

1. SOCIO-ECONOMIC PROFILE

The ZDM is the Water Services Authority (WSA) for the entire district in terms of Section 1 of the Water Services Act, 1997¹. In order to efficiently plan the development of water services in the DM's jurisdictional area it is necessary to determine the existing or current situation with respect to water and sanitation supply. This Section presents and identifies, both visually and statistically, the physical and consumer profile within the DM.

1.1 Demographics

The current consumer profile of the district is indicated in Table 1.1 (a) below:

Table 1.1 (a): Current consumer profile (units)

LOCAL MUNICIPALITIES	DOMESTIC	INDUSTRIAL / BUSINESSES	FARM HOUSES	TOTAL
AbaQulusi	15 283	1 947	-	17 230
eDumbe	5 157	336	-	5 493
Nongoma	1 239	483	-	1 722
Ulundi	5 520	638	-	6 158
uPhongolo	3 557	576	-	4 133
Total (urban)	30 756	3 980	-	34 736
AbaQulusi	24 752	-	267	25 019
eDumbe	11 524	-	199	11 723
Nongoma	36 932	-	-	36 932
Ulundi	31 803	-	42	31 845
uPhongolo	21 221	-	358	21 579
Total (rural)	126 232	-	866	127 098
Total	156 988	3 980	866	161 834

Present population and projected population growth rates:

Population and economic growth rates are used to determine future developmental requirements within the ZDM. This determines the required increase or decrease in water services. Non-domestic consumer unit growth, particularly commercial, industrial and agricultural growth, also gives an indication of the expected increase in water demand and associated wastewater flow discharges. Factors that affect population growth rate include:

- Immigration due to displaced farm labour, land restitution and declining job opportunities in neighbouring provinces;
- Emigration to urban centres or outward migration from the region in search of job opportunities; and
- The HIV/AIDS epidemic that is predicted to seriously affect economically active persons (18-45 years). Full-blown AIDS sufferers who are unable to continue working may return home to the rural areas. This may be an internal urban/rural shift, or migration from urban areas outside the DM. With the prevalence of HIV/AIDS, especially in KZN, it is important to ensure adequate water services provision in the rural areas.

¹ Act 108 of 1997 as amended.

A comparison table between households captured from 2009-2011 aerial photography and the STATSSA Census 2011 data can be reviewed in Table 1.1(b) and (c):

Table 1.1 (b): Census household and population figures

Local Municipality	Households 2011 (Domestic & Farm Houses)	Average Population per household	Population
AbaQulusi	43,299	4.9	211,060
eDumbe	16,138	5.1	82,053
Nongoma	34,341	5.7	194,908
uPhongolo	28,712	4.4	127,238
Ulundi	35,198	5.4	188,317
ZDM	157,748	5.1	803,575

Table 1.1 (c): ZDM households and previous population figures

Local Municipality	Households 2009-2011 (Domestic & Farm Houses)	Previous ZDM Average Population per household	Population
AbaQulusi	40,302	6.763	272 562
eDumbe	16,880	6.763	114 159
Nongoma	38,171	6.763	258 150
uPhongolo	25,136	6.763	169 995
Ulundi	37,365	6.763	252 699
ZDM	157,854	6.763	1 067 567

Although the above ZDM household count per local municipality differ up to 10% from the Census 2011 households, the total households for ZDM differ with only 106. However, the Census 2011 households for KwaZulu Natal has an omission rate of 16.5 %, as depicted in their Statistical Release.

With the discrepancy in the Census 2011 omission rate taken into account, as well as the fact that all ZDM demographic details are spatially analysed based on household points, the ZDM household data set is more appropriate for use by ZDM than the Census 2011 household count. The household counts for ZDM are therefore reflected in Table 1.1(c).

However, since the Census 2011 has more verified population per household figures, the Census 2011 population figures will be used. Population figures are only available per local municipal area, but revised population figures per EA area will be provided in the WSDP once these figures have been released by STATSSA.

The final household count of ZDM, with the population figures from Census 2011, are therefore reflected in Table 1.1(d) as current demographic figures for ZDM until the EA area statistics are available for more accurate population figures.

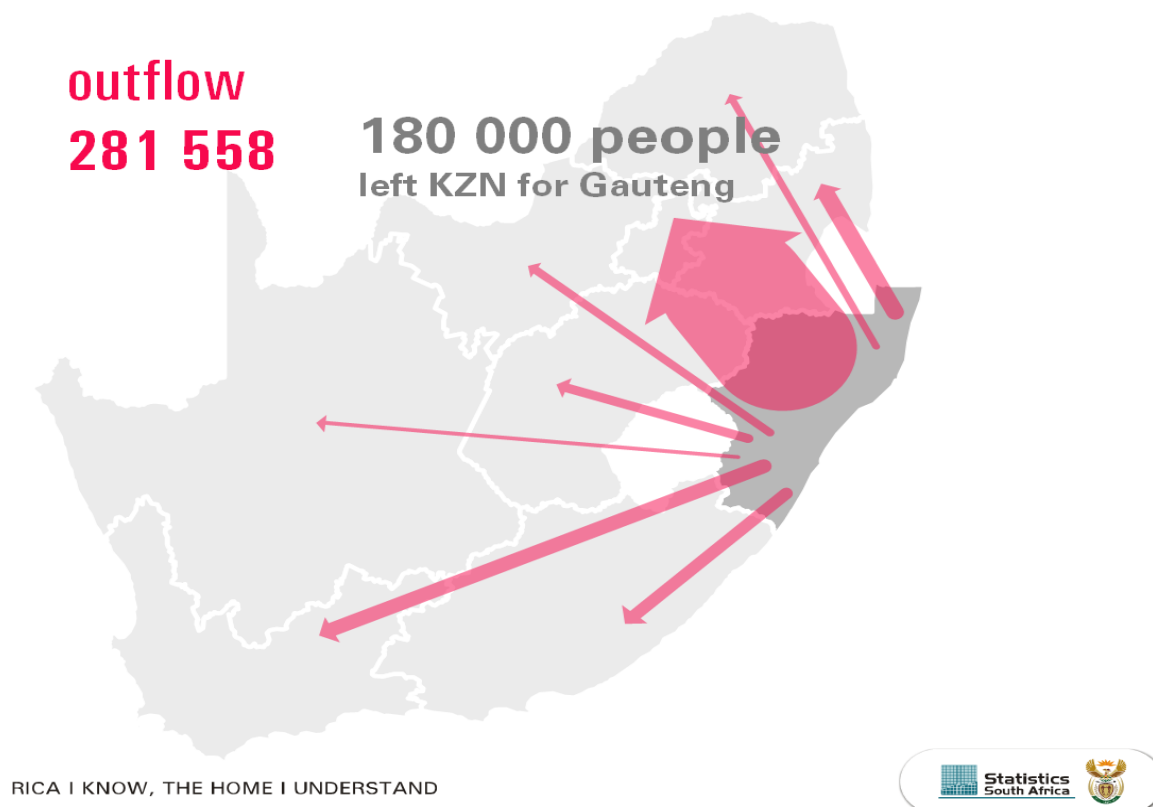
Table 1.1 (d): ZDM demographics

Local Municipality	Households (ZDM)	Average Population per household (Census 2011)	Population
AbaQulusi	40,302	4.9	197 480
eDumbe	16,880	5.1	86 088
Nongoma	38,171	5.7	167 952
uPhongolo	25,136	4.4	212 981
Ulundi	37,365	5.4	135 734
ZDM	157,854	5.1	805 055

Since the average population per household is much lower than the original ZDM figure, there is a significant reduction in the population figures. This is however not due to a physical decrease in population but simply a more accurate figure based on the Census 2011 population data.

According to Census 2011, the population growth rate for ZDM from 2001 to 2011 is only 0.3%. This may either be contributed to the negative influence that illnesses such as HIV/AIDS has, or it may be the result of migration where younger persons are leaving rural homes and living on their own in cities where they study, or in more urbanised areas away from their rural homes where job opportunities are more readily available. The migration factor can be seen in the STATSSA's statistical release document, where a strong tendency exist specifically towards migrating from KZN to Gauteng:

Figure 1.1 (a): Migration trends for KZN (Source: STATSSA)

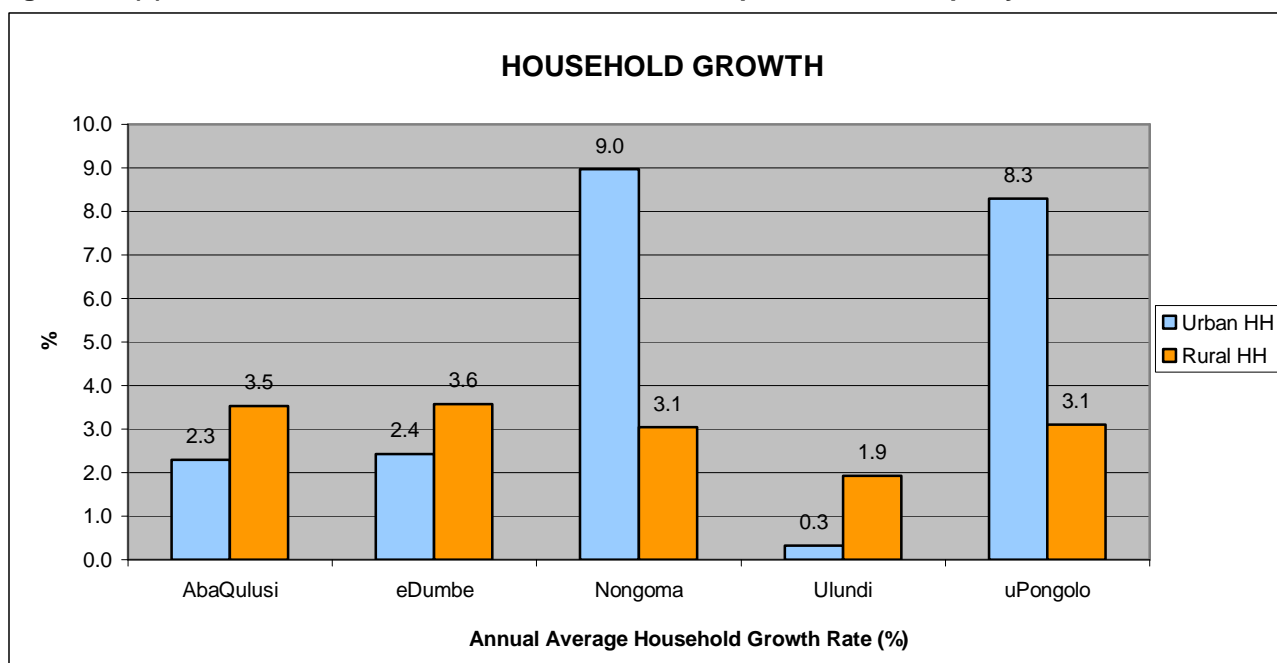


Demographic trends and migration patterns:

Demographic trends and migration patterns are difficult to predict, but when comparing household data from aerial photography during 2005/6 with aerial photography during 2009-2011, there appears to be some migration from rural areas to the various urban centers in the district, as well as areas where infrastructure is provided. This is consistent with the reality that can be seen in the field.

The following graph show urban and rural percentage household growth per LM in the district over a 4 year period between 2005/2006 and 2009-2011.

Figure 1.1 (c): Annual Urban and Rural Household Growth per Local Municipality



Data derived from 2005/2006 and 2009-2011 Aerial Photography

Figure 1.1 (b) shows average growth in urban and rural households for AbaQulusi and eDumbe, with the lowest growth rates in Ulundi. Nongoma shows a high growth rate in urban areas, which is due to an influx of houses at the northern part of Nongoma Town boundary. In uPhongolo additional houses in Ncotshane township has caused a high increase in households.

Growth trends per local municipality can be summarised as follows:

- **AbaQulusi**

Negative growth in the rural areas as well as Enyathi town, with strong positive growth in all other urban areas.

- **eDumbe**

Negative growth in the far eastern rural area with strong positive growth in the eDumbe and Frischgewaagd / Bilanyoni townships.

- **uPhongolo**

Negative growth in the rural farming areas, but strong positive growth along the N2 from Pongola town to Belgrade township.

- **Nongoma**

Average positive as well as negative growth throughout the area, with strong growth around Nongoma and the Mona market area.

- **Ulundi**

Average positive and negative growth in the rural areas, but with strong growth around Ulundi town.

The 2011 Enumerated Area (EA) Census details is said to be available during April 2013. This will allow the ZDM to compare its demographic analysis with that of the 2011 Census, especially in terms of actual population trends, which cannot be obtained from aerial photography. According to an overview on KZN done by STATSSA, rural-urban migration remains a "**growing phenomena**".

In Figure 1.1(c) the 2009-2011 household count per square kilometer was compared with the 2005/2006 household count. This clearly confirms the above statement from STATSSA that there is a strong migration from rural areas to urban areas (especially former township areas), or areas where infrastructure are available.

Figure 1.1 (b): Demographic trends and migration patterns in household



Settlement types:

Existing settlement types as indicated in the provincial WSDP guidelines is summarised in the table below.

Table 1.1 (e): Settlement Types for ZDM

Class	Settlement Type	Nr of Settlements	Total households
URBAN	Urban - Ex Homeland Town	13	9 349
	Urban - Formal Town	4	4 852
	Urban - Former Township	4	14 308
	Urban - Service Centre	11	1 438
	Urban - Squatter Camp	1	336
	Urban - Working Town	6	1 303
RURAL	Urban Fringe - Informal Settlement	19	9 573
	Per-Urban - Squatter Camp	1	232
	Rural - Formal Dense <5000	35	9 484
	Rural - Formal Dense >5000	2	2 940
	Rural - Scattered Dense	6	2 319
	Rural - Scattered Low Density	51	7 690
	Rural - Scattered Very Low Density	969	81 727
	Rural - Scattered Farming households	N/A	12 303
TOTAL		1 122	157 854

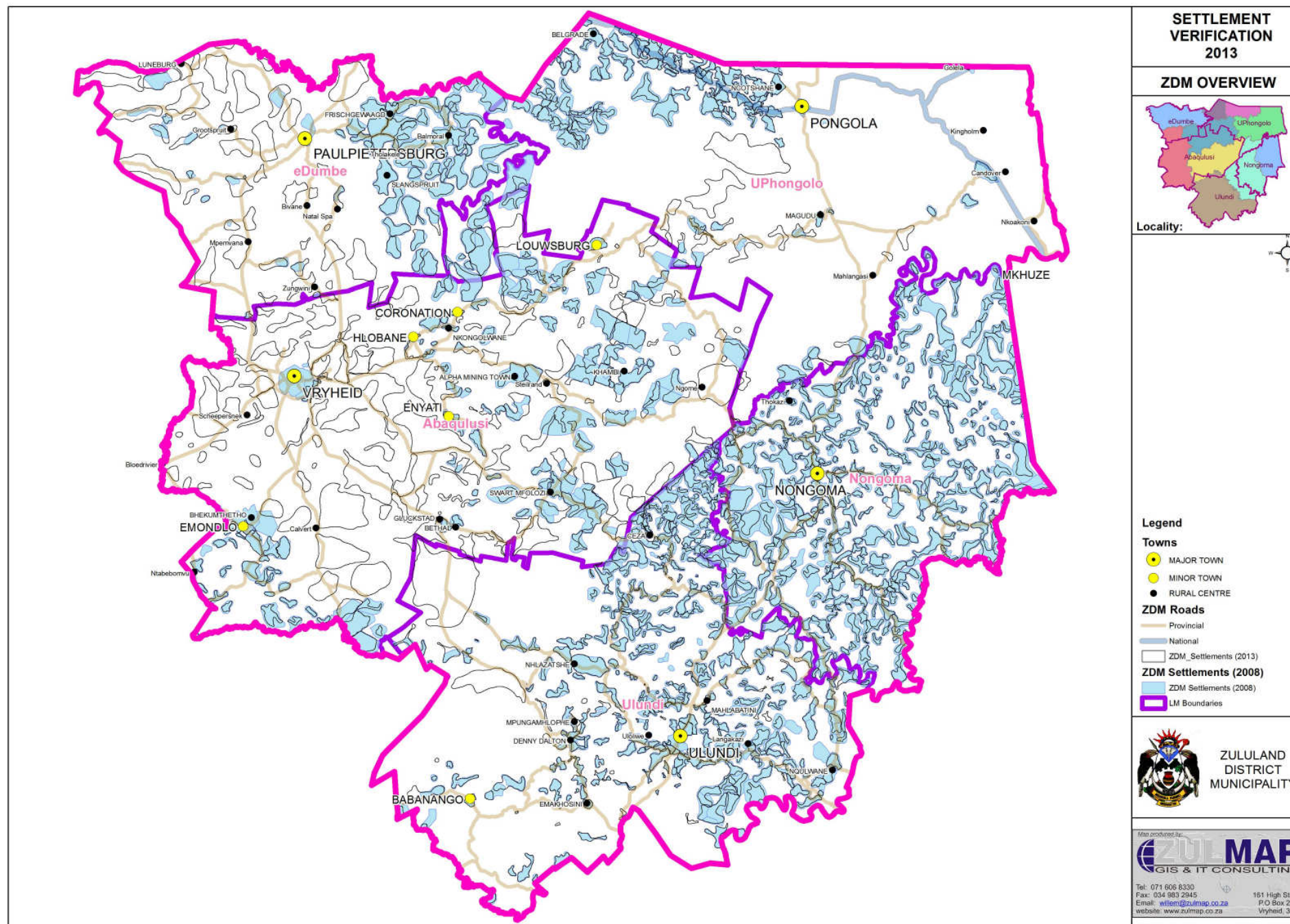
ZDM has undertaken a settlement verification process to verify settlement names, boundaries settlement extensions as well as water and sanitation level of service on household level. This process was completed in April 2013, and details will be incorporated in the next WSDP review. Table 1.1f summarises the location of the new settlements:

Table 1.1 (f): Settlement Types for ZDM

Settlement Location	Nr of Settlements
Urban	27
Communal Property	27
Land Reform Areas	75
State-owned	26
Tribal Areas	857
Private Land	233
TOTAL	1 245

A comparison map between the 2008 and 2013 settlements can be seen in Figure 1.1d.

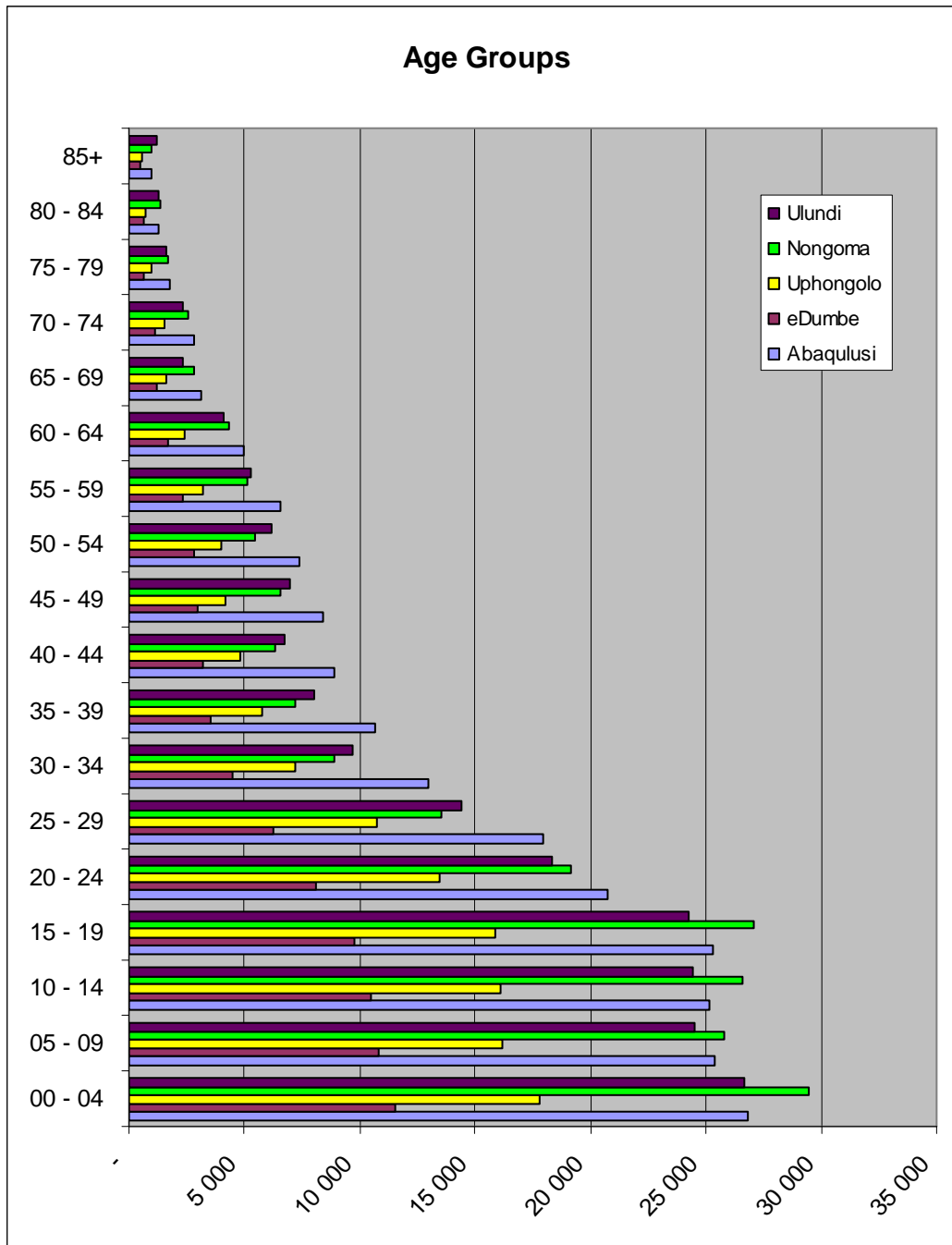
Figure 1.1(d) Settlement Map



Age and gender profile:

The age characteristics of the District's population are shown in the table hereunder:

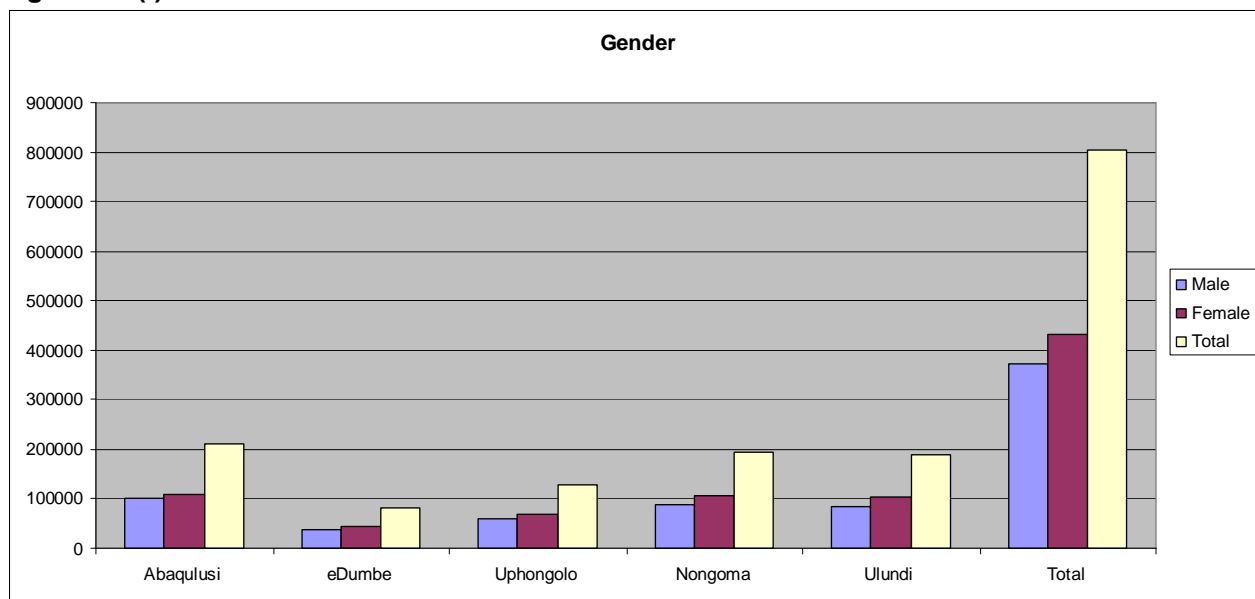
Figure 1.1 (e): Age Groups Breakdown



Source: Census 2011

It is evitable that the majority of population is between the age of 0 to 19. This may be contributed to school students leaving their homes to study or look for work opportunities.

Figure 1.1 (f): Gender Breakdown



Source: Census 2011

The male and female population is very close to one another, with the biggest difference in Nongoma and Ulundi.

1.2 Health

Water is the essence of life. A person requires a sufficient quantity of good quality water to maintain a state of good health; therefore the provision and quality of water services is required to ensure a sufficient standard of health and hygiene. The quality of water supplied must be sufficient to maintain good health, and sanitation services must provide households with hygienic conditions that will not harbour disease. Figure 1.2 (a) and Figure 1.2 (b) below indicate the current status of water and sanitation services at hospitals and clinics in the district:

Figure 1.2 (a): Current status of water services at clinics and hospitals in the district

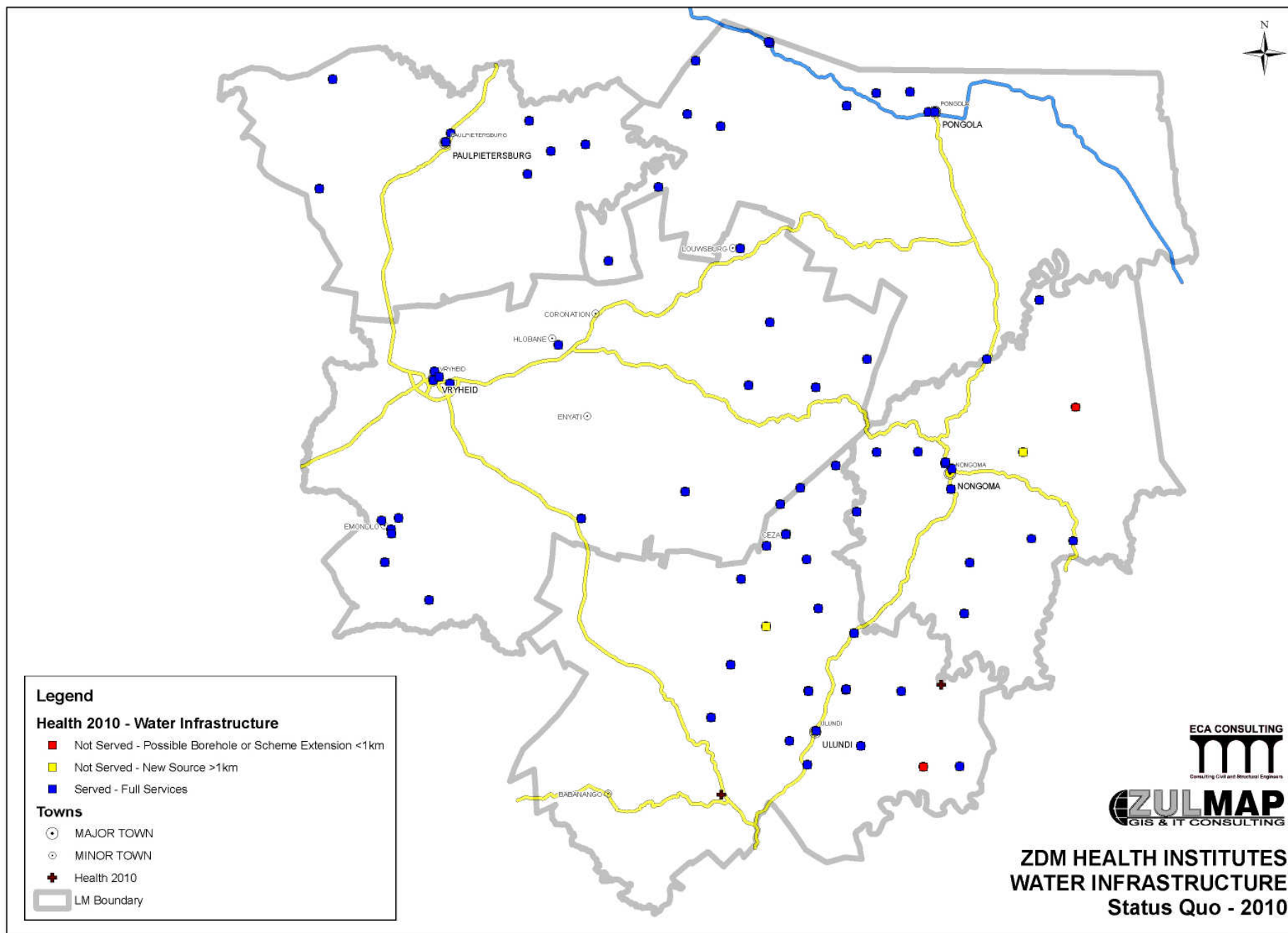
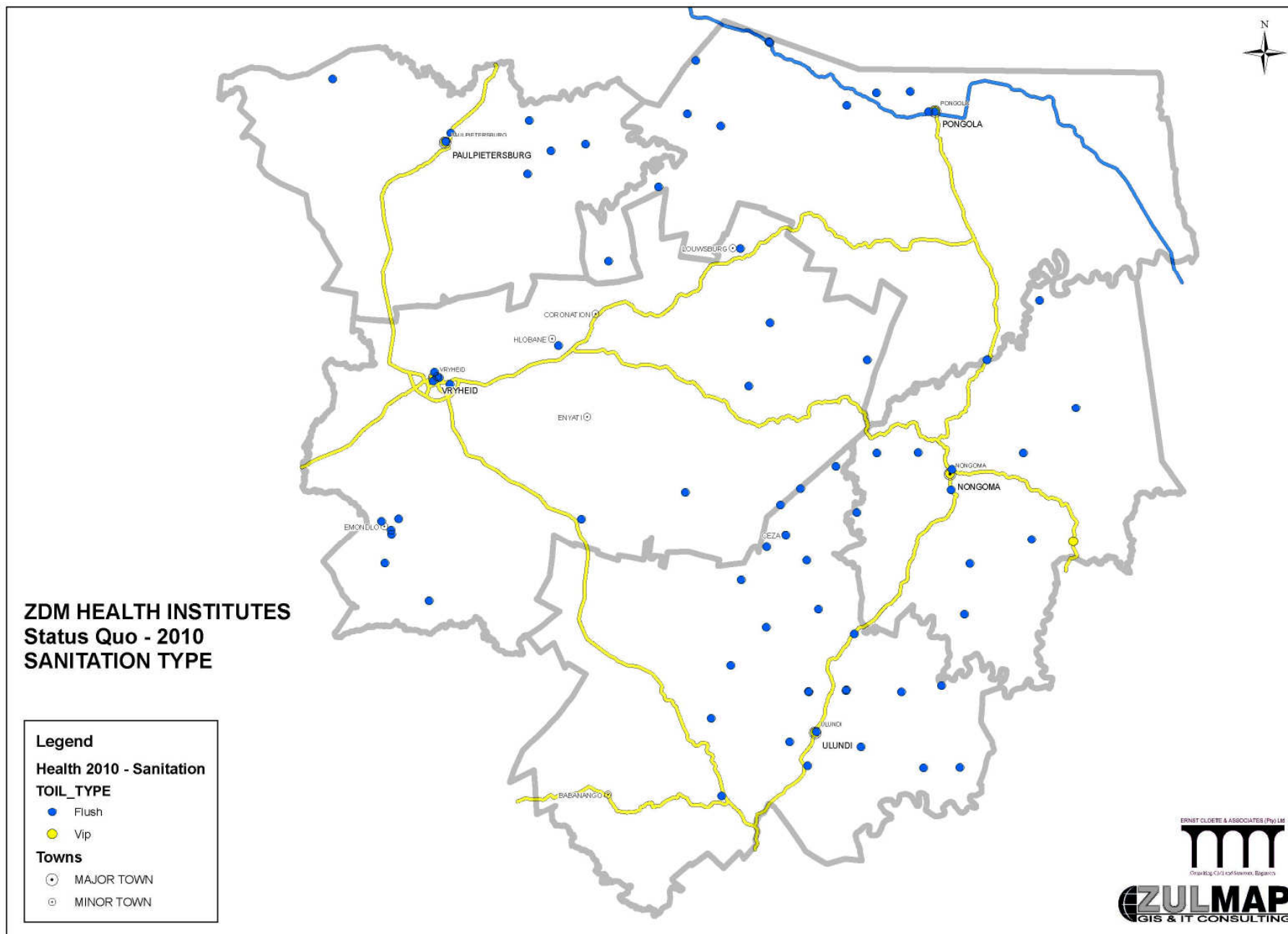


Figure 1.2 (b): Current status of sanitation services at clinics and hospitals in the district



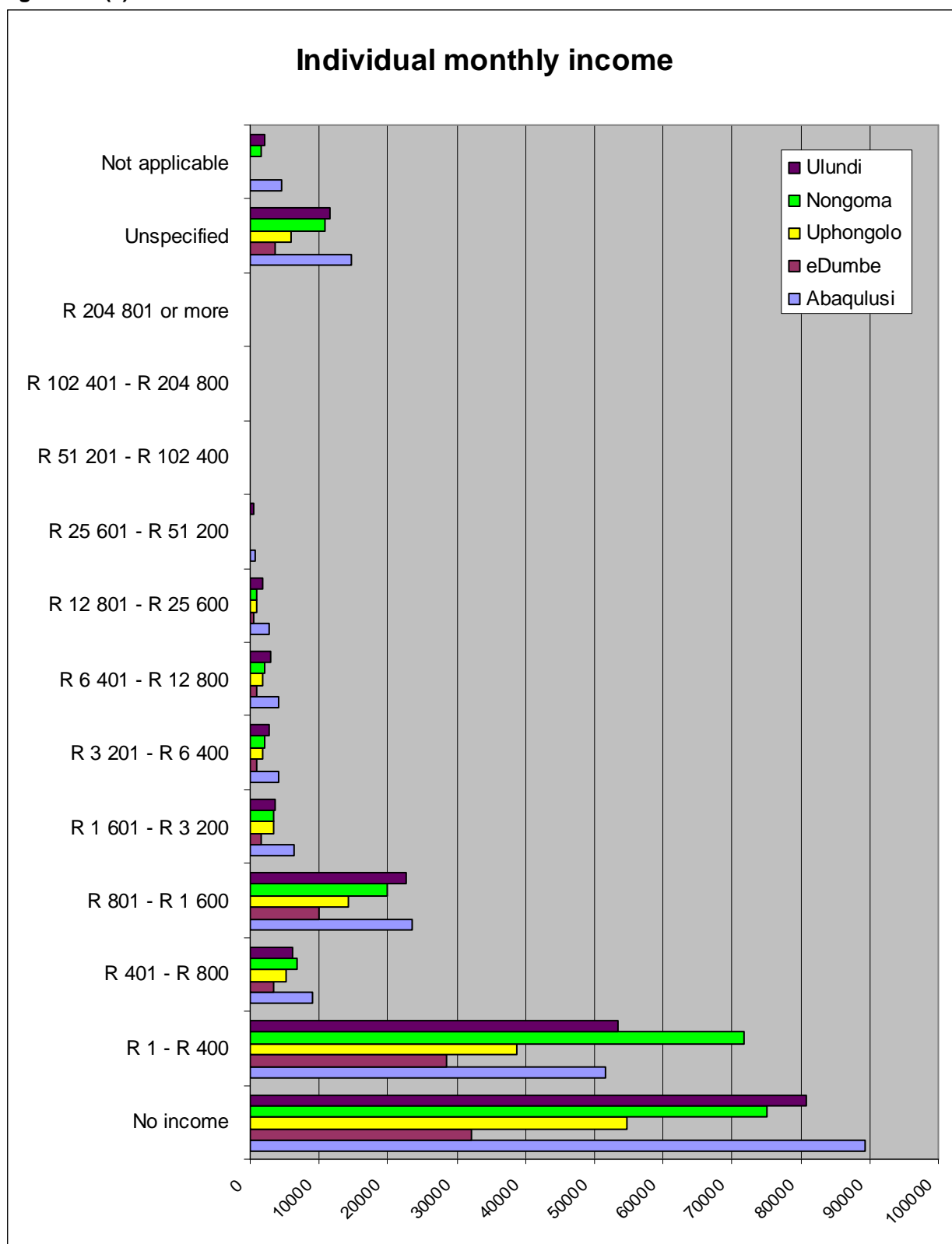
It is very important to consider the prevalence of **HIV/Aids** and the impact it has on the socio-economic conditions of the District. HIV/Aids will have a significant negative impact on the whole South African society and with Zululand being no exception. The implications are as follows:

KwaZulu-Natal's present share of the South African population is about 21%. This is expected to remain constant over the next 20 years under a "low impact" HIV/AIDS scenario, according to the DBSA. However, KZN had the highest recorded HIV-positive rate in the country between 1997 and 1999, indicating that the impact is likely to be more severe than in the rest of South Africa, rather than less so. The Department of Health national statistics estimated KZN's HIV prevalence rate at 32,5% in 1999. The KZN's Office of the Premier reports that 'the prevalence appears to be higher among women than among men. Women are infected considerably earlier than men. Among women, prevalence rises sharply from about 15 years, reaches a peak at 25-30 years then begins to taper off. Among men, it rises sharply from about 20 years then peaks from about 35-40. This suggests that older boys and men are infecting large numbers of young women and girls. There is also survey evidence that, for a significant percentage of youth, sexual activity commences at very young ages.' In geographic terms, the highest prevalence rates in KZN were found in Pietermaritzburg (35%), Durban (34,8%), Jozini (32,7%), Ulundi (32,3) and Ladysmith (31,8%).

1.3 Employment and income

The following table and figure provides a comparative breakdown of the annual household income in the Zululand District Municipality. From the chart it is clear that the majority of people earn less than R400 per month, with a small percentage earning up to R1600.

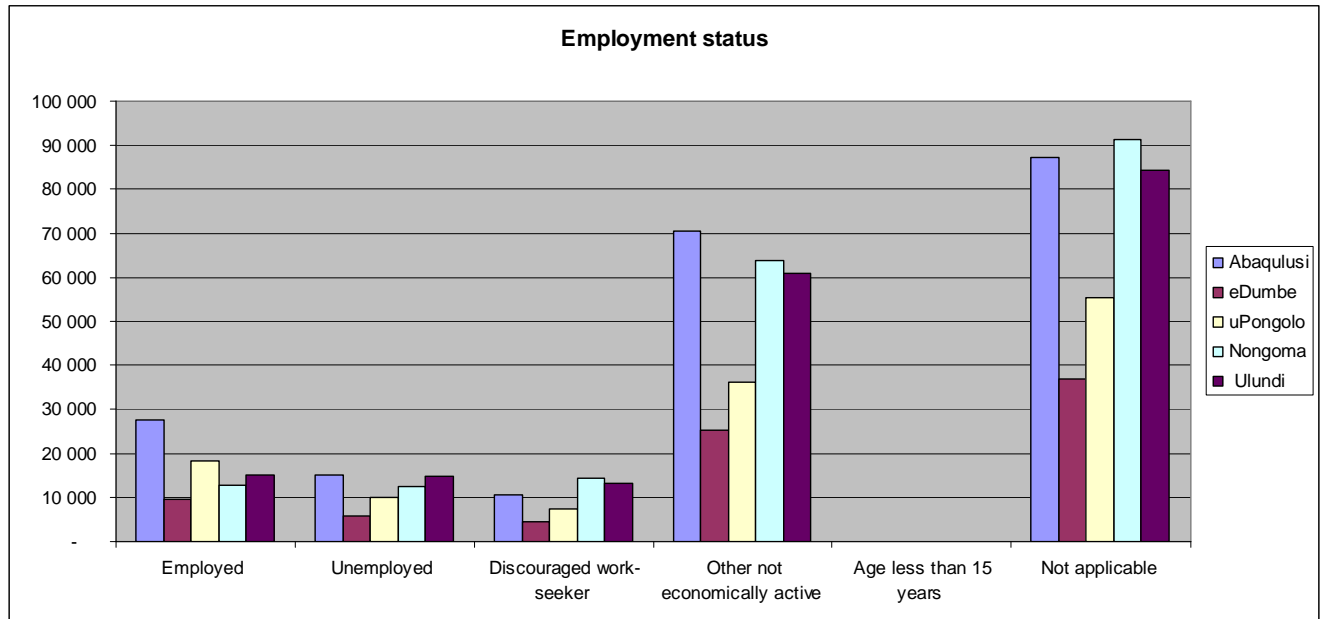
Figure 1.3 (a): Household Income Breakdown for the ZDM



Source: Census 2011

Employment levels are shown in the following table. A high percentage of population has no schooling.

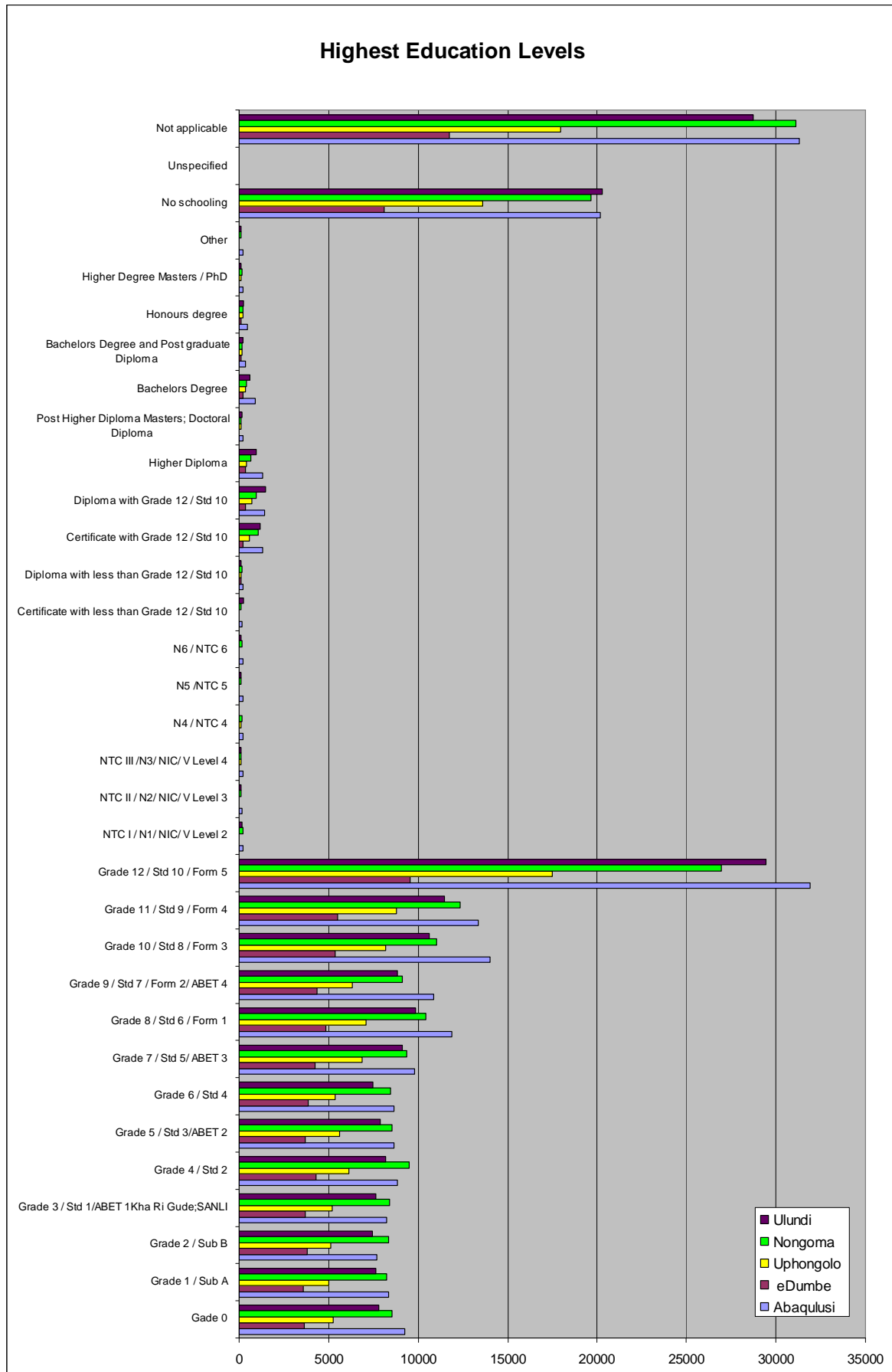
Figure 1.3 (b): Levels of Employment



Source: Census 2011

A very small percentage of the total population has full-time employment. This, together with very low income per person, as well as a high percentage of people with their highest level of education below Grade 12, contribute to a poor socio-economic standing for the ZDM area.

Figure 1.3 (c): Levels of education



Source: Census 2011

Definition of a poor household

The definition of a poor household in terms of water services is required to assist the ZDM in the implementation of free basic water and sanitation, and the efficient, effective and sustainable use of the equitable share. The poor household definition relates to income poverty, or the lack of sufficient income to satisfy basic and essential needs such as food, clothing, energy and shelter. This definition therefore should be in line with the ZDM's Indigent Policy that is used for all free basic services, and usually relates to the total monthly household income.

In terms of a National Government policy, free basic water relates to a level of water supply derived from the World Health Organisation standard (25 litres per person per day) that is sufficient to promote a healthy living. Based on an average household of 8 persons, this amounts to 6,000 litres (or 6 kl) per household per month. As part of free basic sanitation, the National policy deals with level of service only. However, the long-term O&M component still requires clarification. Although a broad national policy commitment exists to extend free basic services to all households, poor households, for whom free basic services represent a significant poverty alleviation measure, are the primary targets. In addition, the ZDM must ensure long-term sustainability in the implementation of these policies. Taking into account the socio-economic standing of persons living within the ZDM area of jurisdiction, the potential income and expenditure for water services, and the contribution of equitable share, the ZDM poor household definition is set out below.

Proposed definition of poor household by the municipality:
All households earning a combined income of less than R 800 per month.

1.4 Economic sectors, GGP contribution and employment

The ZDM constitutes 16% of the area and $\pm 8.5\%$ of the population of KZN. The contribution to the Gross Geographic Product (GGP) of the province and that of individual sectors to the current local GGP still needs to be assessed. The relative contribution of each sector during the 1990s, highlight the dominance of mining and quarrying. However, owing to the effects of open market policy on coal mining and agriculture the ZDM experienced an economic decline in these sectors during the late 1990s. Nevertheless, over this period agriculture, social services and trade have increased their contribution to employment, whereas manufacturing has decrease its contribution and mining has remained the same.

Table 1.4 (a): Economic sector contribution to GGP.

Economic sector	Total no. of employees	No. of local employees
Government	Unknown	Unknown
Manufacturing	3 223	3 223
Retail/Trade (incl. Tourism)	7 539	7 539
Farming/Agriculture	11 276	11 276
Utilities (power & water supply)	391	391
Mining	1 673	1 673
Social services	18 211	18 211
Finance	3 292	3 292
Transport & communications	2 838	2 838
Construction	2 727	2 727
Total*	51 170	51 170

*These values do not include the person employed within private households or undetermined categories – Census 2001.

Table 1.4 (b): GGP and employment by type of economic activity (1994 and 1996).

		% of GGP 1994	% of Employment 1996	% of Employment 2001
Primary Sector	Agriculture, forestry, fishing	12,4	12.1	16.9
	Mining & quarrying	31,8	2.5	2.5
Secondary Sector	Manufacturing	4,2	17.1	4.8
	Utilities (power & water supply)	0,2	0.7	0.6
	Construction	2,0	4.2	4.1
Tertiary Sector	Retail/Trade	12,9	9.7	11.3
	Transport & communications	13,9	5.5	4.2
	Finance	7,0	4.8	4.9
	Government & social services	15,6	17.1	27.2
	Private households	N.A	8.8	9.7
	Unspecified/unknown	N.A	17.5	13.8
TOTAL		100,0	100,0	100,0

The above figures will be updated once available from STATSSA and the Census 2011 statistics.

1.5 Economic trends

Up to the early 1990s, the ZDM's economic base depended heavily on coal mining, supported by agriculture, transport trade and government services. Formal economic activity was strongly concentrated in the then Vryheid magisterial district, from which no less than 73% of GGP was generated. Administrative and government services were concentrated in Ulundi and Vryheid. A significant weakness was, and remains, the reliance on the primary sector (44,4% of GGP), and the underdeveloped secondary sector which contributed only 6,4% of GGP.

By the late 1990s the ZDM had experienced an economic decline owing to the effects of open market policy on coal mining and agriculture. By 2000 all but one of the large-scale mining operations (Zululand Anthracite Colliery) had closed. Although tourism has started to play a larger role, this by no means fills the gap caused

by the closing of the mines that had a knock-on impact for all economic sectors and has been felt particularly in Vryheid and surrounding areas.

A number of recent economic studies and reports from the business sector suggest that the contribution of mining and quarrying have fallen to a low level, with little contribution from manufacturing activities, and that some increase is evident in transport (in support of forestry activities), trade and catering (on account of tourism). The informal sector, mainly petty commodity trading, has grown considerably over the last decade, but is constrained by the slump in primary and secondary sectors of the formal economy. The potential for economic growth in Zululand lies in tourism and agriculture.