.6	64.4	29.9	70.1	69.3	30.7	29.8	70.2	29.2	70.8	78.9	21.1	59.7	40.3
B12	58.1	41.9	5.8	94.2	72.6	27.4	31.7	68.3	22.9	77.1	22.7	77.3	70.0	30.0	14.4	85.6	15.8	84.2	75.3	24.7	49.2	50.8
B20	71.5	28.5	8.5	91.5	83.9	16.1	41.8	58.2	36.6	63.4	39.2	60.8	76.7	23.3	27.2	72.8	27.2	72.8	87.4	12.6	64.0	36.0
Grand Total	75.2	24.8	10.4	89.6	85.6	14.4	42.5	57.5	30.5	69.5	34.4	65.6	76.5	23.5	28.9	71.1	27.6	72.4	90.3	9.7	74.7	25.3



TABLE 77: OWNERSHIP OF GOODS AND SERVICES SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Car		Cell phone		Computer		DVD player		Refrigerator		Radio		Satellite television		Electric/gas stove		Television		Vacuum cleaner		Washing machine	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Lower Olifants	12.8	9.5	12.0	12.0	12.3	9.9	12.1	11.9	12.2	11.8	13.8	11.0	12.9	9.1	14.7	10.9	12.9	11.6	12.5	7.3	14.0	6.1
B60	1.5	1.3	1.7	1.4	1.5	1.2	1.6	1.3	1.7	1.3	1.5	1.4	1.4	1.4	1.7	1.3	1.8	1.3	1.4	1.2	1.5	1.2
B71 - Lower	1.2	0.5	1.3	1.0	1.1	0.3	1.2	0.9	1.3	0.9	1.4	0.8	1.2	0.5	2.1	0.6	1.4	0.8	1.1	0.2	1.3	0.2
B72	8.2	6.5	7.3	7.8	7.9	7.0	7.7	7.8	7.7	7.8	8.8	7.2	8.3	6.2	9.1	7.2	8.2	7.6	8.1	5.1	9.0	4.2
B73	1.9	1.3	1.6	1.8	1.8	1.3	1.6	1.9	1.5	1.9	2.1	1.6	2.0	0.9	1.8	1.8	1.5	1.9	1.9	0.8	2.2	0.6
Middle Olifants - Agriculture	24.5	21.9	24.2	23.8	24.2	21.7	24.0	23.7	19.4	25.8	20.2	25.8	26.9	14.1	18.0	26.3	20.4	25.2	24.5	17.9	23.5	24.8
B31	14.7	13.6	14.5	14.4	14.5	13.7	14.4	14.4	11.4	15.7	12.5	15.4	16.3	8.1	10.6	16.0	11.8	15.4	14.7	11.7	14.2	14.9
B32	9.8	8.3	9.7	9.4	9.7	8.0	9.6	9.3	8.0	10.1	7.7	10.4	10.5	6.0	7.4	10.3	8.5	9.8	9.8	6.2	9.3	9.9
Middle Olifants - Sekhukhuneland	27.5	17.7	34.7	24.0	26.9	14.2	26.4	24.1	25.4	25.0	28.0	23.6	25.4	24.2	30.3	23.0	27.1	24.3	26.8	9.0	29.1	13.2
B51	12.1	7.7	15.6	10.5	11.9	5.7	11.8	10.5	11.0	11.1	12.9	10.1	12.6	5.9	13.0	10.2	11.0	11.0	11.8	3.9	12.6	6.4
B52	11.2	7.4	14.2	9.8	10.8	6.9	10.3	10.2	9.4	10.6	10.6	10.0	9.9	11.4	11.6	9.7	10.2	10.2	10.9	4.3	11.8	5.6
B71 - Middle	4.2	2.6	4.9	3.7	4.2	1.6	4.3	3.5	5.0	3.3	4.5	3.5	2.9	6.9	5.7	3.1	5.9	3.0	4.2	0.7	4.7	1.2
Middle Olifants - Steelpoort	10.3	9.6	9.8	10.1	10.3	9.1	10.4	9.9	11.8	9.4	12.1	9.1	7.8	17.6	11.6	9.5	12.9	9.1	10.4	7.5	10.7	8.3
B41	8.4	6.9	8.2	8.0	8.4	5.9	8.4	7.8	9.1	7.6	9.7	7.2	6.2	13.9	9.9	7.3	10.4	7.2	8.5	4.0	8.9	5.5
B42	1.9	2.6	1.6	2.1	1.9	3.2	2.0	2.1	2.7	1.8	2.3	1.9	1.6	3.7	1.7	2.2	2.5	1.9	1.9	3.5	1.8	2.8
Upper Olifants	24.9	41.3	19.3	30.1	26.3	45.2	27.1	30.4	31.2	28.0	25.9	30.6	27.1	35.1	25.5	30.4	26.7	29.8	25.8	58.4	22.6	47.7
B11	11.8	20.2	8.7	14.5	12.4	22.8	13.8	13.9	16.2	12.9	12.0	14.8	12.6	18.1	14.3	13.7	14.7	13.6	12.1	30.2	11.1	22.1
B12	5.3	11.6	3.8	7.3	5.9	13.1	5.1	8.2	5.2	7.6	4.5	8.1	6.3	8.8	3.4	8.3	3.9	8.0	5.8	17.5	4.5	13.9
B20	7.8	9.4	6.7	8.4	8.0	9.2	8.1	8.3	9.9	7.5	9.3	7.6	8.2	8.2	7.7	8.4	8.1	8.2	7.9	10.6	7.0	11.7
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



TABLE 78: OWNERSHIP OF GOODS SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	Car		Cell phone		Computer		DVD player		Refrigerator		Radio		Satellite television		Electric/gas stove		Television		Vacuum cleaner		Washing machine	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Informal Settlement	36100	5452	4709	36843	39534	2017	27716	13838	28745	12811	17996	23555	38927	2626	26205	15350	23187	18365	40539	1009	36269	5284
Protected Area	1093	375	70	1398	1198	270	947	521	691	777	674	794	1238	230	328	1140	724	744	1312	156	1248	220
Rural Formal Farm Economy	38754	11548	6456	43843	44044	6255	32261	18039	31650	18645	22434	27869	43520	6779	23465	26836	26694	23605	43888	6409	40820	9479
Rural Formal Non Farm Economy	4812	5234	683	9364	6646	3402	4087	5963	3287	6761	2912	7138	6098	3950	2526	7522	2884	7166	7191	2857	5509	4538
Rural Formal Non Farm Economy (Mine/Power Stations)	506	252	48	710	608	150	360	398	273	485	255	503	589	169	111	647	253	504	639	120	551	207
Traditional Rural Non Farm Economy	160	97	8	249	202	55	142	115	98	159	95	162	188	69	24	233	117	140	238	19	227	30
Traditional Rural Non Farm Economy (Mine)	243	236	26	452	337	142	221	258	135	344	152	328	289	191	81	399	145	334	370	110	339	141
Traditional Settlement / Village / Associated Rural Areas	385082	81094	60218	405935	426854	39280	204486	261667	133923	332266	171310	294842	376269	89885	152308	313853	131399	334736	450336	15807	397127	69026
Traditional Urban	26916	10136	2579	34473	31101	5953	13156	23902	7022	30032	10382	26669	27382	9671	5145	31907	7048	30007	34506	2549	27064	9993
Urban Formal	145375	96648	14182	227840	177349	64668	77225	164799	52321	189710	66205	175815	155178	86833	35358	206659	41556	200458	188744	53285	126249	115778
Urban Formal Industrial and Mines	7480	2379	598	9261	8540	1319	4516	5343	3985	5873	3696	6163	8246	1612	2783	7073	3172	6686	8858	1000	7259	2600
Grand Total	646520	213451	89575	770367	736413	123511	365115	494843	262130	597863	296112	563837	657925	202014	248335	611618	237179	622745	776621	83321	642663	217297

TABLE 79: OWNERSHIP OF GOODS SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	Car		Cell phone		Computer		DVD player		Refrigerator		Radio		Satellite television		Electric/gas stove		Television		Vacuum cleaner		Washing machine	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Informal Settlement	86.9	13.1	11.3	88.7	95.1	4.9	66.7	33.3	69.2	30.8	43.3	56.7	93.7	6.3	63.1	36.9	55.8	44.2	97.6	2.4	87.3	12.7
Protected Area	74.5	25.5	4.7	95.3	81.6	18.4	64.5	35.5	47.0	53.0	45.9	54.1	84.4	15.6	22.3	77.7	49.3	50.7	89.3	10.7	85.0	15.0
Rural Formal Farm Economy	77.0	23.0	12.8	87.2	87.6	12.4	64.1	35.9	62.9	37.1	44.6	55.4	86.5	13.5	46.6	53.4	53.1	46.9	87.3	12.7	81.2	18.8
Rural Formal Non Farm Economy	47.9	52.1	6.8	93.2	66.1	33.9	40.7	59.3	32.7	67.3	29.0	71.0	60.7	39.3	25.1	74.9	28.7	71.3	71.6	28.4	54.8	45.2
Rural Formal Non Farm Economy (Mine/Power Stations)	66.8	33.2	6.3	93.7	80.2	19.8	47.5	52.5	36.0	64.0	33.6	66.4	77.7	22.3	14.6	85.4	33.4	66.6	84.2	15.8	72.7	27.3
Traditional Rural Non Farm Economy	62.3	37.7	3.1	96.9	78.6	21.4	55.3	44.7	38.1	61.9	37.0	63.0	73.2	26.8	9.3	90.7	45.5	54.5	92.6	7.4	88.3	11.7
Traditional Rural Non Farm Economy (Mine)	50.7	49.3	5.4	94.6	70.4	29.6	46.1	53.9	28.2	71.8	31.7	68.3	60.2	39.8	16.9	83.1	30.3	69.7	77.1	22.9	70.6	29.4
Traditional Settlement / Village / Associated Rural Areas	82.6	17.4	12.9	87.1	91.6	8.4	43.9	56.1	28.7	71.3	36.7	63.3	80.7	19.3	32.7	67.3	28.2	71.8	96.6	3.4	85.2	14.8
Traditional Urban	72.6	27.4	7.0	93.0	83.9	16.1	35.5	64.5	19.0	81.0	28.0	72.0	73.9	26.1	13.9	86.1	19.0	81.0	93.1	6.9	73.0	27.0
Urban Formal	60.1	39.9	5.9	94.1	73.3	26.7	31.9	68.1	21.6	78.4	27.4	72.6	64.1	35.9	14.6	85.4	17.2	82.8	78.0	22.0	52.2	47.8
Urban Formal Industrial and Mines	75.9	24.1	6.1	93.9	86.6	13.4	45.8	54.2	40.4	59.6	37.5	62.5	83.6	16.4	28.2	71.8	32.2	67.8	89.9	10.1	73.6	26.4
Grand Total	75.2	24.8	10.4	89.6	85.6	14.4	42.5	57.5	30.5	69.5	34.4	65.6	76.5	23.5	28.9	71.1	27.6	72.4	90.3	9.7	74.7	25.3

TABLE 80: OWNERSHIP OF GOODS BY PERCENTAGE OF HOUSEHOLDS SUMMARIZED ACROSS DIFFERENT SETTLEMENT TYPES.

	Car		Cell phone		Computer		DVD player		Refrigerator		Radio		Satellite television		Electric/gas stove		Television		Vacuum cleaner		Washing machine	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Informal Settlement	5.6	2.6	5.3	4.8	5.4	1.6	7.6	2.8	11.0	2.1	6.1	4.2	5.9	1.3	10.6	2.5	9.8	2.9	5.2	1.2	5.6	2.4
Protected Area	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.1
Rural Formal Farm Economy	6.0	5.4	7.2	5.7	6.0	5.1	8.8	3.6	12.1	3.1	7.6	4.9	6.6	3.4	9.4	4.4	11.3	3.8	5.7	7.7	6.4	4.4
Rural Formal Non Farm Economy	0.7	2.5	0.8	1.2	0.9	2.8	1.1	1.2	1.3	1.1	1.0	1.3	0.9	2.0	1.0	1.2	1.2	1.2	0.9	3.4	0.9	2.1
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Traditional Settlement / Village / Associated Rural Areas	59.6	38.0	67.2	52.7	58.0	31.8	56.0	52.9	51.1	55.6	57.9	52.3	57.2	44.5	61.3	51.3	55.4	53.8	58.0	19.0	61.8	31.8
Traditional Urban	4.2	4.7	2.9	4.5	4.2	4.8	3.6	4.8	2.7	5.0	3.5	4.7	4.2	4.8	2.1	5.2	3.0	4.8	4.4	3.1	4.2	4.6
Urban Formal	22.5	45.3	15.8	29.6	24.1	52.4	21.2	33.3	20.0	31.7	22.4	31.2	23.6	43.0	14.2	33.8	17.5	32.2	24.3	64.0	19.6	53.3
Urban Formal Industrial and Mines	1.2	1.1	0.7	1.2	1.2	1.1	1.2	1.1	1.5	1.0	1.2	1.1	1.3	0.8	1.1	1.2	1.3	1.1	1.1	1.2	1.1	1.2
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Fuel for lighting

Use of different fuels for lighting by households across the different major units and sub-units of the Olifants basin is summarized in Table 81 to Table 83. The data are summarized for the different settlement types in Table 84 to Table 86. The data were used to develop an index of access to electricity which was included in the services component of the general poverty index. The development of this index is described in the spatial analysis section.

TABLE 81: FUEL FOR LIGHTING SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Candles	Solar	None	Total
Lower Olifants	91251	137	486	10065	605	351	102894
B60	10142	30	125	1836	35	35	12203
B71 - Lower	6956	15	51	1202	390	40	8655
B72	60155	76	271	6007	140	235	66885
B73	13997	15	39	1021	39	40	15151
Middle Olifants - Agriculture	189252	230	871	13877	425	516	205171
B31	114549	140	515	8168	248	315	123935
B32	74703	90	356	5709	177	201	81236
Middle Olifants - SekhukhuneLand	190356	239	1382	22715	511	462	215666
B51	85906	101	475	7947	206	188	94822
B52	79232	102	577	7675	214	163	87963
B71 - Middle	25218	36	331	7093	92	112	32881
Middle Olifants - Steelpoort	72070	168	658	13555	228	283	86962
B41	56987	120	471	11155	180	220	69132
B42	15082	49	187	2400	48	63	17830
Upper Olifants	200686	770	3949	42384	576	776	249141
B11	88271	220	2965	27133	270	434	119292
B12	55303	160	234	3340	128	134	59298
B20	57112	390	750	11911	178	209	70551
Grand Total	743614	1544	7346	102596	2345	2387	859833

TABLE 82: FUEL FOR LIGHTING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Candles	Solar	None	Total
Lower Olifants	88.7	0.1	0.5	9.8	0.6	0.3	100
B60	83.1	0.2	1.0	15.0	0.3	0.3	100
B71 - Lower	80.4	0.2	0.6	13.9	4.5	0.5	100
B72	89.9	0.1	0.4	9.0	0.2	0.4	100
B73	92.4	0.1	0.3	6.7	0.3	0.3	100
Middle Olifants - Agriculture	92.2	0.1	0.4	6.8	0.2	0.3	100
B31	92.4	0.1	0.4	6.6	0.2	0.3	100
B32	92.0	0.1	0.4	7.0	0.2	0.2	100
Middle Olifants - SekhukhuneLand	88.3	0.1	0.6	10.5	0.2	0.2	100
B51	90.6	0.1	0.5	8.4	0.2	0.2	100
B52	90.1	0.1	0.7	8.7	0.2	0.2	100
B71 - Middle	76.7	0.1	1.0	21.6	0.3	0.3	100
Middle Olifants - Steelpoort	82.9	0.2	0.8	15.6	0.3	0.3	100
B41	82.4	0.2	0.7	16.1	0.3	0.3	100
B42	84.6	0.3	1.0	13.5	0.3	0.4	100
Upper Olifants	80.6	0.3	1.6	17.0	0.2	0.3	100
B11	74.0	0.2	2.5	22.7	0.2	0.4	100
B12	93.3	0.3	0.4	5.6	0.2	0.2	100
B20	81.0	0.6	1.1	16.9	0.3	0.3	100
Grand Total	86.5	0.2	0.9	11.9	0.3	0.3	100



TABLE 83: FUEL FOR LIGHTING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Candles	Solar	None
Lower Olifants	12.3	8.9	6.6	9.8	25.8	14.7
B60	1.4	1.9	1.7	1.8	1.5	1.5
B71 - Lower	0.9	1.0	0.7	1.2	16.6	1.7
B72	8.1	4.9	3.7	5.9	6.0	9.9
B73	1.9	1.0	0.5	1.0	1.7	1.7
Middle Olifants - Agriculture	25.5	14.9	11.9	13.5	18.1	21.6
B31	15.4	9.1	7.0	8.0	10.6	13.2
B32	10.0	5.8	4.8	5.6	7.6	8.4
Middle Olifants - Sekhukhuneland	25.6	15.5	18.8	22.1	21.8	19.4
B51	11.6	6.5	6.5	7.7	8.8	7.9
B52	10.7	6.6	7.9	7.5	9.1	6.8
B71 - Middle	3.4	2.3	4.5	6.9	3.9	4.7
Middle Olifants - Steelpoort	9.7	10.9	9.0	13.2	9.7	11.8
B41	7.7	7.7	6.4	10.9	7.7	9.2
B42	2.0	3.2	2.5	2.3	2.1	2.6
Upper Olifants	27.0	49.9	53.8	41.3	24.6	32.5
B11	11.9	14.3	40.4	26.4	11.5	18.2
B12	7.4	10.4	3.2	3.3	5.4	5.6
B20	7.7	25.2	10.2	11.6	7.6	8.7
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 84: FUEL FOR LIGHTING SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Candles	Solar	None	Total
Informal Settlement	15469	135	2200	23339	118	289	41550
Protected Area	1340	16	21	69	21	1	1468
Rural Formal Farm Economy	33647	222	859	15123	189	259	50298
Rural Formal Non Farm Economy	8111	40	230	1593	27	48	10049
Rural Formal Non Farm Economy (Mine/Power Stations)	717	0	3	38	0	0	758
Traditional Rural Non Farm Economy	255	0	0	1	0	1	257
Traditional Rural Non Farm Economy (Mine)	450	0	0	25	1	3	479
Traditional Settlement / Village / Associated Rural Areas	415177	486	2387	45430	1411	1160	466051
Traditional Urban	35100	20	207	1541	84	99	37051
Urban Formal	225374	614	1258	13804	472	494	242016
Urban Formal Industrial and Mines	7976	12	181	1633	22	32	9856
Grand Total	743614	1544	7346	102596	2345	2387	859833

TABLE 85: FUEL FOR LIGHTING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Candles	Solar	None	Total
Informal Settlement	37.2	0.3	5.3	56.2	0.3	0.7	100
Protected Area	91.3	1.1	1.4	4.7	1.4	0.1	100
Rural Formal Farm Economy	66.9	0.4	1.7	30.1	0.4	0.5	100
Rural Formal Non Farm Economy	80.7	0.4	2.3	15.9	0.3	0.5	100
Rural Formal Non Farm Economy (Mine/Power Stations)	94.6	0.0	0.4	5.0	0.0	0.0	100
Traditional Rural Non Farm Economy	99.2	0.0	0.0	0.4	0.0	0.4	100
Traditional Rural Non Farm Economy (Mine)	93.9	0.0	0.0	5.2	0.2	0.6	100
Traditional Settlement / Village / Associated Rural Areas	89.1	0.1	0.5	9.7	0.3	0.2	100
Traditional Urban	94.7	0.1	0.6	4.2	0.2	0.3	100
Urban Formal	93.1	0.3	0.5	5.7	0.2	0.2	100
Urban Formal Industrial and Mines	80.9	0.1	1.8	16.6	0.2	0.3	100
Grand Total	86.5	0.2	0.9	11.9	0.3	0.3	100



TABLE 86: FUEL FOR LIGHTING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Candles	Solar	None
Informal Settlement	2.1	8.7	30.0	22.7	5.0	12.1
Protected Area	0.2	1.0	0.3	0.1	0.9	0.0
Rural Formal Farm Economy	4.5	14.3	11.7	14.7	8.0	10.9
Rural Formal Non Farm Economy	1.1	2.6	3.1	1.6	1.2	2.0
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.0	0.0	0.0	0.1
Traditional Settlement / Village / Associated Rural Areas	55.8	31.5	32.5	44.3	60.2	48.6
Traditional Urban	4.7	1.3	2.8	1.5	3.6	4.1
Urban Formal	30.3	39.8	17.1	13.5	20.1	20.7
Urban Formal Industrial and Mines	1.1	0.8	2.5	1.6	0.9	1.4
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0



Fuel for heating

Use of different fuels for heating by households across the different major units and sub-units of the Olifants basin is summarized in Table 87 to Table 89. The data are summarized for the different settlement types in Table 90 to Table 92. The data were used to develop an index of dependence on the environment for wood for heating which was included in the local direct natural resource dependency index. The development of this index is described in the spatial analysis section.

TABLE 87: FUEL FOR HEATING SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Lower Olifants	195586	5859	4528	166005	811	507	956	4	81897	456153
B60	54468	1866	2730	53584	549	284	426	0	16538	130445
B71 - Lower	3260	157	157	7994	13	17	23	0	1812	13433
B72	103286	2737	1228	91882	218	172	399	2	49219	249143
B73	34572	1099	413	12545	31	34	108	2	14328	63132
Middle Olifants - Agriculture	413104	9543	19403	193045	41824	848	1497	15	109760	789039
B31	249669	5924	10874	113784	13452	401	1071	5	61592	456772
B32	163435	3619	8529	79261	28372	447	426	10	48168	332267
Middle Olifants - Sekhukhuneland	287372	6539	14085	256229	15086	1668	1565	9	85303	667856
B51	167603	3522	8679	125100	14013	1132	988	7	49901	370945
B52	89648	2149	3604	77660	735	415	261	0	23021	197493
B71 - Middle	30121	868	1802	53469	338	121	316	2	12381	99418
Middle Olifants - Steelpoort	250290	6518	14970	187644	14579	1350	1386	5	72495	549237
B41	135258	3447	8486	115895	12304	810	816	1	45869	322886
B42	115032	3071	6484	71749	2275	540	570	4	26626	226351
Upper Olifants	428571	22294	45343	188935	133864	5337	1950	93	110299	936686
B11	180308	10126	22761	75199	59830	3979	742	72	50518	403535
B12	108441	4461	7517	56717	37830	629	539	13	25172	241319
B20	139822	7707	15065	57019	36204	729	669	8	34609	291832
Grand Total	1574923	50753	98329	991858	206164	9710	7354	126	459754	3398971

TABLE 88: FUEL FOR HEATING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Lower Olifants	42.9	1.3	1.0	36.4	0.2	0.1	0.2	0.0	18.0	100
B60	41.8	1.4	2.1	41.1	0.4	0.2	0.3	0.0	12.7	100
B71 - Lower	24.3	1.2	1.2	59.5	0.1	0.1	0.2	0.0	13.5	100
B72	41.5	1.1	0.5	36.9	0.1	0.1	0.2	0.0	19.8	100
B73	54.8	1.7	0.7	19.9	0.0	0.1	0.2	0.0	22.7	100
Middle Olifants - Agriculture	52.4	1.2	2.5	24.5	5.3	0.1	0.2	0.0	13.9	100
B31	54.7	1.3	2.4	24.9	2.9	0.1	0.2	0.0	13.5	100
B32	49.2	1.1	2.6	23.9	8.5	0.1	0.1	0.0	14.5	100
Middle Olifants - Sekhukhuneland	43.0	1.0	2.1	38.4	2.3	0.2	0.2	0.0	12.8	100
B51	45.2	0.9	2.3	33.7	3.8	0.3	0.3	0.0	13.5	100
B52	45.4	1.1	1.8	39.3	0.4	0.2	0.1	0.0	11.7	100
B71 - Middle	30.3	0.9	1.8	53.8	0.3	0.1	0.3	0.0	12.5	100
Middle Olifants - Steelpoort	45.6	1.2	2.7	34.2	2.7	0.2	0.3	0.0	13.2	100
B41	41.9	1.1	2.6	35.9	3.8	0.3	0.3	0.0	14.2	100
B42	50.8	1.4	2.9	31.7	1.0	0.2	0.3	0.0	11.8	100
Upper Olifants	45.8	2.4	4.8	20.2	14.3	0.6	0.2	0.0	11.8	100
B11	44.7	2.5	5.6	18.6	14.8	1.0	0.2	0.0	12.5	100
B12	44.9	1.8	3.1	23.5	15.7	0.3	0.2	0.0	10.4	100
B20	47.9	2.6	5.2	19.5	12.4	0.2	0.2	0.0	11.9	100
Grand Total	46.3	1.5	2.9	29.2	6.1	0.3	0.2	0.0	13.5	100



TABLE 89: FUEL FOR HEATING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None
Lower Olifants	12.4	11.5	4.6	16.7	0.4	5.2	13.0	3.2	17.8
B60	3.5	3.7	2.8	5.4	0.3	2.9	5.8	0.0	3.6
B71 - Lower	0.2	0.3	0.2	0.8	0.0	0.2	0.3	0.0	0.4
B72	6.6	5.4	1.2	9.3	0.1	1.8	5.4	1.6	10.7
B73	2.2	2.2	0.4	1.3	0.0	0.4	1.5	1.6	3.1
Middle Olifants - Agriculture	26.2	18.8	19.7	19.5	20.3	8.7	20.4	11.9	23.9
B31	15.9	11.7	11.1	11.5	6.5	4.1	14.6	4.0	13.4
B32	10.4	7.1	8.7	8.0	13.8	4.6	5.8	7.9	10.5
Middle Olifants - Sekhukhuleni	18.2	12.9	14.3	25.8	7.3	17.2	21.3	7.1	18.6
B51	10.6	6.9	8.8	12.6	6.8	11.7	13.4	5.6	10.9
B52	5.7	4.2	3.7	7.8	0.4	4.3	3.5	0.0	5.0
B71 - Middle	1.9	1.7	1.8	5.4	0.2	1.2	4.3	1.6	2.7
Middle Olifants - Steelpoort	15.9	12.8	15.2	18.9	7.1	13.9	18.8	4.0	15.8
B41	8.6	6.8	8.6	11.7	6.0	8.3	11.1	0.8	10.0
B42	7.3	6.1	6.6	7.2	1.1	5.6	7.8	3.2	5.8
Upper Olifants	27.2	43.9	46.1	19.0	64.9	55.0	26.5	73.8	24.0
B11	11.4	20.0	23.1	7.6	29.0	41.0	10.1	57.1	11.0
B12	6.9	8.8	7.6	5.7	18.3	6.5	7.3	10.3	5.5
B20	8.9	15.2	15.3	5.7	17.6	7.5	9.1	6.3	7.5
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 90: FUEL FOR HEATING SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Informal Settlement	28.1	1.6	9.6	11.8	26.0	0.2	0.1	0.0	22.6	100
Protected Area	59.2	4.0	0.4	7.0	0.0	0.2	0.3	0.0	28.9	100
Rural Formal Farm Economy	43.1	1.6	3.4	32.4	5.6	0.4	0.2	0.0	13.2	100
Rural Formal Non Farm Economy	69.0	2.0	3.8	6.0	6.2	0.2	0.3	0.0	12.5	100
Rural Formal Non Farm Economy (Mine/Power Stations)	65.7	1.8	0.0	7.4	0.3	0.0	0.3	0.0	24.5	100
Traditional Rural Non Farm Economy	97.7	0.0	0.0	0.4	0.0	0.0	0.4	0.0	1.6	100
Traditional Rural Non Farm Economy (Mine)	70.7	0.9	0.0	20.4	0.0	0.0	0.0	0.0	8.0	100
Traditional Settlement / Village / Associated Rural Areas	41.4	0.8	1.9	37.3	4.2	0.3	0.2	0.0	14.0	100
Traditional Urban	71.0	0.7	2.7	6.4	4.6	0.1	0.2	0.0	14.4	100
Urban Formal	71.9	2.6	1.6	3.6	9.6	0.1	0.2	0.0	10.5	100
Urban Formal Industrial and Mines	60.3	1.7	4.6	10.3	7.8	0.1	0.1	0.0	15.0	100
Grand Total	46.3	1.5	2.9	29.2	6.1	0.3	0.2	0.0	13.5	100

TABLE 91: FUEL FOR HEATING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Informal Settlement	22830	1304	7834	9605	21173	130	93	0	18364	81333
Protected Area	17433	1173	130	2059	4	48	102	0	8499	29448
Rural Formal Farm Economy	778639	29588	62051	586209	101347	6561	4114	68	238412	1806989
Rural Formal Non Farm Economy	23224	667	1283	2019	2088	56	86	4	4217	33644
Rural Formal Non Farm Economy (Mine/Power Stations)	770	21	0	87	4	0	3	0	287	1172
Traditional Rural Non Farm Economy	251	0	0	1	0	0	1	0	4	257
Traditional Rural Non Farm Economy (Mine)	819	10	0	236	0	0	0	0	93	1158
Traditional Settlement / Village / Associated Rural Areas	412114	7609	18451	371792	41760	2513	2080	24	139195	995538
Traditional Urban	38877	406	1455	3498	2492	32	90	0	7894	54744
Urban Formal	261113	9430	5691	13130	34846	324	739	30	38102	363405
Urban Formal Industrial and Mines	18847	545	1434	3222	2450	46	46	0	4687	31277
Grand Total	1574917	50753	98329	991858	206164	9710	7354	126	459754	3398965

TABLE 92: FUEL FOR HEATING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None
Informal Settlement	1.4	2.6	8.0	1.0	10.3	1.3	1.3	0.0	4.0
Protected Area	1.1	2.3	0.1	0.2	0.0	0.5	1.4	0.0	1.8
Rural Formal Farm Economy	49.4	58.3	63.1	59.1	49.2	67.6	55.9	54.0	51.9
Rural Formal Non Farm Economy	1.5	1.3	1.3	0.2	1.0	0.6	1.2	3.2	0.9
Rural Formal Non Farm Economy (Mine/Power Stations)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	26.2	15.0	18.8	37.5	20.3	25.9	28.3	19.0	30.3
Traditional Urban	2.5	0.8	1.5	0.4	1.2	0.3	1.2	0.0	1.7
Urban Formal	16.6	18.6	5.8	1.3	16.9	3.3	10.0	23.8	8.3
Urban Formal Industrial and Mines	1.2	1.1	1.5	0.3	1.2	0.5	0.6	0.0	1.0
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Fuel for cooking

Use of different fuels for cooking by households across the different major units and sub-units of the Olifants basin is summarized in Table 93 to Table 95. The data are summarized for the different settlement types in Table 96 to Table 98. The data were used to develop an index of dependence on the environment for wood for cooking which was included into the local direct natural resource dependency index. The development of this index is described in the spatial analysis section.

TABLE 93: FUEL FOR COOKING SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Lower Olifants	53797	1340	1405	45849	97	49	108	18	226	102889
B60	6280	303	307	5221	46	9	14	1	24	12204
B71 - Lower	1711	60	135	6690	8	12	2	0	33	8651
B72	36678	804	781	28348	37	15	69	14	134	66881
B73	9129	173	183	5590	6	12	22	3	35	15152
Middle Olifants - Agriculture	144059	2986	11186	39468	6553	274	231	33	366	205155
B31	85718	1853	6919	27861	1096	133	126	19	196	123922
B32	58341	1133	4266	11607	5456	141	105	14	170	81232
Middle Olifants - Sekhukhuneland	115000	2060	8630	86292	2196	933	206	15	296	215628
B51	50922	901	4525	35510	2065	648	90	6	136	94804
B52	48922	833	2646	34979	98	257	86	7	118	87945
B71 - Middle	15156	326	1459	15802	32	29	30	2	43	32879
Middle Olifants - Steelpoort	53348	1139	7055	20822	4070	200	133	24	164	86956
B41	39283	748	5300	19432	3928	191	106	15	126	69128
B42	14065	391	1756	1390	142	9	27	10	38	17828
Upper Olifants	184365	5802	35768	7759	14092	192	374	284	516	249152
B11	85024	2787	24973	2361	3523	115	171	163	172	119289
B12	49745	1183	2169	1665	4169	25	101	87	161	59305
B20	49597	1831	8625	3733	6400	52	103	34	183	70558
Grand Total	550569	13327	64044	200189	27008	1648	1053	374	1567	859780

TABLE 94: FUEL FOR COOKING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Lower Olifants	52.3	1.3	1.4	44.6	0.1	0.0	0.1	0.0	0.2	100
B60	51.5	2.5	2.5	42.8	0.4	0.1	0.1	0.0	0.2	100
B71 - Lower	19.8	0.7	1.6	77.3	0.1	0.1	0.0	0.0	0.4	100
B72	54.8	1.2	1.2	42.4	0.1	0.0	0.1	0.0	0.2	100
B73	60.2	1.1	1.2	36.9	0.0	0.1	0.1	0.0	0.2	100
Middle Olifants - Agriculture	70.2	1.5	5.5	19.2	3.2	0.1	0.1	0.0	0.2	100
B31	69.2	1.5	5.6	22.5	0.9	0.1	0.1	0.0	0.2	100
B32	71.8	1.4	5.3	14.3	6.7	0.2	0.1	0.0	0.2	100
Middle Olifants - Sekhukhuneland	53.3	1.0	4.0	40.0	1.0	0.4	0.1	0.0	0.1	100
B51	53.7	1.0	4.8	37.5	2.2	0.7	0.1	0.0	0.1	100
B52	55.6	0.9	3.0	39.8	0.1	0.3	0.1	0.0	0.1	100
B71 - Middle	46.1	1.0	4.4	48.1	0.1	0.1	0.1	0.0	0.1	100
Middle Olifants - Steelpoort	61.4	1.3	8.1	23.9	4.7	0.2	0.2	0.0	0.2	100
B41	56.8	1.1	7.7	28.1	5.7	0.3	0.2	0.0	0.2	100
B42	78.9	2.2	9.8	7.8	0.8	0.1	0.2	0.1	0.2	100
Upper Olifants	74.0	2.3	14.4	3.1	5.7	0.1	0.2	0.1	0.2	100
B11	71.3	2.3	20.9	2.0	3.0	0.1	0.1	0.1	0.1	100
B12	83.9	2.0	3.7	2.8	7.0	0.0	0.2	0.1	0.3	100
B20	70.3	2.6	12.2	5.3	9.1	0.1	0.1	0.0	0.3	100
Grand Total	64.0	1.6	7.4	23.3	3.1	0.2	0.1	0.0	0.2	100



TABLE 95: FUEL FOR COOKING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None
Lower Olifants	9.8	10.1	2.2	22.9	0.4	2.9	10.2	4.8	14.4
B60	1.1	2.3	0.5	2.6	0.2	0.6	1.4	0.3	1.5
B71 - Lower	0.3	0.5	0.2	3.3	0.0	0.7	0.2	0.0	2.1
B72	6.7	6.0	1.2	14.2	0.1	0.9	6.6	3.6	8.6
B73	1.7	1.3	0.3	2.8	0.0	0.8	2.1	0.8	2.2
Middle Olifants - Agriculture	26.2	22.4	17.5	19.7	24.3	16.6	22.0	8.9	23.3
B31	15.6	13.9	10.8	13.9	4.1	8.1	12.0	5.2	12.5
B32	10.6	8.5	6.7	5.8	20.2	8.6	10.0	3.7	10.8
Middle Olifants - Sekhukhuneland	20.9	15.5	13.5	43.1	8.1	56.6	19.6	4.0	18.9
B51	9.2	6.8	7.1	17.7	7.6	39.3	8.6	1.7	8.7
B52	8.9	6.3	4.1	17.5	0.4	15.6	8.2	1.7	7.5
B71 - Middle	2.8	2.4	2.3	7.9	0.1	1.7	2.8	0.5	2.7
Middle Olifants - Steelpoort	9.7	8.5	11.0	10.4	15.1	12.2	12.7	6.5	10.4
B41	7.1	5.6	8.3	9.7	14.5	11.6	10.1	4.0	8.0
B42	2.6	2.9	2.7	0.7	0.5	0.5	2.6	2.6	2.4
Upper Olifants	33.5	43.5	55.8	3.9	52.2	11.7	35.6	75.8	32.9
B11	15.4	20.9	39.0	1.2	13.0	7.0	16.2	43.6	11.0
B12	9.0	8.9	3.4	0.8	15.4	1.5	9.6	23.2	10.3
B20	9.0	13.7	13.5	1.9	23.7	3.2	9.8	9.1	11.7
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 96: FUEL FOR COOKING SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Informal Settlement	13819	1025	21376	2007	3171	21	46	5	83	41553
Protected Area	1126	155	22	145	3	2	4	0	12	1468
Rural Formal Farm Economy	26596	2155	4346	14654	2256	117	56	7	114	50300
Rural Formal Non Farm Economy	7392	507	1273	366	456	17	13	16	14	10054
Rural Formal Non Farm Economy (Mine/Power Stations)	605	37	3	111	0	0	0	0	0	756
Traditional Rural Non Farm Economy	255	0	0	2	0	0	0	0	0	257
Traditional Rural Non Farm Economy (Mine)	409	6	13	51	0	0	0	0	0	479
Traditional Settlement / Village / Associated Rural Areas	255395	4352	20816	174402	8333	1381	470	44	796	465989
Traditional Urban	31953	239	1486	2948	277	9	74	0	61	37047
Urban Formal	205448	4700	13188	5101	12366	96	375	291	448	242014
Urban Formal Industrial and Mines	7571	151	1522	402	146	5	16	10	39	9862
Grand Total	550569	13327	64044	200189	27008	1648	1053	374	1567	859780

TABLE 97: FUEL FOR COOKING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None	Total
Informal Settlement	33.3	2.5	51.4	4.8	7.6	0.1	0.1	0.0	0.2	100
Protected Area	76.7	10.6	1.5	9.9	0.2	0.1	0.3	0.0	0.8	100
Rural Formal Farm Economy	52.9	4.3	8.6	29.1	4.5	0.2	0.1	0.0	0.2	100
Rural Formal Non Farm Economy	73.5	5.0	12.7	3.6	4.5	0.2	0.1	0.2	0.1	100
Rural Formal Non Farm Economy (Mine/Power Stations)	80.0	4.9	0.4	14.7	0.0	0.0	0.0	0.0	0.0	100
Traditional Rural Non Farm Economy	99.2	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	100
Traditional Rural Non Farm Economy (Mine)	85.4	1.3	2.7	10.6	0.0	0.0	0.0	0.0	0.0	100
Traditional Settlement / Village / Associated Rural Areas	54.8	0.9	4.5	37.4	1.8	0.3	0.1	0.0	0.2	100
Traditional Urban	86.2	0.6	4.0	8.0	0.7	0.0	0.2	0.0	0.2	100
Urban Formal	84.9	1.9	5.4	2.1	5.1	0.0	0.2	0.1	0.2	100
Urban Formal Industrial and Mines	76.8	1.5	15.4	4.1	1.5	0.1	0.2	0.1	0.4	100
Grand Total	64.0	1.6	7.4	23.3	3.1	0.2	0.1	0.0	0.2	100



TABLE 98: FUEL FOR COOKING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS SETTLEMENT TYPES.

	Electricity	Gas	Paraffin	Wood	Coal	Animal dung	Solar	Other	None
Informal Settlement	2.5	7.7	33.4	1.0	11.7	1.3	4.3	1.3	5.3
Protected Area	0.2	1.2	0.0	0.1	0.0	0.1	0.4	0.0	0.8
Rural Formal Farm Economy	4.8	16.2	6.8	7.3	8.4	7.1	5.3	1.9	7.3
Rural Formal Non Farm Economy	1.3	3.8	2.0	0.2	1.7	1.0	1.2	4.3	0.9
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	46.4	32.7	32.5	87.1	30.9	83.8	44.6	11.8	50.8
Traditional Urban	5.8	1.8	2.3	1.5	1.0	0.5	7.0	0.0	3.9
Urban Formal	37.3	35.3	20.6	2.5	45.8	5.8	35.7	77.9	28.6
Urban Formal Industrial and Mines	1.4	1.1	2.4	0.2	0.5	0.3	1.5	2.8	2.5
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Refuse disposal

Method of refuse disposal by households across the different major units and sub-units of the Olifants basin is summarized in Table 99 to Table 101. The data are summarized for the different settlement types in Table 102 to Table 104. The data were used in the services component of the general poverty index. The development of this index is described in the spatial analysis section.

TABLE 99: METHOD OF REFUSE DISPOSAL SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR MAJOR UNITS AND SUB-UNITS.

	Removed by local authority/ private company at least once a week	Removed by local authority/ private company less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other	Total
Lower Olifants	23190	860	1178	68317	8345	994	102885
B60	1998	284	141	8716	979	84	12201
B71 - Lower	99	45	106	7170	984	249	8653
B72	20142	422	730	40081	5100	408	66882
B73	951	110	202	12350	1283	253	15149
Middle Olifants - Agriculture	22268	2204	10164	149014	19937	1594	205181
B31	15734	1516	3813	90206	11587	1085	123941
B32	6534	687	6352	58808	8350	509	81240
Middle Olifants - Sekhukhuneland	19765	1160	2540	170050	20645	1499	215659
B51	5133	611	1527	75997	10587	956	94811
B52	14318	429	806	65530	6507	374	87965
B71 - Middle	313	120	208	28523	3550	169	32882
Middle Olifants - Steelpoort	25973	1332	674	45502	12889	601	86970
B41	12364	541	496	43193	12045	500	69139
B42	13609	790	179	2309	843	101	17831
Upper Olifants	179929	3461	6889	44438	12858	1565	249141
B11	80523	1695	3316	24963	7854	936	119287
B12	52508	902	709	3819	1226	138	59302
B20	46899	864	2864	15655	3779	491	70552
Grand Total	271125	9016	21445	477322	74674	6253	859836

TABLE 100: METHOD OF REFUSE DISPOSAL SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	Removed by local authority/ private company at least once a week	Removed by local authority/ private company less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other	Total
Lower Olifants	22.5	0.8	1.1	66.4	8.1	1.0	100
B60	16.4	2.3	1.2	71.4	8.0	0.7	100
B71 - Lower	1.1	0.5	1.2	82.9	11.4	2.9	100
B72	30.1	0.6	1.1	59.9	7.6	0.6	100
B73	6.3	0.7	1.3	81.5	8.5	1.7	100
Middle Olifants - Agriculture	10.9	1.1	5.0	72.6	9.7	0.8	100
B31	12.7	1.2	3.1	72.8	9.3	0.9	100
B32	8.0	0.8	7.8	72.4	10.3	0.6	100
Middle Olifants - Sekhukhuneland	9.2	0.5	1.2	78.9	9.6	0.7	100
B51	5.4	0.6	1.6	80.2	11.2	1.0	100
B52	16.3	0.5	0.9	74.5	7.4	0.4	100
B71 - Middle	1.0	0.4	0.6	86.7	10.8	0.5	100
Middle Olifants - Steelpoort	29.9	1.5	0.8	52.3	14.8	0.7	100
B41	17.9	0.8	0.7	62.5	17.4	0.7	100
B42	76.3	4.4	1.0	13.0	4.7	0.6	100
Upper Olifants	72.2	1.4	2.8	17.8	5.2	0.6	100
B11	67.5	1.4	2.8	20.9	6.6	0.8	100
B12	88.5	1.5	1.2	6.4	2.1	0.2	100
B20	66.5	1.2	4.1	22.2	5.4	0.7	100
Grand Total	31.5	1.0	2.5	55.5	8.7	0.7	100



TABLE 101: METHOD OF REFUSE DISPOSAL SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Removed by local authority/ private company at least once a week	Removed by local authority/ private company less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other
Lower Olifants	8.6	9.5	5.5	14.3	11.2	15.9
B60	0.7	3.1	0.7	1.8	1.3	1.3
B71 - Lower	0.0	0.5	0.5	1.5	1.3	4.0
B72	7.4	4.7	3.4	8.4	6.8	6.5
B73	0.4	1.2	0.9	2.6	1.7	4.0
Middle Olifants - Agriculture	8.2	24.4	47.4	31.2	26.7	25.5
B31	5.8	16.8	17.8	18.9	15.5	17.3
B32	2.4	7.6	29.6	12.3	11.2	8.1
Middle Olifants - Sekhukhuneland	7.3	12.9	11.8	35.6	27.6	24.0
B51	1.9	6.8	7.1	15.9	14.2	15.3
B52	5.3	4.8	3.8	13.7	8.7	6.0
B71 - Middle	0.1	1.3	1.0	6.0	4.8	2.7
Middle Olifants - Steelpoort	9.6	14.8	3.1	9.5	17.3	9.6
B41	4.6	6.0	2.3	9.0	16.1	8.0
B42	5.0	8.8	0.8	0.5	1.1	1.6
Upper Olifants	66.4	38.4	32.1	9.3	17.2	25.0
B11	29.7	18.8	15.5	5.2	10.5	15.0
B12	19.4	10.0	3.3	0.8	1.6	2.2
B20	17.3	9.6	13.4	3.3	5.1	7.9
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 102: METHOD OF REFUSE DISPOSAL SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	Removed by local authority/ private company at least once a week	Removed by local authority/ private company less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other	Total
Informal Settlement	10396	369	3907	19331	7179	372	41554
Protected Area	470	172	106	647	27	45	1468
Rural Formal Farm Economy	8087	1939	1919	30443	6656	1254	50298
Rural Formal Non Farm Economy	6681	243	146	2216	597	170	10053
Rural Formal Non Farm Economy (Mine/Power Stations)	693	8	4	44	5	3	757
Traditional Rural Non Farm Economy	211	8	2	30	3	2	256
Traditional Rural Non Farm Economy (Mine)	285	6	2	109	71	5	478
Traditional Settlement / Village / Associated Rural Areas	17683	1792	9647	380587	52925	3416	466050
Traditional Urban	20895	780	1458	11926	1840	153	37052
Urban Formal	198475	3352	4170	30302	4934	781	242014
Urban Formal Industrial and Mines	7249	347	84	1688	437	53	9857
Grand Total	271125	9016	21445	477322	74674	6253	859836



TABLE 103: METHOD OF REFUSE DISPOSAL SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	Removed by local authority/ private company at least once a week	Removed by local authority/ private company less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other	Total
Informal Settlement	25.0	0.9	9.4	46.5	17.3	0.9	100
Protected Area	32.0	11.7	7.3	44.0	1.9	3.1	100
Rural Formal Farm Economy	16.1	3.9	3.8	60.5	13.2	2.5	100
Rural Formal Non Farm Economy	66.5	2.4	1.5	22.0	5.9	1.7	100
Rural Formal Non Farm Economy (Mine/Power Stations)	91.5	1.1	0.5	5.8	0.7	0.4	100
Traditional Rural Non Farm Economy	82.4	3.1	0.8	11.7	1.2	0.8	100
Traditional Rural Non Farm Economy (Mine)	59.6	1.3	0.4	22.8	14.9	1.0	100
Traditional Settlement / Village / Associated Rural Areas	3.8	0.4	2.1	81.7	11.4	0.7	100
Traditional Urban	56.4	2.1	3.9	32.2	5.0	0.4	100
Urban Formal	82.0	1.4	1.7	12.5	2.0	0.3	100
Urban Formal Industrial and Mines	73.5	3.5	0.8	17.1	4.4	0.5	100
Grand Total	31.5	1.0	2.5	55.5	8.7	0.7	100

TABLE 104: METHOD OF REFUSE DISPOSAL SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS DIFFERENT SETTLEMENT TYPES.

	Removed by local authority/ private company at least once a week	Removed by local authority/ private company less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other
Informal Settlement	3.8	4.1	18.2	4.0	9.6	5.9
Protected Area	0.2	1.9	0.5	0.1	0.0	0.7
Rural Formal Farm Economy	3.0	21.5	8.9	6.4	8.9	20.0
Rural Formal Non Farm Economy	2.5	2.7	0.7	0.5	0.8	2.7
Rural Formal Non Farm Economy (Mine/Power Stations)	0.3	0.1	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.1	0.1	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.1	0.0	0.0	0.1	0.1
Traditional Settlement / Village / Associated Rural Areas	6.5	19.9	45.0	79.7	70.9	54.6
Traditional Urban	7.7	8.7	6.8	2.5	2.5	2.4
Urban Formal	73.2	37.2	19.4	6.3	6.6	12.5
Urban Formal Industrial and Mines	2.7	3.8	0.4	0.4	0.6	0.8
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0



Sanitation

Type of access to sanitation by households across the different major units and sub-units of the Olifants basin is summarized in Table 105 to Table 107. The data are summarized for the different settlement types in Table 108 to Table 110. The data were used in the services component of the general poverty index. The development of this index is described in the spatial analysis section.

TABLE 105: TYPE OF ACCESS TO SANITATION SUMMARIZED BY NUMBERS OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	None	Flush toilet (connected to sewerage system)	Flush toilet (with septic tank)	Chemical toilet	Pit toilet with ventilation (VIP)	Pit toilet without ventilation	Bucket toilet	Other	Total
Lower Olifants	9537	20951	2909	986	23858	43130	360	1151	102881
B60	413	2301	777	70	1530	6882	68	158	12200
B71 - Lower	631	199	164	48	1128	6353	25	98	8646
B72	6350	17334	1692	584	18852	21144	209	713	66880
B73	2142	1117	275	283	2348	8752	58	182	15156
Middle Olifants - Agriculture	6392	24745	4665	2941	36333	125631	1622	2828	205157
B31	3632	17166	3141	1697	24498	71535	859	1399	123928
B32	2760	7579	1523	1244	11835	54096	763	1429	81229
Middle Olifants - Sekhukhuneland	9888	15749	2263	1492	32920	149639	1013	2656	215619
B51	3776	4018	1287	772	13671	69116	635	1528	94803
B52	3329	11059	776	606	13603	57483	232	857	87944
B71 - Middle	2783	672	200	114	5646	23040	145	271	32872
Middle Olifants - Steelpoort	4289	24731	1667	771	5479	46858	1330	1833	86959
B41	3751	9999	1131	721	5292	45696	879	1659	69129
B42	538	14732	536	50	187	1162	451	174	17830
Upper Olifants	5927	172208	6958	2966	11156	40973	4283	4666	249138
B11	3149	81229	2161	531	4842	24142	690	2558	119302
B12	804	50346	929	684	1839	2376	1882	440	59299
B20	1974	40634	3867	1752	4475	14455	1711	1668	70536
Grand Total	36032	258384	18462	9156	109747	406229	8609	13133	859753

TABLE 106: TYPE OF ACCESS TO SANITATION SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	None	Flush toilet (connected to sewerage system)	Flush toilet (with septic tank)	Chemical toilet	Pit toilet with ventilation (VIP)	Pit toilet without ventilation	Bucket toilet	Other	Total
Lower Olifants	9.3	20.4	2.8	1.0	23.2	41.9	0.4	1.1	100
B60	3.4	18.9	6.4	0.6	12.5	56.4	0.6	1.3	100
B71 - Lower	7.3	2.3	1.9	0.6	13.0	73.5	0.3	1.1	100
B72	9.5	25.9	2.5	0.9	28.2	31.6	0.3	1.1	100
B73	14.1	7.4	1.8	1.9	15.5	57.7	0.4	1.2	100
Middle Olifants - Agriculture	3.1	12.1	2.3	1.4	17.7	61.2	0.8	1.4	100
B31	2.9	13.9	2.5	1.4	19.8	57.7	0.7	1.1	100
B32	3.4	9.3	1.9	1.5	14.6	66.6	0.9	1.8	100
Middle Olifants - Sekhukhuneland	4.6	7.3	1.0	0.7	15.3	69.4	0.5	1.2	100
B51	4.0	4.2	1.4	0.8	14.4	72.9	0.7	1.6	100
B52	3.8	12.6	0.9	0.7	15.5	65.4	0.3	1.0	100
B71 - Middle	8.5	2.0	0.6	0.3	17.2	70.1	0.4	0.8	100
Middle Olifants - Steelpoort	4.9	28.4	1.9	0.9	6.3	53.9	1.5	2.1	100
B41	5.4	14.5	1.6	1.0	7.7	66.1	1.3	2.4	100
B42	3.0	82.6	3.0	0.3	1.0	6.5	2.5	1.0	100
Upper Olifants	2.4	69.1	2.8	1.2	4.5	16.4	1.7	1.9	100
B11	2.6	68.1	1.8	0.4	4.1	20.2	0.6	2.1	100
B12	1.4	84.9	1.6	1.2	3.1	4.0	3.2	0.7	100
B20	2.8	57.6	5.5	2.5	6.3	20.5	2.4	2.4	100
Grand Total	4.2	30.1	2.1	1.1	12.8	47.2	1.0	1.5	100



TABLE 107: TYPE OF ACCESS TO SANITATION SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	None	Flush toilet (connected to sewerage system)	Flush toilet (with septic tank)	Chemical toilet	Pit toilet with ventilation (VIP)	Pit toilet without ventilation	Bucket toilet	Other
Lower Olifants	26.5	8.1	15.8	10.8	21.7	10.6	4.2	8.8
B60	1.1	0.9	4.2	0.8	1.4	1.7	0.8	1.2
B71 - Lower	1.8	0.1	0.9	0.5	1.0	1.6	0.3	0.7
B72	17.6	6.7	9.2	6.4	17.2	5.2	2.4	5.4
B73	5.9	0.4	1.5	3.1	2.1	2.2	0.7	1.4
Middle Olifants - Agriculture	17.7	9.6	25.3	32.1	33.1	30.9	18.8	21.5
B31	10.1	6.6	17.0	18.5	22.3	17.6	10.0	10.7
B32	7.7	2.9	8.3	13.6	10.8	13.3	8.9	10.9
Middle Olifants - Sekhukhuneland	27.4	6.1	12.3	16.3	30.0	36.8	11.8	20.2
B51	10.5	1.6	7.0	8.4	12.5	17.0	7.4	11.6
B52	9.2	4.3	4.2	6.6	12.4	14.2	2.7	6.5
B71 - Middle	7.7	0.3	1.1	1.2	5.1	5.7	1.7	2.1
Middle Olifants - Steelpoort	11.9	9.6	9.0	8.4	5.0	11.5	15.5	14.0
B41	10.4	3.9	6.1	7.9	4.8	11.2	10.2	12.6
B42	1.5	5.7	2.9	0.5	0.2	0.3	5.2	1.3
Upper Olifants	16.4	66.6	37.7	32.4	10.2	10.1	49.8	35.5
B11	8.7	31.4	11.7	5.8	4.4	5.9	8.0	19.5
B12	2.2	19.5	5.0	7.5	1.7	0.6	21.9	3.3
B20	5.5	15.7	20.9	19.1	4.1	3.6	19.9	12.7
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 108: TYPE OF ACCESS TO SANITATION SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	None	Flush toilet (connected to sewerage system)	Flush toilet (with septic tank)	Chemical toilet	Pit toilet with ventilation (VIP)	Pit toilet without ventilation	Bucket toilet	Other	Total
Informal Settlement	2132	5618	669	1427	4260	21695	3613	2141	41555
Protected Area	33	891	380	8	16	125	5	10	1468
Rural Formal Farm Economy	4732	12272	7799	944	3312	17228	1420	2586	50293
Rural Formal Non Farm Economy	401	6789	606	68	176	1507	65	438	10050
Rural Formal Non Farm Economy (Mine/Power Stations)	34	585	124	1	1	7	1	3	756
Traditional Rural Non Farm Economy	13	228	10	0	3	1	0	3	258
Traditional Rural Non Farm Economy (Mine)	13	323	17	1	2	121	2	0	479
Traditional Settlement / Village / Associated Rural Areas	24242	11701	4366	5038	88687	323916	2089	5946	465984
Traditional Urban	1003	20601	1037	240	2899	10374	605	292	37051
Urban Formal	2931	196222	3034	1254	8786	27463	771	1542	242002
Urban Formal Industrial and Mines	498	3155	421	176	1606	3793	37	173	9858
Grand Total	36032	258384	18462	9156	109747	406229	8609	13133	859753



TABLE 109: TYPE OF ACCESS TO SANITATION SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	None	Flush toilet (connected to sewerage)	Flush toilet (with septic tank)	Chemical toilet	Pit toilet with ventilation	Pit toilet without ventilation	Bucket toilet	Other	Total
Informal Settlement	5.1	13.5	1.6	3.4	10.3	52.2	8.7	5.2	100
Protected Area	2.2	60.7	25.9	0.5	1.1	8.5	0.3	0.7	100
Rural Formal Farm Economy	9.4	24.4	15.5	1.9	6.6	34.3	2.8	5.1	100
Rural Formal Non Farm Economy	4.0	67.6	6.0	0.7	1.8	15.0	0.6	4.4	100
Rural Formal Non Farm Economy (Mine/Power Stations)	4.5	77.4	16.4	0.1	0.1	0.9	0.1	0.4	100
Traditional Rural Non Farm Economy	5.0	88.4	3.9	0.0	1.2	0.4	0.0	1.2	100
Traditional Rural Non Farm Economy (Mine)	2.7	67.4	3.5	0.2	0.4	25.3	0.4	0.0	100
Traditional Settlement / Village / Associated Rural Areas	5.2	2.5	0.9	1.1	19.0	69.5	0.4	1.3	100
Traditional Urban	2.7	55.6	2.8	0.6	7.8	28.0	1.6	0.8	100
Urban Formal	1.2	81.1	1.3	0.5	3.6	11.3	0.3	0.6	100
Urban Formal Industrial and Mines	5.1	32.0	4.3	1.8	16.3	38.5	0.4	1.8	100
Grand Total	4.2	30.1	2.1	1.1	12.8	47.2	1.0	1.5	100

TABLE 110: TYPE OF ACCESS TO SANITATION SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS DIFFERENT SETTLEMENT TYPES.

	None	Flush toilet (connected to sewerage)	Flush toilet (with septic tank)	Chemical toilet	Pit toilet with ventilation	Pit toilet without ventilation	Bucket toilet	Other
Informal Settlement	5.9	2.2	3.6	15.6	3.9	5.3	42.0	16.3
Protected Area	0.1	0.3	2.1	0.1	0.0	0.0	0.1	0.1
Rural Formal Farm Economy	13.1	4.7	42.2	10.3	3.0	4.2	16.5	19.7
Rural Formal Non Farm Economy	1.1	2.6	3.3	0.7	0.2	0.4	0.8	3.3
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.2	0.7	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	67.3	4.5	23.6	55.0	80.8	79.7	24.3	45.3
Traditional Urban	2.8	8.0	5.6	2.6	2.6	2.6	7.0	2.2
Urban Formal	8.1	75.9	16.4	13.7	8.0	6.8	9.0	11.7
Urban Formal Industrial and Mines	1.4	1.2	2.3	1.9	1.5	0.9	0.4	1.3
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Dwelling type

The different types of dwellings found in the Olifants basin across the different major units and sub-units are summarized in Table 111 to Table 113. The data are summarized for the different settlement types in Table 114 to Table 116. The data were used to develop an index of dependence on the environment for wood for building materials for the construction of traditional dwellings, which was included into the local direct natural resource dependency index. The development of this index is described in the spatial analysis section.

TABLE 111: TYPE OF DWELLING SUMMARIZED BY NUMBERS OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	House or brick/concrete block structure on a separate stand or yard or on a farm	Traditional dwelling/hut/structure made of traditional materials	Flat or apartment in a block of flats	Cluster house in complex	Townhouse (semi-detached house in a complex)	Semi-detached house	House/flat/room in backyard	Informal dwelling (shack; in backyard)	Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)	Room/flatlet on a property or larger dwelling/servants quarters/granny flat	Caravan/ tent	Other	Total
Lower Olifants	94135	3639	689	79	94	57	716	769	1042	1205	112	334	102872
B60	9680	1227	61	11	17	30	45	336	585	39	31	137	12199
B71 - Lower	8048	363	17	1	1	5	11	67	64	31	9	33	8649
B72	62141	1676	515	55	70	18	514	317	336	1033	62	138	66875
B73	14265	373	96	13	6	4	145	49	57	102	11	28	15150
Middle Olifants - Agriculture	175010	5579	1030	287	139	393	3060	6725	10114	1958	121	747	205164
B31	105226	2050	648	104	93	118	1437	4600	8035	1179	78	373	123941
B32	69784	3529	382	183	46	276	1623	2125	2078	780	43	374	81223
Middle Olifants - Sekhukhuneland	192793	7213	513	195	44	192	1648	4128	5697	2231	143	798	215596
B51	85598	3171	251	41	28	52	463	1786	2157	834	57	354	94792
B52	79596	2798	182	136	13	134	863	1519	1662	716	59	252	87930
B71 - Middle	27600	1244	80	18	3	7	322	823	1877	682	27	192	32875
Middle Olifants - Steelpoort	67047	3506	844	203	278	137	1009	5106	6038	1887	211	697	86963
B41	55226	2932	330	120	70	82	666	2764	4691	1571	149	527	69130
B42	11821	574	514	83	208	55	343	2342	1347	315	62	170	17834
Upper Olifants	170835	5087	6566	1415	3340	1227	6568	12719	34155	3853	429	2954	249146
B11	79632	2804	3758	786	1785	648	3141	5371	17411	2440	212	1308	119296
B12	43174	784	2114	491	1082	380	2115	3866	4136	540	98	532	59311
B20	48029	1499	694	138	473	199	1312	3482	12608	873	120	1114	70539
Grand Total	699821	25024	9641	2180	3896	2006	13001	29448	57045	11134	1015	5531	859742



TABLE 112: TYPE OF DWELLING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	House or brick/concrete block structure on a separate stand or yard or on a farm	Traditional dwelling/hut/structure made of traditional materials	Flat or apartment in a block of flats	Cluster house in complex	Townhouse (semi-detached house in a complex)	Semi-detached house	House/flat/room in backyard	Informal dwelling (shack; in backyard)	Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)	Room/flatlet on a property or larger dwelling/servants quarters/granny flat	Caravan/ tent	Other	Total
Lower Olifants	91.5	3.5	0.7	0.1	0.1	0.1	0.7	0.7	1.0	1.2	0.1	0.3	100
B60	79.4	10.1	0.5	0.1	0.1	0.2	0.4	2.8	4.8	0.3	0.3	1.1	100
B71 - Lower	93.1	4.2	0.2	0.0	0.0	0.1	0.1	0.8	0.7	0.4	0.1	0.4	100
B72	92.9	2.5	0.8	0.1	0.1	0.0	0.8	0.5	0.5	1.5	0.1	0.2	100
B73	94.2	2.5	0.6	0.1	0.0	0.0	1.0	0.3	0.4	0.7	0.1	0.2	100
Middle Olifants - Agriculture	85.3	2.7	0.5	0.1	0.1	0.2	1.5	3.3	4.9	1.0	0.1	0.4	100
B31	84.9	1.7	0.5	0.1	0.1	0.1	1.2	3.7	6.5	1.0	0.1	0.3	100
B32	85.9	4.3	0.5	0.2	0.1	0.3	2.0	2.6	2.6	1.0	0.1	0.5	100
Middle Olifants - Sekhukhuleni	89.4	3.3	0.2	0.1	0.0	0.1	0.8	1.9	2.6	1.0	0.1	0.4	100
B51	90.3	3.3	0.3	0.0	0.0	0.1	0.5	1.9	2.3	0.9	0.1	0.4	100
B52	90.5	3.2	0.2	0.2	0.0	0.2	1.0	1.7	1.9	0.8	0.1	0.3	100
B71 - Middle	84.0	3.8	0.2	0.1	0.0	0.0	1.0	2.5	5.7	2.1	0.1	0.6	100
Middle Olifants - Steelpoort	77.1	4.0	1.0	0.2	0.3	0.2	1.2	5.9	6.9	2.2	0.2	0.8	100
B41	79.9	4.2	0.5	0.2	0.1	0.1	1.0	4.0	6.8	2.3	0.2	0.8	100
B42	66.3	3.2	2.9	0.5	1.2	0.3	1.9	13.1	7.6	1.8	0.3	1.0	100
Upper Olifants	68.6	2.0	2.6	0.6	1.3	0.5	2.6	5.1	13.7	1.5	0.2	1.2	100
B11	66.8	2.4	3.2	0.7	1.5	0.5	2.6	4.5	14.6	2.0	0.2	1.1	100
B12	72.8	1.3	3.6	0.8	1.8	0.6	3.6	6.5	7.0	0.9	0.2	0.9	100
B20	68.1	2.1	1.0	0.2	0.7	0.3	1.9	4.9	17.9	1.2	0.2	1.6	100
Grand Total	81.4	2.9	1.1	0.3	0.5	0.2	1.5	3.4	6.6	1.3	0.1	0.6	100

TABLE 113: TYPE OF DWELLING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	House or brick/concrete block structure on a separate stand or yard or on a farm	Traditional dwelling/hut/structure made of traditional materials	Flat or apartment in a block of flats	Cluster house in complex	Townhouse (semi-detached house in a complex)	Semi-detached house	House/flat/room in backyard	Informal dwelling (shack; in backyard)	Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)	Room/flatlet on a property or larger dwelling/servants quarters/granny flat	Caravan/ tent	Other
Lower Olifants	13.5	14.5	7.1	3.6	2.4	2.8	5.5	2.6	1.8	10.8	11.0	6.0
B60	1.4	4.9	0.6	0.5	0.4	1.5	0.3	1.1	1.0	0.3	3.1	2.5
B71 - Lower	1.2	1.5	0.2	0.0	0.0	0.2	0.1	0.2	0.1	0.3	0.9	0.6
B72	8.9	6.7	5.3	2.5	1.8	0.9	4.0	1.1	0.6	9.3	6.1	2.5
B73	2.0	1.5	1.0	0.6	0.2	0.2	1.1	0.2	0.1	0.9	1.0	0.5
Middle Olifants - Agriculture	25.0	22.3	10.7	13.2	3.6	19.6	23.5	22.8	17.7	17.6	11.9	13.5
B31	15.0	8.2	6.7	4.8	2.4	5.9	11.1	15.6	14.1	10.6	7.7	6.7
B32	10.0	14.1	4.0	8.4	1.2	13.7	12.5	7.2	3.6	7.0	4.2	6.8
Middle Olifants - Sekhukhuleni	27.5	28.8	5.3	9.0	1.1	9.6	12.7	14.0	10.0	20.0	14.1	14.4
B51	12.2	12.7	2.6	1.9	0.7	2.6	3.6	6.1	3.8	7.5	5.6	6.4
B52	11.4	11.2	1.9	6.3	0.3	6.7	6.6	5.2	2.9	6.4	5.8	4.6
B71 - Middle	3.9	5.0	0.8	0.8	0.1	0.3	2.5	2.8	3.3	6.1	2.7	3.5
Middle Olifants - Steelpoort	9.6	14.0	8.8	9.3	7.1	6.8	7.8	17.3	10.6	16.9	20.8	12.6
B41	7.9	11.7	3.4	5.5	1.8	4.1	5.1	9.4	8.2	14.1	14.7	9.5
B42	1.7	2.3	5.3	3.8	5.3	2.7	2.6	8.0	2.4	2.8	6.1	3.1
Upper Olifants	24.4	20.3	68.1	64.9	85.7	61.2	50.5	43.2	59.9	34.6	42.2	53.4
B11	11.4	11.2	39.0	36.1	45.8	32.3	24.2	18.2	30.5	21.9	20.8	23.6
B12	6.2	3.1	21.9	22.5	27.8	19.0	16.3	13.1	7.3	4.9	9.6	9.6
B20	6.9	6.0	7.2	6.3	12.1	9.9	10.1	11.8	22.1	7.8	11.8	20.1
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



TABLE 114: TYPE OF DWELLING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	House or brick/concrete block structure on a separate stand or yard or on a farm	Traditional dwelling/hut/st ructure made of traditional materials	Flat or apartment in a block of flats	Cluster house in complex	Townhouse (semi-detached house in a complex)	Semi-detached house	House/flat/ room in backyard	Informal dwelling (shack; in backyard)	Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)	Room/flatlet on a property or larger dwelling/servants quarters/granny flat	Caravan/tent	Other	Total
Informal Settlement	14407	1029	257	30	54	226	317	4739	19597	345	30	515	41547
Protected Area	1264	34	9	4	1	5	19	16	27	55	19	15	1468
Rural Formal Farm Economy	35839	3946	375	81	68	234	647	1445	4268	2306	303	779	50290
Rural Formal Non Farm Economy	7095	702	428	35	52	94	454	252	612	152	66	107	10049
Rural Formal Non Farm Economy (Mine/Power Stations)	683	12	0	0	0	0	7	41	1	4	2	6	756
Traditional Rural Non Farm Economy	156	1	4	1	0	1	0	5	1	87	0	1	257
Traditional Rural Non Farm Economy (Mine)	425	8	3	1	1	5	1	1	12	8	6	7	478
Traditional Settlement / Village / Associated Rural Areas	409461	16137	1344	483	128	403	3274	11743	16944	4169	246	1639	465972
Traditional Urban	34377	462	142	17	22	33	1246	201	228	236	18	64	37046
Urban Formal	190416	2565	6635	1506	3524	978	6896	10517	13192	3214	286	2290	242019
Urban Formal Industrial and Mines	5698	129	445	22	45	26	140	488	2162	558	40	108	9860
Grand Total	699821	25024	9641	2180	3896	2006	13001	29448	57045	11134	1015	5531	859742

TABLE 115: TYPE OF DWELLING SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	House or brick/concrete block structure on a separate stand or yard or on a farm	Traditional dwelling/hut/st ructure made of traditional materials	Flat or apartment in a block of flats	Cluster house in complex	Townhouse (semi-detached house in a complex)	Semi-detached house	House/flat/ room in backyard	Informal dwelling (shack; in backyard)	Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)	Room/flatlet on a property or larger dwelling/servants quarters/granny flat	Caravan/tent	Other	Total
Informal Settlement	34.7	2.5	0.6	0.1	0.1	0.5	0.8	11.4	47.2	0.8	0.1	1.2	100
Protected Area	86.1	2.3	0.6	0.3	0.1	0.4	1.3	1.1	1.8	3.7	1.3	1.0	100
Rural Formal Farm Economy	71.3	7.8	0.7	0.2	0.1	0.5	1.3	2.9	8.5	4.6	0.6	1.5	100
Rural Formal Non Farm Economy	70.6	7.0	4.3	0.3	0.5	0.9	4.5	2.5	6.1	1.5	0.7	1.1	100
Rural Formal Non Farm Economy (Mine/Power Stations)	90.3	1.6	0.0	0.0	0.0	0.0	0.9	5.4	0.1	0.5	0.3	0.8	100
Traditional Rural Non Farm Economy	60.7	0.4	1.6	0.4	0.0	0.4	0.0	1.9	0.4	33.9	0.0	0.4	100
Traditional Rural Non Farm Economy (Mine)	88.9	1.7	0.6	0.2	0.2	1.0	0.2	0.2	2.5	1.7	1.3	1.5	100
Traditional Settlement / Village / Associated Rural Areas	87.9	3.5	0.3	0.1	0.0	0.1	0.7	2.5	3.6	0.9	0.1	0.4	100
Traditional Urban	92.8	1.2	0.4	0.0	0.1	0.1	3.4	0.5	0.6	0.6	0.0	0.2	100
Urban Formal	78.7	1.1	2.7	0.6	1.5	0.4	2.8	4.3	5.5	1.3	0.1	0.9	100
Urban Formal Industrial and Mines	57.8	1.3	4.5	0.2	0.5	0.3	1.4	5.0	21.9	5.7	0.4	1.1	100
Grand Total	81.4	2.9	1.1	0.3	0.5	0.2	1.5	3.4	6.6	1.3	0.1	0.6	100



TABLE 116: TYPE OF DWELLING SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS DIFFERENT SETTLEMENT TYPES.

	House or brick/concrete block structure on a separate stand or yard or on a farm	Traditional dwelling/hut/structure made of traditional materials	Flat or apartment in a block of flats	Cluster house in complex	Townhouse (semi-detached house in a complex)	Semi-detached house	House/flat/room in backyard	Informal dwelling (shack; in backyard)	Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)	Room/flatlet on a property or larger dwelling/servants quarters/granny flat	Caravan/ tent	Other
Informal Settlement	2.1	4.1	2.7	1.4	1.4	11.3	2.4	16.1	34.4	3.1	3.0	9.3
Protected Area	0.2	0.1	0.1	0.2	0.0	0.3	0.1	0.1	0.0	0.5	1.9	0.3
Rural Formal Farm Economy	5.1	15.8	3.9	3.7	1.7	11.7	5.0	4.9	7.5	20.7	29.8	14.1
Rural Formal Non Farm Economy	1.0	2.8	4.4	1.6	1.3	4.7	3.5	0.9	1.1	1.4	6.5	1.9
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.1
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.6	0.1
Traditional Settlement / Village / Associated Rural Areas	58.5	64.5	13.9	22.2	3.3	20.1	25.2	39.9	29.7	37.4	24.2	29.6
Traditional Urban	4.9	1.8	1.5	0.8	0.6	1.6	9.6	0.7	0.4	2.1	1.8	1.2
Urban Formal	27.2	10.2	68.8	69.1	90.5	48.8	53.0	35.7	23.1	28.9	28.2	41.4
Urban Formal Industrial and Mines	0.8	0.5	4.6	1.0	1.2	1.3	1.1	1.7	3.8	5.0	3.9	1.9
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Water source

The different water sources of households across Olifants Basin in each of the different major units and sub-units are summarized in Table 117 to Table 119. The data are summarized for the different settlement types in Table 120 to Table 122.

TABLE 117: WATER SOURCE SUMMARIZED BY NUMBERS OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Regional/local water scheme (operated by municipality or other water services provider)	Borehole	Spring	Rain water tank	Dam/pool/stagnant water	River/stream	Water vendor	Water tanker	Other	Total
Lower Olifants	63065	13082	1151	726	6482	11797	3357	1449	1776	102886
B60	5224	3120	179	102	318	2661	95	316	186	12201
B71 - Lower	3049	1607	45	51	709	2477	323	154	232	8647
B72	44399	6383	490	523	4973	6359	1936	645	1179	66886
B73	10393	1972	437	51	481	300	1003	335	179	15151
Middle Olifants - Agriculture	141001	25798	897	1629	3333	4167	11591	8684	8046	205146
B31	85172	16972	353	890	946	570	7967	5834	5221	123927
B32	55828	8827	544	739	2387	3597	3623	2850	2825	81220
Middle Olifants - Sekhukhuneland	120288	30481	4786	3895	12224	21048	10640	6884	5358	215605
B51	46694	17409	3473	1615	5126	10580	5084	2109	2715	94806
B52	57603	8189	834	1620	4379	7253	3852	2540	1662	87932
B71 - Middle	15991	4884	478	660	2719	3215	1704	2235	981	32867
Middle Olifants - Steelpoort	48100	12455	1181	1304	3641	10891	2331	3684	3368	86955
B41	33261	11450	1077	1236	3303	10000	2219	3425	3157	69129
B42	14840	1006	104	68	338	890	112	259	211	17826
Upper Olifants	214857	12552	576	624	1201	1686	2090	9464	6084	249135
B11	102968	4456	255	338	596	1174	952	4794	3755	119289
B12	55270	1848	151	86	271	122	169	685	699	59302
B20	56619	6248	170	200	334	390	969	3985	1629	70545
Grand Total	587311	94369	8591	8179	26880	49589	30009	30165	24633	859727

TABLE 118: WATER SOURCE SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	Regional/local water scheme (operated by municipality or other water services provider)	Borehole	Spring	Rain water tank	Dam/pool/stagnant water	River/stream	Water vendor	Water tanker	Other	Total
Lower Olifants	61.3	12.7	1.1	0.7	6.3	11.5	3.3	1.4	1.7	100
B60	42.8	25.6	1.5	0.8	2.6	21.8	0.8	2.6	1.5	100
B71 - Lower	35.3	18.6	0.5	0.6	8.2	28.6	3.7	1.8	2.7	100
B72	66.4	9.5	0.7	0.8	7.4	9.5	2.9	1.0	1.8	100
B73	68.6	13.0	2.9	0.3	3.2	2.0	6.6	2.2	1.2	100
Middle Olifants - Agriculture	68.7	12.6	0.4	0.8	1.6	2.0	5.7	4.2	3.9	100
B31	68.7	13.7	0.3	0.7	0.8	0.5	6.4	4.7	4.2	100
B32	68.7	10.9	0.7	0.9	2.9	4.4	4.5	3.5	3.5	100
Middle Olifants - Sekhukhuneland	55.8	14.1	2.2	1.8	5.7	9.8	4.9	3.2	2.5	100
B51	49.3	18.4	3.7	1.7	5.4	11.2	5.4	2.2	2.9	100
B52	65.5	9.3	0.9	1.8	5.0	8.2	4.4	2.9	1.9	100
B71 - Middle	48.7	14.9	1.5	2.0	8.3	9.8	5.2	6.8	3.0	100
Middle Olifants - Steelpoort	55.3	14.3	1.4	1.5	4.2	12.5	2.7	4.2	3.9	100
B41	48.1	16.6	1.6	1.8	4.8	14.5	3.2	5.0	4.6	100
B42	83.2	5.6	0.6	0.4	1.9	5.0	0.6	1.5	1.2	100
Upper Olifants	86.2	5.0	0.2	0.3	0.5	0.7	0.8	3.8	2.4	100
B11	86.3	3.7	0.2	0.3	0.5	1.0	0.8	4.0	3.1	100
B12	93.2	3.1	0.3	0.1	0.5	0.2	0.3	1.2	1.2	100
B20	80.3	8.9	0.2	0.3	0.5	0.6	1.4	5.6	2.3	100
Grand Total	68.3	11.0	1.0	1.0	3.1	5.8	3.5	3.5	2.9	100



TABLE 119: WATER SOURCE SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Regional/local water scheme (operated by municipality or other water services provider)	Borehole	Spring	Rain water tank	Dam/pool/stagnant water	River/stream	Water vendor	Water tanker	Other
Lower Olifants	10.7	13.9	13.4	8.9	24.1	23.8	11.2	4.8	7.2
B60	0.9	3.3	2.1	1.2	1.2	5.4	0.3	1.0	0.8
B71 - Lower	0.5	1.7	0.5	0.6	2.6	5.0	1.1	0.5	0.9
B72	7.6	6.8	5.7	6.4	18.5	12.8	6.5	2.1	4.8
B73	1.8	2.1	5.1	0.6	1.8	0.6	3.3	1.1	0.7
Middle Olifants - Agriculture	24.0	27.3	10.4	19.9	12.4	8.4	38.6	28.8	32.7
B31	14.5	18.0	4.1	10.9	3.5	1.1	26.5	19.3	21.2
B32	9.5	9.4	6.3	9.0	8.9	7.3	12.1	9.4	11.5
Middle Olifants - Sekhukhuneland	20.5	32.3	55.7	47.6	45.5	42.4	35.5	22.8	21.8
B51	8.0	18.4	40.4	19.8	19.1	21.3	16.9	7.0	11.0
B52	9.8	8.7	9.7	19.8	16.3	14.6	12.8	8.4	6.7
B71 - Middle	2.7	5.2	5.6	8.1	10.1	6.5	5.7	7.4	4.0
Middle Olifants - Steelpoort	8.2	13.2	13.7	15.9	13.5	22.0	7.8	12.2	13.7
B41	5.7	12.1	12.5	15.1	12.3	20.2	7.4	11.4	12.8
B42	2.5	1.1	1.2	0.8	1.3	1.8	0.4	0.9	0.9
Upper Olifants	36.6	13.3	6.7	7.6	4.5	3.4	7.0	31.4	24.7
B11	17.5	4.7	3.0	4.1	2.2	2.4	3.2	15.9	15.2
B12	9.4	2.0	1.8	1.0	1.0	0.2	0.6	2.3	2.8
B20	9.6	6.6	2.0	2.4	1.2	0.8	3.2	13.2	6.6
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 120: WATER SOURCE SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	Regional/local water scheme (operated by municipality or other water services provider)	Borehole	Spring	Rain water tank	Dam/pool/stagnant water	River/stream	Water vendor	Water tanker	Other	Total
Informal Settlement	29969	1124	80	207	487	795	550	5179	3165	41556
Protected Area	185	790	19	5	162	208	4	49	46	1468
Rural Formal Farm Economy	10484	25266	711	504	3901	3164	799	4149	1319	50297
Rural Formal Non Farm Economy	7642	1016	22	38	62	225	148	589	310	10052
Rural Formal Non Farm Economy (Mine/Power Stations)	594	147	1	1	0	5	1	3	3	755
Traditional Rural Non Farm Economy	211	37	0	0	2	1	0	0	6	257
Traditional Rural Non Farm Economy (Mine)	389	23	0	1	29	13	8	7	7	477
Traditional Settlement / Village / Associated Rural Areas	262243	62639	7308	7026	21577	44483	26938	17459	16292	465965
Traditional Urban	34497	861	106	74	36	146	225	473	630	37048
Urban Formal	231836	2232	315	315	603	548	1324	2118	2704	241995
Urban Formal Industrial and Mines	9261	234	29	8	22	1	12	139	151	9858
Grand Total	587311	94369	8591	8179	26880	49589	30009	30165	24633	859727

TABLE 121: WATER SOURCE SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	Regional/local water scheme (operated by municipality or other water services provider)	Borehole	Spring	Rain water tank	Dam/pool/stagnant water	River/stream	Water vendor	Water tanker	Other	Total
Informal Settlement	72.1	2.7	0.2	0.5	1.2	1.9	1.3	12.5	7.6	100
Protected Area	12.6	53.8	1.3	0.3	11.1	14.2	0.2	3.3	3.1	100
Rural Formal Farm Economy	20.8	50.2	1.4	1.0	7.8	6.3	1.6	8.2	2.6	100
Rural Formal Non Farm Economy	76.0	10.1	0.2	0.4	0.6	2.2	1.5	5.9	3.1	100
Rural Formal Non Farm Economy (Mine/Power Stations)	78.7	19.5	0.1	0.1	0.0	0.7	0.1	0.4	0.4	100
Traditional Rural Non Farm Economy	82.1	14.4	0.0	0.0	0.8	0.4	0.0	0.0	2.3	100
Traditional Rural Non Farm Economy (Mine)	81.6	4.8	0.0	0.2	6.1	2.7	1.7	1.5	1.5	100
Traditional Settlement / Village / Associated Rural Areas	56.3	13.4	1.6	1.5	4.6	9.5	5.8	3.7	3.5	100
Traditional Urban	93.1	2.3	0.3	0.2	0.1	0.4	0.6	1.3	1.7	100
Urban Formal	95.8	0.9	0.1	0.1	0.2	0.2	0.5	0.9	1.1	100
Urban Formal Industrial and Mines	93.9	2.4	0.3	0.1	0.2	0.0	0.1	1.4	1.5	100
Grand Total	68.3	11.0	1.0	1.0	3.1	5.8	3.5	3.5	2.9	100



TABLE 122: WATER SOURCE SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS DIFFERENT SETTLEMENT TYPES.

	Regional/local water scheme (operated by municipality or other water services provider)	Borehole	Spring	Rain water tank	Dam/pool/stagnant water	River/stream	Water vendor	Water tanker	Other
Informal Settlement	5.1	1.2	0.9	2.5	1.8	1.6	1.8	17.2	12.8
Protected Area	0.0	0.8	0.2	0.1	0.6	0.4	0.0	0.2	0.2
Rural Formal Farm Economy	1.8	26.8	8.3	6.2	14.5	6.4	2.7	13.8	5.4
Rural Formal Non Farm Economy	1.3	1.1	0.3	0.5	0.2	0.5	0.5	2.0	1.3
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	44.7	66.4	85.1	85.9	80.3	89.7	89.8	57.9	66.1
Traditional Urban	5.9	0.9	1.2	0.9	0.1	0.3	0.7	1.6	2.6
Urban Formal	39.5	2.4	3.7	3.9	2.2	1.1	4.4	7.0	11.0
Urban Formal Industrial and Mines	1.6	0.2	0.3	0.1	0.1	0.0	0.0	0.5	0.6
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Access to piped water

Levels of access to piped water for households across Olifants Basin in each of the different major units and sub-units are summarized in Table 123 to Table 125. The data are summarized for the different settlement types in Table 126 to Table 128. The data were used to develop an index of direct dependence on the environment for water, which was included into the local direct natural resource dependency index. The development of this index is described in the spatial analysis section.

TABLE 123: ACCESS TO PIPED WATER SUMMARIZED BY NUMBERS OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS.

	Piped (tap) water inside dwelling/institution	Piped (tap) water inside yard	Piped (tap) water on community stand: distance less than 200m from dwelling/institution	Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution	Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution	Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution	No access to piped (tap) water	Total
Lower Olifants	21492	42802	15342	6038	3683	2260	11279	102896
B60	2577	5599	1124	349	372	160	2024	12206
B71 - Lower	540	2207	2526	789	609	260	1721	8653
B72	16637	29253	8413	3237	1640	1339	6366	66885
B73	1738	5742	3280	1662	1062	501	1168	15153
Middle Olifants - Agriculture	34328	115588	14094	4405	2353	1257	33133	205158
B31	22864	69041	7497	1985	1225	551	20769	123932
B32	11464	46547	6597	2420	1128	705	12363	81226
Middle Olifants - Sekhukhuneland	21547	70062	50743	16199	7073	3431	46623	215679
B51	7450	32766	16544	4948	2306	1410	29393	94818
B52	12122	28284	23916	7133	3158	1316	12039	87969
B71 - Middle	1974	9013	10283	4118	1608	704	5191	32892
Middle Olifants - Steelpoort	18739	21516	18087	6386	3492	1923	16820	86962
B41	9682	14922	17460	5750	3247	1874	16199	69135
B42	9057	6594	626	636	244	50	620	17827
Upper Olifants	135680	68472	20253	7827	3953	1329	11630	249144
B11	66502	28655	10795	4396	2264	659	6014	119284
B12	37779	14147	4055	1657	547	205	915	59305
B20	31399	25670	5403	1774	1142	465	4700	70555
Grand Total	231787	318440	118520	40855	20554	10200	119485	859840



TABLE 124: ACCESS TO PIPED WATER SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN MAJOR UNITS AND SUB-UNITS.

	Piped (tap) water inside dwelling/institution	Piped (tap) water inside yard	Piped (tap) water on community stand: distance less than 200m from dwelling/institution	Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution	Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution	Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution	No access to piped (tap) water	Total
Lower Olifants	20.9	41.6	14.9	5.9	3.6	2.2	11.0	100
B60	21.1	45.9	9.2	2.9	3.0	1.3	16.6	100
B71 - Lower	6.2	25.5	29.2	9.1	7.0	3.0	19.9	100
B72	24.9	43.7	12.6	4.8	2.5	2.0	9.5	100
B73	11.5	37.9	21.6	11.0	7.0	3.3	7.7	100
Middle Olifants - Agriculture	16.7	56.3	6.9	2.1	1.1	0.6	16.1	100
B31	18.4	55.7	6.0	1.6	1.0	0.4	16.8	100
B32	14.1	57.3	8.1	3.0	1.4	0.9	15.2	100
Middle Olifants - SekhukhuneLand	10.0	32.5	23.5	7.5	3.3	1.6	21.6	100
B51	7.9	34.6	17.4	5.2	2.4	1.5	31.0	100
B52	13.8	32.2	27.2	8.1	3.6	1.5	13.7	100
B71 - Middle	6.0	27.4	31.3	12.5	4.9	2.1	15.8	100
Middle Olifants - Steelpoort	21.5	24.7	20.8	7.3	4.0	2.2	19.3	100
B41	14.0	21.6	25.3	8.3	4.7	2.7	23.4	100
B42	50.8	37.0	3.5	3.6	1.4	0.3	3.5	100
Upper Olifants	54.5	27.5	8.1	3.1	1.6	0.5	4.7	100
B11	55.8	24.0	9.0	3.7	1.9	0.6	5.0	100
B12	63.7	23.9	6.8	2.8	0.9	0.3	1.5	100
B20	44.5	36.4	7.7	2.5	1.6	0.7	6.7	100
Grand Total	27.0	37.0	13.8	4.8	2.4	1.2	13.9	100

TABLE 125: ACCESS TO PIPED WATER SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS MAJOR UNITS AND SUB-UNITS

	Piped (tap) water inside dwelling/institution	Piped (tap) water inside yard	Piped (tap) water on community stand: distance less than 200m from dwelling/institution	Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution	Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution	Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution	No access to piped (tap) water
Lower Olifants	9.3	13.4	12.9	14.8	17.9	22.2	9.4
B60	1.1	1.8	0.9	0.9	1.8	1.6	1.7
B71 - Lower	0.2	0.7	2.1	1.9	3.0	2.6	1.4
B72	7.2	9.2	7.1	7.9	8.0	13.1	5.3
B73	0.7	1.8	2.8	4.1	5.2	4.9	1.0
Middle Olifants - Agriculture	14.8	36.3	11.9	10.8	11.4	12.3	27.7
B31	9.9	21.7	6.3	4.9	6.0	5.4	17.4
B32	4.9	14.6	5.6	5.9	5.5	6.9	10.3
Middle Olifants - SekhukhuneLand	9.3	22.0	42.8	39.7	34.4	33.6	39.0
B51	3.2	10.3	14.0	12.1	11.2	13.8	24.6
B52	5.2	8.9	20.2	17.5	15.4	12.9	10.1
B71 - Middle	0.9	2.8	8.7	10.1	7.8	6.9	4.3
Middle Olifants - Steelpoort	8.1	6.8	15.3	15.6	17.0	18.9	14.1
B41	4.2	4.7	14.7	14.1	15.8	18.4	13.6
B42	3.9	2.1	0.5	1.6	1.2	0.5	0.5
Upper Olifants	58.5	21.5	17.1	19.2	19.2	13.0	9.7
B11	28.7	9.0	9.1	10.8	11.0	6.5	5.0
B12	16.3	4.4	3.4	4.1	2.7	2.0	0.8
B20	13.5	8.1	4.6	4.3	5.6	4.6	3.9
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0



TABLE 126: ACCESS TO PIPED WATER SUMMARIZED BY NUMBERS OF HOUSEHOLDS FOR DIFFERENT SETTLEMENT TYPES.

	Piped (tap) water inside dwelling/institution	Piped (tap) water inside yard	Piped (tap) water on community stand: distance less than 200m from dwelling/institution	Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution	Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution	Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution	No access to piped (tap) water	Total
Informal Settlement	4707	10951	11464	5399	2617	566	5849	41552
Protected Area	662	739	34	2	0	3	28	1468
Rural Formal Farm Economy	14915	19862	4996	1392	1086	614	7433	50298
Rural Formal Non Farm Economy	6462	1350	728	412	126	67	903	10048
Rural Formal Non Farm Economy (Mine/Power Stations)	213	529	6	0	3	0	8	759
Traditional Rural Non Farm Economy	103	140	6	0	0	1	8	258
Traditional Rural Non Farm Economy (Mine)	274	95	85	21	2	0	3	480
Traditional Settlement / Village / Associated Rural Areas	35602	183173	91108	30856	15306	8397	101615	466058
Traditional Urban	16071	17494	1961	267	238	143	876	37050
Urban Formal	149467	78616	7597	2276	1060	379	2616	242011
Urban Formal Industrial and Mines	3311	5492	535	230	115	30	144	9858
Grand Total	231787	318440	118520	40855	20554	10200	119485	859840

TABLE 127: ACCESS TO PIPED WATER SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS WITHIN DIFFERENT SETTLEMENT TYPES.

	Piped (tap) water inside dwelling/institution	Piped (tap) water inside yard	Piped (tap) water on community stand: distance less than 200m from dwelling/institution	Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution	Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution	Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution	No access to piped (tap) water	Total
Informal Settlement	11.3	26.4	27.6	13.0	6.3	1.4	14.1	100
Protected Area	45.1	50.3	2.3	0.1	0.0	0.2	1.9	100
Rural Formal Farm Economy	29.7	39.5	9.9	2.8	2.2	1.2	14.8	100
Rural Formal Non Farm Economy	64.3	13.4	7.2	4.1	1.3	0.7	9.0	100
Rural Formal Non Farm Economy (Mine/Power Stations)	28.1	69.7	0.8	0.0	0.4	0.0	1.1	100
Traditional Rural Non Farm Economy	39.9	54.3	2.3	0.0	0.0	0.4	3.1	100
Traditional Rural Non Farm Economy (Mine)	57.1	19.8	17.7	4.4	0.4	0.0	0.6	100
Traditional Settlement / Village / Associated Rural Areas	7.6	39.3	19.5	6.6	3.3	1.8	21.8	100
Traditional Urban	43.4	47.2	5.3	0.7	0.6	0.4	2.4	100
Urban Formal	61.8	32.5	3.1	0.9	0.4	0.2	1.1	100
Urban Formal Industrial and Mines	33.6	55.7	5.4	2.3	1.2	0.3	1.5	100
Grand Total	27.0	37.0	13.8	4.8	2.4	1.2	13.9	100



TABLE 128: ACCESS TO PIPED WATER SUMMARIZED BY PERCENTAGE OF HOUSEHOLDS ACROSS DIFFERENT SETTLEMENT TYPES.

	Piped (tap) water inside dwelling/institution	Piped (tap) water inside yard	Piped (tap) water on community stand: distance less than 200m from dwelling/institution	Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution	Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution	Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution	No access to piped (tap) water
Informal Settlement	2.0	3.4	9.7	13.2	12.7	5.5	4.9
Protected Area	0.3	0.2	0.0	0.0	0.0	0.0	0.0
Rural Formal Farm Economy	6.4	6.2	4.2	3.4	5.3	6.0	6.2
Rural Formal Non Farm Economy	2.8	0.4	0.6	1.0	0.6	0.7	0.8
Rural Formal Non Farm Economy (Mine/Power Stations)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traditional Rural Non Farm Economy (Mine)	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Traditional Settlement / Village / Associated Rural Areas	15.4	57.5	76.9	75.5	74.5	82.3	85.0
Traditional Urban	6.9	5.5	1.7	0.7	1.2	1.4	0.7
Urban Formal	64.5	24.7	6.4	5.6	5.2	3.7	2.2
Urban Formal Industrial and Mines	1.4	1.7	0.5	0.6	0.6	0.3	0.1
Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Section B:

Spatial Analysis of Poverty & Local Direct Natural Resource Dependency

Overall prioritization method

The analysis focusses on the question: Where are the poorest people who are most dependent on the direct use of local natural resources in the Olifants Basin? This study primarily draws on analysis of Census 2011 data to devise a vulnerability index⁶ that for communities within the Olifants Basin.

The data-driven vulnerability index, consists of two composite indices namely:

- A general poverty index, incorporating sub-indices of:
 - Population density.
 - Density of people who are not employed
 - Dependency ratio.
 - Density of low income households.
 - Consumption (Examining levels of ownership of various goods as a proxy for poverty).
 - Access to services (Specifically looking at access to electricity, decent sanitation, water supplies and refuse collection).

- Local direct natural resource use dependency index, incorporating sub-indices of:
 - Access to piped water.
 - Dependency on the environment for wood for cooking.
 - Dependency on the environment for wood for heating.
 - Dependency on the environment for building materials.

The analysis is undertaken at a community level, which is the smallest discreet geographic unit recognized in the South African 2011 census. The indices are relative and compare the specific values for a particular values against a series of baseline values for communities in the Olifants basin⁷. The objective is to identify an efficient set of indicators of poverty and natural resource dependency, with indicators identified and thresholds set at levels to meaningfully differentiate the most vulnerable focal rural communities.

⁶ Note that the analysis is set up to provide an integrated vulnerability index. However, discussions within the RESILIM team indicated that there were mixed opinions on whether it was useful to combine the general poverty index and the local direct natural resource use dependency index. Further, it was debated whether this combined measure should be called a "Vulnerability index". This discussion was not resolved, therefore we have retained the terminology and the combined index.

⁷ The values were also benchmarked against national values for South Africa as a whole, but this is not currently reported here as we have utilized the Olifants baseline. This was done because the primary purpose was to identify the most vulnerable communities in the Basin rather than to describe them relative to other areas.



Importantly, the study identifies where the poorest people who are most dependent on the direct use of local natural resources live. Later, as part of the Ecosystem Service analysis, the analysis will be developed further to identify the broader areas supplying these natural resources (as in general households would be dependent on the areas surrounding the homestead rather than just the homestead footprint itself). Finally, the areas of high demand will be combined with the landcover maps to identify the natural and semi-natural areas in these high demand areas, and allow the condition of the resource to be explored. This will give an indication of the supply and demand for these natural resources, and give an idea of where there are key areas of resource scarcity which may influence the vulnerability of individuals, households and communities. These areas of scarcity of resource (in either quantity or quality) in relation to demand/need will help us identify the areas which should be most carefully managed to ensure the ongoing supply of sufficient environmental goods and services.

General poverty index

As explained in the previous section, the initial step was the development of a General poverty index which examined the overall population density, the density of people who are not employed, a dependency ratio which examined the ratio of people who are employed to those who are not, the density of low income households, a consumption based measure of poverty (examining levels of ownership of various goods as a proxy for poverty), and an index of poverty of access to services (specifically looking at access to electricity, decent sanitation, water supplies and refuse collection).

The analysis made use of data collected in Census 2011 collated by StatsSA at a sub-place level, which is the most spatially specific data that is available. The data precisely identifies concentrations of people (including very small settlements), and hence allows the current analysis to map specific areas of high levels of poverty. The spatial prioritization utilized the following input layers:

The overall population density. The total number of people in each sub-place unit were divided by area to give an average population density (people/km²) (See Figure 6 in earlier section of document). The data were further processed using the following approach:

- The base value was then converted to an index in order to provide identify areas of relative high and low density, allow the different measures to be combined, and to deal with some statistical issues such as the skewed sample data (i.e. where there are a few very high values in the dataset).
- We used the following formula to calculate values: $10 * (n/n_{90})$, where n is the individual value for a unit, and n_{90} is the value for the 90th percentile of that value in the Olifants Basin⁸. Any resultant values over 10 were reclassified as 10.

⁸ For the population density calculations n_{90} was 1654.25 people/ km² for the Olifants Basin. Note that this baseline was selected as the best option after a range of alternatives were explored. The other options explored were benchmarking the values against the maximum value for the Olifants, the 80th percentile for the Olifants and the median value for the Olifants, as well as the maximum value for South Africa, 90th percentile for South Africa, 80th percentile for South Africa, and median value for South Africa. In the end, the benchmarks against the rest of South Africa were not used as it was decided that the comparison should be relative to communities in the basin. There is no correct answer in terms of which percentile to use as the benchmark, but across all the variables, we found that the 90th percentile was sufficient to



- This approach gives an index from 0 (lowest density) to 10 (highest density).
- This is shown in Figure 7.

The density of people who are not employed⁹. The total number of people who are unemployed, discouraged work-seekers, not economically active or under 15 were added up for each sub-place and this value was divided by area to give an average density of people who are not employed (people/km²). The data were further processed using the following approach:

- The base value was then converted to an index in order to provide identify areas of relative high and low density of people who are not employed. The reasons for doing this were explained in the population density section.
- The standard formula and method described for population density was used to calculate values¹⁰.
- This approach gives an index from 0 (lowest density of not employed people) to 10 (highest density of not employed people).
- This is shown in Figure 8.

A dependency ratio which examined the ratio of people who are employed to those who are not.

For each sub-place, the total shows the ratio of people who are employed to people who are unemployed, discouraged work-seekers, not economically active or under 15. It attempts to identify areas where there are very high dependency levels. The data are displayed as a ratio of employed people per hundred. This data was further processed using the following approach:

- $(100 - (\text{Ratio employed}/100))/10$. The formula gives a value between 0 (areas with lowest dependency levels) and 10 (areas with highest dependency levels).
- The standard formula and method described for population density was used to calculate values¹¹.
- This approach gives an index from 0 (lowest dependency ratio) to 10 (highest dependency ratio).
- This is shown in Figure 9.

The density of low income households. Household income was derived from the Census 2011 data for the Olifants Basin. We attempted use the Census data to identify households which were living on the equivalent of one government grant or less per year. Unfortunately, as the Census divides incomes into specific categories which do not coincide with values such as a nationally defined poverty line or a government grant, we had to use the nearest category division to identify the lowest income households. Households were considered to be low income if they had a combined income of under R9600/year or had with no income at all. The data were further processed using the following approach:

deal with the skewed distributions found in the catchment. The median benchmark resulted in too little differentiation between households which were poor vs very poor, or somewhat resource dependent vs very resource dependent. We consistently applied the Olifants n⁹⁰ benchmark for all variables.

⁹ Please note that the definition we are using of “not employed” is broader than the definition of unemployed” and includes pensioners, children and discouraged work seekers.

¹⁰ For the “not employed” density the n₉₀ value was 1372.88 people/ km².

¹¹ For the dependency ratio the n₉₀ value was 9.59506.



- The base value was then converted to an index in order to provide identify areas of relative high and low density of low income households. The reasons for doing this were explained in the population density section.
- The standard formula and method described for population density was used to calculate values¹².
- This approach gives an index from 0 (lowest density of low income households) to 10 (highest density of low income households).
- This is shown in Figure 10.

Consumption (Examining levels of ownership of various goods as a proxy for poverty). As reported household income often gives a poor reflection of actual household income, we developed an additional indicator of poverty based on the ownership of goods as reflected in the Census 2011 data for the Olifants Basin. We initially developed an index of ownership (or rather lack thereof) of selected goods (i.e. car, radio, DVD, fridge and cellphone). This outputs of this analysis are shown in Map 1 of the supplementary map appendix. However, as this analysis showed a very similar spatial pattern to the index based on all goods, we utilized the latter as it gave a slightly more nuanced picture. The index of poverty as measured by the lack of ownership of all goods (i.e. car, cell phone, computer, DVD player, refrigerator, radio, satellite television, electric/gas stove, television, vacuum cleaner and washing machine) was derived as follows:

- The ownership of all types of goods recorded in the census was summarized for our planning units.
- We then added up everything owned by a household and divided this by the maximum possible levels of goods ownership (i.e. the sum of items owned and items not owned). This gave an ownership ratio, which we then subtracted from 1 to give a lack of ownership ratio.
- The standard formula and method described for population density was used to calculate values¹³ in order to benchmark the levels of ownership of goods by a particular community against the levels found in the whole catchment.
- This approach gives an index from 0 (highest levels of consumption) to 10 (lowest levels of consumption). Note that as level of consumption is being used as a proxy for poverty, the highest value of the index identify communities with the least goods.
- This is shown in Figure 11.

Access to services (Specifically looking at access to electricity, decent sanitation, water supplies and refuse collection). Level of access to services provides an additional measure of poverty. We defined reasonable access to services as the following:

- For access to electricity, we examined whether households were using electricity for lighting. In many cases, even though electricity is theoretically available for cooking and heating it may be too expensive to be used on these energy intensive tasks. However, use of electricity for lighting is far more widespread and provides a good indication of whether electricity access is available. A map of the level of access to electricity for lighting is provided in the additional map appendix.

¹² For the “low income households index” the n_{90} value was 130.794.

¹³ For the “consumption index” the n_{90} value was 0.624148.



- We defined decent access to sanitation as having a flushing toilet (either linked to a sewage system or a septic tank), a chemical toilet or a ventilated pit toilet. Insufficient access was defined as a standard pit toilet (i.e. not ventilated), a bucket system or no toilet at all. A map of the level of access to decent sanitation is provided in the additional map appendix.
- We defined decent access to water as having access to piped water either in one's house, in the yard or within 200m. Anything further than that, or where there is no access to piped water, was defined as insufficient access to water. A map of the level of access to piped water is provided in the additional map appendix.
- We defined reasonable access to refuse collection as having refuse removed by a local authority or private company (at any frequency). Any other arrangement was seen as being insufficient. A map of the level of access to reasonable refuse collection is provided in the additional map appendix.

A ratio of sufficient access to each individual service was calculated (ranging from 1 = full access to 0 = no access). Poverty of access to a specific service was then calculated by subtracting the value from 1. Finally, poverty of access to the four components were summarised adding the individual scores. This gave a score between 0 and 4, with the highest scores being in areas with no access to services. This value was then processed as follows:

- The standard formula and method described for population density was used to calculate values¹⁴ in order to benchmark the levels of access to services by a particular community against the levels found in the whole catchment.
- This approach gives an index from 0 (highest levels of access to services) to 10 (lowest levels of access to services).
- This is shown in Figure 12.

General Poverty Index. Finally, a General Poverty Index was calculated using an equal weighted average of the six indices discussed above. This gives an overall picture of which areas have the highest overall population density, the highest density of people who are not employed, a high dependency ratio which examined the ratio of people who are employed to those who are not, the highest density of low income households, the highest levels of the consumption based measure of poverty (examining levels of ownership of various goods as a proxy for poverty), and the highest level of poverty of access to services (specifically looking at access to electricity, decent sanitation, water supplies and refuse collection). This is shown in Figure 13. The General Poverty Index is summarized for different geographical units and settlement types in Table 129 to Table 134 which are included in the final section of this report.

¹⁴ For the "lack of services" the benchmark n_{90} value was 2.91537.



Population Density Index

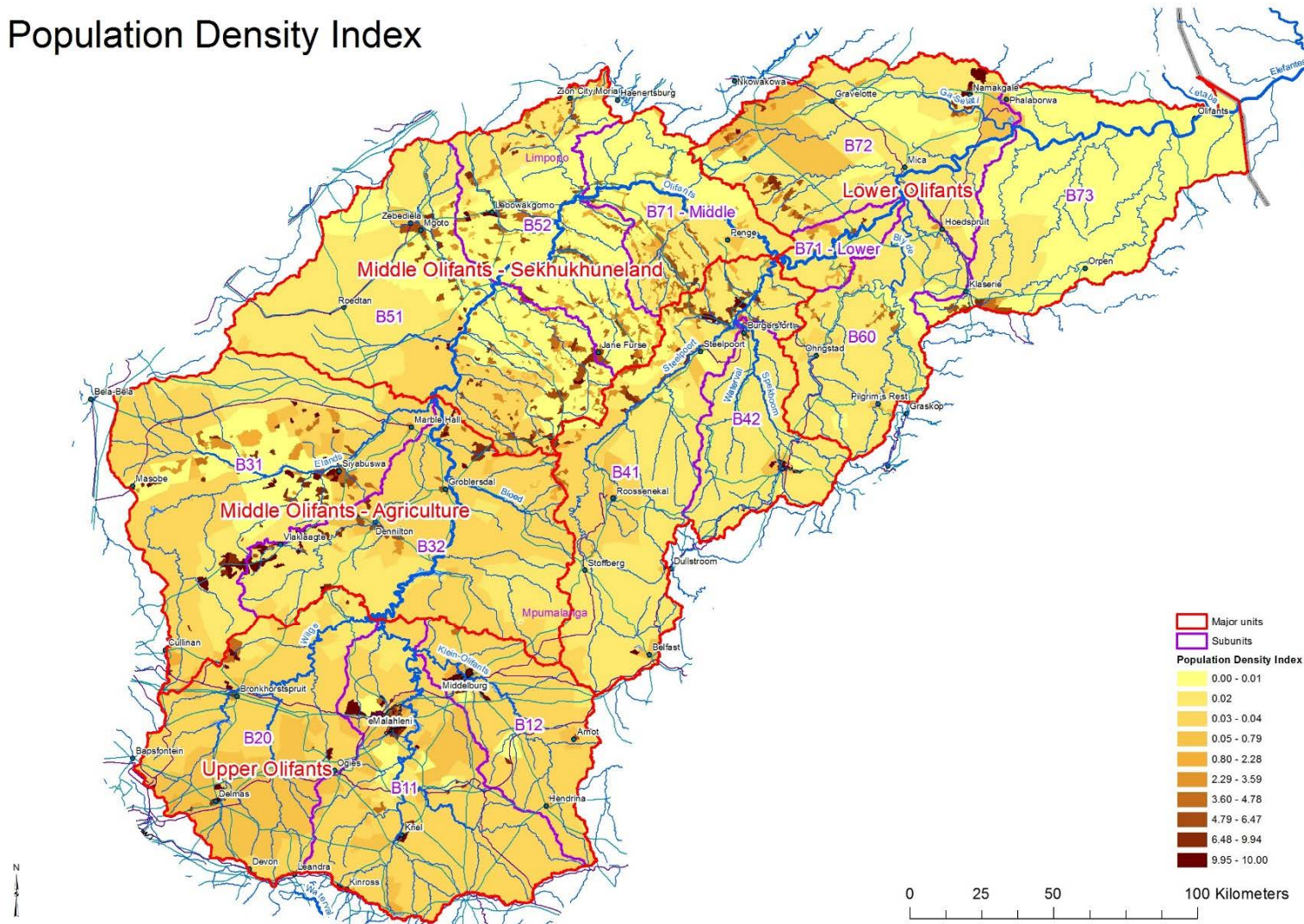


Figure 7: Map showing the population density index, which summarizes population density between 0 and 10 against the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data.



Density of people who are not employed

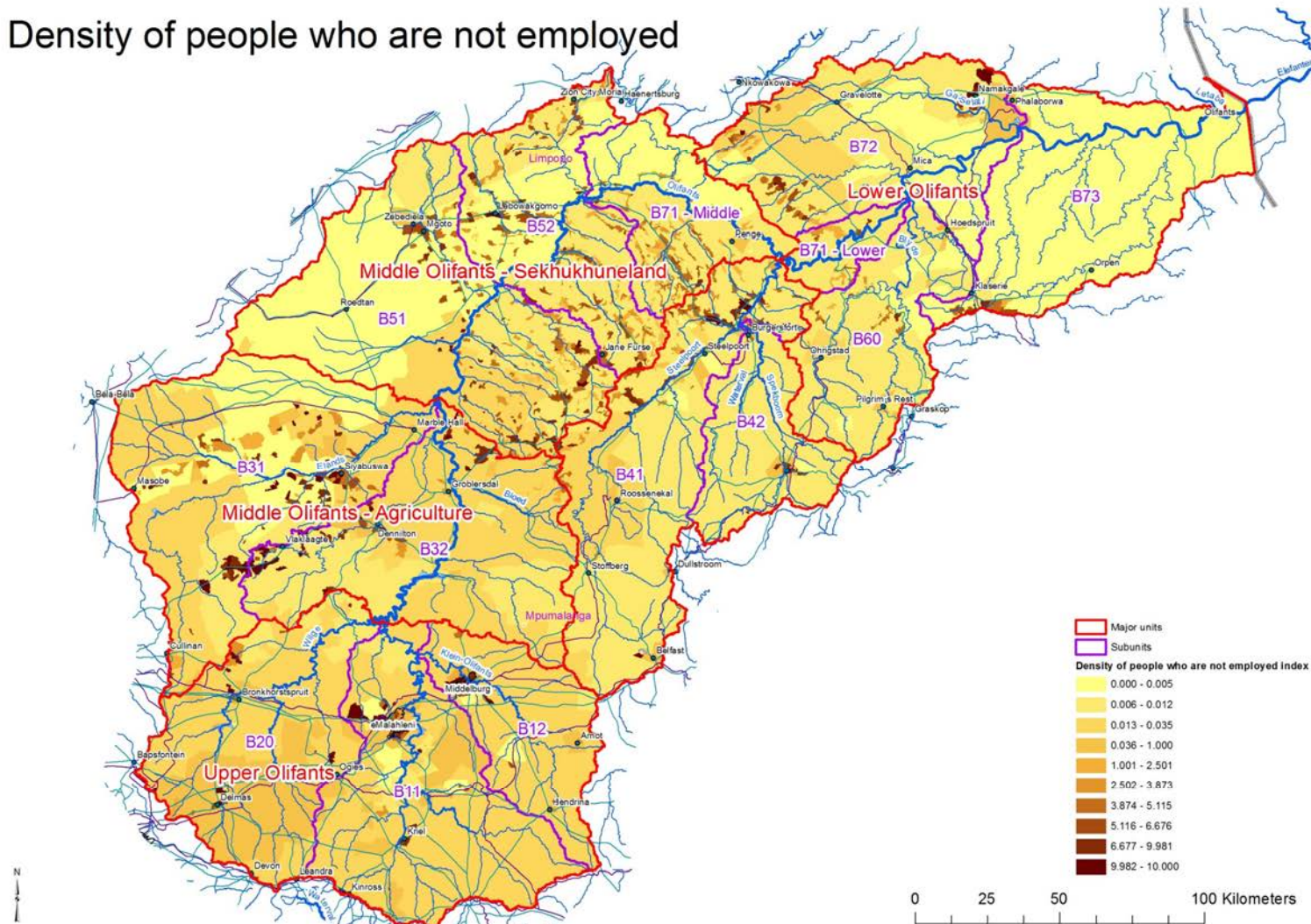


Figure 8: Map showing the density index of people who are not employed, which summarizes the density of people who are unemployed, discouraged work-seekers, not economically active or under 15 between 0 and 10 against the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data.



Dependency Ratio

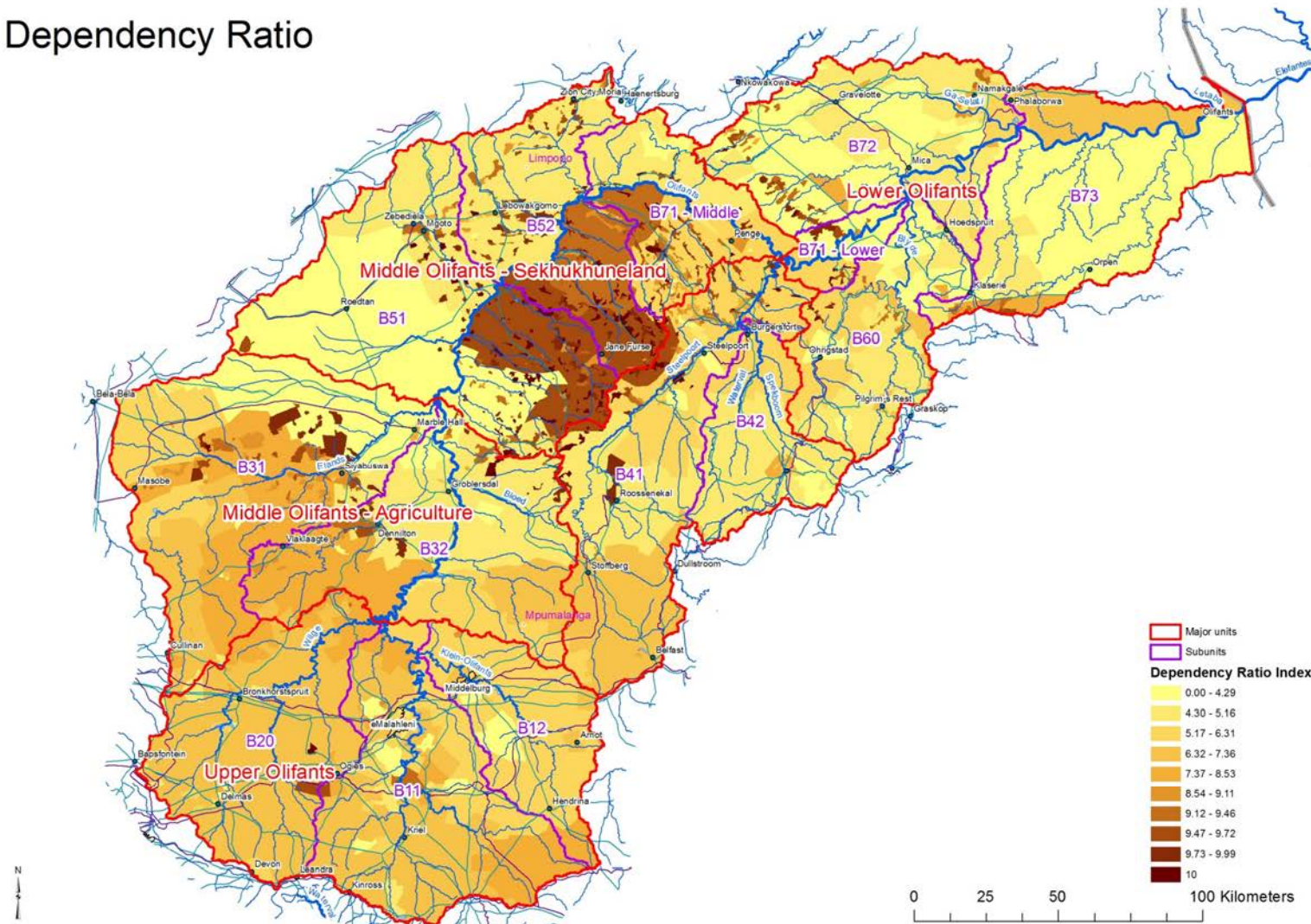


Figure 9: Map shows an index of the ratio of people who are employed to people who are unemployed, discouraged work-seekers, not economically active or under 15. It attempts to identify areas where there are very high dependency levels. The index ranges from 0 to 10 and is benchmarked against the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data.



Density of low income households

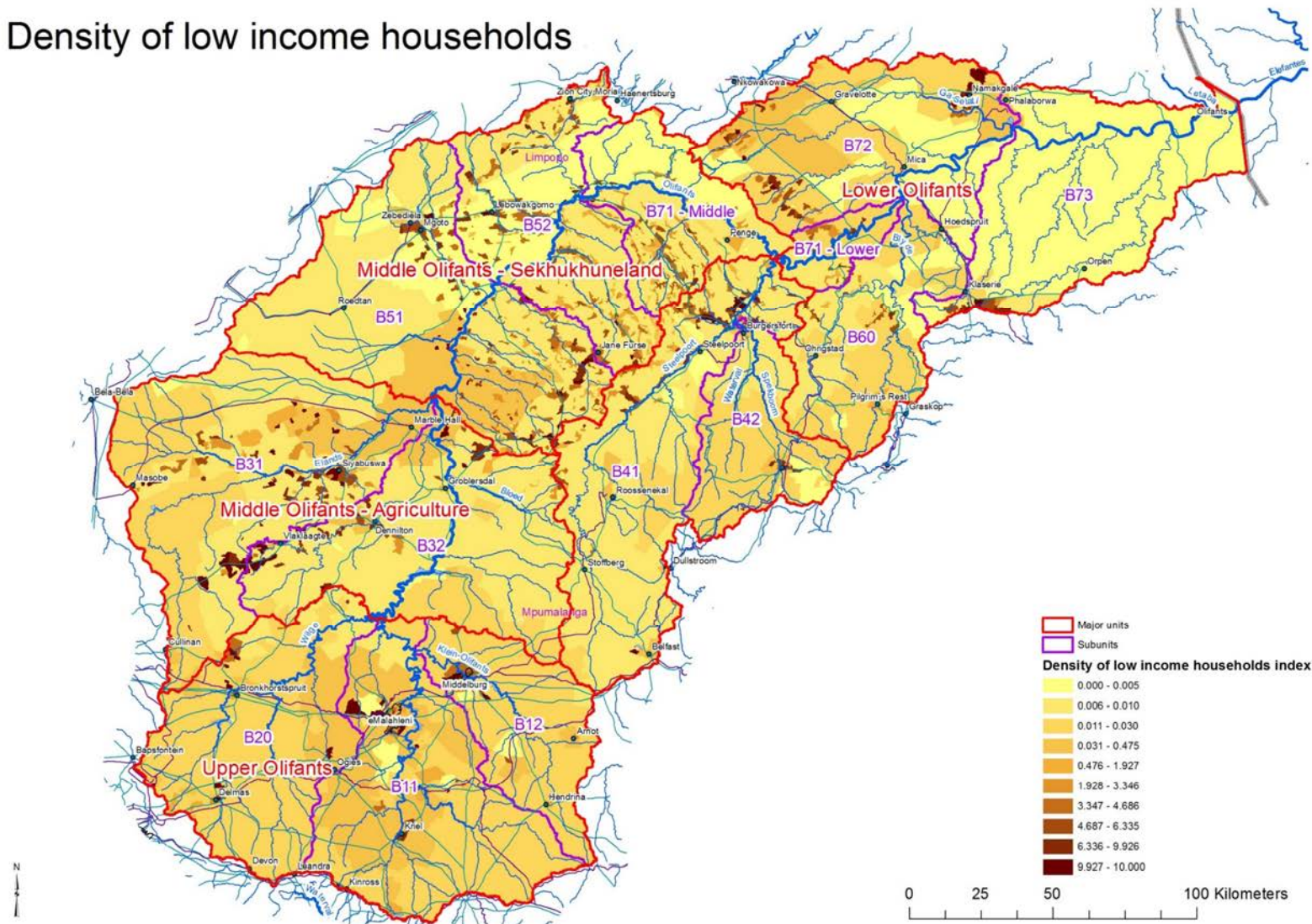


Figure 10: Map shows an index of the density of low income households, which are defined as households with incomes of under R9600/year or with no income at all. The index ranges from 0 to 10 and is benchmarked against the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data.



Consumption Poverty: Index of ownership of all goods

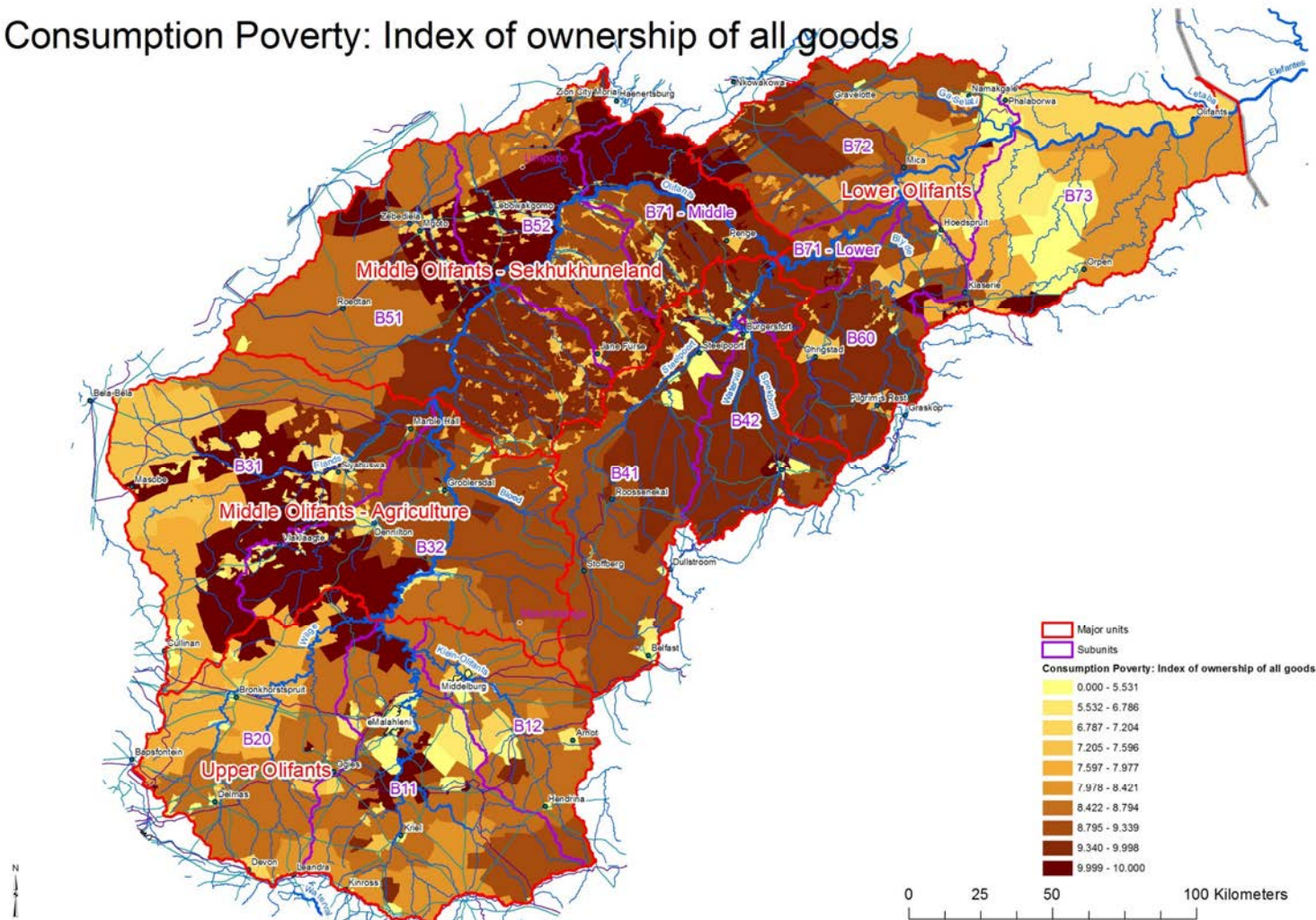


Figure 11: Map shows an index of poverty as measured by the lack of ownership of all goods (i.e. car, cell phone, computer, DVD player, refrigerator, radio, satellite television, electric/gas stove, television, vacuum cleaner and washing machine). The index ranges from 0 to 10 and is benchmarked against the levels of poverty of consumption of the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data. Note that the darkest colours indicate areas where people have the least possessions. A map of a similar index of selected goods is provided in the map appendix.



Poverty of access to services

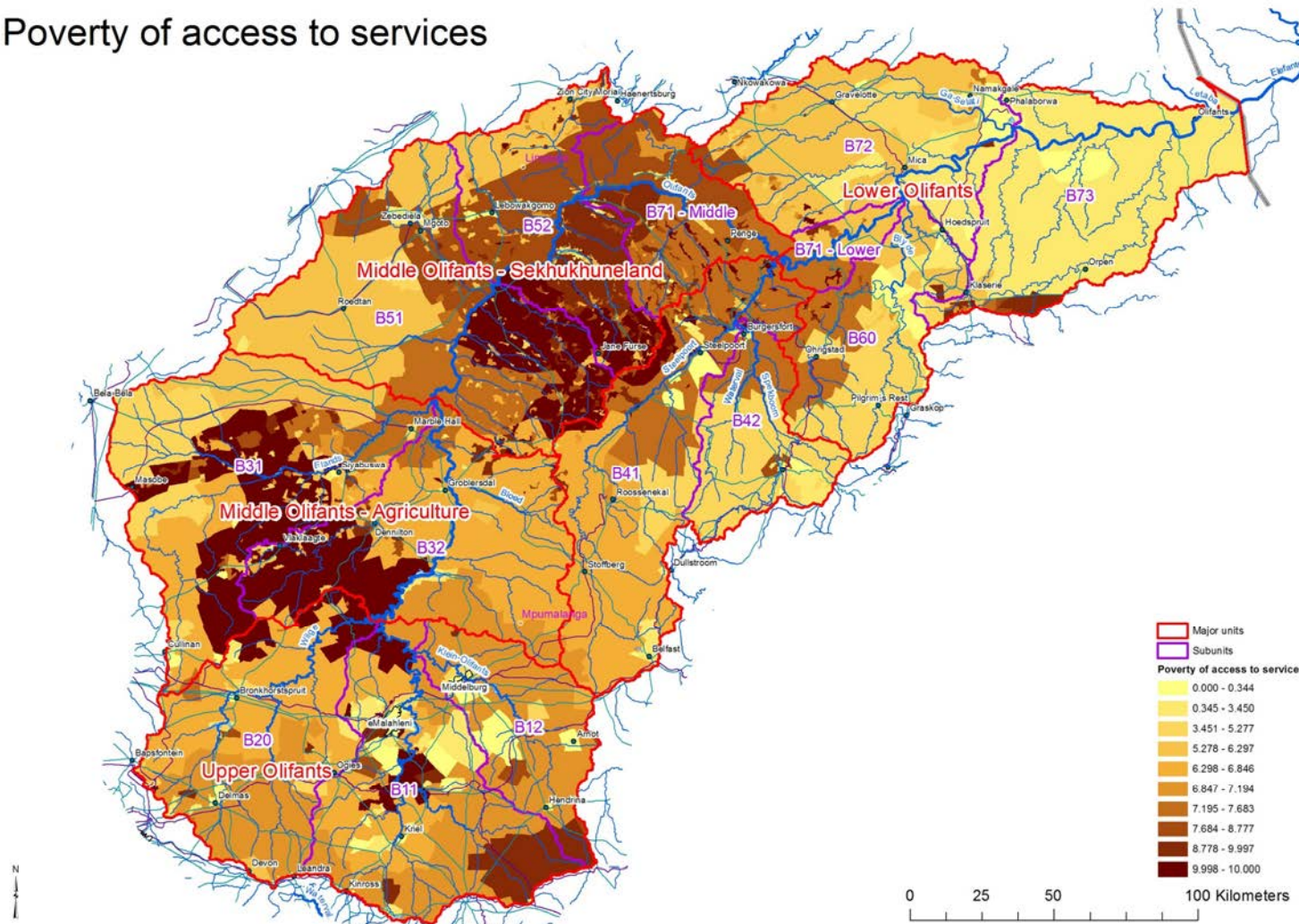


Figure 12: Map shows an index of the poverty measured by a lack of access to services (no decent access to sanitation, no piped water within 200m, no collection of refuse, no access to electricity for lighting). The index ranges from 0 to 10 and is benchmarked against the levels of access to services of the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data. Note that the darkest colours indicate areas where people have the least access to services. Maps of access to the individual services are provided in the maps appendix.



General Poverty Index

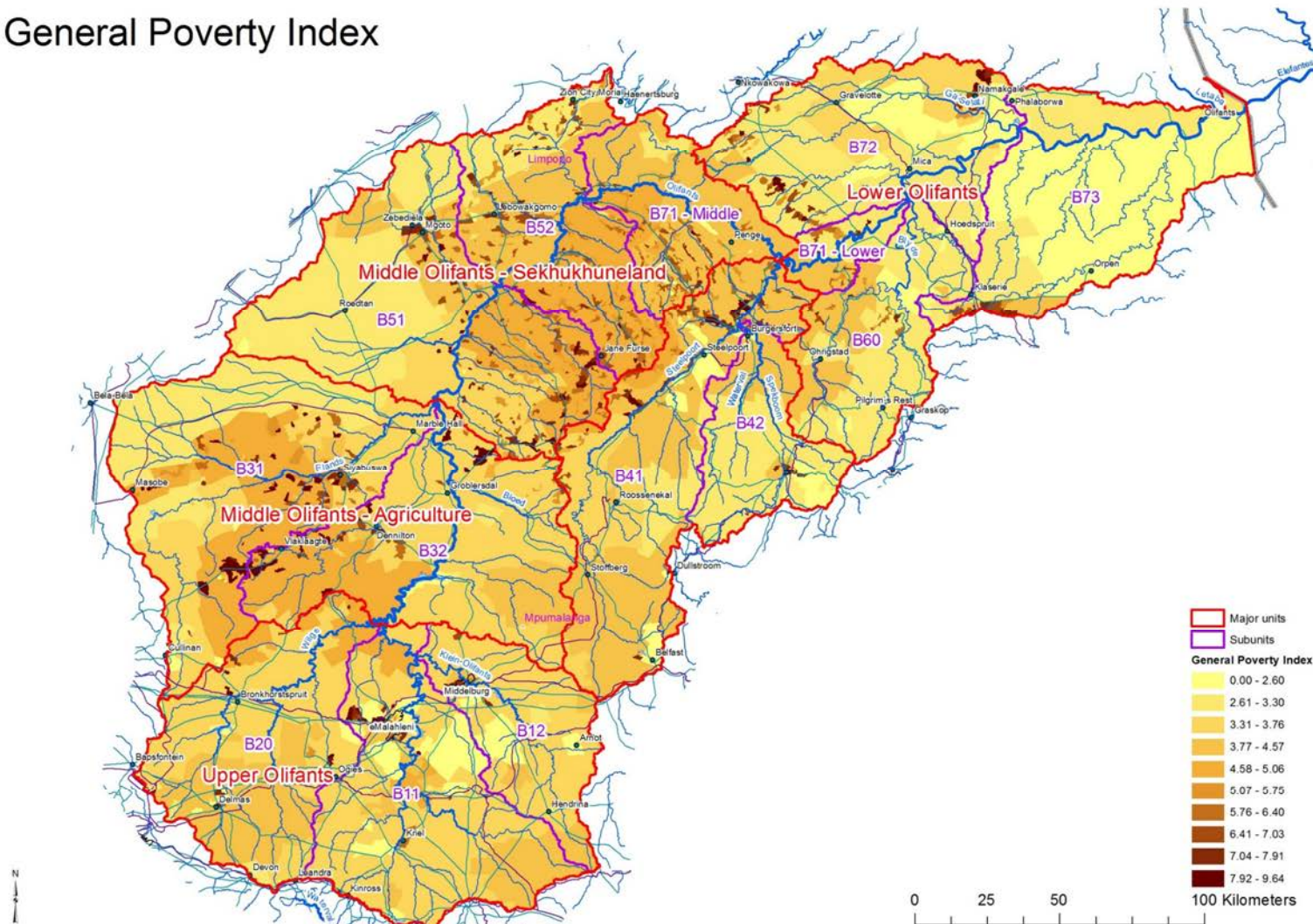


Figure 13: Map summarizing the “general poverty index” for the Olifants Basin. This consists of an equal weighted summary of values derived from the general indicators of population density, density of people who are not employed, the unemployed to employed ratio, the density of low income households, the poverty of access to all goods, and the poverty of access to services.



Local direct natural resource dependence

In addition to the general poverty index, we developed a local direct natural resource dependence index which examined where households are directly dependent on the environment for traditional building materials, for wood for cooking, for wood for heating, and for the direct supply of water (i.e. where people do not have easy access to piped water).

As before, we made use of collected in Census 2011 data collated by StatsSA at a sub-place level. The finer scale of this data is even more important for the analysis of local direct natural resource dependence than it was for the general poverty pressure index, as the use of natural resources is extremely site specific. The data will help us when we are undertaking the ecosystem service assessment to identify as precisely as possible where people are directly dependent on natural and semi-natural environments for the supply of environmental goods and services.

The local direct natural resource dependence index comprised the following input layers:

Supply of building materials. A map was developed showing the density of traditional dwellings (number of traditional houses per km²) based on the Census 2011 data for the Olifants Basin. These households are likely to be dependent on the environment for building materials such as poles, thatch etc. The data were further processed using the following approach:

- The base value was then converted to an index in order to provide identify areas of relative high and low density of traditional dwellings, allow the different measures to be combined, and to deal with some statistical issues such as the skewed sample data (i.e. where there are a few very high values in the dataset).
- We used the following formula to calculate values: $10 \cdot (n/n_{90})$, where n is the individual value for a unit, and n_{90} is the value for the 90th percentile of that value in the Olifants basin¹⁵. Any resultant values over 10 were reclassified as 10.
- This approach gives an index from 0 (lowest density) to 10 (highest density).
- The results are shown in **Error! Reference source not found.**

Use of wood for cooking. A map was developed of the density of households dependent on wood for cooking (households/km²), based on the Census 2011 data for the Olifants Basin. These households are likely to be getting wood from the surrounding environment. The data were further processed using the following approach:

- The base value was then converted to an index in order to provide identify areas of relative high and low density of households who are dependent on wood for cooking. The reasons for doing this were explained in the building materials section.
- The standard formula and method described for building materials was used to calculate values¹⁶.
- This approach gives an index from 0 (lowest density of households dependent on wood for cooking) to 10 (highest density of households dependent on wood for cooking).
- The results are shown in **Error! Reference source not found.**

Use of wood for heating. A map was developed of the density of households dependent on wood for heating (households/km²), based on the Census 2011 data for the Olifants Basin. These households

¹⁵ For the “traditional dwellings” calculations n_{90} was 11.7147 households/ km² for the Olifants Basin.

¹⁶ For the “wood for cooking density” the n_{90} value was 121.882004.



are likely to be getting wood from the surrounding environment. The data were further processed using the following approach:

- The base value was then converted to an index in order to provide identify areas of relative high and low density of households who are dependent on wood for heating. The reasons for doing this were explained in the building materials section.
- The standard formula and method described for building materials was used to calculate values¹⁷.
- This approach gives an index from 0 (lowest density of households dependent on wood for heating) to 10 (highest density of households dependent on wood for heating).
- The results are shown in **Error! Reference source not found.**

Direct supply of water from the environment. A map was developed to show the density of households who either have no piped water or have to travel more than 200m to access piped water (households/km²). These households are likely to be directly dependent on water sources from their immediate environment (rivers, springs etc.) or may be at risk in times of climate stress (e.g. they are dependent on rain water tanks which may dry up). The data were further processed using the following approach:

- The base value were converted to an index in order to provide identify areas of relative high and low density of households who are directly dependent on the environment for their water supply.
- The standard formula and method described for building materials was used to calculate values¹⁸.
- This approach gives an index from 0 (lowest density of households directly dependent on the environment for their water) to 10 (highest density of households directly dependent on the environment for their water).
- The results are shown in **Error! Reference source not found.**

Local Direct Natural Resource Dependence Index. Finally, a local direct natural resource dependence index was calculated using an equal weighted average of the values derived from the indicators of areas where households are directly dependent on the environment for traditional building materials, for wood for cooking, for wood for heating, and for the direct supply of water. See **Error! Reference source not found.** for the results of this analysis. The local direct natural resource dependence index is summarized for different geographical units and settlement types in Table 129 to Table 134 which are included in the final section of this report.

¹⁷ For the “wood for heating density” the n_{90} value was 119.452003.

¹⁸ For “direct water supply dependency” the n_{90} value was 109.132004.



Overall vulnerability index & summaries

As explained in the previous sections, the analysis developed two key initial summary indices:

- General poverty pressure index - this gives an overall picture of which areas have the highest overall population density, the highest density of people who are not employed, a high dependency ratio which examined the ratio of people who are employed to those who are not, the highest density of low income households, the highest levels of the consumption based measure of poverty (examining levels of ownership of various goods as a proxy for poverty), and the highest level of poverty of access to services (specifically looking at access to electricity, decent sanitation, water supplies and refuse collection).
- Local direct natural resource dependence index - this examined where households are directly dependent on the environment for traditional building materials, for wood for cooking, for wood for heating, and for the direct supply of water.

These two initial summary indices were combined (by means of an equal weighted average) to produce a single vulnerability index¹⁹. The results are shown in Figure 19. This map gives a good indication of where people lived who were likely to be strongly dependent on their direct environment for the supply of goods and services.

THE GENERAL POVERTY INDEX, LOCAL DIRECT NATURAL RESOURCE DEPENDENCY AND THE COMBINED VULNERABILITY INDEX ARE SUMMARIZED IN A SERIES OF TABLES. THE FIRST TABLE (TABLE 129) EXAMINES THE THREE INDICES FOR THE MAJOR GEOGRAPHIC UNITS AND SUB-UNITS, WHILE THE SECOND TABLE (

Table 130) summarizes the indices by settlement type. The third table (Table 131) summarizes the three indices for each of the different settlement types for each of the major geographic units of the Olifants Basin. Then finally, there are three tables (Table 132 to Table 134) which present the most detailed summaries which summarize the data for each settlement type for each of the major units and subunits of the Olifants Basin.

Way forward

The analysis undertaken for the livelihoods assessment (and to provide background data for the broader RESILIM project) has been completed, and no further analyses are anticipated in support of the current project. The following activities should be undertaken as part of the ecosystem services work package:

- Mapping of areas of resource use. The current analysis (as part of the livelihoods assessment) focuses on where people live, and hence it does not give a precise idea of where the resources were likely to have been utilized or harvested. We need use appropriate methods to identify these resource source areas.

¹⁹ Note that the analysis is set up to provide an integrated vulnerability index. However, discussions within the RESILIM team indicated that there were mixed opinions on whether it was useful to combine the general poverty index and the local direct natural resource use dependency index. Further, it was debated whether this combined measure should be called a "Vulnerability index". This discussion was not resolved, therefore we have retained the terminology and the combined index.



- The supply side for ecosystem services needs to be explored and the supply areas mapped. The condition of the resource needs to be examined, mostly through the integration of landcover data with the resource mapping. The relative availability and condition of each resource needs to be compared to the demand, in order to identify resource scarce areas where lack of access to natural resources may increase the vulnerability of poor rural people.
- We need to examine demand for other natural resources such as grazing land and arable land, as well as the availability and condition of these resources.



Building materials for traditional dwellings

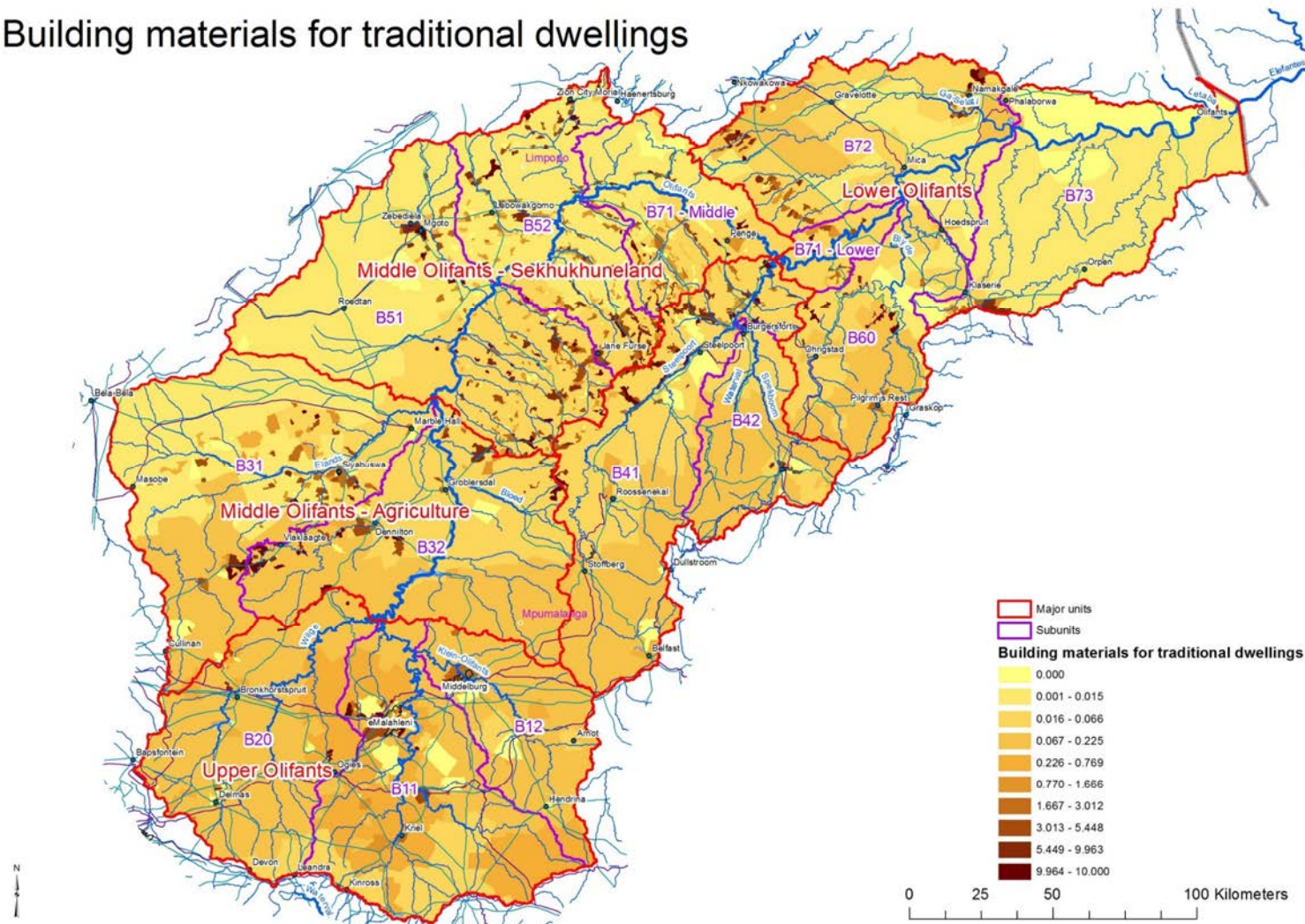


Figure 14: Map showing the index of density of traditional dwellings. These households are likely to be dependent on the environment for building materials such as poles, thatch etc. The index ranges from 0 to 10 and is benchmarked against the density of traditional dwellings that represents the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data



Wood for cooking

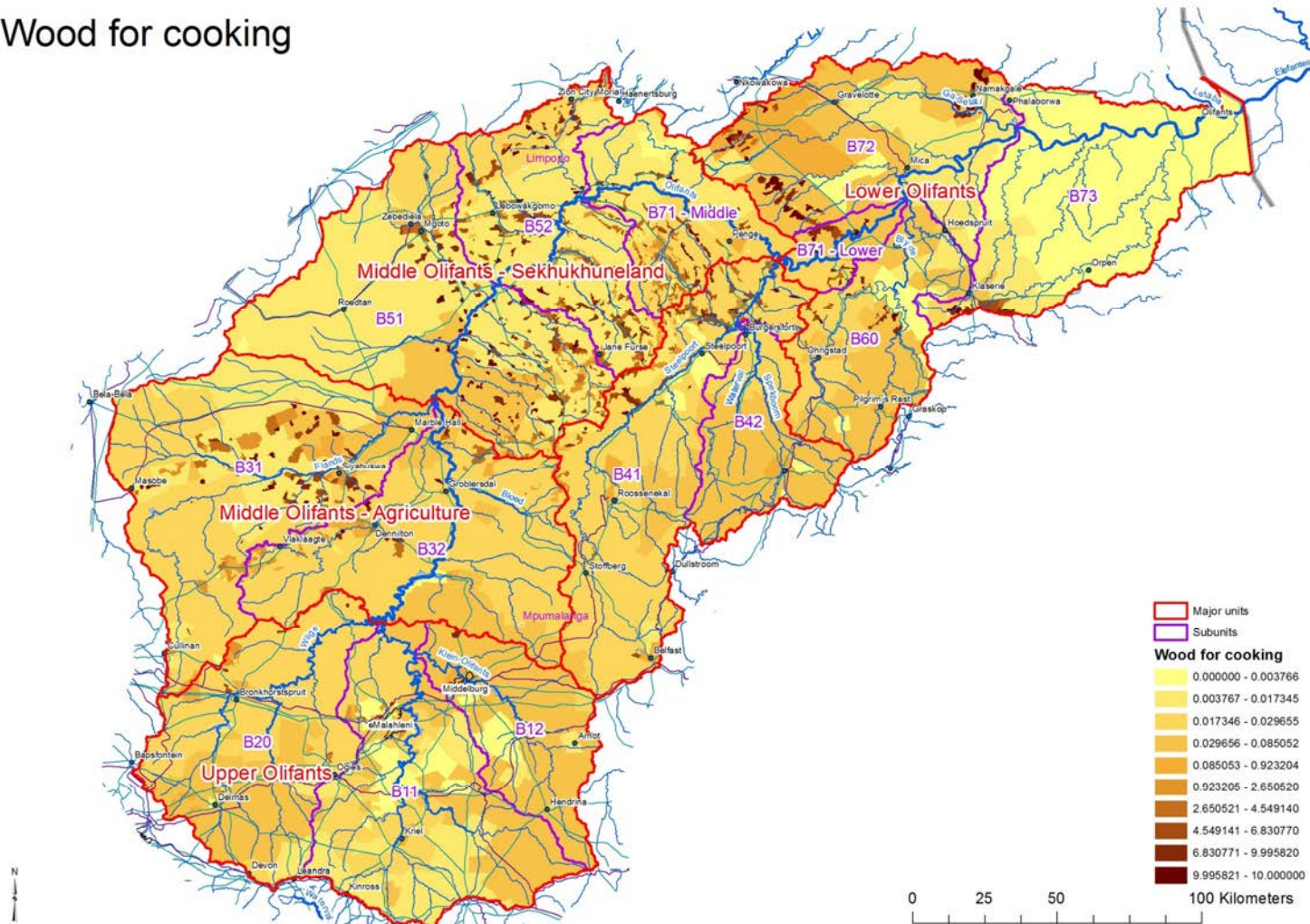


Figure 15: Map showing the index of density of households dependent on wood for cooking. These households are likely to be getting wood from the surrounding environment. The index ranges from 0 to 10 and is benchmarked against the density of density of households dependent on wood for cooking that represents the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data.



Wood for heating

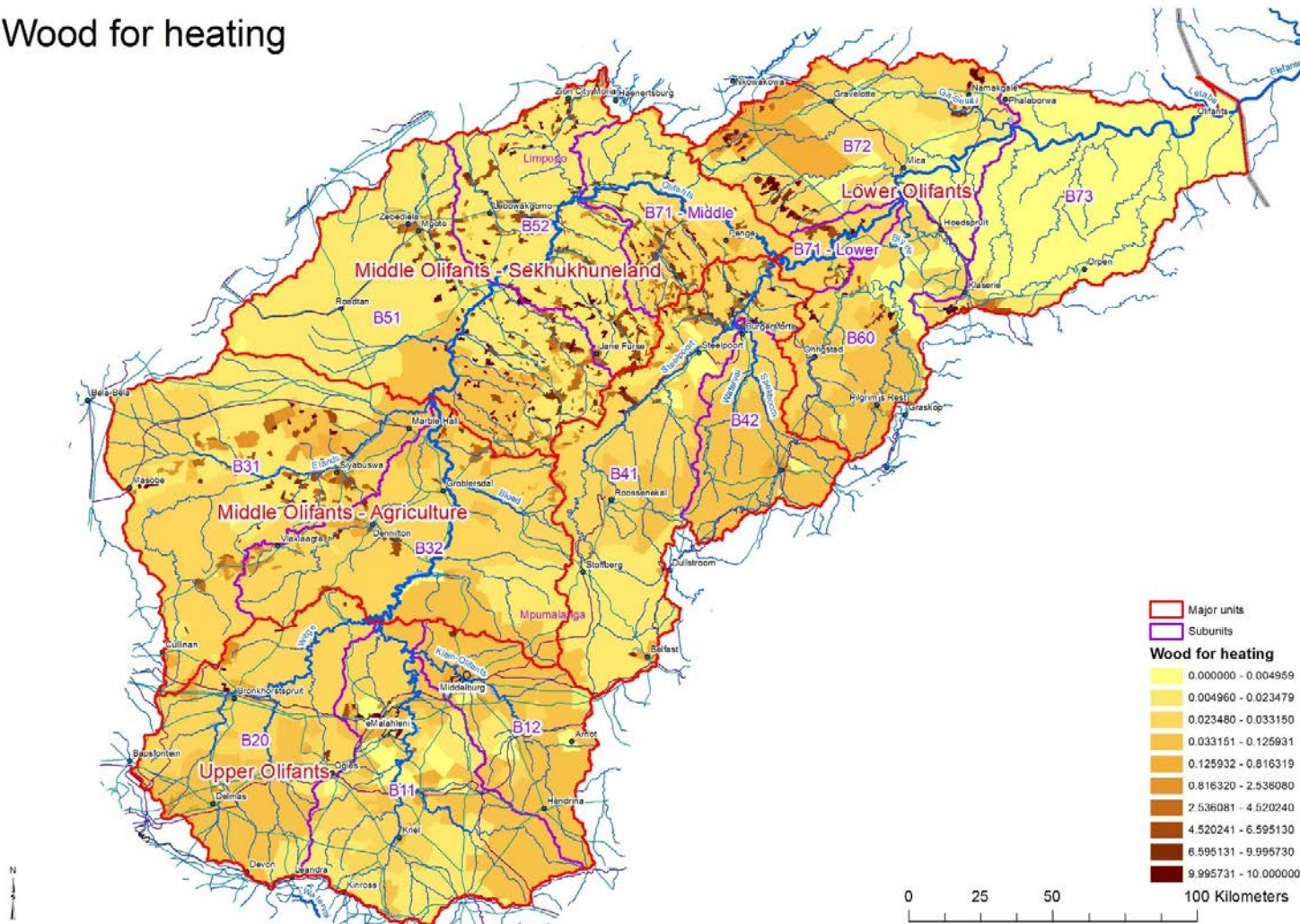


Figure 16: Map showing the index of density of households dependent on wood for heating. These households are likely to be getting wood from the surrounding environment. The index ranges from 0 to 10 and is benchmarked against the density of density of households dependent on wood for heating that represents the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data.



Lack of access to piped water

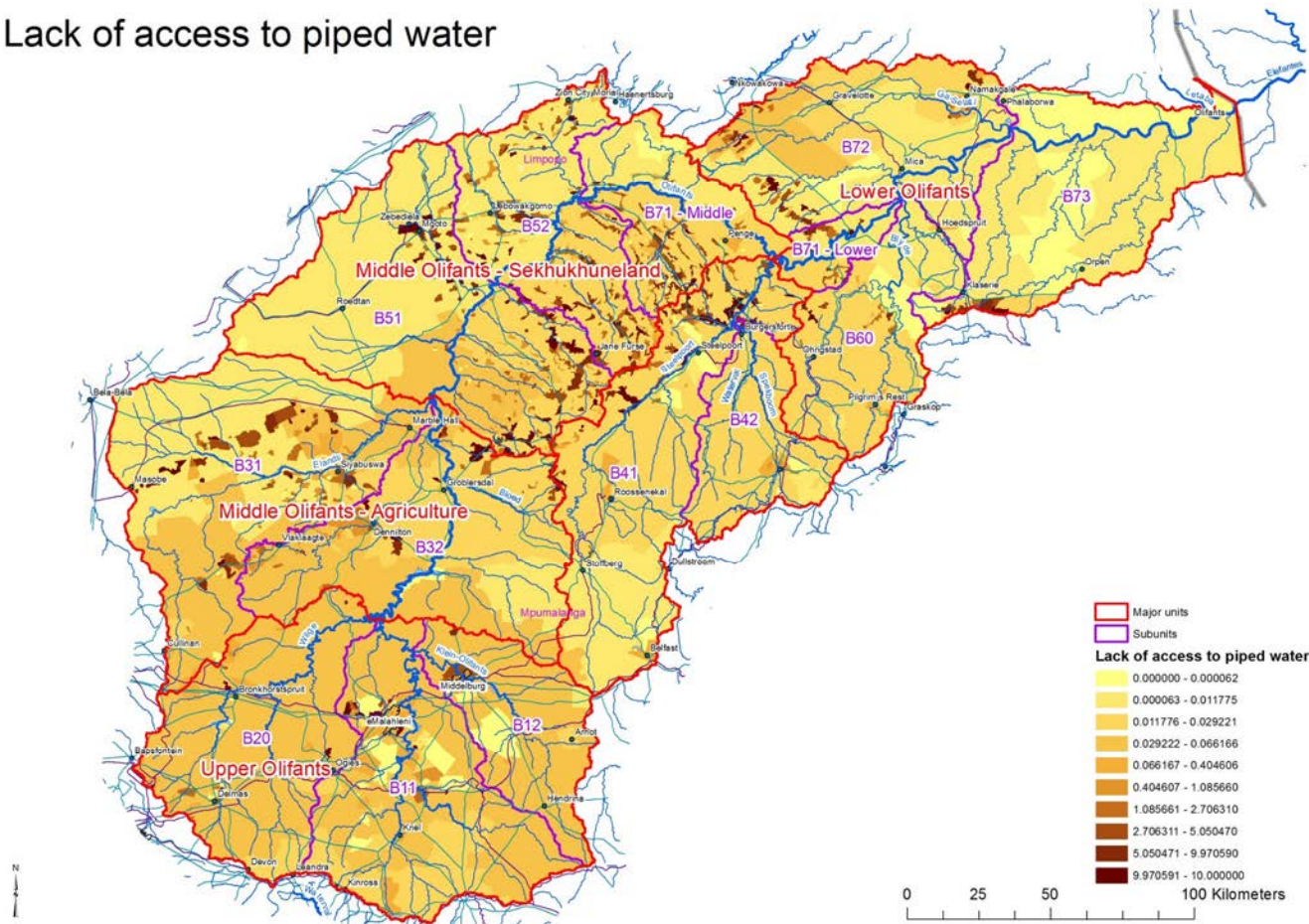


Figure 17: Map showing the index of density of households who either have no piped water or have to travel more than 200m to access piped water per km². These households are likely to be directly dependent on water sources from their immediate environment (rivers, springs etc.) or may be at risk in times of climate stress (e.g. they are dependent on rain water tanks which may dry up). The index ranges from 0 to 10 and is benchmarked against the density of households without piped water that represents the 90th percentile of values for sub-places in the Olifants catchment. Derived from Census 2011 data.



Local Direct Natural Resource Dependency

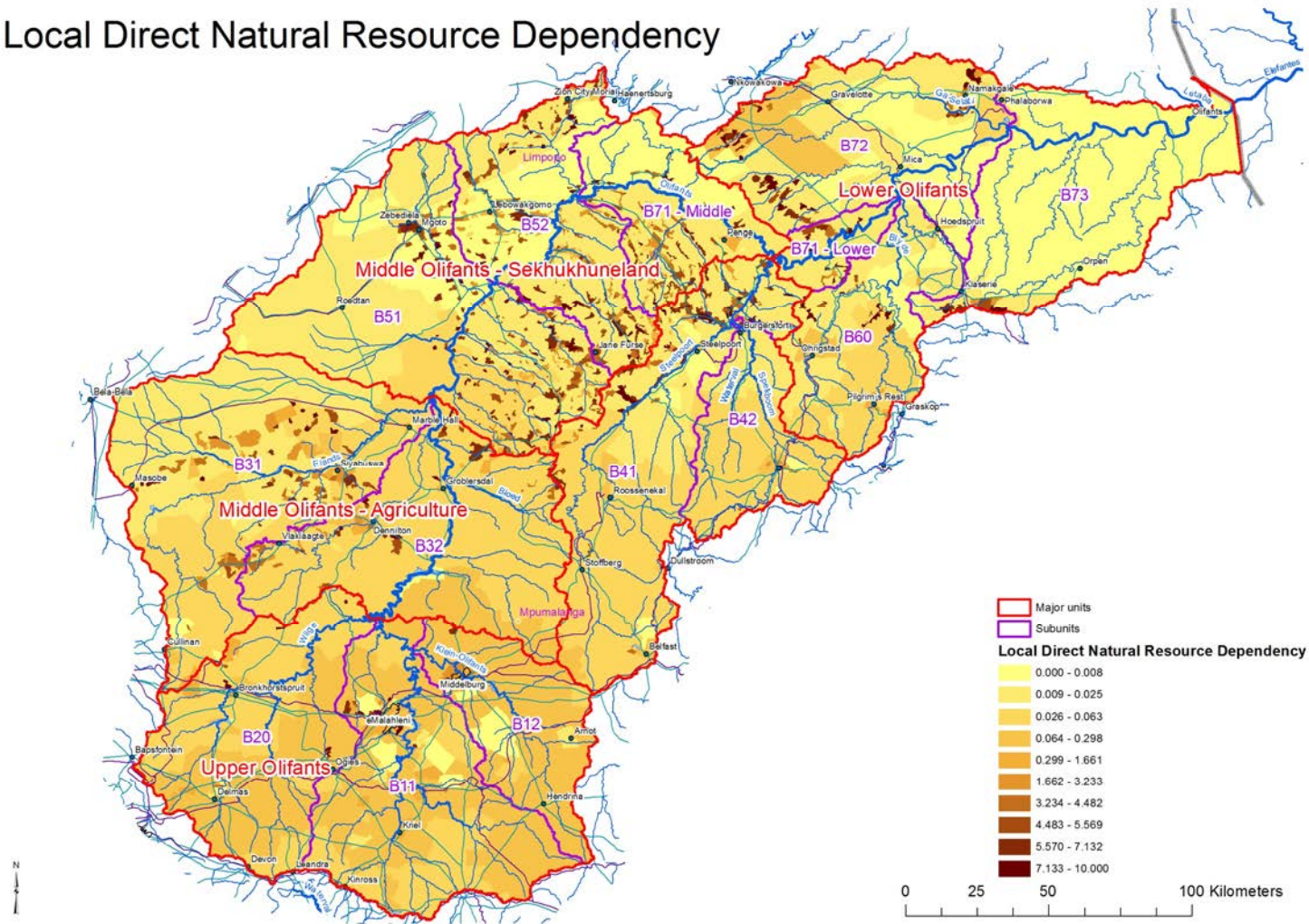


Figure 18: Map summarizing the Local Direct Natural Resource Dependency for the Olifants Basin. This consists of an equal weighted summary of values derived from the general indicators of areas where households are directly dependent on the environment for traditional building materials, for wood for cooking, for wood for heating, and for the direct supply of water (i.e. where people do not have easy access to piped water).



Combined Vulnerability Index

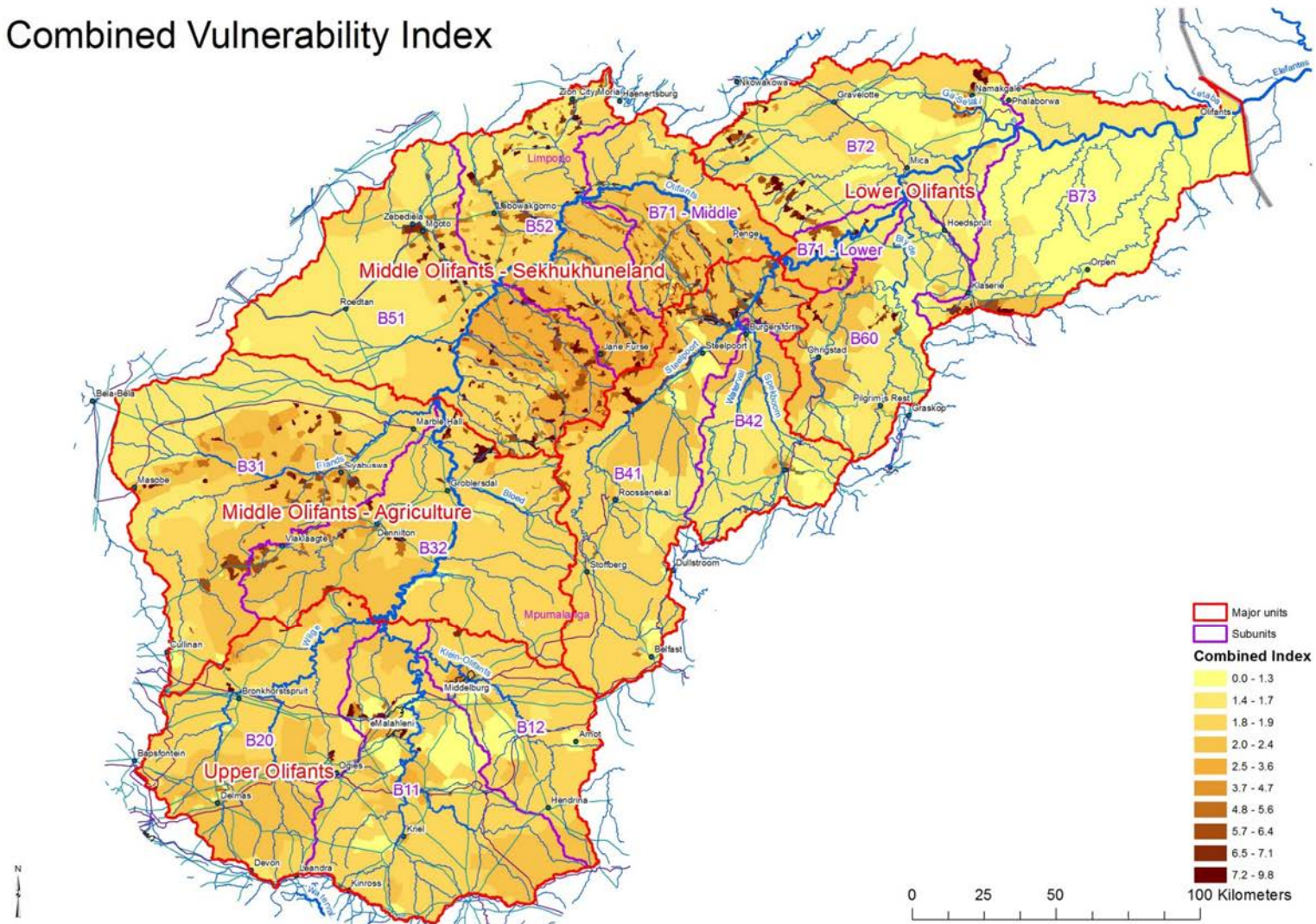


Figure 19: Map of the combined vulnerability index indicating areas of greatest poverty and high natural resource dependence for the Olifants Basin.



TABLE 129: OVERALL SUMMARY OF THE GENERAL POVERTY INDEX, LOCAL DIRECT NATURAL RESOURCE DEPENDENCY AND THE COMBINED VULNERABILITY INDEX FOR MAJOR GEOGRAPHIC UNITS AND SUB-UNITS OF THE OLIFANTS BASIN.

The table is summarized by number of settlements and therefore summaries for combined areas will be dominated by the types with many settlements. Each column is colour-coded individually (i.e. The colour schemes are relevant within the columns only and not across the whole table) with low values (which equate to lower levels of poverty, local direct natural resource dependency or vulnerability) in greens and higher values in oranges and reds.

	General Poverty Index	Local Direct Natural Resource Dependency	Combined Vulnerability Index
Lower Olifants	4.23	2.39	3.31
B60	3.79	1.87	2.83
B71 - Lower	5.80	5.10	5.45
B72	4.93	3.08	4.00
B73	3.11	1.14	2.13
Middle Olifants - Agriculture	5.74	2.53	4.14
B31	5.68	2.58	4.13
B32	5.83	2.45	4.14
Middle Olifants - Sekhukhuneland	5.72	3.69	4.70
B51	5.94	3.88	4.91
B52	5.70	3.60	4.65
B71 - Middle	5.37	3.49	4.43
Middle Olifants - Steelpoort	4.97	2.68	3.83
B41	5.36	3.28	4.32
B42	3.65	0.66	2.16
Upper Olifants	4.31	0.93	2.62
B11	4.13	0.80	2.47
B12	4.30	0.87	2.58
B20	4.52	1.11	2.82
Grand Total	5.13	2.63	3.88

TABLE 130: OVERALL SUMMARY OF THE GENERAL POVERTY INDEX, LOCAL DIRECT NATURAL RESOURCE DEPENDENCY AND THE COMBINED VULNERABILITY INDEX FOR THE DIFFERENT SETTLEMENT TYPES OF THE OLIFANTS BASIN.

The table is summarized by number of settlements and therefore summaries for combined areas will be dominated by the types with many settlements. Each column is colour-coded individually (i.e. The colour schemes are relevant within the columns only and not across the whole table) with low values (which equate to lower levels of poverty, local direct natural resource dependency or vulnerability) in greens and higher values in oranges and reds.

	General Poverty Index	Local Direct Natural Resource Dependency	Combined Vulnerability Index
Informal Settlement	7.19	5.54	6.36
Protected Area	2.09	0.00	1.05
Rural Formal Farm Economy	3.46	0.09	1.78
Rural Formal Non Farm Economy	2.53	0.21	1.37
Rural Formal Non Farm Economy (Mine/Power Stations)	2.31	0.77	1.54
Traditional Rural Non Farm Economy	2.80	0.36	1.58
Traditional Rural Non Farm Economy (Mine)	2.18	0.09	1.14
Traditional Settlement / Village / Associated Rural Areas	6.18	4.23	5.21
Traditional Urban	7.56	2.97	5.26
Urban Formal	5.38	1.54	3.46
Urban Formal Industrial and Mines	3.10	0.37	1.73
Grand Total	5.13	2.63	3.88



TABLE 131: MORE DETAILED SUMMARY OF THE GENERAL POVERTY INDEX, LOCAL DIRECT NATURAL RESOURCE DEPENDENCY AND THE COMBINED VULNERABILITY INDEX FOR THE DIFFERENT SETTLEMENT TYPES FOR EACH OF THE MAJOR GEOGRAPHIC UNITS OF THE OLIFANTS BASIN.

The table is summarized by number of settlements and therefore summaries for combined areas will be dominated by the types with many settlements. Each column is colour-coded individually (i.e. The colour schemes are relevant within the columns only and not across the whole table) with low values (which equate to lower levels of poverty, local direct natural resource dependency or vulnerability) in greens and higher values in oranges and reds.

	General Poverty Index	Local Direct Natural Resource Dependency	Combined Vulnerability Index
Lower Olifants	4.23	2.39	3.31
Protected Area	2.16	0.00	1.08
Rural Formal Farm Economy	3.03	0.07	1.55
Rural Formal Non Farm Economy	1.79	0.02	0.90
Rural Formal Non Farm Economy (Mine/Power Stations)	2.44	0.96	1.70
Traditional Settlement / Village / Associated Rural Areas	6.31	5.30	5.80
Traditional Urban	7.52	2.34	4.93
Urban Formal	1.82	0.08	0.95
Middle Olifants - Agriculture	5.75	2.54	4.15
Informal Settlement	7.89	4.99	6.44
Protected Area	1.80	0.00	0.90
Rural Formal Farm Economy	3.54	0.06	1.80
Rural Formal Non Farm Economy	3.65	0.11	1.88
Rural Formal Non Farm Economy (Mine/Power Stations)	1.77	0.00	0.89
Traditional Rural Non Farm Economy	2.38	0.10	1.24
Traditional Settlement / Village / Associated Rural Areas	6.72	3.78	5.25
Traditional Urban	7.77	3.40	5.59
Urban Formal	6.81	2.91	4.86
Urban Formal Industrial and Mines	3.47	0.38	1.93
Middle Olifants - Sekhukhuneland	5.72	3.69	4.70
Protected Area	2.05	0.00	1.03
Rural Formal Farm Economy	3.27	0.03	1.65
Rural Formal Non Farm Economy	2.62	0.00	1.31
Traditional Rural Non Farm Economy	3.06	0.66	1.86
Traditional Rural Non Farm Economy (Mine)	2.15	0.10	1.12
Traditional Settlement / Village / Associated Rural Areas	6.02	4.15	5.08
Traditional Urban	7.95	3.54	5.74
Urban Formal	5.51	1.76	3.63
Urban Formal Industrial and Mines	2.90	0.74	1.82
Middle Olifants - Steelpoort	4.97	2.68	3.83
Informal Settlement	9.27	8.45	8.86
Protected Area	1.39	0.01	0.70
Rural Formal Farm Economy	3.42	0.21	1.81
Rural Formal Non Farm Economy	1.47	0.07	0.77
Traditional Rural Non Farm Economy	2.69	0.02	1.35
Traditional Rural Non Farm Economy (Mine)	2.69	0.05	1.37
Traditional Settlement / Village / Associated Rural Areas	6.09	4.21	5.15
Traditional Urban	5.71	0.60	3.16
Urban Formal	4.51	1.23	2.87
Upper Olifants	4.31	0.93	2.62
Informal Settlement	6.94	5.43	6.19
Protected Area	2.68	0.07	1.37
Rural Formal Farm Economy	3.67	0.11	1.89
Rural Formal Non Farm Economy	2.79	0.28	1.53
Traditional Settlement / Village / Associated Rural Areas	7.68	8.50	8.09
Urban Formal	5.41	1.39	3.40
Urban Formal Industrial and Mines	3.07	0.34	1.71
Grand Total	5.13	2.63	3.88



TABLE 132: FIRST OF THREE DETAILED TABLES OF THE GENERAL POVERTY INDEX, LOCAL DIRECT NATURAL RESOURCE DEPENDENCY AND THE COMBINED VULNERABILITY INDEX FOR THE DIFFERENT SETTLEMENT TYPES FOR EACH OF THE MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

The table is summarized by number of settlements and therefore summaries for combined areas will be dominated by the types with many settlements. Each column is colour-coded individually (i.e. The colour schemes are relevant within the columns only and not across the whole table) with low values (which equate to lower levels of poverty, local direct natural resource dependency or vulnerability) in greens and higher values in oranges and reds.

	General Poverty Index	Local Direct Natural Resource Dependency	Combined Vulnerability Index
Lower Olifants	4.23	2.39	3.31
B60	3.79	1.87	2.83
Protected Area	2.44	0.00	1.22
Rural Formal Farm Economy	3.10	0.13	1.62
Rural Formal Non Farm Economy (Mine/Power Stations)	1.99	0.62	1.30
Traditional Settlement / Village / Associated Rural Areas	5.50	4.51	5.00
Urban Formal	1.73	0.08	0.90
B71 - Lower	5.80	5.10	5.45
Protected Area	2.66	0.01	1.33
Rural Formal Farm Economy	2.94	0.02	1.48
Traditional Settlement / Village / Associated Rural Areas	6.16	5.70	5.93
B72	4.93	3.08	4.00
Protected Area	2.39	0.00	1.19
Rural Formal Farm Economy	2.99	0.04	1.52
Rural Formal Non Farm Economy	1.92	0.01	0.97
Rural Formal Non Farm Economy (Mine/Power Stations)	3.82	1.97	2.90
Traditional Settlement / Village / Associated Rural Areas	6.53	5.60	6.06
Traditional Urban	7.52	2.34	4.93
Urban Formal	1.97	0.08	1.02
B73	3.11	1.14	2.13
Protected Area	2.00	0.00	1.00
Rural Formal Farm Economy	3.10	0.02	1.56
Rural Formal Non Farm Economy	1.50	0.02	0.76
Traditional Settlement / Village / Associated Rural Areas	6.87	5.06	5.96
Middle Olifants - Agriculture	5.75	2.54	4.15
B31	5.70	2.59	4.15
Informal Settlement	7.85	4.82	6.33
Protected Area	0.00	0.00	0.00
Rural Formal Farm Economy	3.39	0.06	1.73
Rural Formal Non Farm Economy	4.74	0.34	2.54
Traditional Settlement / Village / Associated Rural Areas	6.63	3.69	5.16
Traditional Urban	7.38	2.31	4.84
Urban Formal	6.24	2.92	4.58
Urban Formal Industrial and Mines	3.47	0.38	1.93
B32	5.83	2.45	4.14
Informal Settlement	7.92	5.11	6.52
Protected Area	2.31	0.01	1.16
Rural Formal Farm Economy	3.76	0.05	1.90
Rural Formal Non Farm Economy	3.29	0.03	1.66
Rural Formal Non Farm Economy (Mine/Power Stations)	1.77	0.00	0.89
Traditional Rural Non Farm Economy	2.38	0.10	1.24
Traditional Settlement / Village / Associated Rural Areas	6.90	3.96	5.43
Traditional Urban	7.97	3.95	5.96
Urban Formal	7.35	2.91	5.13
Grand Total	5.13	2.63	3.88



TABLE 133: SECOND OF THREE DETAILED TABLES OF THE GENERAL POVERTY INDEX, LOCAL DIRECT NATURAL RESOURCE DEPENDENCY AND THE COMBINED VULNERABILITY INDEX FOR THE DIFFERENT SETTLEMENT TYPES FOR EACH OF THE MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN. The table is summarized by number of settlements and therefore summaries for combined areas will be dominated by the types with many settlements. Each column is colour-coded individually (i.e. The colour schemes are relevant within the columns only and not across the whole table) with low values (which equate to lower levels of poverty, local direct natural resource dependency or vulnerability) in greens and higher values in oranges and reds.

	General Poverty Index	Local Direct Natural Resource Dependency	Combined Vulnerability Index
Middle Olifants - Sekhukhuneland	5.72	3.69	4.70
B51	5.94	3.88	4.91
Protected Area	2.05	0.00	1.03
Rural Formal Farm Economy	3.33	0.04	1.68
Rural Formal Non Farm Economy	2.62	0.00	1.31
Traditional Rural Non Farm Economy	3.51	0.52	2.02
Traditional Rural Non Farm Economy (Mine)	2.33	0.15	1.24
Traditional Settlement / Village / Associated Rural Areas	6.38	4.59	5.49
Traditional Urban	7.95	3.54	5.74
Urban Formal	7.45	4.99	6.22
Urban Formal Industrial and Mines	3.03	2.15	2.59
B52	5.70	3.60	4.65
Rural Formal Farm Economy	3.16	0.03	1.59
Traditional Rural Non Farm Economy	2.62	0.79	1.71
Traditional Rural Non Farm Economy (Mine)	1.37	0.29	0.83
Traditional Settlement / Village / Associated Rural Areas	5.88	3.92	4.90
Urban Formal	4.85	0.62	2.73
Urban Formal Industrial and Mines	2.84	0.03	1.43
B71 - Middle	5.37	3.49	4.43
Rural Formal Farm Economy	2.93	0.03	1.48
Traditional Rural Non Farm Economy (Mine)	2.22	0.06	1.14
Traditional Settlement / Village / Associated Rural Areas	5.66	3.83	4.75
Urban Formal	4.40	0.67	2.54
Middle Olifants - Steelpoort	4.97	2.68	3.83
B41	5.36	3.28	4.32
Informal Settlement	9.27	8.45	8.86
Protected Area	2.41	0.01	1.21
Rural Formal Farm Economy	3.64	0.35	1.99
Rural Formal Non Farm Economy	1.57	0.07	0.82
Traditional Rural Non Farm Economy	2.69	0.02	1.35
Traditional Rural Non Farm Economy (Mine)	2.69	0.05	1.37
Traditional Settlement / Village / Associated Rural Areas	6.18	4.36	5.27
Traditional Urban	5.71	0.60	3.16
Urban Formal	3.80	1.67	2.73
B42	3.65	0.66	2.16
Informal Settlement	9.27	8.45	8.86
Protected Area	1.05	0.01	0.53
Rural Formal Farm Economy	3.18	0.05	1.62
Rural Formal Non Farm Economy	0.00	0.00	0.00
Traditional Settlement / Village / Associated Rural Areas	4.67	1.85	3.26
Urban Formal	4.97	0.95	2.96
Grand Total	5.13	2.63	3.88



TABLE 134: LAST OF THREE DETAILED TABLES OF THE GENERAL POVERTY INDEX, LOCAL DIRECT NATURAL RESOURCE DEPENDENCY AND THE COMBINED VULNERABILITY INDEX FOR THE DIFFERENT SETTLEMENT TYPES FOR EACH OF THE MAJOR UNITS AND SUBUNITS OF THE OLIFANTS BASIN.

The table is summarized by number of settlements and therefore summaries for combined areas will be dominated by the types with many settlements. Each column is colour-coded individually (i.e. The colour schemes are relevant within the columns only and not across the whole table) with low values (which equate to lower levels of poverty, local direct natural resource dependency or vulnerability) in greens and higher values in oranges and reds.

	General Poverty Index	Local Direct Natural Resource Dependency	Combined Vulnerability Index
Upper Olifants	4.31	0.93	2.62
B11	4.14	0.81	2.47
Informal Settlement	7.60	6.64	7.12
Protected Area	3.09	0.25	1.67
Rural Formal Farm Economy	3.73	0.07	1.90
Rural Formal Non Farm Economy	3.12	0.25	1.68
Urban Formal	4.85	1.02	2.94
Urban Formal Industrial and Mines	3.29	0.46	1.88
B12	4.30	0.87	2.58
Informal Settlement	5.51	3.77	4.64
Rural Formal Farm Economy	3.77	0.08	1.92
Rural Formal Non Farm Economy	1.79	0.04	0.91
Urban Formal	5.95	1.46	3.71
Urban Formal Industrial and Mines	2.10	0.01	1.05
B20	4.52	1.11	2.82
Informal Settlement	7.13	5.18	6.15
Protected Area	2.55	0.01	1.28
Rural Formal Farm Economy	3.58	0.15	1.86
Rural Formal Non Farm Economy	3.08	0.69	1.88
Traditional Settlement / Village / Associated Rural Areas	7.68	8.50	8.09
Urban Formal	5.72	1.76	3.74
Urban Formal Industrial and Mines	3.20	0.25	1.73
Grand Total	5.13	2.63	3.88

References & key data sources

Holness SD, Frazee S & Lupindo Y, 2014: Adapting to climate change in the Alfred Nzo District: Protecting Ecological Infrastructure to support Ecosystem-based Adaptation to climate change, Conservation South Africa.

Statistics South Africa, 2011: Census 2011 Release v1.1, Statistics South Africa, Pretoria. Sourced via AfriGIS.

Statistics South Africa, 2013: Census 2011 spatial metadata report. No other details provided.

Statistics South Africa, 2014: The South African MPI -Creating a multidimensional poverty index using census data, Statistics South Africa, Pretoria.



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The Association for Water and Rural Development

AWARD is a non-profit organisation specialising in participatory, research-based project implementation. Their work addresses issues of sustainability, inequity and poverty by building natural-resource management competence and supporting sustainable livelihoods. One of their current projects, supported by USAID, focuses on the Olifants River and the way in which people living in South Africa and Mozambique depend on the Olifants and its contributing waterways. It aims to improve water security and resource management in support of the healthy ecosystems to sustain livelihoods and resilient economic development in the catchment.

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About USAID: RESILIM-O

USAID: RESILIM-O focuses on the Olifants River Basin and the way in which people living in South Africa and Mozambique depend on the Olifants and its contributing waterways. It aims to improve water security and resource management in support of the healthy ecosystems that support livelihoods and resilient economic development in the catchment. The 5-year programme, involving the South African and Mozambican portions of the Olifants catchment, is being implemented by the Association for Water and Rural Development (AWARD) and is funded by USAID Southern Africa.

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