Informal settlements in Namibia: their nature and growth

Exploring ways to make Namibian urban development more socially just and inclusive

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With the special assistance of Esleen Guriras and Alina Nambuli

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Foreword

This timely publication on the challenges of urban development in Namibia offers practical and achievable solutions to help address current challenges in informal settlements, and provides approaches for towns and villages to be pro-active in developing settlements in future.

Research undertaken by Development Workshop Namibia explains the current situation of unplanned urban growth and the challenges of contemporary urban development trends in Namibia. It goes on to discuss how the challenges can be addressed effectively and sustainably. It is encouraging to read how some local authorities lead the way by providing affordable land to low income earners.

More than anything else, the research provides proof that pragmatic action by local authorities is the key to success. While the new Urban and Regional Planning Bill will provide a more appropriate framework for facilitating sustainable urban development, the examples provided in this book clearly show that effective action is possible within the limitations of current legislation. Budget constraints and outdated legislation are limiting factors, but not excuses for inaction.

The Harambee Prosperity Plan calls for more private sector involvement in addressing the housing crisis in Namibia. Unfortunately, most private sector attention is still on the middle and upper income land and housing markets. Banks and developers are hesitant to engage in the lower income segments of the market, especially due to the fact that profit margins are low.

Our cities are our common future, however. Persistent poverty greatly affects the local and national economy. If Namibia is to grow as a middle-income country, the same opportunities must be open to everyone, irrespective of economic and social class. As long as the majority of Namibians are excluded from the benefits of a growing economy - and the ownership of urban land is one of the most important cornerstones of inclusive equitable economic growth - there are great risks that this growth will not be sustainable. Presently, this exclusion is no-where more visible than in our informal settlements.

In many aspects, this book provides a wake-up call, showing that we are running out of time. While informal settlements are growing rapidly, their absolute size is still small compared to those of many of Namibia's neighbours. With will and concerted action, informal settlements can become a thing of the past in Namibia. Many have pointed out correctly that informal settlements have no place in an upper middle-income country.

This research clearly shows that what is needed foremost to redress the situation is the provision of legal land to the urban poor. With local authorities leading the way, I strongly

encourage banks and the private sector to support such action. Innovative thinking is needed, as well as pragmatic approaches. Ignoring the urgent need for low cost land demonstrates short sightedness and a lack of understanding that we are bound together as a society and a country.

Strategic investments of Corporate Social Responsibility funds, international donor funding and innovative commercial financing can complement national and local authority budgets to achieve the desired outcomes. The examples in this book show it clearly: with the right attitude and will, informal settlement growth can be steered so that in-migrants have the opportunity to develop their homes, families and enterprising vitality in structured, legal settlements. It will then be easier for local authorities to ensure that newly established settlements do not become isolated low income residential areas. With that foundation, much of what is now regarded as an urban problem can be turned into a real opportunity to build Namibia's social and economic wealth.

I congratulate Development Workshop Namibia for this valuable initiative in urban development in support of national development priorities.

Hon. Sophia Shaningwa
Minister of Urban and Rural Development

Acronyms

ALAN	Association of Local Authorities in Namibia
BTP	Build Together Programme
CoW	City of Windhoek
CSR	Corporate Social Responsibility
DW	Development Workshop
DWN	Development Workshop Namibia
EIA	Environmental Impact Assessment
FLTS	Flexible Land Tenure System
GIZ	Gesellschaft für Internationale Zusammenarbeit (German Cooperation)
ILMI	Integrated Land Management Institute
MLR	Ministry of Land Reform
MURD	Ministry of Urban and Rural Development
MHDP	Mass Housing Development Programme
MULSP	Mass Urban Land Servicing Programme
NAMPAB	Namibia Planning Advisory Board
NCE	Namibian Chamber of Environment
NDP	National Development Plan
NGO	Non-Governmental Organization
NHAG	Namibia Housing Action Group
NHE	National Housing Enterprise
NUST	Namibia University of Science and Technology
OSHIP	Oshakati Human Settlement Improvement Project
SADF	South African Defense Force
SDFN	Shack Dwellers Federation of Namibia
UN	United Nations

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1. Introduction

Namibia is undergoing a rapid and major transition from a rural-based society to one based largely in urban areas. This transition is most visible in rapid urban growth, especially in informal settlements that accommodate poor families in shacks on the edges of towns. Namibia's urban areas now have some 140,000 informal houses, a number likely to double over the coming 7 or 8 years if this trend is not addressed urgently. Similar patterns of rapid, unplanned informal settlement growth are to be seen elsewhere in southern Africa, and in developing countries around in the world.

The economic, social and environmental costs of informal growth and unplanned urban development are huge for Namibia as a country, and as a society. New forms of poverty and inequality will be entrenched over generations to come if towns fail to develop in ways that facilitate the transition from rural to urban society.

By many standards, the continuous rapid growth of informal settlements is one of Namibia's biggest development challenges. However, relatively little information is available on the nature and characteristics of informal settlements, and their growth in towns across the country. Similarly, the absence of a national, effective effort to address informal settlement growth is visible in the rapid expansion of shack settlements in most Namibian towns.

The main objective of this book is twofold:

- First, it aims to provide objective information about the growth of informal settlements and their social, economic and environmental dimensions.
- Second, the book describes different approaches to urban planning and development that have been applied by local authorities to address informal settlement growth.

Five towns were selected for detailed study: Gobabis, Otjiwarongo, Oshakati, Outapi, and Windhoek. While details differ from town to town, some of the key issues that were identified are clearly linked to broader Namibian development and institutional contexts, in particular the movement of people from rural to urban areas and the consequent expansion of low-income settlements. It is therefore hoped that these findings contribute to the formulation of policy and programs that improve social and economic development in Namibia.

2. Research approach and methods

Several methods were used to gather information for this research. First, informal settlement growth in Gobabis, Otjiwarongo, Oshakati, Outapi, and Windhoek was measured using high resolution satellite imagery or aerial photographs. Roof-top counts of shack-like structures were made from images taken around the time of the national 2011 census, and a second count for each town was then done using images taken in 2016 or 2017. The difference in the number of shacks counted in 2011 and 2016 or 2017 provided a measure of informal settlement expansion.

The mapping also provided information on where informal settlements were developing and how they developed and expanded.

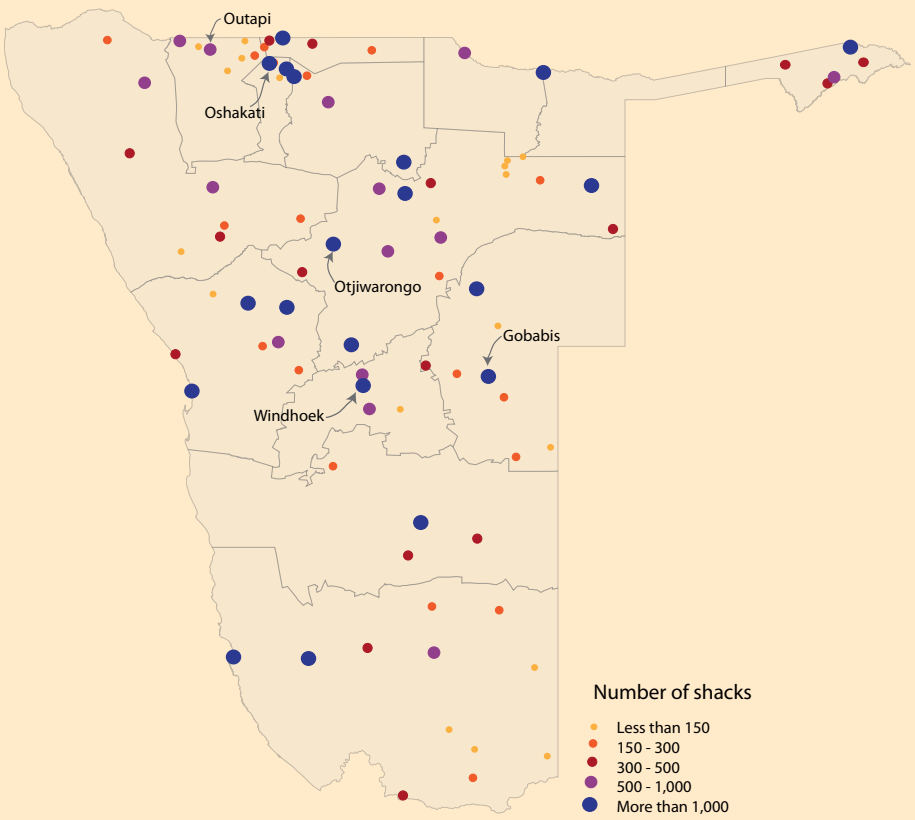


Figure 1: The location of the five towns that were the subject of study for this book, and the location and size of informal settlements across Namibia.[1]

[1] *Information on the location and size of informal settlements was adapted from SDFN (2009)*

Probable informal houses were identified and mapped using the following criteria: they were in areas that lacked a formal structure or layout (for example of roads and plots); the houses were similar in size (to exclude larger shops, stores or tiny shops and toilets); spacing between adjacent houses was roughly similar in any area; and the roofs of these houses lacked the structure, pattern and size normally seen in low-income formal housing. The shack count for each town was done twice by different technicians to minimize errors and bias. Nevertheless, the counts are certain to include some structures that were not houses, and – conversely – to exclude some that were houses. Nevertheless, the counts provide measures of the growth, distribution, size and nature of informal housing.

Figure 2: Part of the Kanaan informal settlement in Gobabis. Each mapped informal house is marked as a red point.

Secondly, the towns were visited and meetings were held with town council and municipality representatives. Informal settlements and the locations of projects mentioned in this book were visited, and information was gathered on informal settlements that had been upgraded recently or were in the process of being upgraded. These areas were mapped and described in the respective chapters for each town. The mapping of these areas provides a measure of the local authority's progress in upgrading and the formalisation of informal settlement areas.

A more general objective was to understand how local authorities deal with rapid informal settlement growth. Given that local authorities are the main implementers or coordinators

of any housing or urban development program, it was desirable to assess the success of different approaches to providing land and housing. Field work in the towns was also used to gather perspectives on the many levels of informality, and the complexity of upgrading, formalising and proclamation efforts.

Third, census data from 1991, 2001 and 2011 was analysed to provide data related to urban growth, especially that of informal housing. The following variables were used to assess growth in the informal sector: types of housing (formal buildings versus shacks); types of fuel for cooking (electricity, gas, paraffin versus wood); and types of toilet (formal types versus no toilet, i.e. the bush). These are all measures of informality, as are the counts of shacks in unstructured settlements visible in aerial and satellite photographs.

Fourth, existing documentation was examined and interviews were held with key stakeholders from local authorities, the private and NGO sector.

3. Informal settlements and urban growth in Namibia

3.1 The growth of informal settlements in Namibia

Namibia's overall population grew from 1,409,915 in 1991 to 2,113,077 people in 2011. The urban population almost tripled from 382,280 to 903,434 over that period, while the rural population only increased by about 220,000 people from 1991 to 2001, and then actually decreased by some 20,000 people from 2001 to 2011. National growth over the past two decades thus largely occurred in towns and cities.

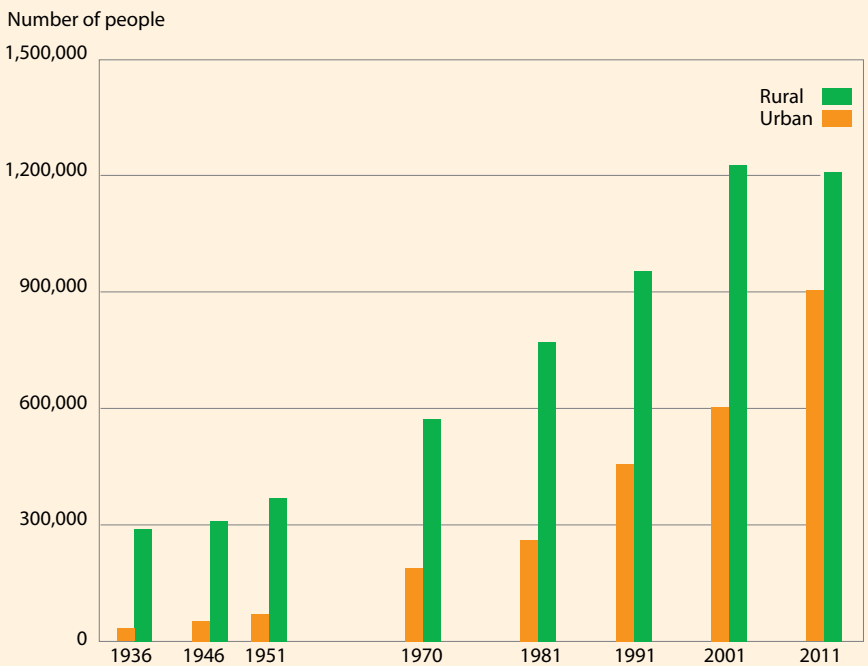


Figure 3: The number of people in rural and urban areas recorded during censuses between 1936 and 2011.

Between 1991 and 2011, most Namibian towns achieved an annual growth rate of more than 4%. Some urban centres grew even faster, for example Oshakati at an average of 7% per year. By contrast, some towns in southern Namibia grew rather little.

Table 1. The population sizes and growth rates of selected towns using census figures from 1991, 2001 and 2011.

Town	1991	2001	2011	Annual growth rate 1991-2011	Total growth 1991-2011
Rundu	26,125	40,714	61,872	4.4%	137%
Oshakati	9,303	26,775	35,600	6.9%	283%
Katima Mulilo	12,599	23,786	28,200	4.1%	124%
Windhoek	141,562	227,543	322,300	4.2%	128%
Walvis Bay	21,249	42,015	61,300	5.4%	188%
Keetmanshoop	13,643	14,945	18,900	1.2%	26%
Gobabis	8,330	13,739	19,101	4.2%	129%
Outapi	2,351	3,373	6,727	5.4%	186%
Otjiwarongo	14,558	19,477	28,249	3.4%	94%

The age structures of urban and rural populations are quite different. In particular, rural populations are dominated by young people whereas urban areas consist predominantly of working-age people. This is a consequence of high rates of in-migration by young adults to urban centres.

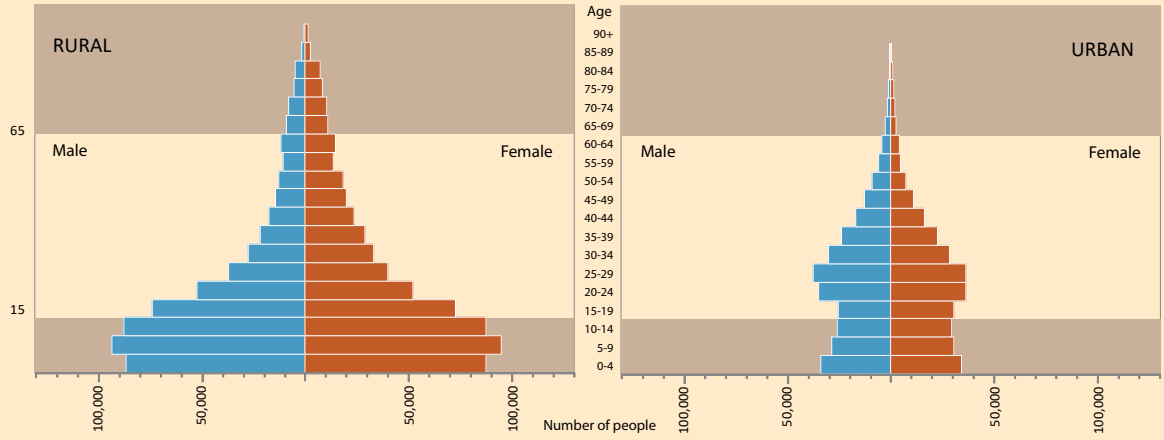
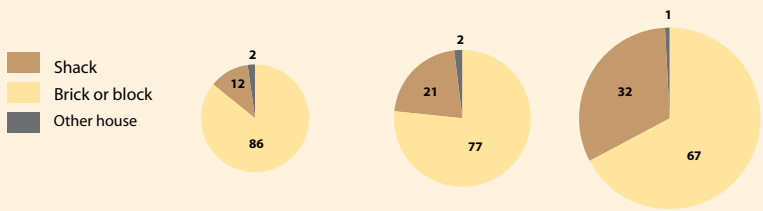


Figure 4: Age pyramids of rural and urban areas recorded during the 2011 census.

While overall urban growth has been considerable, it is important to understand how much of this growth occurred in formal urban areas and how much in informal areas. The structures of homes provide a useful measure of this. As indicated in Figure 5, bricks or block houses and shacks made of corrugated iron dominate urban growth. From 1991 to 2011, the number of brick or block houses roughly doubled from 73,881 houses to 163,793. During the same period, the number of shacks (and, to a lesser degree, houses made of

traditional materials such as wood) multiplied more than seven times from 10,288 to 77,899 homes. The growth rate of shacks was therefore more than three times higher than of formal brick or block houses. In 1991, 86% of all urban houses were made from bricks or blocks and only 12% where shacks, but by 2011 one third (32%) of all urban homes were shacks. The map in Figure 1 shows that informal settlements are across Namibia, even in the smallest towns. A survey in 2009 counted a total of 398 separate informal settlements in Namibia (SDFN 2009).



Year	1991	2001	2011
Brick or block	73,881	106,594	163,793
Shack	10,288	29,765	77,899
Other house	1,849	2,321	1,687
Total	**86,018**	**138,680**	**243,379**

Figure 5: Pie diagrams of the percentages and a table of the numbers of different house types in 1991, 2001 and 2011.

These statistics also provide a measure of the demand for housing and services, since it can be assumed that families living in shacks are in need of formal housing and piped water, sewage, waste removal and electricity services. Thus, in 2011 about 78,000 formal houses were needed to replace the urban shacks. That figure had grown to about 140,000 houses in 2017.

The rate of annual growth in the number of urban shacks between 1991 and 2011 was 10.6%, which likewise provides a measure of how demand for formal houses increases each year.

3.2 Urban growth in the future

Projections using growth rates recorded between the 1991, 2001 and 2011 censuses provide indications of how housing will change in Namibia, in particular the numbers and proportions of formal and informal urban homes. The projections are presented in Figure 6 in which there are several points of interest:

1. There are now about 140,000 urban shacks in Namibia, 10 times more than in 1991.
2. The number of urban shacks will outnumber formal urban brick/block houses by 2025, and it will outnumber all rural houses by 2023. The predominant form of housing in Namibia will then be urban shacks.

3. Namibia will have over half a million urban shacks 13 years from now in which about 2 million people will live.
4. The number of urban homes in 2030 will be about 3.5 times more than all the rural homes.

These projections are based on the assumption that growth will persist at the rates recorded between the last censuses. Based on current experience and past trends that seems possible, perhaps even probable. For example, the number of urban shacks grew each year by 11.2% between 1991 and 2001, and by 10.1% between 2001 and 2011. Urban formal housing grew at 3.7% each year between 1991 and 2001, and by 4.4% from 2001 to 2011.

Based on the 2001-2011 growth rates, the estimated numbers of formal brick houses and informal shacks from 2015 to 2017 are given in the following Table. These figures indicate that of an estimated 21,632 urban homes built between 2016 and 2017, 12,712 (59%) were shacks and 8,911 (41%) were formal structures.

Table 2: Estimated number of formal and shack houses in 2015, 2016 and 2017

	2015	2016	2017
Formal housing units	194,447	202,983	211,894
Number of additional formal units		8,536	8,911
Informal housing units	114,393	125,947	138,668
Number of additional informal units		11,554	12,721
Total number of additional homes		20,090	21,632

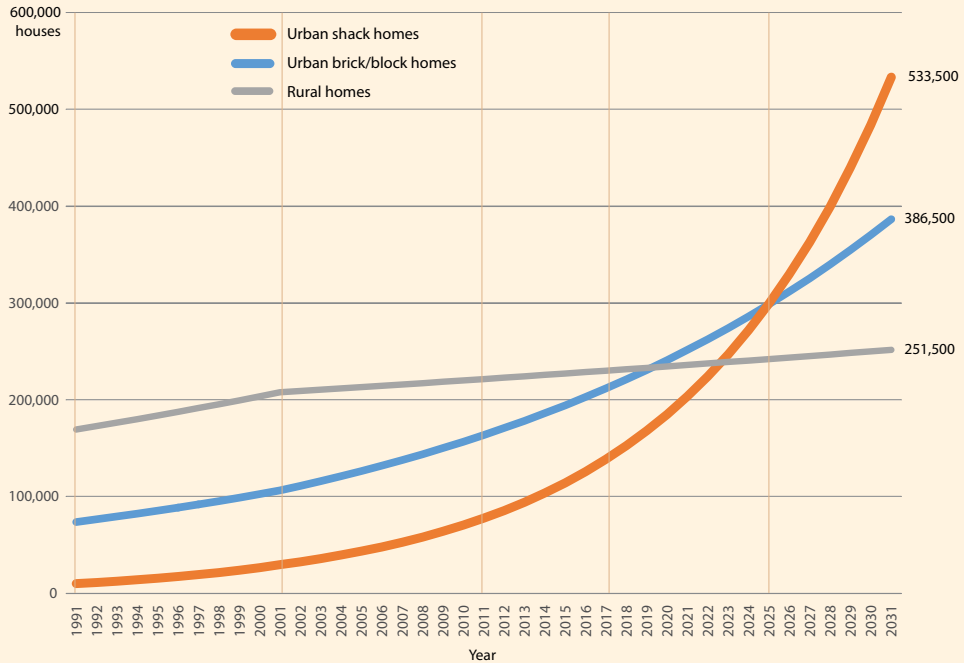


Figure 6: Numbers of formal (brick or block) and shack homes in Namibia between 1991 and 2011, and projected forwards to 2031.

3.3 Drivers of informal urban growth

Urban growth is usually fuelled by two major processes: natural growth of the resident urban population and in-migration from rural to urban areas or from smaller towns to bigger ones.

In Namibia, most urban growth has been caused by in-migration (Pendelton et al. 2014). In the case of Windhoek, for example, the 2011 census shows that 62% of all the city's 324,470 residents were born outside Khomas region.[2]

[2] *Nickanor (2013) notes that in her household survey in the constituencies of Tobias Hainyeko, Katutura Central, Khomasdal North, Samora Machel and Moses Garoëb, over 80% of interviewed heads of household were born in rural areas. This indicates that the percentage of people born outside Windhoek is higher in informal areas than in formal ones.*

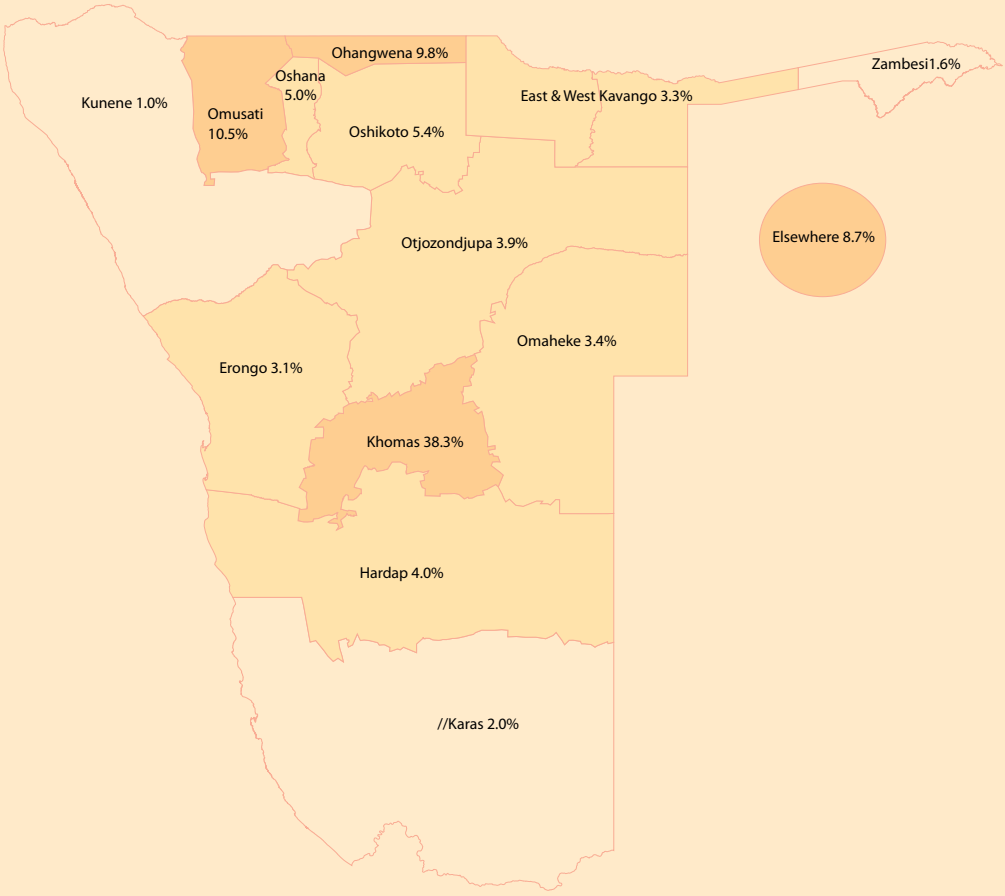


Figure 7: Birthplaces of people living in Windhoek during the 2011 census, shown by the percentages of Windhoek people born in different regions or outside Namibia. Most people were born in the areas shaded dark.

Why do so many Namibians move from their rural homes to live in informal urban housing? The major reason for most movements to towns is the quest for jobs and money (Pendleton et al. 2014, Indongo et al. 2013). Other reasons include rural poverty, family issues and education, with many households having multiple reasons for migrating.

There are important linkages between these factors. For example, people seeking higher education at urban universities are also attracted to the greater availability of jobs in urban areas. Graduates are therefore unlikely to return to rural areas. Likewise, economic conditions in towns are particularly attractive to people who live in places where there are few jobs or opportunities to start enterprises. This is the case in most rural areas of Namibia where farming is the dominant land use. Here it is hard to earn significant incomes from farm produce because environmental conditions – notably low soil fertility and shortages

of rain – keep farm production very low, with little chance of having surpluses that could be made available for sale. Access to markets is also not easy in a large country with such a small population as Namibia. Additionally, many farmers prefer to keep any surpluses and livestock as security for the future.

For these reasons most cash in circulation in communal areas comes from pensions, orphans' grants, wages for teachers and other civil servants, remittances and retail trade. The majority of income therefore comes from sources that have nothing to do with farming or rural homes.

Migrants are thus attracted by urban economic opportunities, but also spurred away by the poor economic prospects that prevail in rural areas. Since migrants have aspirations similar to people who have spent their entire lives in urban areas, planners may expect immigrants to grow their own families, to wish for comfortable lives, and to have long-term goals for their urban future.

In summary, rural life is tough in most parts of Namibia, especially for anyone wishing to earn a moderate income. There are exceptions: large commercial farms, big livestock holdings on communal land, irrigated smallholdings, lodges and tourist camps, mines, special plant products to harvest and sell (devil's claw for example) and trophy hunting. All these exceptions generate money, but there are too few enterprises to support substantial numbers of people.

3.4 Characteristics of informal settlements in Namibia

With informal settlements dominating urban growth, it is important to understand the nature and characteristics of these settlements, how people live in them, what opportunities they may have, and what constrains their quality of life.

Many international organizations identify key features that characterise or define slums or informal settlements,[3] and many countries use their own criteria appropriate to the local characteristics of their informal settlements. However, commonly included definitions relate to the provision of infrastructure and services, housing materials, tenure security, the physical structure and location of settlements, environmental challenges and informal land and housing markets.

3.4.1 Provision of infrastructure and services

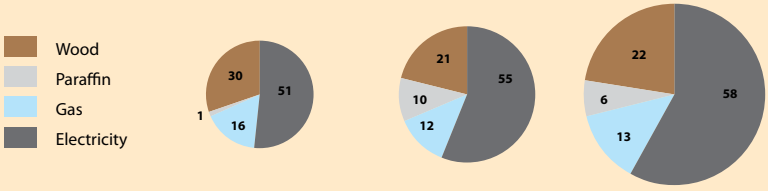
Infrastructure and services strengthen the socio-economic development of a household. Electricity, water, sanitation and good transport facilitate the lives of household members, freeing-up time for productive economic activities and reducing socio-economic

[3] *See for example: United Nations (2015), World Bank (2008)*

vulnerability, as well as many preventable illnesses. While investments have been made to service some urban poor in Namibia since independence, the investments have not kept pace with the rapid growth of informal settlements. Many settlements are therefore partially serviced, or not at all.

The Namibian 2011 census provides indicators to assess the numbers of urban people who lack basic services. Two indicators are considered here: the types of cooking fuel and types of toilets used by urban residents.

Figure 8 shows the use of different cooking fuels over three census periods (1991, 2001 and 2011). While the use of electricity (and also gas) expanded considerably by 2011, some 54,000 urban homes with approximately 205,200 people[4] still relied on wood as the main cooking fuel in 2011. With increased woodland loss at the periphery of informal settlements, the distances and time taken to collect wood increase. Furthermore, open fires are a health and safety hazard, especially in winter when open fires are used to warm shacks. For those who buy firewood, the considerable expenses can be higher than household expenses for schooling, or even transport.[5]



Year	1991	2001	2011
Electricity	44,245	76,905	141,354
Gas	14,146	17,078	31,803
Paraffin	1,079	14,305	15,219
Wood	25,816	28,589	54,226
Other fuel	732	1,803	777
Total	**86,018**	**138,680**	**243,379**

Figure 8: Pie diagrams of the percentages, and a table of the numbers of all urban households using different types of cooking fuel in 1991, 2001 and 2011.

4 *Number of people calculated on an average urban household size of 3.8 according to the 2011 census.*

5 *Nickanor (2013) assessed household expenditures in her sample population: On average, households used about 13-16% on fuel, compared to 11-13% on transport, 8-11% on education and 8-9% on housing. The biggest expenditure was on food (20%) and utilities (15-19% of total household expenditure).*

Many residents in informal settlements depend upon – and often fetch themselves – firewood from naturally wooded areas around town.

While the use of private and shared flush toilets increased considerably after 1991, by 2011 there were still about 57,000 urban households with approximately 250,800 residents lacking access to any toilet facilities (Figure 9). These census results also show that the percentage of urban residents without toilets almost doubled from 13% in 1991 to 24% 2011.

The ensuing lack of hygiene has considerable negative impacts on the safety and health of people in informal settlements, as well as on people elsewhere in towns. For example, women face safety risks when obliged to use the bush at night. And faeces on open ground are the cause of many illnesses, especially for children. In Windhoek, diarrhoea is the third-most common cause for hospital attendance, and the second-highest cause of paediatric admissions.[6] This is a strong indicator of the profound negative impact of these sanitary circumstances on informal settlement residents, adding an additional burden to the already poor and vulnerable.

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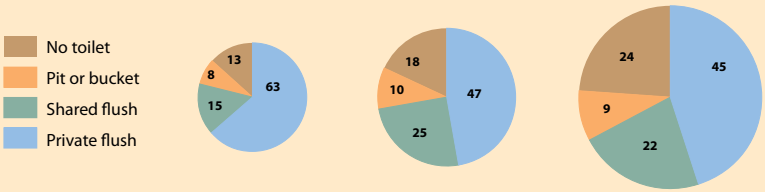
6 *See for example:* The Toilet under the Rock *(The Namibian, 25 April 2017) https://www.namibian.com.na/163929/archive-read/The-toilet-under-the-rock*



Year	1991	2001	2011
No toilet	11,317	24,726	57,288
Pit or bucket	6,584	13,281	21,898
Private Flush	54,337	65,195	109,518
Shared Flush	13,094	34,302	53,458
Other toilet	686	1,176	1,217
Total	**86,018**	**138,680**	**243,370**

Figure 9: Pie diagrams of the percentages of homes having different types of toilets in all urban areas in 1991, 2001 and 2011, while the number of homes with different toilets are in the table.

Shared toilets, be they flush or other types, are widely used in informal settlements, especially in Windhoek. However, problems related to maintenance responsibilities shared among users are often the cause of their depilated and dysfunctional state.[7]

[7] *Anecdotal evidence suggests that a considerable percentage of shared flush toilets in Windhoek's informal areas do not function (Nickanor 2013).*

3.4.2 Housing materials

The great majority of houses in urban areas are constructed of either bricks or blocks (formal structures) or corrugated iron (informal structures). Information on the number of homes built with these materials was presented in Chapter 3.1. Additionally, there are small numbers of homes in prefabricated buildings and traditional structures.

Corrugated iron is cheap.[8] A simple shack can be erected within a day or so, and in case the shack has to be moved, the material can be used to erect a new structure in a different location. Local authorities also tolerate corrugated iron in informal settlements, where the use of permanent construction materials for houses is often prohibited.

However, many shack residents have the means to build with bricks if they were allowed to do so. Recent research reveals the broad range of monthly incomes in informal settlements, which in certain areas of Windhoek were found to range between N$300 and N$35,000, and up to three-quarters of heads of household had some sort of formal employment (Seliger 2016). With these kinds of incomes most shack owners could invest in permanent housing structures, at least incrementally and over time. Residents of informal settlements in neighbouring countries with generally lower income levels than Namibia normally build much more with permanent building materials.[9] Similar conditions hold in certain Namibian towns where residents may build with bricks in some informal settlements, sometimes to such an extent that housing with permanent building materials is the dominant type of housing.[10]

Although residents of informal areas are poorer than other urbanites, shacks fitted with DSTV dishes and with cars parked in their backyard reflect the relative affluence of many shack dwellers.

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8 *The materials for the construction of a small 3 x 3 meter shack with a door and one window may cost up to N$7,000. Some people add insulation, for example by applying wooden panels along the inside of the walls.*

9 *In the case of Angola, see for example DW & CEHS (2005)*

10 *This can be observed in towns such as Ruacana, Rundu and Oshakati.*

3.4.3 Tenure security

Secure tenure – or the lack thereof – is a third indicator of urban informality. In Namibia, houses erected in un-proclaimed settlements are not eligible for freehold title and do not have formal tenure security over the land on which they are built. This has many drawbacks since land tenure security is fundamentally important for:

a. Socio-economic household development in terms of generating wealth;
b. Use as collateral for commercial loans;
c. Protection against eviction;
d. Regulating the transfer of rights.

a. Socio-economic household development in terms of generating wealth

Tenure security provides a means to secure investments made into a property, and to generate wealth over generations. Investments in property are also one of the most effective ways of building up savings, especially for the poor that often lack other methods of savings available to the better off. For poor people, such savings are especially important to reduce socio-economic vulnerability, and to provide an economic springboard for future generations. Compelling evidence from across the world indicates that the poor are able, and willing to create savings through their properties – if only they are provided with the opportunity to do so.

The absence of tenure security therefore denies the poor one of their most important investment opportunities, limiting economic development options, and maintaining current vulnerability and poverty. Children from homes denied investments in land are at a competitive disadvantage with those in the formal parts of towns that inherit legally recognized, and therefore valuable property.

b. Serving as collateral for commercial loans

Namibia's well-functioning banking sector often requires property as collateral security for loans, and so the lack of a registered property makes it much harder for the poor to access credit to further their economic development. This again puts – and keeps – the poor at a competitive disadvantage compared with people in formal urban areas where property owners benefit from registered tenure security.[11]

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[11] *Recent research in Namibia nevertheless suggests that the willingness of poor households to mortgage their property for commercial loans may be limited, mainly because the property is the only secure asset of the household and the risks of losing it are perceived as high. See for example Seliger (2016).*

c. Providing protection against eviction

Despite investments made into shacks, there always remains the risk of eviction and the loss of these modest assets. The uncertainty of being evicted can put immense additional pressure on households,[12] and further make informal property owners reluctant to invest to improve their living conditions.

d. Regulating the transfer of rights

Tenure security facilitates and regulates the transfer of land rights, thus helping protect the vulnerable from abuse by the more powerful, for example. By regulating the sale and inheritance of land, conflicts are avoided, and the weaker, more vulnerable people are protected, such as children, women and the poor.

3.4.4 Physical arrangements and location

Many informal settlements have irregular physical layouts that are not formally planned. Furthermore, most informal settlements are located at the peripheries of the formal towns, making commuting times costly and time consuming.

The lack of organised and planned physical structures creates various disadvantages for informal settlement residents, three important ones being:

1. Laying and providing services to unstructured informal settlements is difficult. Infrastructure such as water pipes, electricity grids and sewage systems are usually laid along roads, without which the installation of infrastructure becomes challenging, indeed often impossible.
2. Unstructured and unplanned settlements cannot be legally proclaimed under current planning legislation and policy, effectively condemning them to permanent informal status without tenure rights for their residents.
3. Once an unstructured informal settlement densifies, restructuring and upgrading becomes costly, since it usually involves resettling residents to provide space for the layout of roads and erven.

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[12] *For the case of Windhoek, see for example: Mooya & Cloete (2010) and Ishimael (2016)*

Examples of unstructured, unplanned and disorganised informal residential areas

The physical structure of an informal settlement therefore has a major influence on its development. If there is a basic road layout and space available for public services (such as schools and clinics), the settlement can be proclaimed by regular administrative procedures and upgraded with the installation of services and infrastructure. However, if a settlement suffers from both minimal structure and a high population density, development is effectively blocked unless considerable resources are invested to physically reorder the homes and other structures.

Physically ordered informal settlements thus have great advantages, increasing the chances for residents to obtain secure tenure, services and all the associated benefits outlined above. As described in Chapter 5, many local authorities are well aware of this fact, and have used scarce local resources to ensure that new, growing informal settlements have basic road layouts that allow for proclamation, and the eventual installation of basic services and infrastructure.

Table 3: Summary of implications of a lack of tenure security and planned settlement structure

No structure	1. Limited options to legalise settlement 2. No secure tenure 3. Limited provision of services and infrastructure 4. Limited overall development options for the settlement 5. Development is financially costly, requires the shifting of people and may incur considerable political costs
No tenure	1. No investment or wealth generation options 2. Limited access to credit 3. Risks of eviction 4. Limited protection for the transfer of land rights

3.4.5 Environmental challenges

Informal settlements create, or are associated with various environmental problems, most of which stem from inadequate services, infrastructure and planned physical structure. Three challenges are of particular concern in Namibia:

a. Removal of vegetation and degradation around informal settlements
b. Open solid waste and pollution of water resources
c. Flooding

a) Removal of vegetation and deforestation at the periphery of informal settlements

Large areas of natural woodland have been steadily cleared, mainly by residents in informal settlements who are too poor to use other fuels for cooking and heating. Areas thus degraded expand over the years, as result of increasing demands for wood and because firewood is only available beyond zones that have already been cleared. The clearing sometimes leads to increased soil erosion, mainly by water flowing along paths trodden by people harvesting wood. Interestingly, the production and sale of charcoal to low income urban residents has not developed in Namibia, unlike in most central African countries.

A donkey cart is used to carry wood to an informal settlement in Gobabis. Bulk supplies of firewood, such as this, are often for sale.

b) Open solid waste and pollution of water resources

Local authorities sometimes lack the resources or inclination to collect solid waste systematically and regularly. The problem may be severe in informal settlements where waste collection and removal services are often absent. The accumulated waste is unsightly, and a source of disease and pollution, especially when heavy rains wash away rubbish. Faecal material that accumulates in river beds, under bridges and in shrubby areas is likewise a source of disease. In 2011, a total of 16,344 homes in Windhoek used the bush for their toilet requirements. Extrapolations using growth rates between the 2001 and 2011 census indicate that there should now be about 30,000 Windhoek homes faced with the same daily problem. With about 4 people in each home, the volume of excrement generated by the 30,000 families each day is colossal.

Water in Windhoek's Goreangab Dam is badly contaminated by domestic and human waste, much of the pollution coming from surrounding informal settlements. It is widely believed that pollution from Windhoek badly contaminated water in the Swakoppoort Dam in 2011 when very heavy rain swept large volumes of waste into the dam. Even now in 2017, the water remains so contaminated that it can only be used in a diluted state. As one of Windhoek's major sources of water, Swakoppoort's contamination is an extremely serious problem, especially when other water sources are meagre.[13]

Solid and other waste being swept down an *oshana* by flood waters close to Ongwediva. Much of that waste will collect and settle downstream in the Omadhiya Lakes and even in Etosha Pan.

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[13] *Another possible explanation, or contributory factor, is that large volumes of minerals in the dam had been leached by the heavy rain from rock formations in its catchment.*

c) Flooding

The towns located in the Etosha-Cuvelai Basin (such as Outapi, Oshakati, Ongwediva, Ondangwa and Oshikango) are prone to flooding. Space on higher ground above the reach of floods is limited and fully allocated to formal urban uses. Informal settlements have therefore expanded in drainage lines *(iishana)* and other lowlands that are periodically flooded. The settlements suffered severe damage in 2008, 2009 and 2011.

Badly flooded homes during the peak of the 2011 floods in Oshakati. Many residents had to be evacuated from their homes and housed in tented camps.

3.4.6 Informal land and housing markets

Access to residential land and housing in informal settlements is normally not regulated by law or official procedures. The land and housing market is therefore also informal, in contrast to the formal market in the 'formal' parts of Namibia's towns. The market consists of two segments: the land market, and the housing market.

a. The land market

Residents get access to land in a variety of ways, many of which characterise informality:

- *Illegal occupation:* a resident simply occupies a piece of land without any authority. This occurs commonly at the margins of informal settlements, and results in unstructured urban sprawl. People living on land occupied in this fashion are frequently targeted for eviction by local authorities.
- *Purchase:* a resident purchases a piece of land from a land occupant or 'owner' who has some sort of ownership claim over the area. Research conducted in 2009

indicated that amounts up to N$3,500 were then paid for informal residential plots (Mooya 2009). Some evidence suggests that some informal plots may be sold for prices as high as N$45,000,[14] and informal plots in peri-urban areas are sold for between N$10,000 and N$75,000.[15]

- *Allocation by community leader:* some residents state that the land where they built their shack was allocated to them by a local community leader.
- *Rent of erf:* informal plots are rented with lease fees paid to either the plot 'owner' or the local authority. The occupant pays a rental fee for the land, but puts up her/his own shack dwelling.
- *Allocation by local authority:* some informal land is allocated by local authorities. The informal market is then at the interface with the formal market, with the expectation of the informal land being formalised at some stage.
- *Allocation by family:* in many cases new family members put up back-yard shacks on plots that belong to their parents or other family members. Some residents report that this form of land acquisition is often practiced to avoid being seen to occupy vacant land illegally. This may be one of the most important factors contributing to the continuing densification of informal settlements.

b. The housing market

Renting: Prices for rent vary, depending on the town, shack location and shack size. Some are as low as N$100-400 per month, while a shack near a main road with its own electricity, water and sanitation systems may rent for N$2,000, for instance.[16] Rental agreements between tenant and land lord are normally verbal, but often in the presence of witnesses. Anecdotal evidence from the five towns studied for this research suggests that the erection and rental of shacks is an established business practice, their land lords often living in the formal parts of town.

- *Shack purchase/sale:* shacks are sold and purchased in informal settlements, with prices varying according to town, location, size and quality of the construction. According to some residents, prices may range between N$4,000 and N$10,000. Most sales agreements seem to be verbal.
- *Self-construction:* many residents that acquire informal land build their own shack. The costs vary according to size and quality. A one-bedroom shack may cost as little as N$1,500 for the materials and N$1,500 for labour.[17] Bigger dwellings, with more bedrooms, concrete floors, windows, doors and some insulation may cost N$7,000 or more.[18]

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14 *For example, according to a sales advertisement on Facebook on 16 May 2017*

15 *Mendelsohn & Nghitevelekwa (2017).*

16 The increasing cost of living in a shack *(New Era, 20 May 2016) https://www.newera.com.na/2016/05/20/increasing-cost-living-shack/*

17 The increasing cost of living in a shack *(New Era, 20 May 2016) https://www.newera.com.na/2016/05/20/increasing-cost-living-shack/*

18 *According to cost assessments done in the context of this research at a construction material retailer in Windhoek.*

Informal land and housing markets are dynamic, with variation in demand, supply and prices often being considerable, depending on the town and the location in each town. While informal renting is theoretically prohibited in some informal settlements,[19] it can be 'legal' in others. As further discussed in the town case studies, local authorities use different approaches and initiatives to shape and contain informal land and housing markets, with varying results.

3.5 Different typologies of informal settlements

While most informal settlements have some common characteristics, many have details that differ significantly. For example, certain settlements consist of recently established collections of small corrugated iron shacks at the edge of towns. They have no services or roads, and risk demolition by local authorities because of their unauthorised presence. Other informal settlements, however, are well established, have planned road layouts, and are provided with electricity, water and sewage. These settlements are recognized by local authorities, and erf occupants pay monthly rental fees or similar charges for their land and services. The only differences between such an informal settlement and a formal residential area is the fact that the settlement has never been formally proclaimed, and its residents don't have registered tenure.

In many ways the concept of an 'informal settlement' is hard to define, making it difficult to create national policies and develop programmes for the broad range of circumstances found in settlements. It would be useful and practical to distinguish types of informal settlements, each requiring specific interventions for their upgrading to be effective and economically efficient. A possible basic classification is the following:

1. Uncontrolled expansion area (sprawl);
2. Structured informal settlement;
3. Unstructured informal settlement with high density.

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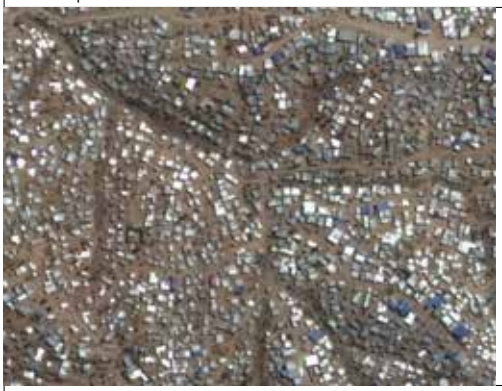
[19] Renting a Shack in DRC *(New Era, 7 March 2017) https://www.newera.com.na/2017/03/07/renting-a-shack-in-drc/*

Table 4: A classification of informal settlements

1. Uncontrolled expansion area (sprawl)	Level of intervention required: medium
Example: north eastern expansion area in Epako, Gobabis	
	
Main characteristics: • No services • No organized physical structure • Minimal supervision by local authorities • Low, but rising population density • Rapid expansion	Required interventions for upgrading: • Implement an ordered physical structure, taking advantage of existing low densities • Reservation of public space for future infrastructure • Provision of services • Settlement proclamation • Provision of tenure security
2. Structured informal settlement	Level of intervention required: minimal to medium
Example: Uupindi informal settlement in Oshakati	
	

Main characteristics: • Basic services provided • Some form of organized physical structure • Supervised by local authorities • Considerable percentage of permanent homes built with bricks and mortar • Medium population density	Required interventions: • Settlement proclamation • Provision of tenure security • Continued upgrading through incremental service provision
3. Unstructured informal settlement with high density	Level of intervention required: very high
Example: Havana informal settlement in Windhoek	
	
Main characteristics: • Minimal services • No organized physical structure • Minimal supervision by local authorities • High population density • Continued densification	Required interventions: • Re-blocking (physical restructuring of settlement based on layout plan) • Removal of some residents to new settlement areas (long and costly process) • Reservation of public space for future infrastructure • Provision of services • Settlement proclamation • Provision of tenure security

The third category, unstructured high density informal settlements, is the most challenging, and requires substantial effort and costs if the settlements are to be transformed into formal ones. By contrast, uncontrolled expansion areas and structured informal settlements can be upgraded with relatively little effort. It is particularly important that basic structures and road layouts be implemented early in uncontrolled expansion areas, thus avoiding uncontrolled densification that would lead towards Type 3 informal settlements.

In addition to variation between the three types, additional diversity results from different development or upgrading efforts. For example:

- Some settlements with obvious signs of informality (such as the prevalence of shacks) have been provided with access roads and services but have not been proclaimed as formal townships. Informal areas upgraded by the City of Windhoek are an example.
- Some settlements that have been proclaimed recently and are therefore no longer informal, but still have characteristics of informal settlements (such as shack housing and the absence of services). Residents are in the process of purchasing their plots as a precondition to being permitted to build permanent homes. Some recently proclaimed extensions in Outapi are in this condition, for instance.

4. National housing programmes and urban planning legislation

4.1 National housing programmes and initiatives

Several national housing programmes implemented by the government over the last decades aimed to address the ever increasing housing backlog. However, most houses produced by the programmes were not affordable to the majority of the urban poor. Additionally, too few houses were built to keep up with, let alone reduce the demand for housing. The programmes have therefore done little to contain or reduce the growth of informal settlements. Notably, the main focus has been on the provision of serviced houses. Minimal attention has been paid to the provision of land.

National Housing Enterprise (NHE)

The National Housing Enterprise is a state-owned company and acts as a developing and financing institution for individuals with incomes of N$5,000-20,000 per month, or a combined income (of a couple) of N$30,000. The NHE derived its mandate from NHE Act No 5 of 1993. Between its inception in 1993 and 2010, the NHE built over 8,000 houses (NUST 2017), providing much needed housing for the middle-income segment of the population. However, the prices of these houses and the requirements to qualify for loans made NHE houses unaffordable for the urban poor. In 2010, for example, a two bedroom NHE house in Otjomuise cost between N$280,000 to N$303,000.[20]

Build Together Programme (BTP)

The Build Together Programme was a self-help programme initiated in 1992 to provide shelter to low and ultra-low income earners in the country. Administration of the programme was decentralised to regional councils and local authorities in 1998. It provided home loans to people whose monthly incomes were less than N$3,000, and also assisted middle-income earners who did not have access to credit from financial institutions or who were regarded as credit risks. The maximum loan amount was N$40,000, and the interest rate varied between 4% and 7% over 20 years.

The BTP operated until 2013, and was then absorbed into the Mass Housing Development Programme (MHDP).[21] In 2016, however, the BTP was re-launched in response to the fears of some local authorities that the housing needs of low income earners were not being sufficiently addressed by the MHDP. The BTP had considerable success in providing

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[20] Long waiting lists for NHE houses *(The Namibian, 8 February 2010) https://www.namibian.com.na/62558/archive-read/Long-waiting-lists-for-NHE-houses-THE-demand-for*

[21] Govt to decide mass housing fate in May … Build Together Programme revived *(New Era, 18 April 2016) https://www.newera.com.na/2016/04/18/govt-decide-mass-housing-fate-build-programme-revived/*

housing solutions for the very low income earners. (NUST 2017). However, it would have to be scaled-up considerably to become more effective in addressing the housing backlog and informal settlement growth.

Mass Housing Development Programme (MHDP)

The MHDP was launched in 2013. To fulfil Vision 2030, this programme planned to build 185,000 affordable houses by the year 2030. During its pilot phase from 2013 to 2015 the MHDP built only 4,204 houses.[22] Given these initial shortfalls, MURD appointed the Integrated Land Management Institute (ILMI) at NUST to review the MHDP in 2017 (NUST 2017). The review points out that it is not realistic for government to provide 'a house' to everyone, and recommends that government play an enabling and coordinating role to facilitate access to adequate housing. The review recommends ways for the MHDP to be adjusted to achieve its objectives effectively.

Summarizing, all the national housing programmes discussed here face three common and fundamental challenges:

1. Their emphasis on providing housing units that are normally too expensive for the low income segment of the population.
2. The programmes have been too small to reduce the national housing backlog and meet new annual demands for housing and residential land.
3. They did not address the needs of low, and ultra-low income earners.

The programmes therefore did not address problems resulting from the rapid growth and characteristics of informal settlements, as described earlier.

Mass Urban Land Servicing Programme (MULSP)

In the context of the shortcomings of national housing programmes, the escalating housing backlog and pressure from the Affirmative Repositioning (AR) movement, the government initiated the Mass Urban Land Servicing Programme (MULSP) in July 2015. This new programme aimed to service 200,000 plots, thus providing a low cost housing solution that recognizes that the availability of affordable land is the major constraint in addressing the housing crisis in Namibia. Three towns were selected for the pilot phase of the project, these being Oshakati, Windhoek, and Walvis Bay. While the MULSP was highly praised by Namibian society and institutions, it has not taken off as originally planned and seems to have stalled. Nevertheless, it had the potential to allow significant numbers of the urban poor majority access to housing.

[22] *Shaningwa (2016)*

Shack Dwellers Federation of Namibia (SDFN) and the Namibia Housing Action Group (NHAG)

While the programmes and initiatives described above were driven by government, the SDFN and NHAG provide civil society-based, non-profit platforms for the construction of low cost houses.[23]

In essence, the SDFN is a network of saving schemes that aim to provide housing solutions for low-income people living in shacks, rented rooms and for those without accommodation. It was established in 1998, by 30 housing groups that had been formed in Namibia since the late eighties. The NHAG was established in 1999 as a supporting NGO to the SDNF. The SDFN has over 600 savings groups with 20,400 members in all major Namibian towns. To date, its members have built about 3,488 houses and secured land for some 6,230 families. Through negotiation with local authorities, SDFN groups often buy an entire block of land that is then subdivided by the group itself, without involving land surveying or town planning services. The groups also install their own water and sewer services. In addition, the SDFN/NHAG is upgrading an informal settlement in collaboration with Gobabis Municipality, and is promoting this approach nationally. Getting access to land, where its members can build houses is one of the biggest constraints faced by the SDFN programme.[24]

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[23] *http://sdfn.weebly.com; http://namibia-shackdwellers.blogspot.com/2012/03/nhag.html;*

[24] *See for example:* Shack Dwellers give up as City drags feet. *(Windhoek Observer, 16 February 2017 http://www.observer.com.na/index.php/national/item/7667-shack-dwellers-give-up-as-city-drags-feet*

4.2 Planning legislation, policy, institutions and procedures

4.2.1 Town planning legislation and policy

Town planning legalisation in Namibia is currently based on two main laws:

1. Town Planning Ordinance of 1954 (Republic of Namibia 2000)[25]
2. Townships and Division of Land Ordinance of 1963 (Republic of Namibia 2000a)[26]

Both ordinances are modelled on South African town planning legislation which itself was guided by the English Housing and Town Planning Act of 1909. Key town procedures and institutions defined by the two ordinances include: the Namibia Planning Advisory Board (NAMPAB), the Townships Board, Statutory Township Establishment procedures, and Town Planning Schemes as the main town planning tool.

One policy has a profound impact on urban development, despite not being part of any legislation. This is the minimum erf size policy requirement of 300 square meters. The Namibia National Housing Policy, in Article 5.2.6, states (MRLGHRD 2009): *"This policy framework sets the erf size at 300 m² minimum with a provision that special motivation for smaller erven can be submitted to the Minister of MRLGHRD for exemption consideration."*

Although the policy embodies good intentions for lower income segments of the population to have reasonably sized erven, its consequences have been problematic in many respects, as discussed elsewhere (see for example Chapter 5.4).

Although not specified as such, the 300m² minimum erf size was for single residential zonings only, as supported by the provision for the following considerations in the earlier National Housing Policy:

- The size of a given plot should be based on economic considerations in an effort to promote an integrated development approach.
- Planning regulations must be amended to provide for higher density utilisation of land.

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[25] *The Ordinance was amended by Ord. 13/1968, Ord. 13/1970, Ord. 11/1973, Ord. 23/1973, Ord. 10/1977 and Ord. 5/1979. It was also amended substantially by Act 27/1993, which makes it consistent with an independent Namibia. It is further amended by Act 15/2000 (sections 2, 4, 47). The application of the Ordinance in Export Processing Zones is affected by section 5(e) of the Export Processing Zones Act 9 of 1995. Regulations pertaining to fees are contained in GN 11/2008 (GG 3983).*

[26] *The Ordinance was amended by Ord. 36/1967, Ord. 7/1969, Ord. 2/1970, Ord. 10/1973, Ord. 17/1975, Ord. 9/1977, Act 3/1985, Act 28/1992 (which was brought into operation by GN 142/1992, GG 511), Act 21/1998 and Act 11/2000. The schedule to the Ordinance was amended by GN 63/1999 (GG 2083). The application of the Ordinance in Export Processing Zones is affected by section 5(e) of the Export Processing Zones Act 9 of 1995. Township Board Regulations are contained in GN 165/1973. Regulations relating to fees are contained in GN 10/2008 (GG 3983). Notices relating to specific townships have not been recorded.*

4.2.2 Town planning institutions

Namibia Planning Advisory Board (NAMPAB)

NAMPAB is regulated by the Town Planning Ordinance of 1954. Members of the Board are appointed by the Minister of Urban & Rural Development (MURD). They include the Permanent Secretaries of MURD, National Planning Commission, Ministry of Agriculture, Water & Forestry, Ministry of Works, Transport & Communication, Ministry of Fisheries & Marine Resources, Ministry of Justice, Nampower, the Association of Local Authorities in Namibia (ALAN) and one person appointed by the Minister (of MURD).

NAMBAP is a policy advisory body and therefore looks beyond technical issues to focus on social, economic and political aspects of planning. Its purpose is to (MURD 2017, Simon 1995):

1. Oversee urban and regional planning in Namibia and to formulate town planning policy for the country;
2. Supervise all Local Authorities and Regional Councils with regard to planning and to advise and assist Local Authorities in the preparation of Town Planning Schemes;
3. Advise the Minister (of MURD) on the desirability and necessity to establish or to de-proclaim townships;
4. Advise the Minister on the subdivision of land situated outside a proclaimed township or outside the townlands of such a township where either the subdivision or the remainder thus created is smaller than 25 hectares.

Townships Board

The Townships Board was established by the Townships and Division of Land Ordinance of 1963. It is the statutory body responsible for all technical aspects of town planning in proclaimed townships. These include the technical evaluation of subdivision proposals, consolidation proposals and layout plans. Members of the Board are the Surveyor General, the Registrar of Deeds, the Chief Roads Engineer of the Department of Works, the Director of Works and Director of Local Government or their delegates, one delegate each from the Department of Water Affairs and TransNamib, one member that represents the views of local authorities and the interests of the inhabitants of areas of local authorities and a person who is a member of NAMPAB. The functions of the Board are to consider and report on applications for permission to establish townships, subdivisions and consolidations. According to Simon (1995) the Board more specifically considers:

- The suitability of the land;
- Obstacles which may affect the establishment of a proposed township;
- The proposals and stipulations of the applications and the conditions on which the applications should be granted;
- The extent of the townlands and the reservation of land for the state or other public purposes;
- The proposed layout and name of the township;
- The allocation of use zones for erven, and the order in which they may be sold;

- The maximum number of houses which may be built on each erf, and the maximum area of buildings on each erf.

After consideration, the Board recommends the approval or disapproval of applications to the Minister of MURD.

4.2.3 Town planning processes: Township Establishment

In compliance of the legislation described earlier, the subdivision of urban land and establishment of townships (creation of new urban neighbourhoods or settlements) requires a defined procedure for local authorities to seek approval for establishing a new township by NAMPAB, the Townships Board and then the Minister (MURD). In summary, the process for establishing a new township is the following (De Vries & Lewis 2009; Urban Dynamics 2017):

1. The town planner designs the subdivision and submits a layout to the local authority;
2. The local authority provides a council resolution for the subdivision of the area to be developed;
3. An application for subdivision is submitted to NAMPAB. Once the application has been approved by NAMPAB, the MURD issues two 'certificates', one for the subdivision and one for permission to establish a township on the new portion;[27]
4. An Environmental Impact Assessment (EIA) is compiled (in parallel with the steps 1 and 2 above);
5. The urban layout is finalized by a planning consultant;
6. The layout is then submitted to the local authority council for approval;
7. An application is submitted to the Townships Board (supported by the two MURD certificates, EIA and letter of approval from the local authority council);
8. A registered land surveyor surveys the layout, demarcates the erven, and produces the General Plan;
9. The General Plan is submitted to the Surveyor General for approval;
10. The township is proclaimed in the Government Gazette;
11. A conveyancer prepares the Township Register which is opened at the Deeds Office;
12. The erven are then sold to the new owners (often through a public auction);
13. The erven of the new township are registered by a conveyancer in the names of the new owners.

While this process is well established in Namibia, it is often described as an inefficient and cumbersome land delivery system that impedes, rather than facilitates socio-economic and urban development (De Vries & Lewis 2009, Genis 2015). For example, it takes up to two years to complete the processes described above, making it lengthy and costly for the applicants, and ultimately contributing to high land development costs (De Vries & Lewis

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[27] *Subdivision procedures can vary considerably, depending on sizes, planned land use and original land ownership. The subdivision procedure described here applies specifically for Township Establishment with the subdivision of 11 or more erven.*

2009). Planning objectives have become secondary to administrative procedures (Genis 2015).

Despite the constraints that stem from legislative and procedural requirements, many local authorities have taken commendable steps to reduce tenure and housing impediments faced by in-migrants and low-income residents of their towns. These initiatives are described in Chapter 5.

4.2.4 Town planning tools: Town Planning Schemes

The Namibian legislation defines the 'Town Planning Scheme' as the main planning instrument to regulate urban land use. The term 'Town Planning Scheme' is derived from early English town planning legislation and entails the notion that town planning is concerned with two main activities: the preparation of a master plan for future development, and zoning laws. A town planning scheme under Namibian law is thus a legal document that defines the use of land and restrictions on its use within a certain area. Under current practice, each town planning scheme contains extensive descriptions that spell out the details of land use and land use restrictions, as well as illustrative maps, such as zoning maps. Town planning schemes are implemented by local authorities. In the absence of in-house planning capacities, local authorities can subcontract a town planning consultant.

4.2.5 New legislation: Flexible Land Tenure System & Urban and Regional Planning Bill

Flexible Land Tenure System (FLTS)

The Flexible Land Tenure System (FLTS) is based on the Flexible Land Tenure Act of 2012 and its regulations, which are expected to be enacted in 2017.[28] It aims to (MLR 2016):

- Create alternative forms of land title that are simpler and cheaper to administer than existing forms of land title;
- Provide security of title for people who live in informal settlements or who are provided with low income housing;
- Empower the people concerned economically by means of these rights.

The current formal system now provides three forms of secure land tenure (freehold, sectional and leasehold title), while the FLTS is a separate land registration system that provides two new forms of secure urban land tenure:

- The starter title
- The land hold title

Both titles are held by individuals, but group-based. Each holder has individual rights within a block of land (called a *blockerf*), with the whole block of land being owned under freehold tenure by the state, a private individual or a group of individuals. The system is

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[28] *The regulations will specify the technical details of the starter and land hold title schemes. As they are not yet enacted, some of these details are not yet known.*

called 'flexible' because it allows for upgrading from one kind of title to another. While the *starter title* is a basic form of tenure (and cannot be used as security for credit), the *land hold title* is a more advanced form of tenure that provides the holder with almost the same rights over a piece of land as freehold title, and can therefore be used as security for credit (MLR 2016). A *starter title* has fewer requirements and can be upgraded to *land hold title*. However, a *land hold title* can also be acquired directly, without going through the stage of a *starter title*.

The FLTS works through its own land registry system housed in a Land Rights Office where all starter titles and land hold titles are registered. The procedures for establishing a starter title scheme and land hold title scheme are similar, but land hold title schemes have some additional requirements. Compared to statutory township establishment, a FLTS scheme does not require approval from NAMPAB or the Townships Board, except for the creation of the initial blockerf. The design of FLTS is intended to allow faster delivery of low cost urban land and the provision of tenure security in informal settlements. The MLR is currently developing land hold title pilot projects in Outapi, Oshakati, Gobabis and Windhoek which will provide tenure security to approximately 2,000 households. The establishment of a land hold title scheme for example includes the following activities:

1. Creation of blockerf
2. Formation of associations
3. Development of a land hold plan (urban layout)
4. Establishment of scheme

Table 5: Steps required for the FLTS[29]

1. Creation of blockerven	1. Decision to establish a blockerf 2. Layout plan for blockerf 3. Feasibility and desirability study 4. Publication of notice in newspaper 5. Enumeration of potential beneficiaries 6. Participatory planning of internal layout 7. Council approval of Layout Plan 8. Application to Township Board for approval 9. Registration of Survey Diagram 10. Registration in Deeds Office
2. Formation of associations	1. Initial training of intended beneficiaries to prepare them to form associations 2. Assist intended members with preparing constitutions and management committees 3. Hold constituting meetings 4. Start continuous support and financial literacy training

[29] *Summarized from MLR 2017. It is important to note that many of the steps can be taken in parallel to save time.*

3. Development of a land hold plan (urban layout)	1. Conduct measurements for Land Hold Plan (Land Measurer) 2. Examination and filing of Land Hold Plan with Land Rights Officer
4. Establishment of scheme	1. Council approval of schemes 2. Setting of conditions for plots 3. Conclude transfer contracts 4. Notice to Land Rights Officer and Registrar of Deeds 5. Endorsement on blockerf title deed (Registrar of Deeds) 6. Endorsement as blockerf on diagram/General Plan (Surveyor General) 7. Enter particulars and filing of endorsement notice in Land Rights Office 8. Issue and hand over certificates as proof of tenure security

The FLTS may provide tenure security to residents having erven smaller than 300 square metres. This could improve the circumstances of many informal settlement residents, especially those in areas that have been upgraded but are now unable to have formal tenure because their erven are smaller than 300 square metres. Furthermore, there is potential to apply good urban design principles through participatory planning processes in the development of new layouts, and creating neighbourhoods that respond to the needs of the poor. For example, local businesses and lively neighbourhoods may be encouraged if excessive zoning can be avoided in FLTS schemes. Infrastructure provision is not the explicit concern by the FLTS, and largely depends on government or innovative local funding approaches. The FLTS has the potential to make the upgrading and development of new low income neighbourhoods more efficient and less bureaucratic. Its impact may then be measured by how cheaply and rapidly land is provided to the poor, and whether it can be expanded to address the demand for land and tenure security of the poor at a national level.

Urban and Regional Planning Bill

In 1998 the National Land Policy stated the need to review town planning legislation to reduce the time taken by planning applications, address issues of land rights of the urban poor, and to increase flexibility in planning schemes and issues concerned with urban sprawl and density (Genis 2015). As a result, a new Urban and Regional Planning Bill was eventually developed, and is currently been reviewed by Cabinet. According to MURD (2017), the main objectives of the proposed Bill are:

- To consolidate laws relating to town planning and township establishment;
- To establish the urban and regional planning board;
- To provide for a legal framework for spatial planning in Namibia;

- To provide for principles and standards of spatial planning;
- To decentralise certain matters relating to spatial planning;
- To provide for the preparation, approval and review of the national spatial development framework, regional structure plans and urban structure plans, and to provide for the preparation, approval, review and amendment of zoning schemes;
- To provide for the establishment of townships;
- To provide for the alteration of boundaries of approved townships,
- To provide for the disestablishment of approved townships;
- To provide for the change of name of approved townships;
- To provide for the subdivision and consolidation of land;
- To provide for the alteration, suspension and deletion of conditions relating to land.

The proposed Bill is in line with Vision 2030's objectives of integrated urban and rural development. Once enacted, the Urban and Regional Planning Bill "will provide for a uniform, effective, efficient and integrated regulatory framework for planning, land use and land use management which promotes public interest" (Genis 2015). Some of the key aspects of the proposed Bill are:

- The term 'township' is to be replaced by 'urban area'
- The Townships Board and NAMPAB are replaced by the 'Urban and Regional Planning Board'
- New authorised planning authorities are to be established.

The Bill places great emphasis on the hierarchic development of structural plans, from higher (regional) levels to local (town) levels.

4.2.6 The costs of surveying and servicing urban land

Estimating these costs can be a complex process, since the costs vary according to such aspects as the sizes of erven, the size, topography and soil composition of the township, and the availability of bulk services. Nevertheless, estimates can be established to provide benchmark costs for the planning, surveying and servicing of new erven. For purpose of this book, estimates have been compiled for a township with 90 erven with the following specifications:[30]

- Size of erven: 15 x 20 meters (300 square meters)
- Road width: 12 meters
- Bulk infrastructure: Assumed that connections can be made to existing bulk infrastructure nearby. The costs therefore only cover the distribution of services within the township, and connections to bulk supplies within 100 metres of the township.
- Soil: loose, without particular obstacles, such as rock
- Topography: flat

Table 6: Land surveying and town planning costs

Land surveying	N$ total	N$ per erf
Topographical survey	25,000	278
Cadastral survey[31]	133,000	1,478
Total		**1,756**
Town planning		
Layout planning fees	90,000	1,000
Statutory planning[32]	260,000	867
Total		**1,867**
Total land surveying and town planning costs		**3,622**

For this example, basic services include communal water points and levelled roads. A sewage system is not included, since that would require domestic water connections. However, residents could build pit latrines as a temporary solution.

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30 *Calculations provided by Knight Piésold (Pty) Ltd. (Namibia)*

31 *The cadastral survey includes pegging, production of a General Plan and survey records, and submission to the Surveyor General.*

32 *Fees for statutory planning are regulated and vary according to the size of the settlement. For 90 erven the cost is N$ 220,000, while for a much bigger area of 999 erven, the costs are not much higher (N$ 280,000). The smaller the settlement, therefore, the higher the cost per erf. For the estimate in this table, the cost was taken as that applied to a settlement of 300 erven (N$ 260,000), using the assumption that the 90 erven township would be part of a bigger scheme. The statutory costs per erf therefore amount to N$ 260,000 divided by 300*

Table 7: The costs of basic services

Service	Total N$	N$ per erf
Communal water point reticulation system	150,000	1,667
5 communal water points (prepaid system)	189,497	2,106
Levelled roads	278,587	3,095
Total per erf for minimal services		**6,868**

For comparative purposes, the following table provides the costs per erf for the provision of full services.

Table 8: The costs of full services

Service	Total N$	N$ per erf
Domestic water reticulation system	454,737	5,053
Overhead electricity grid including house connections	1,262,700	14,030
Sewer reticulation	680,000	7,556
Gravel roads*	1,262,700	14,030
Total per erf for full services		**45,398**

* The cost of surfaced (tar) roads would add N$ 5,722,537 or N$ 63,584 per erf.

Table 9: Summary of cost calculations

	Land surveying	Town planning	Services	Total
Cost for a minimally serviced erf	N$1,756	N$1,867	N$6,868	**N$10,491**
Cost for a fully serviced erf	N$1,756	N$1,867	N$45,398	**N$49,021**

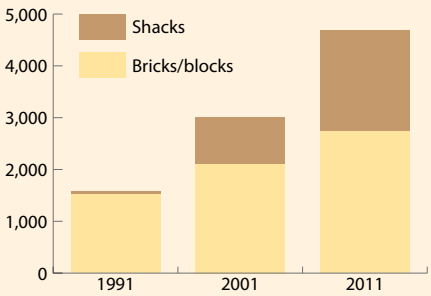
5 Urban planning and informal settlements: the cases of Gobabis, Outapi, Oshakati, Windhoek and Otjiwarongo

5.1 Gobabis

Gobabis is situated 200 kilometres east of Windhoek along the Trans-Kalahari highway to Botswana. It has municipal status, is the capital of Omaheke Region and serves as a commercial centre for Omaheke's rural community. The town has health, shopping and recreational facilities and is rapidly developing as a commercial hub for the region, and as a stop along the Trans-Kalahari highway. Tswana and Otjiherero are the main indigenous languages spoken in the town.

5.1.1 Informal settlement growth

The population of Gobabis has grown rapidly over the past two decades. From 2001 to 2011, for example, the population grew from 13,856 to 19,101 inhabitants (Namibia Statistics Agency 2011), its total growth being 37.8% at a rate of 3.3% per year. Much of Gobabis' urban growth can be attributed to the expansion of informal settlements.



Gobabis

	1991	2001	2011
Bricks/blocks	96%	70%	58%
Shacks	4%	30%	42%

Figure 10: Growth in the number of formal buildings (built of blocks or bricks) and informal shack structures from 1991 to 2011 in Gobabis.

All informal settlement expansion has taken place in the area of Epako, north-east of the town centre. This was the area established and reserved for black residents prior to independence. Counts of houses in images taken in 2012 showed there to be 3,226 shacks, while the count in 2016 amounted to 5,297 shacks. This is equivalent to 518 new shacks being erected each year, at an annual growth rate of 13.2%.

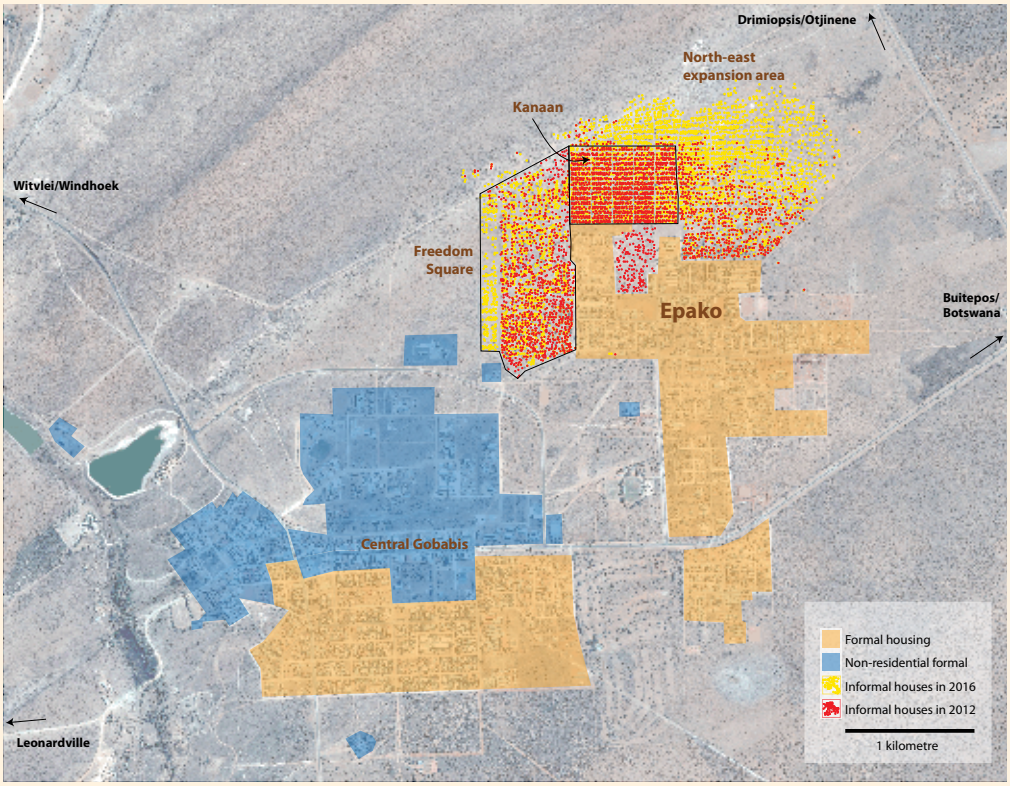


Figure 11. Satellite image of Gobabis taken in 2016 showing the location of informal houses mapped in an earlier image from 2012 and then in 2016.

According to representatives of the Epako Municipal Centre, the increased influx of people over the last few years was due to the effects of drought on rural livelihoods. The Municipality admits that it has largely lost control of new settlement in the north-eastern part of Epako as result of that recent influx. However, more than half of Gobabis' informal homes are in settlements that are being upgraded (Freedom Square) or have a minimally planned structure (Kanaan).[33]

[33] *In 2016, 1,355 shack structures were counted in the area of Freedom Square and 1,514 in the physically structured area of Kanaan. They make up 2,869, or more than 50% of all informal houses in Gobabis.*

An aerial view of the disorderly expansion area to the north-east of Epako where the Municipality has little control on land occupation.

Aerial view of the northern periphery of Epako. Paths into the bush are clearly visible, trodden by residents to collect firewood and ‘use the bush’.

5.1.2 Characteristics of informal settlements

Access to basic services is a major challenge in Gobabis' informal settlements. Wood is the main cooking fuel for residents in Gobabis, with almost 2,400 households relying on wood in 2011. It can be assumed that almost all of these households are in the town's informal settlements. More than 50% of the town's population do not have toilet facilities. The construction of pit latrines is difficult due to the presence of a high water table, putting the pits at risk of being flooded when water levels rise during the rainy season.

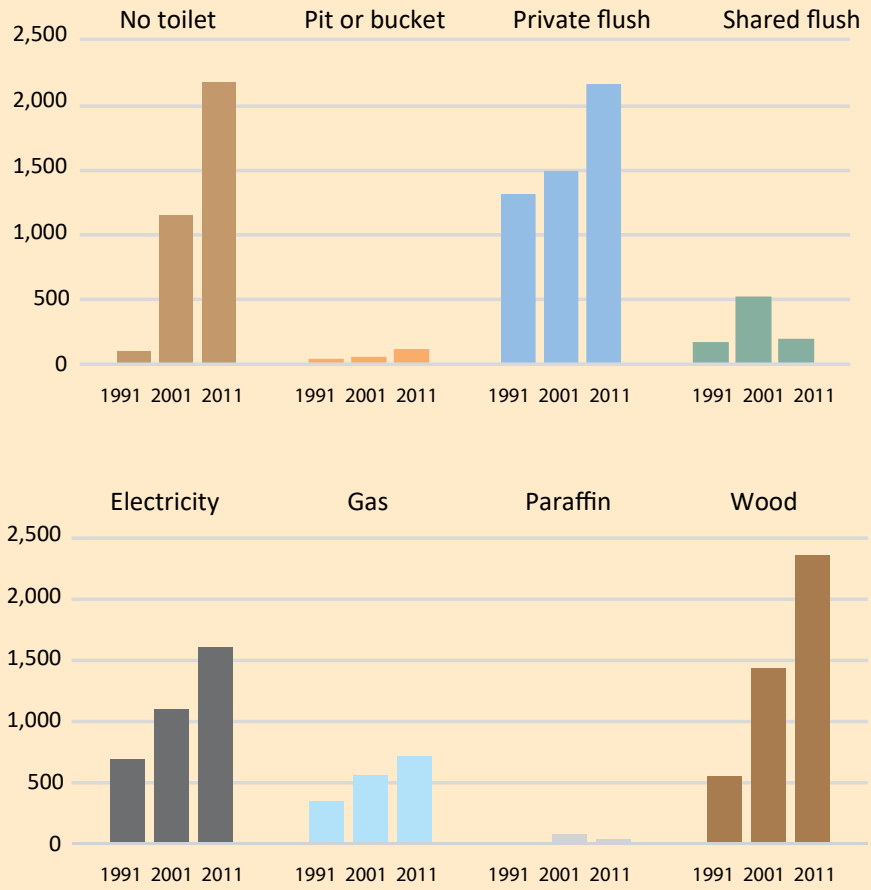


Figure 12: Numbers of Gobabis households using different kinds of toilets (top) and cooking fuel (bottom) in 1991, 2001 and 2011.

In recent years, however, the town has invested considerable resources to expand access to basic services in the informal settlements, especially drinking water and electricity. All registered residents in Epako's informal settlements also pay a land occupation fee of N$50/month to support the provision of services to these areas, such as waste removal. However, the Municipality struggles to keep pace with the rapid growth of these settlements.

5.1.3 Urban planning and development approaches of the Municipality

Beside the installation of services in some informal settlements, the Municipality has implemented two major informal settlement development projects over the last 8 years: (a) the planning and establishment of the Kanaan settlement and (b) the participatory upgrading of the Freedom Square settlement.

The planning and establishment of the Kanaan informal settlement

Kanaan is a structured informal settlement that was planned and demarcated by the Municipality in 2009 and 2010 in response to high demand for land by low income residents. This positive response resulted in the orderly settlement of Kanaan, and allowed the gradual upgrading of services in recent years. Many parts of Kanaan today have communal water points, domestic electricity connections and street lightening. Erven in Kanaan are each between 150 and 180 square metres. According to the Municipality, this prevents the township's proclamation, and thus all Kanaan houses are built from corrugated iron, and residents lack secure, registered tenure.

The well-structured access ways in Kanaan are clearly visible in this aerial perspective of the informal settlement. Despite its orderly structure, good planning and intentions, Kanaan has not be proclaimed and residents are not allowed to build with permanent building materials.

Many areas of Kanaan have communal water taps, as in this photograph. Water from the taps costs N$1 per 25 litres, and the town is currently in the process of selling tokens to facilitate the management of these communal water points. The tokens are subsidised by the Municipality, being sold to residents for N$300, but costing N$380 from the supplier.

Many houses in Kanaan are connected to its electricity grid that supplies the settlement.

The upgrading of Freedom Square

In collaboration with the Shack Dwellers' Federation of Namibia (SDFN), Namibia Housing Action Group (NHAG) and Namibia University of Science and Technology (NUST), the Municipality is in the process of upgrading the large informal settlement of Freedom Square, located in western Epako (SDFN and NHAG 2014).

The Municipality had planned to relocate the approximately 1,000 households of Freedom Square, but that approach was met with resistance by the residents. The alternative was to upgrade the settlement in-situ, which allowed the residents to stay in the area. The upgrading consisted of the following main steps that took place from 2013 to 2017:

1. Establishment of partnerships and design of the upgrading approach

Partnerships were established between the Municipality and SDFN-NHAG, and between NUST and SDFN-NHAG. SDFN-NHAG was to provide overall project guidance and technical expertise, together with donor funding to support the project. NUST provided technical urban planning expertise by involving students from its Department of Architecture & Spatial Planning. A visit was organized to the Western Cape to learn from similar experiences in South Africa.[34]

2. Socio-economic assessment of the informal settlement

A detailed socio-economic assessment was done of the project area as a first step. That provided useful information such as (SDFN and NHAG 2014):

- Employment levels: 52% employed, 43% unemployed, 5% not known;
- Average monthly incomes: 65%: less than N$800/month; 23%: N$801-N$1,600/month; 13%: above N$1600;
- Development priorities perceived by residents: highest priority water, followed by sanitation.

The assessment also served to disseminate the objectives of the project, and to achieve buy-in from the residents.

3. Participatory planning and layout design

The project then engaged in a series of participatory planning activities where representatives from residents, the Municipality, SDFN-NHAG and NUST discussed, and jointly agreed on the layout and characteristics of the new neighbourhood. The issues discussed included:

1. Water drainage, major access routes, social spaces, plot sizes, plot layouts, refuse dump sites, hazardous sites, and storm water management;

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[34] *Many cities in South Africa have made considerable progress in terms of informal settlement upgrading. In 2017, the National Upgrading Support Program published a upgrading manual that can be downloaded from http://upgradingsupport.org/*

2. Identification of existing services and protected trees;
3. Discussion of sanitation options;
4. Needs of elderly residents;
5. Identification of areas suitable for urban agriculture and other income generating activities.

4. Readjustment of plot boundaries according to the new layout
Based on the new layout, a process of readjusting plot boundaries began. Residents located in areas planned for roads had to move to new plots that had been reserved and demarcated for them in the new layout.

5. Implementation of infrastructure
Once all residents were relocated to the newly defined plots, the project began to install infrastructure. Funding was acquired through MURD for bulk water infrastructure, and it was decided to provide water connections to all households. The residents contributed labour to dig the trenches for the water pipes. A sewerage system will be installed.

6. Provision of tenure security
The Freedom Square upgrading project is one of the MLR pilot projects for the Flexible Land Tenure System (FLTS) (see Chapter 4.2.5), and land hold titles will be provided to residents once the regulations for FLTS are gazetted.

As a result, what once was a disorderly informal settlement is today an organised neighbourhood enjoying upgraded services. The residents of Freedom Square will have tenure security, and be able to build permanent houses. Given its success, officials from various towns across Namibia visited Gobabis during 2016 and 2017 to learn more about the approach. Its community involvement has been acclaimed as a particularly important contribution to the success of the process.

The northern half of Freedom Square in 2012 before the upgrading

The same section of Freedom square in 2016 after the upgrading, with the new access routes clearly visible

Gobabis has, and is investing considerable resources into informal settlements. The successful upgrading of Freedom Square, planning of Kanaan in 2009 and 2010, and incremental upgrading of services in various informal settlements demonstrate the Municipality's proactive and innovative approach. As mentioned above, more than 50% of its informal settlement residents reside in areas that are currently being proclaimed (under the FLTS in the case of Freedom Square) or have the potential to be proclaimed (in the case of Kanaan). However, recent influxes of people has stretched the capacity of the Municipality to its limits, and it has lost control of settlement in the more recent expansion areas at the north-eastern periphery of Gobabis. Urgent action is needed to regain that control to ensure structured and planned expansion. The eventual costs of not taking control now will be high.

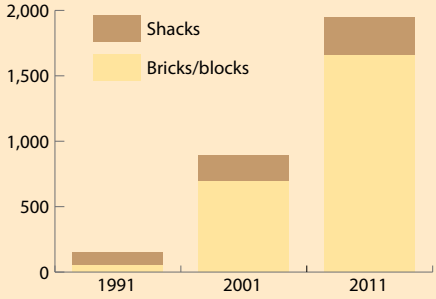
5.2 Outapi

Outapi, known also as Ombalantu, is the capital of Omusati Region. The town is 12 kilometres south of the Angola border, and located on an intersection of major roads between Ruacana and Oshakati, and between Okahao and Helao Nafidi. This location has helped the town develop into an important commercial centre, attracting people to its shops, markets and services from a wide area in Namibia, as well as adjacent parts of Angola.

Outapi was declared as a town in 1997, and proclaimed as the administrative centre of Omusati in 1998. A great percentage of the town's growth can be attributed to the establishment of government services, influxes of public servants and the increased purchasing power of Angolans following the end of their civil war in 2002. The town has also enjoyed considerable infrastructure investments by government and the private sector over the last decade, for example in the construction of a regional rehabilitation centre, a primary school, a solar power plant, a regional library and an industrial park. A new N$60 million sports stadium is being built now. The town is also known for hosting the annual Olufuko festival. The festival combines business expo and cultural celebrations, the heart of which is the initiation ceremony that prepares teenage girls for womanhood. Outapi has thus become a hub for the whole region.

Like Oshakati (see Chapter 5.3), the topography of Outapi is extremely flat and so the low lying *iishana* channels flood extensively during years of good rain and inflows of water from Angola.

5.2.1 Informal settlement growth



Outapi

	1991	2001	2011
Bricks/blocks	32%	78%	85%
Shacks	68%	22%	15%

Figure 13: Urban growth and informal housing in Outapi according to census data.

Figure 13 shows Outapi's exceptional growth over the last 20 years. From 2001 to 2011, the town grew from 2,640 to 6,437 inhabitants, an overall growth of 143.8% which, according to census data, was then the biggest growth of any town. The growth in the proportion of informal houses has been comparatively small, and the smallest among the five towns documented in this study.

Nevertheless, according to the Town Council the need to provide low cost urban land is considerable, with more than 4,000 applications pending for land for housing.

A total of 984 shack-like structures were counted in an aerial photograph taken in 2011. By 2016, the total number counted had reached 1,241, an increase of only 257 shacks over the five years.

In 2017, three extensions with shack structures were proclaimed (Extensions 5, 10 and 12), and these settlements are thus technically no longer informal. The owners of the 454 shack structures in the extensions may now buy their erven and build permanent houses.

The estimated 984 housing units present in informal settlements in 2011 has now declined to 787 that remain in non-proclaimed extensions in 2017. Of course, most residents in the new proclaimed extensions still have to obtain tenure certification and begin building their permanent homes, but it does mean that the overall size of informal settlements actually declined in Outapi.

Shack structures outside the town boundaries

The northern boundaries of Outapi are very close to the town centre and considerable urban expansion has taken place north and east of this border. A total of 309 shack-like buildings were counted in images taken in 2011, and an additional 331 structures were counted in 2016, bringing the total last year to 640 shacks. Similar peri-urban housing has been developing privately around many towns in Namibia, such as Katima Mulilo, Ongwediva and Omuthiya.

The Town Council also effectively prohibits the erection of illegal shacks. One possible consequence of this is that many shacks are crowded. According to the Town Council there are often 5-6 people living in one structure.

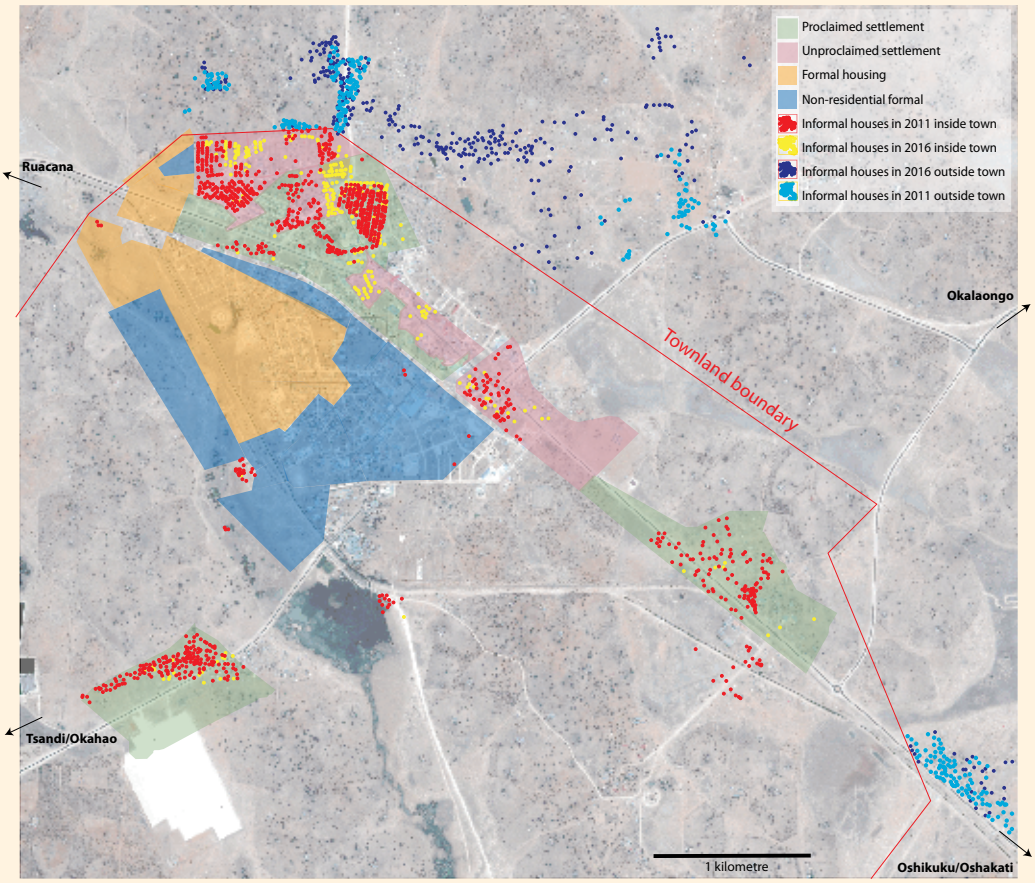


Figure 14: Informal housing and different settlement areas in Outapi 2011 and 2016.

5.2.2 Characteristics of informal settlements

In 2011, large parts of Outapi's informal settlements had few services, reflected by the extensive use of wood as the main cooking fuel and the high percentage of residents without access to toilet facilities. Since 2011, however, the Town Council has continued to invest considerable resources into servicing informal settlements. The development of these new services has been facilitated by the fact that most informal settlements have a planned road layout. This was done gradually over several years as funds become available, and provides another example of how well-structured informal settlements facilitate the development of services.

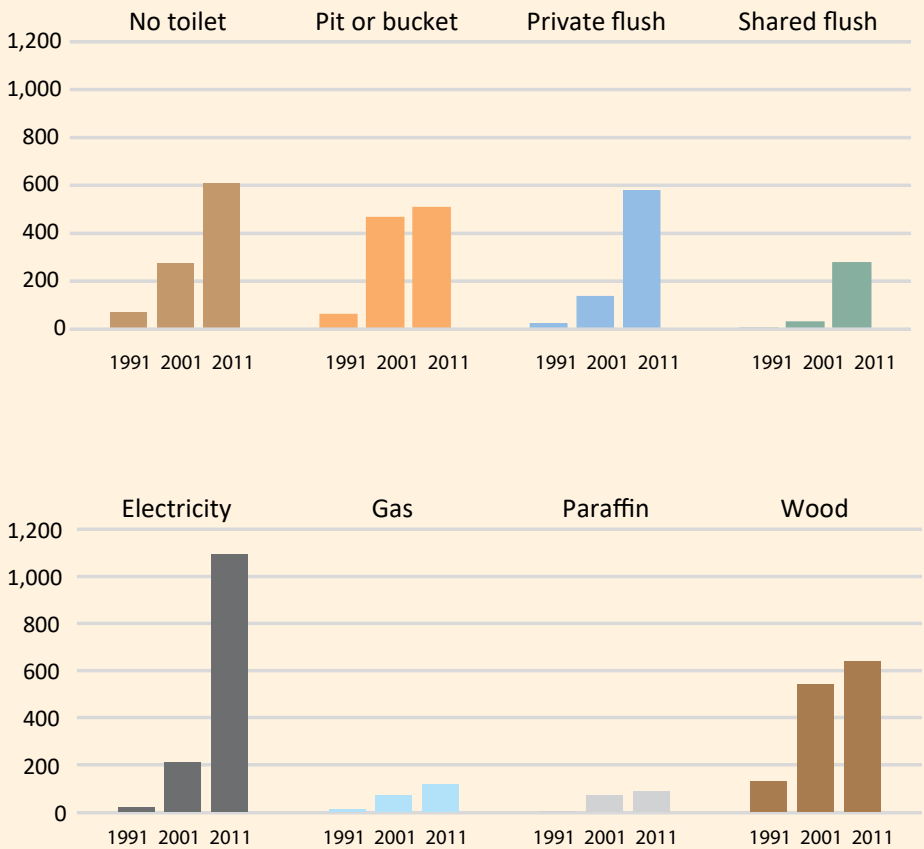


Figure 15: Numbers of Outapi households using different kinds of toilets (top) and cooking fuel (bottom) in 1991, 2001 and 2011.

5.2.3 Urban planning and development approaches of the Town Council

Public Private Partnerships have been set up with several developers to build houses, mostly for the lower middle income to higher income segments. The Outapi Town Council has been proactive in trying to prevent the unorganized growth of informal settlements. Based on urban layouts provided by a town planning consultant, the Council used in-house capacity and basic surveying techniques to demarcate areas and erven designated for low income housing. The erven were then distributed to people in need of land for housing.

While the process of township proclamation is underway, the new land occupants pay a monthly rental fee of N$6 per square meter of constructed shack floor area to the Town

Council. Services such as water and street lightning were installed in some settlements during the period before the proclamations were approved. The Town Council also constructed communal pit latrines in some areas. Using that approach, the Town Council has contained the kind of disorderly growth of informal settlements observed in many Namibian towns.

Once a township is proclaimed, residents can buy their plot for N$15 per square meter, which amounts to N$4,500 for a 300 square metre erf. For an additional N$2,700, the Town Council also arranges for the registration and allocation of freehold title for each erf. Prices of the erven do not include the capital costs of servicing, which are fully paid by the Town Council. People can only buy the erven if their rental payments are up-to-date.

The Shack Dwellers Federation of Namibia was allocated a block of land for development. Members of the Federation planned and surveyed the erven in the block themselves.

Extension 12: an example of proactive planning and action to prevent uncontrolled informal settlement growth. Extension 12 was created in 2010. Based on a layout provided by a town planning consultant, the erven were demarcated by the Town Council and distributed to low income residents. A shared washhouse was constructed and some residents have private water taps. Neither electricity nor sanitation is provided in the area, however. Residents could only build shacks before the settlement had been proclaimed, after which they could buy their erven, acquire proper tenure and build permanent homes. A total of 266 shacks were counted in the 2016 satellite image of Extension 12.The planned road layout is clearly visible in these aerial photographs. Many of the shacks are quite large, and well-built and with concrete foundations. The erf boundaries are often marked by hedges or fences established by the land holders.


Extension 12

While the Town Council has been proactive in preventing the growth of unstructured informal settlements, some challenges remain, one of which relates to the demarcation of erven. In the absence of funds to pay for formal, accurate surveying in Extension 12, in-house capacity was used to demarcate erven. This was considered preferable to not surveying which would have led to people settling in a disorderly fashion.

Outapi provides an example of a small town that has kept informal settlement growth under some control. Among the major challenges to be addressed over the coming years are the proclamation of the remaining informal settlements, and the continued upgrading of newly proclaimed townships. There is a major risk of *de facto* uncontrolled urban expansion and informal housing beyond Outapi's northern boundaries. The extension of the town boundaries should be considered as urgent before those unorganized informal settlements densify further. Town Council control of those areas will enable it to apply the proactive approach to planning that has benefitted Outapi in recent years.

5.3 Oshakati

Oshakati – the Oshiwambo name for 'a place where people meet' – is the capital of Oshana Region. It was founded in July 1966 as a base of operations for the South African Defence Force (SADF) during the Namibian War of Independence.

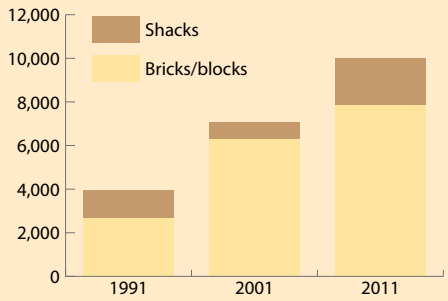
The 2011 Census recorded Oshakati as the biggest town in central northern Namibia, and the country's fifth largest with a population of 36,541 residents. The town today is the major commercial centre of northern Namibia, and a hub for trans-border trade with Angola. Oshakati also forms part of a linear metropolis, together with bordering Ongwediva, nearby Ondangwa/Onethindi and other, smaller adjacent commercial developments.

The majority of people in Oshakati are Oshiwambo-speakers from northern Namibia. Oshakati town includes the electoral constituencies of Oshakati East and Oshakati West, and is governed by a Town Council consisting of six councillors.

Oshakati lies in the Cuvelai Basin, which is shared between Angola and Namibia. The Basin consists of hundreds of channels that are dry most of the year, but flooding follows heavy local rains and strong flows of rainwater from Angola. The townships that make up Oshakati towns are shaped by the potential for flooding, since the construction of permanent houses is not possible in the *iishana* channels that pass through and around the town. However, the danger of flooding is not always heeded, as the owners of these low-income homes in Sky discovered in March 2011 (image on following page).

5.3.1 Informal settlement growth

Informal settlements developed in the 1980s in Oshakati. They were occupied by local soldiers and rural people seeking better opportunities in the developing town. Some of those earliest informal settlements from colonial times still exist today, such as Oneshila, Oshoopala, Evululuku and Uupindi. Oneshila and Uupindi were occupied primarily by civilian migrants, while Evululuku and Oshoopala were dominated by soldiers of the South West African Territorial Force (Tvedten 2008).



Oshakati

	1991	2001	2011
Bricks/blocks	68%	89%	79%
Shacks	32%	11%	21%

Figure 16: Numbers of formal and informal houses in Oshakati in 1991, 2001 and 2011.

The 2011 census recorded 2,113 shacks in Oshakati. However, while 'shacks' are a useful indicator of informal housing in many towns in Namibia, this is not the case in Oshakati where many of its informal settlements have been 'semi-formalised'. Houses in these areas are built with bricks, although they are still considered informal.

Since Oshakati's informal settlements consist of both shack-like and brick structures, all visible houses were counted in the informal settlements. A total of 8,815 houses were identified in the aerial images taken in 2011, while 11,083 structures were counted in the 2016 images. On average, 453 houses were therefore added each year to the informal settlements between 2011 and 2016. A high percentage of these houses are in semi-formalised informal settlements or extensions that are in the process of township proclamation. These include:

- Uupindi North and South (semi-formalised under the Oshakati Human Settlement Improvement Project (OSHIP) in the 1990s)
- Parts of Oshoopala;
- Evululuko and Extensions 10, 11, 12, 13, 14, 15 (all at different stages of upgrading and township proclamation);
- Oneshila (upgrading initiated in 2016).

About 7,500 housing structures were mapped in these areas in 2016. This is about 70% of the 11,083 houses counted in all informal areas in 2016, which leaves roughly 30% of all informal houses outside of areas that are semi-formal or currently being upgraded.

Residents in settlements that are semi-formal or being upgraded have certain occupancy rights, and pay fees to the Town Council, such as for services or rent. People may build with bricks and blocks in certain areas, but not in others.

Space for housing in Oshakati is limited, which is why much of the growth of informal housing has been in the form of densification of existing informal areas, and less through urban sprawl. For example, in Uupindi North and South, some 3,000 housing structures were identified in 2016, of which 900 were built between 2011 and 2016. Over the same period, the settlement's surface area expanded very little. Red dots are on houses present in 2011, while yellow dots are for homes built between 2011 and 2016.

Aerial view of Uupindi South where new shacks have been constructed over the last years.

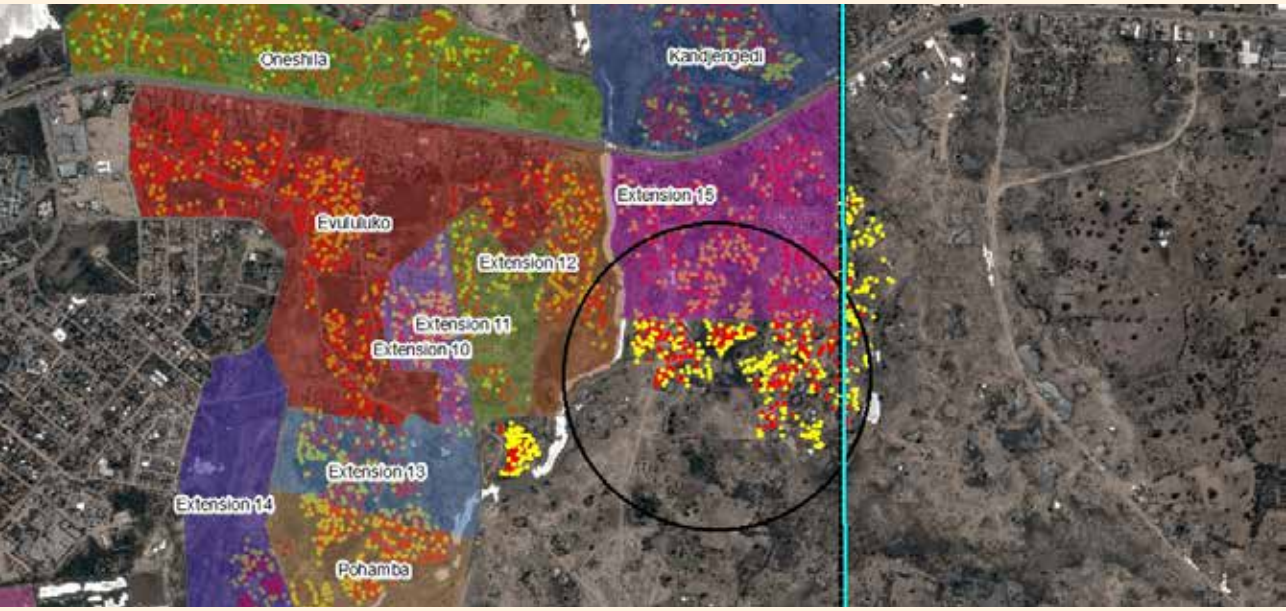


Figure 17: Pockets of unorganized sprawl are visible in some peripheral areas of Oshakati, such as in the area south of Extension 15. The Town Council expects to limit and control this growth by making low-cost erven available elsewhere in the town. The blue line is the boundary between Oshakati and Ongwediva (to the right).

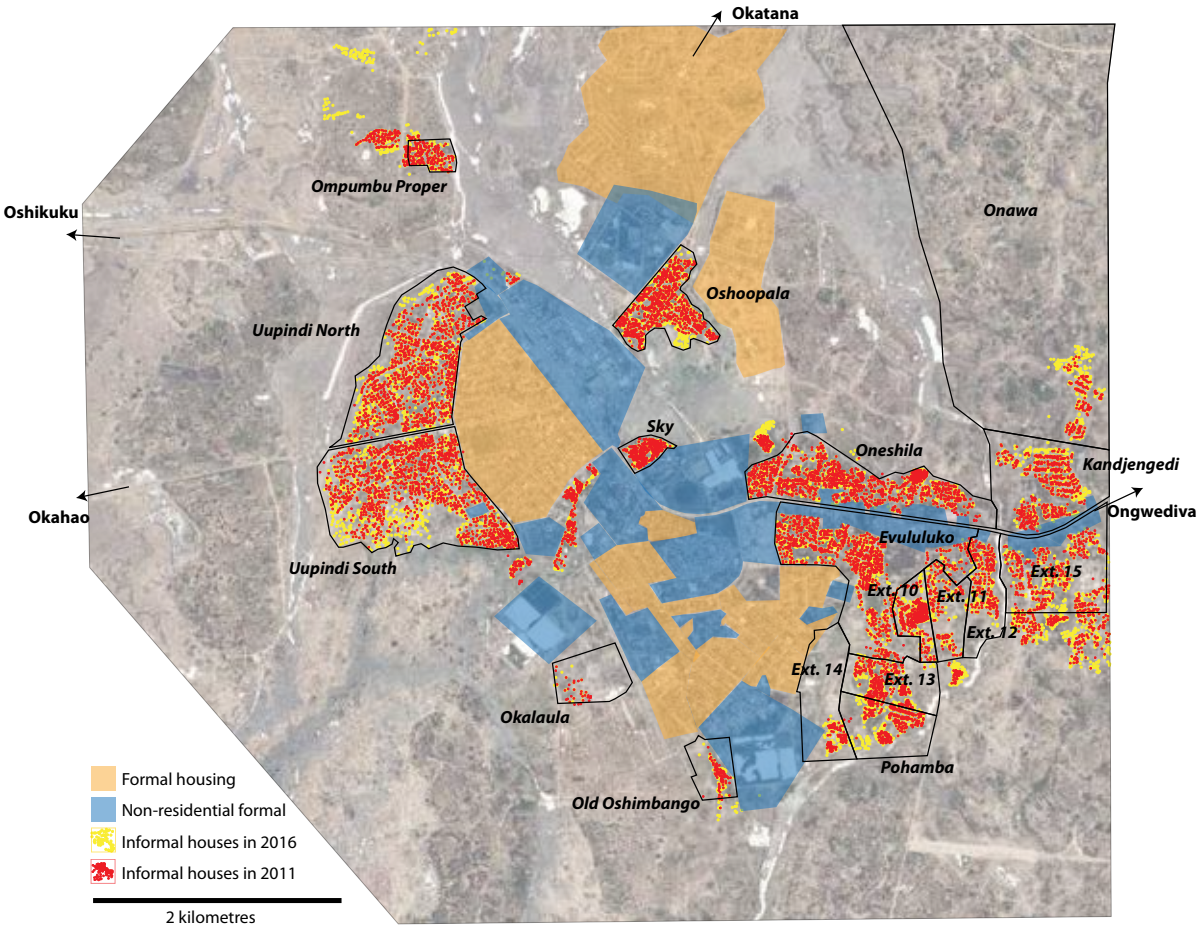


Figure 18. Informal settlements in 2017, and informal houses identified in 2011 and 2016 in Oshakati.

5.3.2 Characteristics of informal settlements

The Oshakati Town Council has made considerable investments in the provision of services over the last years. For example, in 2011 the number of homes cooking with electricity surpassed those using wood fuel. The number of households with toilets increased between 1991 and 2001, and again between 2001 and 2011.

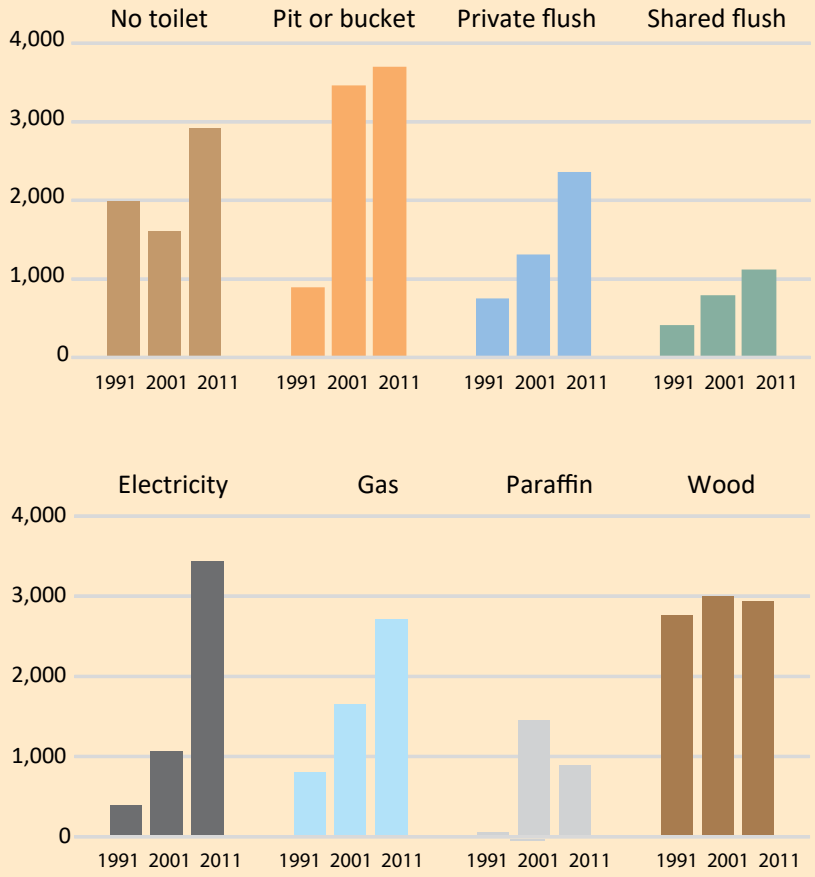


Figure 19: Numbers of Oshakati households using different kinds of toilets (top) and cooking fuel (bottom) in 1991, 2001 and 2011.

Pit latrines are widely used in Oshakati's informal settlements, providing a low cost solution to improve sanitation. These toilets were introduced to Oshakati in the 1990s by the Oshakati Human Settlement Improvement Programme (OSHIP) implemented by the Danish NGO IBIS. They are still being constructed today, but according to local sources the knowledge of how to build them is slowly disappearing. Almost a third (29%) of Oshakati's families use wood to cook, and another 9% use paraffin. The remaining 62% of the population rely mainly on electricity or gas.

A typical pit latrine design found in many of Oshakati's informal settlements.

5.3.3 Urban planning and development approaches of the Town Council

Informal settlement upgrading

Oshakati has made concerted efforts to control and upgrade informal settlements. It also has the distinction of allowing people to build permanent homes in informal settlements that have some structured layout. This anticipates the implementation of measures to upgrade those areas without significantly altering their physical structure. The living conditions of many informal settlement residents has been improved as a result of this pragmatic approach.

Upgrading efforts in Oshakati date back to the 1990s when the town experimented with the Flexible Land Tenure approach in the context of the OSHIP programme. Four settlements were upgraded during the project which aimed to improve livelihoods in the informal settlements. For example, Uupindi became semi-formalised after plots, house numbers, roads and open spaces had been provided. Infrastructure such as street lights was funded by the Danish Council, while other services were supplied by the Town Council. After OSHIP, the Oshakati Town Council continued to deliver land using various tenure arrangements. Four FLTS pilot areas were surveyed in 2000. However, in the absence of a legal framework for FLTS no starter titles were issued (Asperen 2014).

Provision of serviced land

Parallel to the upgrading of informal settlements, the Town Council recognized the need to increase the availability of low-cost erven to contain the further densification and sprawl of informal settlements. The area of Onawa (north-east of the town centre) was identified as suitable for this purpose, following which an initial layout was provided by a town planning consultant. The area has been selected as a pilot area for the FLTS.

Over the last three years, Oshakati Town Council serviced 2,210 plots, the highest number of any town in Namibia.[35] It also produced housing through the NHE and the Mass Housing Programme. While most of this housing has been for the middle and upper income market, the Town Council has demonstrated the ability and determination to implement urban development and land servicing projects on a large scale. The Town Council hopes that its application for an extension of town boundaries towards the north will be approved within the next two or three years.

Oshakati has put considerable effort into addressing the challenges of informal settlement growth within the framework of a broader urban development strategy. This has been achieved using two strategies: the upgrading of existing informal settlements and the (planned) delivery of low cost land to stem the uncontrolled growth of new settlements. Although challenges remain, Oshakati provides lessons to be applied in the wider urban development context in Namibia.

5.4 Windhoek

Windhoek is the national capital of Namibia, located in the centre of the country and at the cross-roads of major north-south and east-west trunk routes. The city is perched on the Khomas highlands at an altitude of about 1,700 meters. Colonial Windhoek was founded on 18 October 1890. Over the past 137 years the city has developed as the political, administrative, commercial and industrial centre of the country.

With 322,300 inhabitants in 2011, Windhoek then housed about one sixth of Namibia's population. It has the most vibrant economic and industrial development of all urban centres in Namibia, this being the major pull factor to attract in-migration. Apartheid era spatial segregation of its residents has been largely replaced by segregation based on wealth. Windhoek reflects Namibia's social and economic inequality, with business and upper income residential areas akin to any first world town juxtaposed with large informal settlements slighted by poverty, no tenure and limited services.

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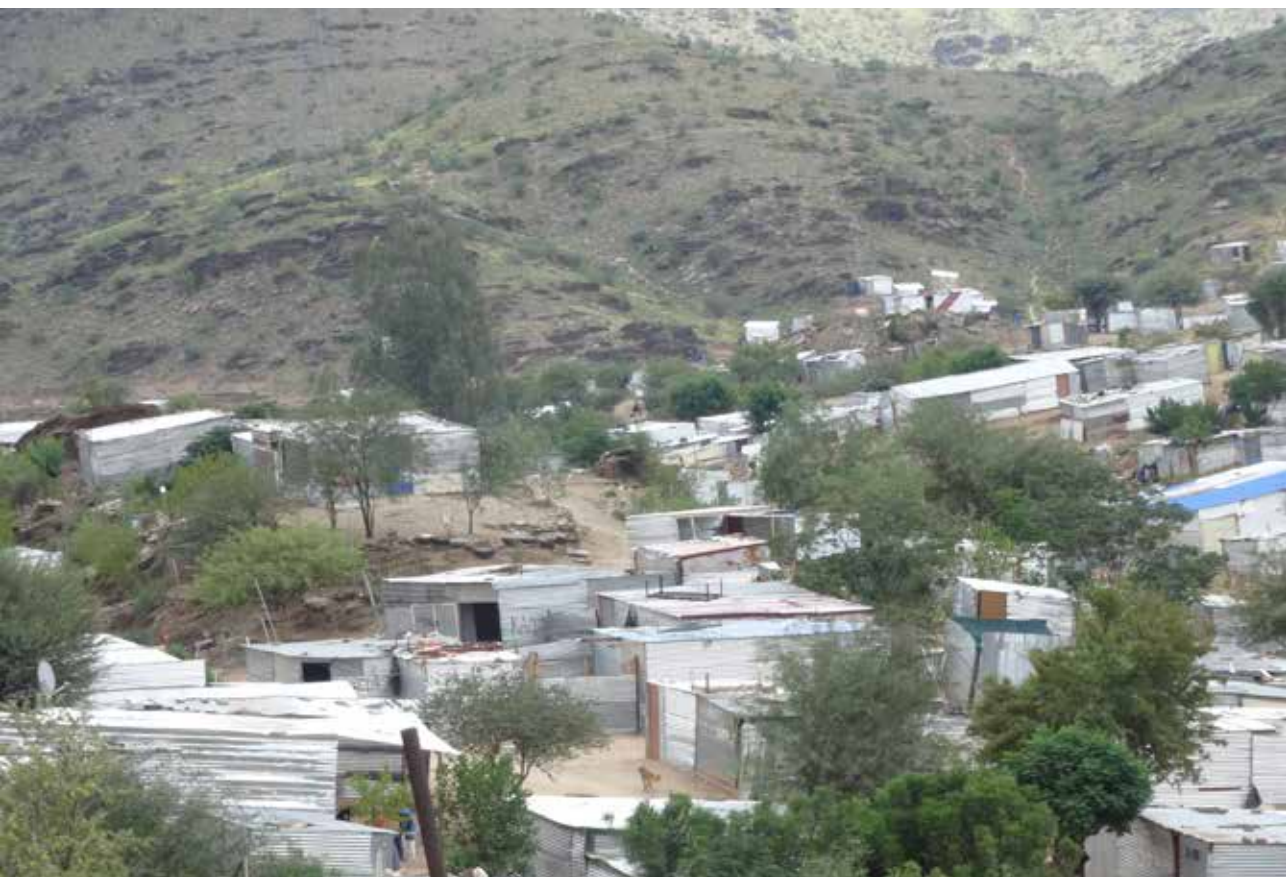
[35] Oshakati humiliates Windhoek on land delivery *(The Namibian, 19 June 2017) https://www.namibian.com.na/165913/archive-read/Oshakati-humiliates-Windhoek-on-land-delivery*

5.4.1 Informal settlement growth

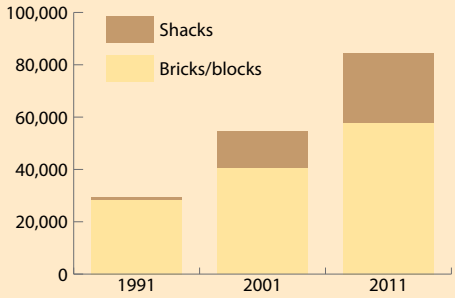
The city of Windhoek has grown rapidly since independence, from 141,562 inhabitants in 1991 to 322,300 residents in 2011, this being a total growth of 128% at an annual growth rate of 4.2%. At that rate, the population in 2017 would amount to about 413,000 people.

Much of this growth occurred in the city's informal settlements. While in 1991 only 3% of all houses in Windhoek where shacks, they made up about one-third (32%) of all homes by the time of the 2011 census.

Informal settlements were not tolerated during colonial times, and only began expanding after independence in 1990. Between 1991 and 1994, the City of Windhoek (CoW) established so called 'reception areas' to accommodate poor in-migrants temporarily, with the objective to relocate them to permanent areas once they were available. The reception areas soon became permanent, however, and informal housing within and beyond the reception areas grew rapidly (Nickanor 2013). Uncontrolled growth has dominated the expansion of Windhoek's informal settlements ever since.



Many informal settlements in Windhoek are densely populated, filling river valleys and sprawling across hillsides. The great majority of informal residents subsist in corrugated iron shacks.



Windhoek

	1991	2001	2011
Bricks/blocks	97%	74%	68%
Shacks	3%	26%	32%

Figure 20: The growth of formal brick or block houses and informal shack houses in Windhoek from 1991 to 2011.

During the last census period from 2001 to 2011, the number of formal block or brick houses increased from 40,640 to 57,742; an overall growth of 42%. By contrast, the number of shacks grew by 92% from 13,927 in 2001 to 26,736 shacks in 2011.

Should that growth rate continue, Windhoek can expect to have about 51,000 shacks four years from now in 2021, and then 99,000 shacks in 2031.

Low density urban sprawl west of Havana and north of Goreangab.

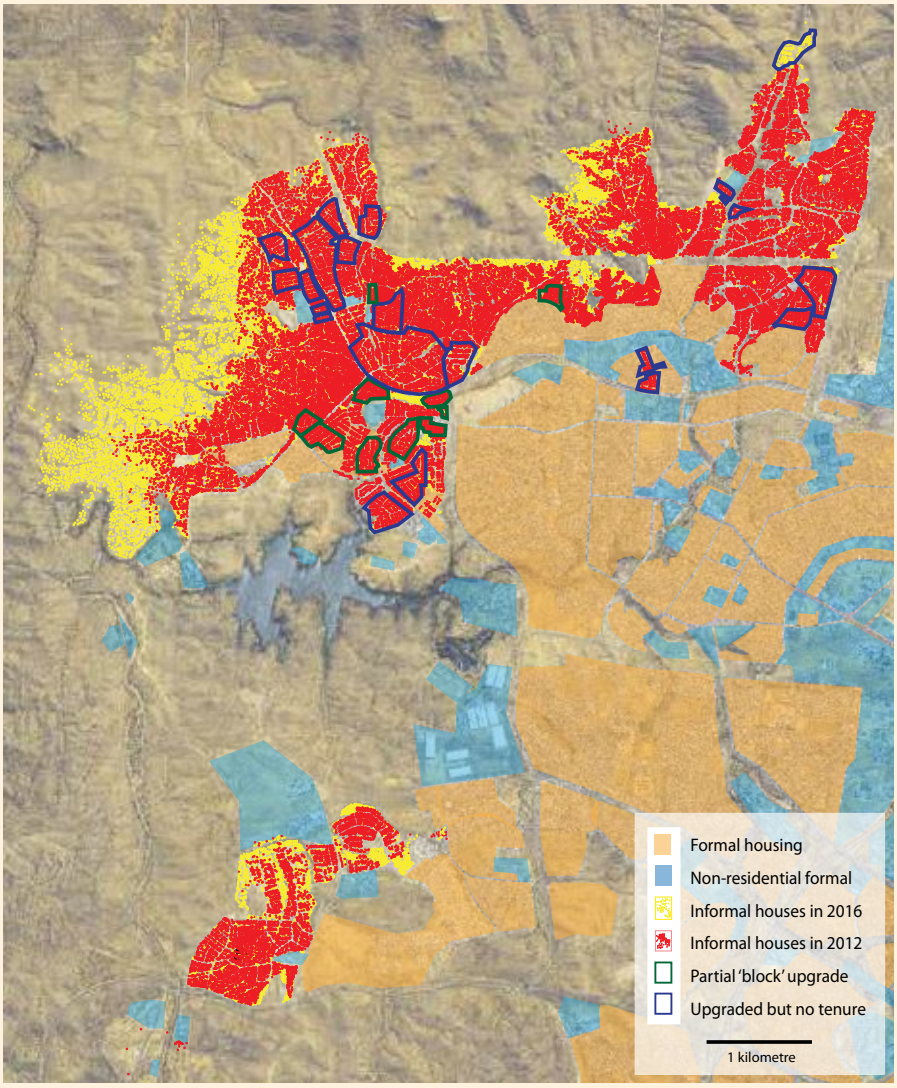
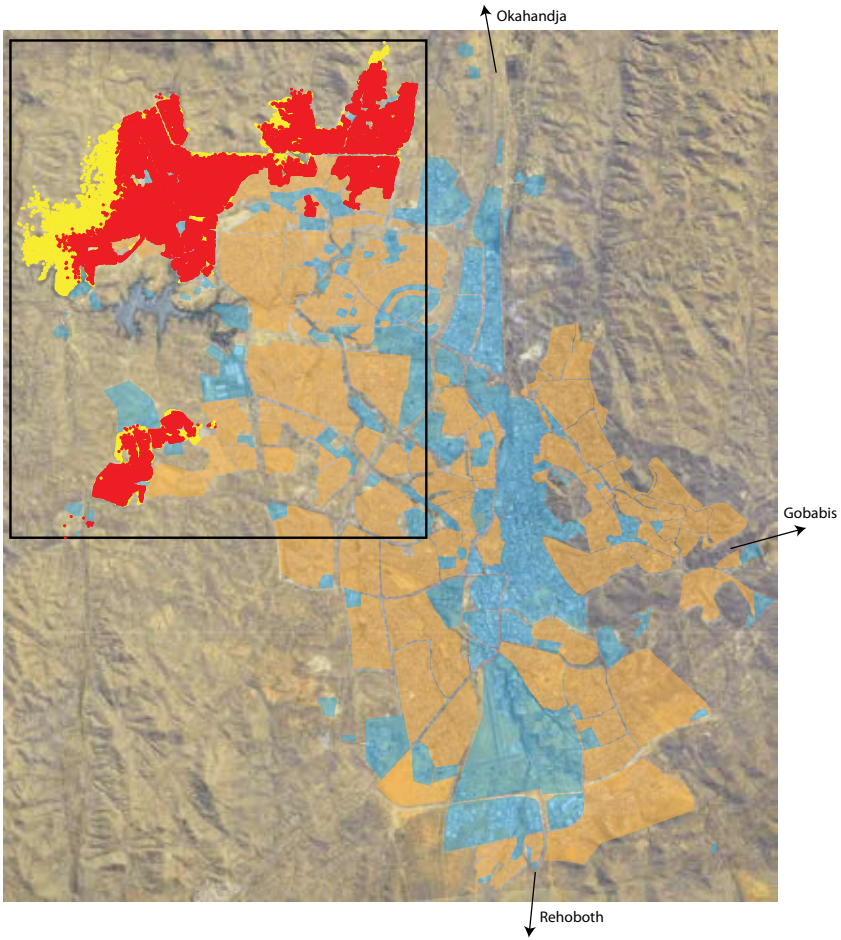


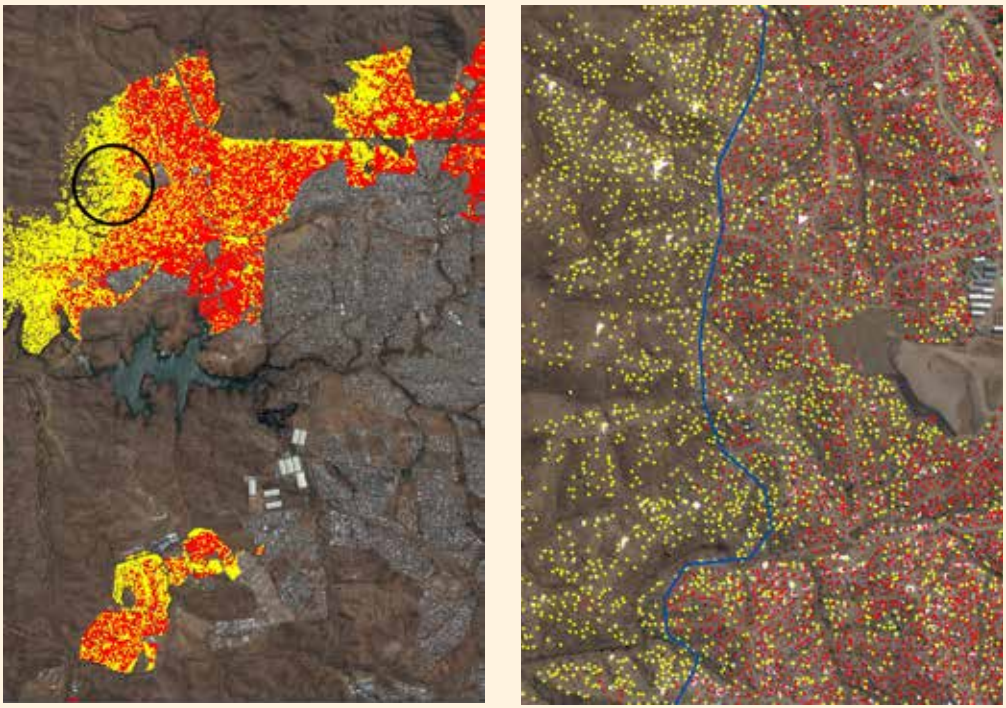
Figure 21. The city of Windhoek (inset on facing page) and the north-west of the city where all informal settlements are located, and in which certain areas have been upgraded to some degree. The areas in blue are block erven purchased by groups of residents, and which are registered by the Surveyor General. The internal subdivision of individual erven was done by the residents themselves and these individual erven are not registered. Nevertheless, once a group of residents has a purchase agreement for a block erf with the CoW, they are allowed to build with permanent construction materials. The areas upgraded by the CoW are planned and with different levels of services, but the areas are not proclaimed and residents to not have official titles for their erven. For both block erven and areas upgraded by the CoW, the City considers the Flexible Land Tenure System as the preferred option to provide tenure security.



The growth of Windhoek's informal settlements has taken place through two processes:

1. Urban sprawl caused by the building of homes outside built-up areas;
2. The densification of existing informal settlements as a result of new houses being built on small patches of vacant land within built-up areas.

As is clearly visible in Figure 21, a large percentage of informal expansion took place west of Havana and Goreangab. This sprawl, including smaller areas in the north of Okuryangava, accounts for approximately 40% of Windhoek's informal settlement growth from 2012 to 2016. Some 6,700 shack structures were counted in these areas. The remaining 60% (approximately 8,800 shacks) that were built during this period are within existing informal settlements, contributing to increased housing and population density.



The blue line indicates the western limit of informal houses in Havana in 2012, with the red dots representing shacks that existed at that time. All the yellow dots are for shacks identified in 2016. Clearly visible is the westward sprawl (left of the blue line) and the densification (yellow dots) within the area that had been partially settled in 2012.

5.4.2 Characteristics of informal settlements

Since independence, the CoW invested considerable resources to provide services to many informal settlement areas. Communal water points, shared flush toilets and access roads have been delivered on a large scale. Nevertheless, the growth of informal settlements has tested the City's capacity, and large areas remain with few, or no services.

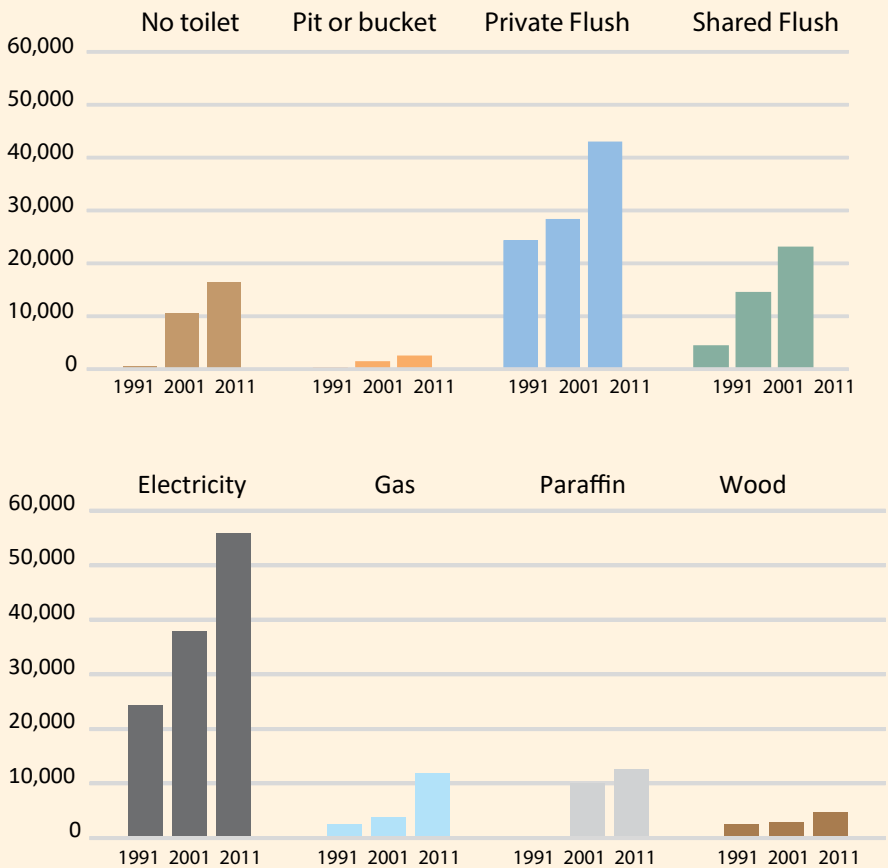


Figure 22: Numbers of Windhoek households using different kinds of toilets (top) and cooking fuel (bottom) in 1991, 2001 and 2011.

In 2011, 66% of the city's residents used electricity as the main source of energy, while the remaining 34% of residents mainly relied on gas, paraffin and wood. It can be assumed that most of these 34% are informal houses. And in 2011, 19% of Windhoek's families consisting of about 61,000 people did not have toilet facilities. This has serious implications for public health.

Shared flush toilets have been constructed in many informal settlements to provide basic sanitation. In some parts of Havana, for example, six families share a toilet on average. However, residents frequently avoid shared toilets because they are often dirty and unhygienic.

A shared flush toilet and communal water point in Havana.

Communal water points are a common feature in many of Windhoek's settlements. Water cards are often provided for free, and can be re-charged at local offices of the CoW, such as those in Ombili or Wanaheda. Twenty-five litres cost 40 cents in 2017, and according to some local residents N$50 may pay for water for a home of 4-5 people each month. That corresponds to roughly 25 litres per household member per day.

Solid waste is collected from centrally located dumpsters in many of Windhoek's informal settlements. The municipality provides refuse bags to residents on a weekly basis in certain areas, and also empties the dumpsters once a week. Some areas are insufficiently serviced, however, with the result that waste is dumped in the open.

Large areas of informal settlements in Windhoek lack electricity or street lightening, one reason being that the CoW's upgrading strategy (see below) does not allow for electricity to be provided to the lowest income residents.

5.4.3 Urban planning and development approaches of the City of Windhoek

Very little low-cost land has been made available to low income settlers. Rather, the CoW's main focus has been to upgrade certain existing informal settlements where considerable resources have been invested over the last two decades. The CoW also has extensive, detailed databases on many informal settlement areas, and regularly conducts household surveys, especially where the City is upgrading services and providing infrastructure.

Areas that have been upgraded in some way since independence are shown are shown on the map on page 76. Of the 56,000 informal housing structures (predominantly shacks) counted in 2016, about 14,100 or one-quarter were in areas that have either been upgraded by the CoW or where groups of residents have purchased a whole block erf from the City.

Upgrading activities are guided by the City's 'Development and Upgrading Strategy' published in 1999 (City of Windhoek 1999). Its key aspects remain:

- To focus on the low and ultra-low income population;
- To introduce services that are affordable for residents;
- To provide guidelines on upgrading of low and ultra-low income townships in terms of physical structure, land tenure and services;
- To provide guidelines for the promotion and facilitation of self-help development.

The document defines 'upgrading' as: "An action whereby an existing formal or informal settlement is regularized to provide a form of security of tenure or where new or additional municipal services are installed or a combination of these is pursued. An upgrading programme may comprise of various combinations, depending on the target community's needs, priorities and affordability levels."

In terms of service levels, the strategy has several guidelines, such as:

- **Ensuring minimal health standards:** in terms of service provision, convenience levels may be compromised, but not reasonable health standards;
- **Financial sustainability:** the costs of upgrading of informal settlements must be paid by users, except for the lowest income levels for whom subsidies from government are to be obtained;
- **Communal water taps** should be no further than 200 meters from the most distant household;
- **Sanitation:** encourage the installation of on-site sanitation systems by community members in all informal settlements;[36]

[36] *A sanitation system where the waste is treated at the site itself.*

- **Electricity** to informal settlements at Development Levels 1-3 (see Table 10) will not be provided, but investigations for alternative sources of energy for the poor are encouraged;
- **Community involvement and contribution** is strongly encouraged, especially for lower development levels to compensate for low affordability;

The City applies the strategy in different scenarios. For example, a community group (residents of a township or block of individual erven) may request additional services from the CoW. All households participating in such a request must be fully up-to-date with all payments for leases, erf loans and services before the request can be considered. And upgrading of services will only be considered if the community has purchased the land (block, without formal internal subdivision), or is willing to do so. The City then conducts a feasibility study, one element of which evaluates if there is a reasonable chance of recovering the cost of upgrading.

The strategy encourages the participation of organised self-help groups to purchase blocks of land, and to develop the land with their own resources. Self-help groups are obliged to implement at least Development Level 1 (see Table 10), but they can stagger implementation according to their financial capacity.

According to the upgrading strategy, future programmes for erf delivery will be based on this strategy. The need for land in each development level will be estimated on the basis of income data for the ultra-low income population. Thereafter, a land delivery strategy will be devised, which will include a programme to indicate the annual delivery of erven for each development level. The strategy encourages NGO involvement in areas such as alternative energy sources, skills training and the promotion of saving schemes.

Table 10: The six levels of development into which informal settlements are classified by the CoW.[37]

Development level (DL)	Income groups	Services	Land tenure	Percentage of population that can afford the services [38]
DL 0-3:	Ultra-low	• Communal services such as communal water points, shared flush toilets, pit latrines • Varying degrees of service provision: none/less at lower level, more at higher level • No electricity	• Lease • Purchase of entire blocks made possible • Sale of individual erven in upgraded areas	DL 0: 20% DL 1: 33% DL 2: 29% DL 3: 14%
DL 4	Low income	• Individual sewer connections • Street lights in main roads • Bin based waste removal	• Upgradable area • Sale of individual erven in upgraded areas	2%
DL 5	Low income	• Individual sewer and water connections • Street lights in whole township • Bin based waste removal	• Upgradable area • Sale of individual erven in upgraded areas • Provision of land for NHE housing	1%
DL 6	Medium income	• Fully serviced	• Individual erven	1%

According to the information in the table, most informal settlement residents in Windhoek can only afford services provided by Development Levels 0-3. Furthermore, only about 4% of all informal settlement residents will be able to afford services provided to Development Level 4 and above.

37 *This summarises information provided in City of Windhoek (1999)*

38 *Approximate percentage of residents, as per affordability table in the strategy document (City of Windhoek, 1999)*

Erven in many of the upgraded areas are smaller than 300 square metres. According to CoW officials, this makes settlement proclamation and the provision of secure tenure difficult, and seems to be the main reason why people are not allowed to build with permanent building materials in upgraded areas.[39] Many Windhoek informal settlements are so dense that residents would have to move elsewhere if the 300 square metre requirement was enforced. Where people could be relocated remains an open question, since low cost land is barely available in Windhoek.

The sizes of erven in dense informal settlements are extremely small. In the example of Havana Extension 7 (shown here), the average size of the mapped erven is about 100 square metres.[40] If an upgrading project where to provide residents with required 300 square metre erven, two-thirds of the residents would have to be shifted elsewhere.

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39 In the course of the research, this has been mentioned as a main reason why many upgraded areas have not been proclaimed to date. However, Town Planning Standards and Urban Design Guidelines for Principle Layout Plans (MRLGHRD 2013) explicitly state that "The Minister of Regional Government, Housing & Rural Development may approve smaller erven for informal upgrading projects or ultra-low income housing projects or other special justified cases." It is therefore not clear whether the CoW has fully explored this option, or whether this exemption policy may have since changed.

40 The properties were mapped on this image to illustrate the size of shack erven.

Windhoek's development levels provide a useful tool that other towns might use to classify informal settlements, and to identify levels of services that are affordable to the local population.

However, the City of Windhoek has not set aside low cost land where it can control the development of low income properties and housing. To date, almost all expansion has taken place without planning guidance, unlike the proactive measures applied by other towns. And without proactive planning, older settlements continue to densify rapidly, which makes upgrading ever more expensive and difficult.

If land for owner-built housing units is not provided on a substantial scale, massive public funding will be needed to subsidise other forms of housing for poor in-migrants. And if informal settlements carry on growing without planning, Windhoek will continue to build a legacy of missed opportunities, social inequality and economic inefficiency.

5.5 Otjiwarongo[41]

Otjiwarongo is the capital of the Otjozondjupa. It is situated in central-north Namibia, on the B1 road. The town was named by Herero people who first settled there, the name Otjiwarongo meaning 'a place where fat cattle come to graze'. The first German settlers arrived in 1900. Most other Namibians who migrated to Otjiwarongo before Independence, were separated into the Herero, Damara and Owambo locations, which together made up the settlement of Orwetoveni.

A railway built between 1903 and 1906 from Swakopmund through Otjiwarongo to Tsumeb helped the town become a prosperous regional and agricultural centre, and the biggest business centre in Otjozondjupa. With a population of 28,249 (2011 census) it is Namibia's 8th largest urban centre. The town has continued to develop and expand rapidly. The presence of the B2Gold Otjikoto mine (60 kilometres to the north) has had a positive economic impact on the town, with most of the mine's workers living in Otjiwarongo. A similar positive economic impact is expected from the Cheetah Cement Factory that will begin its operations in 2017.[42] Good schools and health care facilities, and economic development in Orwetoveni also attract people to Otjiwarongo.[43]

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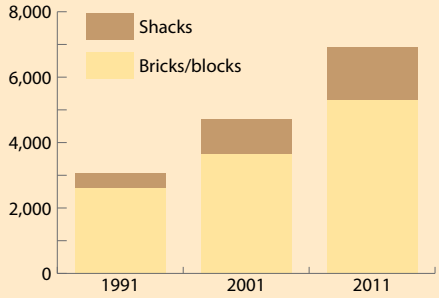
41 Despite several attempts, representatives of the Otjiwarongo Municipality were not available to meet with the DWN research team. The information provided in this chapter is therefore solely based on remote sensing, sources from the media and some information from a town planning consultant. Less information is available than for the four other towns and some data may have been misinterpreted. Nevertheless Otjiwarongo provides an interesting example of how the growth of informal settlements has largely been organised and planned.

42 200 Job Opportunities at Cheetah Cement Factory *(The Namibian Sun, 17 July 2017) https://www.namibiansun.com/news/230-job-opportunities-at-cheetah-cement*

43 Otjiwarongo services over 2 000 erven *(The Namibian Sun, 24 May 2017) https://www.namibiansun.com/news/otjiwarongo-services-over-2-000-erven*

5.5.1 Informal settlement growth



Otjiwarongo

	1991	2001	2011
Bricks/blocks	86%	78%	77%
Shacks	14%	22%	23%

Figure 23: Growth in the number of formal buildings (built of blocks or bricks) and informal shack structures from 1991 to 2011.

Otjiwarongo's informal settlement growth is almost exclusively at the eastern periphery of Orvetoweni. Many older informal areas mapped on the 2010 image show characteristics of formal low income areas. They have houses built with bricks and have some level of service provision. As is the case in Oshakati, Otjiwarongo's informal settlements therefore include a considerable percentage of houses built with permanent construction material.

On the 2010 image, the roof top mapping counted 3,761 housing structures in the town's informal areas. This number must be seen as indicative since many mapped structures are backyard structures attached or next to bigger houses on the same erf. On the 2016 image a total of 7,159 housing structures were mapped, most shacks being found in the more recently occupied areas.

The growth of informal housing in Otjiwarongo has therefore been considerable, with some 3,400 housing structures added from 2010 to 2016, at an average of about 560 informal housing structures per year. More than 87% (some 6,251 structures) of the informal structures mapped however are located in planned and structured areas. Levels of services vary among the different informal settlements.

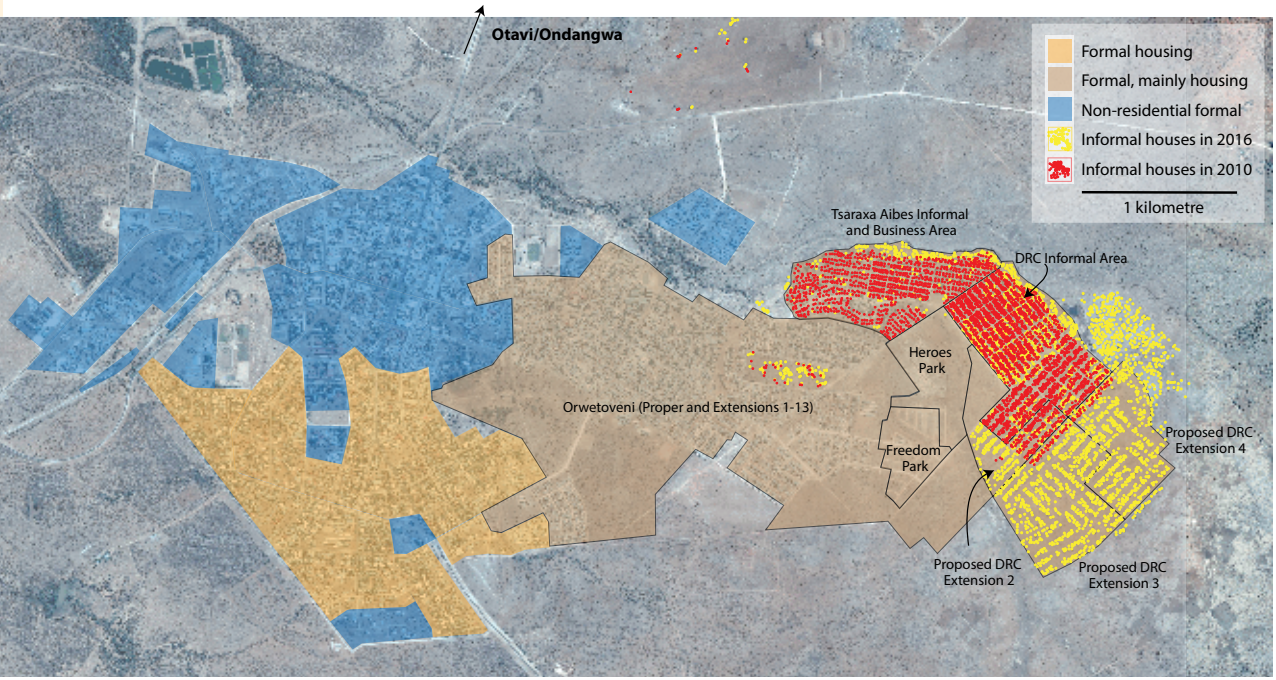


Figure 24: Satellite image of Otjiwarongo taken in 2016 showing the location of informal houses mapped in an earlier image from 2010 and then in 2016.

An aerial view of the DRC informal settlement in the east of Orvetoweni, showing the road network and planned structure of the settlements in the proposed DRC Extensions 3 and 4.

5.5.2 Characteristics of informal settlements

As in many other towns, access to basic services is limited in the informal settlements. According to census data, slightly more than one third of homes use wood as the main source of cooking. About half of the town's residents have access to private or shared flush toilets, while the other half use pit or bucket latrines or the 'bush'. The use of pit and bucket latrines increased considerably from 2001 to 2011.

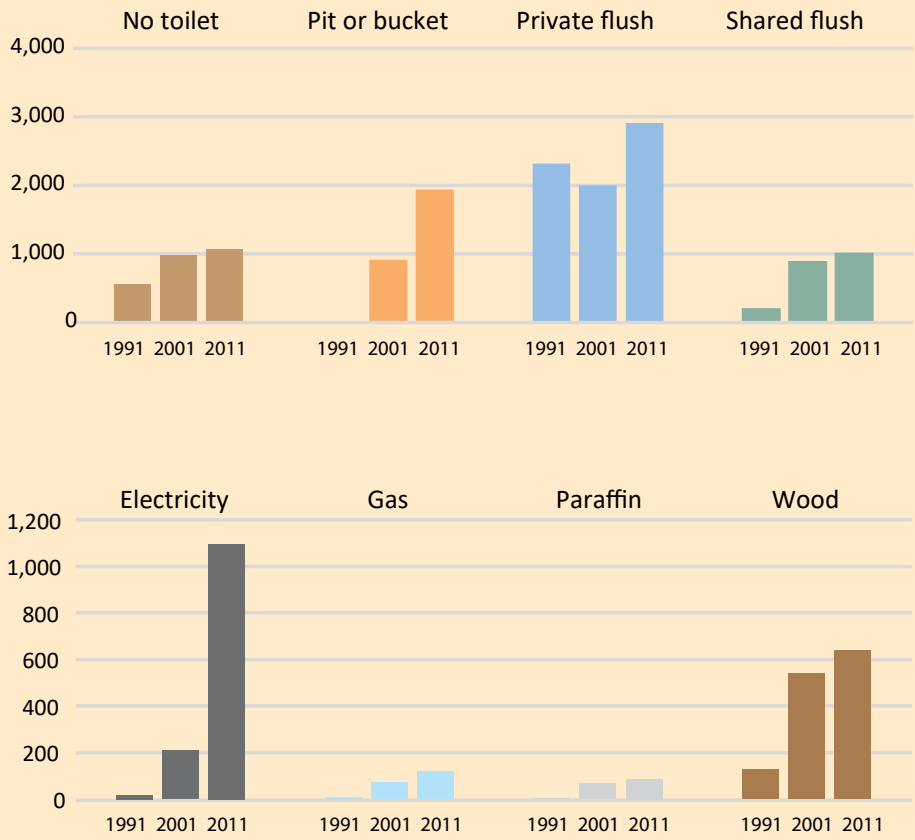


Figure 25: Numbers of Otjiwarongo households using different kinds of toilets (top) and cooking fuel (bottom) in 1991, 2001 and 2011.

Many of the formal Orvetoweni extensions are currently being serviced. According to media reports,[44] servicing of erven has been completed in Freedom Park, while the servicing of land is nearly complete at Heroes Park. Both Heroes and Freedom Park homes form part of the Mass Housing Project and are serviced with government aid. Both areas are earmarked for subsidised low-cost houses and can be considered formal low and middle income residential areas. Three other extensions that have existing housing developments in Orvetoweni are also being serviced.

An old, low income house in Orvetoweni

No information could be obtained on levels of servicing in the DRC informal settlement. However, some of the DRC informal areas now seem not to have services, while other areas have basic level of services.

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44 Otjiwarongo services over 2 000 erven *(The Namibian Sun, 24 May 2017) https://www.namibiansun.com/news/otjiwarongo-services-over-2-000-erven*

Housing developments in Heroes Park

In some areas of the DRC informal settlement residents have begun construction using permanent building materials.

Most of the informal settlement expansion has been planned with a basic road network.

5.5.3 Urban planning and development approaches of the Municipality

Otjiwarongo has kept considerable control over informal settlement expansion by demarcating and allocating an adequate number of un-serviced or minimally serviced erven to in-migrants. The existing road network is certain to facilitate the upgrading of services over time. The layout plan was apparently provided by an external town planning consultant while in-house staff of the municipality surveyed the erven. The municipality apparently also experienced some challenges in controlling land use in these newly planned areas of the DRC informal settlements, with many public spaces having been invaded and occupied for residential purposes.

A communal water point in the DRC informal settlement

6 Conclusions and recommendations

The rapid growth of disorganized informal settlements has been identified as the biggest challenge to confront Namibian towns. A major reason why informal settlements expand so much – and in such a disorderly fashion – is that the formal land supply system and market does not serve the needs of low income Namibians. As a result, they have no option but to acquire land informally and to build informal homes. They are forced to become participants in the informal market of informal settlements.

However, examples from the towns described in this book show how local authorities can provide low cost solutions that indeed enable poorer Namibians to become land and home owners. They also show that much can be done within the current legal and administrative framework. Legal and administrative inadequacies are not excuses for inaction.

6.1 The dynamics of informal settlements

The research reported here has shown that a great diversity of social and economic conditions exist in informal settlements. Some areas are decades old, others barely one or two years of age. The presence, absence or condition of different services in the settlements is highly variable. Most people are poor, many extremely poor, but there are also many residents that are much wealthier than their humble surroundings suggest. The more informal settlements are studied, the harder they are to typecast.

Consider these two scenarios, which exemplify and contrast many of the informal situations described in previous chapters. The first is a disorganized, unstructured and dense aggregation of corrugated iron shacks. Converting this into a proclaimed township where residents enjoy the benefits to be had in formal urban areas is a massive challenge. Families need to be relocated, houses demolished, new road alignments planned and made, plots surveyed and demarcated, sewer and water pipes laid, electricity lines strung, open spaces created for services and recreation, and so forth. All these activities are costly, and often lead to volatile anger from people who resent being moved. And only once all these steps have been completed can residents begin to build permanent homes, begin to feel that they have secure tenure, and indeed have certification to prove that this is their land, and their homes.

The conversion of dense, disorderly informal into formal, secure and serviced settlements requires the involvement and payment of a variety of people: land surveyors, local government staff, local authority councillors, labourers, suppliers of materials, engineers of many kinds, town planners, members of NAMPAB, the Townships Board, MURD staff, *et cetera*. The considerable costs need to be recovered, if not from public funds then from the residents of the new formal township.

At best, developing such informal settlements happens slowly. At worst, nothing happens. In between, steps to make improvements may be taken. Some are systematic, other steps are piece-meal, but all are well-intentioned. However, further improvements towards formality are blocked by legal or policy obstacles. Small erven are prohibited, permanent homes may not be built, tenure is disallowed, roads cannot be provided, private water and toilet connections cannot be installed, or street lighting is considered too expensive.

Here is the second scenario. The need to accommodate newcomers and allocate them land on which they can build their lives incrementally is anticipated. An open area is identified, and the layout of roads, plots and areas for services is planned, surveyed and pegged. Newcomers are given plots, and the registration certificates provided by the local authority serve as proof of ownership, at least in *de facto* terms. Residents are confident land holders, they start to build permanent homes, and local authorities have the confidence to begin providing services as and when funds allow. Lease or service fees are paid by residents in the knowledge that they have a future. The money paid will be to their eventual benefit. Sewer and water pipes will be laid along the original roads, and a school can be built on land set aside for that purpose some time ago.

Eventual proclamation as a formal township may take many years. But residents and local authorities can invest for their own and mutual benefit, rather like a public-private-partnership. The status of the area will be informal initially, but its character will be well developed, secure and eventually fully serviced.

6.2 Gaining control over informal settlement expansion

Several principles emerge from the examples of towns controlling the development of informal settlements in Chapter 5:

1. To provide housing for the poor, land is provided at prices the poor can afford;
2. The land is in properly planned and surveyed townships that can one day be readily proclaimed;
3. Services can be kept to a minimum at the beginning, so that the cost of land is low, but the land is upgradable over time;
4. Low income residents are allowed to build homes by and for themselves, at their own pace.

If land is provided at affordable prices, low income residents can pay for it, and the need for subsidies is minimised. This makes the approach financially sustainable and expandable. A properly planned, and surveyed erf with minimal services can be provided for N$10,000 or less. A high percentage of informal settlement residents can afford these amounts.

If affordable land can be provided to the urban poor on a cost recovery basis, opportunities arise for private sector engagement to finance the development of low cost land. This could happen in the same way that private developers collaborate with local authorities to provide costly serviced erven and housing for the middle and upper income market.

Since profit margins for low cost land delivery would be small, private sector Corporate Social Responsibility (CSR) programmes could provide funding to specialist not-for-profit organisations to provide technical and project management assistance to local authorities. Investments of public funds made by government and local authority can then be kept to a minimum, and better used to provide costly bulk infra-structure.

6.3 Importance of tenure security for social equity and economic efficiency

Urban centres epitomise Namibia's extreme social and economic inequality. While middle and upper income residents in Namibia's towns have property rights and high standards of services, the residents of informal settlements do not own their land, cannot invest in it, and often have no services.

It is a simple fact that the absence of tenure security prohibits a large percentage of informal settlement residents from building permanent homes. The direct result is that about one fourth of Namibia's population is obliged to live in shanty shacks under deplorable conditions. Even if they have the money to build with permanent construction materials, the law does not allow them to do so.

In dense, disorganised informal settlements, the prohibition on building permanent structures can be understood as a measure to keep open options for upgrading. It is indeed much easier to upgrade an informal settlement with shack structures (that can be relocated) than one with brick houses. This however adds weight to the need for informal settlements to be upgraded with the greatest urgency so that temporary shacks do not become permanent homes.

It was surprising to find that families in many areas that had been upgraded by local authorities were still unable to have secure tenure. They had to continue living in shacks, as a result. Tens of thousands of residents live in such upgraded, but un-proclaimed settlements. Legal and administrative procedures force this segment of the population to live in shacks, and without access to the economic benefits of having investments secured in land. While these policy prohibitions remain in place, the Flexible Land Tenure System may provide a solution. In any case, the nature and scale of the problem calls for urgent attention, given that the livelihoods of many could be improved rapidly by removing a simple obstacle.

6.4 Recommendations

The challenges related to existing informal settlements and their continued rapid growth in Namibia are enormous. However, compared to many other countries in southern Africa, Namibia's informal settlements are relatively small, and there is considerable local institutional and technical capacity to manage the challenges effectively.

A general recommendation:

Returning to the two scenarios described at the start of this chapter, all possible proactive steps should be taken to avoid establishing settlements that fit the first scenario: disorganized, unstructured and dense shanties of corrugated iron shacks. Conversely, steps taken towards creating the second scenario are to be encouraged: ordered settlements where low income residents own their land, can build permanent homes and look forward to the incremental provision of services. These steps require proactive planning of informal settlements *before* people settle there.

Recommendation 1: Focus on the provision of land, not housing

To address the housing crisis of Namibia's low income urban residents, the focus should shift from the provision of housing towards the provision of affordable land. The construction of houses should be left to the residents, allowing them to build at their own pace, with a minimum of obstacles and a maximum of encouragement. Government and local authorities should supply land with a minimum of cost and at maximum speed.

Recommendation 2: Gain control over informal settlement expansion

Gaining control over informal settlement growth should be a priority for any town in Namibia. This requires a supply of properly planned and affordable low cost land.

Recommendation 3: Support innovative, proactive and pragmatic approaches of local authorities

Local authorities are the key actors that manage urban development in their areas of jurisdiction. They normally identify local challenges long before anyone else, and they are often the first to produce innovative and pragmatic solutions. These local initiatives and answers should be supported by government, NGO's and the private sector. Specific support should also be provided to help local authorities:

- Manage the complex, and often lengthy township proclamation process;
- Manage projects to provide low cost land or upgrade existing informal settlements;[45]
- Promote aspects of social inclusion, economic efficiency and environmental sustainability.

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[45] *The management of planning consultants, land surveyors, EIAs, the selection and registry of new erf owners, and maintaining control over newly developed areas often pushes the capacities of local authorities to the limit.*

Recommendation 4: Accelerate the provision of tenure in structured or upgraded informal settlements

Many informal settlements are ready to be proclaimed, having planned physical structures and demarcated erven, for instance. Without any additional funds the settlements could be proclaimed by removing administrative obstacles that stem from current policy. A national inventory of settlements that are ready for proclamation should be assembled, and their proclamation fast-tracked by MURD.

Recommendation 5: Attracting private sector investment

The provision of low cost urban land can be done on a cost recovery basis, therefore facilitating private sector involvement, while safeguarding real benefits for local authorities. Land can be supplied with minimal use of public funds by government, as is the case with the development of middle and upper income housing.

Recommendation 6: International donor funding and CSR support for upgrading projects

Many dense and unstructured informal settlements cannot be upgraded without significant resources. Scarce public funds should be assigned to such areas, and used to leverage additional funding from international donor organizations and CSR funds from the Namibian private sector.

Recommendation 7: Turning rapid urbanisation and the creation of new townships into an economic opportunity for Namibia

The development of Namibia's rapidly growing towns should be guided by principles of social inclusion, economic efficiency and environmental sustainability. Planning provides opportunities to create new townships that are conducive to the economic and social needs of its residents, and the town and the nation. Migrants from impoverished rural areas need homes that provide them with confidence, services, security and long-term outlooks to be economically productive. The integration of low income residents into the formal land market will also raise public funds from rates and taxes for the betterment of all.

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