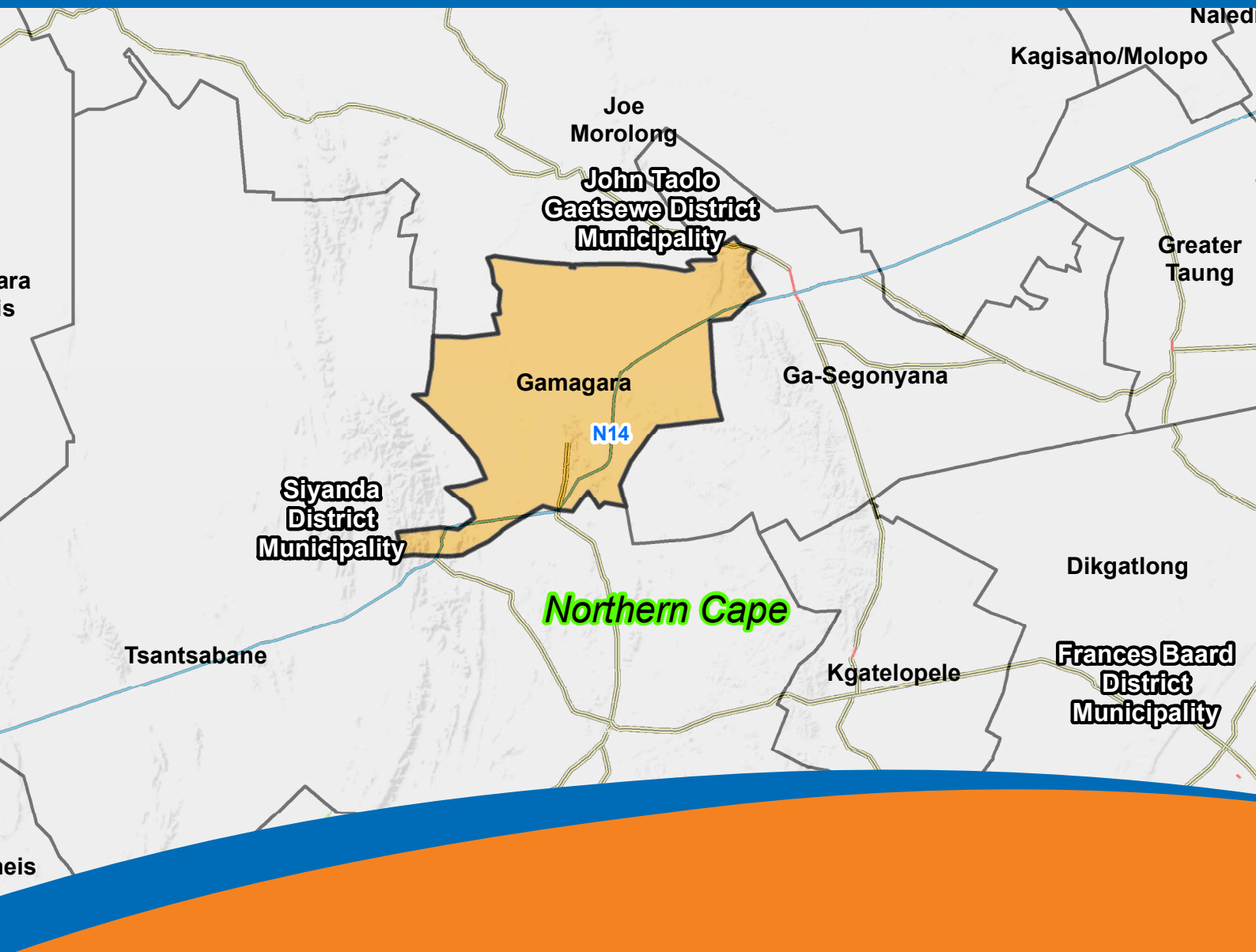


Working for integration



Gamagara – Northern Cape

Housing Market Overview
Human Settlements Mining Town Intervention
2008 – 2013

The Housing Development Agency (HDA)

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Acknowledgements

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Disclaimer

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

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1. Frequently Used Acronyms

CAHF	– Centre for Affordable Housing Finance in Africa
GDP	– Gross Domestic Product
GVA	– Gross Value Added
HDA	– Housing Development Agency
HPI	– Housing Performance Index
IDP	– Integrated Development Plan
NU	– Non Urban, a Stats SA subplace designation
RDP	– Reconstruction and Development Programme
SDF	– Spatial Development Framework
SP	– Subplace
StatsSA	– Statistics South Africa

2. Introduction

The Housing Development Agency (HDA) is a national public development agency that promotes sustainable communities by making well-located land and buildings available for the development of human settlements. As its primary activity, the HDA assembles and releases state, private and communal land and buildings for development. In addition, the HDA provides project delivery support services to organs of state at local, provincial and national levels.

In setting the agenda and asserting its role in the housing continuum, the HDA realised that there is a gap in the provision of accurate and easy-to-understand information regarding the property market, particularly in previously overlooked areas, including the mining towns.

The development of this report is a result of this gap. It aims to explore and present an overview of the formal housing markets in Matjhabeng, Moqhaka, Merafong, Randfontein, Westonaria, Thabazimbi, Greater Tubatse, Elias Motsoaledi, Lephalale, Fetakgomo, eMalahleni, City of Matlosana, Mogale City, Ephraim Mogale, Steve Tshwete, Thaba Chweu, Tsantsabane, Ga-Sekgonyana, Gamagara, Kgetlengrivier, Madibeng, Moses Kotane and Rustenburg so as to change perceptions of affordable markets, and as such, expand and deliver affordable housing options within South Africa's municipalities.

The study was undertaken over a three-month period, relying mainly on the high level indicators developed by the Centre for Affordable Housing Finance in Africa. These indicators consider the market conditions, existing market size and activity, average prices and values, market growth and lending activity in the area to support a better understanding of the opportunity and the impact of various housing policy interventions. The indicators also highlight the range of opportunities across areas to stimulate the affordable housing market in South African municipalities.

The methodology also included site visits to eMalahleni, Randfontein, Westonaria, and Rustenburg so as to confirm findings and to gain more insights about the current housing circumstances.

The report is intended for use by all stakeholders involved in planning, including professionals in municipalities, Government officials, private sector, investors, developers and urban planners, for the mission of enticing a range of development options. The report does not address housing supply for the lowest income levels, but rather seeks to make the case for expanding the gap market in order to entice private sector engagement more effectively.

2.1 Report Contents

The report covers the following aspects of housing markets through maps, charts and graphs to highlight understanding across the municipality and at the neighbourhood level, where housing markets function.

1. **Housing Performance Profile** – the pace of growth by suburb, on maps and in charts, as measured by the Housing Performance Index
2. **Market Size** – total number and distribution of residential properties, households, values and sales prices, key demographic indicators
3. **Market Activity** – properties, sales and new properties and resales over time
4. **Lending Activity** – sales and loans by lender
5. **Affordability Profile** – affordability based on local incomes, compared to sales price, housing gaps and affordability ratios
6. **Leverage** – the value of equity available for purchasing new homes
7. **Rental Index** – those areas most prime for quality, dense professionally managed rental housing

2.2 Definitions and Methodology

For housing supply, title and deeds records were merged at the suburb level, mapped and ranked through the Citymark dashboard. Priority has been placed on actual transaction datasets from familiar sources that can be geocoded to the subplace level, trended over time and updated regularly. For housing demand, StatsSA data was applied as the most consistently collected, widely understood and most common source of demographic data in the country.

2.3 Benchmarks

Benchmarks are indicators used to compare performance across areas and are valuable for understanding meaning. Each indicator was created at the local, municipal and national levels in order to measure performance within and across markets. These benchmarks also highlight areas or trends which are outperforming the overall market in certain ways and might be most receptive to a variety of new housing development options.

2.4 Site Visits

As mentioned, the team conducted four site visits to eMalahleni, Randfontein, Westonaria, and Rustenburg. These visits provided the chance to confirm findings from the data and chat informally with residents about their current housing circumstances: where they had moved from; where they were currently living and how affordable it was; and where they were headed, including their ambitions and concerns. This helps to provide a sense of the housing continuum in the town – what choices residents feel empowered by, and what constraints keep them from realising their dreams and aspirations. Residents who were engaged came from informal settlements, brand new RDP homes, and a stalled RDP project, which had recently been reactivated by the city.

Some of the key insights from these site visits were:

- Residents may not know exactly what their home might be worth, but they are very aware that their home has a value, which includes stability and security for themselves and a better future for their families
- Many residents use their homes to supplement their own income, including renting shacks and rooms and operating home-based businesses
- There might be a relationship between how the houses are handed over and the sense of ownership (as evidenced by improvements to the homes)
- Everyone we spoke to understood the importance of a title deed, that the title deed proved (secured) ownership, even if, in a few cases, they were not sure of its status or how to get one
- Most people mentioned a better future for their children as an integral part of the importance of homeownership
- Residents were aware that there is an acute shortage of housing opportunities and that despite having their homes, they were surrounded by others without adequate housing

Many people understood housing markets around them intuitively — where the better houses were closer to jobs and transportation and what the barriers were — the price, the inconvenience and the cash required to access the houses.

2.5 Using this Report

This report is intended to provide a high-level view of the mining town housing markets overall and by neighbourhood, within areas of particular interest, by measuring and comparing housing market performance amongst each other and with the municipality. This report highlights connections and implications from the findings that are of significant interest to the HDA. The report does not seek to understand why things are, but offers general ideas based on experience with housing markets and new learning about mining town housing markets from these reports.

The report findings emphasise opportunity as opposed to risk or failure. Opportunities are defined as conditions or indicators within areas, which can show:

- The ways in which areas or markets are behaving *positively* (such as growing more quickly), or showing strength (such as stability and consistency)
- The ways in which areas can be connected to common strategies that promote *growth, investment or sustainability* (such as proximity to transit or density)
- A more accurate picture of the *real value of areas* in ways that can leverage economic investment (such as equity, lending levels and new registrations)
- Better ways in which *risk* can be measured and accounted for (such as timing, scale, or location risk)
- A more *comprehensive scope or scale of markets*, to better estimate and project market intervention (such as property or population size, absorption rates, or patterns of behaviour)
- Ways to *challenge and overcome those perceptions* or assumptions that might stymie investment, or slow growth

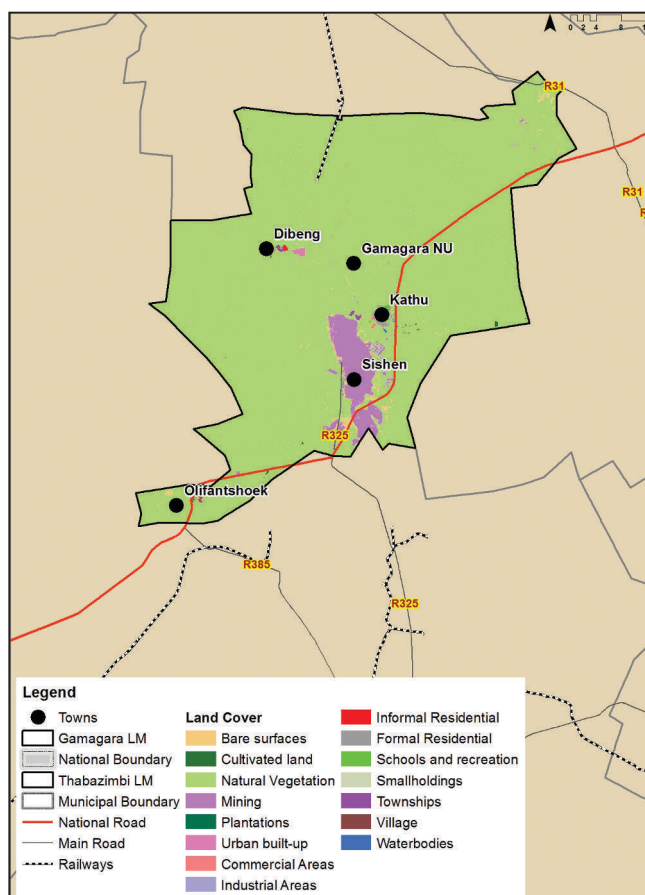
This report is not intended to provide a complete final picture of market conditions or demographic circumstances. It does not reflect conditions in the informal market, nor general attitudes. It is not intended to be the last word on market potential, but is rather the *first*: how can current conditions present opportunities for better housing options, and improved market performance? Where are places that might be performing better in some ways, which might provide areas of opportunity, and how? The highest and best use of this report is to suggest new ways to support the growth of affordable housing in South African mining towns, by exploring and reconsidering areas for new investment, expanding existing investment, and promoting policies and programmes which can support and entice that development. It can also imply the impact of ongoing investment and programmes activities.

2.6 About Formal Housing Markets

This report relies on the South African deeds registry as the basis for analysing local housing markets. Thus, the report **only measures the formal housing market**, which can be defined as those residential properties which have been formally titled to a specific owner or group of owners. While this excludes a large part of the human housing condition in these towns, the advantage of focusing on the formal housing market is that it offers a better understanding of that part of the residential property market, which is most opportune for leverage and investment interventions in ways previously not understood.

Taking into consideration the housing backlog from StatsSA, informal settlements and human mobility, housing markets are quite fluid and difficult to measure. Understanding housing markets more completely is one advantage of the titling initiatives recommended by many housing policy and planning advocates across the country.

3. Context



3.1 Municipal and Regional Context

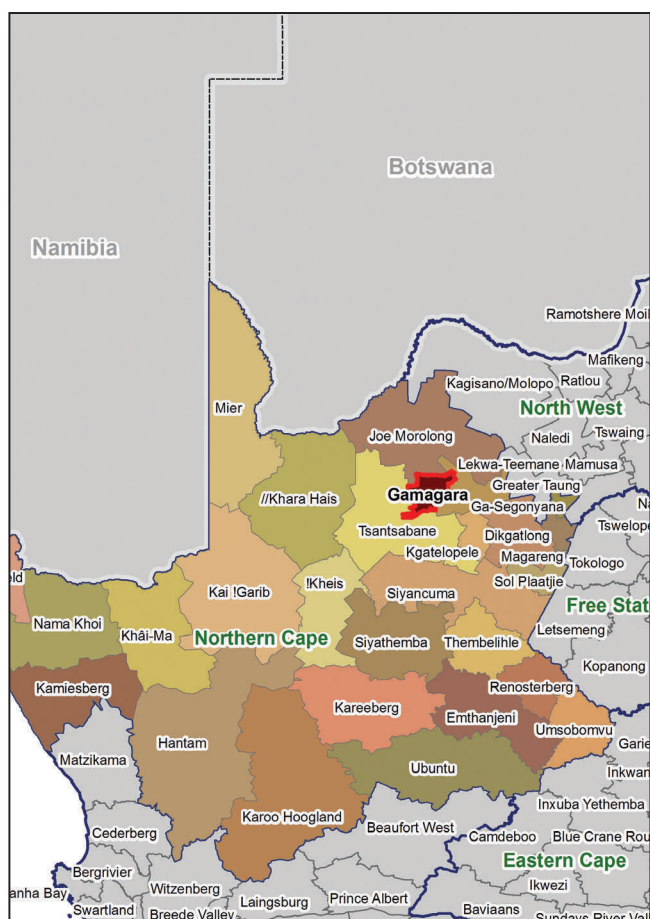
Key aspects of the city are shown from here for contextual purposes, which have been published on the city's website. These aspects are summarised from its 2014 IDP to give important insights to the market overall:

- "Mining contributes to more than 83% of the GVA of the municipality"
- "The municipal area of Gamagara consists of 5 towns; Kathu; Shesheng, Dibeng; Dingleton and Olifantshoek, a large farming area and a considerable mining area"
- "Kathu is the largest town within the municipality and is also the administrative centre of the Gamagara Local Municipality"
- "97% of the population resides in the urban areas"

3.2 Socio-Economic Profile:

The municipality's current demographic information is drawn from the HDA Municipal Profiles and from the 2001 — 2011 Census Data:

- "Gamagara Local Municipality has a population of 41,618 people"
- "There was a 5.8% population growth between 2001 — 2011"
- "In 2011, over 17% of the population was unemployed, and the dependency ratio was 39%"
- "There are 10,807 households in Gamagara, with an average household size of 3.4 people"
- "75% live in formal dwellings"
- "14% of residents live in informal settlements"
- "77% of the households have flush toilets connected to a sewerage system, 59% piped water inside the dwelling, 90% receive weekly refuse removal and 88% electricity for lighting"



4. Context: Mining Sector Overview

This brief industry profile is provided to help understand how the mining sector might affect and engage housing in the mining towns. The mining policies are not specific to the towns — that information is not available. This information has been included because of the mineral mined, the regional location, or specific city references (this report does not assess programme efficacy or impact).

Gamagara Local Municipality is located in the John Taolo Gaetsewe District in the North Eastern sector of the Northern Cape, on the N14 National Road between Upington and Vryburg. It is approximately 200km North East of Upington and 280km North West of Kimberley. The single largest factor that has guided the development of the Gamagara area is the iron ore mine at Sishen.

4.1 Mining Industry Profile

- Mining, although a very important economic industry, consumes only about 1.71% of the surface area of Gamagara
- The iron ore mine at Sishen was the reason for the establishment of the town of Kathu
- The Gamagara Corridor is the mining belt of the John Taolo Gaetsewe and Siyanda districts and runs from Lime Acres and Danielskuil to Hotazel in the north. The corridor focuses on the mining of iron and manganese

4.2 Housing in the Mining Sector

Due to the remote locations of many mining operations, mining companies have long histories of providing housing solutions for its employees, from executive management to miners. Different approaches to housing policies vary and are not discussed in specific terms. Knowing the general Mine Housing Policies assists in understanding the effects on the housing markets in their entirety in the towns. Unlike large metropolitan areas where housing markets grew more organically, (with some historical master planning involved), these towns were largely designed intentionally to serve the interests of the mining franchises above them. Thus, the housing markets within each town are driven largely by the business model of the specific mine company, rather than more familiar housing market dynamics. The following is only indicative of each company's general approach; the housing models in each town are approached differently and more specific to their context. Essentially, understanding the housing options offered by the mining companies is an important factor in understanding local housing markets.

Gamagara's primary extractives are iron ore and manganese. As part of the Gamagara Corridor it has the richest and most sought after iron ore, manganese, diamond and lime resources in the world produced by various mining companies, namely: Kumba Iron Ore, an Anglo American company, and Assamang. Their Mine Housing Policies outline the following:

- Anglo American committed more than R2 billion to facilitate home ownership and achieve the Mining Charter target of 'one person per room' through 2014
- Anglo American currently offers a number of different housing options, ranging from housing allowances to houses built for employees
- Kumba's Employee Housing Programme prioritises employees integration into the local community by building employee homes in the local municipality instead of creating separate mine villages
- Kumba indicates that they have constructed 1,501 housing units in 2012 and 413 in 2013
- Further to this, Kumba has a goal of making all employees home owners by 2019, through Government programmes and their own available resources
- Assamang offers an employee home ownership scheme as part of their Khumani Housing Policy
- Assamang plans to provide a total of 900 houses for employees

5. Context: Housing

The municipality has identified the following challenges and opportunities from its 2014/2015 IDP:



5.1 Housing Challenges:

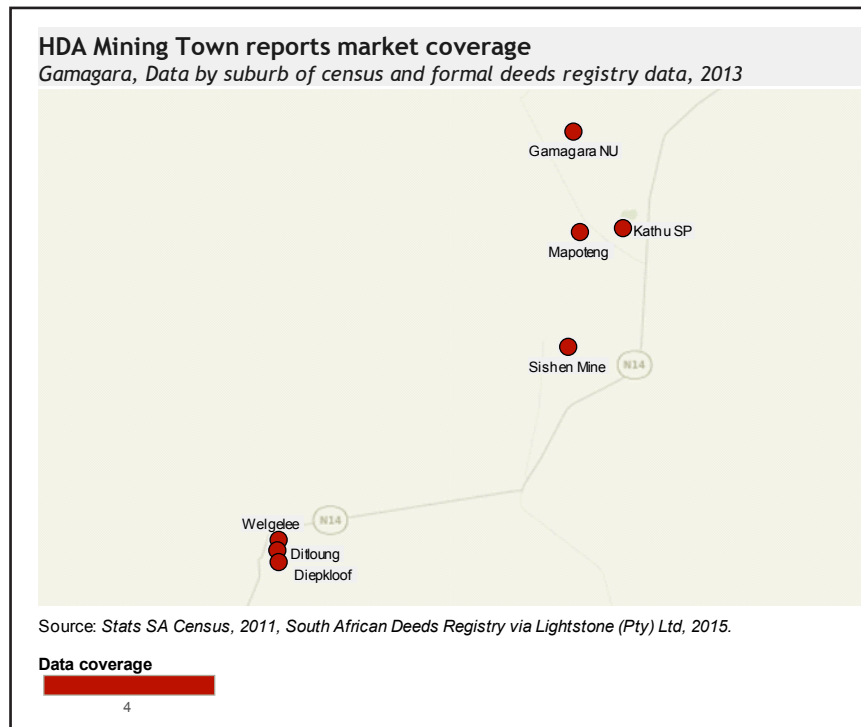
- Provision of water and sanitation services to the informal areas
- Lack of housing for young people
- There is a huge backlog due to the expansion of mines
- Provision of residential stands to backyard dwellers and people without housing
- Inadequate allocation of houses coupled with a slow pace in the delivery of houses
- Unavailability of adequate services like water and sewage in areas earmarked for housing development



5.2 Housing Strategies:

- Ensure the development of quality housing delivery and eradicating housing backlog to maximum benefit by ensuring sustainable housing settlements
- Building of proper houses through national and provincial housing scheme
- Ordained building activities as prescribed by building regulations
- Fast track the facilitation of rental housing
- Ensure provision of housing for relocation of Dingleton
- Develop and implement a land policy to the maxim benefit of housing development initiatives
- Optimal usage of land
- Negotiate with Kumba for provision of suitable land
- Ensure proper planning and surveying of all suitable land according to need of communities
- Mobilisation of well-located public land for low income and affordable housing with increased densities on the land

6. Context: Market Reports



6.1 Report Coverage

It is important to keep in mind that these reports only cover the *formal* housing market, as captured by the Deeds Registry. Thus, there are four layers of information in the report:

1. Total StatsSA suburbs
2. Suburbs with residential properties
3. Suburbs with residential properties sold
4. Suburbs with residential properties sold with a bond

This map ordinarily shows all the census suburbs in the town (pink) to all the suburbs with residential properties with bonded sales (dark red). In this case, Gamagara does not have any pink areas, indicating all suburbs have bonded sales. The chart shows what percentage of the town has a formal residential housing market. This may help explain some of the maps, and why some suburbs are included and some may be omitted. For example, information on bonded sales will only reference suburbs in which bonded sales took place.

Gamagara Housing Report Coverage

Total Census Subplaces (SPs)	9	
Total SPs	9	100%
Total SPs with sales	9	100%
Total SPs with bonded sales	9	100%

Market Area By The Numbers

Suburbs	9
Suburbs with residential properties	9
Households	10 807
Residential properties	6 236
Housing backlog	2 488
Backlog as percent of all Properties	40%
Households to properties ratio	1.7
Total residential value	R3 billion
Average monthly income	R10 100
Average property value	R517 304
Average sales price	R623 000

Source: Centre for Affordable Housing Finance in Africa, Lightstone, StatsSA

7. Key Findings: Housing Market Overview



The Gamagara housing market is transitioning to a balanced level of growth. While demand has slowed in some areas, it has also increased slightly in other areas, which points towards a more stable market for both buyers and sellers. This is likely due to anticipated growth and expansion of the mining sector and jobs along the corridor, as well as the increasing development of one particular area in the municipality. Recent growth has stabilised a bit, creating an opportunity for markets to be carefully assessed in order to best position the next wave of growth.



Gamagara's **affordability is such that it takes more than double the average income to afford the average house.** While this is below the national average of 3, despite a just above-average monthly income compared to all mining towns and the nation, there remain large disparities amongst incomes and affordable housing access within the municipality. This may prioritise housing strategies and solutions, which propose creative financing tools and techniques to reduce financial barriers (such as down payments, interest rates and principal repayments) as well as unlocking equity, rather than simply trying to push costs down.



According to the deeds registry, about one quarter of all housing units in the mining towns are Government-sponsored. **23% of all registered properties within Gamagara are Government-sponsored and represent an important opportunity to leverage that investment** in affordable housing in the years ahead, as owners seek to sell and move up the housing continuum, if opportunities are positioned properly. Average equity in these areas increases purchasing power, putting moderately priced housing within reach of lower income families. This situation can be used to drive developers to build more gap housing, and financiers to finance lower priced acquisition loans.



The area has a limited range of diversity and integration of housing values and property types. **Gamagara is predominantly freehold with most property values being under R250 000.** Mixed-income housing development provides adequate profit for developers while providing lower income homes, and creates a market less reliant on Government and mining intervention.



Gamagara has experienced a modest increase in non-traditional lenders. With the presence of existing RDP units, it will be an important strategy to encourage traditional and new lenders to develop creative loan programmes targeting those homeowners in order to make it easier for them to sell their homes, unlock the value of those homes, and allow owners to move up the housing continuum.



With 46% of families renting in Gamagara, the **opportunity for rental housing development within Gamagara is strong, especially within most areas along the corridor.** Those areas with greater density, modest incomes, and affordability challenges are more likely to support quality, professionally managed and affordable rental housing. Rental housing also provides flexibility to employers and workers as mining markets expand and contract from time to time.

8. Housing Performance Profile



8.1 Key Findings: Housing Performance Index

The Gamagara housing market is transitioning to a balanced level of growth. While demand has slowed in some areas, it has also increased slightly in other areas, which points towards a more stable market for both buyers and sellers. This is likely due to anticipated growth and expansion of the mining sector and jobs along the corridor, as well as the increasing development of one particular area in the municipality.

Recent growth has stabilised a bit, creating an opportunity for markets to be carefully assessed in order to best position the next wave of growth. Housing options seem more diversely distributed across the municipality than most.

8.2 Policy Implications

With the stable market in Gamagara, **sustaining ongoing housing demand** will be a crucial factor in continued stabilisation of the town through future periods of growth. In slow growth neighbourhoods, where most of the lower priced housing currently exists, housing will need to be built more affordably, but will need to be situated well to better integrate housing markets. Site development initiatives should include rental housing to meet the increased demand.

8.3 Quick Definitions:

Housing Performance Index (HPI): provides an understanding of local housing market performance by tracking six key indicators which most effectively convey fundamental components of real estate markets and then comparing them to the results for the entire municipal property market to determine areas of growth or strength relative to the entire metro.

Housing Performance Profile: this describes housing market performance of local areas as growing (those areas where the index is 6.5 or higher), stable (the index is 4 or higher) or slow (the index is less than 4) compared to the metro in which it is located.

Formal Housing Market: residential properties that are registered on the South African deeds registry. This does not include informal settlements or other houses otherwise not on the deeds registry.

Indicators: suburb-level measures used to convey a more complete understanding of housing markets, sometimes a point of data (such as number of properties), or a calculated factor (such as the housing index or the affordability ratio).

Housing Continuum: a range of housing options which are available to a wide range of income levels, budgets, housing types and ownership opportunities.

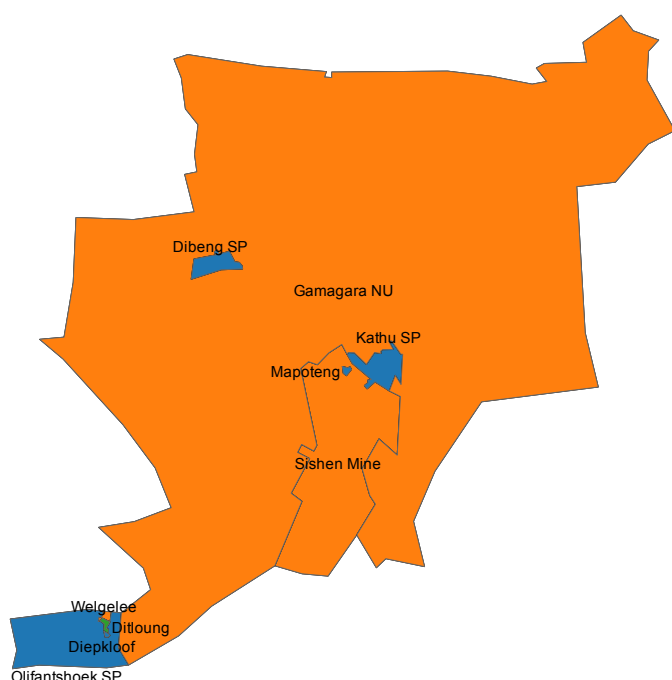
Bonded Sales: the total residential properties that were transacted with a bond collateralised or secured by that property.

New Registrations: residential properties that have never appeared on the deeds registry before. This is an important indicator of the growth of a market, whether the property has just been built or was built previously and never registered.

Churn: an indicator of the sales activity within an area similar to turnover, it is the number of residential sales divided by the total number of properties.

Housing Performance Index Gamagara, 2013

Market growth of six key housing market indicators, compared to the metro



Source: Centre for Affordable Housing Finance in Africa, 2015. All indicators reflect formal market data as reflected on the deeds registry.

Housing Performance Profile

- Growing
- Stable
- Slow

Housing Performance Index Gamagara, 2013

Market growth profile by suburb, with property volume



Source: Centre for Affordable Housing Finance in Africa, 2015. All indicators reflect formal market data as reflected on the deeds registry.

- Total Residential properties**
- 194
 - 500
 - 1 000
 - 1 500
 - 2 000
 - 2 406
- Housing Performance Profile**
- Growing
 - Stable
 - Slow

8.4 The Housing Performance Index

This map identifies the Housing Performance Index by suburb (top) and total residential properties (bottom), to provide a sense of how local property markets are performing compared to the municipality as a whole. The Housing Performance Index (HPI) provides a glimpse of the formal housing market only and does not include any demographic information. The weights were determined by how well the indicator reflects activity, increased investment and demand (and how reliably the indicator can be measured).

This information is useful in understanding how the formal market is behaving (which is influenced by the presence of mines, informal settlements and the people who move in and around the towns). This picture is intended to help understand how key housing sector partners (developers or investors seek and measure opportunity, in order to better inform and coordinate Government planning processes and private sector motivation).

“**Growing**” suburbs are areas which exceed the municipality’s rate of change in any four of six key market indicators. “**Stable**” areas meet or beat the municipality in at least three indicators, and “**Slow**” areas are growing at rates less than the municipality in two (or fewer) of the six indicators. While an index provides quick understanding, it is important to look more closely at the indicators themselves to understand more clearly the underlying factors affecting market growth and stability.

CAHF Housing Performance Index

Indicator	Measured	Implies	Weight
Price	Average sales price	Appreciation	25%
Value	Average property value	Appreciation	25%
Transactions	Number of sales	Demand	15%
Percent bonded	Bonds per sales	Investment	15%
Churn	Repeat sales as a percent of total properties	Activity	10%
New properties	New properties added to the registry	Growth	10%

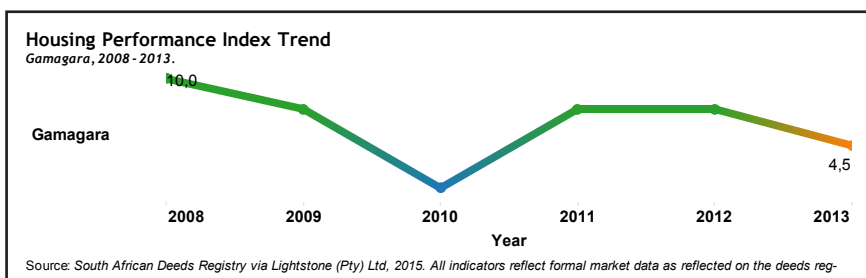
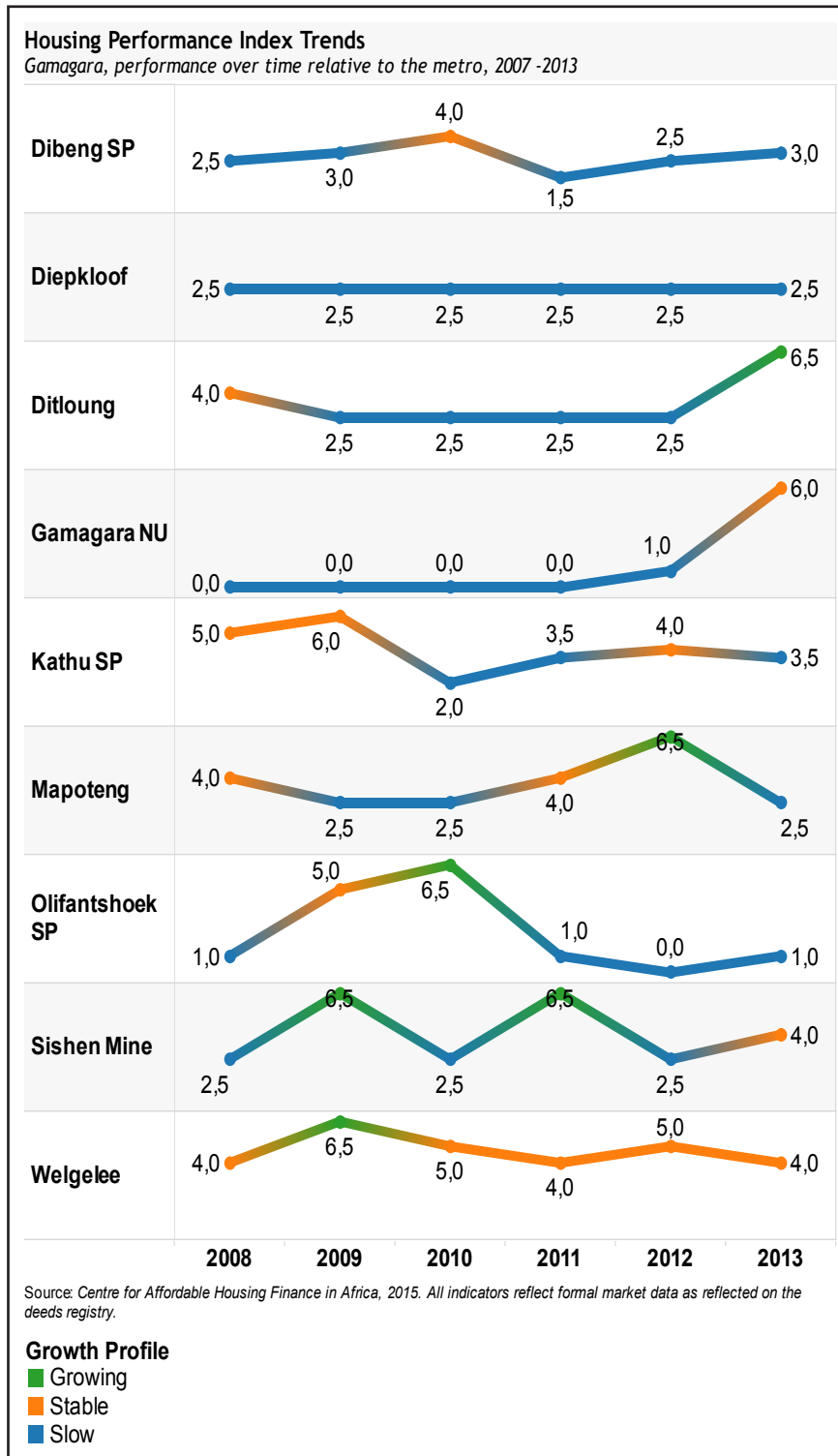
8.5 Performance Over Time

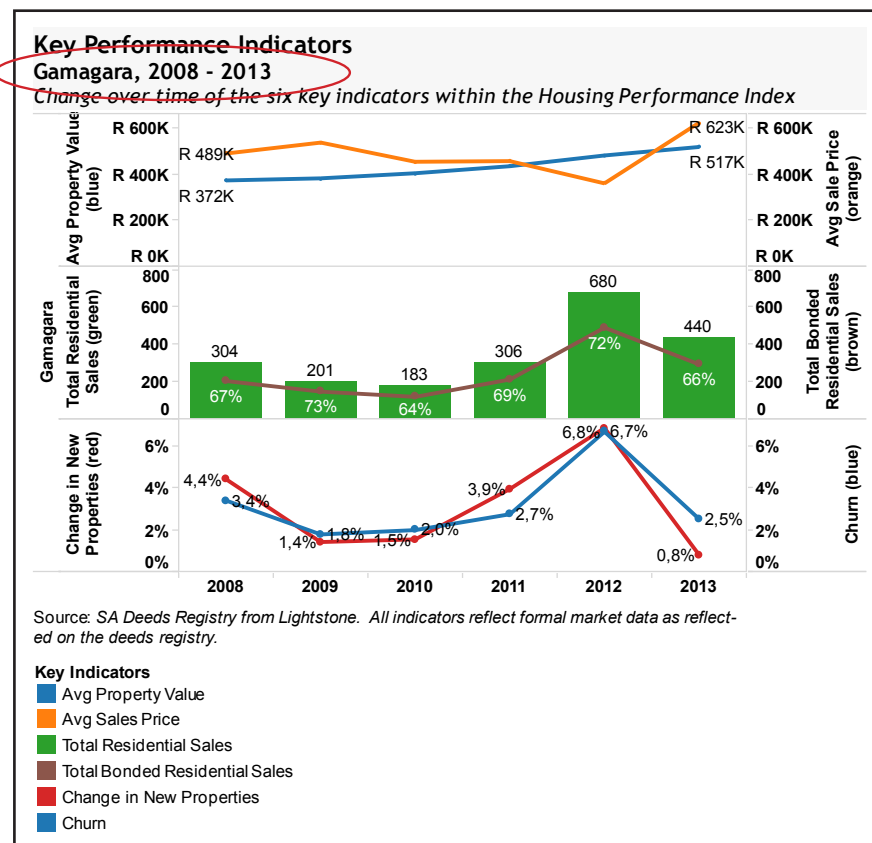
These charts provide the Housing Performance Index by suburb over time using the six key indicators (price and value appreciation, sales and bonded sales, churn and new properties). Growth is relative to the metro (and change from the preceding year), so it is important to compare these lines to the area's overall performance, and the direction in which the trends are headed. The city's growth overall (below) appears to be on a downward trend, as compared to the province.

While some areas are experiencing slow growth, two areas (Ditlounge and Sishen) appeared to have grown slightly more and stabilised in 2013 compared to the prior year.

In considering development investment over the long term, stability of growth is often a more important consideration when projecting future performance than high growth. Notably, lower cost suburbs are more impacted by investment and thus their performance often outpaces the municipality, whether the growth is stimulated by Government or private sector investment. This information can help advise how to create a more cohesive and stable housing continuum, with fewer spikes and drops, and where to begin.

Areas with no data have no residential properties or sales, such as farms or open space, mines or industrial uses like power generation.





8.6 Housing Performance Indicators

Six indicators – price and value appreciation (top orange and blue lines), total sales and bonded sales (middle green bars and brown line), change in new properties and churn (bottom red and blue lines) – are the most telling of growing, active housing property markets. The relationship between indicators provides clues as to what may be driving performance, what that might mean for future development potential and how it might affect or be influenced by different housing types, prices or target incomes.

These charts compare the performance of three ownership types, namely freehold, sectional title and estate ownership. The market appears to be slowing down, consistent with most markets across the country. Despite rising average sales prices and values, the **number of sales doubled in 2012 from 2011, while bonded sales increased from 64% of all sales in 2010 (brown line) to 72% in 2012. Sales decreased in 2013, as did bonded sales, to 66%. Declines in the total bonded sales and residential sales may be due to sales price increases.**

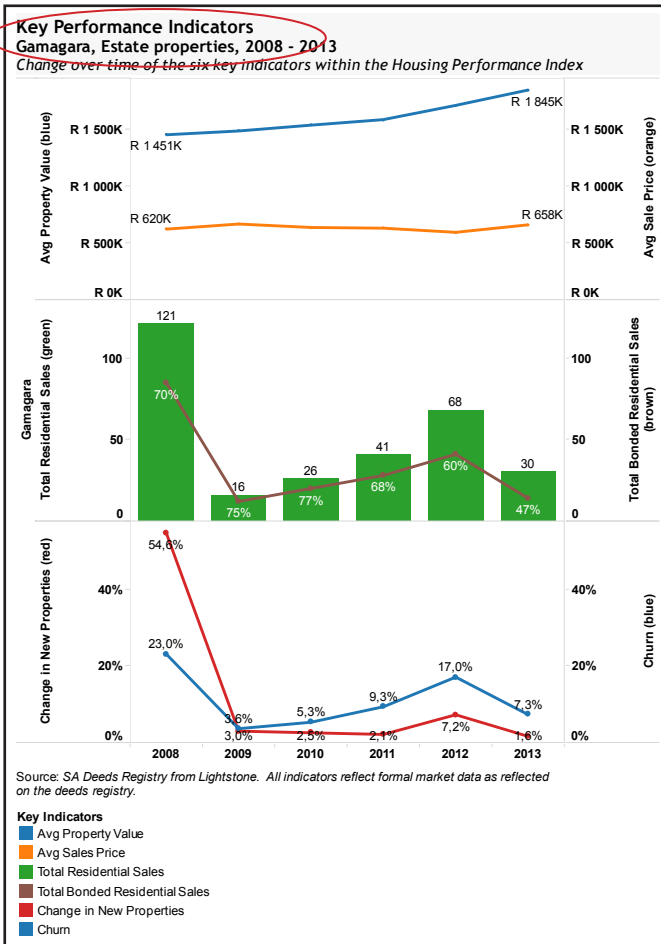
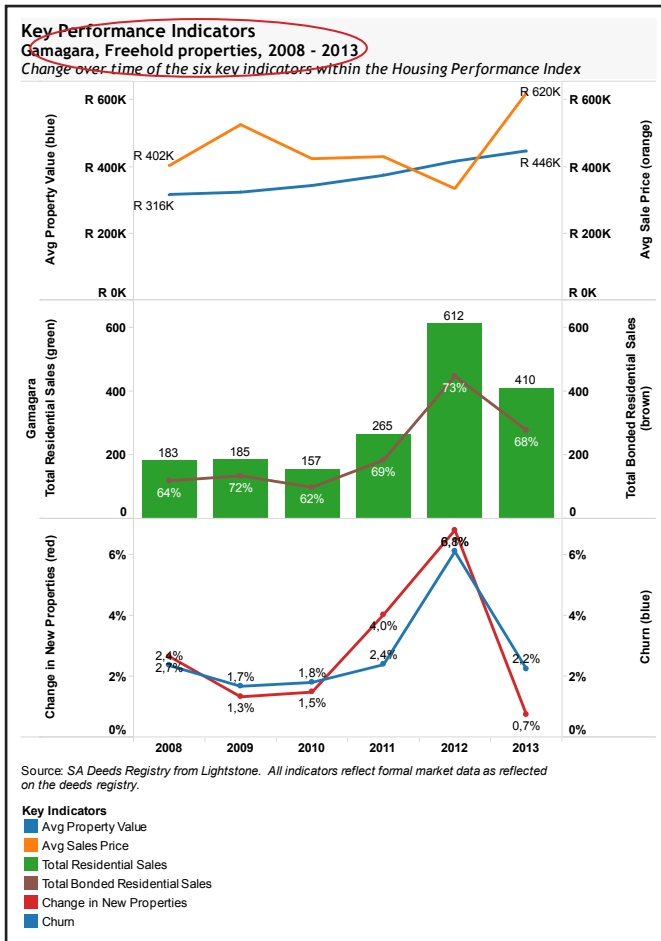
Housing markets are very sensitive to access to credit, so lending information will be helpful in understanding this more closely (see left). Churn rates have been steady, except in 2012 when they spiked (blue line), indicating higher turnover of existing homes.

8.7 Housing Performance Indicators by Property Type

Different housing markets perform in different ways, including freehold (free-standing) homes and sectional title (subunits within a single property). The area is predominantly freehold (see Market Size below). **There is no data in Gamagara regarding sectional title units.**

There is a small estate property market, which experienced a drop in bonded residential sales from 70% in 2008 to 47% in 2013 (brown line) which may be due to the availability of more sales in the middle. Maps below indicate these were all in Kuthu.

Estate properties are experiencing the greatest drop in market activity, and average sales prices are trending significantly below property values. Sometimes a drop in sales prices is due to the inability to access credit, limiting potential buyers to raise cash to purchase the house. The average value may also be driven by the large numbers of properties below R250 000 and few properties above R500 000.



9. Market Size



9.1 Market Size: Key Findings

Gamagara's housing market is essentially three markets: Government-sponsored housing built as part of the National Housing Initiative over the past 20 years, privately traded and financed homes, and informal settlements. Markets are highly segregated between higher-priced, actively selling private growing markets near the centre and west of the city, and further flung lower income, non-bonded Government sponsored developments and informal settlements (not on the deeds registry).

The implied demand for housing is high. The current estimated housing backlog represents about 40% of the town's current total formal residential properties, one of the highest of all mining towns. Demand creates opportunities for new housing supply to be positioned between the existing segregated markets to better integrate the town's spatial, income and housing markets.

9.2 Policy implications

Given this backlog, Government should focus on increasing housing supply. Existing Government investment in housing can be leveraged to guide new development opportunities, if and when those homes can be sold to new buyers and the proceeds then used to purchase new housing further up the housing continuum. Government can use its existing housing investment to identify areas of future development and entice private sector participation. For example, Government might prioritise new development between Government-dominated and private markets for more integration mixed-income sites, and fills spatial gaps within the town.

Encouraging the expansion of financing to lower income families will allow for those homes to be sold, and the proceeds used to support housing development further up the housing continuum.

Rapidly changing housing demand driven by mining activities makes a strong case for the prioritisation of quality rental housing. If rental housing is well-situated and convenient to transport and centrally located in dense areas, it can bring social and economic cohesion to housing markets over the longer term.

9.3 Quick Definitions:

Market Size: the total number and distribution of important aspects of areas, including average home prices; home values; total households in order to inform the potential scale of housing intervention strategies and the impact of proposed development schemes.

Property Value Segment: in order to better understand the performance of housing markets, data has been grouped into four property value bands: properties valued under R250 000; between R250 000 and R500 000; between R500 000 and R1.2 million and over R1.2 million. This helps one to understand the various trends and strengths inherent in each segment, and to see how properties are integrating across the housing continuum, especially over time.

Government-sponsored Housing: housing which was created through some Government intervention, from site and infrastructure provision, direct construction or finance, such as Site & Service, RDP and BNG. While these homes are not recorded as such on the deeds registry, their presence is estimated based on surrounding registrations, timing, prices and volume of activity.

Freehold / Full Title: a permanent and absolute tenure of land or property by a person or entity (such as a corporation or trust) with freedom to dispose of it at will. Freehold or full title describes the assumption of full ownership rights when one owns a property, often including the building and the land it is built on.

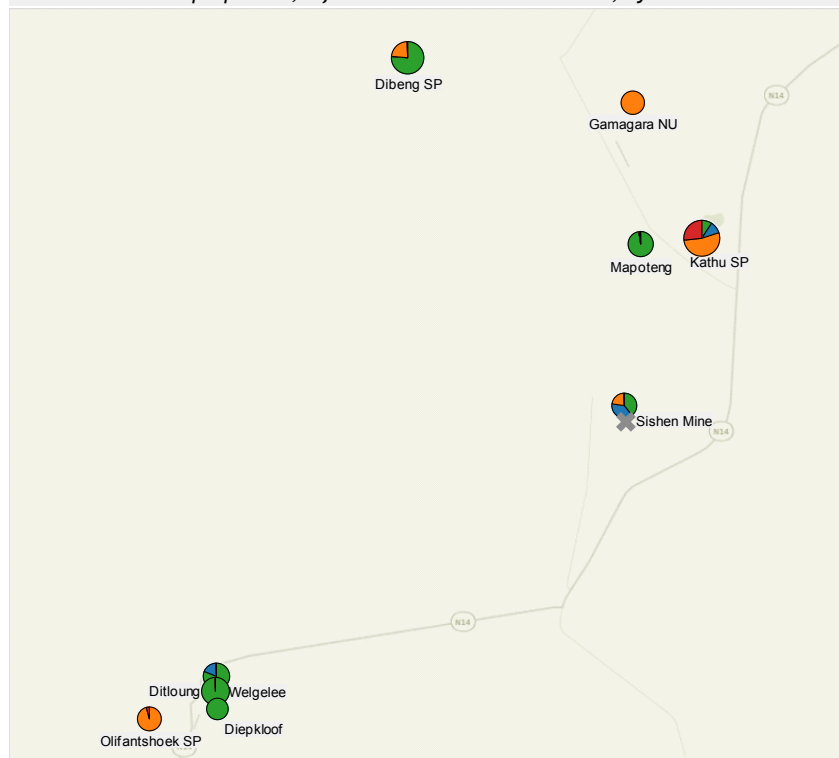
Sectional Title: separate ownership of units or sections within a complex or development. These are often comprised of mini subtype houses, semi-detached houses, townhouses, flats or apartments and duet houses. These are governed by the Sectional Titles Act and managed by a body corporate comprised of elected representatives of the sectional title owners in the development.

Absorption: the pace with which homes to be developed might be sold in a specific market during a given period of time. This can be calculated by dividing the total number of available homes coming on line by the estimated number of sales per month, often based on the rate of sales nearby.

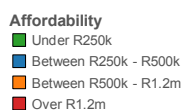
Households to Properties Ratio: the total number of households (as reported by the census) divided by the total number of residential properties on the deeds registry. This is a quick, easy relative indicator of household density and formality of a suburb as compared to other areas.

Distribution of Properties and Values by Suburb Gamagara, 2013

Formal residential properties, informal settlements and mines, by suburb

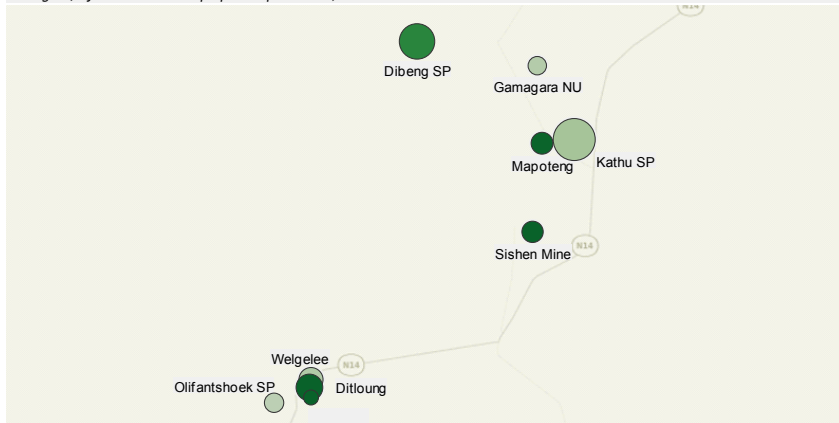


Source: South African deeds registry via Lightstone (Pty), Ltd; Housing Development Agency informal settlements and mines.

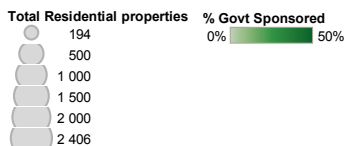


Number and Percent Government Sponsored Residential Properties

Gamagara, by total residential properties per suburb, 2013



Source: South African Deeds Registry via Lightstone (Pty) Ltd. All indicators reflect formal market data as reflected on the deeds registry.



9.4 Market Size and Government Investment in Housing

Market size measures the distribution of home prices, households and values in order to inform the potential scale of housing intervention strategies, and the impact of proposed developments on the surrounding area. It can also reveal the impact of Government investment in housing markets. Comparing the distribution of values to the housing performance map, several moderate income areas are growing faster than the municipality.

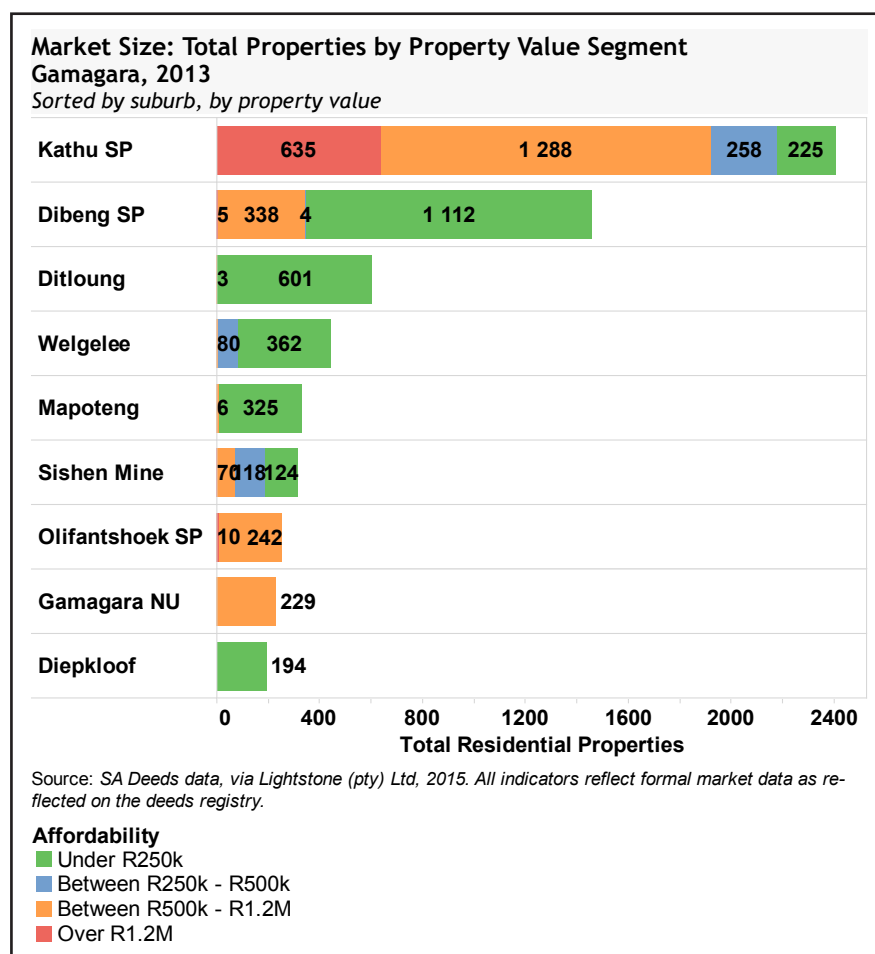
In Gamagara, properties with lower values are distributed across areas in the west and the centre of town along the N14 transit corridor and coincide with Government investment in housing (map two). It is a very positive fact that many Government-sponsored housing units are on the deeds registry. However, often these homes are undervalued for two reasons. The subsidy value was often noted as the sales price (rather than the cost), or sales prices are driven low because buyers lack access to credit with which to purchase the homes at a more realistic sales price, and must pay with the cash they have.

Encouraging the resale of Government-sponsored housing is an important means of expanding housing options – for the sellers, who can move up the ladder with the equity from the sale of their property (see below), to the first time homebuyer purchasing the existing home. More activity in these markets will also raise the value of the home, often a family's most valuable asset.

9.5 Market Size by Value Segment

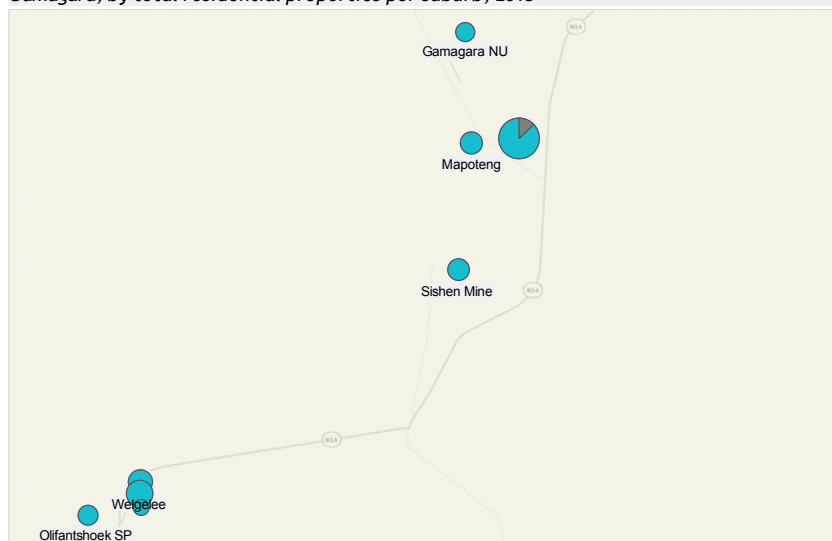
These charts provide the total of properties within each suburb by property value segment (below R250 000; between R250 000 - R500 000; between R500 000 - R1 200 000 and over R1 200 000). Gamagara has a limited range of property values throughout the municipality, with almost all suburbs except Kathu hosting only one range of housing values (half of all suburbs do though). This may help to explain the area's stable market. In small housing markets, Government interventions and programmes must be more targeted as their impact on the markets overall will be greater.

A diverse approach may help to expand the diversity and distribution of housing options across town.



Distribution of Property types

Gamagara, by total residential properties per suburb, 2013



Source: South African Deeds Registry via Lightstone (Pty) Ltd. All indicators reflect formal market data as reflected on the deeds registry.



9.6 Market Size by Property Type

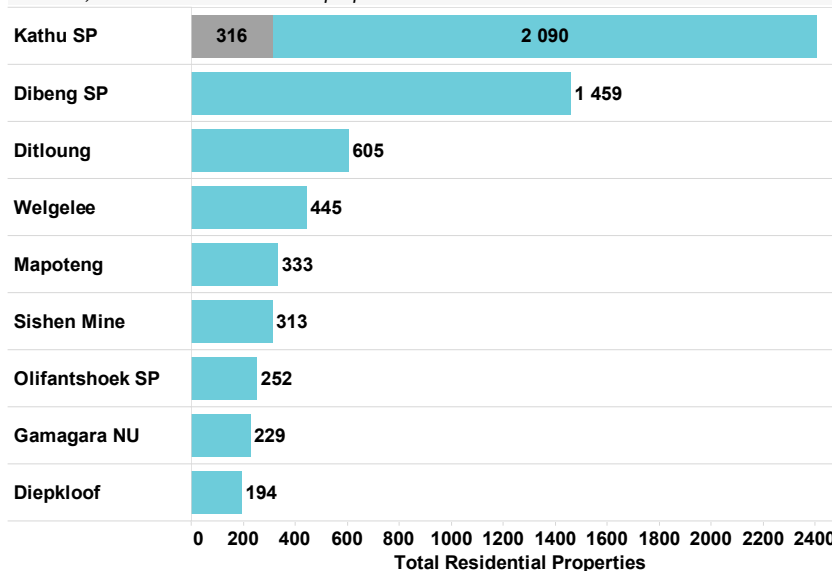
Gamagara residential properties are predominantly freehold, with a few estate property ownership. All estate properties are in Kuthu, in the centre of town.

Sectional title units can sometimes present affordable homeownership options, as sharing construction and operating costs lower them, if the developments are positioned correctly and implemented carefully.

Market Size: Total Properties by Property Type

Gamagara, 2013

Freehold, Sectional Title and Estate properties



Source: SA Deeds Registry via Lightstone (Pty) Ltd., 2015. All indicators reflect formal market data as reflected on the deeds registry.



9.7 Market Size by Households and Income

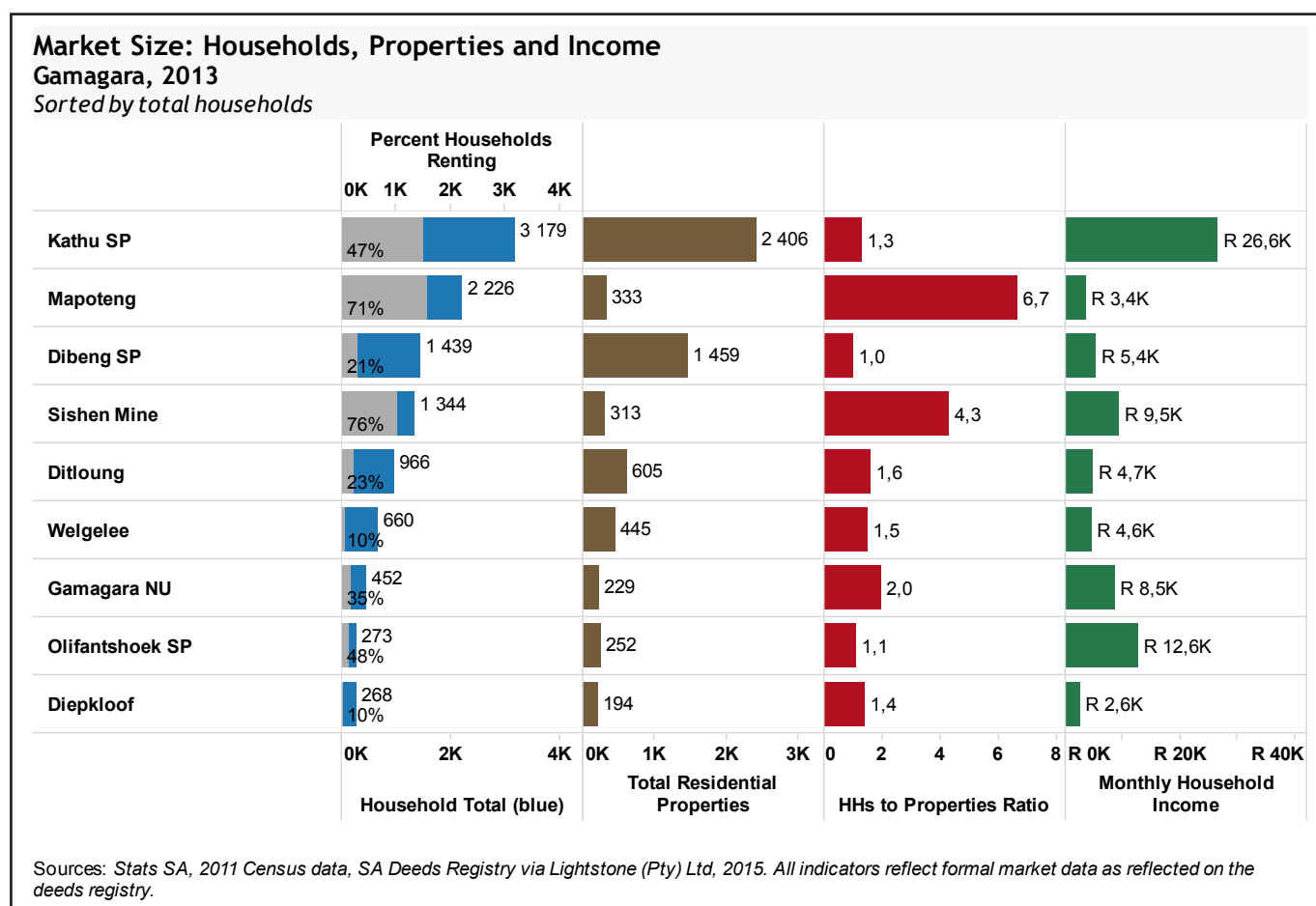
Understanding the distribution of households and incomes within Gamagara helps to inform scale, development impact, and programme targets.

Census data is useful as the only source of demographic information consistently available at the suburb level, and provides interesting insights into local differences.

Areas with high levels of renters (grey bars) also very often have the highest household incomes (such as Kathu SP and Olifantshoek SP). It is suggested that these high levels of renters might be the combination of mining executives who rent (instead of own) their homes as well as support staff who live nearby in backyard accommodation.

Areas with above average renters and moderate incomes (Dibeng SP and Sishen Mine) might mean families which ready for more formal rental options.

Ratios of households (from StatsSA) to properties (from the deeds registry) -the red bar- can show degrees of constrained supply or informality. The informal settlements in Matopeng have high populations, few registered properties and low incomes.



10. Market Activity



10.1 Key Findings

Sales of units are concentrated in centrally located suburbs, in both lower and middle income areas. Sales dropped across the country after 2008, and dropped in Gamagara as well. However, sales have continued up and down slowly afterwards and mostly in middle priced housing.

Bonded sales in lower markets are an extremely small portion of the bonded market. Sales continue to be dominated by repeat sales and some new housing sales. Property value (the home's worth) and sales prices are closely related in active markets. In less active markets, sales prices are significantly less than their suggested value.

10.2 Policy Implications

Focus on increasing access to lending, determining what barriers exist to make credit more accessible, either through lower cost products, more flexible terms, and/or inclusion of existing debt into a mortgage loan product. These products should be tailored to meet the needs of the lower income markets.

Create financing products which can bring down the cost of quality rental housing as an affordable alternative to homeownership for lower income families.

10.3 Quick Definitions:

Market Activity: performance of key housing property market indicators over time, such as sales, bonds, registrations and churn.

Market Share: the portion of the market according to certain indicators, such as loans, types of properties, or property values.

Property Value Segment: in order to better understand the performance of housing markets, data has been grouped into four property value bands: properties valued under R250 000; between R250 000 and R500 000; between R500 000 and R1.2 million and over R1.2 million. This helps one to understand the various trends and strengths within each segment, and to see how properties are integrating across the housing continuum, especially over time.

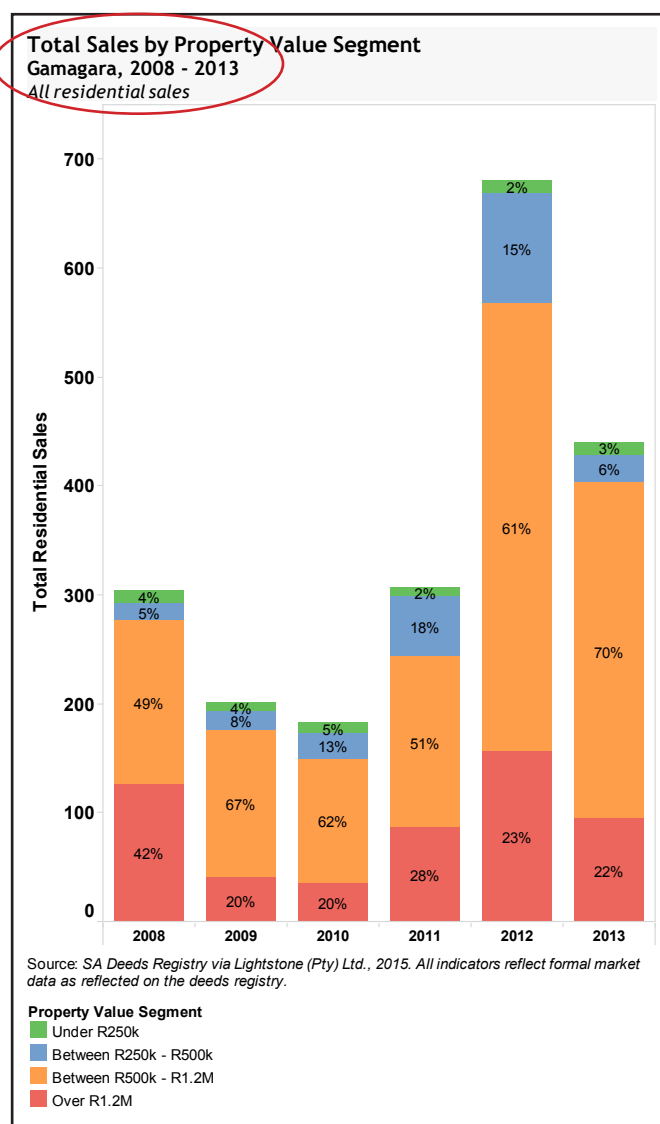
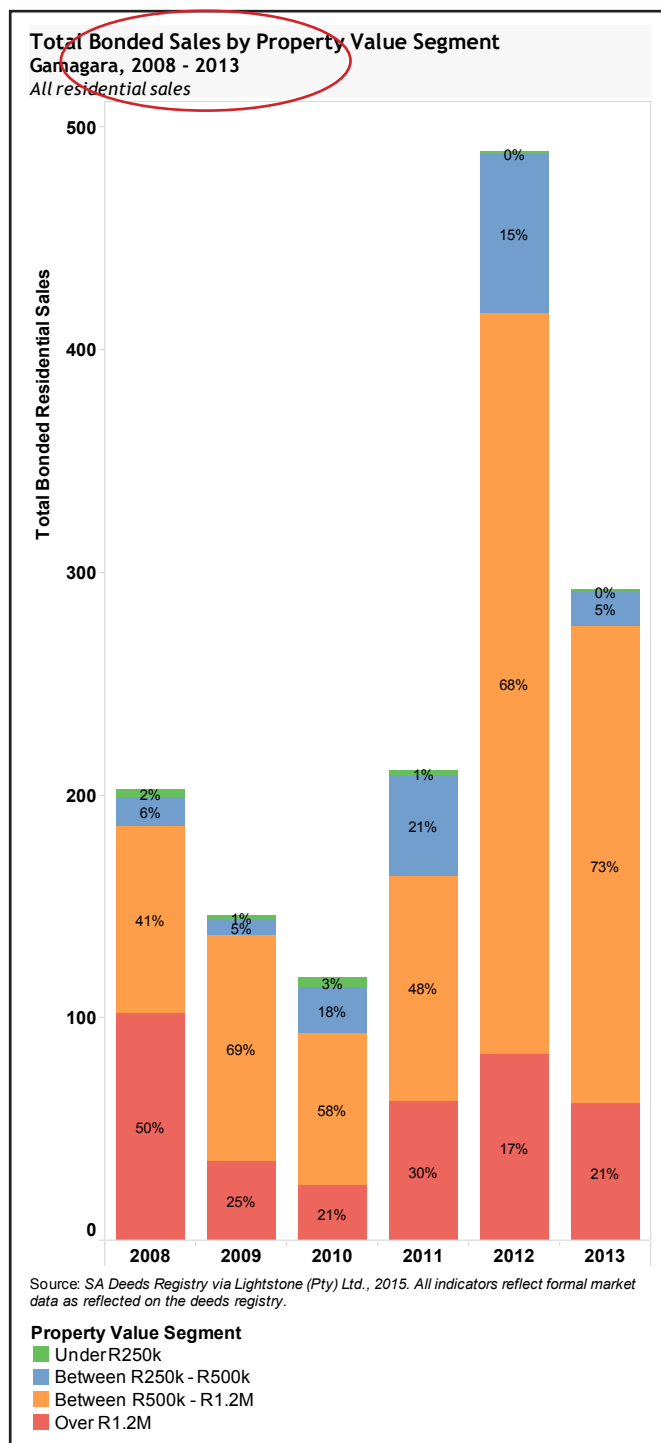
Bonded Sale: a transfer of deed on the deeds registry with an associated bond from a lender, including the property as collateral for the bond.

New Sale / New Registration: the appearance of a residential property on the deeds registry for the first time. It might include new construction or previously existing units being recorded for the first time (such as previously built RDP homes).

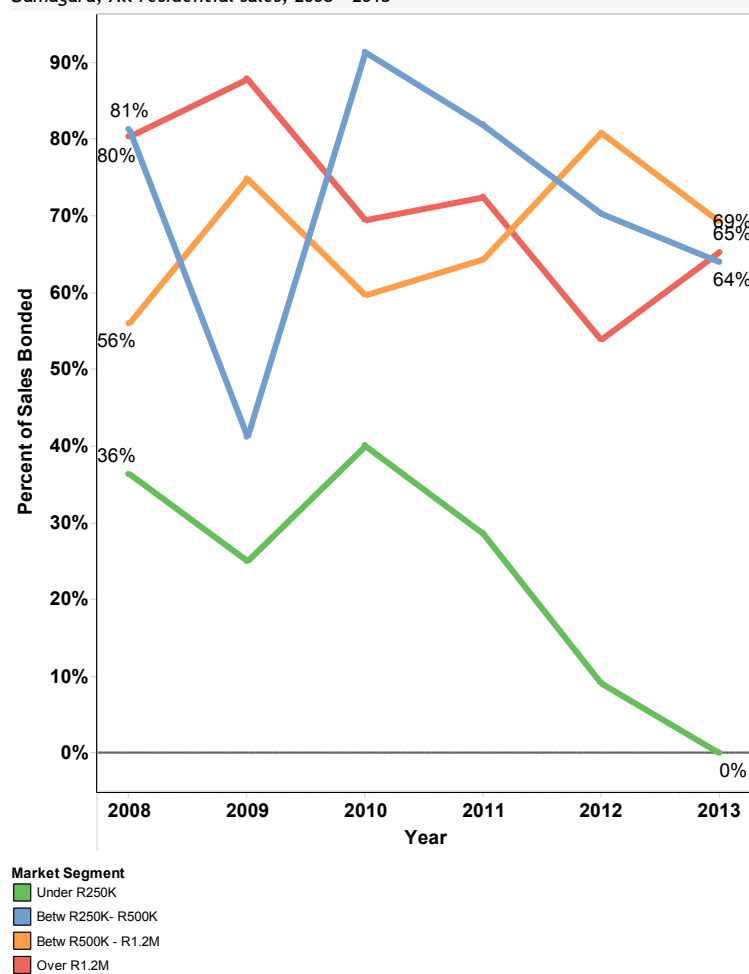
Resale / Repeat Sales: the sale or transaction of a property which has existed on the deeds registry before (as opposed to a new sale or new registration).

10.4 Sales and Bonded Sales by Property Value Segments

Almost 85% of all residential sales and bonded sales in Gamagara have been over R500 000 (the orange and red sections). Market share (the portion of the total) by property value segment has changed since 2008, suggesting an evolving housing market, and the importance of access to credit to growing housing markets. The relationship between sales and bonds shows the importance of access of credit to growing housing markets, in particular the lower valued segments. **The share of bonded loans under R500 000 has decreased over time from 21% in 2010 to 6% in 2013.** This might be due to credit indebtedness, which disproportionately impacts lower income borrowers or lack of access to affordable homes with which to buy. Policies which help expand access to credit and provide more housing opportunities under R500 000, in the lower bands, can expand sales within that band. Rental housing might also be a more suitable option.



Percent of Sales Bonded by Value Segment
Gamagara, All residential sales, 2008 - 2013

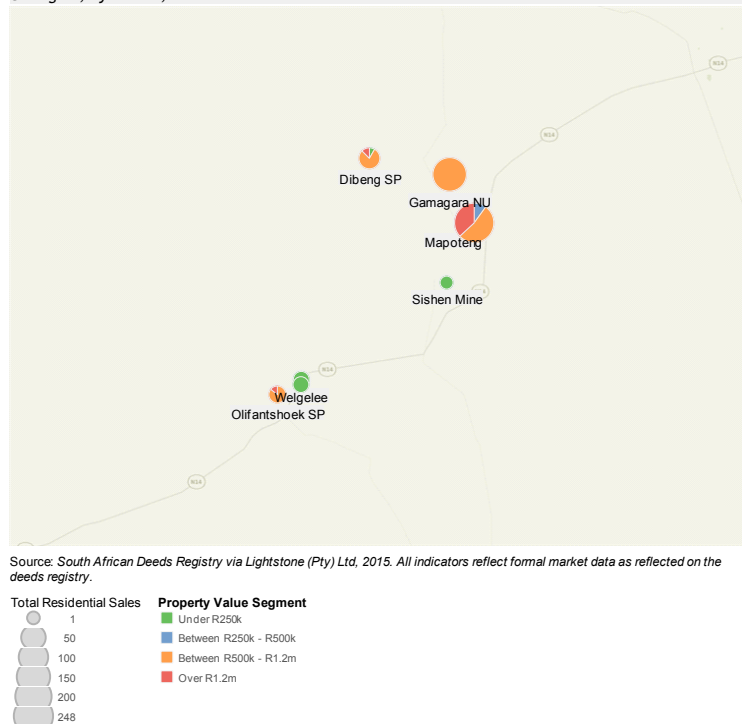


10.5 Lending per Property Value Segments

This chart shows (by contrast to the previous charts) the percent of bonded sales within the various property value segments. **Overall, the total sales receiving bonds in Gamagara went up and down over the past six years, but was not evenly distributed across all property values.** The lower to middle property values (the green and blue lines) experienced a significant decrease since 2010, perhaps driven more by decreased access to credit or decreased supply of housing that falls within this segment.

The upper-priced properties continue a steady up and down trend, perhaps due to market overexposure, or fewer eligible buyers. Mid-range sales experienced a high spike in 2010 and currently appear to have dropped in bonding.

Sales by Property Value Segments
Gamagara, by suburb, 2013



10.6 Sales by Property Value Segments

This map shows the **volume of sales activity (the size of the dot) by suburb across the town by property value segment (the slices of the pie)**. The lower-valued properties (in the green) saw the least activity and were concentrated mostly in three areas (Ditloung, Welgele and Sishen Mine), but the mid to upper-priced homes (red and blue) saw more registered sales activity in three areas, a potential sign of active (increased) supply and steady demand.

Access to credit is a significant boost or barrier to housing market growth. While some suburbs offer a range of housing price options; pinpointing product prices and types to specific areas, especially considering local affordability; is key to ensuring programme success.

10.7 Sales by New and Repeat Sales

An important distinction in market performance is the sale of new homes (which have never appeared on the deeds registry) and the resale of existing homes. The chart shows new (green) and repeat sales (orange) by suburb. **In most mining towns, new registrations are clustered in only a few suburbs. In Gamagara these are located in the newly created town of Kathu.** Because of the size of the non-urban suburb, it's not yet possible to determine where those new houses were built.

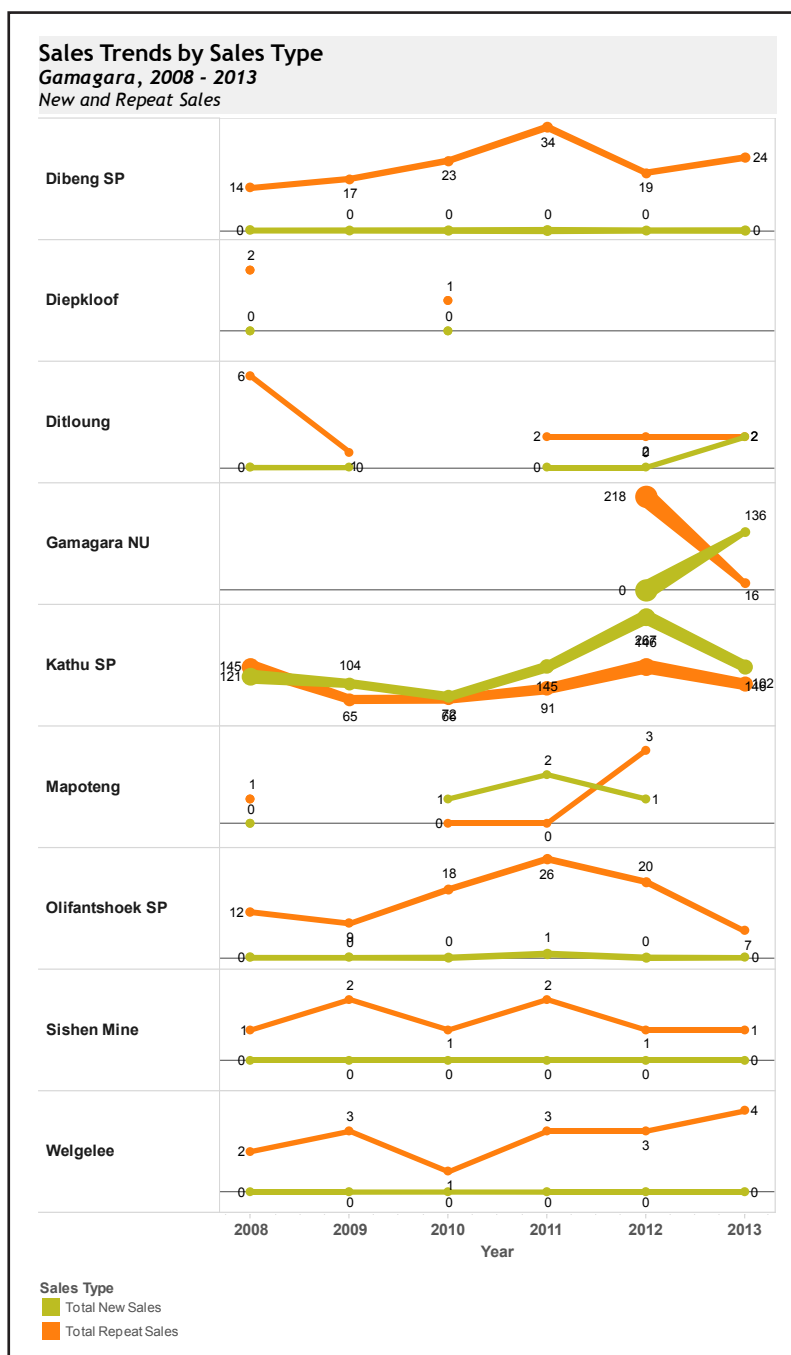
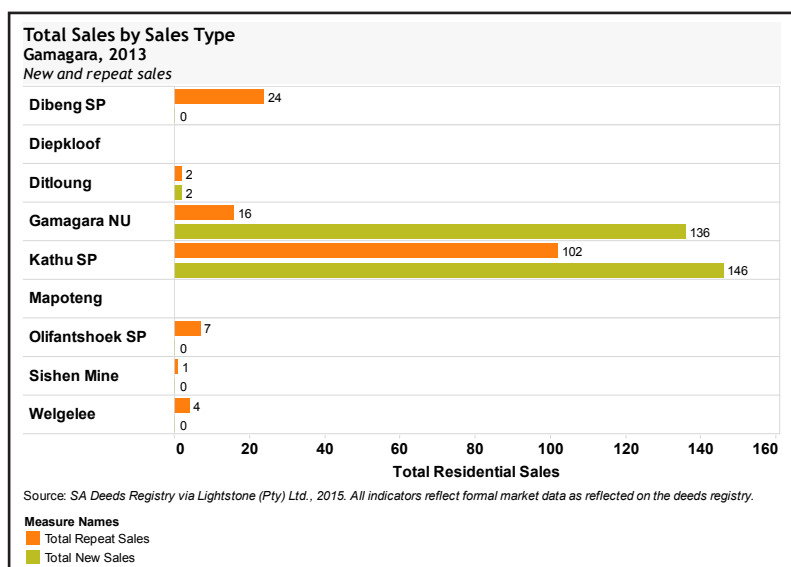
New sales can also show the recent registration of Government-sponsored housing investment. An important point is to recognise the impact of newly registered Government investment in housing. Often these registrations may be perceived as a market distortion, but the deeds issued on Government-sponsored housing represent real assets which now can be traded and loaned against, and are key to moving up the housing ladder. Thus, the housing market has in fact grown.

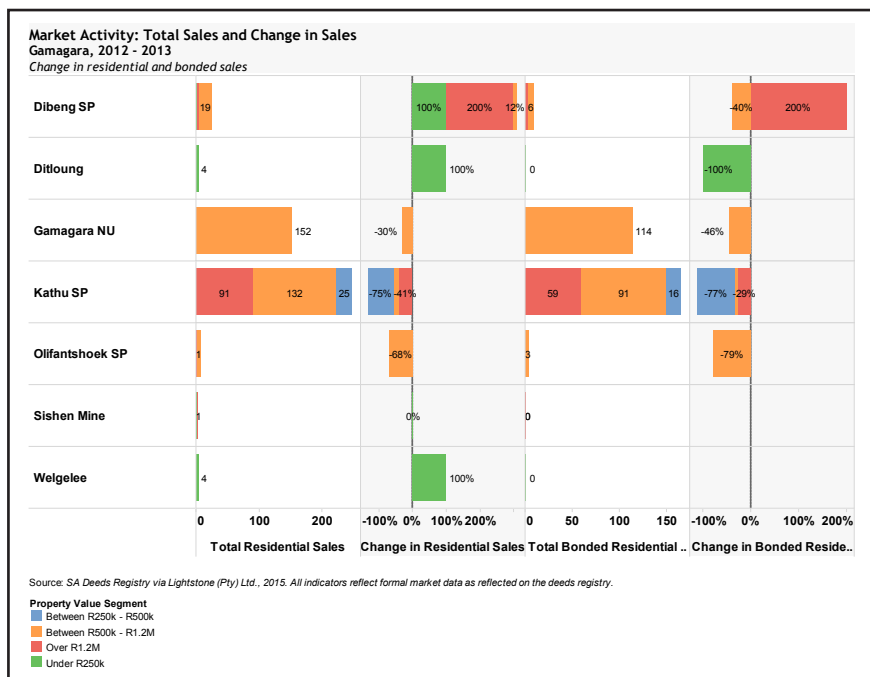
Suburbs with no data reflect areas with no sales or new registrations.

10.8 Market Activity amongst New and Repeat Sales

The **growth and maturity of housing markets can often be found by comparing new homes and resale over time.** The growth of existing home sales (the orange line) indicates sustained interest of housing markets by borrowers and lenders. The thicker line reflects area with more sales.

Often volumes of new homes in prior years become resales in later years (for example, Kathu's slight uptick of resales in 2012). Understanding how mining companies create new units helps to understand their existing and potential contribution to expanding the local housing economy.



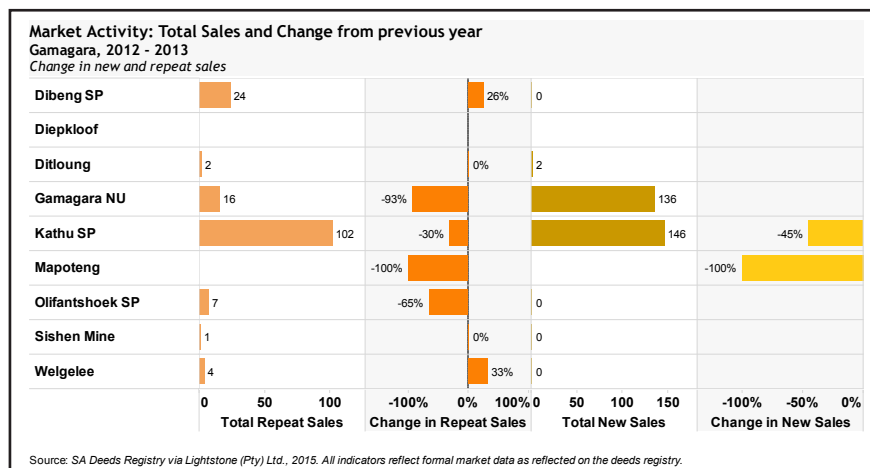


10.9 Total Sales by Property Value, Change From The Prior Year

This chart shows the change in activity for property sales (first two columns) and bonded property sales (third and fourth columns) from 2012 to 2013. It is possible to see important market shifts by comparing the change in activity within particular properties from one area to the next.

Three areas (Dibeng, Ditloung and Welgelee) show an increase of 100% in sales for the lower (green) market. Bonded sales indicate a 200% increase in one area (Dibeng) for the upper market (red), while all other areas showed less activity in all markets.

Suburbs with no information had no residential sales in the past two years.



10.10 Change in New and Repeat Sales

This chart shows the changes in new and repeat sales from 2012 to 2013. As seen before, new sales were concentrated in Kathu and the Gamagara non-urban area (the town's surrounds).

Many of the developments built by the Government are heading into their 8th year, and become eligible for resale by their owners. By understanding when those units come on-line for resale, Government can align policies, which encourage sale and **development nearby which can help leverage that prior investment, expand housing options and stimulate movement up the next rung up the housing ladder. Resales are an important means of** recycling existing homes to make more housing available.

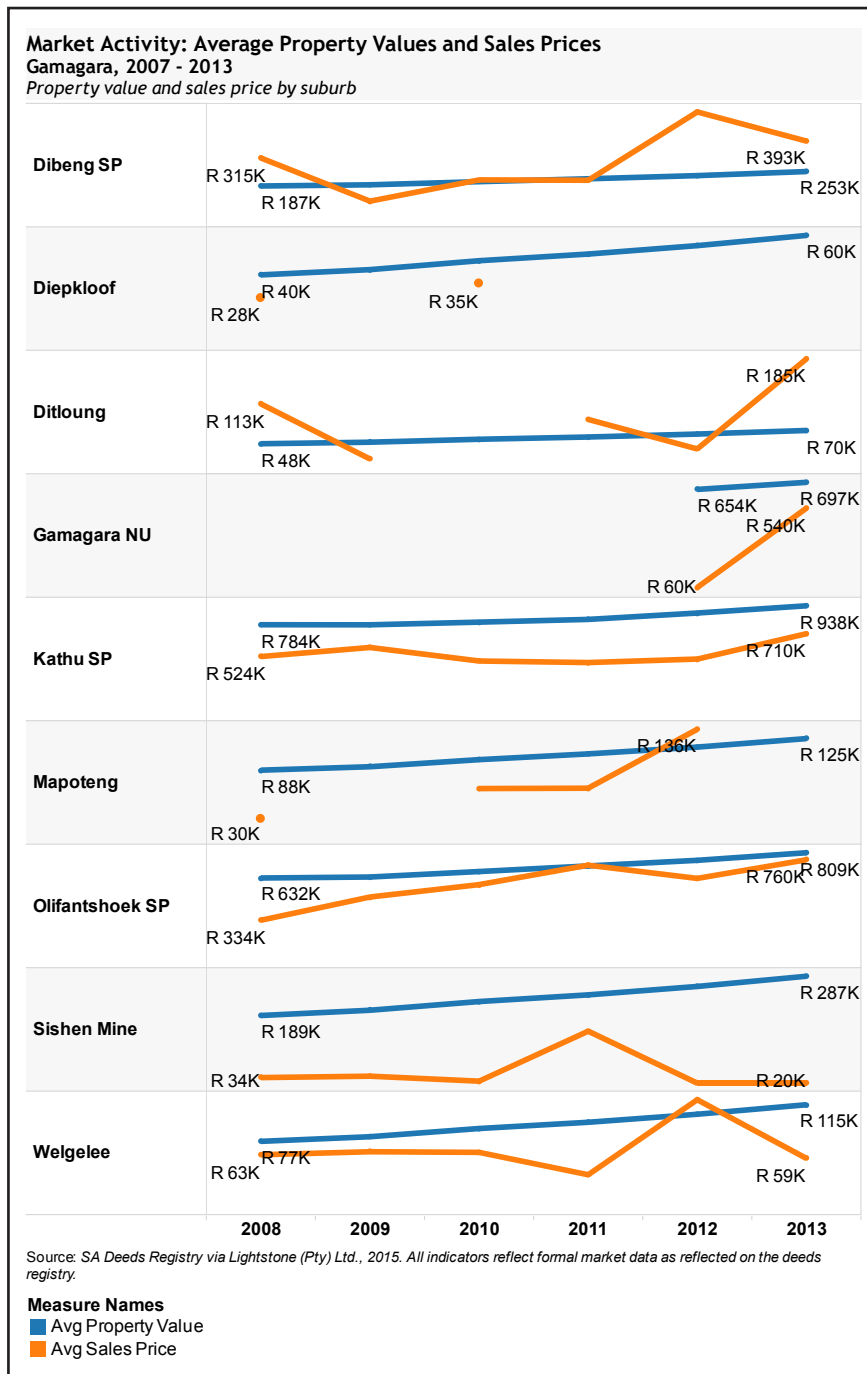
Suburbs with no information had no residential sales in the past two years.

10.11 Average Property Values and Sales Price

The relationship between local sales prices (orange lines) and average property values (blue lines) can tell much about the activity and integration of supply and demand. Every house in a suburb has a value¹, determined by the number of sales, changes in prices, churn (repeat sales) and other factors present in a robust housing market. Only houses which have sold have sales prices, but this lowers the value of homes in markets with fewer sales.

As markets formalise and strengthen, these trends inform each other more effectively, and the trend lines become almost parallel. It's also possible to see this happen over time (such as Dipeng and Olifantshoek). Sales prices within Kathu, a suburb created specifically to accommodate Sishen Mine, actually surpassed their property value two years ago.

Sales in some Gamagara suburbs have been good and values are rising, indicating steady demand. Rising sales prices in affordable areas can reflect improved access to credit, as well as increasing interest in the neighbourhood.



11. Lending Activity



11.1 Key Findings

Lending is highly concentrated in Gamagara by area and loan size. Loans under R250 000 were concentrated mostly in three areas. While the share of lending by each of the four major banks in the country has remained consistent in Gamagara, the highest new lending took place in 2012, with a surge of increase in loans from Nedbank and “Other Lenders”. In fact, over the past six years, each traditional lender has increased their portfolio by very similar amounts.

11.2 Policy Implications

Policies and programmes should target **expanding access to credit**, including the creation of new funds, with broader investment guidelines and possibilities, and small loan programmes with which to make financing more accessible to lower-income households. Existing lenders should take lower incomes into account by reducing finance costs.

Loans to entice the development of more middle-market housing would create more integrated markets.

Programmes should make creative financing available for rental projects as well.

11.3 Quick Definitions:

Lending Activity: the performance of key lending indicators over time, such as bond volume, new loans and bonded sales, by lending institution.

Portfolio Size: the total number and value of loans given out by particular lending institutions in the study area.

Property Value Segment: in order to better understand the performance of housing markets, data has been aggregated into four property value bands: properties valued under R250 000; between R250 000 and R500 000; between R500 000 and R1.2 million and over R1.2 million. This helps one to understand the various trends and strengths inherent in each segment, and to see how properties are integrating across the housing continuum, especially over time.

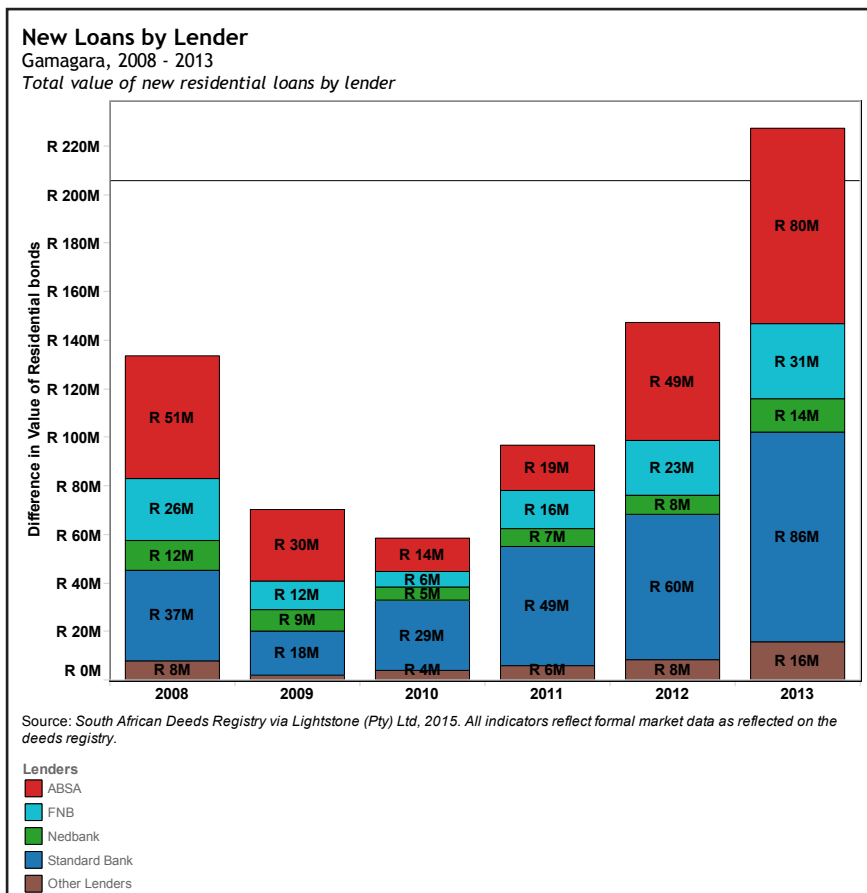
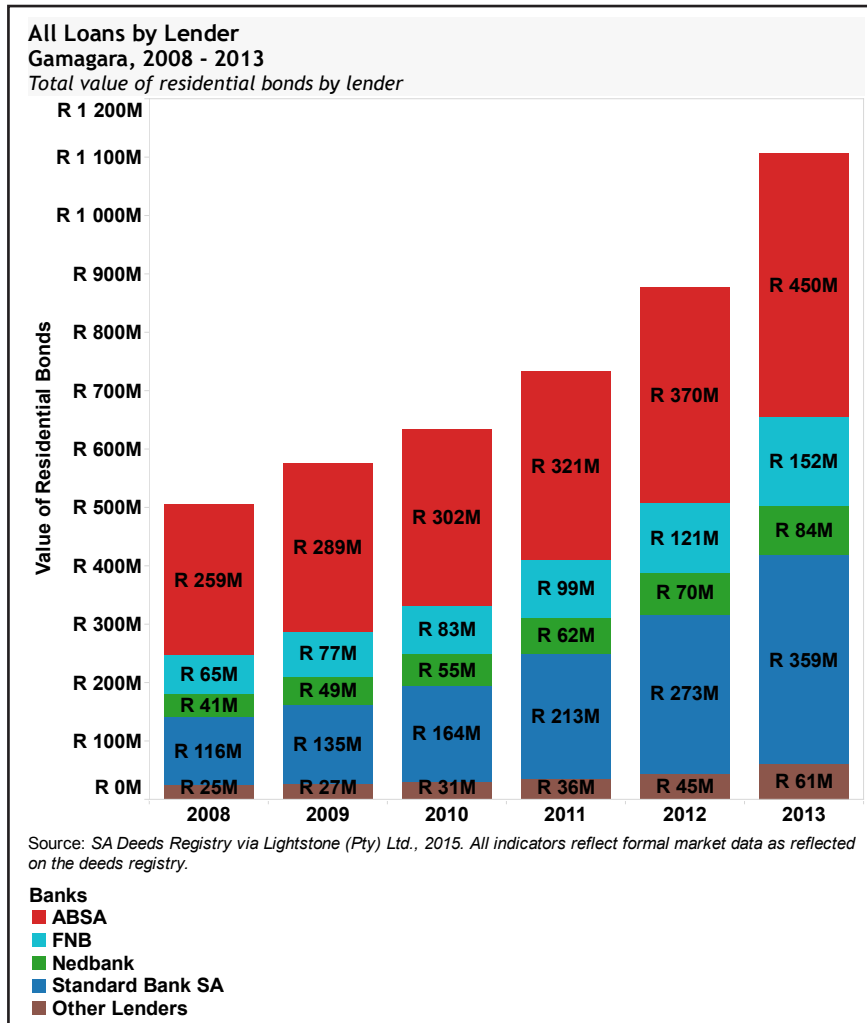
Residential Bond: a loan made for the intention of acquiring a property, which is secured by the title to the property. These are determined by the property address and the timing with which bonds and sales are recorded on the deeds registry.

11.4 Lending Over Time

Loan data taken from the deeds registry can provide lending activity by lender, which has grown consistently in the area. By comparing the top chart (all loans held by each lender) to the bottom chart (lending activity per year), it is possible to note that while the lending in the area has consistently grown, the amount per year varies from lender to lender. For example, the highest new lending took place in 2012, with a surge of increase in loans from Nedbank and "Other Lenders". In fact, over the past six years, each traditional lender has increased their portfolio by very similar amounts (the amounts differ a great deal from lender to lender).

The real game changer has been the infusion of "Other Lenders" lending into the area. **Further analysis reveals "Other Lenders" and Nedbank increased their loan book in 2012, possibly due to new developments in Kathu and Gamagara NU.** Other lenders have remained within the same bands of lending. Other lenders primarily include companies providing home loan benefits to their employees.

The following charts explore lending by bank and by suburb, to understand specifically where bank investment has been made by suburb, and what that may mean about financing availability for various development sites and scenarios.

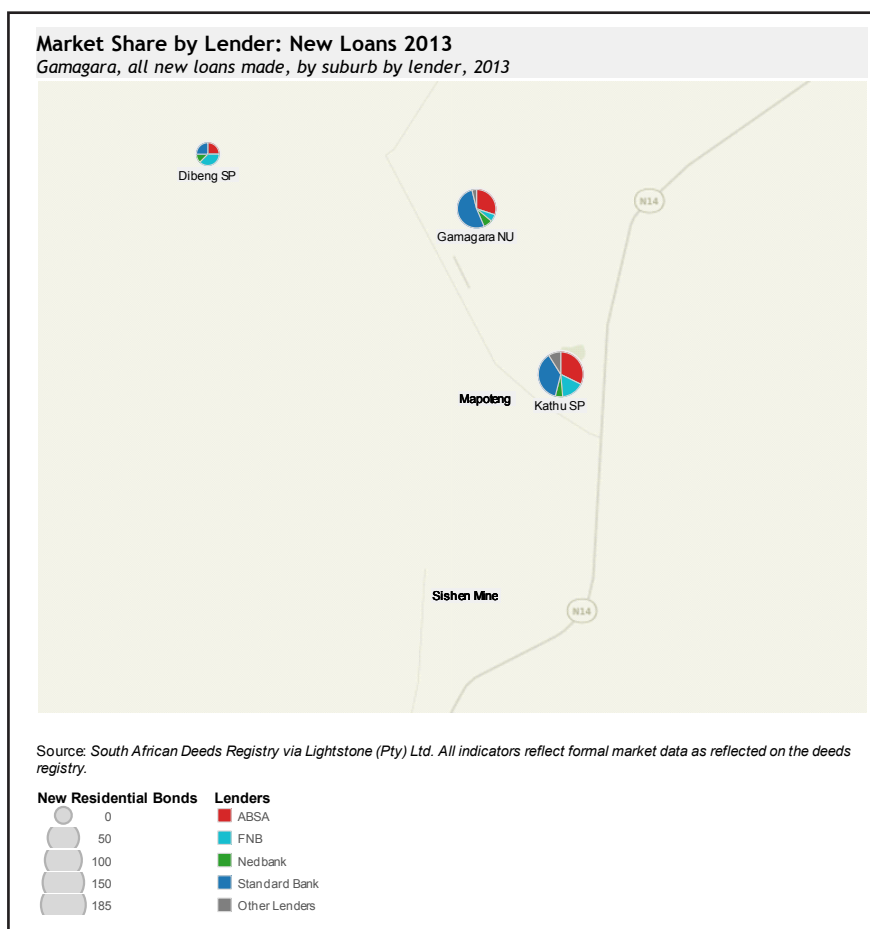
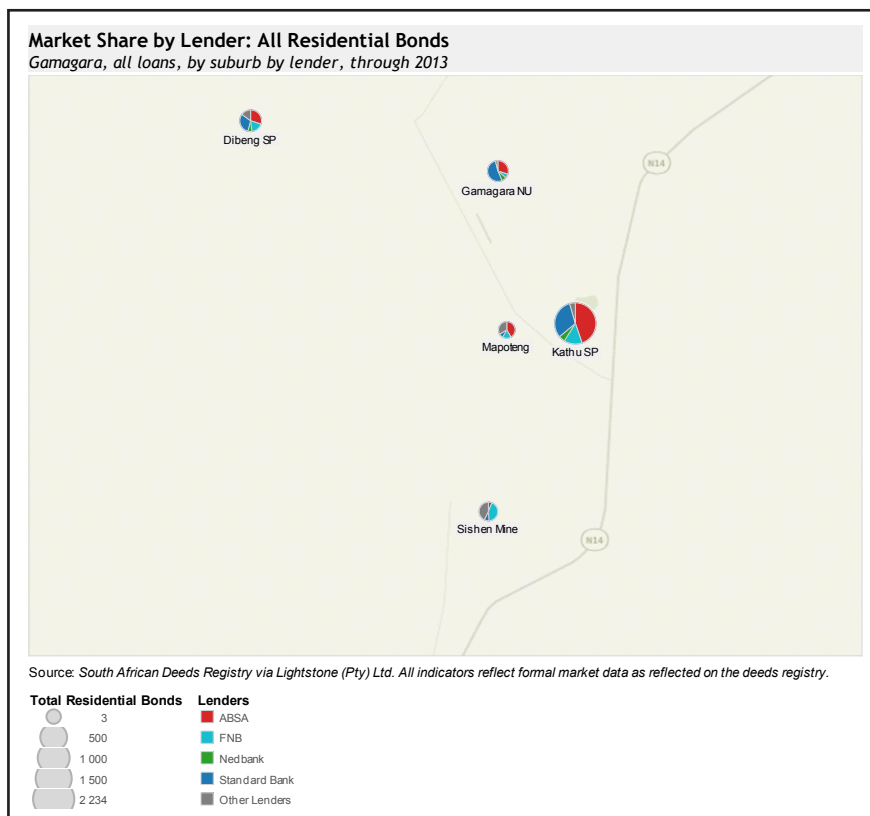


11.5 New Loans by Lender

As markets shift, different lenders respond in different ways. These maps show the previous bar charts on a map. The first chart (all loans by lender) is represented on the top map. All loans made in 2013 (the second chart) is shown on the lower map. By comparing the two maps, it's possible to see where lenders invested loans in the last year (pies in bottom map), and how that has changed from their overall portfolio in that suburb (pies in the top map).

In Gamagara, the top map shows four lenders have loans in Sishen Mine Area and Mapoteng, however, in the bottom map, it shows no active lenders in 2013 for those two areas. There has been an incremental increase of "other" lenders, which further analysis reveals to be due to the creation of the new town (Kuthu SP), which might have brought in private equity investment.

Non-traditional lenders, such as private equity funds and employer lenders, have more flexible regulatory environments and more creative, competitive financing tools. It will be important for Government to engage these investors and to ease access to credit, lower costs of financing and share in the commitment towards growing housing markets in the mining towns.



New Loans by Lender

Gamagara, 2008 - 2013

The value of new bonds by lender by suburb over time

		Gamagara				
		ABSA	FNB	Nedbank	Standard Bank	Other Lenders
Dibeng SP	2008	R 0	R 1,624,000	R 1,297,745	R 1,130,000	R 350,000
	2009	R 850,000	R 147,500	R 716,483	R 0	R 0
	2010	R 428,000	R 120,000	R 0	R 860,000	R 0
	2011	R 500,000	R 1,030,000	R 0	R 1,894,100	R 0
	2012	R 4,070,000	R 492,500	R 860,700	R 4,370,459	R 840,000
	2013	R 1,615,000	R 2,230,000	R 955,700	R 1,800,000	R 0
Diepkloof	2008			R 0	R 35,000	
	2009			R 0	R 0	
	2010			R 0	R 0	
	2011			R 0	R 0	
	2012			R 0	R 0	
	2013			R 0	R 0	
Ditloung	2008	R 0	R 0	R 0	R 227,000	R 0
	2009	R 0	R 0	R 0	R 0	R 0
	2010	R 0	R 0	R 0	R 0	R 0
	2011	R 0	R 0	R 0	R 0	R 0
	2012	R 60,000	R 0	R 0	R 0	R 0
	2013	R 0	R 0	R 0	R 0	R 0
Gamagara NU	2008	R 0	R 0	R 0	R 0	R 0
	2009	R 0	R 0	R 0	R 0	R 0
	2010	R 0	R 0	R 0	R 0	R 0
	2011	R 0	R 0	R 0	R 0	R 0
	2012	R 0	R 0	R 0	R 0	R 0
	2013	R 15,408,350	R 3,121,167	R 3,493,640	R 33,729,921	R 1,590,308
Kathu SP	2008	R 49,428,031	R 23,471,768	R 10,676,497	R 35,396,269	R 5,867,335
	2009	R 27,715,697	R 11,243,757	R 7,920,867	R 18,462,203	R 1,254,000
	2010	R 12,120,603	R 4,920,563	R 4,989,278	R 26,135,724	R 2,770,000
	2011	R 16,313,477	R 14,124,678	R 5,549,270	R 42,548,703	R 3,845,000
	2012	R 43,863,606	R 21,277,979	R 6,959,818	R 51,805,004	R 7,640,000
	2013	R 61,536,495	R 24,306,068	R 8,749,498	R 50,502,005	R 14,348,534
Mapoteng	2008	R 0	R 0		R 0	R 0
	2009	R 0	R 0		R 0	R 0
	2010	R 0	R 0		R 0	R 0
	2011	R 0	R 0		R 0	R 0
	2012	R 0	R 0		R 0	R 0
	2013	R 0	R 0		R 0	R 0
Olifantshoek SP	2008	R 1,010,000	R 500,000	R 178,000	R 650,000	R 1,428,000
	2009	R 972,500	R 279,000	R 0	R 0	R 630,000
	2010	R 675,000	R 1,125,000	R 476,872	R 2,129,000	R 1,160,000
	2011	R 1,978,000	R 579,500	R 1,563,900	R 4,820,000	R 1,930,000
	2012	R 830,000	R 765,000	R 100,000	R 3,385,000	R 0
	2013	R 1,750,000	R 1,325,000	R 815,700	R 0	R 0
Sishen Mine	2008	R 0	R 0	R 0	R 0	R 0
	2009	R 84,000	R 0	R 0	R 0	R 0
	2010	R 383,000	R 0	R 0	R 0	R 0
	2011	R 0	R 240,000	R 0	R 0	R 0
	2012	R 0	R 0	R 0	R 0	R 0
	2013	R 0	R 0	R 0	R 0	R 0
Welgelee	2008	R 70,000	R 117,107	R 0	R 0	R 61,773
	2009	R 0	R 0	R 0	R 0	R 0
	2010	R 0	R 0	R 0	R 0	R 0
	2011	R 0	R 0	R 0	R 0	R 0
	2012	R 0	R 0	R 0	R 0	R 0
	2013	R 0	R 0	R 0	R 0	R 0

Source: South African Deeds Registry via Lightstone (Pty) Ltd, 2015. All indicators reflect formal market data as reflected on the deeds registry.

Banks
■ ABSA
■ FNB
■ Nedbank
■ Standard Bank
■ Other Lenders

11.6 Market Share

Understanding market share at the local level is key to understanding the potential for end-user finance, where gaps might exist, and how to make the case for more lending.

Comparing lending over time and by suburb also shows which lenders perceive value or risk.

12. Leverage



12.1 Key Findings

The presence of older **Government-sponsored units within the municipality represent an important opportunity to leverage that investment** in affordable housing in the years ahead, as owners seek to sell and move up the housing continuum, if opportunities are positioned properly. About 23% of all registered properties in Gamagara were sponsored by the Government. The value of these homes if sold in the private market can be applied towards the cost of a new home.

This situation can be used to drive developers to build more gap housing, and financiers to finance RDP acquisition loans.

12.2 Policy Implications

Policies should focus on enticing developers to build more housing in the gap market, and encourage lending to the RDP and other lower cost home markets. Sites could be prioritised, which connect RDP neighbourhoods to other more active housing markets to encourage mixed income development.

To encourage an increase in the supply of gap housing, Government can unlock sites, supply infrastructure or grants, or hook-up fee discounts. Government can also reduce the cost of construction finance, which can all be passed down to the buyers in the form of lower sales prices.

Government can create programmes using funds pooled from a range of Government and private sector partners, which provide bonds for small properties, and offset risks through loan guarantees, loan loss reserves, and interest rate discounts. Funds can also organise to implement homebuyer counselling, debt consolidation and moderate rehab costs of the existing home to ensure loan performance of the portfolio.

These programmes would work together in the mining towns to create better social, housing and economic integration. In Gamagara, this might be areas between Dibeng and Welgelee, the higher priced more active markets, and Kathu.

12.3 Quick Definitions:

Leverage: the ability to use the percentage of the property that has been paid off as a down payment for another property.

Equity: the value of the residential property less the outstanding balance of the bond. This represents the value of ownership built up in a property, and is often used as the down payment for the owner's next house purchased up the housing ladder.



12.4 Equity Fills the Gap

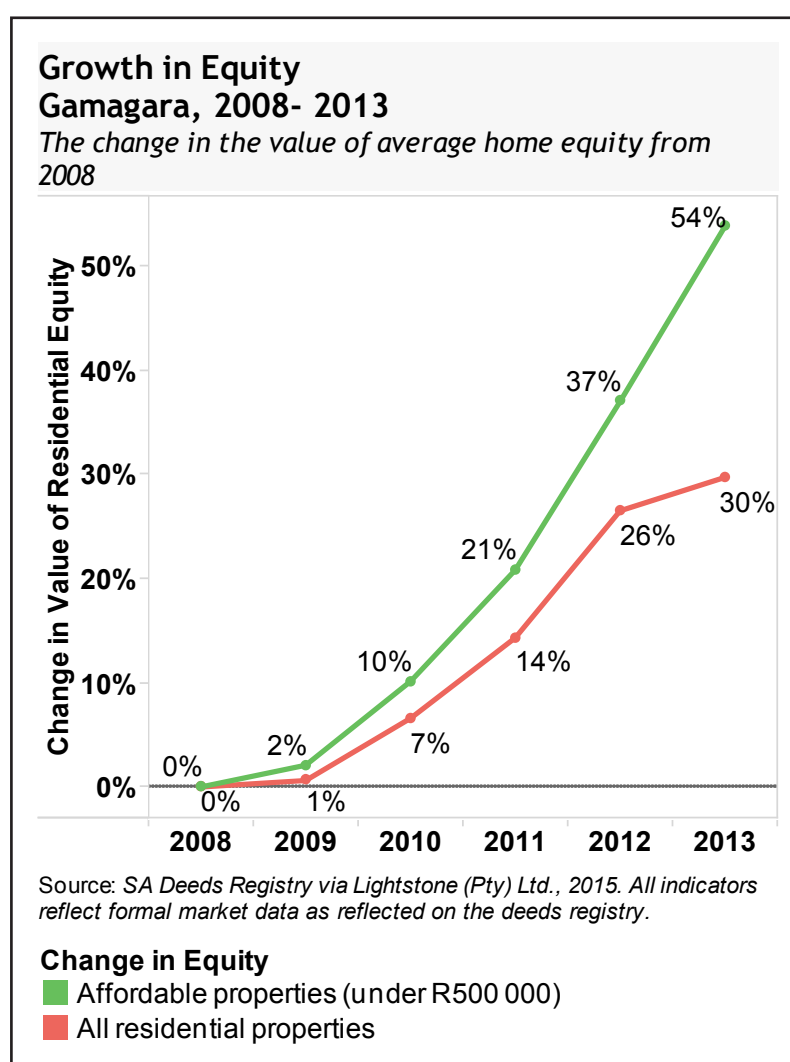
Equity is the value of one's home less the amount owed to the lender. The chart shows the average equity per suburb (the green bar) compared to the average sales price per suburb. This helps to show what portion of the sales price might be paid for by the homeowners' equity. If a homeowner in Dibeng wished to purchase a home in Kathu, they could sell their home and apply it towards the cost of the new home, reducing the amount they would have to borrow. Instead of borrowing over R700 000 (the average sales price), they would only need about R480 000 (the orange bar in Kathu minus the green bar in Dibeng). Thus, equity makes homeownership in higher priced neighbourhoods affordable, expanding housing options. Equity closes the housing gap for less affluent homeowners because their properties are less likely to have a bond, and those markets have experienced more appreciation of value. It is important to consider this value in addition to a homeowner's income.

Equity invested by homeowners also reduces **risk by increasing their financial stake in their home**. This is the same way upper-income families move up the housing continuum, and is now available at scale for lower-income families as well, thanks to the massive Government investment in homes for the poor. This requires financing for the lower income buyers, something to explore with lender partners.

While averages in such diverse housing markets are hard to consider meaningfully, the picture does indicate that purchasing power increases (and gaps close) when equity is taken into consideration.

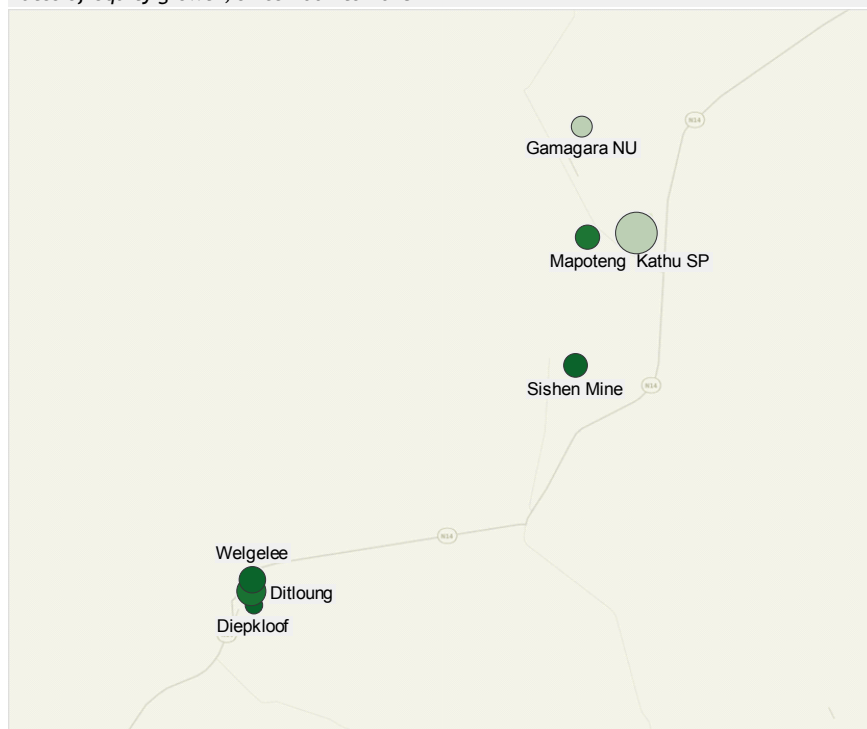
12.5 Accessing Equity closes the Housing Gap and can Drive Demand

Understanding the difference in equity growth rates on a map allows a better understanding of which property markets can be leveraged to support more new development. Many higher priced areas have experienced modest equity growth (grey areas) or loss (red areas) over the past five years. This may be due to increasing sales prices (rather than amortization as new buyers tend to have less equity, and this market has been very active recently). The greatest equity growth over five years (green areas and green lines) has been in less developed areas with fewer sales, and values have accrued to the existing homeowners. Homes worth less than R500 000 typically have fewer loans, a faster-growing value, and an initial housing cost that was low or free (thanks to Government investment in housing). Homebuyers can reduce the amount they have to borrow through savings or the equity in their home, if they have an existing house which they can sell. This lowers their monthly payment or increases the price they can afford. Leverage is the practice of using this equity to increase their housing affordability. This indicator thus becomes very useful for meeting, and closing, the housing gap.

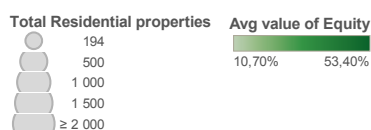


5 Year Equity Growth Gamagara, 2013

Rates of equity growth, since 2007 to 2013



Source: Stats SA Census, 2011, South African Deeds Registry via Lightstone (Pty) Ltd, 2015. All indicators reflect formal market data as reflected on the deeds registry.



12.5 Accessing Equity closes the Housing Gap and can Drive Demand continued

Constraints to using leverage in affordable housing markets include: the availability of credit for potential buyers to pay the full value of the house; maximising the equity available to the homeowner, the availability of homes up the housing ladder to buy; and in the case of RDP owners, the ability to sell Government subsidised stock (which comes with an eight-year resale restriction). Other constraints include household indebtedness, and the willingness of existing homeowners to sell their most important asset.

However, policies which address these constraints can expand the housing ladder in remarkably quick and cost-effective ways. Closing cost assistance, interest rate write downs and loan loss funds all cost a fraction of new construction, and put the opportunity, and choice, in the hands of the homeowner, rather than the Government.

13. Affordability Profile



13.1 Key Findings

Gamagara has the tenth highest income of all mining towns studied, putting it in the midrange. Even so, **affordability is such that it takes more than double the average income to afford the average house.** Despite a just above-average monthly income, compared to all mining towns and the national average, there remain large disparities among incomes and affordable housing access within the municipality. In some areas, sales prices used to determine affordability are very low, probably the result of lack of credit access, forcing sellers to sell for whatever cash might be offered regardless of how much the house may be worth.

13.2 Policy implications

Affordability constraints due to below-average incomes can be addressed through housing strategies and solutions, which propose creative financing tools and techniques, which can reduce financial barriers (such as down payments, interest rates and principal requirements) as well as unlocking equity, rather than simply trying to push costs down.

Lowering the cost of financing can also increase the amount that can be borrowed, which can increase sales prices and the amount of equity a home seller will be able to access to buy their next home.

Lack of adequate affordable supply in areas with very low incomes can often be quickly addressed through the careful considered provision of well-located quality rental housing.

13.3 Quick Definitions:

Affordability: affordability is generally defined as the ability to allocate less than 25-30% of a household's monthly income towards housing costs. While upper income families' income enables them to cover the cost of producing and selling a housing unit and thus provides many housing options, lower income families struggle because their income often does not adequately cover the cost of producing and selling a housing unit. Supply is limited and others must collaborate to provide decent affordable housing.

Affordability Ratio: the purchasing power of local incomes to afford local sales prices. The local average sales price is divided by the target house price. This shows the relationship between local incomes and local sales prices – a larger number means that local sales prices are harder for local incomes to afford, implying a mismatch between local housing options and residents.

Housing Gap: the shortfall between the target house price a household can afford and the sales price (or construction cost) of a house. This can be calculated by the difference between the target affordable price and the cost or price of the house.

Target House Price: the sales price affordable to local households, which is calculated using the average area median income available for housing (25% of monthly income) using standard underwriting criteria (typically 20 year amortization at 11%, with 5% down).

Mind the Gap Table

Gamagara, 2013

Affordability indicators per suburb

Subplace Name	Avg Monthly Income	Target house price	Average Sales Price	Affordable Price Gap	Affordability Ratio
Dibeng SP	R 8K	R 212K	R 393K	R -181K	1,9
Diepkloof	R 3K	R 85K			
Ditloung	R 5K	R 134K	R 185K	R -51K	1,4
Gamagara NU	R 13K	R 352K	R 540K	R -188K	1,5
Kathu SP	R 30K	R 785K	R 710K	R 75K	0,9
Mapoteng	R 4K	R 109K			
Olifantshoek SP	R 12K	R 312K	R 760K	R -448K	2,4
Sishen Mine	R 10K	R 256K	R 20K	R 236K	0,1
Welgelee	R 6K	R 155K	R 59K	R 96K	0,4

Source: StatsSA Census 2011 (with CPI increase); South African Deeds Registry via Lightstone (Pty) Ltd, 2015. All indicators reflect formal market data as reflected on the deeds registry.

13.4 Affordability

Actual affordability relies on understanding local household income to determine what is reasonably afforded by existing residents, how much of a gap exists and what is required to ensure more realistic affordability. The Affordability Ratio is determined by dividing the purchase price affordable to the average household income by the average sales price. **Nationally, it takes three times the average income to afford the average sales price.** This doesn't mean that families are paying that, it means that most homes on the deeds registry are not affordable to the majority of South Africans. But this indicator provides an important benchmark, by providing a degree of affordability. We can measure that disparity at the local level as an indicator of how well local markets might be catering to local residents.

In Gamagara, three markets (Sishen Mine, Kathu SP and Welgelee) appear more affordable to local residents, creating the potential for a fairly stable housing market. Several areas have above average ratios, perhaps the result of more recent higher-priced housing development.

Introducing new products or strategies are more likely to be sustainable if they are responsive to current residents. Developers and investors consider purchasing power and affordability of surrounding areas in order to understand the price point (and project viability) of future development.

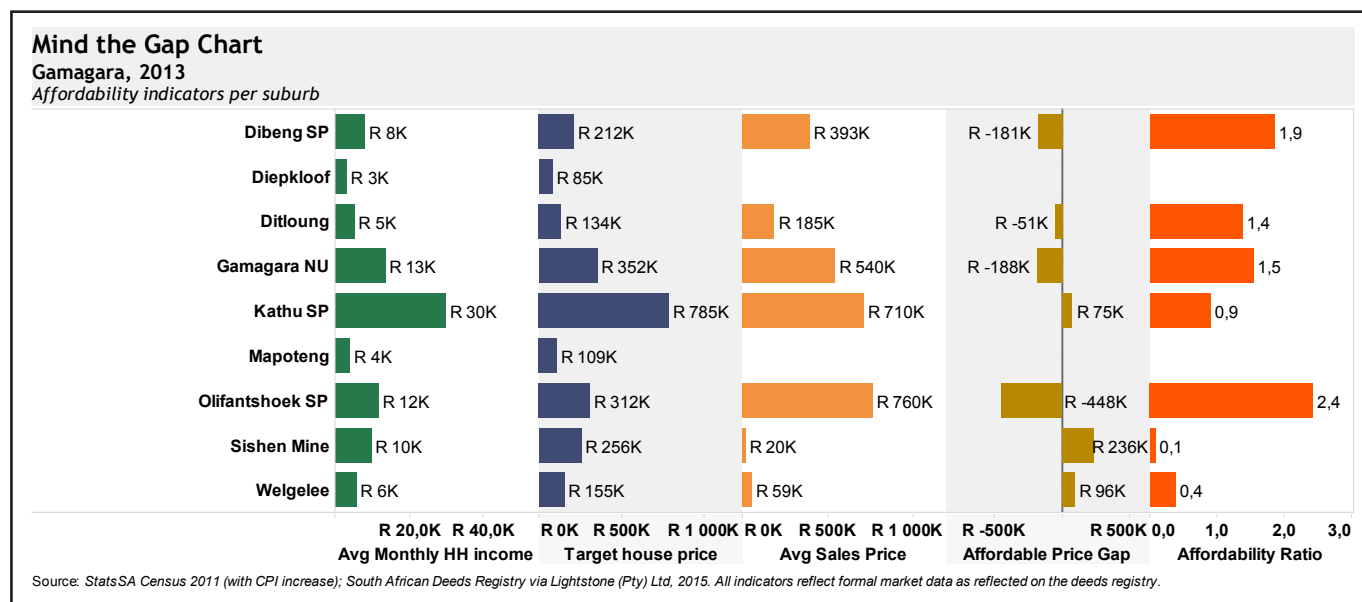
The target home price can also be compared to estimated potential per-unit construction costs to determine the ease with which units might be built and sold.

13.5 Mind the Gap

This chart is identical to the previous chart but shows bar lines to better visualise differences across the area. These tables measure relative affordability for each suburb in the target area in three ways: starting with the average income (column 1), it calculates the average sales price affordable to the average family using standard underwriting terms (5% down, 11% for 20 years, up to 25% of household income, column 2). It compares that to the area's average sales price (column 3). Column 4 ("Affordable Price Gap") shows the difference between the average sales price and the local target (affordable) house price. Column 5 divides the two values to show the affordability ratio, the number of times it might take the local income to afford the local sales price. For example, in Olifantshoek SP, it takes 2.4 times the average income to afford the average sales price.

In Gamagara, the average income is about R10 100, the average target house price is R267 000 (how much house that income can afford), and the average sales price is R623 000. **Thus, in 2013, it took over 2 times the average income to afford the average house.** These very high level indicators are useful when comparing affordability, to see which areas are more or less affordable. This helps one to understand how housing strategies need to address affordability within the town, including what resources or policies might be required to help fill these gaps (i.e. affordable financing, buyer subsidies).

When affordability is an issue, perhaps equity of existing homeowners can help fund the gap. Policies will need to encourage the sale of lower cost homes that can allow housing purchases further upstream for lower income households.



13.6 Mapping Affordability

These maps show the importance of taking local household income, or purchasing power, into the understanding of affordability. The first map shows average sales prices by suburb, with the darker areas having higher prices. The second map shows the same area by affordability ratio, the darker areas (those with higher affordability ratios) showing a greater difference between suburb incomes and suburb sales prices. While some areas appear affordable by sales price (such as Ditlounge), they are not as affordable when considering local incomes (the darker green on the second map). These analyses do not take into account the indebtedness of potential buyers, an important factor in determining bond eligibility. Rental housing therefore, might be an important option towards providing well-located and professionally managed affordable housing in those areas.

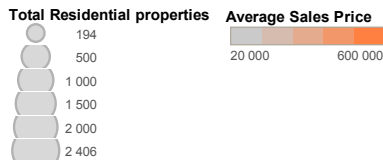
The areas with no dots have no residential properties on the deeds registry – they are farms or open space, mines or informal settlements.

Affordable Suburbs by Average Sales Price

Gamagara, Suburbs by average sales price and household size, 2013

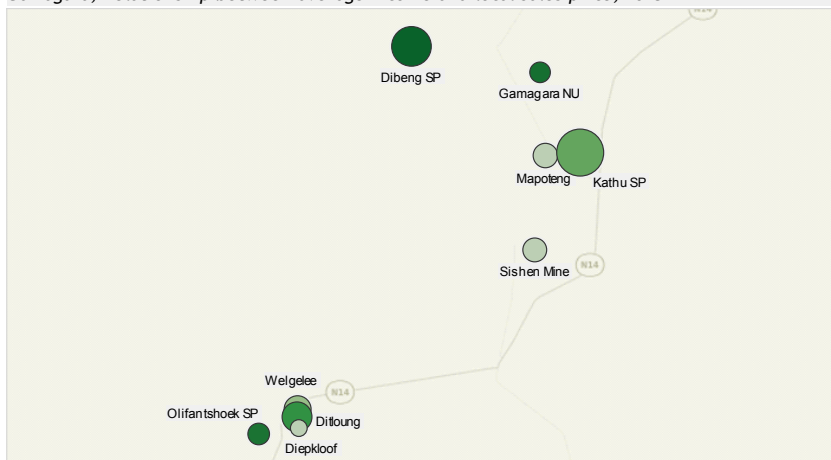


Source: Stats SA Census, 2011, South African Deeds Registry via Lightstone (Pty) Ltd, 2015. All indicators reflect formal market data as reflected on the deeds registry.

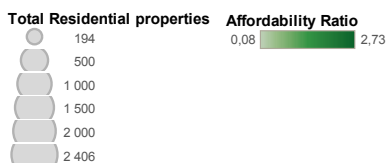


Affordable Suburbs by Affordable Ratio

Gamagara, Relationship between average income and local sales price, 2013



Source: Stats SA Census, 2011, South African Deeds Registry via Lightstone (Pty) Ltd, 2015.



14. Rental Index



14.1 Key Findings

According to the 2011 Stats SA census, **46% of households rent in Gamagara**, which is above the average amongst the mining towns in the study of 31%.

The **opportunity for rental housing development within Gamagara is strong within specific areas**. Those areas with greater density, modest incomes, and affordability challenges are more likely to support quality, professionally managed and affordable rental housing. Rental housing also provides flexibility to employers and workers as mining markets expand and contract from time to time.

14.2 Policy Implications

Due to the cyclical, commodity and demand-driven nature of these towns' primary industry, rental housing becomes a very important housing solution.

Rapidly changing housing demand driven by mining activities makes a strong case for prioritising quality rental housing. If rental housing is well-situated and convenient to transport and centrally located in dense areas, it can bring social and economic cohesion and vibrancy to housing markets over the longer term.

Densifying housing markets requires infrastructure upgrades and financial mechanisms which provide for long-term affordability and sustainability.

14.3 Quick Definitions:

Rental Index: A tool used to measure the potential suitability of local areas for rental housing, as measured by a group of five indicators which support rental housing, including density; area median income; the affordability ratio and market growth as measured by the Housing Performance Index. A higher score implies greater success for rental housing.

Affordability Ratio: the purchasing power of local incomes to afford local sales prices. The local average sales price is divided by the target house price. This shows the relationship between local incomes and local sales prices – a larger number means that local sales prices are harder for local incomes to afford, implying a mismatch between local housing options and residents.

Area Median Income: the percentage of the average local income to the municipal average income, which allows for understanding the income relative to the market overall, and across many municipalities.

Housing Performance Index: the growth of the local suburb in six key housing market indicators as compared to the municipality growth. A higher number implies more growth.

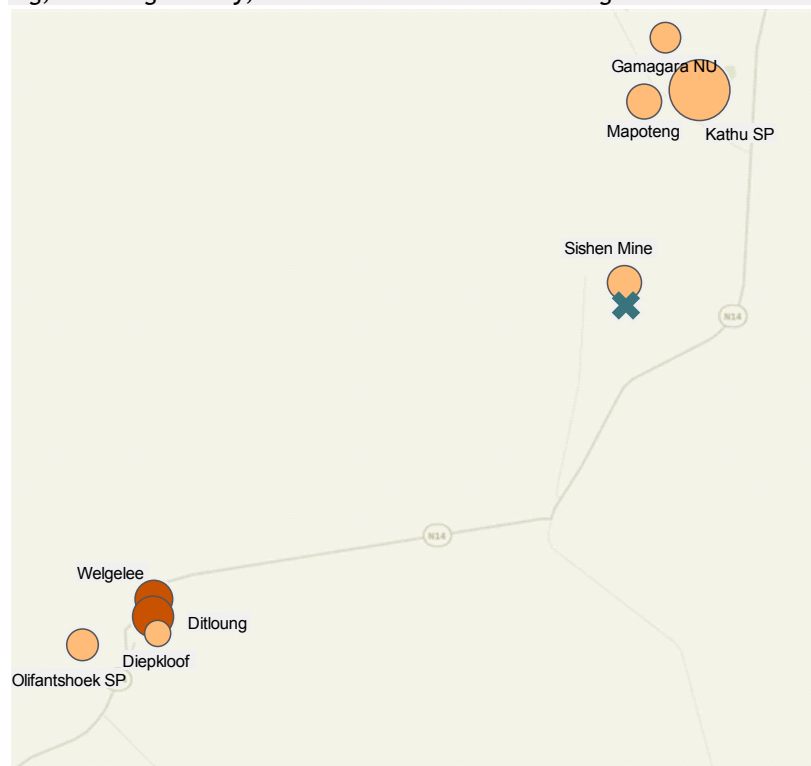
Percent Households Renting: the number of surveyed households who rent divided by the total number of households, per StatsSA census 2011. This includes everything from bedrooms and backyard shacks to single family homes and sectional title units.

Population Density: the number of people per square hectare of the suburb, as provided by StatsSA.

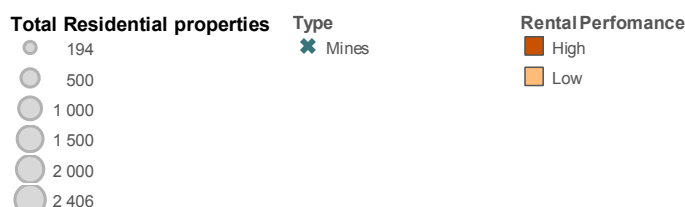
Tenure: the terms under which land or buildings are held or occupied, e.g. rental, ownership etc.

Rental Index Gamagara, 2013

Areas which scored highly on a group of indicators targeting rental housing, including density, moderate incomes and market growth.



Source: Centre for Affordable Housing Finance in Africa, 2015. All indicators reflect formal market data as reflected on the deeds registry.



14.4 Rental Housing: Driving an Affordable Housing Option

Rental housing is one of the most efficient and effective ways to provide affordable accommodation. In most South African towns, this means backyard shacks, an important but very inefficient way of meeting housing needs. While a social housing sector exists targeting lower income families in multi-unit buildings, these are primarily in large metropolitan areas. **Many private developers and investors are considering expanding significantly into the rental segment. If the demand is better understood, Government can meet housing backlogs quickly and affordably by promoting policies which target affordable rental housing.**

Several conditions are crucial for the creation of successful and sustainable rental markets: density, high demand, and affordability. In order to sustain rental housing at scale, projects must be able to achieve density to keep costs down, and access ready markets, with good proximity to jobs, transport and educational opportunities to keep projects running smoothly. It is possible to bundle those indicators and find those areas primed for rental housing.

14.5 Locating Rental Housing Markets

The map shows those areas more dense than others, with moderate incomes and housing market growth, all important factors when considering the placement and promotion of rental housing. **In Gamagara, the area potentially most suitable for renting include Ditlounge in close proximity along the N14 highway to Upington.**

With security of tenure through a lease agreement, residents have access to quality, accountable property management and consistent utility access, and can even build up their credit history with positive rent and utility accounts. Because rental housing providers must locate their properties competitively to ensure monthly occupancy, rental housing provides affordable access to transport hubs, jobs and community services.

Rental Index Indicator	Method	Implies	Weight
Median Income	80 - 120% area median income	Affordability	35%
Population density	Exceeds metro average	Density	35%
Housing Performance Index	Growing	Demand	15%
Affordability Ratio	Ratio exceeds metro average	Affordability	15%

15. Key Concepts

The definitions of the concepts used in this profile are set out in alphabetical order below.

15.1 Affordable

Traditionally, affordable refers to housing or areas with prices or values below the overall market which target below-average incomes. It is often defined as R500 000 or less (but can be higher or lower depending on intent) because this is the amount that a household earning less than R16 000 on average can afford, the target limit of many Government subsidy schemes. Affordability is the relationship between the cost of housing (a mortgage bond payment or rent) and the income of the tenant or owner. Affordable housing is that which can be rented or purchased within certain constraints in this report, with a mortgage equal to 28% of the borrower's income, at 11% over 20 years, with 5% of the sales price paid as down payment. Areas where the average income can afford the average sales price or more are considered affordable.

15.2 Affordability Ratio

This ratio measures relative affordability by comparing the **AVERAGE** sales price to the average income within the same area – higher ratios meaning less affordability. The average sales price is divided by the **AFFORDABLE** sales price, which is calculated as the present value of typical mortgage terms using 28% of the average income (95% of the average sale price, at 11% for 20 years). A ratio of 1 means that the average home price is exactly equal to the average household income. Ratios over 1 represent the number of times by which the average income must be increased to afford the average home.

15.3 Appreciation

The rate, or percent change over time between two values (most often price or value) is calculated by dividing the difference between the beginning and end values of the property in the timeframe by the beginning value. The result is the percent by which the property value or price changed. It is a valuable means of comparing the rate of change across very different property markets, areas or market sizes.

15.4 Average

The result obtained by adding several amounts together and then dividing this total by the number of amounts. For instance, average sales price is calculated by adding up all sales within an area and dividing this total by the total number of sales within an area. The average is useful for comparing and understanding different areas, market sizes, and property types.

15.5 Benchmark

An indicator that is calculated in the same way across a larger level (such as national or municipal levels) to compare with smaller areas (such as main places or suburbs). Benchmarks are useful for understanding the performance of housing markets because they provide a consistent means of comparing markets to each other and to larger areas. For example, local markets perceived as having modest appreciation rates may actually be growing quickly when compared with other areas, the metro or the country as a whole. Benchmarks are a key component of the Housing Performance Index, which uses them to determine whether local areas or metros are changing faster than; about the same as; or slower than the metros or the country.

15.6 Bonded Sale

A sales transaction transferring ownership of a property, which includes an associated mortgage bond used by the buyer to purchase that property and which the lender requires to be secured by that property. Bonded sales reflect lender investment in an area and perceptions of market strength and risk levels.

15.7 Churn

This refers to the total number of homes sold within an area over a one-year period divided by the number of homes within that area. Similar to turnover, churn represents active market interest, a large pool of eligible buyers and willing sellers, and ready access to mortgage financing. In affordable areas, lower churn can reflect reduced housing mobility rather than less marketability, as the result of fewer upward housing options for potential sellers, and less access to bond financing for potential buyers. Other indicators (such as bond rates or types; loan to values; equity rates and income) can help differentiate marketability from pent-up market mobility.

15.8 Equity

The value of ownership interest in a property, primarily the current **VALUE** of a property minus the current value of any bonds or other claims on the property. Equity value grows as mortgage balances are paid down and property values increase. Equity is realised when a house is sold and is most often used to purchase another property, by either increasing the amount available to purchase or lowering monthly mortgage payments (or both). Individual circumstances within neighbourhoods may vary widely, but areas with higher aggregate levels of equity represent greater opportunity for upward mobility, both for existing residents who can sell and invest the equity in a new home and for lower income households able to purchase the existing home.

15.9 Equity Growth

The rate at which an owner or investor's equity value has changed over time, calculated by dividing the difference between the values of equity at the beginning and end of the period by the beginning year's equity value. Growth in equity (along with income levels) can be used to determine market potential, as equity significantly boosts the purchasing power of potential buyers. Circumstances that increase equity return include prices that appreciate faster than debt is paid down, less debt, and registrations of new properties with no debt.

15.10 Formal Housing Market

A formal housing market is an area where owners sell or otherwise transfer residential properties (which have been registered on the national title and deed registry) to willing buyers who become the legal owners of those properties. Housing markets also include residences that are rented, traded, bartered or otherwise swapped, or legally occupied. This report tracks formal housing markets, as it only uses actual sales reflected on the South African deeds registry. It is estimated that 25–50% of all properties in South Africa are not registered.

15.11 Government-sponsored housing

Housing which was created through some government intervention, from site and infrastructure provision, direct construction or finance, such as Site & Service, RDP and BNG. While these homes are not recorded as such on the deeds registry, their presence is estimated based on surrounding registrations, timing, prices, and volume of activity.

15.12 Housing Continuum

The housing continuum includes all ranges and options of housing, from temporary shelter and informal housing to the highest variety of housing ownership and occupancy models and prices. A continuum implies a continuous, connected marketplace of housing options, which serve the full range of conceivable housing demands as people's lifestyles and life circumstances change over time. In reality, most housing markets are an uneven distribution of housing supply and housing demand.

15.13 Leverage

Leverage is the practice of purchasing something by borrowing part of the total cost and is measured by the degree to which a buyer has borrowed funds to purchase a home. Also called gearing, leverage can be measured in several ways (such as loan to value or equity ratio), but all compare bond amounts to the housing value. Generally, homes or neighbourhoods that are highly leveraged are understood to be higher risk because owners lose less equity if they default. Areas with lower leverage rates are generally considered more attractive because lenders have less risk, while owners have more invested and have more potential **EQUITY** to invest in new housing options.

15.14 Market Segment

This refers to the aggregate of all properties within a certain rand value. Properties are aggregated by their **VALUE** to better understand the unique dynamics of these market segments. Values are divided into three bands: values under R250 000; between R250 000 and R500 000; and above R500 000. Generally, properties at or below R500 000 are considered affordable because the estimated monthly housing cost (R15 000 to R16 000) is considered the maximum income eligible for many Government subsidy programmes, above which potential buyers must access the unsubsidised housing market.

15.15 Market Share

Market share is the percentage of a market accounted for by a specific entity in that market. Lending market share is determined by the number of all loans in an area or bond portfolio, originated, or held by a single institution, divided by the total number of bonds in the area or portfolio. Market share can reflect the business model or the prevailing attitudes of particular lenders towards opportunity within certain areas. Lenders track their market share by area and value carefully: too high could mean that they are at greater risk if values decrease, while too low means that the lender may be losing business to competitors.

15.16 Rental Index

A score calculated for each suburb, to measure the potential suitability of local areas for rental housing, as measured by a basket of six indicators, which are more favourable towards rental housing. A higher score, between 1 and 10, implies a greater likelihood of success. These indicators include density; the number of households currently renting; area median income; the affordability ratio; households to properties ratio and market growth as measured by the Housing Performance Index. The index gives higher weight to aspects more suitable to rental housing, such as density and income, and moderate weight to the current number of households renting (as reported to the census), the local income as a percentage of the municipal median income, affordability (the relationship between local incomes and sales prices), and the number of households in the area to formal housing units on the deeds registry.

15.17 Suburb

A neighbourhood (within or beyond the central metropolitan area), with an identifiable name, often socially accepted borders and common characteristics. This report uses suburb boundaries as established and demarcated by StatsSA (and referred to in its documentation as sub-places). In 2011, there were about 22,000 sub-places within South Africa.

15.18 Value or Worth

The value of a property as determined by several factors, including recent comparable sales nearby; **CHURN**; lending activity in the area; specific and area property details, such as the size, age, and amenities. A property's worth is often related to the amount of information available to make an appropriate determination, which is a contributing factor in undervaluing affordable areas where details on formal market activity is inconsistent. This study uses Lightstone's (www.lightstone.co.za) proprietary valuation methodology to determine value.

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