

## Chapter 8: Human Settlements

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### 8.1: Introduction

Human settlements cover those places where people live, including both rural and urban communities (Newman *et al.*, 1996). Human settlements typically include the physical structures and services providing material support. Human settlement patterns are influenced largely by economic, social, and political forces (Napier, 2000), to the point where they are often found in locations that defy economic reason. Settlement patterns in South Africa still show the effects of apartheid policies, with vast disparities being evident between former homeland areas and the former Republic of South Africa. These disparities most often (but not always) translate into disparities between rural and urban areas, where rural areas are characterised by a distinct lack of services.

In order to understand human settlements in the Eastern Cape Province, a number of indicators have been selected for monitoring changes. Research has shown that the poorest communities often have the poorest service provision (Thomas *et al.*, 1999). The indicator 'Level of service provision' will provide an indication of the trends in service provision in the Eastern Cape Province. The provision of services could therefore rapidly transform both the urban and rural environments, providing relief particularly to those living in poverty (Department of Housing, 2000). The indicator 'Available landfill lifespan' shows the demand for landfill space in the province. With increasing levels of service provision (refuse removal) landfill space will become critically important in ensuring adequate disposal of waste.

The state of housing in the Eastern Cape Province will be addressed through three indicators, namely; 'Trends in housing type', 'Average number of rooms per house' and 'Average number of people per house'. The provision of housing to communities in the Eastern Cape Province is noted as a priority, however those houses should be of adequate standard and size. Overcrowding in residential estates can lead to various undesirable social and health problems.

The indicator 'Trend in population distribution and structure' is useful in helping us understand future trends in human settlements in the Eastern Cape Province. This indicator can be interpreted together with various indicators in the Poverty chapter in order to more fully understand the dynamics of change.

In interpretation of the indicators, an inference can be made that Cacadu and Amatole District Municipalities represent the areas of better economic standing with O.R. Tambo and Alfred Nzo being on the other end of the scale. Demographic data and datasets on access to housing and services reported in the 2001 Census confirm that, for the most part, low levels of development and productive economic activity prevail over large parts of the Eastern Cape Province.

### 8.2: Key Indicators

The indicators selected to monitor human settlements in the Eastern Cape Province are listed below:

- Level of service provision (water, sanitation, waste and telephones);
- Available landfill lifespan;
- Trends in housing type;
- Average number of rooms per house;
- Average number of people per house; and

- Trend in population distribution and structure.

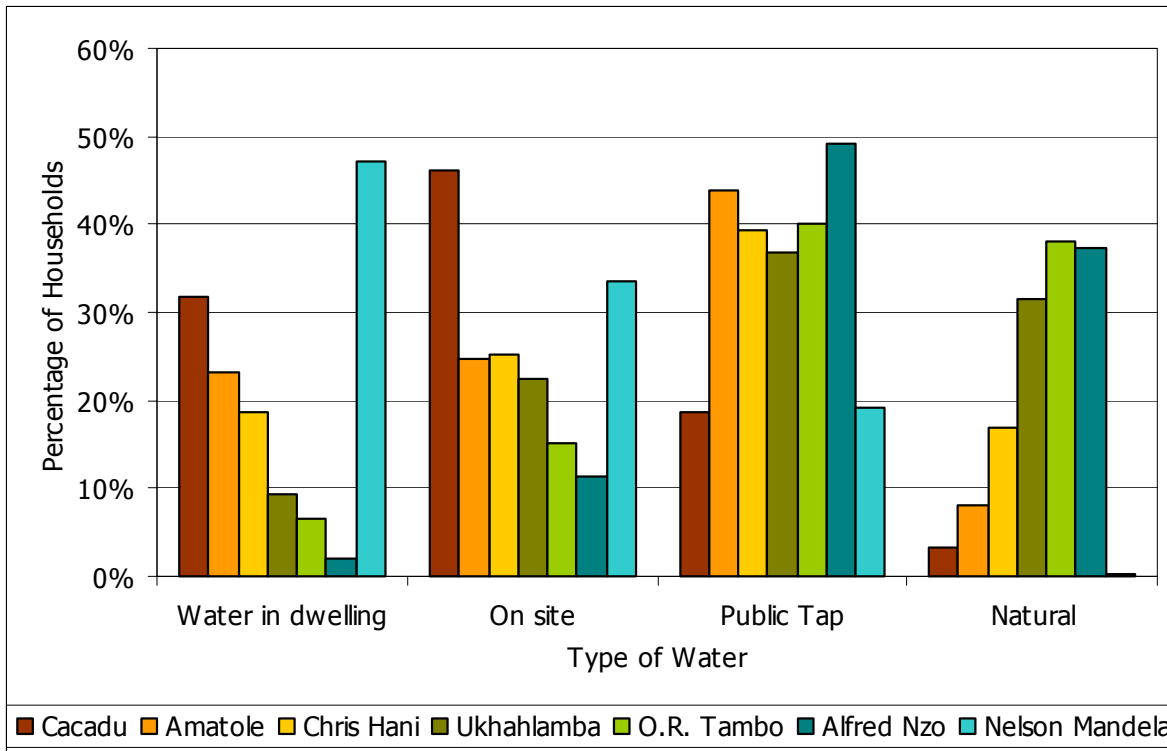
### **8.2.1: Level of service provision**

According to the National Population Unit (Department of Social Development, 2000), South Africa's priorities are to meet the basic needs of all South Africans (in terms of water, sanitation, health services, education, housing and infrastructure) to redress disparities in wealth and access to resources, to create employment, to stimulate and sustain economic growth and to improve the quality of life of all South Africans.

This indicator examines the level of service provision in the various Eastern Cape District Municipalities. Services assessed include water, sanitation, waste and telephones. According to Abrahams and Goldblatt (1997) there are three priority services required for the promotion of health, convenience and quality of life: water; sanitation; and electricity (addressed in Chapter 4). Other services such as telecommunications are important for economic development and improvement of quality of life. The Eastern Cape Spatial Development Plan (Eastern Cape Office of the Premier, 2001), regarding access to services in the Province, underscores the well-described disparities between the former Ciskei and Transkei areas and the remainder of the Province.

#### *Water*

Access to safe water is essential to good health. Many rural areas obtain their water from natural sources (e.g. boreholes, springs, rivers, streams and rain-water tanks), thus exposing the resident communities to water-related diseases such as cholera. The Water Services Act 108 of 1997 (RSA, 1997a) stipulates that everyone has the right of access to a basic water supply (i.e. the prescribed minimum standard of water supply services necessary for the reliable supply of a sufficient quantity and quality of water to households, including informal households, to support life and personal hygiene). It is evident from Figure 8.1 that between 17% and 38% of households in the Chris Hani, Ukhahlamba, O.R. Tambo and Alfred Nzo District Municipalities obtain water from natural sources. With various initiatives currently in place (Department of Water Affairs and Forestry's Water Supply and Sanitation Policy, and the provision of funding to District Municipalities to implement these projects), the backlog is being addressed. In contrast, the majority of households situated in the more urbanised municipalities of Cacadu, Amatole and Nelson Mandela Metropolitan Municipality have access to piped water (Statistics South Africa, 2003).

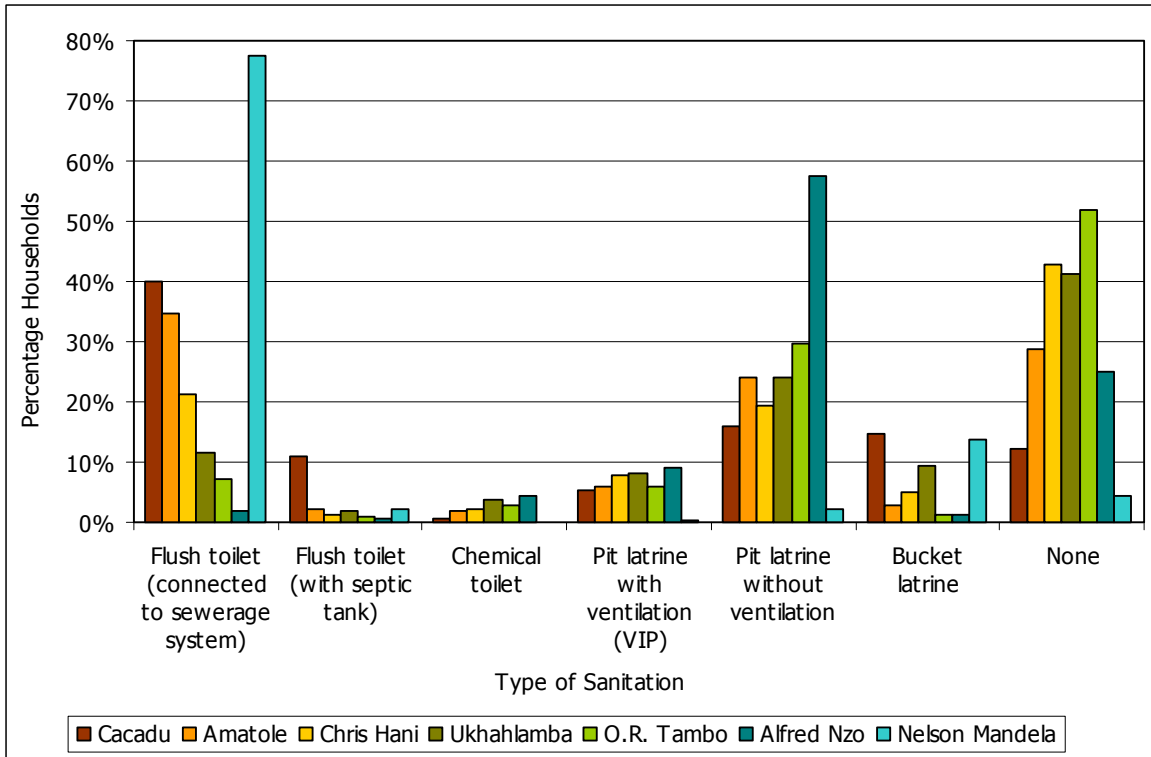


**Figure 8.1: Access to water in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

### *Sanitation*

This indicator measures the type of sanitation available for use by those living in the Eastern Cape. The type of sanitation varies from water-borne sewage, ventilated pit latrine, and bucket to no sanitation at all. The Water Services Act 108 of 1997 (RSA, 1997a) states that everyone has the right to 'basic sanitation' (the prescribed minimum standard of services necessary for the safe, hygienic and adequate collection, removal, disposal or purification of human excreta, domestic waste-water and sewage from households, including informal households).

Alfred Nzo and O.R. Tambo District Municipalities are reported to have the lowest levels of service, with 3% to 8% of households having access to waterborne sanitation, compared to 51% and 37% in the Cacadu and Amatole District Municipalities (refer to Figure 8.2). Informal settlements are assumed to account for most of the households with no facilities. In the former homeland areas a positive correlation is evident between waterborne sewerage systems and water in the dwelling. The dominance of pit latrine systems in rural municipalities is cause for concern, not only because of hygiene, but also the potential pollution of groundwater.

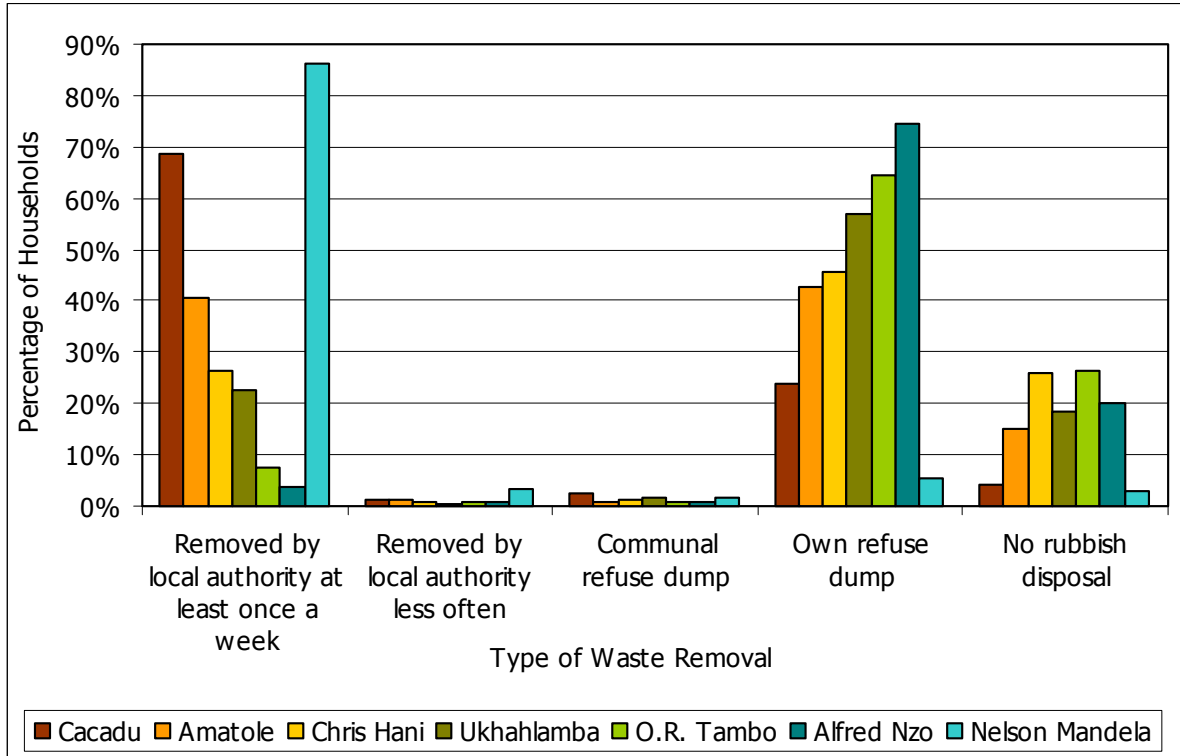


**Figure 8.2: Access to sanitation in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

*Waste*

Figure 8.3 reflects the state of waste removal in the Eastern Cape. Waste removal is generally poor, particularly in rural areas, namely the Chris Hani, Ukhahlamba, O.R. Tambo and Alfred Nzo District Municipalities. Little formal waste collection and disposal takes place in these Municipalities, and in rural areas these communities generally dispose of waste themselves. A study conducted in the Mbashe Municipality of the Amatole District Municipality (in the former Transkei) highlighted that the local authority in the Willowvale area has no designated dumping site or refuse collection service. This has led to the dumping of waste and pollution on the terrestrial coastal environment (Britz *et al.*, 2001).

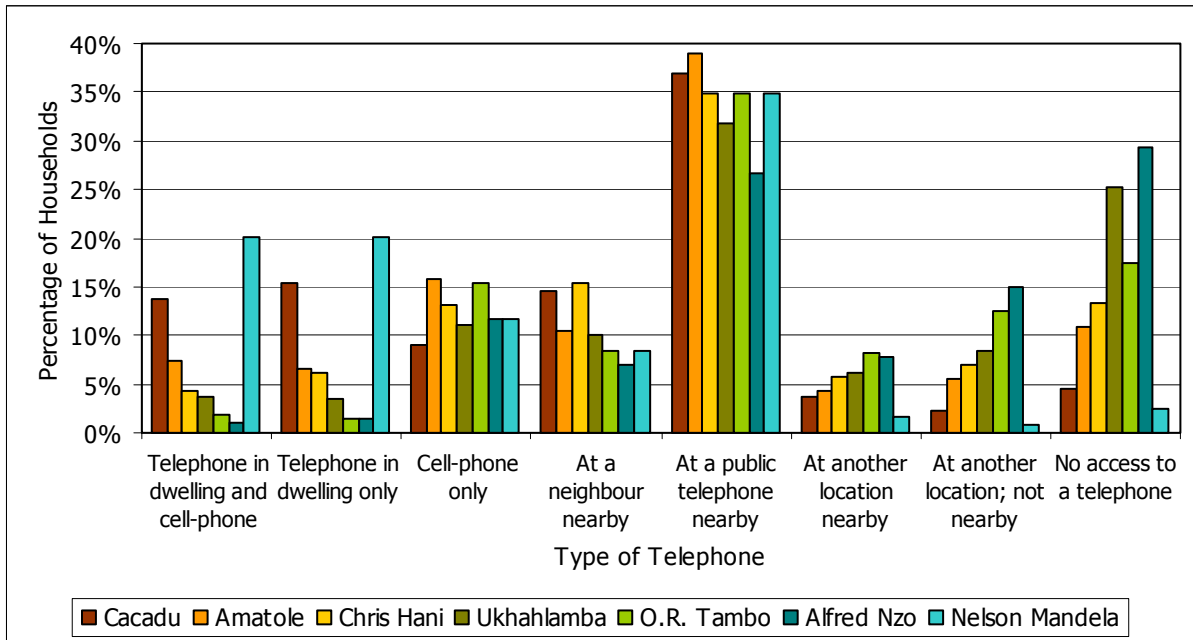
In contrast, the local authorities in the Amatole and Cacadu District Municipalities and the Nelson Mandela Metropolitan Municipality are able to collect 40%, 68% and 86% respectively, of the waste from households in their District Municipalities on a weekly basis.



**Figure 8.3: Access to waste removal in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

*Telephones*

In South Africa 42% of households have access to either a telephone in their dwelling and/or a cellular phone (Statistics South Africa, 2003). A third of all Eastern Cape households have access to the same facility, the second lowest in the country (Limpopo Province at 28%). The Chris Hani, Ukhahlamba, O.R. Tambo and Alfred Nzo District Municipalities have access to telecommunications (telephone in dwelling & cell phone, telephone in dwelling only, and cell phone only) at 24%, 18%, 19% and 14% respectively. This is substantially lower than the national average of 42%. The Nelson Mandela Metropolitan Municipality has a 52% access to this facility, which is higher than the national average (Figure 8.4).



**Figure 8.4: Access to telecommunication facilities in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

**8.2.2: Available landfill lifespan**

This indicator reports on the availability of space in landfills around the Province. The available space (termed ‘airspace’) is measured in years, and the indicator reflects the number of years remaining in which the current rate of waste disposal can be accommodated.

A study was commissioned by DEAT to undertake a baseline data-collection exercise aimed at all landfills in the Eastern Cape Province that are operated by regional and local authorities (DEAT, 2001). With certain exceptions due to time and budgetary constraints, industrial and mine landfills were excluded from this study. The extent of landfill compliance with the Department of Water Affairs and Forestry (DWAF) ‘Minimum Requirements for Waste Disposal by Landfill’ (DWAF, 1998) and the status of permitting were also assessed. The findings and recommendations of the study were to be used in the formulation of the National Waste Management Strategy (NWMS). Although the study was undertaken before the demarcation of new District Municipality boundaries, extracts from the study, which can be used as results for this State of the Environment Report, are included in this chapter.

Based on the findings of the investigation (DEAT, 2001), it was concluded that there were 101 operational waste disposal sites in the Eastern Cape Province, 74 sites reported from questionnaires, 7 sites from permitting records and 20 sites estimated by projection. It was estimated that there were approximately one million cubic metres of acceptable landfill airspace and some six million cubic metres of potentially acceptable landfill airspace in the Eastern Cape Province. Based on current waste disposal rates, there are shortfalls of acceptable airspace in the Drakensberg, Kei, Western and Wild Coast regions. The questionnaire returns reflected that only 8% of landfills in the Eastern Cape Province complied with DWAF Minimum Requirements (DWAF, 1998), 54% could potentially comply and 38% are currently unacceptable. Of the 37

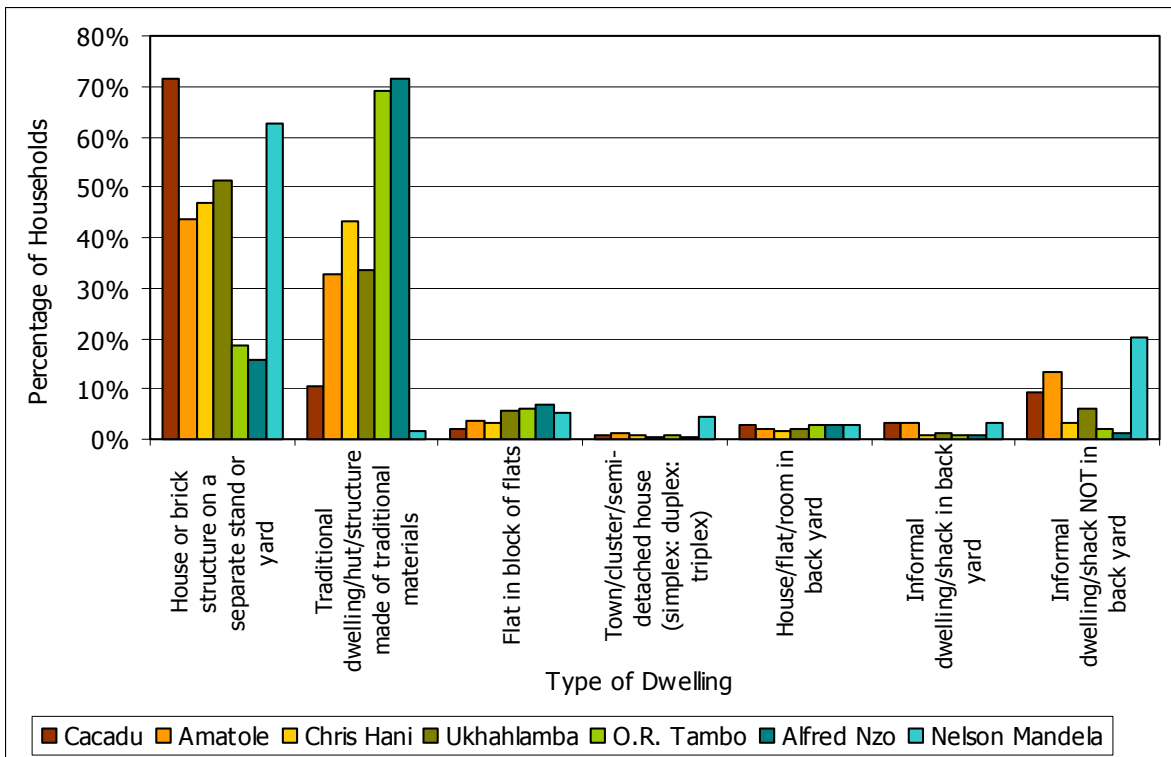
landfill permits applied for, 43% had been granted. Only 19% of landfills in the Eastern Cape Province are permitted (DEAT, 2001).

### 8.2.3: Trends in housing type

This indicator reports on the types of dwellings per Eastern Cape District Municipality. Dwelling type varies from formal housing to informal dwellings. The indicator provides some reflection of the conditions in which residents of the Eastern Cape Province live.

The Government has made significant progress in the provision of formal housing, especially to the poorest of the poor. However, a backlog still exists as more than 10% of households in the Eastern Cape still live in an 'Informal dwelling/shack in the backyard' or in an 'Informal dwelling/shack not in a backyard' (Figure 8.5).

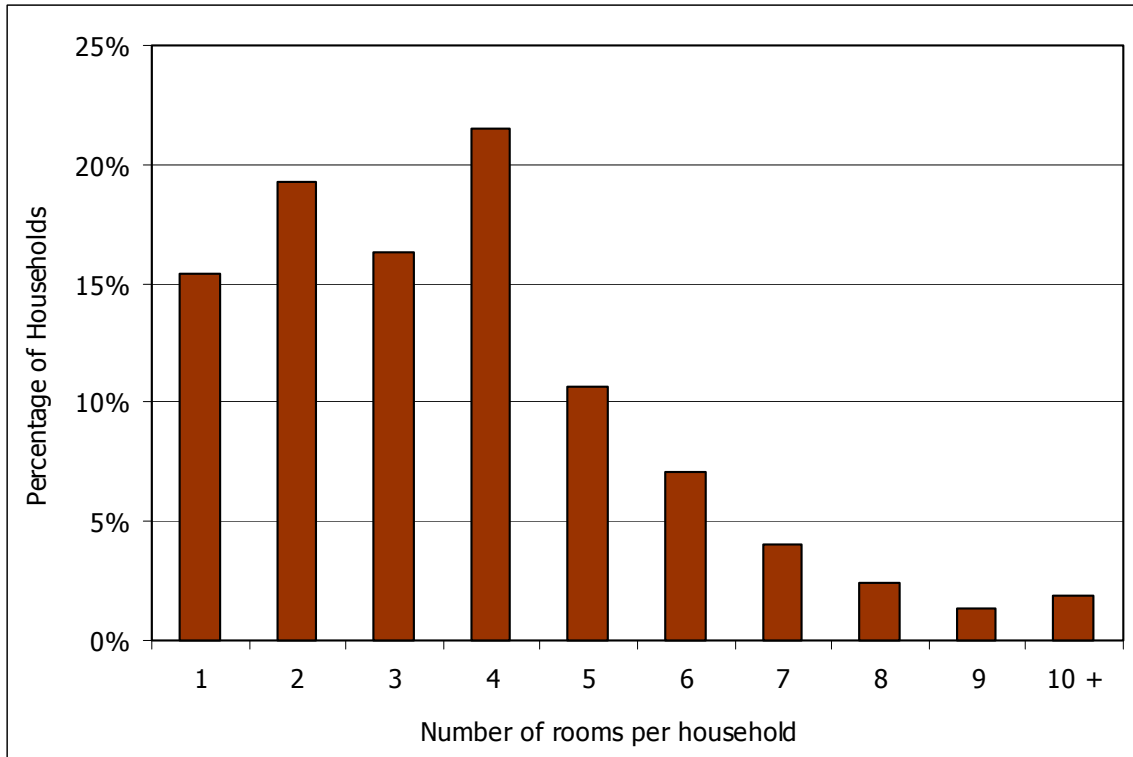
The majority of households in the O.R. Tambo (69%) and Alfred Nzo (71%) District Municipalities are reported to reside in 'Traditional dwellings'. The 2001 Census also records a significant number of households residing in such dwellings in the Amatole District Municipality (33%), the Chris Hani District Municipality (43%) and the Ukhahlamba District Municipality (34%) as shown in Figure 8.5. Informal dwellings were more common in the Nelson Mandela Metropolitan Municipality (23%) and Amatole District Municipality (17%), which is consistent with the high number of people seeking employment in these areas.



**Figure 8.5: Dwelling types in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

### 8.2.4: Average number of rooms per house

A different indicator that addresses the state of housing in the Eastern Cape Province is the 'Average number of rooms per house'. Houses that are inadequate in size could lead to various undesirable social and/or health problems. This indicator should be studied in conjunction with the following indicator, 'Average number of people per house' in order to establish the extent of over-crowding in the region. The statistics available to measure this indicator (Statistics South Africa, 2003) have not been provided per District Municipality. The data thus reflects a composite picture of the Province.

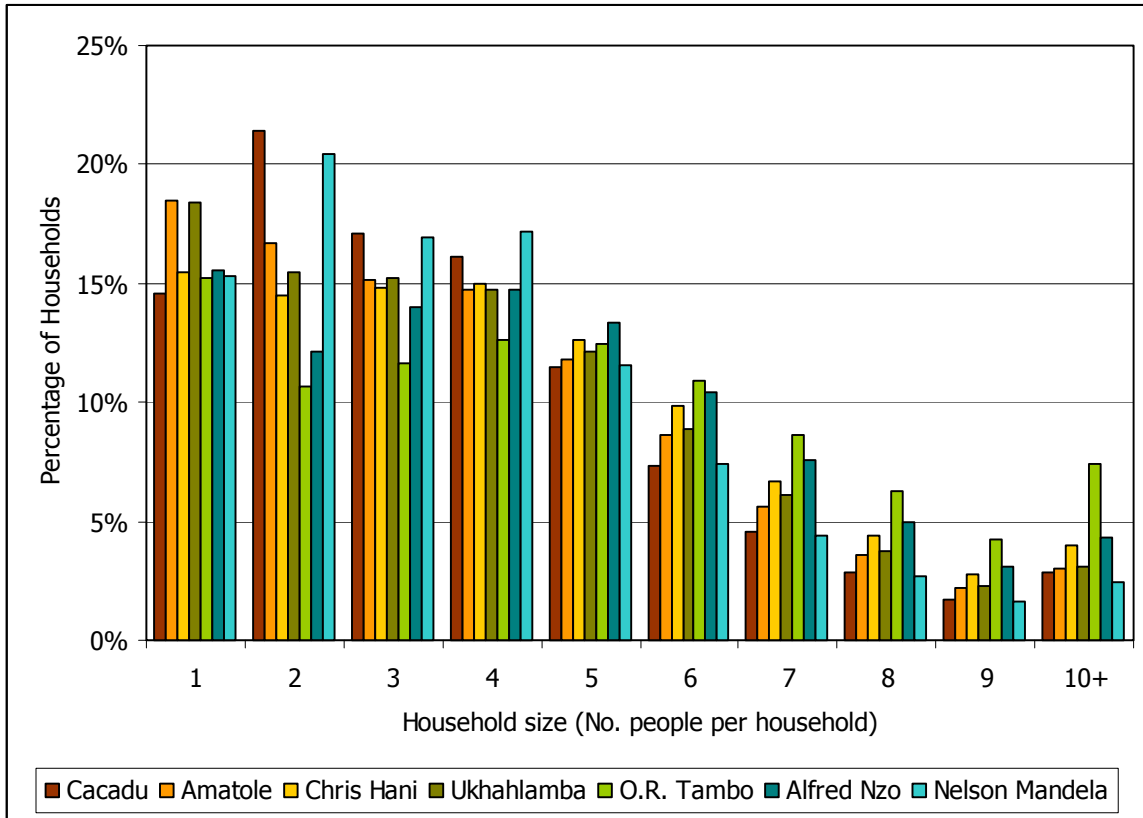


**Figure 8.6: Number of rooms per household in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

The number of rooms per household referred to in Figure 8.6 includes kitchens and outside rooms used by the same household, but exclude bathrooms and toilets. Single room households include those households sharing a single room with another household (or households). Figure 8.6 reflects that just over 15% of Eastern Cape households live in 1-room dwellings while 19% of households reside in 2-room dwellings. This situation is undesirable and could contribute to over-crowding in the Province.

### 8.2.5: Average number of people per house

This indicator, together with the indicator 'Average number of rooms per house', will provide some indication of the extent of residential over-crowding in the Eastern Cape Province.



**Figure 8.7: Number of people per house in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

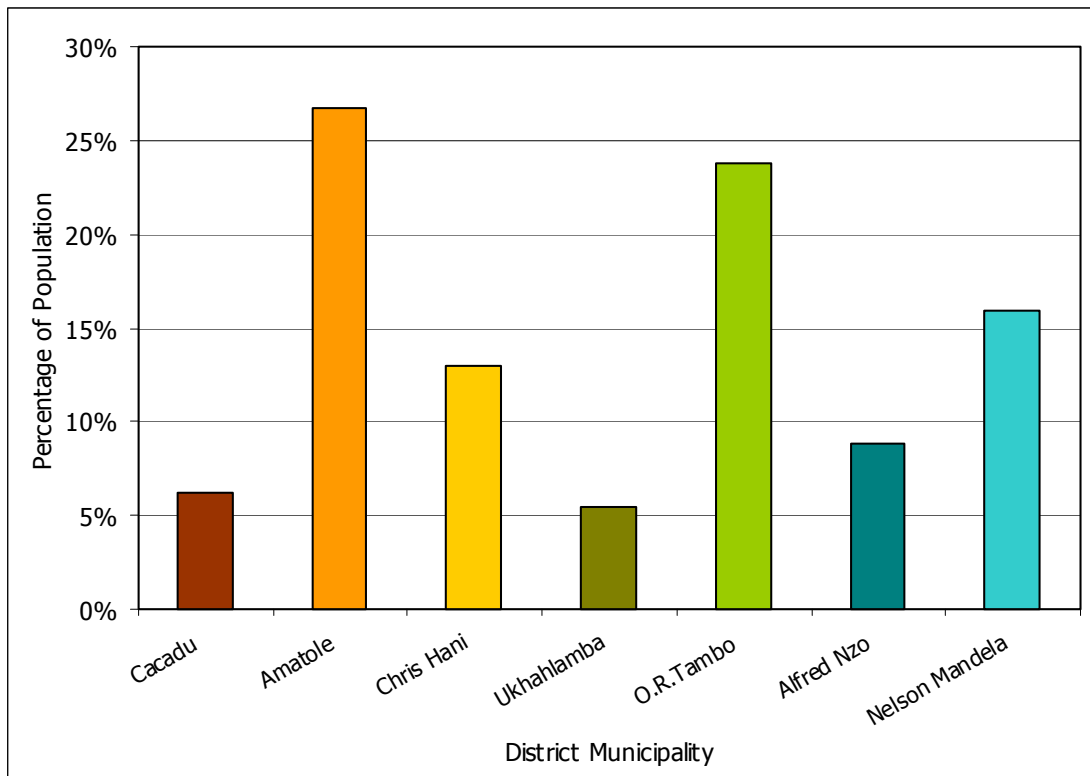
It has been determined from the data used to prepare Figure 8.7 that 39% of Eastern Cape households have 5 or more people per household. Considering that approximately 34% of Eastern Cape households live in dwellings with 2 rooms or less, over-crowding may be a potential problem in some households in the Province. The O.R. Tambo District Municipality has the highest number of large households, with more than 37% of households having 6 people or more. The Cacadu District Municipality has more than 36% of households with 2 or less people.

**8.2.6: Trend in population distribution and structure**

*Population distribution*

This indicator highlights the proportion of the population that is currently residing in the various Eastern Cape District Municipalities, and subsequently provides information on the distribution of rural and urban populations. The movement of populations to new areas may place pressure on the environment at a rate that is faster than the natural environment can handle, or at a speed at which environmental responses cannot be put in place soon enough.

The 2001 Census gave the total population of the Eastern Cape Province as 6 436 763 persons, an increase of 2.1% compared to the 1996 Census. The Eastern Cape Province has 14.4% of the country’s population residing in it. Figure 8.8 reflects that 15.4% of the Province’s population live in the Nelson Mandela Metropolitan Municipality, while 27% reside in Amatole District Municipality and 24% live in the O.R. Tambo District Municipality.

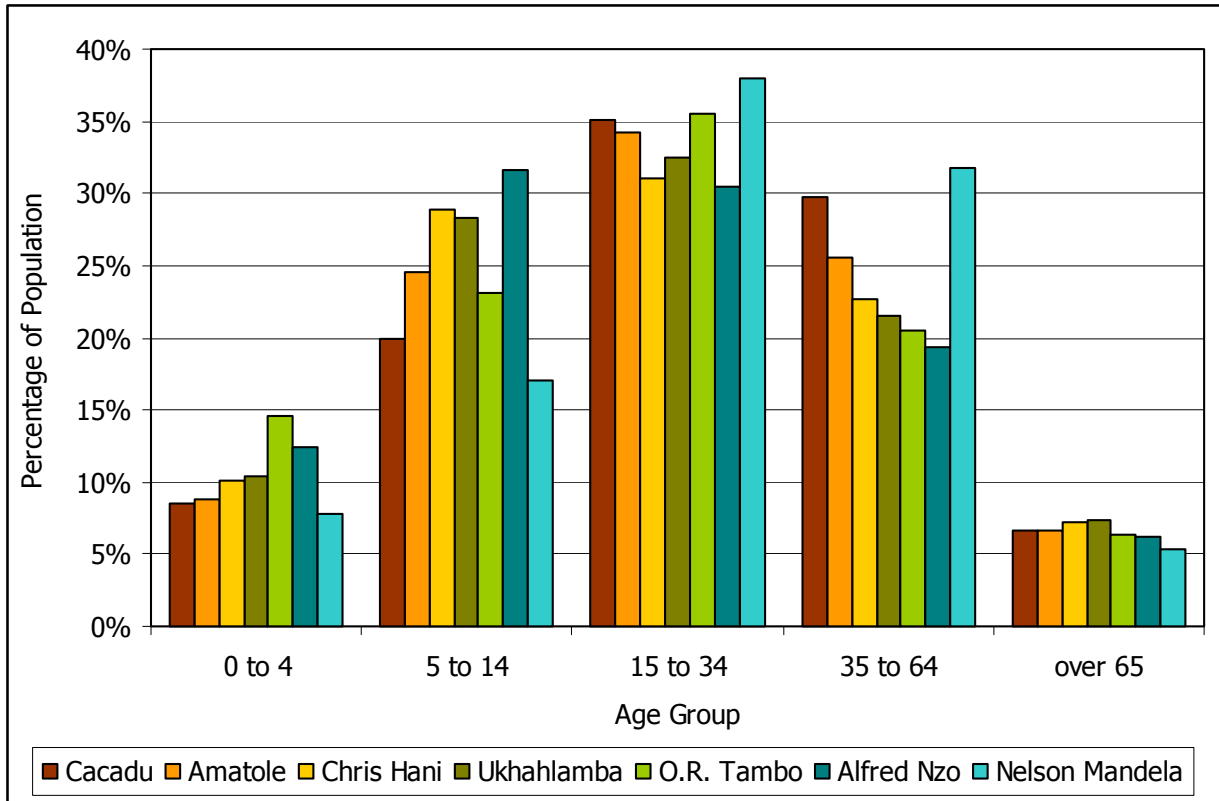


**Figure 8.8: Population distribution in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

Whilst there is some correlation in the core urbanised areas of (especially) the Nelson Mandela Metropolitan Municipality and Buffalo City Municipality between a higher population density and relatively improved development indicators (e.g. education/literacy, household income, and access to services), these areas also tend to include the highest numbers of households residing in informal dwellings (Eastern Cape Office of the Premier, 2001). In contrast, other areas of relatively high population density, including the former Transkei areas falling within the Alfred Nzo and O.R. Tambo District Municipalities, as well as portions of the Ukhahlamba, Chris Hani and Amatole District Municipalities, consist of fragmented and dispersed settlement patterns, with correspondingly low economic activity thresholds (Eastern Cape Office of the Premier, 2001).

#### *Population structure*

Results of the 2001 Census (Figure 8.9) reflect that 35% of the Province's population is below 15 years of age as opposed to the national average of 32%. The Chris Hani, Ukhahlamba, O.R. Tambo and Alfred Nzo District Municipalities, which make up the majority of the rural area within the Province, have approximately 40% of the population younger than 15 years. However, the Nelson Mandela Metropolitan Municipality, which reflects a more urban area of the Province, has 25% of the population younger than 15 years, while 37% of the population is aged 15 to 34 years and 32% of the population is aged 35 to 64 years. All District Municipalities show a very low population in the over 65 year age-group.



**Figure 8.9: Age distribution in the Eastern Cape Province – 2001 (Statistics South Africa, 2003)**

The relatively smaller young population group (below 15 years) in the Nelson Mandela Metropolitan Municipality can be attributed to migratory labour, where many people leave Eastern Cape in search of work in other provinces such as Gauteng, Western Cape and KwaZulu-Natal. This phenomenon can have important consequences for the Province, as large numbers of economically active people leave the Province, leaving mainly women, children and the aged behind. The people left behind often live in impoverished circumstances, dependent on subsistence agriculture, remittances and state welfare/pension grants (Eastern Cape Office of the Premier, 2001).

### 8.3: The state of human settlements in the Eastern Cape Province

The state of human settlements can primarily be defined in terms of the level of service provision, housing and development, population dynamics, although economics, infrastructure and spatial layout are also common descriptors.

Most of the backlog in basic service provision in the Province can be found in the former homeland areas, mostly located in the O.R. Tambo, Alfred Nzo and Chris Hani District Municipalities, with the O.R. Tambo District Municipality having almost 40% of households dependent on natural sources of water. Between 30 and 50% of households in the Amatole, Chris Hani and O.R. Tambo District Municipalities have no sanitation. Similar patterns are observed for many of the other indicators, where most backlogs are experienced in the former homeland areas.

Increased pressure on housing is also experienced in more urban District Municipalities, with more than 23% of dwellings in the Nelson Mandela Metropolitan Municipality being informal dwellings. The rate of housing delivery must surpass the in-migration of people if the housing deficit is to be relieved. In addition, more than a third of Eastern Cape households live in dwellings with two rooms or less.

The population distribution in the Province shows the bulk of the population living in the Amatole and O.R. Tambo District Municipalities (27% and 24% of the population respectively), while 16% lives in the Nelson Mandela Metropolitan Municipality. The population of the Eastern Cape Province is relatively young (the bulk of the population is under 34 years of age), with some areas showing a larger young population than others.

In order to address some of the spatial inequalities in the Province, policy interventions such as the Integrated Spatial Development Strategy seek to address the spatial challenges of rapid settlements in town environs, as well as settlements along main roads in the more rural areas of the Province. In addition, the Provincial Growth and Development Plan (PGDP) will provide the strategic framework for a swift improvement in the quality of life of the poorest people living in the Eastern Cape Province over the next ten years (Eastern Cape Office of the Premier, 2003).