

# Trends and changes in the South African population structure: Some implications for planning and policy-making\*

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## Abstract

Future social, political, economic and environmental changes will to a large extent be propelled by the size, geographic distribution and demographic composition of populations. This article highlights the most important demographic shifts that the South African society will be subject to in the next few decades, and considers some implications of these changes for planning and policy making in South Africa. These changes are: a sharp decline in the population growth rate, the progressive ageing of the population, a continued decline in life expectancy, and a shift in the migration and distribution patterns of the population. These changes entail, amongst others that planners do not need to assume a steep increase in population numbers in their projections of the future needs of the population anymore. The rise in the number of the aged will, however, pose very specific challenges to both planners and government, while the expected increase in urbanisation will increase the demand for basic services as well as the pressure on existing infrastructure and facilities.

## TENDENSE EN VERANDERINGE IN DIE SUID-AFRIKAANSE BEVOLKINGSTRUKTUUR: ENKELE IMPLIKASIES VIR BEPLANNING EN BELEIDMAKING

Toekomstige sosiale, politieke, ekonomiese en omgewingsveranderinge sal tot 'n groot mate deur die grootte, geografiese verspreiding en demografiese samestelling van bevolkings voortgestu word. Hierdie artikel belig die belangrikste demografiese verskuiwings waaraan die Suid Afrikaanse samelewing in die volgende paar dekades onderwerp sal word, en neem enkele implikasies van hierdie verandering vir beplanning en beleidmaking in behandeling. Hierdie veranderinge is: 'n skerp afname in die bevolkingsgroei koers; die toenemende veroudering van die bevolking; 'n voortgesette daling in lewens verwagting, en 'n verskuiwing in die migrasie en verspreidingspatrone van die bevolking. Hierdie veranderinge behels onder meer dat beplanners nie meer nodig het om 'n skerp toename in bevolkingsgetalle te veronderstel by die bepaling van die toekomstige behoeftes van die bevolking nie. Die styging in die getal ouer mense sal egter baie spesifieke uitdagings aan sowel beplanners as die staat stel, terwyl die verwagte toename in verstedeliking die eis vir basiese dienste, asook die druk op bestaande infrastruktuur en fasiliteite, sal laat toeneem.

\* This article is a thorough adaptation of the author's professorial inaugural lecture delivered on 2 June 2004.

## 1. INTRODUCTION

Changes in the growth, mortality and settlement patterns of human populations have in the past been described as "the single most important set of events to occur in human history", and as "the leading edge of social change in the modern world" (Weeks, 2002: 1, 37). The past 70 to 100 years have indeed been characterised by the most dramatic demographic changes in the history of humankind – changes which have not only fundamentally affected the structure and organisation of societies, groups and institutions within societies, but also the physical environment within which these processes function. Like wise, the future social, political, economic and environmental changes will largely be driven by the emergent size, geographic distribution and demographic composition of populations. Population data are therefore right fully considered as one of the most fundamental pieces of information needed in planning and policy making (McCarthy & Rogerson, 1992). An understanding of current and future demographic change is thus of vital importance to inform planning and decision making at local, regional and national level.

Demographic change is, of course, by no means a novelty peculiar to the present era; yet, the specific nature of demographic change in the modern era does, however, pose increasingly unique challenges in respect of the management and priorities of institutions, communities and governments. All over the world various countries have been obliged to adapt to these changes, and they will be forced to continue doing so in the future if governments wish to improve, or even merely maintain, the quality of life of

## DINTLHA LE DIPHETOHO KA SEBOPEHO SA BAAHI BA AFRIKA BORWA: DITLAMORAO TSE TOBANENG HO ETSA DIPOLANE LE DIPOLISI

Diphetoho tse tlang tsa phedisano, dipolotiki, le ekonomi di tla amiwa haholoholo ke boholo, kabo ya jeografi le sebohe sa demografi ya baahi. Lengolo lena le hlahisa diphetoho tse bohlokwa ka ho fetisisa tse baahi ba Afrika Borwa ba tla tobanang le ona dilemong tse mmalwa tse tlang, hape e shebana le ditlamorao tsa diphetoho tse bakeng sa ho etsa maano le melao mo Afrika Borwa. Diphetoho tse na ke: ho theola haholo ha dipalo tsa ho hola baahing, ho tsofala ha baahi bo tswelang pele, ho theola ho tswelang pele ha dilemo tse ho lebeleletsweng ho phela ka ona, le diphetoho mokg weng wa phallelo le arolelo ya baahi. Diphetoho tse na di kenyeletsa, ho tse ding, hore ba etsang dipolane ba se nahane hape ka keketseho e nyolosetsang ya dipalo tsa baahi dithekanyetsong tsa bona ka ditlhoko tsa nako e tlang ya baahi. Empa keketseho dipalong tsa maqheku e tla fana ka mathata a ikgethang ho ba polanang le mmuso, ha keketseho e lebeleletsweng ya batho ba yang ho dula ditropong e tla eketsa ho hloke ha ha di shebeletso tse motheo hape le ho tisa kगतello disebedisong tse teng.

their populations. The nature of current trends and projected changes in respect of the South African population clearly indicates that parallel changes, which are in various stages globally, serve to show the way for some of the demographic challenges which will have to be met locally by the authorities over the next few decades.

Against the above background this article elucidates the most important demographic shifts to which the South African population will be subjected over the next few decades, and some implications of these changes for policy making and planning in South Africa are explored. Internationally there exists various demographic models used by many authoritative agencies and planners and commentators often have to attempt to thread their way through a maze of underlying premises and even divergent projections. Yet, the scope of this article does not allow for attention to the technical aspects of demographic models, nor to assess the merit of the various models. The argument and elucidation of this article are largely underscored by the 2003 demographic projection models of the United Nations Population Division (UNPD). The UNPD makes provision for six variant projections, each with specific assumptions in respect of fertility, mortality and migration. All the projections in this article are based on the medium variant projection – the most likely scenario for South Africa in view of current demographic trends.

To start off with, some of the most important demographic changes currently occurring internationally are pointed out, because they largely serve as markers of what South Africa can expect in terms of demographic changes in the next few decades.

## 2. MAIN FEATURES OF DEMOGRAPHIC CHANGE IN THE GLOBAL POPULATION

Internationally there is general consensus concerning various aspects of future population trends: In all demographic projections of the UNDP and other international agencies, the trends in world population point to at least three primary changes:

- a decline in population growth rates (especially in industrial countries);
- a gradual ageing of populations; and
- increased momentum in migration patterns, with *inter alia* increasing urbanisation as one of the most important characteristics of this process.

In summary, the main features of these global demographic processes are:

### 2.1 A (further) decline in population growth rates

Population research and demographic literature of the 1960s to 1980s were typified by horrifying images and prophecies of doom concerning the consequences of a worldwide population explosion. Since the beginning of the 1990s, these images have gradually made way for the reality of drastic declines in the birth rate in various regions of the world – a decline which is now threatening to “become one of the biggest crises of the 21st century” (Du Toit, 2004: 19). The collapse of population numbers, especially in Europe, Russia and Japan, is being described by observers as ‘alarming’, unique in the history of humankind and the most dramatic demographic intervention since the bubonic plague rav-

aged the European population during the Middle Ages. The total fertility rate<sup>1</sup> (TFR) for Europe as a whole has already declined to 1.4 – far below the demographic replacement level of 2.1 (PRB, 2004: 3). This progressively declining fertility rate has far reaching implications. Declining population numbers will force especially rich countries in future to rely more and more on immigration in an attempt to maintain their economies. So, for example, the UNPD estimates that to maintain a workforce of 87 million until 2050 and beyond, Japan will have to take in 609 000 immigrants annually to cushion the local workforce deficit (UNPD, 2003). Throughout history, population growth has been an important source of economic growth: more people create an increased demand for products, more job opportunities, and a greater supply to employers. Though economic models theorise about the possibility of economic growth in the midst of declining population numbers, the fact remains that proven examples of something like this actually happening have never been documented – simply because this has never yet transpired.

The trend towards declining birth and mortality figures, especially in industrialised countries – caused by ever rising standards of living – will continue within the next few decades, though the world population in general will continue to grow. In the less developed countries of Africa, Asia and Latin America populations still continue to grow relatively fast – especially in absolute terms – even though growth rates have here also declined sharply since the 1970s. Approximately 99% of the world's natural population growth (i.e. births minus deaths, but excluding migration) is currently occurring in the less developed countries, and this trend will persist in the future (Pelser & Botes, 2003; Pelser, 2004b).

One of the most important economic consequences of a birth rate in free fall is a decrease in the numbers of productive workers, while there is a sharp rise in the numbers of the elderly. Worldwide this leads to a systematic ageing of populations.

1. The total fertility rate is the average number of children per woman in the 15-49 year age cohort in a specific region or country.

## 2.2 A gradual ageing of the world population

Arguably the most defining demographic trend of this century, which is set to have a far reaching impact on the structure of the world's population in coming decades, is the progressive ageing of populations, specifically the increase in the proportion and numbers of those older than 65 years (Table 1). In the period 2000 to 2010, the average annual growth rate of the group older than 65 years will probably be 1.9% (the most rapid growth rate for any age cohort in the world population), as opposed to 1.3% per annum for the total world population. For the first time ever, many countries have entered an era in which there are more people above 60 years than below five. In some countries the extent of this ageing process could even determine the nature of politics, the economic growth rate and international gravitas (Brynard, 2004).

Worldwide the ageing of populations poses an increasing challenge, though developing countries face the most serious challenges in this respect. Due to the fact that less developed countries are home to more than 80% of the world population, nearly 75% of these older people will live in developing countries, while the largest percentage increase among the older population will occur in the poorest regions. From a policy and planning perspective, there is, however, graver concern about the total extent (absolute numbers) of the ageing population than about their percentage share of the total population. One of the most important implications of this ageing trend is that state budgets will have to be adjusted so as to deal with this new demographic imbalance. Growing older populations bring much pressure to bear on the state, and numerous developing countries are already unable to address the health, housing and financial needs of the elderly component. Ageing populations and the challenges that they pose to the state are, however, by no means confined to developing countries. Even industrial countries are experiencing difficulty in finding mechanisms for providing especially health care and financial support to this population cohort. Countries like Germany, France, Spain, Italy and Japan will have to spend between one quarter and one third of their domestic product on pensions and health care before

Table 1: Proportion of population 65 years and older in different regions of the world: 2000 2050

Regions	% of population 65 years and older			% increase in total population 65 years and older (2000 2025)
	2000	2025	2050	
World	6.9	10.5	15.9	96.3
Africa	3.2	4.2	6.8	113.7
Latin America	5.5	9.9	18.2	139.2
Asia	5.9	10.0	16.8	119.7
North America	12.3	18.1	20.5	83.2
Europe	14.7	21.3	27.9	38.3
Oceania	9.8	14.7	19.1	92.7

Source: United Nations Population Division, 2003: Online

the current generation of thirty year olds reach retirement age. Economists in the United States of America opine that serious budgetary problems may surface as early as 2008 when millions of so called baby boomers – the large number of babies born after World War II between 1946 and 1964 – reach retirement age (Brynard, 2004). For example, state expenditure on pensions in Germany will in 2040 rise from an already high 10.3% of the Gross National Product to 15.4%, while the number of economically active workers who have to support each one of those who have retired, will drop from 2.6 to 1.4 (Du Toit, 2004). Developing countries – and Africa in general with her Nepad<sup>2</sup> vision – are heading for a bleak future as a result of the economic impediments which industrialised countries experience because of, amongst others, ageing populations. Economic aid from the latter will in future increasingly be forced inwards, so that the flow of aid to Africa and other developing areas will gradually diminish.

## 2.3 Increased momentum in global migration patterns

Considering past and current migration trends, all developing regions (Africa, Asia, Latin America) are projected to show a net migration loss in future decades, while the more developed regions (Europe, North America) will show a net migration gain. One prominent outcome of increasing migration trends is that the majority of the population in every region of the

world will be living in cities by 2030. Only two of the ten biggest urban areas projected for 2010 will be in more developed countries (Tokyo, Japan and New York, USA). The rest of these mega cities will be in less developed countries – countries which are in many cases already battling to provide the required basic services in respect of clean water, sanitation, sewerage and waste management.

Against this backdrop, the following section reviews the main demographic trends and changes to be expected in the South African population structure within the next few decades.

## 3. EXPECTED TRENDS AND CHANGES IN THE SOUTH AFRICAN POPULATION STRUCTURE IN THE NEXT FEW DECADES

Demographic change in South Africa broadly correlates with general demographic shifts currently occurring globally. In the midst of apparent similarities with the projected changes between the global and South African populations, there is, however, one important difference. Current changes in the world population – and thus also projected changes – are largely attributed to transitional phases of demographic change as the quality of life of populations increases and socio economic development accelerates. Yet, in South Africa – in fact, in all of southern Africa in particular – many of the current and expected changes will rather emanate from an unforeseen, extreme influence on the population structure, namely the effect of HIV/AIDS. At the beginning of the 1990s

2. New Partnership for Africa's Development

few observers predicted the present extent of the HIV/AIDS epidemic, and it was generally accepted that the epidemic would have little influence on the population structure of even seriously affected countries. In fact, up to the mid 1990s population projections worldwide very seldom, if ever, took into consideration any expected effects of epidemics or disasters (like famine) (Pelser, 2004a). The AIDS epidemic has, however, changed all of this.

Taking into account the current and projected demographic changes in the South African population, at least four main demographic trends can be identified which are not only set to change the country's population structure fundamentally in the next few decades, but which will also have far reaching planning and policy making implications.

### 3.1 Change 1: A (continued) sharp decline in the population growth rate and a concomitant decline in the absolute population size

The demographic scenarios of the 1980s and early 1990s which predicted strong growth in the South African population, have in the past few years changed dramatically, on the grounds firstly of proof that the fertility rate is declining drastically and, secondly, as a result of the more recent impact of HIV/AIDS. Most projections show, depending on their underlying assumptions, that the South African population will, within a few decades, reflect a slight to considerable decline in numbers. The annual growth rate of the total population is projected, in keeping with the declining fertility rate, to drop from the current 0.59% to an average rate of 0.17% for the period 2005-2010, and further to 0.33% for the period 2020-2025 (Table 2).

The growth rate of the population is linked to two other directly related processes: the crude birth rate<sup>3</sup> and the crude mortality rate.<sup>4</sup> The crude birth rate is of particular significance to policy makers and planners, be

3. The number of babies born alive (expressed per 1000 members of the population) for a specific period.

4. The number of deaths (expressed per 1000 members of the population) for a specific period.

Table 2: Comparative changes in the South African population growth rate (2000-2025)

Region	Projected change in population growth rate (%)		
	2000-2005	2005-2010	2020-2025
World	1.22	1.13	0.81
Africa	2.20	2.06	1.69
South Africa	0.59	0.17	0.33

Source: United Nations Population Division, 2003: Online

cause it is more closely linked with the annual number of births in a population than is the fertility rate. The crude birth rate of all the population groups in South Africa declined markedly during the past 20 years, and indications are that the decline will persist in the next few decades. This can partially be ascribed to the fact that the HIV prevalence rate is proportionally higher among people who are in their reproductive period. Consequently, a relative large percentage of women will not complete their reproductive period – i.e. women in the age group 15 to 49 years (Pelser, Ngwena & Summerton, 2004).

The trend in respect of the declining birth rate in South Africa and other countries is usually associated with the process of modernisation and people's aspiring to a higher quality of life. However, specifically in South Africa, this trend is accelerated by the impact of HIV/AIDS, as is clearly reflected in the strong increase in the crude death rate. Table 3 shows the historical and projected situation in respect of the crude birth and death rates for South Africa.

Table 3 reflects, among others, that if the current underlying factors and assumptions remain constant, South Africa in the next two decades will see an increase of more than 30% in the crude death rate. In fact, all indications are that the death rate is set to rise sharply within the next ten years, until it reaches an historical high in the period 2010 to 2015 – an increase of more than 38% measured against the corresponding figure for the period 2000-2005 (Table 3). During the period 1990-1995, the crude death rate reached an historical low of 8.1 per 1000 of the population. This would then mean that the death rate of the South African population – within a 20 year period – will have swung from

an historical low (8.1 per 1000 of the population in late 1995) to an historical high (23.4 per 1000 of the population in late 2015) – a rise of 189%. Under "normal" circumstances, and as a population enjoys a rise in quality of life and especially life expectancy as a result of socio economic progress, the crude death rate drops. In South Africa this process will, however, be reversed, and the blame for this reversal can largely be laid at the door of the HIV/AIDS epidemic,<sup>5</sup> and then more specifically the country's inability to curb the spread and impact of the epidemic. The implications of this are far reaching and will affect virtually all walks of life, as is actually already the case.

The expected net result of current trends and projected changes in the population growth rate, and also in the crude birth/death rate, is a decline in population size. Table 4 shows the medium term projection for South Africa according to the projection models of the United Nations Population Division (UNPD) and the Population Reference Bureau (PRB). Though both models take the impact of HIV/AIDS into consideration, it is important to point out that their underlying assumptions in respect of migration, mortality and fertility rates (may) differ. In spite of such differences, both models agree that South Africa is heading for a decline in population numbers. Over the next five decades, and based on the population size in

5. A relatively high crude death rate can also occur as a result of a particularly "old" population profile, as in the case of Sweden, for instance. In South Africa and in many other developing countries however, the current and projected increase in the death rate is not ascribed to the ageing of the population, but to the impact of the HIV/AIDS epidemic.

Table 3: Change in the crude birth and death rates of the South African population (1960-2025)

Indicator	Projected change (per 1 000 members of the population)						Change
	1960-1965	1980-1985	1990-1995	2000-2005	2010-2015	2020-2025	2005-2025
(Crude) birth rate	41.6	33.9	28.3	22.6	20.1	18.4	18.6%
(Crude) death rate	16.7	10.2	8.1	16.9	23.4	22.0	30.2%

Source: United Nations Population Division, 2003: Online

Table 4: Medium term change in the South African population size: 2003-2050

Year	Population (million) (PRB)	Population (million) (UNPD)	% change since base year (2003-2050)	
			PRB	UNPD
Mid 2003	46.9	44.7		
2025	44.6	42.9	4.9	4.0
2050	41.7	40.2	11.1	10.1

Sources: Population Reference Bureau, 2004: 4; United Nations Population Division, 2003: Online

Table 5: Long term change in the age category 65 years and older in the South African population (2000-2050)

Year	Total (million)	Proportion of population (%)	Increase in numbers since 2000 (%)
2000	1.626	3.7	
2010	2.269	5.0	39.5
2025	3.421	8.0	110.3
2050	3.826	9.5	135.3

Source: United Nations Population Division, 2003: Online

2003, this decline could be as much as 10% to 11%.<sup>6</sup>

### 3.2 Change 2: Progressive ageing of the South African population

One of the most important changes in the structure of the South African population – in line with international trends – relates linked to the ageing of the population. Although approximately one third of the South African population is currently still 14 years or

younger, the population is, demographically, deemed to be “adult”<sup>7</sup> because of the relatively large proportion of persons 65 years and older. Despite the projected high mortality rate, the proportion of older persons will systematically increase in the following decades, until by the year 2050 approximately one in ten people in the country will fall within the age cohort 65 and older (Table 5). The group 65 years and older is the only age category in the South African population which will, in the next few decades, experience a sharp increase, both in

absolute and proportional terms (UNPD 2003). In contrast to all other age categories which are projected to enter a period of declining numbers and proportions, the numbers of those older than 65 years will increase by approximately 110% in the next two decades, and by approximately 135% in the next 50 years.

In contrast to what is the case with younger age groups, it is highly unlikely that the AIDS epidemic will have a significant effect on the structure of the age group above 65 years. This means that the life expectancy for the latter group – in contrast to other age groups – will continue to rise. This systematic ‘greying’ of the South African population will cause similar political, economic and social problems as those with which governments in many developed countries are already grappling.

### 3.3 Change 3: A constant decline in life expectancy to 2015-2020, with a subsequent gradual increase

In line with international trends, the South African population has since the 1960s shown a rise in life expectancy, together with a decline in the death rate. As a result of the increased mortality rate caused by HIV/AIDS, this trend has been reversed in the past decade, and life expectancy will continue to decrease for at least the next 10 to 15 years. In fact, the HIV/AIDS epidemic is rapidly obliterating all the progress made in life expectancy in South Africa over the past 30 years.<sup>8</sup> Life expectancy at birth for the total population is projected to decline from approximately 62 years at the beginning of the 1990s to more or less 43

6. This scenario could change if the government can intercede successfully in treating those who are HIV positive or who are already showing signs of AIDS. If a 100% implementation rate of antiretroviral treatment has been achieved by 2005, the population can continue to grow and can eventually stabilize at approximately 52 million people by 2010 (Department of Social Development, 2004).

7. Demographically speaking, a population is considered to be “young” when fewer than 4% of the population are older than 65; in “adult” populations between 4% and 7% of the population are older than 65, while an “old” population is where more than 7% of the population are older than 65.

8. Life expectancy at birth is internationally considered to be an important indicator of the general level of health and quality of life in a country.

Table 6: Comparative change in life expectancy of the South African, world and African populations (1990-2025)

Period	World	Africa	South Africa
1990-1995	63.8	51.1	61.8
2000-2005	65.4	48.9	47.7
2010-2015	67.2	51.0	41.5
2020-2025	69.1	54.9	45.0
2045-2050	74.3	64.9	55.7

Source: United Nations Population Division, 2003: Online

Table 7: Increase in the South African urban population: 1950-2025

Year	Percentage urbanised
1950	43.1
1975	47.8
2000	55.5
2025	70.1

Source: United Nations Population Division, 2003: Online

years by 2015-2020, yet maintaining persistently sharp differences between the four main population groups.<sup>9</sup> A projected life expectancy of 43 years represents the same level encountered in South Africa by the middle of the 20th century. After the period 2015-2020, as the HIV/AIDS epidemic reaches 'saturation point' in respect of the death rate, life expectancy for the total population ought gradually to rise to approximately 54 years by 2035 and 56 years by 2045-2050 (Table 6).

### 3.4 Change 4: A shift in migration patterns and population distribution

When it comes to changing migration patterns, it is necessary to take cognizance of at least two prominent trends in the South African population. These trends are, firstly, the net loss of highly skilled labour power as a result of a high official emigration rate and, secondly (like elsewhere in the world), the increasing movement from rural to urban areas. Both trends involve

far reaching and complicated long term consequences for a whole range of development initiatives and sectors in the country.

#### 3.4.1 Changing patterns of across-border migration

Official statistics reveal that in 2003 South Africa showed a net annual migration loss for the tenth consecutive year. The official net migration loss for the period 1994 to 2003 amounts to some 50 000 persons. However, a CSIR study claims that three times as many South Africans may have emigrated between 1996 and 2001 as the official Stats SA figure of 60 000 indicates. Since 1994 an estimated 458 000 members of the white population have emigrated from South Africa. Of these almost one third were highly skilled professionals between the ages of 25 and 39. (There are insufficient data to determine emigration patterns for other population groups) (SAIRR, 2004).

The official migration loss experienced by South Africa in the past decade does not, however, provide for the presence and continued influx of illegal immigrants. There are vastly divergent estimates of the actual number of illegal immigrants in the country, varying between 100 000 to as many as 12 million, with most observers estimating a figure of between 2 and 4 million (Pelser, 2004a). Projections show that this trend is set to persist and probably intensify in coming decades. More and more people from Africa, Latin America and south east Asia seek refuge not only in the industrialised countries, but also in some developing countries like South Africa, which are relatively easy to reach, have less effective monitoring systems and hold promise of a better future.

#### 3.4.2 Increasing rural-to-urban migration

South Africa has by far the largest urbanised population of all countries in southern Africa, and even though expectations are that future migration to urban centres will slow down, the momentum of population growth in the country's main metropolitan areas will persist for the next few decades (Table 7). Provision of land, housing units and services will pose major challenges and bring further pressure to bear on the natural environment.

## 4. WHAT IS THE SIGNIFICANCE OF THESE TRENDS AND CHANGES FOR HUMAN DEVELOPMENT AND PLANNING IN SOUTH AFRICA?

South African society is in many respects a microcosm of demographic change, as well as of the concomitant social, economic and political issues which are associated with such change elsewhere in the world. More specifically, over the next few decades the expected demographic changes will pose unique problems with specific challenges to planners and policy makers. Some of these problems and challenges emanating from the changing population structure can be outlined by means of a few significant implications.

### 4.1 Implication 1: A marked increase in population numbers is no longer a valid premise in planning considerations

One of the tasks of a planner is to advise on spatial arrangement for future use on the basis of demographic trends (Steyn, 1996: 34). An analysis of spatial demographic trends is thus important to inform socio-economic and planning imperatives such as decisions regarding regional development, urban size policy or planning for the provision of housing, as well as the number and spatial distribution of facilities such as schools and hospitals. Changes in the structure, composition and size of the population thus hold a range of implications for spatial arrangement.

In contrast to what was the case 10 or 20 years ago, policy makers, planners

9. If the South African government manages to achieve a 100% implementation rate of ART by 2005, this will keep the life expectancy at approximately 50 until 2010 (Department of Social Development, 2004).

and administrators in South Africa no longer have to allow for a marked increase in population numbers in their calculations concerning the future needs of the South African population. It is a fact that when long term planning and needs analyses are based on population data – irrespective of the service sector – it cannot, nor dare not, be done in isolation from the larger processes and forces in which these sectors operate. Lessons, particularly from European countries, teach us that circumspection will be required especially where new long term infrastructure – schools, suburbs and even town planning – is being considered; in short: any long term planning based on the historical premise of a constant increase in numbers as a justification or source for such development, could potentially be fundamentally affected by the projected decline in the population growth rate and population figures. Spatially, the projected changes mean, amongst other things, a decrease in the number of school sites<sup>10</sup> to be provided during the next few decades, while planning will simultaneously have to provide for sites suitable for institutional use – orphanages,<sup>11</sup> health care facilities and care centres for the aged.

Together with a rethinking of spatial organisation, attention will also have to be devoted to planning for basic services needs. One example is water provisioning. In the early 1980s, concern was expressed that the population growth rate of the day would eventually test the balance between the country's then projected population of 80 million people by 2020 in respect of the availability of fresh water sources – a concern which was one of the contributory justifications for the introduction of the Population Development Programme in 1984. Declining fertility

rates and rising mortality rates, resulting amongst others from the impact of HIV/AIDS, indicate that the population will cease growing in the present decade and will eventually stabilise at between 48 and 52 million people (South Africa. Department of Social Development, 2004). The current concern about water revolves around the distribution of and access to the resource, thus addressing the wrongs of the previous political dispensation. The focus will, in other words, shift to future water provision and access to clean water, especially in growing urban areas. New, different demographic shifts, like continued urbanization and the 'greying' of the population, in other words mean that planners will more often than has been the case up to now, be confronted by new challenges, as will later be explained.

#### **4.2 Implication 2: Lower life expectancy compromises national development objectives**

Increasing AIDS related morbidity (disease) and mortality (deaths), and a consequently decreased life expectancy are sure to affect national development objectives negatively. The ever increasing HIV prevalence rate (nationally at 27.9% according to the annual antenatal clinic survey of the Department of Health in 2003) not only triggers and accelerates demographic change; the overall development potential of the country and its people is also seriously affected. For example, it is estimated that more than a quarter of the economically active population will be infected with HIV by 2006 (Pelser, Ngwena & Summerton, 2004). In economic terms, the expected declines in productivity and life expectancy will lead, amongst others, to a situation where South Africa will for the foreseeable future remain trapped in the bottom half of the Human Development Index,<sup>12</sup> this despite progress having been made in other fields like literacy and per capita income.

Various other development issues and challenges are already crystallising out of the interaction between the rising

mortality rate and declining life expectancy. What causes particular concern is the fact that ever increasing proportions of the state budget may have to be allocated to health and welfare services – this of necessity to the detriment of other priorities like education, infrastructure, the legal system and job creation projects, to name but a few. Although the Government's policy change in respect of the provision of anti retroviral treatment (ART) represents an important step towards relieving the impact of the epidemic, the authorities will have to do much more to address the fundamental factors feeding the spread of the disease. The social breeding ground of the virus – poverty, ignorance, gender inequality, high risk sexual behaviour, cultural misconceptions and behaviour, sexual violence, etcetera – will flourish until more determined and focused policy programmes are put in place to address these factors. Yet, the success of such programmes depends on, firstly, a stronger and more explicit acknowledgement by the authorities of the scope, gravity, dynamics and impact of the epidemic, and, secondly, on the political will to implement the necessary measures with dedication.

#### **4.3 Implication 3: Distinctive needs of and planning for a progressively ageing population**

The increase in the numbers of the population older than 65 years will increasingly put a financial burden on both the state and the economically active sector of the population. However, should a quarter of the economically active sector be affected with HIV in 2006, as the projections indicate, it will most certainly adversely affect the earning capacity and also the concomitant capacity for support of this sector. The fact is that the basic demographic problem firmly remains: In the future a larger proportion of the population (above 65 years) will be economically inactive in the production of goods and services, but they will continue to lay (proportionally growing) claim to such goods and services.

What are the potential macro economic effects of an ageing population? As there is a more rapid increase in the numbers of those older than 65 years than in any other age category of the population, this demo-

10. Current demographic projections of the UNPD, for example, show that the number of South Africans in the 17 years and younger age cohort will constantly and systematically decrease from 17.900 million in 2000 to 10.932 million by 2050 – thus a decline of some 39% in the absolute numbers of the school going age cohort.

11. By the end of 2004 South Africa had an estimated 600 000 orphans. Earlier projections (disregarding ART) estimated the number of orphans at 2 million by 2014, mainly as a result of the effects of HIV/AIDS. The implementation of ART could halve the projected number of orphans, yet the present number will still increase by some two thirds in the following decade (Department of Social Development, 2004).

12. Life expectancy is one of three components used to determine a country's/ region's/ group's position on the Human Development Index; the others are level of education and per capita income.

graphic shift will, in coming decades, exert a marked impact on state finances. Questions which will *inter alia* have to be answered are closely linked to the levels of benefits payable to retired persons, the age at which people will in future qualify for state benefits, and of course, the constitutional responsibility of the state in respect of health care for this group – a group which proportionally makes bigger claims on health care than any other age cohort.<sup>13</sup> Quite clearly this means that the financial care of the older generation will require rethinking and fresh planning, because there is little doubt that there will be a marked increase in the future dependency burden to be borne by the economically active generation in respect of the elderly. As a result of HIV/AIDS, the economic active population are, however, fighting their own battle and are making equally strong demands on limited government resources, so that it will require exceptional expertise and insights to allocate state funds equitably and to balance diverse interests. It would, however, appear that future economic realities in South Africa will leave the state with little room for providing large scale financial support to the older generation, this in spite of the need and pressure which will build up for such aid. The fact is that government expenditure on social grants increased from R10 billion to R24.5 billion during the decade 1994–2003, while the total number of beneficiaries of state grants increased from 3.2 million in April 2000 to 7.3 million in November 2003 (South Africa. Department of Social Development, 2004). This means that already one in six South Africans depends on some kind of government grant for financial survival<sup>14</sup> – a ratio which will probably in future increase as a growing proportion of older people qualifies for government grants and applies for them. Simulation studies have shown that, in the absence of any

government grants, 55.9% of older people will live in poverty, while 38.2% of older people will live in ultra poverty without the support of such grants (South Africa. Department of Social Development, 2004).

A second area which already poses particular challenges in respect of the care of the elderly is that of housing, specifically state facilities for caring for the elderly. By the end of 2002 there were only seven state homes for the elderly in South Africa with a total capacity of 794 places (South Africa. Department of Social Development 2002). If the private sector is added, the total number of subsidised homes for the elderly in South Africa came to 474 – a steep decline from the 571 in 1999.<sup>15</sup> The most state subsidised homes are in the two most urbanised provinces, Gauteng and Western Cape, while provinces like Eastern Cape and KwaZulu Natal, with the largest concentration of older persons, have fewer homes. Lessons learned elsewhere clearly show that the ageing of the population which we will face in the next few decades will be unparalleled and that this situation already requires unparalleled interventions and solutions.

#### 4.4 Implication 4: Increased urbanisation increases both demand for basic services and pressure on existing infrastructure

The 2001 census data reveal that more than 20% of the population in the main metropolitan areas – as well as in some of the regional centres and smaller towns – are migrants. Except for the effect which this trend has on the large urban complexes in Gauteng and Western Cape, the trend also has the opposite effect on rural provinces like Eastern Cape, Northern Cape and Limpopo. Planning for and providing community services and amenities will have to be brought in line with urbanisation trends and internal migration patterns so as to handle the needs and claims of the growing urban population. However, at the same time, rural areas will have to be developed and serviced to promote sustainable human development.

The expected increase in urbanisation over the next few decades and the challenge which this will pose must be viewed in conjunction with other national issues like the existing levels of poverty, unemployment and housing backlogs. A major challenge facing specifically the housing sector will be to satisfy the growing demand for housing – brought about by the decrease in household size from 4.5 in 1996 to 3.8 in 2001 (Statistics South Africa, 2003). The Department of Social Development has the following response to this challenge: "This [*the change in household size*] translates into an increase of two million additional households over and above that generated by population growth [*during this period*]. It is expected that the demand for housing will double as a result of this phenomenon" (South Africa. Department of Social Development, 2004: 7). Against this background the continued existence and probable expansion of informal settlements in urban areas will require a substantial and costly increase in services like water, sewerage, waste management and health care facilities. This not only has implications in respect of fiscal allocations, but also for approaching spatial development, including the identification of areas with potential concentrations of absolute poverty and the interventions required in sending communities.

The provision of cemeteries is yet another facet of spatial planning which will have to receive the attention of planners. The projected increase in deaths<sup>16</sup> resulting from a rising mortality rate will exert greater pressure on the land use needs of the burgeoning urban population (Steyn, 1996: 32). Other critical current and future policy issues accompanying growth in South African cities are those associated with a lack of dependable sources of energy, a lack of safe water, inadequate waste management and pollution control, as well as the occupation and degrading of fragile environments like wetlands and indigenous forests. An increase in urban growth will decidedly pose bigger challenges in respect of the planning and management of these and other issues

13. In the USA, for example, the frequency with which state health services are used by a person above 65 is approximately 27% more than that of a person in a younger age cohort (du Toit, 2004).

14. The Department of Social Development is currently responsible for the administration of seven types of income grants. They are targeted at older persons, persons with disabilities, poor children, war veterans, foster care, and grants to support families who care for children and the needy.

15. The decline can largely be attributed to financial factors which led to the closing down of many homes for the elderly.

16. By 2011 a cumulative total of more than 5 million people in South Africa will have died as a result of AIDS related diseases. By 2021 this figure could increase to 9.10 million (Van Tonder, 2004).

accompanying urban growth. Neither the extent of migration to urban areas nor the direction of the flow is precisely known. Acceleration in urbanisation over the next decade is however projected, which means that urban areas will face growing populations – a trend which has far reaching implications for infrastructure and service delivery. Several municipal councils are already struggling to deliver minimum levels of acceptable service delivery, and, in future, as needs and demands for infrastructure and services mount, these councils will experience increasing pressure.

## 5. WHERE DOES ALL OF THIS LEAVE SOUTH AFRICA IN RESPECT OF POLICY-MAKING AND ACTION?

A comprehensive and integrated strategy is cardinal to address the overarching issues brought about by current and projected changes in the population structure. The most important policy interventions and adjustments necessitated by demographic shifts were largely incorporated in the form of development objectives in the 1998 Population Policy. However, the Population Policy and other supporting programmes require sustained allocation of financial and human resources for them to be effective in practice, while strong and innovative alliances between the authorities, the private sector and other sectors are essentially important to the mobilisation of the necessary resources. To date, however, there have, at the national level, been too many signs of poor interdepartmental cooperation, the virtual absence of the private sector and a lack of expertise – all factors which hamper the streamlined implementation of the Population Policy. From a policy perspective South Africa can barely afford the luxury of general, fragmented and unfocused development and planning actions. The available expertise and resources will simply have to be more strongly and more effectively streamlined and focused so that the country can position itself in respect of the demographic changes which are already sporadically making their presence felt in various fields.

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