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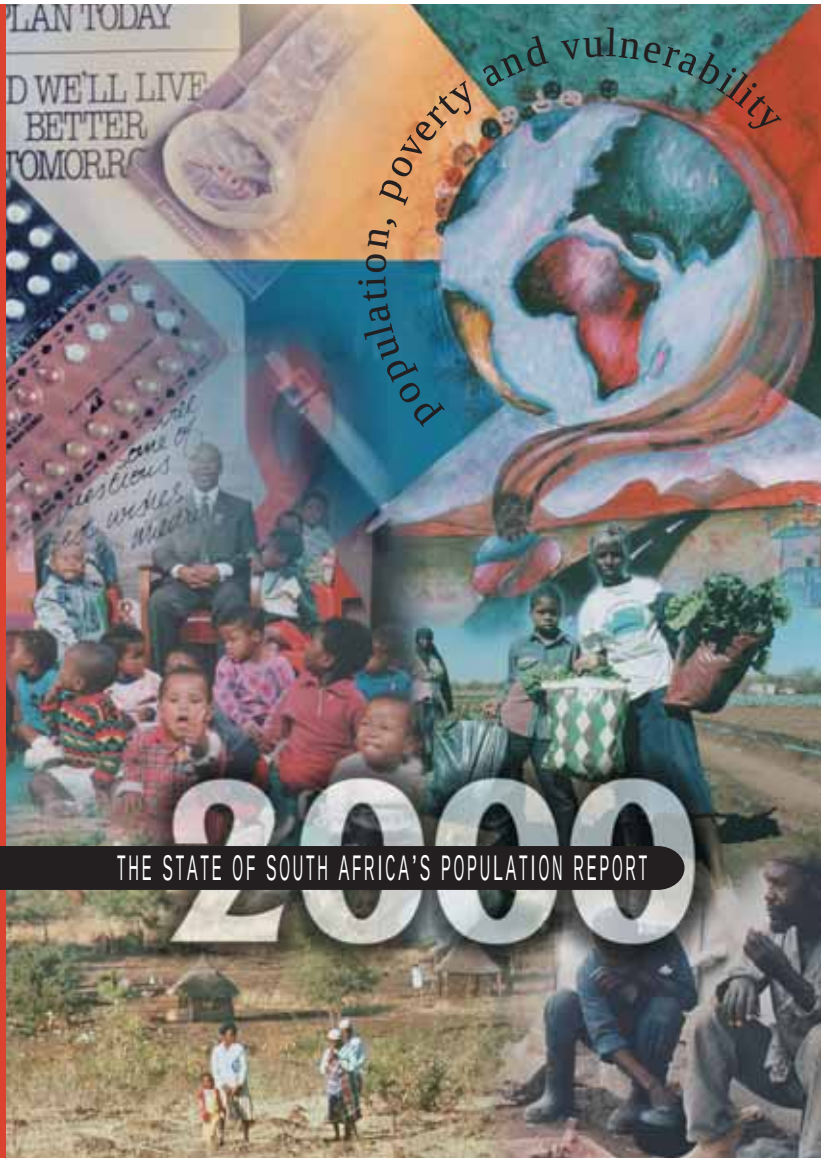

Population, poverty and vulnerability

2000

THE STATE OF SOUTH AFRICA'S POPULATION REPORT

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FOREWORD

It gives me pleasure to present the first report on the state of South Africa's population. The compilation of this report emanates from the mandate of the National Population Unit to inform, advise and guide the government on the implementation of the population policy – which is every government department's responsibility.

The report reflects on the most important population and development challenges facing our society, and their causes and consequences. Through the report, we assess progress with reconstructing the relationship between population trends and development, within the sustainable development paradigm. The report presents trends since the liberation of our country in 1994, and specifically serves to review the state of population and development two years after parliament adopted the *White Paper on Population Policy*.

In step with the government's commitment to create a caring society for all, and specifically to eradicate poverty, we decided on the theme *'Population, Poverty and Vulnerability'* to guide the contents of the report. In doing so, the relationship between population trends and the macro-economic, social and health challenges facing the country are explored, and recommendations are made. These recommendations are aimed at all South Africans, including the government, private and non-governmental sectors. I trust that we will see these recommendations reflected in existing and new policies and programmes during the coming year.

The report is however not simply another government publication. It is the result of a partnership between the government and the academic / research community. In August 1999 the National Population Unit met with some of South Africa's leading population researchers to develop an agreement on the compilation of this report. Since then, government officials from the National Population Unit and Statistics South Africa, and academics and researchers worked closely together to develop consensus views on the state of South Africa's population, as reflected in this report.

The government will publish similar reports every year, as a way to demonstrate and sustain our collaborative relationship with the academic community in the field of population and development, and to provide leadership to our whole society in addressing the population challenges facing South Africa.

DR ZST SKWEYIYA
MINISTER OF SOCIAL DEVELOPMENT

In presenting this report, we wish to pay tribute to Professor J S (Kobus) Oosthuizen, who sadly and unexpectedly passed away in January 2000. In his characteristic humble style, Professor Oosthuizen played a leading role in the transformation of our population policy since 1994, and rendered valuable advice in the compilation of this report. At the time of his passing, Professor Oosthuizen was recognised nationally and internationally as one of our most preeminent demographers.

POPULATION, POVERTY AND VULNERABILITY

"The issue of population growth must be put into perspective. The present (pre-1994) population policy, which asserts that overpopulation is the cause of poverty, ignores the role of apartheid in creating poverty, and also implies that the population growth rate is escalating (which is untrue). It is true, however, that a relatively high population growth rate exacerbates the basic needs backlogs our society faces. Raising the standard of living of the entire society, through successful implementation of the RDP, is essential over the longer term if we are to achieve a lower population growth rate. In particular, the impact of any programme on the population growth rate must be considered ... Policies on international migration must be reassessed bearing in mind the long-term interests of all the people of the sub-continent."

- Reconstruction and Development Programme, par. 2.2.8 (1994)

The South African Population Policy was adopted by parliament in April 1998. The population policy was a result of four years of research and intensive stakeholder consultation by the National Population Unit. It reflected international trends in and approaches to population and development, as agreed on at the International Conference on Population and Development (held in Cairo in 1994). More importantly though, it described the relationships between population and development in South Africa, and captured the sustainable development aspirations of ordinary South Africans. The policy representation of these aspirations was obviously shaped by the democratic and human rights culture introduced into governance after 1994.

The population policy also refers to the influence of past population strategies as tools of oppression, exploitation, and segregation. And it proposed strategies to respond to the legacy of apartheid in a manner that will reconstruct the relationships between population and development, and the environment. The policy is based on a vision of a society that provides a high and equitable quality of life for all South Africans in which population trends are commensurate with sustainable socio-economic and environmental development.

The South African society has changed dramatically since 1994, and those changes increasingly became part of our everyday lives as we advanced in transforming government services, liberalising our economy, and managing our environment. All the adjustments were not easy. For example the Poverty and Inequality Report (1998) highlighted that global reintegration and other factors made poverty eradication and the reduction of inequality an even more challenging task than perceived before. Many people are still poor and vulnerable, and unable to benefit from the 'sustainable development' envisaged in the population policy.

In the light of this, the National Population Unit decided to partner with the academic community to produce an assessment of the state of South Africa's population, two years after the adoption of the population policy. The timing of the report coincided with the availability of much more comprehensive sets of population data than were available at the time of producing the population policy. The extent of this partnership is reflected in the list of contributors to the report. Jointly government officials, academics and researchers set out to collect fresh data on the themes most

central to the population policy. Hence the theme *'population, poverty and vulnerability'*. These data enabled us to (through this report) make our assessment. Even more strikingly though, the analyses and projections contained herein charts the way forward for all South Africans, but particularly government, in dealing with population issues.

The report is presented in a way that also contributes to de-mystify population issues to the general public as well as the development planning community. It talks about the activities of government departments and the private sector, in a manner that will hopefully enable all to go about their population business in a manner that enhances sustainable human development.

The idea to cast the assessment into the format presented here is not entirely original though. The report is modelled on the practice of the United Nations Population Fund (UNFPA) to annually produce a report on the state of world population. *The State of World Population 1999* report of the UNFPA was released to coincide with the world population reaching 6 billion, and drew significant public attention to population growth issues. The National Population Unit used this surge in public interest to communicate our own major population concerns to the public. Of particular interest was the fact that our population size has started stabilising, due to two reasons. One is a remarkable decline in fertility rates. The other is the devastating impact of HIV / AIDS on life expectancy and mortality rates. We had to communicate a more sophisticated analysis than merely adding up total numbers though. The reality of HIV / AIDS is that it particularly kills economically active people - those who are supposed to sustain older and younger generations. The implication is that the real population - development concern does not relate to an over-exploitation of resources anymore, but to the fact that our resources will become less able to even sustain a smaller population, because of the inability of the society to 'harvest' resources. Dependency ratios are to increase, with proportionally fewer healthy and able working age people to support the more vulnerable age groups.

This report operationalises the new paradigm for population and development that was introduced by the Reconstruction and Development Programme and the population policy. It propagates an approach that departs from the population planning paradigm, to a participatory and responsive approach that searches for what is best for sustainable human development. It is not judgmental, but rather seeks to refine strategies and programmes in a manner that will optimise their outcomes for all South Africans. Ironically, the report illustrates that population trends have overtaken even the recent RDP assertions around population growth, although the paradigm remains as relevant as when conceived.

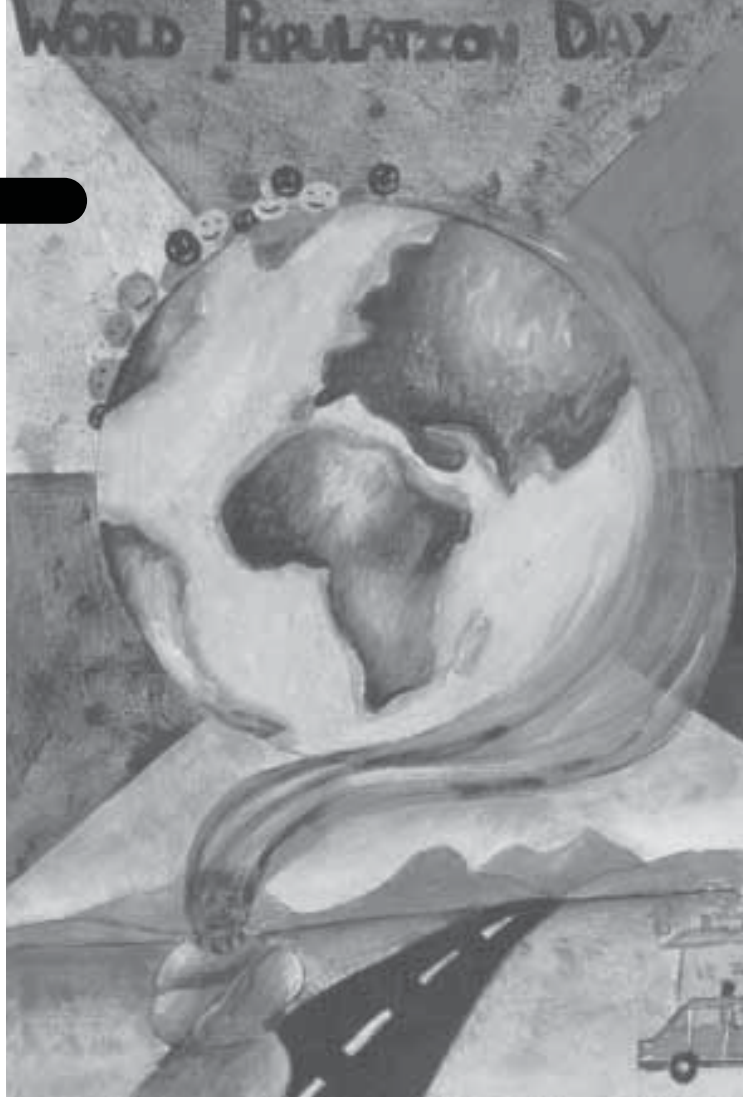
The next three chapters of the report deal with issues that shape our macro level understanding of population in relation to development. These are population trends related to globalization, unemployment and the environment. The data analysis and interpretation presented in these sections are firstly descriptive, and secondly explorative of trends that have developed recently. It attempts to de-mystify and de-politicise our understanding of these relationships. It also exposes popular misconceptions, often fuelled by underlying racist assumptions. Each chapter contains recommendations on how to mitigate against real threats posed by current trends. Most importantly however it illustrates those aspects of current programmes that would enhance sustainable human development.

The second set of chapters deal more directly with issues typically associated with the study of population, i.e. fertility, the status of women, sexuality and reproductive health. A description and an explanation of South African fertility trends (which is usually the key interest of population researchers) is offered. The discussion of trends is then linked to the human rights paradigm within which South African population issues has been cast by our constitution and population policy. Specifically noteworthy is the fact that our fertility trends suggest far higher levels of human (and human rights) development than what has actually been achieved. Our fertility trends make our

'demographic map' look different from many other developing countries, particularly in Africa. The report exposes the myth that these resulted from an improved status of women, and illustrates that the systematic repression of women under apartheid was probably a trigger for fertility decline.

Such an argument has to be drawn to its full consequences though. And in South Africa the consequence of apartheid gender policies (which were not limited to health and welfare services or the lack thereof, but also crystallised in migrant labour, bantustan and other arrangements) was a female population so poor and vulnerable that they could not foresee, prevent, nor protect themselves against the paralysing grip that HIV / AIDS developed over our society. The closing chapter of the report is dedicated to HIV / AIDS, and its implications. It illustrates how the pandemic entered our society and how it fed on poverty and vulnerability, but most importantly, how it serves to perpetuate poverty for generations to come.

In brief, this report is a call for balanced action. It practically illustrates that a better understanding of our population trends will enhance sustainable development. It argues that every population challenge facing South Africa also presents an opportunity. It illustrates that our policies and programmes in place already often hold the key to unlocking these opportunities. It especially illustrates that the government and the academic / research community present a powerful partnership to guide the country into the African century.



GLOBALIZATION, POPULATION AND VULNERABILITY

The term *globalization* describes ideas and processes that operate internationally on the political, the cultural and the economic level. Globalization today is closely associated with the re-emergence of liberal economic and social thought, with its emphasis on the individual and on the economic market. Globalization is also a process that accelerates communication between countries. The lives of people globally are becoming increasingly interconnected. This process began five hundred years ago with the rise of capitalism and the expansion of European colonialism. However, what is new in the late 20th century and the emerging 21st century is the rapid acceleration and intensification of this process of drawing countries closer together.[1]

On the economic level, the current era of globalization facilitates a shift from "state" to "market", that is, a shift from state control and intervention to the regulation of trade through economic market operation. This shift can be seen in the privatisation of traditional state functions, liberalisation of monetary and trade policies, more flexible labour markets and an emphasis on fiscal discipline. While some may benefit from these measures, they often have an adverse effect on those who are socially excluded from economic market relations. An increasing number of people become vulnerable to the impact of fluctuations in the dynamics of economic markets. Economic decisions therefore have an impact on social conditions. People caught up in poverty, or who are at risk of becoming poor, use the assets available to them, such as family and community networks and basic resources to fend off the social impact of globalization. But when these assets are depleted, the ability of the poor to cope under adverse conditions diminishes.

GLOBALIZATION, DEVELOPMENT AND THE WORLD POPULATION

Rapid technological progress, based on information technology, has enabled the speeding up and intensification of communication between people in various locations through various media, as illustrated by the instant flow of information on satellite television, the Internet and electronic mail. This constitutes a dramatic "shrinking" of the globe. In 1990, people spent an approximate 33 billion minutes talking on telephones; in 1996, this figure increased to 70 billion minutes. Tourism has more than doubled over fifteen years: the 260 million travellers per year in 1980 have increased to 590 million in 1996.[2]

Countries are becoming more economically interconnected as trade barriers between them are dismantled.[3] For example, India reduced its average import tariffs from 82% in 1990 to 30% in 1997; Brazil from 25% in 1991 to 12% in 1997, and China from 43% in 1992 to 18% in 1997.[4] Likewise, South Africa reduced its average import tariffs on manufactured goods from 14% in 1994 to 5,6% in 1998.[5] This puts workers in different countries in competition with each other, opening up the danger of a downward levelling in wages and working conditions.

LIMITING THE SOCIAL CONSEQUENCES OF GLOBALIZATION

There is considerable scope for national governments to intervene in order to limit the negative social consequences of globalization. In terms of policy processes, government departments that deal with economic issues tend to take a lead under globalization. However, governments that wish to respond effectively to the pressures of globalization need to ensure that government departments responsible for social development and care of the vulnerable are equal partners to their economic counterparts. Social development departments can play an active role in increasing the assets available to the poor and the socially vulnerable for responding to the pressures of globalization.

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The flow of money and goods between countries has also increased. Foreign direct investment grew to US$400 billion in 1997, seven times what it was in real terms in the 1970s. Goods exported now average a value of US$7 trillion. Also, multi-national corporations have been growing at a rapid pace through mergers and acquisitions. In 1997 alone, US$236 billion was spent in cross-border mergers and acquisitions.[6] Many multi-national corporations now have annual sales totalling more than the gross domestic product of many countries, including that of South Africa.[7]

The increased interconnectedness due to globalization has opened up opportunities for many people to expand their horizons. There is greater diversity in cultural life, for example. Opportunities to communicate with people across the globe are available, while the use of different technological resources should enable rural communities to access education. Consumers generally benefit from a wider range of cheap and accessible goods. Some countries have seen the challenge of international competition as an opportunity to restructure their work places along high skill and participatory lines. This "high road" strategy is reflected in the Workplace Challenge Initiative launched by the National, Economic, Development and Labour Council (NEDLAC) in South Africa in 1995.[8]

But the consequences of globalization have not been positive for all of the world's population, which has now reached 6 billion. Just over 1 billion people live in developed countries; the rest, almost 5 billion, or 80% of the world population, live in developing countries. Globalization is not creating a homogenous world. Indeed, many regard it as threatening their religious or cultural identity, as seen in some instances of religious fundamentalism and in the assertion of difference, like in South

Africa where xenophobic attitudes directed at immigrants from the rest of the continent have become widespread.

The 1998 crises in emerging markets drew the attention to the vulnerability of developing economies to global capital flows. Inequalities between different segments of the world population continue to widen. The richest 20% of the world population account for 86% of the world gross domestic product, 82% of the world exports of goods and services, and receive 68% of foreign direct investment. Also, although globalization has increased the possibilities for global communication, this is overwhelmingly concentrated in the richest 20% of the world population.[9]

The social impact of these inequalities is reflected in population indicators. A comparison of the life expectancy of people in countries across the world shows that, for example, the average life expectancy of an American citizen was 76,7 years, life expectancy in South Africa improved from 52,8 years in 1970 to almost 62,5 in 1995.[10] Although this indicates some improvement, this figure does not reflect the impact of AIDS on mortality, and will have to be adapted downwards due to this expected impact on the life expectancy of South Africans. Infant mortality rates and maternal mortality rates also reflect these inequalities. Whereas 7 out of 1 000 babies died as infants in the USA in 1997, the South African rate was 41 in 1999.[11] Out of a 100 000 mothers giving birth in the USA in 1999, an average of 12 died. The South African figure for 1998 was 150.[12]

While it is obvious that the causes of these differences are complex and multi-faceted, the tendency for globalization to replicate and compound existing social exclusion and vulnerability impact on populations' ability to reach their full human potential.

GLOBALIZATION, VULNERABILITY AND SOCIAL EXCLUSION

Globalization tends to impact on different countries in different ways. As the global shapes the local, local dynamics also shape the global. The World Bank has argued that a process of localisation accompanies globalization, resulting from community demands for self-determination and a devolution of power from national governments to provincial and local government structures.[13] Some commentators have referred to this interaction between the local and the global as a process of glocalization. However, in terms of its social impact, increased *globalization* tends to compound existing inequalities, vulnerabilities, social exclusion and social problems in general, not only in terms of international dynamics, but also for countries internally. South Africa mirrors the global trends towards growing social inequality and the maintenance of contours of social exclusion. In a society in which existing levels of social inequality and poverty are already very stark as a result of apartheid economic policies, this interaction between existing local inequalities and new emerging forms of inequality due to globalization may lead to unsustainable levels of marginalisation, vulnerability and poverty.

The fact that globalization facilitates a shift from state control to free markets increases the categories of people who are at risk of becoming socially excluded. Increasingly, social exclusion is seen as dynamic. Large categories of people are caught up in cycles of poverty, while others can move in and out of conditions of poverty, depending on the availability of resources to sustain life. The crises in 1997 in the South East Asian economies and in emerging economies in general illustrate this point. A crisis that originated in globalized financial markets had wider repercussions, as thousands of people lost their jobs. Social instability led to the eruption of social unrest and violence in many countries. This implies that the poor and those who are at risk of becoming poor are more exposed to social exclusion and the risk of being socially excluded. Policy makers therefore not only have to take existing forms of poverty and inequality into account, but have to be pro-active in an understanding of which segments of the population are vulnerable to exclusion.

WHO ARE THE EXCLUDED AND THE VULNERABLE IN SOUTH AFRICA?

Globalization creates definite winners and losers. Individuals and social groupings who are able to market their skills and abilities in the context of a global market place may potentially reap benefits from the process. Existing inequalities also impact on the ability of people to respond to these opportunities and pressures. Potential winners include the urban-based middle class from all segments of the population. Also potentially included are workers with sought after skills in the high-end manufacturing export and service sectors (who have greater organisational strength to pursue their interests), university graduates (whose educational qualifications and business skills will provide them with career paths at the top-end of the labour market as South Africa becomes globally integrated), and black business groupings encouraged by the government's programme of black economic empowerment, coupled with the privatisation and out-sourcing of state assets.

But there are also losers, as well as people who are at risk of becoming losers. The 1999 Human Development Report argues that the social fragmentation resulting from globalization has led to a reversal in much of the progress made in terms of human development. Continued fragmentation poses a threat to human security.[14]

The destabilising effect of globalization on the population is not only a South African issue. In many instances, the South African scenario reflects a broader concern about social exclusion - the fact that globalization does not currently show "a human face". While many are already caught in poverty cycles, others are at risk, since insecurity increases the vulnerable segment of the population.

When analysing South Africa's employment statistics, it is clear that old inequalities still form the basis for social exclusion, in this case from the formal labour market. The official unemployment rate increased from 16,9% in 1995 to 20,1% in 1996, and again to 22,9% in 1997. Between 1994 and 1997, the manufacturing industry lost 94 900 jobs. From 1997 to 1998, the textile industry alone lost an estimated 20 000 jobs. Temporary increases in interest rates resulting from Reserve Bank attempts to defend the value of the Rand put severe pressure on the building and construction industries: from 1994 to 1997, the construction industry shed 51 400 jobs. The total loss of jobs in the formal non-agricultural sector from 1994 to 1999 amounted to half a million.[15]

Some commentators argue that the decrease in formal sector jobs is overestimated, as many of the workers who were retrenched are employed in casual, temporary and subcontracted jobs. Unfortunately South Africa does not have adequate statistical resources to refute or substantiate such a claim. However, if it is indeed true that many permanent full-time jobs are transformed into casual, temporary and part-time jobs, or that new jobs that are created fall into these categories, it implies that the South African labour market is becoming more segmented. Increasing labour market segmentation is a typical result of globalization in many countries. These casual and vulnerable jobs are generally occupied by categories of the population who are already socially excluded. Again, this would compound the problem of winners and losers in globalization, while increasing the number of workers who are vulnerable to changes in markets and the insecurity this causes in the casual labour market.

Disaggregated unemployment statistics show that, while 24,6% of African men are unemployed, a mere 3,3% of white men are unemployed. Similarly, 34,6% of African women are unemployed, compared to only 4,4% of white women. Almost 27% of people living in rural areas are unemployed, compared to 21,5% in urban areas. South Africa still has a very youthful population, and more younger people tend to be unemployed. Thirty five per cent of those aged 15 to 30 years are unemployed compared to 19% of those aged 31 to 45 and only 10% of those aged 46 to 65.[16]

In relation to job categories of the formally employed, it is also clear that social exclusion and vulnerability follow gender and racial lines: whereas about 24% of African males work in jobs

classified as elementary, nearly 49% of African women do. This means that gender and race are important factors that determine the level of formal employment. This is also illustrated by the fact that half of all the white men and women employed work in jobs classified as managerial, professional or technical. Only 7% of white men and 3,6% of white women hold elementary jobs.[17]

Social inequality has increased globally, as well as within countries; South Africa also reflects this tendency. Although inequality between population groups has decreased, there has been a remarkable increase in inequality within population groups classified as black, as Table 1 indicates. (A Gini coefficient of 0 represents perfect equality, while a coefficient of 1 represents total inequality.)

Table 1:

Income inequality by population group: Gini coefficient, 1990 and 1995[18]

Population group of head of household	12 main urban areas		Whole country
	1990	1995	1995
African	0,35	0,51	0,52
Coloured	0,37	0,42	0,50
Asian	0,29	0,46	0,44
White	0,50	0,44	0,49
All households	0,63	0,55	0,59

The persistent high levels of poverty remain a major challenge for policy makers in South Africa. Food shortage forms part of daily crises. This impacts especially on children, leading to stunted growth and high levels of infant and child mortality. Another concern is crowded homes and dwellings, compounded by the high fertility rates still prevalent in rural areas. The poor also generally lack access to efficient sources of energy. Simple heating technology is dangerous because of the fire risk, while the burden of collecting wood generally falls on women, who report that they feel even more vulnerable to physical attack and sexual assault when collecting wood. The lack of jobs, or jobs that are secure, is also a major contributing factor to poverty. Many poor households are split over many sites as a survival strategy. This, coupled with the migrant labour system, leads to fragmentation of the family. The dependence of poor households on the migrant labour system is reflected in Table 2. In South Africa, poor households are more dependent on state transfers and remittances from family members employed away from home than households not classified as poor. Almost 20% of the income of poor households come from family members who are migrant workers.

Table 2

Sources of income among poor and non-poor households[19]

Source of income	Poor households	Non-poor households
Wages	40%	72%
State transfers	26%	3%
Remittances	17%	2%
Agriculture	4%	4%
Capital income (dividends, interest & rent)	8%	13%
Self-employment	5%	6%

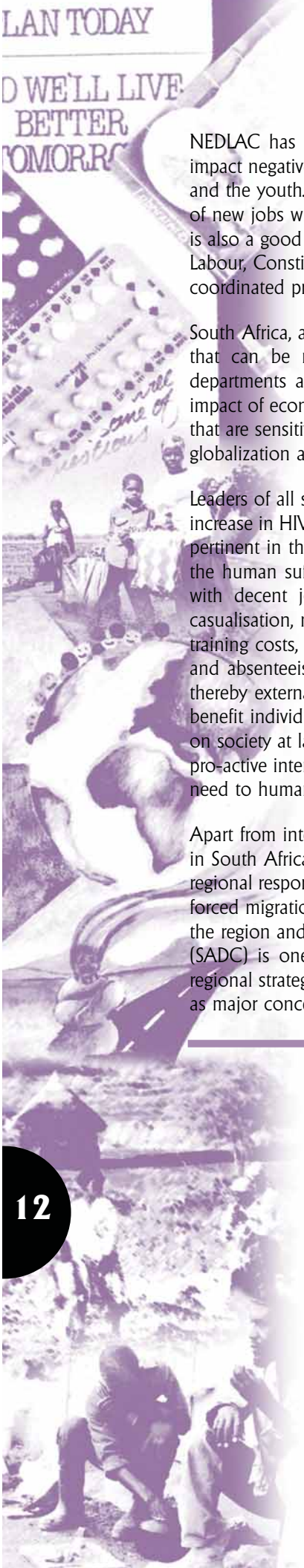
Unemployment and social inequality are increasing in South Africa. Certain categories of the population are more vulnerable to social exclusion than others – they tend to be rural, African, women and younger persons. While some may benefit from new opportunities provided by globalization, these are the people most at risk of losing out. The social effects of globalization tend to follow the contours of existing patterns of social exclusion and to aggravate the impact of social problems, such as crime, unemployment, HIV/AIDS and poverty on these segments of the population.

THE CHALLENGES POSED BY GLOBALIZATION

When considering the impact of globalization on various societies, commentators and policy makers often fall into the trap of assuming that government policy makers have no options. This perspective incorrectly presents globalization as an omnipotent force, moving across the world to wreak havoc.

There is considerable scope for national governments to shape the way in which globalization impacts on their countries. Indeed, co-ordinated policy formulation and implementation between different government departments, the private sector and civil society are crucial components of shaping the nature of globalization so that it does not commit national economies to negative effects, especially on the vulnerable. Instead of seeing globalization as an external force, policy makers should recognise that there are various measures available for using national and regional institutions to actively shape conditions under which economic restructuring takes place.

The interaction between government, business, labour and community organisations in the NEDLAC is an example of how South Africa responds to globalization. This institution provides the space for the labour movement, and civil society in general, to bargain over the terms of liberalisation. Arrangements such as NEDLAC create new rules of the game, allowing what has been called bargained liberalisation, which enables groups to renegotiate the terms on which a country engages with the global economy. This expands the choices open to policy makers.[20]



NEDLAC has developed the concept of a social plan to respond to retrenchments that usually impact negatively on those who are already socially excluded, such as women, people in rural areas and the youth. The social plan aims to put mechanisms in place, not only to facilitate the creation of new jobs when job losses occur, but also to relieve hardship for the affected communities. This is also a good example of intra- and inter-governmental collaboration, involving the Departments of Labour, Constitutional Development, Public Works, Finance and Trade and Industry in a single and coordinated programme with provincial and local governments.

South Africa, as a country with a developing economy, should approach globalization as a process that can be managed through an integrated policy framework, in which social development departments are equal partners with the economic departments in order to minimise the social impact of economic restructuring. Population, welfare, labour, health and education policy measures that are sensitive to the context of economic restructuring can play a crucial role in attempts to give globalization a more human face.

Leaders of all sectors have to be aware of the intersection between related phenomena, such as the increase in HIV/AIDS infection and the potential impact on the workplace. Two issues are especially pertinent in this regard. Firstly, many productive workers may be lost to the economy. Apart from the human suffering caused by HIV/AIDS, the implications for sustaining a well-trained workforce with decent jobs also have to receive serious consideration. Secondly, other processes, e.g. casualisation, may also intersect in vicious ways with HIV/AIDS. Some employers may want to cut training costs, arguing that it is not cost-effective to invest in a workforce with a high turnover rate and absenteeism due to the pandemic. Instead, they may choose to use subcontracted workers, thereby externalising the perceived risk of investment in training. Such a short-term approach may benefit individual firms in terms of basic profits, but the long-term effect on the labour market and on society at large will be devastating. The potential impact of HIV/AIDS on the workforce calls for pro-active intervention through policy formulation and implementation in order to give effect to the need to humanise globalization.

Apart from integrated policy formulation and implementation by different government departments in South Africa, many of the burning social issues that impact on the country's population call for regional responses. A narrow national focus will be unsuccessful in relation to such issues as crime, forced migration resulting from conflicts, the impact of downscaling in the gold mining industry on the region and the protection of labour standards. The Southern African Development Community (SADC) is one forum where such co-ordination should take place. Again, it is important that regional strategies are not driven by narrow economic concerns, but that social issues are integrated as major concerns in policy negotiations between countries.

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Chapter 2

MIGRATION AND UNEMPLOYMENT

The phenomenon of migration of people and families has been with societies for as long as they have existed. Migrants who move both within and across the South African borders are a common occurrence. This phenomenon has tended to have tremendous impact on the population-resource balance in both historical net-sending and net-receiving areas such as, for example, the Gauteng and Northern Provinces, respectively. On the international front, and as South Africa deepens its activities in the global economic system, it has become both a magnet and a notable springboard for migrants. Since 1990 there has been evidence of a growing movement of foreign immigrants and refugees to South Africa. The immigrants have come primarily from South Africa's traditional labour supply areas of Southern Africa as well as from the rest of the continent, Asia and Eastern Europe. As a result, cross-border migration has become a contentious issue that has influenced the overall trend in immigration policy development since 1994 toward even greater control and restriction.

Migration is often associated with unemployment, and governments generally want to keep the unemployed from entering their areas of jurisdiction. Furthermore, migration policy tends to focus on controlling cross-border international movements, and therefore research often neglects the important issue of intra-national movements, called internal migration. The important point ensuing from this discussion is that the issue requiring attention is not the act of migration or its perceived consequences, but the circumstances which cause some people to remain immobile and others to move away and the consequences thereof.

DEFINITIONS OF KEY TERMS

Migration is here defined as the movement of persons who changed their usual place of residence from one country to another, i.e. international migration, or from one magisterial district to another, i.e. internal migration, mainly in the five years preceding the census concerned.[1] ***International*** or ***cross-border migration*** consists of ***immigration***, which involves a move into a country, and ***emigration***, which indicates migratory moves from one country to another. ***Internal migration*** can entail either ***in-migration***, which refers to moves *into* a specific part of the country from another part (of the same country), or ***out-migration***, which indicates moves *from* a particular place to another.

Unemployment is defined here broadly to include those who are actively seeking work plus those who, while not actively seeking work, would accept it if it was offered.

The topics covered in this report are the distribution and mobility of the population (both within the country and across its borders), and the interrelationship between migration and (un)employment. The issues are presented and evaluated against the backdrop of the most recent official South African data (as obtained from Statistics South Africa, unless otherwise stated). International,

1

INTERNATIONAL/CROSS-BORDER MIGRATION

The reconfiguration of longstanding patterns of cross-border migration into South Africa began in the 1980s with an influx of an estimated 35 000 Mozambican refugees[5] who were joined by an escalating number of migrants from other parts of the region and Africa. It is evident from media reports and sometimes even in official statements that this form of international migration is seen as problematic by many South Africans. Since 1994 the debates around immigration have been increasingly characterised by a powerful new xenophobic discourse, which has led to a conflation of the concepts immigrants and refugees to the extent that, for some, all immigrants became "illegal aliens".[6]

The number of unauthorised immigrants within South Africa is a source of considerable controversy. Although there is reason to treat statistical data on international migration with extreme caution, the data on documented immigration seems to indicate that there has been a general decline in the *officially* recorded migration to South Africa.[7]

As far as the number of *undocumented immigrants* is concerned, estimates range from about 2 million to as high as 8 million. However, is has been cautioned that " ... we have too little knowledge to justify any precise estimates or assumptions."[8] The situation is exacerbated by poor and often questionable data collection and monitoring systems. One measure of undocumented or illegal immigration is the extent of visa overstaying. Although over-stayers, i.e. visitors from abroad who stay on longer than their visas permit, are not necessarily an accurate indication of undocumented migrants, their numbers provide vaguely reliable figures on unauthorised residence from computerised records of legal entries and exits. Figure 1 reveals an exponential increase in the number of these immigrants in recent years. The implications are that, despite stringent measures by the government to prevent illegal entry into the country, the number of visitors disappearing into South African society upon arrival continues to increase.

SOME MISCONCEPTIONS ABOUT MIGRATION

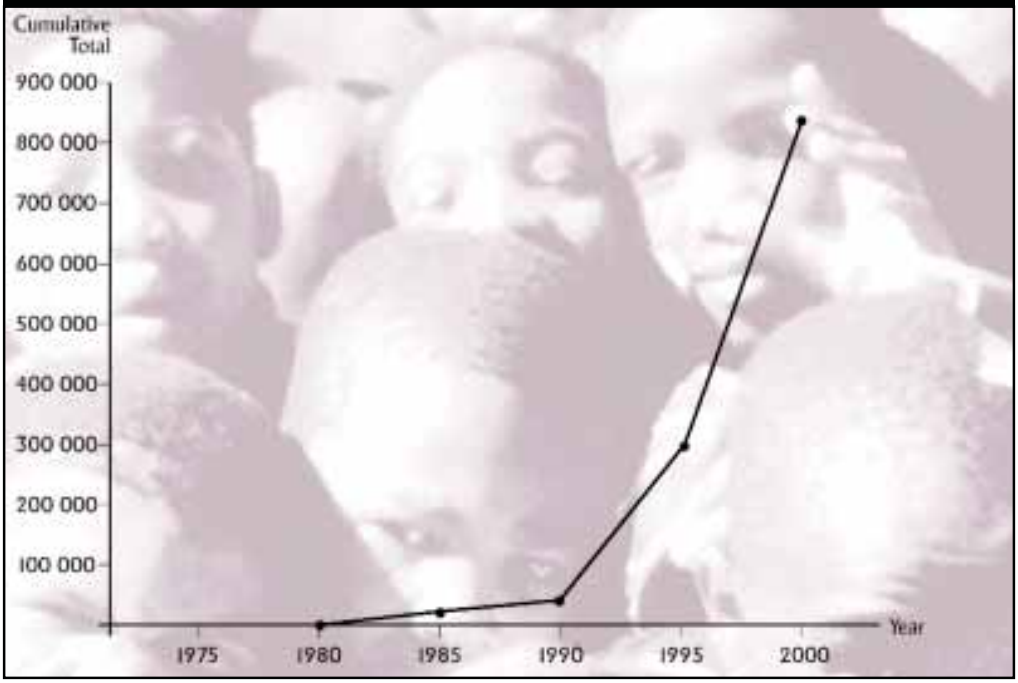
People generally migrate in an attempt to secure employment and other opportunities in another place where they think their chances to earn a decent income will be better, and to provide a better future for their families. The scarcity of employment opportunities in most areas results in-migrants being perceived as taking over the jobs of the local citizens. Especially immigrants (i.e. migrants from other countries) are thus often viewed as a threat to their area of destination. The fact that these immigrants (whether documented or undocumented) generally contribute significantly to the development of the receiving area[2] is often not effectively recognised and/or communicated.

In-migration is sometimes also seen to be a problem for secondary reasons. Casual observers often view urbanisation (i.e. the increase of the population in urban areas) as a cause of unemployment. This happens despite evidence that it is often merely a case of rural unemployment being transferred to the cities and towns through out-migration from rural areas.[3] Similarly, people often see squatting and informal settlement as being caused by rapid in-migration into urban areas. However, in reality the largest component of urban population growth in developing countries is usually a natural increase (the excess of births over deaths) of the urban

2

Figure 1:

CUMULATIVE TOTALS OF VISA OVERSTAYERS IN SOUTH AFRICA[9]



PERCEPTIONS ABOUT THE ROLE OF IMMIGRATION

Underpinning the post-apartheid restriction on immigration has been a xenophobic discourse that frames policy issues around the negative impact of immigrants. Central to this discourse is the idea that so-called illegal aliens cause crime, bring diseases, take jobs from South Africans, depress wages, consume social services and exacerbate unemployment. There is no scientific evidence to support such a view. In fact, a different picture emerges from a more in-depth analysis of the impact of migration. The Centre for Development and Enterprise concluded, on the basis of local and international evidence, that there is insufficient evidence to suggest that immigrants "steal" jobs from locals or that they are parasites on the host society's social services. In short, immigrants can contribute positively to the economy of the receiving country.[11]

3

Overstaying is only one indicator of undocumented immigration. Illegal entry through South Africa's borders remains relatively easy. The most common form, despite its risks, is border jumping.[10] However, in many ways undocumented migration into South Africa will become even more entrenched because of the stringent measures of control which have been taken since 1994.

Demographers, planners and policy makers increasingly agree that immigration policy cannot be based on the assumption that South Africa can function in isolation from its regional context. Whilst the adoption of a globalist position on migration by a single country puts that country at risk when other countries choose not to open their borders, one should note that South Africans have fairly free access to most other SADC countries. Our immigration policy should be informed by policy differences and convergences between countries in the region. Moreover, we have to realistically assess whether the growth objectives underpinning the envisaged SADC free trade protocol can be achieved, especially to the benefit of smaller entrepreneurs, when the movement of people is restricted. Furthermore, the "national interest", which seems to underpin South Africa's immigration policy, is an elusive concept that needs to be debated in the context of both globalization and the wider "regional interest".

EMIGRATION

Emigration statistics from the perspective of the country of origin are generally not particularly reliable internationally. People departing from their country of citizenship are often reluctant to be classified officially as emigrants until such time as they have obtained at least permanent residence status in their country of destination. The only effective way to obtain reliable estimates of the extent of emigration is to bring into the equation the immigration statistics of the countries of destination as well. This is a difficult process and can usually only be done long after a particular emigration event occurred. The time lag and the anonymous nature of the information contained in official records often prevent the generation of accurate emigration statistics for particular time periods.

The official emigration statistics provided in the 1997 Annual Report of the Department of Home Affairs indicate that South Africa experienced a net loss of 15 600 people through international migration during the five-year period 1993 to 1997. This should be compared to the net *gain* of almost 31 300 during the preceding five years (1988-92), which included the high proportion of people returning from exile, which was especially prominent during 1990. A total net loss of almost 7 000 economically active persons through emigration occurred during the two-year period 1996 to 1997, and this certainly must have had some impact on the South African economy. The true nature of this impact becomes even clearer when one considers the fact that the country experienced a net loss of almost 2 700 professional people in that period, indicating that popular fears of a "brain drain" were not altogether unjustified. Basically the same trends as for 1996-97 continued into 1998 and the first half of 1999.[12]

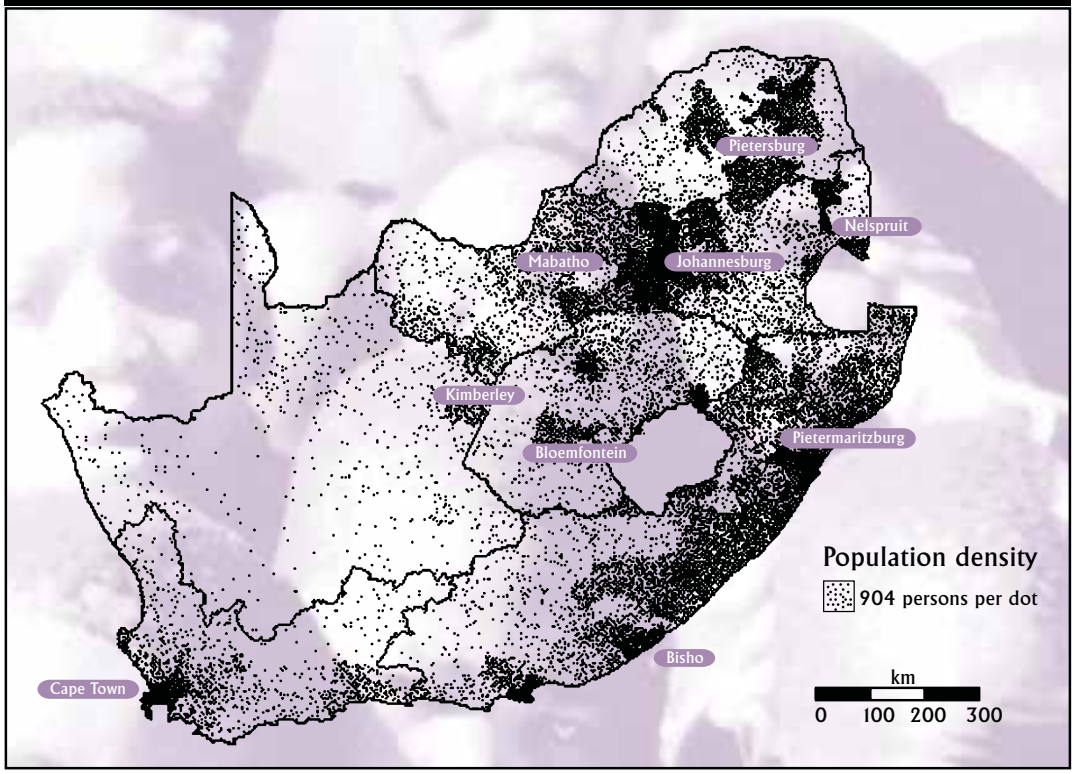
The statistics on officially declared emigration during most of the previous decade paint a rather bleak picture of South Africa's ability to attract and retain the highly skilled. This needs to be placed into a proper perspective, however. About 30% of those who emigrated during 1997 and 1998 had, in the first pace, originated from countries abroad.[13] Furthermore, any country undergoing a major political transition is likely to lose some of its professionals, who find it relatively easy to secure employment opportunities abroad when conditions are not perceived to be promising for career development in their home country.

INTERNAL MIGRATION

The manner in which settlements are placed in space is a dynamic reflection of the relationship and interaction between population, the environment (or natural resources) and development. Internal migration is a direct response to opportunities and hardships posed by this interaction, without the intervening factors associated with cross-border movements. South Africa's overall *population density* was approximately 33 persons per square kilometre in 1996, which made it the 66th least densely populated of 196 countries listed in the 1997 World Population Data Sheet.[14] The country's population distribution is highly uneven, with densities varying significantly from one province to the next, and within the provinces themselves. The largest province (in terms of land area), the Northern Cape, had a population density of just more than 2 persons per square km in 1996, while Gauteng, the smallest province in area, accommodated 432 persons per square km at the time.[15]

Figure 2

DISTRIBUTION OF THE POPULATION (1996) - A DISTRICT-BASED PERSPECTIVE[16]



Particularly noticeable on any population density map of South Africa are the relatively high densities in the former homeland areas. This can be ascribed largely to past segregationist policies, especially influx control, which prevented the African population from migrating out of the homeland areas, and the implementation of group-areas legislation. The legacy of the apartheid era is that these areas still have some of the lowest levels of services, infrastructure and employment in the country. Despite major improvements during the past five years, the backlog is still formidable. The situation in these previously neglected areas creates a climate of particularly high levels of poverty and vulnerability.

Data on inter-provincial migration in South Africa between 1992 and 1996 indicate that the Eastern Cape, Gauteng and the Northern Province lost a large number of people through out-migration. At the same time, however, Gauteng was by far the most popular migration destination in the country, followed distantly by the Western Cape. The effect of these exchanges of people between provinces is that Gauteng experienced a net gain of more than a quarter of a million people (262 000) between 1992 and 1996, while the Eastern Cape had a net loss of more than 206 000 during the same period.

The migration of men from the periphery to the industries and mines under the system of labour migrancy in the context of past influx control legislation has skewed the demographic profile of the country. The age-gender profile of migrants shows that South African men were consistently more migratory than women in virtually all age categories. Another important feature of the age-gender profile of migrants is that people between the ages of 15 and 44 years are particularly inclined to migrate, with a peak around the age group 25 to 29 years. The implications are numerous. The youth form a vast majority of the South African population, and they are more mobile than people in higher age categories. This clearly has an effect on those areas that are subjected to persistently high levels of out-migration, namely the rural districts of the country's periphery. Young people leave

Figure 3

NET INTER-PROVINCIAL MIGRATION (1992-96)

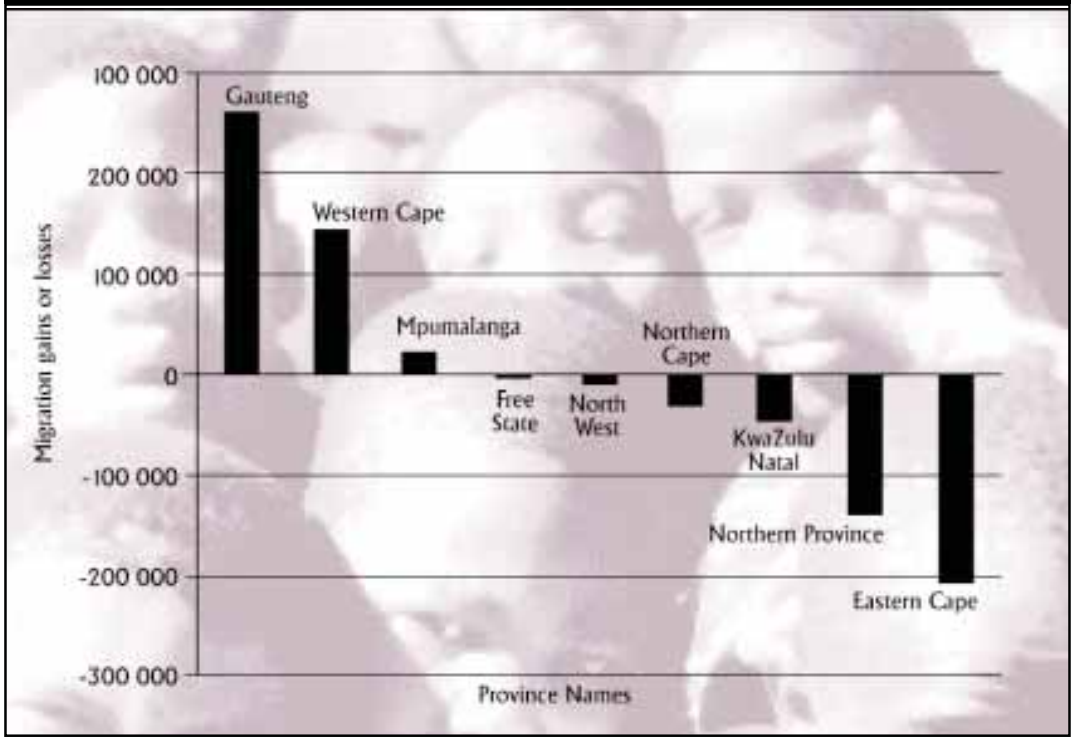
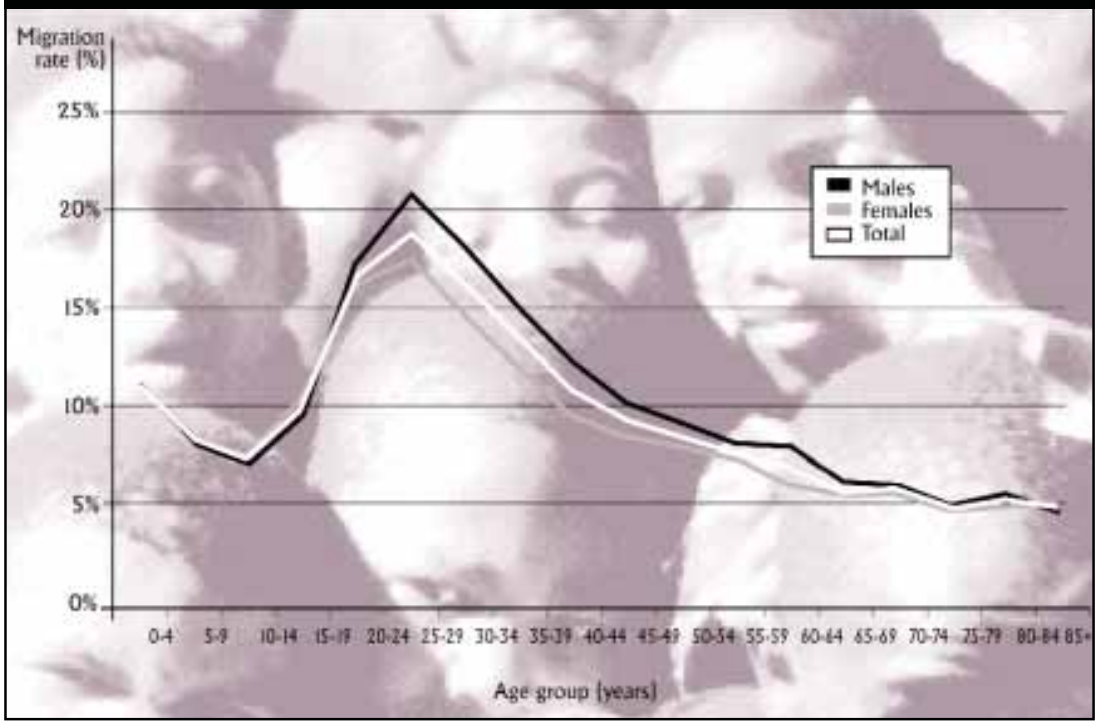


Figure 4

AGE-GENDER PROFILE OF MIGRANTS FOR THE PERIOD 1992-1996



these areas in large numbers. Another consequence is that women, who have tended to be the ones remaining behind, now outnumber men in almost all provinces, except Gauteng (where only 49% of the 1996 population were female). In practice this means that the rural areas are left with high proportions of *de facto* female-headed households.[17] Apart from the obvious social implications such as family disintegration, this also has serious economic implications. Female-headed households in rural areas are often prone to poverty and vulnerability. It is doubted whether out-migration in search of better opportunities will ever be an option − or even a solution − for such poor households. In areas of high out-migration remittances sent back by migrants have increasingly become an important source of income for those left behind.

Indications are that the social networks now linking households will eventually eliminate the gender selectivity among migrants as they increasingly provide opportunities for women to migrate. Social networks are often seen as beneficial to all those involved,[18] but the existence of networks per se does not guarantee that very poor people will actually benefit from them. In fact, the very poor (especially if they are female) may even suffer from greater immobility, as such networks may act as mechanisms of exclusion, preventing them from migrating.[19]

MIGRATION AND (UN)EMPLOYMENT

Declining employment opportunities in South Africa is a product of a number of factors including the sustained decline of the mining industry, the restructuring of the economy, and globalization which is associated with jobless growth and technology. The economic restructuring in question here centres around both the move to more capital-intensive production methods and the realignment of trade policies and state spending practices to make the country more competitive in global markets.

The employment market and the state of the economy

The upshot of these economic changes is that the modest growth experienced by the national economy has been accompanied by declining employment opportunities. Not only are employment opportunities not growing fast enough to accommodate an expanding population, but the number of jobs in the formal sector is also declining. These economic changes have served to exacerbate the already high unemployment levels.

Nevertheless, the economy has, on balance, maintained a positive growth rate. During 1995 economic growth reached a high for the previous decade at 3,5% per annum. The rate tapered off to about 1,5% in 1997 and 0,5% in 1998.[20] Despite the low economic growth rate and the decline in the number of employment opportunities, the average wage of those employed in the non-agricultural sectors has exceeded the inflation rate. This means that the economy is simultaneously shedding jobs and paying the employed more - a phenomenon popularised as "jobless growth".

The 1998 Reserve Bank report suggests that those earning lower salaries were more likely to be retrenched, while people earning higher salaries (as a result of a shortage of their skills) were more likely to improve their earnings. This perspective is substantiated by a recent survey[21], which suggests too that the trend is likely to continue for some time. It is predicted that, for the period 1998 to 2003 "... the vast majority of net job creation is in the professional and managerial categories, while job losses are likely to be experienced in the semi-skilled or unskilled category."[22]

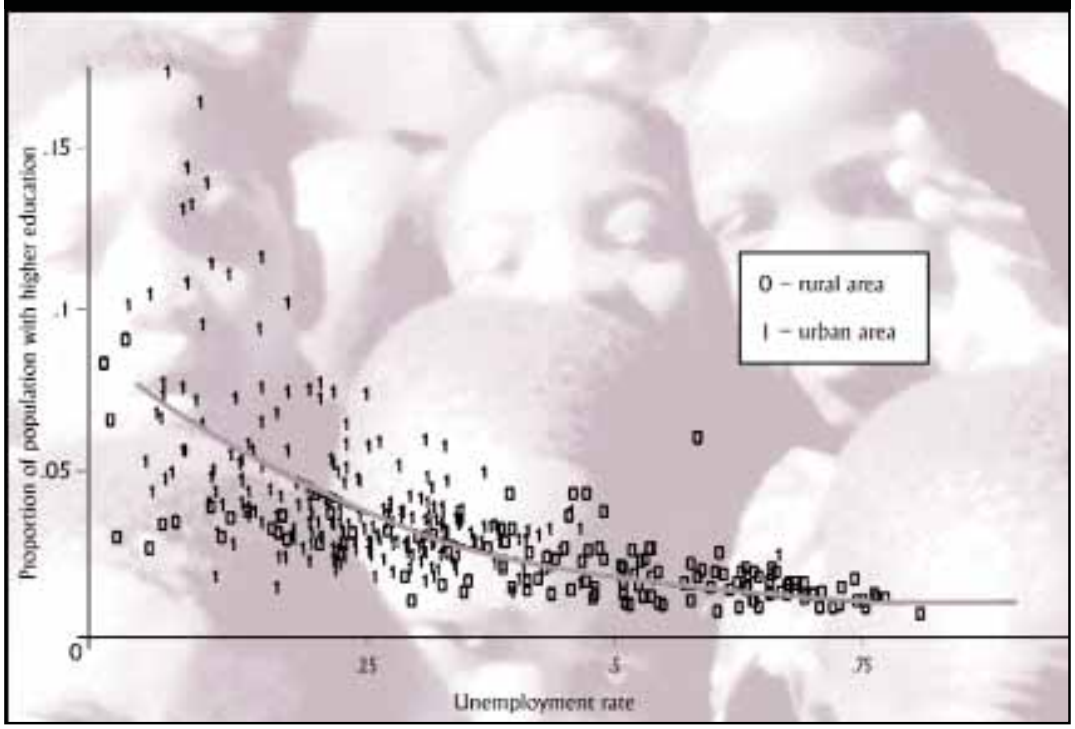
These economic changes have a profound effect on the employment prospects of the population in general, and on the youth and marginalised in particular. As semi-skilled and unskilled jobs are shed, employment prospects become more dependent on educational qualifications. In the process

those without education are increasingly marginalised with ever-diminishing prospects of being (re-) employed.

The economic activity profile derived from the 1996 census shows that unemployment rates peak at about the age of 25 years. At this age the unemployment rate reaches 37%. The lower unemployment rates for those younger than 25 years are due to high attendance rates at schools, universities, etc. Other things being equal, it would appear that the youth will bear the brunt of increased unemployment. When the job market is tight, prior work experience seems to count for more: the 1997October Household Survey shows that over one-third of the unemployed had been so for three years or more.[23] However, the youth are, in general, better educated than their parents, and there is a clear correlation between employment rates and education rates. The importance of a higher educational qualification in gaining employment is illustrated in Figure 5.

Figure 5

UNEMPLOYMENT AND EDUCATION



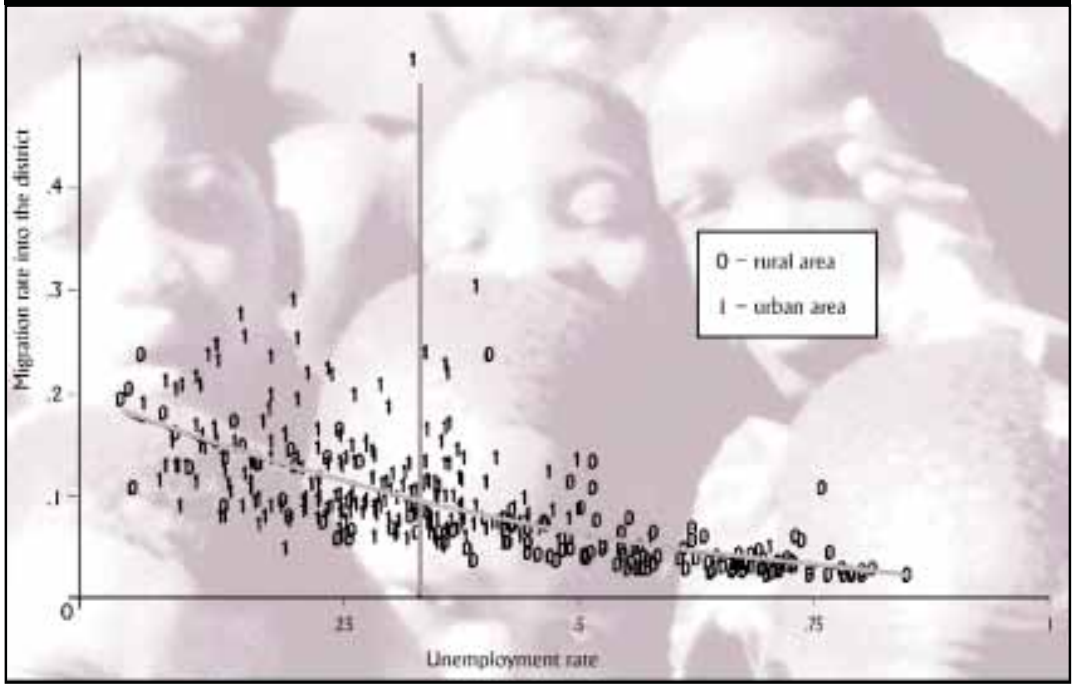
In Figure 5 unemployment rates are correlated with the proportion of the population with at least some post-matric education, per magisterial district. Those districts with better-educated populations have noticeably lower unemployment rates. With few exceptions, those areas in which less than 5% of the population have a higher education, also have unemployment rates in excess of 50%, and are overwhelmingly rural. Conversely, areas with low unemployment rates tend to have a larger proportion of better-educated residents. This reflects both the increased marketability of those with a better education and their ability to relocate to where the jobs are. Notably, provinces that provide relatively better employment opportunities tend to have the highest concentration of colleges, universities and technikons. The graph also displays how high unemployment rates and low education rates are concentrated in predominantly rural districts.

Labour Migration

Migration is an effective means of accessing better jobs and dealing with low levels of services, uncomfortably high population densities and limited economic prospects. While high migration rates may be an index of social dislocation, it can also be seen as an efficient means of meeting opportunities offered by the employment market. The 1996 Census results reveal a clear relationship between employment levels and migration trends. Those regions with lower unemployment levels evidently draw migrants from elsewhere. This can be seen in Figure 6, where the lower unemployment rates are associated with higher in-migration rates.

Figure 6

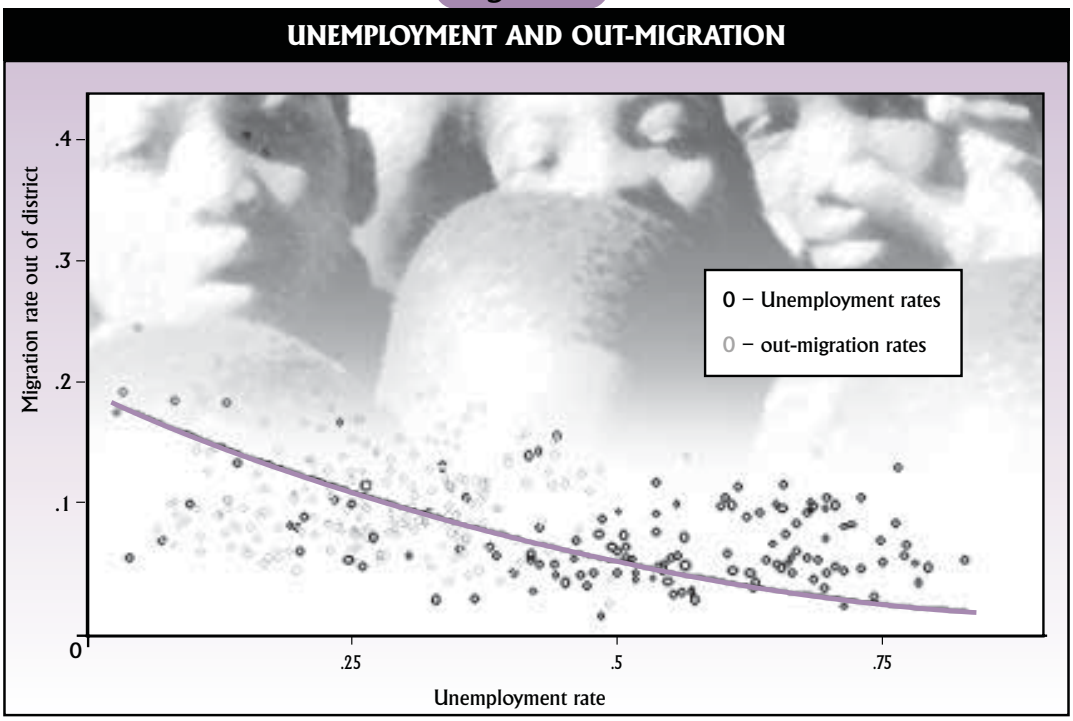
EMPLOYMENT AND IN-MIGRATION



While the attraction of migrants to areas with low unemployment rates is evident, researchers have not come out with a clear explanation of what compels migration in the first place. The causes of migration and non-migration are complex and go far beyond purely economic considerations. An important economic anomaly is illustrated in Figure 7: areas with higher unemployment rates are associated with lower out-migration rates. While increasing unemployment would generally be expected to cause increased out-migration as individuals and households seek economic opportunities elsewhere, this is clearly not the case in practice. Consequently, economic factors fail to explain all migration outcomes. A social explanation for the economic anomaly is that those already marginalised by social structures[24] and low education levels, may not be able to migrate.

Figure 7

UNEMPLOYMENT AND OUT-MIGRATION



IMPLICATIONS FOR POLICY

Migration policy is a highly contentious issue, especially in South Africa with its apartheid history that was characterised by policy measures that restricted the voluntary resettlement of blacks. The post-apartheid political, social and economic changes of the 1990s brought about some changes in employment and mobility patterns. These changes included increased access to a job market that was previously monopolised by a privileged few and more opportunities for residential and employment mobility, albeit in an environment of declining employment opportunities. This particular mix of accelerating immigration and in-migration amidst a declining economic situation has heightened sensitivity to the influx of migrants and has served to further problematise migration. As a result, many people believe that migration is an issue that needs to be addressed in policy, especially to deal with popular fears and misconceptions.

Governments often try to rectify the problem by attempting to curb migration. Mostly, however, migration is not a problem in itself, but a *manifestatio*n of a problem. The spread of HIV/AIDS and high unemployment are cases in point. First, the real challenge is changing attitudes and behaviour patterns, regardless of where people move to or who moves. Second, the movement of labour is as economically desirable as the movement of capital, investments, information, etc. In relation to the spread of HIV/AIDS, there is a perception among some analysts that this disease is spread by migration, with the result that population mobility is regarded as the problem. This is clearly an oversimplification of a highly complex issue. Preventing people from moving cannot solve the root causes of the problem. It should also be acknowledged in this context that inconsistency in policy is dangerous, because it tends to lead to the violation of only *some* people's human rights.

The process of migration, whether internal or international, should therefore not be viewed as problematic in itself. It is a product of circumstance, changing or fluctuating labour markets, social, economic and political conditions or legislation. Thus migration policies should not naively deal

with migration (internal as well as international) as if it were *responsible* for societal ills. Very often migration is a highly desirable activity, both from the point of view of the individual and society at large. In many cases migration may be the only option people have for satisfying their basic needs; to control it is unlikely to have any positive effect, let alone making any significant difference to people's mobility.

Experience proves that, in the absence of foolproof physical barriers, migration controls tend to achieve very little. The main achievement of control probably lies in diverting the spatial streams to less controllable routes. From virtually all perspectives, these routes are also usually less desirable. The only logical policy approach would be to improve the economic and educational opportunities that will allow the poor and the vulnerable to escape from the conditions in which they are trapped. The aim should be to reduce socio-economic imbalances and create opportunities for better regional integration.

LESSONS LEARNED ABOUT IMMIGRATION POLICY

The following immigration policy lessons have been identified by the *Southern African Migration Project 1999*[25] and presented to the government:

Improvement of the human rights components of a new immigration policy. In accordance with the new Bill of Rights, there is a need to eliminate human rights abuses associated with the criminalisation of undocumented immigration.

Greater regional integration. As Southern Africa moves towards an era of greater integration, effective management of cross-border migration can strengthen existing linkages.

The need to distinguish between types of immigration. There is an urgent need, already discussed in the Green Paper on an Immigration Policy for South Africa, to distinguish between short-term, purpose-oriented cross-border movements and long-term immigration.

The "brain drain" that South Africa has been experiencing could be curbed by a growing and well-managed economy, actively supported by organised labour, interventions aimed at addressing the crime situation purposefully and effectively, and general commitment at all levels of society to ensure a comparatively good quality of life for all people in South Africa. The country's new government has so far succeeded quite well in meeting the first two criteria, and it is hoped that the last would follow soon from the current policies that are aimed at improving the well-being of the country's citizenry. The interests of migrants and tourists are, however, also important in this regard, and should form an integral part of such a policy framework.

In conclusion, it may be emphasised that xenophobia should not be accommodated in policy, but should be eradicated by means of guidance (political and otherwise), information provision and education. Migration policy issues have been placed on the agenda of the SADC. Recent research suggests that the SADC region could be treated as a single spatial entity for the purpose of migration policy, with cross-border movements being treated as if they constituted internal migratory moves. A similar approach has been successfully introduced in large parts of Europe. This would also bring migration policy in line with the pending free-trade regime within SADC.

NOTES

1. This chapter generally deals with patterns of internal migration in South Africa during a defined five-year interval to ensure comparability and consistency. Although there are some problems associated with migration intervals, the use of such intervals could not be avoided here. With regards to problems relating to migration intervals, see: Standing, G. 1984. Conceptualising territorial mobility. In: Bilsborrow, R E; Oberai, AS & Standing, G (Eds.). *Migration surveys in low income countries; guidelines for survey and questionnaire design.* London: Croom Helm, pp. 31-59.

2. The Centre for Development and Enterprise (CDE). 1997. *People on the move: a new approach to cross-border migration in South Africa.* Migration Series. Johannesburg: CDE.

3. Gelderblom, D & Kok, P. 1994. *Urbanisation : South Africa's challenge (Volume 1: Dynamics).* Pretoria: Human Sciences Research Council.

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5. De Jongh, M. 1994. Mozambican refugee settlement: survival strategies of involuntary migrants in South Arica. *Journal of Refugee Studies,* 7:220-230.

6. Peberdy, S A. 1999. *Selecting immigrants: nationalism, national identity and South African immigration policies*, 1910-1998. Unpublished Ph.D. thesis. Kingston, Canada: Queens University.

7. Ibid.

8. Brunk, M. 1996. *Undocumented migration to South Africa: more questions than answers.* Public Information Series No. 1. Cape Town: IDASA.

9. Source: Data provided by the Department of Home Affairs.

10. Crush, J. 1999. Fortress South Africa and the deconstruction of Apartheid migration regime. *Geoforum,* 30:1-11.

11. CDE, *People on the move: a new approach to cross-border migration in South Africa,* pp.23-25.

12. Statistics SA. 2000. **Statistical release P0351 for June 1999**. Pretoria: Stats SA.

13. Stats SA. 1999. **Documented migration, 1997 and 1998. Report no 03-51-03 (1997 & 1998)**. Pretoria: Stats SA.

14. Population Reference Bureau (PRB). 1997. *World population data sheet, 1997.* Washington, DC: PRB.

15. The three magisterial districts with the *highest* densities are "township" areas situated in the three main metropoles of the country: Soweto in Gauteng (10 625 persons per square kilometre), Umlazi in KwaZulu/Natal (7 426) and Mitchells Plain in the Western Cape (6 657).

16. Source: Census 1996 data obtained from Stats SA.

17. Female-headed households comprise 47% of all rural households (according to the 10% household sample of Census '96). This is high compared to the 32% in urban and 35% in semi-urban areas. The provincial breakdown is also enlightening. In the Eastern Cape and the Northern Province the majority of households (50% and 52% respectively) were female-headed, compared to mere minorities of the households in other provinces (ranging from 28% in the Western Cape to 39% in KwaZulu/Natal).

18. Massey, D S; Arango, J; Hugo, G; Kouaouci, A, Pellegrino, A & Taylor, J E. 1993. Theories of international migration: a review. Population and Development Review, 19(3):431-466.

19. Gelderblom, D. 1999. *Do migrant networks function to diffuse the advantages of migration or are they mechanisms of exclusion? Social differentiation and the migration literature*. Paper read at the Annual Conference of the South African Sociological Association (Saldanha, July 1999).

20. Reserve Bank. 1998. *Annual Economic Report,* 1998. Pretoria: South African Reserve Bank. (Internet copy available at : "http://www.resbank.co.za/economics/year98".

21. Whiteford, A; Van Zyl, E; Simkins, C & Hall, E. 1999. *SA labour market trends and future work-force needs,* 1998-2003. Pretoria: Human Sciences Research Council.

22. Ibid., p. 121.

23. Stats SA. 1998. *Unemployment and employment in South Africa*. Pretoria: Stats SA.

24. Gelderblom.

25. Crush, J & McDonald, D (Series Eds.). 1999. *The Southern African Migration Project (SAMP)*. Cape Town: Institute for Democratic Alternative in South Africa (IDASA).

POPULATION AND ENVIRONMENT

THE IMPORTANCE OF THE ENVIRONMENT FOR SOCIAL AND ECONOMIC DEVELOPMENT

South Africa's priorities are to meet basic needs of all South Africans for 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 for all South Africans. People are dependent on natural resources, in their natural state or processed to various extents, for food, water, shelter, energy and other commodities. Human life and all social and economic development depend on the environment; the quality of human life depends on the quality of the environment. Thus the state of the environment is irretrievably interrelated with the state of the human population.

From the economic perspective, the environment has three basic functions that are fully intertwined with the issue of socio-economic development. Firstly, it provides the resources for economic production processes, secondly it acts as a sink for waste and lastly it serves recreational purposes.[1] The environment also has important non-economic value such as the fulfillment of spiritual needs for the continued existence of natural habitats and the maintenance of biodiversity unrelated to any use of these resources.

INTERRELATIONSHIPS BETWEEN POPULATION AND THE ENVIRONMENT

Given the fact that human life depends for its needs on the environment, it is clear that population and the environment are closely interlinked. Thus changes in a country's population will hold implications for the environment. The main demographic outcomes of population change are population size, growth, structure and distribution. The impact of these population variables on the environment is dependent on the specific lifestyles of the population. The main element of lifestyle relevant to environmental impact is the particular production and consumption patterns employed to fulfil human needs and desires. In South Africa, the disparities between the poor and the affluent

imply that very different environmental impacts are experienced as a result of very different lifestyles, as will be seen in the discussion below.

Population size impacts on the environment in two crucial ways: firstly, the larger a population the larger the basic needs that have to be provided through use of the natural resource base. Rapid population growth is a global phenomenon. In South Africa, although the population growth rate is declining, the actual size of the population will continue to grow for some time yet. South Africa's population size was 40,5 million people in 1996; this had grown to 43 million in 1999.[2] Obviously, pressure on the environment already increased in relation to basic needs for survival and sustenance such as food and water, energy, living space and shelter for the growing population.

However, the impact of AIDS deaths on population growth and size is an issue that sheds much uncertainty on population size estimates. The fact that the majority of AIDS deaths in South Africa are of people in their economically active years may hold severe environmental consequences in the longer term. South Africa's ability to harvest environmental resources in a productive way may be severely eroded. This may lead to even more unproductive exploitation of natural resources than is currently the case. Also, with fewer skilled adults available in the work force, economic prosperity will decline. This will leave less humanmade capital available for technological development and the development of viable means for environmental protection.

Secondly, the level of development and subsequent interpretation of what the good life entails, hold serious implications for people's desires for material well-being and consumption. Thus, in more

THE ESSENCE OF SUSTAINABLE DEVELOPMENT

International consensus about the current development paradigm agrees on sustainable development and improving quality of life as the two key concepts that drive the conceptualisation of human development. These two concepts are closely linked; also, both are closely related to environmental concerns. The critical core meaning of sustainable development consists of **three elements**:

First – Environmental and economic policies should be integrated. Environmental considerations should be entrenched in the theory and practice of economic policy making.

Second – Sustainable development emphasises equity. Two forms of equity are crucial, namely intragenerational and intergenerational equity. Intragenerational equity or equity between groups of people currently living refers to equal access to productive resources as well as to the fair distribution of the products of development. Intergenerational equity or equity between current and future generations refers to the conservation of the environment for the sustenance and enjoyment of future generations. Environmental costs and benefits should be fairly distributed between generations.

Third - Sustainable development includes a rich description of human welfare as captured in the key concept of quality of life.[3] The term quality of life implies some notion of what it means to live a meaningful life, or the good life. Quality of life indicates a richer definition of human well-being than living standard. The latter term expresses measures of income and material and physical well-being. By contrast, quality of life includes psychological, social, cultural and political aspects. Improvement in quality of life thus broadly signifies both cultural and material gains in human life.[4] Universal aims of human development therefore include access to resources, education, freedom from violence, a decent living standard, employment, guaranteed human rights, health, longevity and political freedom. Development can be assessed as successful only when it improves all these aspects of people's lives.[5]

affluent populations that rely on consumer goods for their satisfaction, population size becomes relevant in relation to the already high and unsustainable levels of consumption that will obviously rise as the population grows. More people also generate more waste, which ultimately is returned to the environment for storage and recycling.

In poorer societies, fertility is normally higher because lower living standards, lower status of women, lack of educational and job opportunities for women and less access to health facilities, including family planning services and modern contraception, are inversely related to fertility decline. The rate of population growth is thus usually higher in poorer societies. Although poorer societies obviously have less consumptive lifestyles than their wealthier counterparts, due to limited expendable income for consumer goods other than the basic necessities, their larger numbers *per se* do put pressure on the environment. The survival strategies characteristic of poor societies are often also not sustainable in the longer run. Environmental impacts associated with subsistence lifestyles relate to unsustainable use of natural resources available in the immediate environment, e.g. subsistence farming on marginal lands, use of polluting energy sources, soil and water pollution in the absence of proper sanitation and waste disposal.

Population structure refers primarily to the particular mix of ages and sexes within a given population. The age structure of a population impacts on the environment through the differential needs of different age groups. Youthful populations are currently found mostly in developing countries. South Africa has a very youthful population, with 33,9% of the population younger than 15 years, and 44,2% younger than 20.[6] A population consisting of a large percentage of young people has to concentrate many resources on the education of the youth in order to develop them into productive members of society who can, in turn, participate in economic activity in order to sustain their own children. Also, a youthful population has the potential for rapid growth since the young people will still reproduce their own families and add to the overall population size. In situations where large developing populations have to provide for large numbers of children, pressure on the environment may increase through the reliance on, for example, subsistence farming, firewood for energy and forests for building material.

Moreover, the impact of AIDS deaths increases people's socio-economic vulnerability, forcing an increasing number of people to survive below the breadline. This situation decreases their choices in terms of access to resources and leads to more reliance on the natural environment to satisfy their basic needs.

Population composition can be analysed in relation to a variety of secondary socio-economic characteristics, such as educational levels, types of employment, income levels, etc. These are the characteristics that determine lifestyles and their concomitant consumption patterns. In general, the rich and middle classes consume more than the poor. It is estimated that babies born in developed countries will use up to 30 times more resources and produce 30 times more waste during their lifetimes than those born in developing countries.[7] South Africa's situation is complicated by enormous disparities in wealth and standards of living. The majority of the population is still poor, while a minority is extremely affluent: the top 10% of households account for over 35% of all household expenditure.[8] In South Africa, poverty has led to greater dependence on natural resources in the immediate vicinity to meet subsistence needs, such as collection of wood from communal lands for fuel and collection of shellfish from rocky shores for food.[9]

On the other hand, affluence often divorces communities from natural resources, as many commodities are purchased in markets distant from the source of collection or production. Income disparities have led to large sections of the South African population relying directly on natural resources to meet their basic needs, whilst subsidised industrial production and more wealthy lifestyles have increased *per capita* consumption. Subsidised energy production has led to affluent domestic users, industry and agriculture using large amounts of electricity, which is mainly produced

from coal-fired power stations. The environmental impacts of this include exhaustion of non-renewable sources such as coal, atmospheric pollution and climate change, soil and water acidification, and high prevalence of asthma, bronchitis and other respiratory diseases.

The impact of unbridled consumption by the more wealthy and growing middle classes for the sake of material comfort without any concern for the unnecessary use of natural resources in the production of consumer goods has to be taken more seriously in South Africa. It is equally important to rethink production and consumption patterns in the light of the subsequent pressure on the environment of the waste generated by both production processes and the disposal of consumer goods that are no longer wanted.

Of equal importance is the inextricable link between morbidity and mortality and the environment. In South Africa, it is especially the poor that suffer the negative environmental health effects of subsistence lifestyles, whether in urban or in rural areas, as illustrated by Figures 1 and 2. Poor shelter and housing, limited access to potable water, inadequate or lack of sanitation and waste disposal facilities and the use of polluting energy sources are directly related to high prevalence of preventable diseases, such as tuberculosis and other respiratory diseases. Environmentally related afflictions, such as diarrhoea among infants and children, are also ascribed to inadequate basic services and facilities. In rural areas, subsistence farming on marginal lands in the absence of expendable income to buy adequate food supplies is also related to poor nutrition of infants, children and expectant and breastfeeding mothers. This situation contributes to the still high infant and child mortality and maternal mortality rates amongst poor South Africans.

The situation of households with regard to access to basic services is illustrated in Figure 1 below.[10]

Figure 1

Percentage of households with access to basic services (1998)

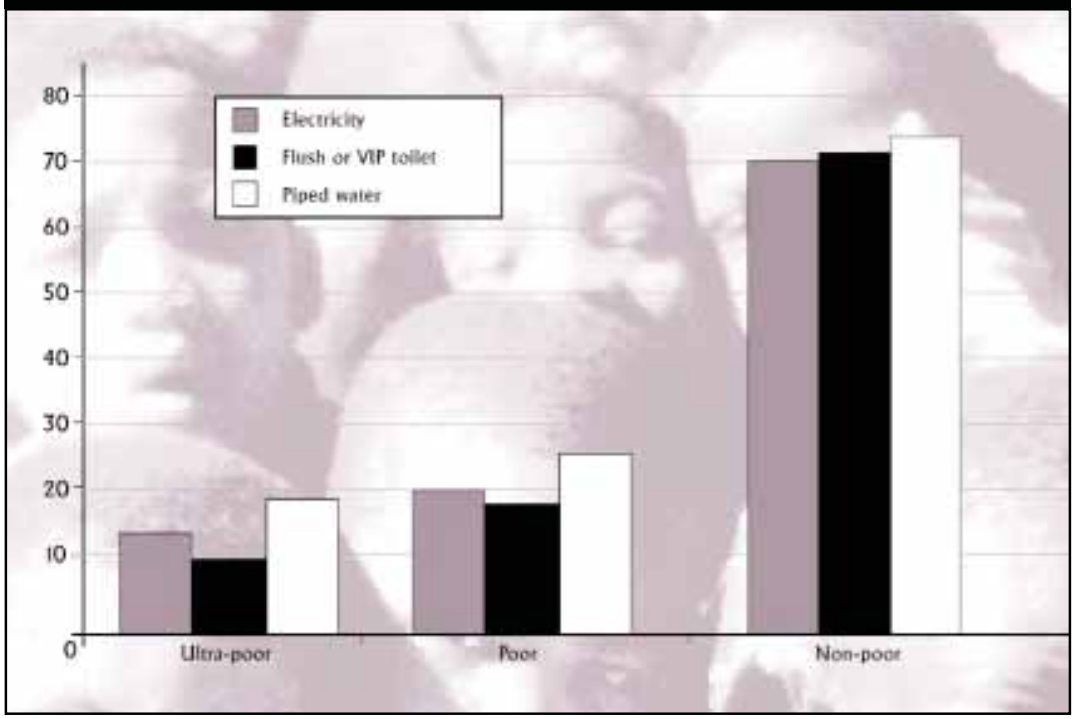
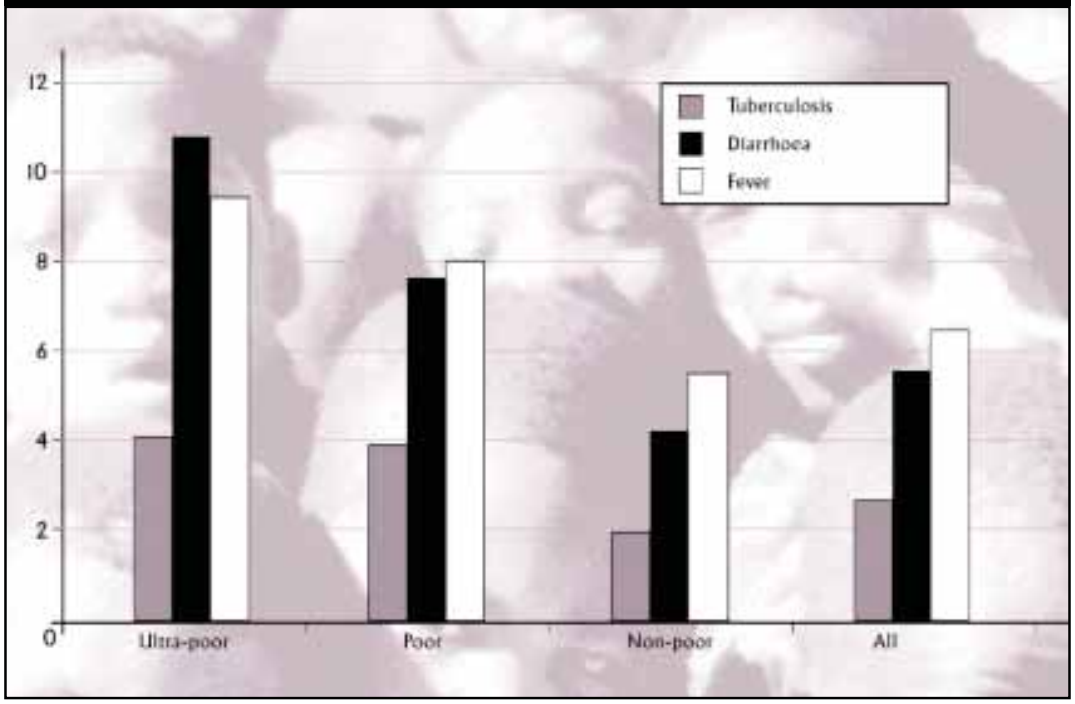


Figure 2 illustrates the profile of illnesses for different categories of poor people in South Africa.[11]

Figure 2

Poverty profile of illness (1998)

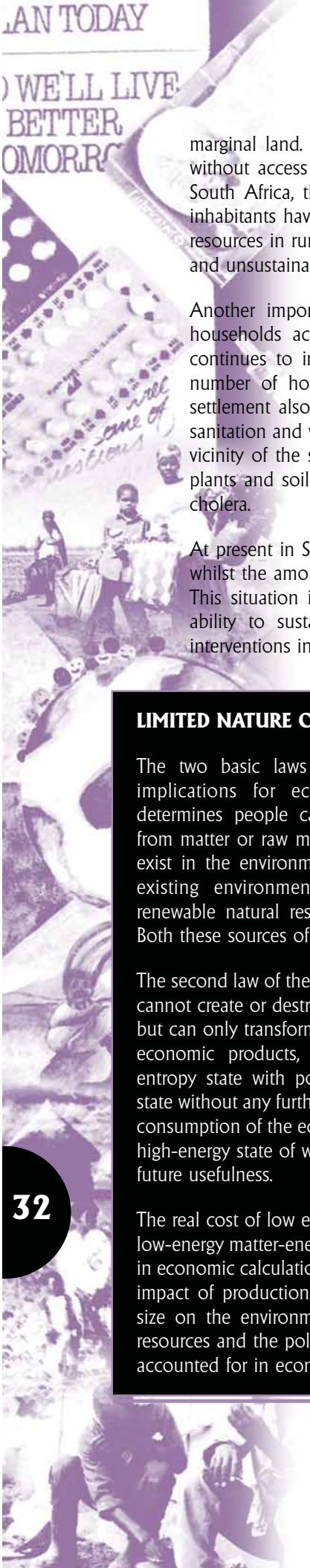


Population distribution refers to where people live, i.e. both to the distribution of people among countries and within a particular country. The distribution of the population between urban and rural areas of a particular country is an important variable in relation to environmental impact. South African migration and settlement patterns also affect the use of natural resources and generation of waste and pollution. In 1996, 53,7% of all people in South Africa lived in urban areas.[12] Most urban areas, particularly those along the coast, are experiencing high growth rates due to net inward migration as well as natural population increase.[13] The urban growth rate was 3,43% per year between 1991 and 1996.[14]

Urban concentrations of people impact significantly on the environment through sheer numbers. Environmental impact relates to land use: people occupy vast areas for residential space, industrial activities are often concentrated in urban areas, and transport networks are crucial for commuters to reach work and recreational facilities. These urban human settlement patterns obviously impact on the availability of agricultural land and the quality of soil, water and air. Large urban concentrations of people and their activities also generate more waste while less space remains for its disposal.

The heritage of influx control in South Africa during the apartheid era is still felt in relation to squatter settlements and underdeveloped African townships. Unplanned land use, poor urban management systems, uncontrolled urban sprawl and pollution due to unserviced urban settlements all affect the environment adversely and mitigate against sustainable development.

Rural populations, on the other hand, depend more directly on natural resources for their survival. In South African, pressure on the rural environment has been exacerbated through the apartheid homeland system. This system created the situation where large population densities were settled on



marginal land. Fragile ecosystems were put under pressure; poor people had to eke out a living without access to productive resources. Although homelands no longer exist constitutionally in South Africa, their structural discrepancies, in fact, continue because few of their disadvantaged inhabitants have yet been absorbed into the mainstream economy. Deterioration of environmental resources in rural areas relate to, for example, soil erosion; contamination of natural water supplies, and unsustainable use of natural vegetation such as forests.

Another important factor in relation to settlement patterns is the growth in the number of households across South Africa, due to a reduction in household size while the population continues to increase.[15] As each household has basic needs and generates waste, the growing number of households in South Africa implies greater environmental pressure. Uncontrolled settlement also places severe stress on the environment through lack of proper services. Lack of sanitation and waste collection often leads to contamination of water, air and soil in the immediate vicinity of the settlement. This can result in loss of ecosystem functioning, such as poisoning of plants and soil loss, as well as severe human health problems, such as outbreaks of typhoid and cholera.

At present in South Africa, large numbers of people do not have adequate provision of resources, whilst the amount of waste generated per year exceeds the environment's capacity to assimilate it. This situation is exacerbated by poor waste management systems. Therefore, the environment's ability to sustain more consumptive lifestyles and/or a larger population without significant interventions in strategic planning and technological innovation is questionable.

LIMITED NATURE OF NATURAL RESOURCES

The two basic laws of thermodynamics have important implications for economic production. The first law determines people can produce economic products only from matter or raw materials and energy. Matter and energy exist in the environment in a state of low entropy, as the existing environmental stock of renewable and non-renewable natural resources and the flow of solar energy. Both these sources of low-entropy matter-energy are limited.

The second law of thermodynamics states that human activity cannot create or destroy the available stock of matter-energy, but can only transform it. During the processes of producing economic products, energy is transformed from a low-entropy state with potential usefulness into a high-energy state without any further use. Matter is eventually, through the consumption of the economic products, transformed into the high-energy state of waste. This generated waste also has no future usefulness.

The real cost of low entropy, that is the fact that the stock of low-energy matter-energy is limited, is not taken into account in economic calculations of the costs of production. Thus the impact of production and consumption and of population size on the environment through the depletion of natural resources and the pollution of ecosystems is not adequately accounted for in economics.[16]

2

USE OF NATURAL RESOURCES

Natural resources can broadly be categorised into renewable and non-renewable resources. Renewable resources are those that can regenerate themselves, such as soil, water and air as the three basic environmental media, and plants and animals that either reproduce themselves naturally or can be farmed. Plant and animal reproduction depends on the quality of soil, air and water. Non-renewable resources include metals, metal ores and fossil fuels like coal, oil and gas that power the industrial economy. Although non-renewable resources are also under pressure in South Africa, the focus here is on renewable resources.

At present South Africa loses 300-400 million tons of topsoil each year, mainly due to wind and water erosion. Where there is enough organic material and biological processes are intact, topsoil is created at a rate of about 1mm a year. This slow rate

cannot keep up with the rapid rate of soil erosion in many parts of the country. Already 17 million hectares of cultivated soils are affected by erosion, and soil is lost 8 times faster than it is generated. Soil erosion leads to sedimentation of estuaries, reduced flooding frequency and reduced water quality in estuaries.[17] As a result, topsoil losses are affecting agricultural productivity in many areas. Attempting to compensate for loss of soil fertility can cause further problems. Excessive application of chemical fertiliser can result in nitrification leading to the pollution of ground water and accumulation of salts in the soil can kill micro-organisms, reducing organic content and making soil more erodible.[18] Five percent of the country's vegetation and soil has been degraded through over-use and poor management. It has been estimated that the natural woodlands of communal areas will be completely denuded by 2020.[19] This means that the impacts of drought are more severe and the risks of soil erosion and desertification increase.

Water covers about 70% of the earth; of the more than 1,4 million cubic kilometers of water, only about 2% are freshwater that plants, land animals, freshwater birds and humans can use. Although the amount of freshwater remains about the same from year to year, it is continually renewed through the water cycle, which is powered by solar energy and the earth's gravity. No new water enters the cycle and no water ever leaves the cycle. South Africa is an arid country; the fact that we are already using about 50% of our available freshwater supply is thus a major concern.[20] It is estimated that all conventional water resources will be fully utilised by the year 2026.[21] All major rivers have been dammed or modified to meet the demand for water, reducing water flow, causing many rivers to become seasonal (e.g. the Limpopo, Levuvhu, Letaba rivers) and reducing the productive capacity of flood plains (e.g. the Pongola).[22] The expected increase of nearly 52% in water demand over the next 30 years is detailed in Table 1.

Table 1

Present and Projected Water Demand[23]

User Group	% Contribution to gross domestic product (GDP)	Volume use, 1996 (million cubic meters per year)	Predicted volume use, 2030 (million cubic meters per year)	% Increase
Urban & domestic	-	2 171	6 936	219,5%
Mining & industrial	37%	1 598	3 380	111,5%
Irrigation & afforestation	6%	12 344	15 874	28,6%
Environmental	-	3 932	4 225	7,5%
TOTAL	-	20 045	30 415	51,7%

The main gases in the atmosphere are nitrogen (78%) and oxygen (21%), while the remaining 1% is made up of a combination of different gases. People around the world are increasingly concerned that economic activities are upsetting the oxygen/carbon balance and adding a wide range of pollutants to the atmosphere. The industrial economy has replaced human and animal energy with energy from fossil fuels. In South Africa, burning fossil fuels (coal in particular) to produce energy releases large quantities of smoke, oxides of carbon, sulfur and nitrogen into the atmosphere. In addition, industry releases many toxic compounds into the atmosphere including highly toxic substances such as polychlorinated biphenyls (PCB) and dioxins.[24]

Approximately 25% of South Africa's **natural vegetation** have been lost to make way for cultivation of crops, forestry, industry and human settlements. Up to 96% of certain vegetation types have been converted, and 50% of all wetlands have been lost. Expansion of agriculture or human settlements and the subsequent loss of natural habitat have caused the extinction or near extinction of 15% of plant species, 37% of mammal species, 22% of butterfly species, 14% of bird species, 8% of amphibian species and 4% of reptile species. Rock lobster, pilchards, anchovies and red-eye are being over-harvested for food on a subsistence and commercial level.[25]

Intensive collection of wood for fuel in certain parts of the country has exceeded the rate of tree growth and regeneration; the wood is being removed faster than it is being replaced. The implications are that there is less wood available to meet the energy requirements of the people in that area, the vegetation is less able to support domestic and wild animals, the soil becomes eroded and alien vegetation may invade, which, in turn, puts stress on water and nutrient availability. Loss of biodiversity arises because there is less suitable habitat available for the populations of plants and animals to find sufficient food, water, and mates, all year round.

The clear message is that natural resources are being used at a much faster rate than natural processes are replacing them. If this rate of deterioration continues, there will be less available for future generations. The juxtaposition of poverty and affluence in South Africa, the threat of HIV/AIDS and jobless economic growth, coupled to the effects of population size and the large youthful segment of our population, imply that we will, in fact, need more resources in the future as living standards improve and population size increases.

GENERATION OF WASTE AND POLLUTION

In South Africa, the main source of waste are mining and other industrial activities, transport systems, agriculture and forestry, and domestic and commercial activities; in fact, most human activities. Some waste is also generated through natural processes such as veld fires, which contribute to air pollution. But, as in the case of natural resource use, it is the large volumes of waste produced and the toxic nature of many types of wastes that cause environmental degradation. With the gradual increase in population and importance of secondary and tertiary sector activities, waste and pollution problems are likely to worsen in future, unless waste management strategies such as cleaner technologies and recycling programmes are put into effect.

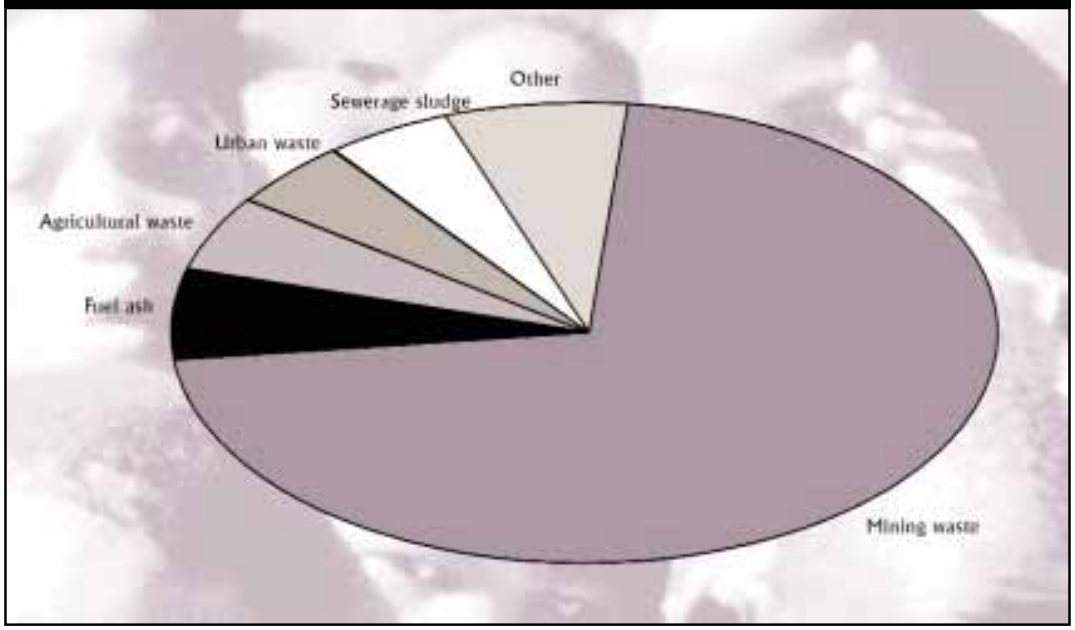
Sources of waste are illustrated in the following illustration:[26]

Waste and pollution cause environmental degradation in three ways. Firstly, the environment is the ultimate receptacle for waste products, and the large volumes that are currently generated challenge the capacity to absorb waste. Secondly, the environment is often used as a "detoxifier" of waste. Many harmful substances, such as oil, are broken down by naturally occurring bacteria or other micro-organisms, and are then absorbed and recycled in the environment. The large volumes of pollution and the highly toxic nature of some of the substances produced, put these processes under enormous stress. Thirdly, the release of waste and pollutants into the environment put pressure on the natural functioning of ecosystems. For example, large volumes of sulfur dioxide and nitric oxide which are released into the air by industrial and agricultural activities are converted to acids and then deposited on the soil, vegetation, and water bodies. As organisms are specifically adapted to function within a certain range of acidity, the organisms cannot function as well, or even die in conditions of increased acidification. Large areas of the Eastern Highveld and Mpumalanga are currently showing reduced productivity due to acidification.[27]

The current status of **air pollution** in South Africa is as follows: Carbon dioxide, nitrous oxide and

Figure 3

Sources of Waste



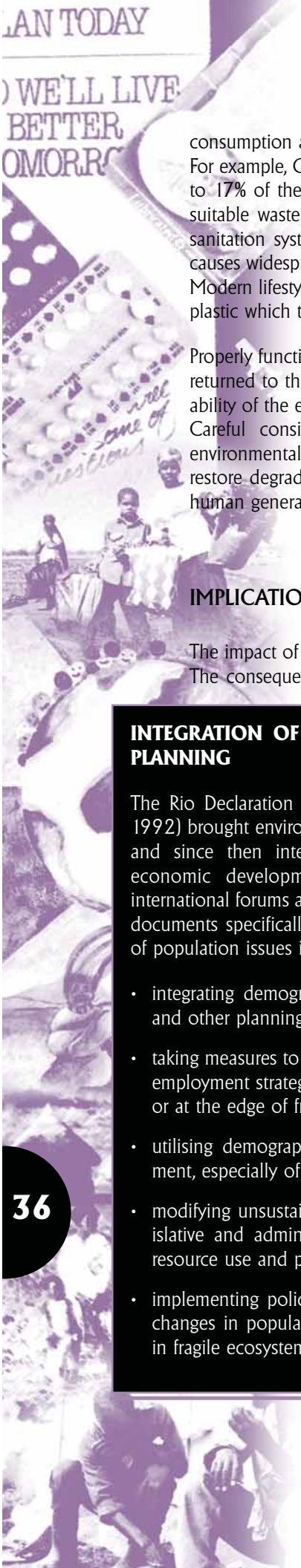
methane levels are increasing slightly. These gases contribute to global climate change, which could cause sea level rise, altered productivity of agricultural and forestry systems and changes in biodiversity. Levels of sulfur dioxide, which causes respiratory ailments, are stable. However, in localised areas, mostly townships and informal settlements, air quality often falls well below minimum health standards.[28] Millions of people in South Africa are still dependent on wood and coal for meeting energy needs. This contributes significantly to ambient concentrations of sulfur dioxide, particulates and smoke. People exposed to raised concentrations of these harmful substances in poorly ventilated buildings, are at increased risk of developing respiratory diseases. Respiratory diseases such as asthma and bronchitis are the greatest cause of death other than cancer in South Africa.[29]

In relation to **water pollution**, approximately 2 600 megalitres of domestic and commercial waste water is processed every day.[30] Many freshwater systems have reduced quality of water for domestic use, irrigation and industrial use due to high levels of industrial effluent, agricultural run-off, domestic and commercial waste water and sewage, acid mine drainage and litter. Ground water quality is also threatened by seepage from landfill sites. This constitutes a severe health risk. It also means that there is less water available to meet the increasing demands of agriculture, forestry, industry and domestic users.

Over 42 million cubic meters of **solid waste** are generated every year, and a shortage of landfill sites in 5 provinces is predicted over the next 10 years.[31]

Seepage of toxic substances from landfill sites contaminates soil and groundwater, rendering them unfit for use. Over 5 million cubic meters of hazardous waste is generated every year, most of which never reaches a proper disposal site.[32] This indicates that there is a high level of spillage and illegal disposal of hazardous waste, which also poses a threat to soil and water quality, as well as to human health if people are exposed to hazardous waste.

A larger population and in particular a larger number of households as well as high levels of



consumption and production generate larger volumes of waste. Urban areas are particularly stressed. For example, Gauteng Province occupies only 1,4% of the total land area of South Africa, yet is home to 17% of the population and is responsible for over 40% of manufacturing output.[33] Pressure for suitable waste disposal sites is a major concern in most urban areas. Settlements without proper sanitation systems and waste disposal services are of particular concern, as untreated waste often causes widespread disease among the residents, pollution of water courses and contamination of soil. Modern lifestyles, particularly among the affluent, are more dependent on synthetic materials such as plastic which take longer to be broken down and recycled by natural environmental processes.

Properly functioning ecosystems are required to handle the disposal and treatment of waste products returned to the environment. At present, however, many of these needs are not being met, and the ability of the environment to supply the required resources and services is already severely impaired. Careful consideration and management of the environment and factors which impact on environmental integrity is required to prevent further ecosystem degradation and to rehabilitate and restore degraded ecosystems, so that they are more able to meet the needs of present and future human generations.

IMPLICATIONS FOR POLICY AND PROGRAMMES IMPLEMENTATION

The impact of environmental degradation is ultimately reduced capacity to support human existence. The consequences are very real and, in many cases, severe. Some examples are altered agricultural potential, reduced food security and economic recession from dependence on imported food. The time frame over which such impacts will become manifest is also cause for concern; in many cases the impacts on human existence will be felt within the next 30 to 50 years.

Population pressure on the environment has in the past mainly been interpreted with reference to the environmental impacts of a large population size and poverty. In contrast, the White Paper on a Population Policy for South Africa aims to ensure environmental sustainability through comprehensive and integrated strategies which address population, production and consumption pat-

INTEGRATION OF POPULATION ISSUES INTO SUSTAINABILITY PLANNING

The Rio Declaration on Environment and Development (Rio de Janeiro, 1992) brought environmental issues to the fore in the development arena, and since then integration of environmental issues with social and economic development has been promoted at several prominent international forums and the documents that emanated from them.[34] These documents specifically reflect international recognition of the importance of population issues in sustainable development and the need for:

- integrating demographic factors into environment impact assessments and other planning and decision making processes;
- taking measures to eradicate poverty, particularly income-generation and employment strategies directed at the rural poor and those living within or at the edge of fragile ecosystems;
- utilising demographic data to promote sustainable resource management, especially of fragile ecosystems;
- modifying unsustainable consumption patterns through economic, legislative and administrative measures in order to promote sustainable resource use and prevent environmental degradation; and
- implementing policies to address the ecological implications of future changes in population size, concentration and distribution, particularly in fragile ecosystems and urban agglomerations.[35]

terns and poverty independently as well as in their interactions. This approach represents an essential first step in the need for integrating population dynamics in environmental planning and management and in the ongoing discourse about sustainability.

Since 1994, South Africa has seen radical changes in the legislative process, including the development of the new Constitution and of many new policies which focus on sustainable development. The Constitution gives all South Africans the right to an environment that is not harmful to their health or well-being. This empowers individuals, communities and organisations to prevent or minimise environmental degradation by prosecution of people or organisations that transgress this right. The National Environmental Management Act (NEMA), Act no. 107 of 1998, came into effect in the beginning of 1999. The main purpose of the NEMA is to establish principles for decision making on environmental matters in order to enhance cooperative environmental governance as well as procedures for coordinating governmental environmental functions. NEMA defines the meaning of sustainable development from the perspective of government, it prescribes public involvement in environmental decision making as well as environmental impact assessment of development activities and protects whistle blowers and workers concerned about involvement in environmentally degrading actions or work. NEMA thus provides specificity to the protection of environmental rights within the broad framework created by the Constitution.[36]

These changes are bound to put South Africa on a more sustainable pathway, as they reflect the government's understanding of the need for long term goals and integration of environmental, social and economic issues. However, they need sustained commitment of financial and human resources in order to be effective in practice. Strong and innovative public/private partnerships are essential to mobilise the necessary resources.

EXAMPLES OF POLICY REFORMS AIMED AT PROMOTING ENVIRONMENTAL SUSTAINABILITY

- The National Water Act (Act 36 of 1998) is aimed at equitable access to water, more conservative water use patterns amongst industry, agriculture and domestic users and maintenance of ecological functions that require water.
- The recently developed Energy Policy (White Paper 1998) is also concerned with reducing wasteful behaviour, thereby reducing environmental degradation arising from energy generation. The policy aims to improve human health by setting standards for concentrations of harmful substances and promoting the use of low-smoke fuels and safer stoves.
- The Municipal Infrastructure Programme, set up in 1994, aims to provide 2,5 million new electrical connections by the year 2000, thus reducing dependence on fuels which cause health problems. Some of these new connections will make use of renewable sources of energy.
- The current land restitution and land reform process may affect patterns of resource use and environmental pressure through resettlement of previously displaced groups of people. This may alleviate environmental problems in some areas, for example, by reducing the number of people living in a restricted area.
- Spatial Development Initiatives (SDIs) are other means of re-settling people and industries. SDIs are government schemes aimed at stimulating economic activity, employment and trade in areas that have the potential to support more development. It is also designed to make production processes more efficient by locating industries closer to resources used as inputs, and to centres of trade.

4

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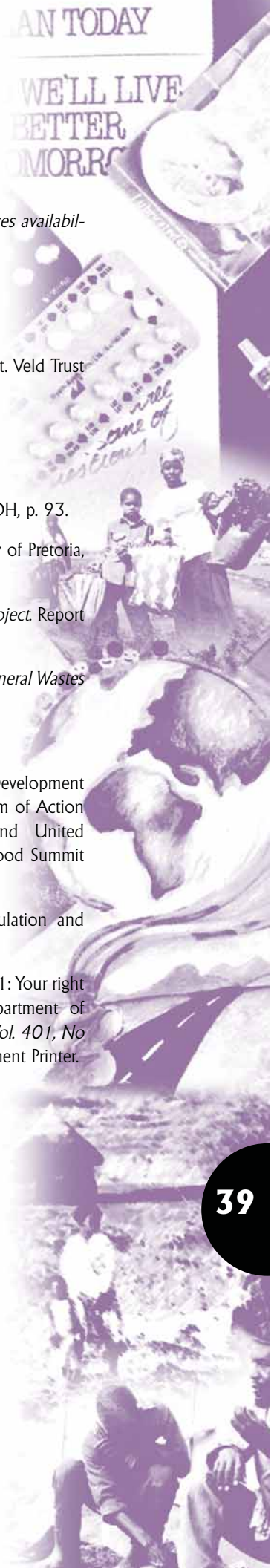

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Chapter 4

FERTILITY TRANSITION AND THE STATUS OF WOMEN

This chapter aims to explore fertility decline in South Africa, especially in the light of persistent poverty and inaccessible services, as well as the consequence of this decline. There is general agreement that fertility began to decline among all the major population groups in South Africa during the apartheid era. This occurred amidst the impoverishment of millions (especially African women), stark inequalities and the disempowerment of women. Although South Africa has undergone a dramatic political transition in the last decade, many of the distortions and dynamics introduced by apartheid continue to reproduce poverty and perpetuate inequality. The South African population policy[1] argues that the basic demographic factors fertility, migration and mortality are an integral part of poverty prevalence in South Africa. These demographic factors cannot be seen in isolation from social factors such as education, unemployment, poor health and housing quality and their interrelationships with poverty. Thus, on the one hand, poverty persists, while on the other hand, fertility declines. This is in stark contrast to the experience in other parts of sub-Saharan Africa, where poverty usually goes hand in hand with high fertility. This chapter further investigates issues around lower fertility, increased exposure of women to sexual abuse and the right to have control over their reproductive choices.

THE DEMOGRAPHIC TRANSITION

The theory of demographic transition that is generally held in the population field states that high levels of both mortality and fertility reign in so-called pre-modern populations. As living standards improve, mortality first declines primarily because of better nutrition, hygiene and sanitation and later also because of better medical care and accessibility of public health services. However, fertility initially remains high because of cultural influences and fear that enough children to maintain families as economically viable units may not survive. However, as the infant mortality rate declines, people expect their children to survive. Also, as living standards further improve, parents develop aspirations to educate their children and the economic value of children as productive units in the family declines. All of these factors impinge on the fertility rate and fertility gradually declines as a result of urbanisation and industrialisation. However, fertility declines at a slower pace than mortality, resulting in high population growth and youthful populations. As the rate of fertility decline gradually catches up with that of mortality decline, the rate of population growth also declines until it stabilises.

1

SOUTH AFRICAN AND SUB-SAHARAN FERTILITY COMPARED

Sub-Saharan fertility

Figure 1 clearly illustrates that the South African fertility rate[2] is significantly lower than that of other countries in Southern and East Africa. A steady decline in fertility in developing nations took place in the late 1980s and 1990s, especially in the regions of Asia and Latin America. In contrast, Africa and particularly sub-Saharan Africa still lag behind in fertility terms.

THE AFRICAN CHILDBEARING PARADOX

Childbearing in sub-Saharan Africa is characterised by an inherent paradox: fertility is valued so highly that women are pressurised into childbearing; however, once they have children, they have to bear the brunt of caring for them

3

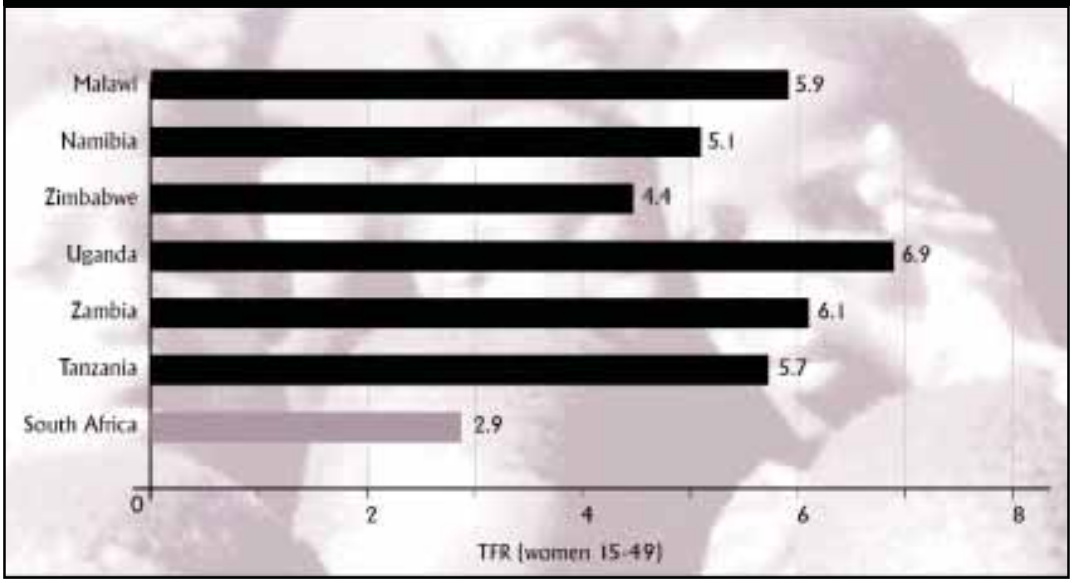
THE FERTILITY TRANSITION

The fertility transition that forms part of the overall demographic transition theoretically follows a particular pattern. It is generally held that fertility declines faster under conditions of a modern economy and higher urbanisation. Enhanced status of women also leads to faster fertility decline. As women pursue education, they tend to postpone childbearing until they are older and therefore have fewer children in their remaining fertile years. Also, women's involvement in paid employment outside the house tends to prohibit large families. High living standards similarly are inversely related to fertility; at higher income levels, women have smaller families. For this reason, high levels of poverty are generally associated with high fertility. Thus improvement in the status of women and poverty alleviation are regarded as two prerequisites for fertility decline.

2

Figure 1

Comparative levels of fertility in Southern and East Africa (1998)[3]



The primary cause of the relatively high fertility of the sub-Saharan African region can be ascribed to the economic, socio-cultural and family norms and values that have developed over centuries.[4] Women and children provide the bulk of agricultural labour in mainly rural sub-Saharan Africa; the need to work the land is seen as a determining economic factor in the evolution of social structures that resist fertility transition. In the African tradition, survival of children means more land to the extended family. The high levels of poverty and lack of economic opportunities outside of agriculture perpetuate the dependence on the land in much of sub-Saharan Africa. High priority is thus placed on a woman's fertility. Women are almost as afraid of being rendered functionally infertile by the death of all their children as they are of bearing none. Female sterilisation and reversible contraceptive methods are viewed with suspicion. The result is that family planning programmes are less popular in sub-Saharan African and contraceptive prevalence rates can be as low as 10%.[5]

South Africa's fertility trends

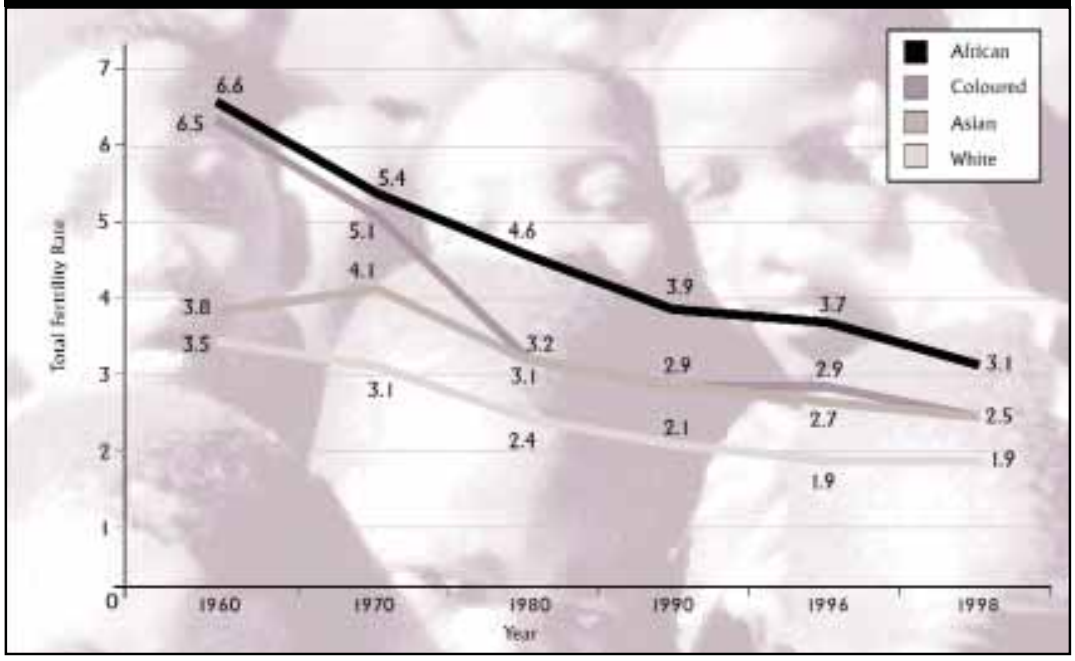
South Africa's experience in the fertility transition is among the most advanced in sub-Saharan Africa. South Africa displays demographic regimes that are typical of both developed and developing worlds. These tend to be linked to socio-economic divisions along racial and urban-rural lines. Among all the four major racial groups in South Africa a decline of fertility has been observed from as early as the 1960s. Figure 2 shows that the swiftest decline occurred amongst coloureds, followed by Africans.

For South Africa as a whole, fertility was high and stable between 1950 and 1970, estimated at an average of 6 to 7 children per woman. It dropped to an average of 4 to 5 children per woman in the period 1980 to 1995.[6] The current total fertility rate of South Africa stands at 2,9.[7]

Whites experienced a long and sustained fertility decline from the end of the 19th century until attaining below-replacement fertility by 1989, with a TFR of 1,9.[8] Asian fertility also declined steadily, from a TFR of about 6 in the 1950s to 2,7 in the late 1980s. Coloured fertility declined remarkably rapidly from 6,5 in the late 1960s to about 3 by the late 1980s. African fertility is estimated to have

Figure 2

Differentials in total fertility rate by race, South Africa 1960-1998[9]



decreased from a high of 6,8 to a low of about 3,9 between the mid-1950s and the early 1990s. While it continues declining, African fertility is still substantially higher than that of the other racial groups.

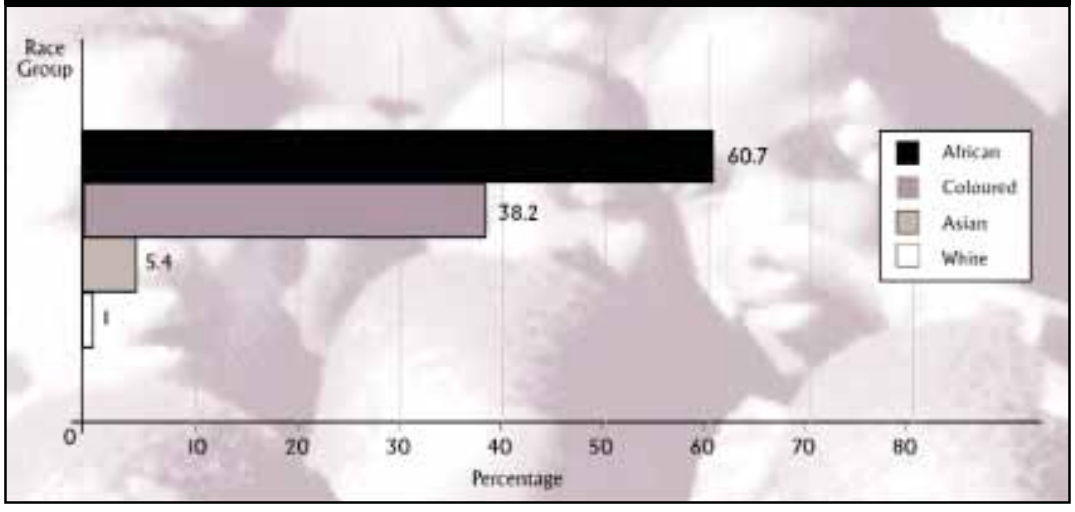
Fertility is lower for urban areas (2,3) compared to non-urban areas (3,9).[10] Since the African population is still predominantly rural, large segments of the population have been isolated from those living conditions which had a negative influence on white and Asian fertility and to a lesser extent on that of coloureds. Larger families have remained the norm in the poorer rural areas and children are still seen as economic assets. Specifically, the situation of women in these areas has largely remained unchanged or has even deteriorated.

Poverty levels seem to have remained high despite the overall decline in fertility levels among South Africans. Twenty one percent of South Africans fall below the absolute poverty line.[11] Social factors like education, unemployment, poor health and housing quality are closely linked to poverty. It is especially African and coloured women who are significantly affected by these socio-economic factors of poverty.

Within the family, women assume the primary responsibility of caring for children. The burden on women to take on domestic as well as economic responsibilities leaves little time for childcare or for their own needs. Moreover, many families are female-headed with fathers absent or working elsewhere. Female-headed households are more likely to be in the rural areas where poverty is concentrated. The poverty rate in rural areas (i.e. the percentage of individuals classified as poor) is about 70%, compared to 30% in urban areas.[12] While poverty is not confined to any one racial group in South Africa, it is particularly concentrated among Africans, as shown in Figure 3.

Figure 3

Poverty Rate by Race[13], 1998



The 1998 South Africa Demographic and Health Survey (SADHS) indicates that lower socio-economic development, i.e. illiteracy, unemployment and lower education, has a direct relationship to higher fertility, larger mean family size and lower contraceptive use, despite the overall decrease in fertility. African and coloured women are especially victims in this regard. Despite the fact that South Africa has some of the most progressive laws in any democratic society today, the constant abuse of the reproductive and sexual rights of these women is exacerbated by their lack of development, which often renders them powerless to escape from male domination. In other words, these women have little or no control over their own reproductive lives, which are dictated by a male-dominated society.

REASONS FOR FERTILITY DECLINE

Marriage and contraceptive use are two of the most powerful determinants of fertility. In most populations, fertility is directly related to marriage; married women generally have more children than unmarried women of the same age. Traditionally, births to unmarried women were not accepted in most societies, thus childbearing started with marriage and continued throughout her reproductive lifetime as long as a woman remained married. In Africa, marriage used to be almost universal and marital fertility was high while non-marital fertility was very low. Contraceptive use is obviously inversely related to fertility; the higher the contraceptive prevalence rate in a given population, the lower the fertility rate.

Non-marital fertility in South Africa

In the South African context, marriage seems to have lost its value as determinant of fertility. This can be seen, first, from the small and insignificant difference between marital and non-marital fertility of African women in South Africa: in 1996, the average TFR for African women who were never married or who were cohabiting was 3,9, while that of those who were married was 4,3.[14] Secondly, it can be seen from the high rate of teenage pregnancies, mainly to unmarried girls.

Although there is a general decline in fertility, teenage pregnancies are still a major concern as illustrated by Table 1. The 1998 SADHS found that 35% of all teenagers had been pregnant or had a child by the age of 19 years. This represents a very high level of teenage fertility and is a continuous source of concern to the government, communities and researchers. Teenage pregnancies are more prevalent among coloured and African girls and those with little or no education. The proportion of teenage girls who had experienced a pregnancy grew from 2,4% to 35,1% with each additional year of age, as shown in the third column of Table 1.

Table 1

Background Characteristics	Percentage who are	
	Mothers	Ever pregnant
AGE		
15	2,0	2,4
16	5,2	7,9
17	10,7	14,2
18	19,8	24,6
19	30,2	35,1
RESIDENCE		
Urban	10,5	12,5
Rural	16,3	20,9
RACE		
African	14,2	17,8
African urban	11,6	13,7
African: non- urban	16,4	21,1
Coloured	15,7	19,3
White	2,2	2,2
Asian	2,9	4,3
Total	**13,2**	**16,4**

Teenage pregnancy and motherhood (Percentage of women aged 15 to 19 who are mothers or who have been pregnant by background characteristics, South Africa 1998)[15]

The high rate of teenage pregnancies has far reaching consequences, especially for the Africans and coloureds who are the poorest and most disadvantaged groups in the country. The majority of these pregnancies are neither planned nor wanted. The father of the child seldom acknowledges or takes responsibility for the financial, emotional and practical support of the child. The mother often leaves school, thus ending her opportunities for personal development, making her vulnerable to poverty, exploitative sexual relationships and violence as well as low self-esteem. Because of the youth of the mother, her child is particularly vulnerable to peri-natal mortality. Once born, the child is usually brought into a situation where he or she cannot be supported emotionally or financially.

On the other hand, getting pregnant in African communities does not necessarily mean a loss of educational opportunities. When a school-going girl falls pregnant, she may be forced to leave school, but often only for the rest of the academic year. So high a value is placed on schooling and post-school training, that pregnancy is not allowed to jeopardize it. Teenage pregnancies among Africans and coloureds do not seem to be perceived in the same negative light as in the case of whites and Asians. In most cases the girl does not even marry the father of her first child. Both African women and men value fertility in the African community very highly. In other words, traditional cultural values still influence the perception of fertility amongst Africans in South Africa. It is thus not surprising that, even for unmarried women and teenage girls, pregnancy has a positive value not generally experienced in white communities.[16]

Nevertheless, teenage pregnancies remain one of our major population concerns which affects mostly communities in the Western Cape, Gauteng and Kwazulu-Natal. It needs to be addressed in a constructive manner, especially in light of the HIV/AIDS pandemic as well as the fact that the human rights of many teenage girls are infringed through acts of sexual abuse and rape.

It has been argued that a higher fertility rate among unmarried and single mothers is a rational response on the part of women, especially Africans and coloureds, to oppressive and disempowering patriarchal economic, social and cultural systems. Among Africans and to some extent coloureds, marriage is far from being an early and universal social institution. African women have consistently low marriage prevalence at all ages. High levels of male migration from rural to urban mining areas have affected lower marriage rates among Africans. Nevertheless, childbearing is almost universal amongst African women. As a result, female-headed households are a common feature in disadvantaged rural and urban fringe areas. Women's burden of carrying the sole responsibility for these children is awesome. The negative implications of this situation manifest themselves as unwanted pregnancies, abortions, abandoned and street children, child neglect and abuse.

A dominant issue in especially the African fertility pattern in South Africa is that of lack of male responsibility in reproductive decision-making and health as well as in childbearing and rearing. Women have to take on the burden of caring for children and often also of earning the means to do so. This situation initially arose because of the migrant labour system in South Africa; it was entrenched by the creation of homelands without viable economic bases and influx control into cities and "white" areas. Men had to go away to work and earn money; women stayed home in rural areas where they had to care for the children. Often, the absent fathers stopped sending money home and women had to take on the role of childrearing without the fathers' support. This situation eventually prevailed also in the African townships outside of the homelands, with women taking the main or even exclusive responsibility for children.

Marriage appears to have lost its role as the exclusive domain for socially legitimate childbearing in South Africa. Overall non-marital fertility has been declining more than its marital counterpart in South Africa both on the national level and across the major population groups in the country.[17] This intensive control of non-marital fertility appears to be the dominant force in the fertility transition in South Africa. The decline in non-marital total fertility is more likely to be driven by contraceptive use. In addition, as the HIV/AIDS situation in South Africa worsens, the downward

trend of fertility can be expected to continue at a much faster pace. The impact of HIV/AIDS on fertility is expected to be threefold: as more women die young before completion of their reproductive years, total fertility will decline; HIV/AIDS reduces fecundity of women who would otherwise have borne more children, and increased condom use as a result of public education about the prevention of HIV infection may further boost contraceptive use.

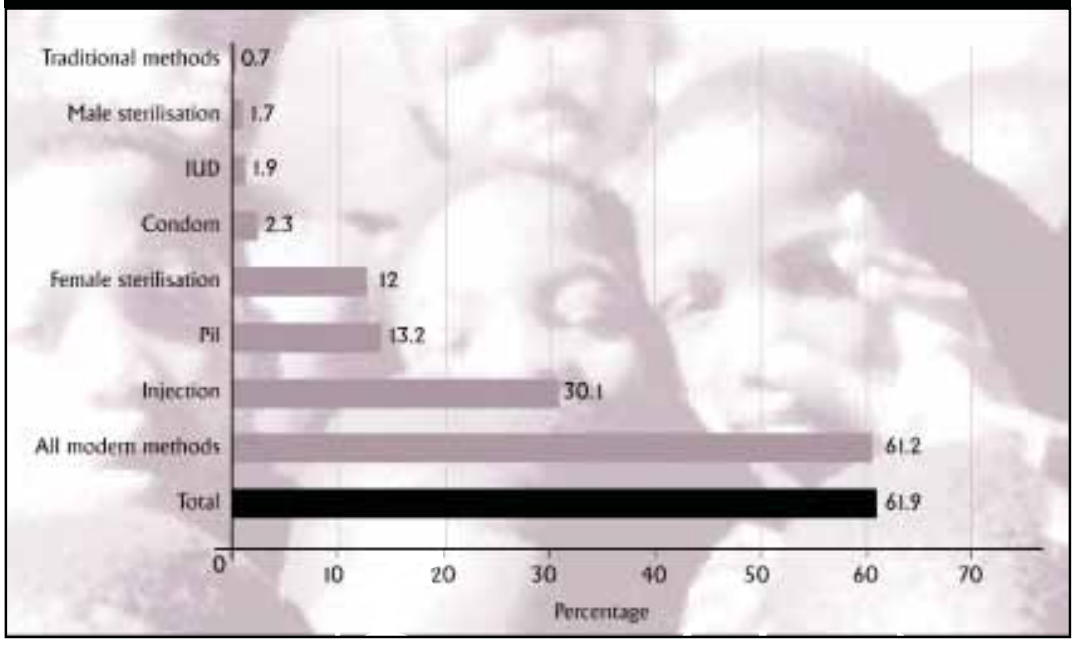
Contraceptive use

Because of South Africa's past history of widely accessible family planning services and health services that are well established relative to the situation in the rest of sub-Saharan Africa, the low fertility rate can also be explained by the high use of contraception. The 1998 SADHS found almost universal knowledge of at least one contraceptive method. Three-quarters of all women interviewed indicated that they had used a contraceptive method at some stage during their lives, while 61% of sexually active women reported that they were currently using modern contraception - see Figure 4. The national average level of current contraceptive use is higher in urban areas at 66% than in rural areas at 52,7%.

Of the different methods used by sexually active women, 30% comprise injectable contraceptives, 13% the pill and 12% female sterilisation. Condom use is a low 2,3%.[19] The very low prevalence of traditional methods (0,7%) is highly significant, as modern methods of contraception are more effective in preventing pregnancy. At 98,8% of all current contraceptive usage, the use of modern methods is very high compared to that in other sub-Saharan countries. This high use of modern

Figure 4

Current contraceptive use by sexually active women[18], 1998



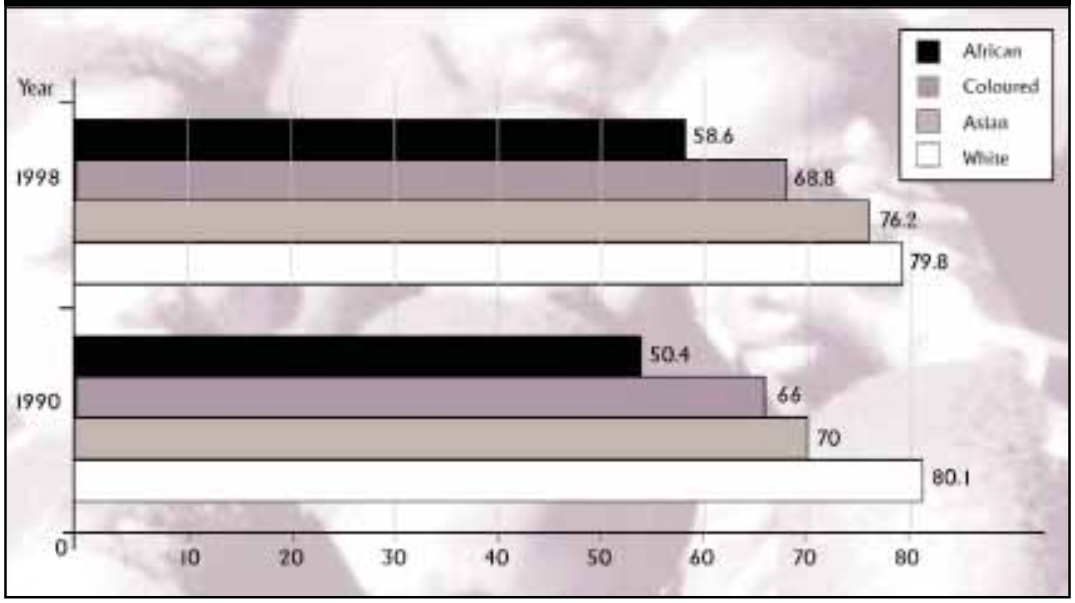
contraception indicates that South African women generally have good access to family planning services and that they generally trust modern contraceptive methods to achieve their goals of either spacing or limiting the number of children they intend to have.

The comparison of contraceptive use by racial group depicted in Figure 5 shows clearly that there was a definite increase in contraceptive prevalence amongst all groups except the white population, which, at about 80%, had in any case reached saturation level.

Contraceptive preference has changed dramatically: some women are more likely to use contraceptives than others and the type of contraceptives used differs. Contraceptive usage is very high amongst urban women, including urban African women - see Table 2, and women with higher levels of education - see Table 3.

Figure 5

Comparison of contraceptive use by racial group between 1990- 1998[20]



Choice of contraceptive method in South Africa follows racial stratification. Whites, who make the least use of public family planning services, choose from a wider range of contraceptive methods. Africans and coloureds, who constitute the bulk of clients of organised public family planning services, tend to predominately use the contraceptive injection (35% and 27% respectively). This raises questions about information sharing and the widening of reproductive choices, as well as the issue of women's control over their own bodies and their sexuality.

As illustrated in Figure 2, African fertility declined from 6,6 in 1960 to 3,1 in 1998. This is exceptionally low compared to other sub-Saharan African countries. This can be seen in the context that African women assumed management of their fertility because they found themselves increasingly in precarious circumstances. Many factors – cultural, political and social – converged to deprive African women of financial and familial security. These circumstances compelled them to curtail childbearing and to practice family planning, with or without the consent of their husbands or partners. The high use of the contraceptive injection indicates that many women are not free to discuss reproductive issues, including contraceptive use, with their husbands or partners. This suggests that the reproductive rights of the majority of South African women are still under siege.

Table 2

Contraceptive use by residence, South Africa 1998[21]

Residence	All modern methods (%)
Urban	66,0
Rural	52,7
Total	61,2

Table 3

Contraceptive use by level of education, South Africa 1998[22]

Level of education	All modern methods (%)
No education	33,1
Grades 1 to 5	43,7
Grades 6 to 7	53,6
Grades 8 to 11	64,6
Grade 12	73,1
Higher	78,1
Total	**61,2**

Furthermore, many rural African women were without husbands for long periods, since the latter served as migrant labourers in cities. Their prolonged absence left women to fend for themselves and their children. Many of these migrant husbands simply stopped sending money home or earned too little to be able to afford doing so. This, together with the landlessness and joblessness of the homeland system, forced many African women to make their own decisions about family maintenance and reproduction. The modern family planning programme introduced by the apartheid regime in the early seventies assured that their need for fertility control was met. Thus African women accepted family planning, even though their need for fertility control was forceably created by the very cultural, geographical, social and economic factors entrenched by apartheid.

However, reproductive choice control is far from ideal in South Africa, as evidenced by the fact that about 50% of currently married women have an unmet need for family planning. Unmet need for family planning is inversely related to level of education: the percentage of women with no formal education who have an unmet need for family planning is six times higher than the percentage of women at the highest level of education who show such a need.[23] This further emphasises the fact that the majority of South African women have not yet achieved satisfactory control over their reproduction. Addressing the unmet need for family planning entails not merely greater access to contraceptive services, but also the enhancement of the status of women through education and employment as well as changes in social structures that influence female autonomy.

Birth spacing and abortion

Younger South Africa women prefer spacing their children, as compared to older women, who prefer limiting the number of births.[24] The general trend by age reveals that younger African, coloured and white women tend to view all their pregnancies as too closely spaced, while older women feel that only some of their births are closely spaced. This indicates the extent to which unplanned and mistimed pregnancies occur among young women in South Africa. The gap between stated fertility preferences and observed fertility levels further illustrates the constraints on women's autonomy in decision-making regarding reproduction. In this regard, the SADHS revealed that in most cases the ideal number of children a woman wanted was lower than the living number of children she actually had. Again this suggests that there is a fair amount of unwanted childbearing amongst South African women.

Abortion was legalised in South Africa on socio-economic grounds in 1996. Before the introduction of legal abortion, the termination of unwanted pregnancies often led to increased risk of death and complications arising from unsafe abortions. Although abortion is now legal, there are still moral and religious barriers in some sectors of our society that deter women from practicing this right. The greatest need for access to legal abortion services exists among disadvantaged women.

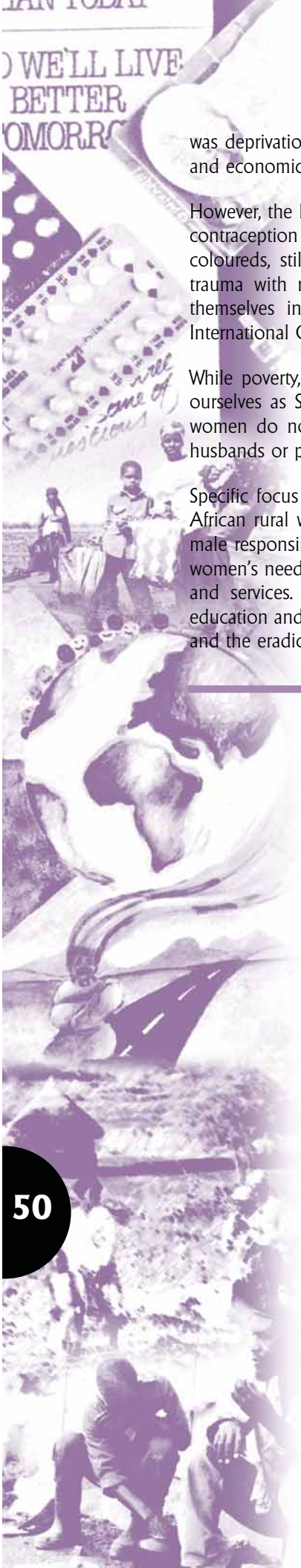
With the increase in prevalence of HIV-infected women and the risks that the continuation of their pregnancies hold for themselves and their children, the number of women seeking abortion could increase considerably. At this stage it is unclear what effect legalised abortion will have on the total fertility rate, although literature in this regard suggests that, in countries where legal abortions are common, low fertility is generally associated with a high combined prevalence of abortion and contraceptive use.[25]

CONCLUSION

The South African experience in fertility transition has been unique in sub-Saharan Africa, if not the world. Fertility has declined substantially during the apartheid era to a TFR of 2,9, which is unprecedented relative to the rest of Africa. The transition towards closing the gap between low fertility aspirations and small completed family sizes has moved much further in South Africa compared to the rest of sub-Saharan Africa. However, this occurred amidst great social upheaval of especially Africans, the impoverishment of millions, a large proportion of whom were African women and their children, stark inequalities and the systematic disempowerment of women.

An attempt was made to explain the reasons for this dramatic fertility decline despite high levels of poverty and low levels of development. The issues of high non-marital fertility in South Africa and high contraceptive use were discussed in order to better understand the singular manifestation of fertility decline in conditions of low status of women and abject poverty. We found evidence that various factors converged to create the situation where women had to accept virtually sole responsibility for childrearing without access to productive resources. Their response was to control their fertility, not as a result of educational and career aspirations or affluent lifestyles, but as a survival strategy. The reproductive and sexual rights of South Africa's disadvantaged women were constantly disregarded and abused, on the one hand because of the total breakdown in family life caused by influx control and the homeland system and on the other hand because of their low status and lack of development. Nevertheless, they accepted contraception as their way of exercising some control over their own bodies.

The basic difference between fertility patterns in South Africa and the rest of sub-Saharan Africa is not based on fertility being valued differently; fertility is still highly valued in South Africa. Rather, it



was deprivation of access to land and the total breakdown of the traditional lifestyle, both socially and economically, that made fertility control a rational choice for South African women.

However, the high levels of unwanted and teenage pregnancies as well as the high unmet need for contraception are still of major concern. This shows clearly that women, especially Africans and coloureds, still lack control over their own reproductive choices and still experience emotional trauma with respect to fertility. They further lack the development opportunities to empower themselves in order to take full control over their reproductive lives, as propagated by the International Conference on Population and Development in Cairo, 1994.

While poverty, racial and gender inequality and fragmentation of society persist, we cannot pride ourselves as South Africans on our excellent gains in fertility decline. As long as South African women do not enjoy freedom to control their own bodies within supportive relationships with husbands or partners, population problems relating to fertility will remain a major national concern.

Specific focus needs to be put on empowerment programmes for teenagers as well as vulnerable African rural women in order for them to take control of their reproductive choices. The lack of male responsibility for childrearing that was emphasised as a crucial contributing factor to African women's need for fertility control, holds significant implications for reproductive health programmes and services. Essential interventions include the upliftment of the status of women through education and employment, radical changes in the social structures that influence female autonomy and the eradication of poverty.

NOTES

1. Department of Welfare. 1998. *Population Policy for South Africa*. Pretoria: Government Printers.

2. The fertility measure referred to in this chapter is the total fertility rate (TFR), which is the measure of the average number of children a woman will give birth to during her reproductive years (usually 15 to 49).

3. Sources: SADHS Project Team. 1999. *South Africa in transition: selected findings from the South African Demographic and Health Survey, 1998.* Paper presented at the Third African Population Conference: The African Population in the 21st century, 6-10 December 1999, Durban, South Africa. And: Population Reference Bureau. 1998. World Population Data Sheet. Washington: PRB.

4. Caldwell, J & Caldwell, P. 1993. The cultural context of high fertility in Sub-Saharan Africa. *Population and Development Review,* 19(2):225-262.

5. The Population Council. 1993. *Findings of two decades of family planning research.* Washington D.C.: The Population Council.

6. United Nations. 1995. **World Prospects 1994.** New York: Population Division, United Nations.

7. SADHS Project Team.

8. Chimere-Dan, O. 1993. Population policy in South Africa. *Studies in Family Planning,* 24:31-39.

9. Sources: Report of the Science Committee of the President's Council on demographic trends in South Africa, 1983; SADHS, 1999; Udjo, E O. 1999. *Four-"race" model estimating the population of South Africa.* Paper presented at the workshop on phase 2 of Census '96 Review on behalf of the Statistical Council, 3-4 December 1996, Johannesburg. The number of Asian women interviewed in the 1998 SADHS was too small to provide a reliable measure of the total fertility rate.

10. SADHS Project Team.

11. Klasen, S. 1996. Poverty and inequality in South Africa. In: May, J (Ed.). 1998. P*overty and Inequality in South Africa. Report prepared for the Office of the Executive Deputy President and the Inter-Ministerial Committee for Poverty and Inequality.* Durban: Praxis Publishing. The absolute poverty line is defined as the international poverty line of one US dollar per day.

12. May, J (Ed.). 1998. Poverty and Inequality in South Africa. Report prepared for the Office of the Executive Deputy President and the Inter-Ministerial Committee for Poverty and Inequality. Durban: Praxis Publishing.

13. Ibid.

14. Chimere-Dan, O. 1999. *Marriage and the fertility transition in South Africa.* Paper presented at the Third African Population Conference : The African Population in the 21st Century, 6-10 December 1999, Durban, South Africa.

15. Source: SADHS Project Team.

16. Preston-White, E; Zondi, M; Mavundla, G & Gumede, H. 1990. Teenage pregnancy, whose problem? Realities and prospects for action in Kwazulu/Natal. *South African Medical Journal,* 77(3):11-20.

17. Mencarani, L. 1999. *An analysis of fertility and infant mortality in South Africa based on 1993 LSDS data.* Paper presented at the Third African Population Conference: The African Population in the 21st Century, 6-10 December 1999, Durban, South Africa.

18. Source: SADHS Project Team

19. Ibid.

20. Sources: Mostert, W P & Du Plessis, G E. 1990. *Contraceptive use in South Africa 1987-1989*. Pretoria: Human Sciences Research Council; SADHS Project Team.

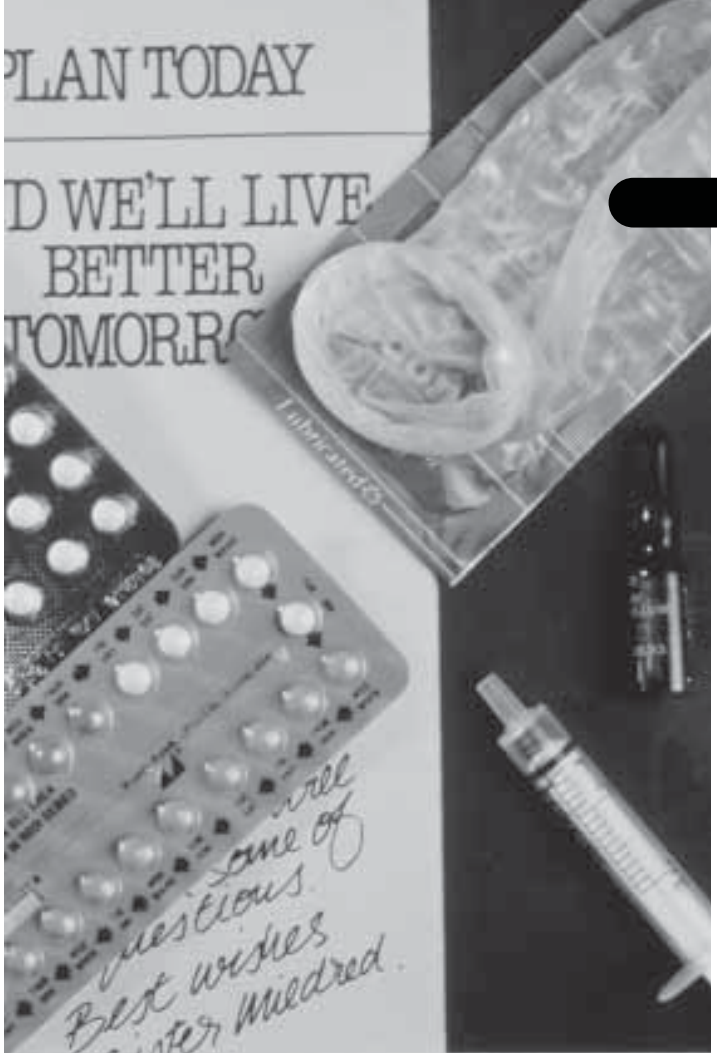
21. Source: SADHS Project Team.

22. Ibid.

23. Du Plessis, G E. 1999. *Transitions in fertility preferences in South Africa: issues of conscious choice and numeracy.* Paper presented at the Third African Population Conference: The African Population in the 21st Century, 6-10 December 1999, Durban, South Africa.

24. Ibid; Du Plessis, G E. 1996. Reproductive choice and motivation in South Africa, 1987-1989. *South African Journal of Demography,* 6(1):33-48.

25. Rossouw, J P H & Du Plessis, G E. 1994. Unwanted fertility, contraception and induced abortion in South Africa. *South African Journal of Demography,* 4(1):12-28.



SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS

The White Paper on Population Policy[1] identifies a range of concerns in the field of sexual and reproductive rights and health that need to be addressed as part of the overall national development strategy to improve the quality of life of all South Africans. These concerns include high rates of maternal mortality, violence against women and high-risk teenage pregnancy, as well as the need to improve the quality and user friendliness of services. Addressing these issues requires both a change in the social value of women – a recognition and practice of human rights and gender equality – and improvement in diverse services. This chapter provides a brief overview of steps, which have been taken in both areas since 1994, as well as current challenges.

At the level of policy, the South African Constitution establishes gender equality and the right to "freedom and security of the person". The latter clause stipulates that "[e]veryone has the right to bodily and psychological integrity which includes the right to make decisions concerning reproduction; to security in and control over their body; and not to be subjected to medical or scientific experiments without their informed consent". Moreover, the Constitution provides that "[e]veryone has the right to have access to ... health care services, including reproductive health care.[2]" This entrenches the international consensus on **reproductive rights** reached at the International Conference on Population and Development (ICPD, Cairo 1994) – see Box 1. The constitutional provision also gives content to the consensus achieved in the Platform of Action of the Fourth World Conference on Women (FWCW, Beijing 1995) regarding **sexual rights** – see Box 2.

REPRODUCTIVE RIGHTS

"... [R]eproductive rights embrace certain human rights that are already recognised in national laws, international human rights documents and other consensus documents. These rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents. In the exercise of this right, they should take into account the needs of their living and future children and their responsibilities towards the community.[3]"

1

Sexual health services are understood to include the full range of services that allow the enjoyment of sexuality without danger, such as prevention and treatment of sexually transmitted diseases and prevention and treatment of the consequences of sexual violence against women and children. **Reproductive health** is understood to include the full range of **services** that allow people to achieve their reproductive goals, such as maternal health, contraception, abortion and infertility services, as well as prevention and treatment of diseases of the reproductive system, such as cancers. In the perspective of both the international agreements and the South African government these services should be delivered within primary health care services. The White Paper on the Transformation of the Health System prescribes that primary health care services should be delivered in an integrated manner so that a person's diverse needs, including sexual and reproductive health needs, can be met in one place at one time.

South Africa therefore has the broad policy framework to ensure both sexual and reproductive rights and access to sexual and reproductive health care.

THE STATE OF SEXUAL AND REPRODUCTIVE RIGHTS IN SOUTH AFRICA

As stated in the chapter on "Fertility Transition and the Status of Women", fertility in South Africa was high and stable between 1950 and the seventies, estimated at an average of 6 to 7 children per woman. During the period 1980 to 1995, the number of children per woman dropped to an average of 4 to 5 children. According to the Demographic and Health Survey done in South Africa in 1998, the total fertility rate for the whole of South Africa is currently 2,9. However, considerable variations occur amongst the different racial groups, as well as amongst different geographical areas and urban and non-urban areas in the country.

SEXUAL RIGHTS

"The human rights of women include their right to have control over and decide freely and responsibly on matters related to their sexuality, including sexual and reproductive health, free of coercion, discrimination and violence. Equal relationships between women and men in matters of sexual relations and reproduction, including full respect for the integrity of the person, require mutual respect, consent and shared responsibility for sexual behaviour and its consequences.[4]"

2

Table 1

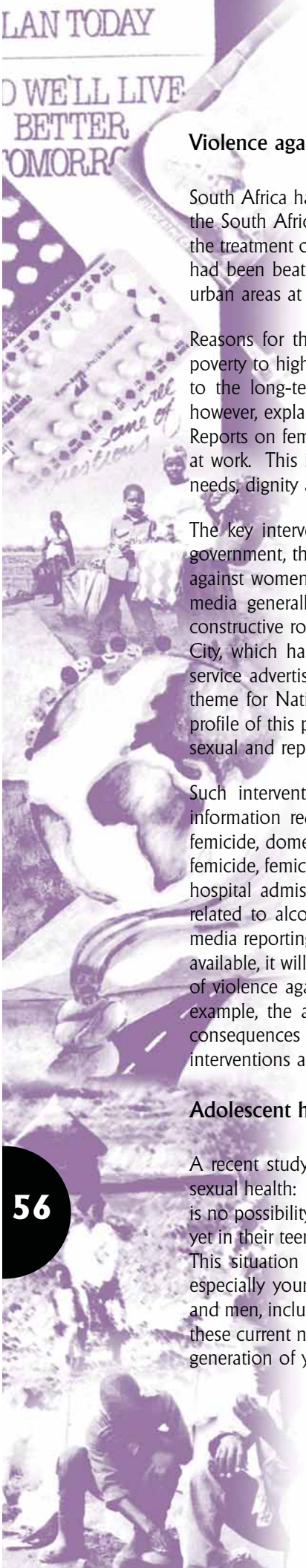
Total wanted fertility rates and actual total fertility rates in South Africa, by population group (according to the South African Demographic and Health Survey, 1998)

Population Group	Total wanted fertility rate	Total Fertility Rate
African: urban	1,9	2,3
rural	3,0	3,9
Coloured	2,1	2,5
White	1,5	1,9
Asian	1,5	1,8
South Africa	2,3	2,9

The strong interrelationship between human development status, particularly women's education and income levels, and fertility was discussed in the chapter on poverty and the fertility transition. In normal social contexts, fertility rates are an indicator of development. In South Africa, however, fertility patterns for the majority of the population are not linked to development trends due to family planning services that were delivered without development.

Notwithstanding the ongoing decline in fertility rates over time, there remains a disjuncture between actual and preferred family sizes. This may be partly attributable to lack of access to contraception or contraceptive failure. But more importantly, it identifies the underlying problem, namely the current context of inequality in sexual and reproductive relations, in which many couples do not make shared decisions regarding reproduction and women's right to make reproductive decisions is not accepted. The extensive use of contraceptive injections, while to some extent resulting from the past history of exclusive provision of injectables to women, also reflects women's attempts to take control over their reproductive capacity without having to discuss this with their partners. This is attributable to desperate living conditions, especially in rural areas.

Since 1994, there has been successful legal and policy reform in the arena of sexual and reproductive rights. One prominent example is the enactment of the Choice on Termination of Pregnancy Act, which specifically recognises the importance of guaranteeing reproductive rights. However, the current indications are that the country is far from realising these rights. The following discussion on violence against women and adolescent health illustrates the extent of the current challenge to move from the principles of sexual and reproductive rights to their actual implementation in both government actions and the personal lives of our population. Politicians, senior government officials, religious leaders, sports bodies and institutions, artists and other leaders need to address the normative nature of gender inequality, and emphasise their refusal to tolerate abuses of sexual and reproductive rights. They need to promote openness in talking about sexuality and reproduction in order to prevent HIV infection and unwanted pregnancy. Openness in talking about HIV testing, living with AIDS and violence against women should also be promoted vigorously. These messages need to incorporate the common issue of gender inequality that underlies so many of the barriers to sexual and reproductive rights. Some of the promising responses to the challenges that are currently being implemented are included in order to demonstrate what initiatives have been taken.



Violence against women

South Africa has one of the highest rates of rape and domestic violence in the world. For example, the South African Demographic and Health Survey (SADHS) of 1998 included a section exploring the treatment of women, including physical and sexual abuse. It was found that one in eight women had been beaten by her partner. The results also indicated that partner abuse was higher in non-urban areas at 15%, than the 9% in urban areas.

Reasons for this situation range from the impact of the brutalization of the "apartheid war" and poverty to high unemployment rates. The destruction of community and family life and values due to the long-term impact of migrant labour is another significant factor. These factors do not, however, explain why women, having experienced the same deprivations, are the target of violence. Reports on femicide and rape within the family reinforce the contention that there is another factor at work. This is the pervasive gender inequality within our society - the low valuation of women's needs, dignity and lives, while men's power over women is viewed as normative.

The key intervention to address this is to challenge the poor valuation of women. This requires government, the private sector and communities, in partnership, to increase the visibility of violence against women. It requires effective information, education and communication programmes. The media generally sensationalises its reporting on violence against women and has not played a constructive role in dealing with the issue.[5] An exception is the current multi-media series of Soul City, which has very wide outreach and targets violence against women. It has included public service advertisements on violence against women. The focus on violence against women as the theme for National Women's Day in 1999 has also been a significant step forward in raising the profile of this problem. These are the sorts of interventions that build a rights culture that will make sexual and reproductive rights real in South Africa.

Such interventions can be improved if more is known about violence against women. Better information requires, first of all, that data are gathered and made available on the incidence of femicide, domestic violence and teenage abuse. In this regard, records should be kept on reported femicide, femicide by police, partners and husbands, on the reported incidence of domestic violence, hospital admissions as a result of domestic violence, including the position of these admissions related to alcohol abuse, and reported incidence of teenage abuse. Data on the most common media reporting of abuse by age and geographic location should also be kept. When such data are available, it will be possible to analyse the data and produce reliable information on the actual scope of violence against women. Information on the incidence of domestic violence in relation to, for example, the age of victims and other relevant factors, will facilitate analysis of the causes and consequences of such violence. Information of this nature is essential in order to ensure that interventions are well planned and targeted to reach the real needs.

Adolescent health

A recent study undertaken in the Eastern Cape demonstrates the interplay between violence and sexual health: young women report that, commonly, their first sexual experience is violent and there is no possibility of negotiating sex, let alone safer sex.[6] A survey in Gauteng found "young boys, not yet in their teens, thinking rape is a game, declaring themselves openly in favour of sexual violence".[7] This situation helps to explain why the highest rate of increase of HIV is amongst the youth, especially young women. The need to promote a culture which asserts equality between women and men, including the assertion of sexual and reproductive rights, is necessary in order to challenge these current norms and the devastating consequences they have for the sexual health of the current generation of youth.

In the case of adolescents, **life skills** education is one of the most critical interventions, since it serves to build their self-esteem, confidence and ability to act with mutual respect and responsibility in sexual relationships. While there is an in-principle commitment to sexuality education in schools, the process is slow and the content remains contested. For example, governing bodies can still veto sexuality education in individual schools. During 1997, the government appointed a non-governmental organisation (NGO) to train 6 603 teachers in life skills and HIV/AIDS in five provinces.[8] The training was found to be more acceptable in rural areas than in urban areas due to teachers in rural areas (Eastern Cape and Northern Province) being enthusiastic to receive materials and training.[9] One challenge for this type of training is to ensure that it addresses issues of gender equality. Within the other provinces, the Departments of Health and Education took joint responsibility for training and organised consortiums of local experts to offer programmes. At the end of the 1997/98 financial year, over 9 000 secondary school teachers had been trained to offer life skills programmes.[10]

While by law pregnant teenage girls are allowed to complete their schooling, it is reported that in some instances community control over schools means that girls have been refused this right. By contrast, there is no sanction against boys who are partners of the pregnant girls. The failure to complete school has substantial personal implications and also impacts on the country's economy, with a large pool of young people not developing to their full potential.

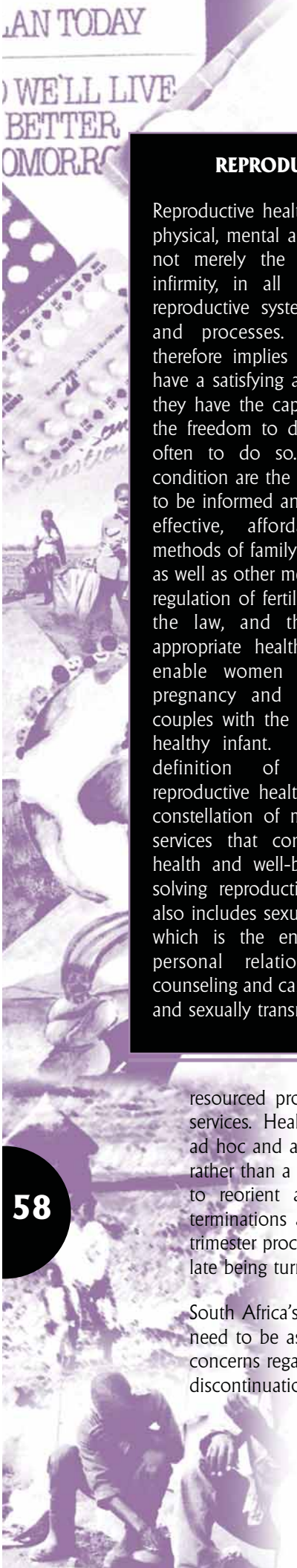
Health services are legally obliged to provide contraceptives on the request of young people from the age of fourteen. Nevertheless, inaccessibility of health services to adolescents is one of the current concerns of the Department of Health. In a Northern Province study regarding teenagers and contraceptives, barriers that adolescents face in obtaining contraceptives were identified. These include health workers displaying judgmental approaches and not discussing side-effects or doing physical check-ups. Health workers felt undertrained for their jobs and inadequately equipped to handle side-effects and contraceptive problems. In general, if health workers do talk to adolescents about sexual and reproductive health, it is with a view to promoting abstinence rather than building the ability of young people for making informed decisions of their own. This further weakens adolescents' trust in health services, since their real needs are not being addressed.

In response to these problems, the Department of Health is currently undertaking consultations around the development of guidelines for adolescent health programmes.

The National Sexual Health Initiative (NASHI), a collaboration between non-governmental orginisations (NGOs) funded by the Henry J. Kaiser Family Foundation, is currently reviewing all programming and research about adolescent sexual health with a view to a major health promotion initiative in this field. The Sexual Rights Campaign is using a peer education model for fostering debate and facilitating action amongst young people in order to promote their sexual health and tackle barriers to addressing AIDS and violence against women.

STATE OF HEALTH SERVICES IN SOUTH AFRICA

Since 1994, the government has devoted significant attention to transforming health services with the goal of increased equity. Primary health care was declared free for pregnant women and children under six years from 1 June 1994 and then extended to all patients at a primary level from 1996. A clinic building programme was implemented to address inadequate infrastructure in rural areas. The 1997 White Paper for the Transformation of the Health System in South Africa has, as part of its agenda, making health services accessible to the poor, and in particular women. Integrated comprehensive services through a district health system and a caring culture are examples of important White Paper policy provisions for health system content areas in order to improve access to the quality of primary health care services, incorporating reproductive health services.



REPRODUCTIVE HEALTH

Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. In line with the above definition of reproductive health, reproductive health care is defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and solving reproductive health problems. It also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counseling and care related to reproduction and sexually transmitted diseases.[11]

3

The past inequities in health service provision and quality do, however, leave tremendous challenges. Basic infrastructure is an essential requirement for health services, including sexual and reproductive health services. A national survey of a sample of clinics found that only 79% of rural clinics had electricity and 69% had potable water indoors. Moreover, at least 30% of clinics had interrupted supply of water and electricity in the month previous to the survey and from 23% to 39% of all hospitals were likewise affected by such disruptions. Existence of telephones reflects inequities between provinces, with 50% of clinics in the Eastern Cape without a functioning telephone, compared to none in the Western Cape.[12]

This reinforces the importance of the current focus of the Department of Health on strengthening district health systems. It also underscores the importance of a broader public health rather than a purely clinical approach towards sexual and reproductive health.

The persistently high maternal mortality ratio of 150 deaths per 100 000 live births[13] reinforces the contention that preventable maternal mortality remains a major problem in relation to women's reproductive health.

In addition to the health systems focus, there are various initiatives underway to improve specific components of sexual and reproductive health service provision. One of these is access to abortion services; another is the initiative to increase and widen contraceptive choice.

While there have been significant strides in the implementation of the Choice on Termination of Pregnancy Act, there are currently inequities and barriers in access to services. There are stark regional disparities in the provision of abortion services, with resourced provinces performing most of the abortions while some regions do not provide any services. Health workers are not obliged to refer women seeking abortions; referral mechanisms are ad hoc and are not being monitored. Many health workers view abortion as a "privileged" service rather than a woman's right, and thus do not feel obligated to assist them. This indicates the need to reorient and train health workers regarding woman's reproductive health needs. Most terminations are being done in the first trimester, and few hospitals provide appropriate second trimester procedures. This results in long waiting lists with many women and teenagers who present late being turned away from services.[14]

South Africa's high contraceptive prevalence rates in comparison with other sub-Saharan countries need to be assessed in relation to effective use of contraception. It has been noted that women's concerns regarding the side-effects of injectables are not addressed by service providers, leading to discontinuation.[15] Also, clients are dissatisfied with approaches of health workers to contraception,

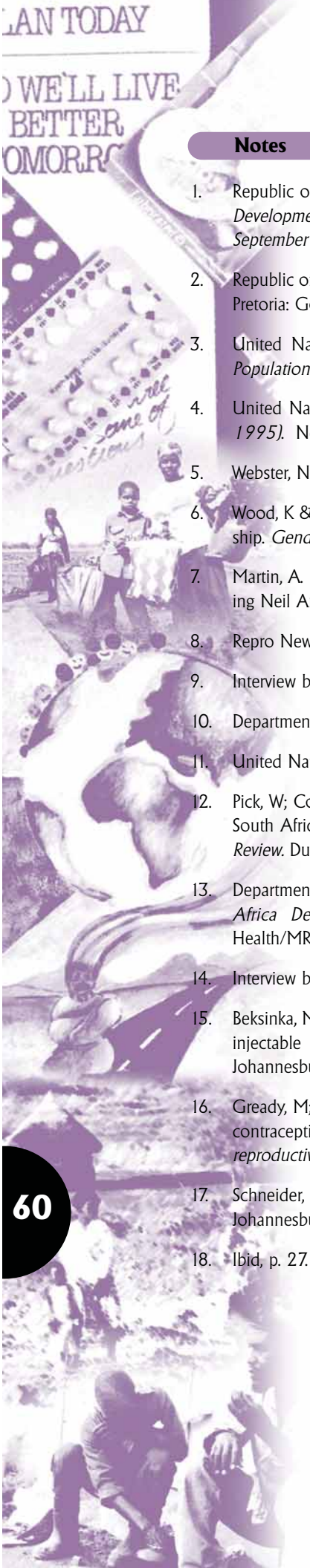
a problem also experienced by young people as described above.[16] The Second Draft Guidelines for Contraceptive Services, which were released in 1999, are aimed at improving the range of choices and efficiency of provision. The Department of Health will finalise these Guidelines during 2000. An important development has been the introduction of femidoms and emergency contraception. One issue not yet addressed through the process of developing guidelines is the promotion of condom use within contraceptive services in order to provide "dual protection", given that the prevention of HIV infection is a national priority.

Moreover, while improved supply systems and range of contraceptives may be achieved, all of these rely on the ability of health workers to talk openly about sexuality and reproductive choice with their clients - men, women and young people. This requires addressing sexual and reproductive rights, rather than the purely medical and technical components of service provision. This issue is closely linked to the broader problem identified in the description of services above, namely the pervasive impact of gender inequality. Methodologies such as the Health Workers for Change series of workshops and Gender and Health workshops have been used within some provincial health services in order to build health worker confidence and commitment to recognising the impact of gender inequality, including in relation to sexuality and reproduction. But these still have to be extended nationally.

Specific reproductive health services such as the supply of contraception also require an effectively functioning health system in order to be delivered equitably and with reasonable quality to all service users. In a review of quality of care in district health facilities for the Department of Health it was found that, in addition to inadequate equipment supplies, the basic training of nurses does not equip them with the skills to provide essential primary health care of reasonable quality. The problem of "poor attitudes" is a widespread one and is frequently acknowledged by providers.[17] Delivering quality reproductive health services is not only a technical exercise, but needs to include health workers' understanding of the issues and social and economic constraints facing women, young people and men who attempt to access health services.

While quality of care is expressed as a priority for the health services, there appears to have been insufficient consideration given to the range and quality of services to be provided.[18] An issue of particular concern is that, while health workers are receiving training in relation to new protocols for diverse health issues, there is not as yet a mechanism to ensure that specific issues, such as HIV/AIDS, receive priority - every opportunity should be used for AIDS prevention, e.g. by ensuring appropriate treatment for sexually transmitted diseases, by promoting condom use and by providing basic information.

In conclusion, substantial attention needs to be devoted towards the continued development and strengthening of health systems. In addition, issues of gender equality need to be included in health worker curricula and in-service training, with a specific focus on building health workers' understanding of their clients' experience and their ability to help clients achieve sexual and reproductive rights and health. Finally, data available at the national level are inadequate to provide the necessary insights into the causes and consequences of the absence of sexual and reproductive rights. Furthermore, there is also insufficient evidence as to which interventions are most cost-effective in addressing these issues.



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HIV/AIDS AND ITS DEMOGRAPHIC, ECONOMIC AND SOCIAL IMPLICATIONS

This chapter contends that the HIV/AIDS pandemic is the single most important phenomenon that will shape future demographic and development trends in South Africa. The factors which have contributed to the current phase of the pandemic are also discussed.

Available information on trends in HIV/AIDS is not backed by hard data, fact and rigorous data collection methods. For policy interests and the urgent need for intervention, this paper, as part of the continuing discourse, serves to cast some light on demographic and other aspects either leading to or brought on by this disease. Estimates used here to plot the consequences and possible implications of the pandemic on South Africa's short-term future (2000 – 2009) are from the ASSA600 Model.[1]

According to figures released by the World Bank and UNAIDS in early 1999, sub-Saharan Africa has more than two-thirds of the world's 33,4 million people who are HIV positive. It is worth noting that, in absolute terms, South Africa is second only to India in numbers of PLWAs and PLWHs (Persons Living With AIDS/ Persons Living With HIV). Yet India has twenty times the population of South Africa.

International HIV/AIDS authorities started to understand this hitherto unexplained global variability of HIV prevalence in terms of social and economic characteristics of societies, or the so-called Jaipur paradigm.[2]

In South Africa, all the underlying pre-conditions exist for being amongst the worst hit countries in the world - available evidence is already pointing in that direction. Apartheid marginalised a majority of the population and tore families apart through *inter alia* the migrant labour system. African women in particular turned out to be the most adversely affected. Their vulnerability and powerlessness in the face of the HIV/AIDS onslaught are seemingly sealed by poverty, patriarchy and violence.

APPLICATION OF THE JAIPUR PARADIGM

The Jaipur paradigm explains HIV/AIDS prevalence on the basis of social cohesion patterns and overall levels of wealth and income distribution. *Social cohesion* refers to the degree of homogeneity to which a society operates as a social, ethnic, linguistic and cultural unit. It is argued that societies with high social cohesion and high median income will suffer less from HIV/AIDS than societies starkly divided by culture, ethnicity and income disparities such as India or Indonesia. For example, countries like Germany, Japan, Denmark and Sweden, with both high social cohesion (single language and unified culture) and a high median income, will be best placed to survive the pandemic. Intermediate countries such as Mexico, Morocco and Brazil, which have high social cohesion, e.g. one language and one religion, but inequitable wealth distribution and low median income, will be less well placed to fight the pandemic. Countries with both inequities in wealth distribution and low social cohesion such as India and many parts of Africa are the worst hit.

1

A BRIEF HISTORY OF HIV/AIDS IN SOUTH AFRICA

The first two AIDS cases in South Africa were diagnosed in 1982 with the first recorded death occurring in 1985. There were undoubtedly others before that went unnoticed; it is quite conceivable that HIV was already in South Africa during the 1970s. By the end of 1990 the heterosexual pattern had overtaken the homosexual/bisexual pattern as the dominant form of transmission of the reported cases. Homosexual transmission appears to have peaked around 1990. By February 1993, all but two of the 46 cases diagnosed as AIDS from 1982 to 1986 had died. At the end of 1995, some 9 000 cases had been reported of whom some 8 000 were still alive. However, estimates from component projection models suggest that barely more than 5% of all cases were reported and only slightly more than 1% of AIDS deaths were recorded. It was estimated that over 1,8 million people were infected with HIV at that time.[3] The pandemic was by then resolutely heterosexual. Women were more vulnerable to infection; in 1996, 73% of all reported HIV cases was female.[4]

In 1996, the Department of Health estimated in 1996 that up to 3% of the total population and 7,5% of the sexually active population were infected by HIV. By the end of 1996, approximately 700 people were becoming infected each day with the rate of new infections doubling every fifteen months. By 1998, these projections had proven too modest: the estimated HIV figure now stands at 3,6 million.[5] It is estimated that by 2009, South Africa will reach the figure of six million deaths from AIDS.[6]

Implications for health care systems are alarming. It is projected that by the year 2000, almost 330,000 people will be AIDS sick (each AIDS patient will have at least eight of the major illnesses that are associated with death) and there will be 2 500 new infections per day. The implication of AIDS mortality is that between 100 000 and 150 000 children were orphaned due to AIDS during 1999.

Table 1 illustrates some of the estimated effects of HIV/AIDS.

Table 1

Effects of the HIV/AIDS pandemic in South Africa[7]

Indicator	End 1990	Beginning 2000
Life expectancy	63 years	56,5 years
AIDS deaths	1 000	140 000 to 150 000
Child mortality	67 per 1 000	91 per 1000
Probability of a 15 year-old dying before 60	27 per 1 000	40 per 1000
Population HIV-infected	< 0,5%	11,5%

FACTORS IN THE SPREAD OF HIV/AIDS

The **high geographical mobility** of the South African population and the **extensive migrant labour system** are both important in understanding the spread of HIV/AIDS in the country. Migration is not a cause of HIV/AIDS; it is a risk factor. It exposes both the mover and the stayer to transmission and infection, and it is in this sense that migration is seen as a facilitating mechanism for the spread of AIDS. The causative factors have more to do with power dynamics between partners and their socio-economic situation.

South Africa's well-developed system of **transportation routes** also influences the geographical mobility of its population. South Africa's superior air, rail and road transportation network provides excellent corridors for the more rapid spread of the disease across the country.

One of the reasons HIV/AIDS has spread so rapidly in Africa is that the continent has been embroiled in decades of **intermittent military and chronic civic violence**. Wars and civil wars have occurred in countries as diverse as Angola, Burundi, Congo, Eritrea, Ethiopia, Liberia, Mozambique, Namibia, Rwanda, Somalia, South Africa, Sudan, Tanzania, Uganda and Zimbabwe.[8] War creates the perfect conditions for the rapid transmission of HIV, as it is associated with sexual violence against the girl child and women, rape, prostitution and other dehumanising ethnic cleansing acts. Refugees, veterans and other persons in the path of war are unlikely to see the risk of HIV as a significant, additional threat to their lives. War fits well into the Jaipur paradigm, since it represents the final breakdown of all social cohesion, thus serving as an accelerating factor in the spread of HIV/AIDS.

The reciprocal effects of the simultaneous **endemics of tuberculosis (TB) and sexually transmitted infections (STIs)** also have to be considered as an important factor in the rapid spread of HIV/AIDS. HIV-positive people and PLWAs are particularly prone to the opportunistic invasion of TB. This means that there is a broader base from which the disease can be spread. HIV will even reactivate "cured" TB. The World Health Organization estimates that there are 8 to 10 million new cases of TB and STIs each year and 2 to 3 million deaths; over three-quarters of these occur in tropical countries. The resurgence of TB in inner city America has, for instance, been directly attributed to HIV. Up to one half of the sub-Saharan African population has had TB.[9]

There is a greater number of tuberculosis cases in South Africa than ever before. In 1997 approximately 33% of all TB cases were HIV-positive. In 1998, the national incidence of TB was estimated at 206 cases per 100 000, with a particularly high incidence in the Western Cape of 589 per 100 000. If current trends persist, 3,5 million South Africans may contract TB during the next ten years; 90 000 will die of TB regardless of HIV infection. By the year 2004, 13 in every 1 000 South Africans could be actively suffering from TB, of whom 9 could be HIV positive.[10]

The STD prevalence is also unacceptably high,[11] and highly correlated with HIV in the poorer provinces. This can be clearly seen in the case of the Eastern Cape, as depicted in Figure 1.

The different diseases, one airborne, the others sexually transmitted, are relentlessly attacking the same population: the poor and lower middle classes, more often women.

DEMOGRAPHIC IMPLICATIONS OF HIV/AIDS

Impact on the age-sex structure

The impact of HIV/AIDS on population structure is dynamic and dramatic. There will be a decline in the number of people in specific age groups, namely 0-4 year-olds and 25-34 year-olds. In other

Figure 1

HIV and STD rates among pregnant women in South Africa's poorest province, the Eastern Cape[12]

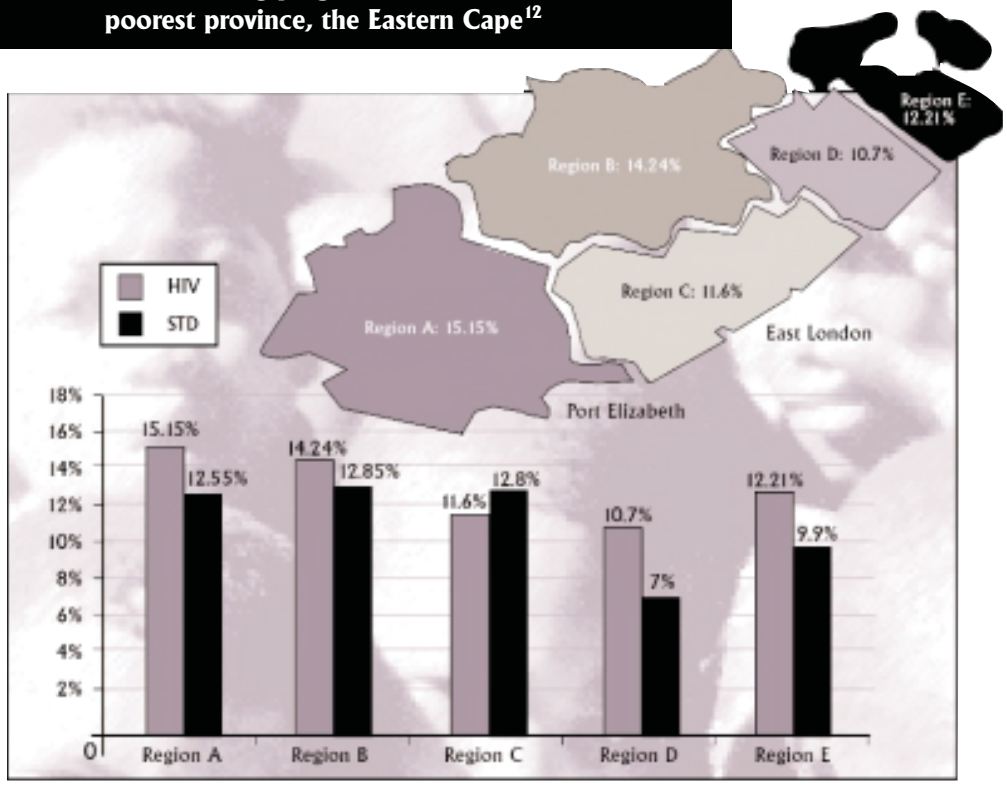
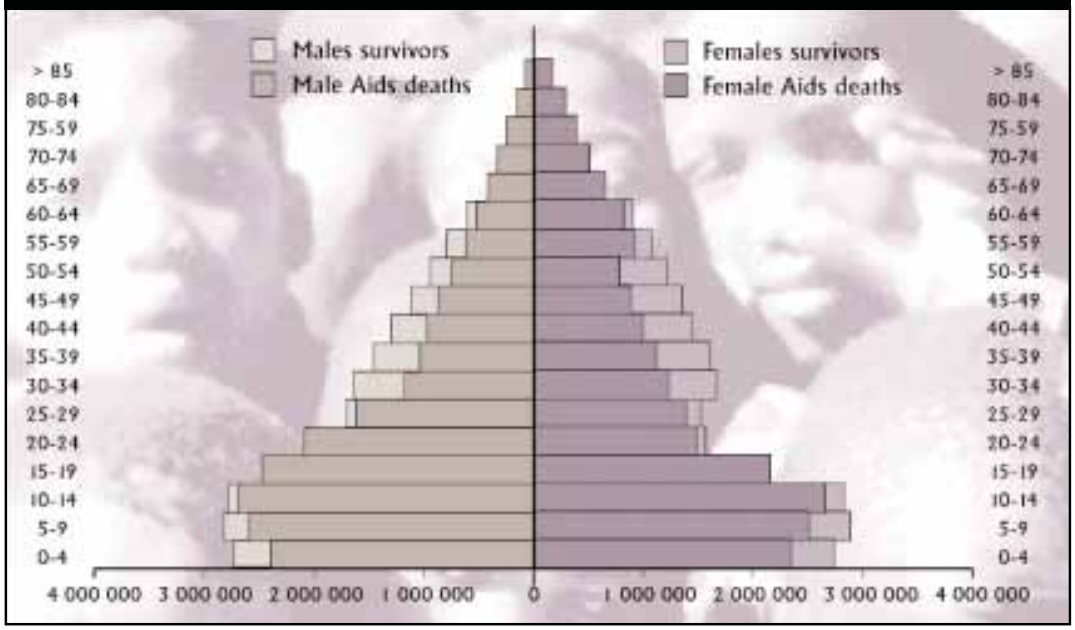


Figure 2

Projected age and sex structure due to 6 094 529 AIDS deaths by 2009[13]



words, AIDS mainly increases mortality in the adult age groups that have historically enjoyed the lowest mortality rates, and their offspring. Since AIDS is primarily spread through sexual transmission, the majority of people will be infected during periods of peak sexual activity in their late teens and early twenties and will fall ill and die in their late twenties and early thirties. The peak ages of HIV infection are between 18 and 25; the peak ages of AIDS deaths occur five to ten years later.

The population pyramid in Figure 2 illustrates the sex and age distribution of projected AIDS mortality and morbidity by the year 2009.

The concentration of HIV/AIDS in these age groups has important consequences. HIV-positive pregnant women might infect their new-born children during delivery or through breast-feeding. Infant and child mortality rates will increase since most of these HIV-positive infants will quickly develop AIDS and, almost without exception, die within five years of birth. Over time, the reproductive age cohorts will move up the age pyramid and so, with increased mortality and deferred births, the structure of the age pyramid will visibly change. Significant gashes will be on the female side of the pyramid and the base will taper inwards due to lowered fertility. According to the ASSA600 projections, cumulated AIDS deaths will have surpassed the figure of 6 million as early as 2009.

Women are generally more vulnerable to HIV infection. In fact, as with STIs, women are at least four times more vulnerable to infection than men. In the first instance, women are **biologically** more vulnerable because their bodies have larger mucosal surfaces, and micro-lesions may occur during coerced intercourse, which could serve as entry points for the virus. Girls and young women are even more vulnerable in this respect. Sperm contains a higher count of the virus than vaginal secretions. In addition, the presence of untreated STIs is a risk factor for HIV infection.

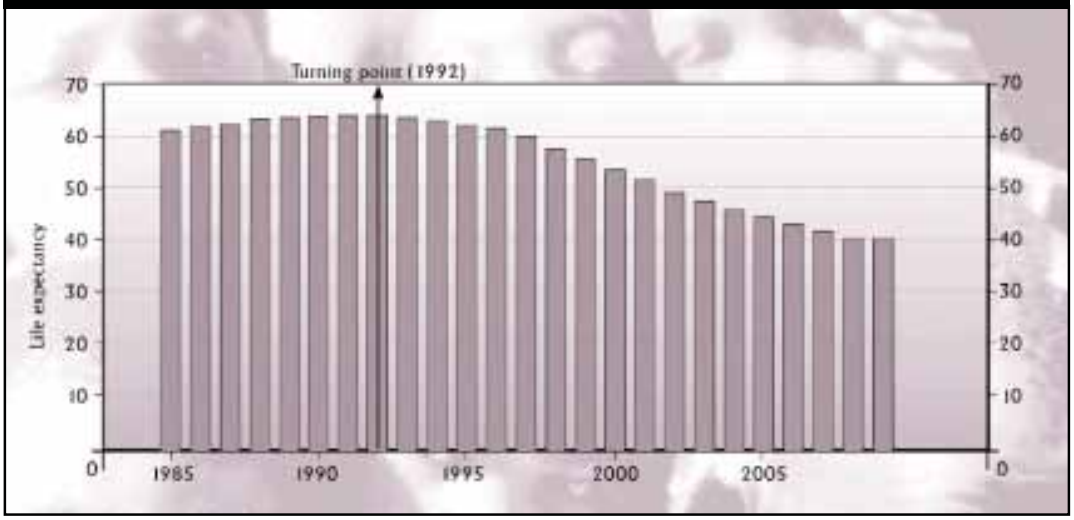
Secondly, women are also **socially, culturally and economically** more vulnerable to HIV/AIDS. In this regard, social, cultural and economic power relations play a major role. For instance, many women are still not expected to discuss or make decisions about sexual matters; they are not expected to request that a condom be used, let alone insist on using a condom or any form of protection. If they refuse sex or request the use of a condom, they often risk abuse, due to suspicion of infidelity. The various forms of violence against women mean that sex is often coerced, which is itself a risk factor for HIV infection. For married and unmarried men, multiple partners (including sex workers) are culturally accepted. On the other hand, women who are engaged as sex workers find this a useful way to supplement their income and improve their economic situation. Also, men often seek younger partners in order to avoid infection and in the belief that sex with a virgin cures HIV infection and other diseases. Girls and young women, on the other hand, allow older men to engage in sexual relations with them because they are more often dependent on the financial and emotional awards offered by these men in these circumstances. On the contrary, it is usually not acceptable for a woman to have relations with other men than her husband or partner. For example, women who stay behind in rural areas while their husbands work elsewhere in urban areas, are highly dependent on the remittances that their husbands return to their rural families. Due to this situation, these women are expected to allow their husbands to engage in multiple sexual relationships elsewhere while they (the wives) are not allowed to use contraception while fulfilling their roles as mothers and housekeepers in the absence of their husbands. This situation makes them especially vulnerable should it happen that they enter into sexual relationships of any kind.

Impact on life expectancy

Life expectancy is particularly sensitive to AIDS because deaths occurring among young adults, young children and infants result in a large number of years of life lost. Before the AIDS pandemic, South Africa had been enjoying a drop in mortality with the consequent increase in life expectancy.

Figure 3

Predicted life expectancy for South Africans, 1985 to 2009[14]



AIDS has mitigated against this progress.

Figure 3 shows that the average life expectancy from birth, of a cross-section of those born in the last 100 years, will fall to 40 years by the year 2010. But crude averages often hide significant variance among subgroups. Three distinct groups are evident:

- those born with the virus can expect to live for an average of 2,5 years
- the life expectancy of those born free of the virus but who contract it during their youth or early adulthood is about 25 years
- the life expectancy of those born free of the virus and who live such that they are at low risk of contracting the virus, will be in the high sixties. In fact, there will be a substantial increase in the number of people in the age category 65 years and older during coming years. It is projected that 4,8% of the total population will be older than 65 years by the year 2011. This constitutes almost 2,3 million people. This figure will increase to 5,3% by the year 2016.[15]

It is certain that the measurable demographic impacts of AIDS will last for the next century.

ECONOMIC IMPLICATIONS OF HIV/AIDS

The economic implications of HIV/AIDS will affect all South Africans. The projected age structure of the population shows that the number of dependants, both children and the aged, will increase in relation to the potentially economic active proportion of the population. This means that the dependency rate will increase substantially during the coming years, and there will be fewer people to care for children and the elderly.

The measurement of the impact of AIDS on workplaces is complex. The actual cost of AIDS cases to employers varies greatly. Productivity will be affected as skilled or experienced staff fall ill, stay absent and finally die.

Medical aid schemes will probably suffer first, as their profits are dependent on the assumption of healthy populations. Most working South Africans may first become aware of the pandemic through increased health deductions from their pay packets as medical aid schemes have to deduct more to increase their premiums. HIV-infected people who know their condition (and only one in ten knows he/she is infected) are unlikely to inform their medical aid schemes for fear that they will be deprived of further benefits. On the other hand, HIV-infected people who are unaware of their condition, will be an even bigger factor in terms of estimated medical costs and expenditure. Costs and expenditure will increase as both employers and employees scramble for safe, supplementary medical aid cover.

Absenteeism, lower productivity and permanent loss of experienced staff will add to the draining costs of HIV/AIDS in the workplace. Training costs will multiply as some employers in certain areas find that some of their trainees die after completing training courses. Technikons and universities and the taxpayers will have to re-examine tertiary sector throughput ratios as a significant percentage of the student body, tomorrow's leaders, are vulnerable to AIDS.

The pandemic will eventually affect the economy through the illness and death of millions of productive members and the diversion of resources from savings (and eventually investment) to health care. The reallocation of resources may reduce the rate of economic growth. The overall economic impact of AIDS will be to reverse hard-won development gains and make all people in the country worse off.

SOCIAL IMPLICATIONS OF HIV/AIDS

Household and community impact

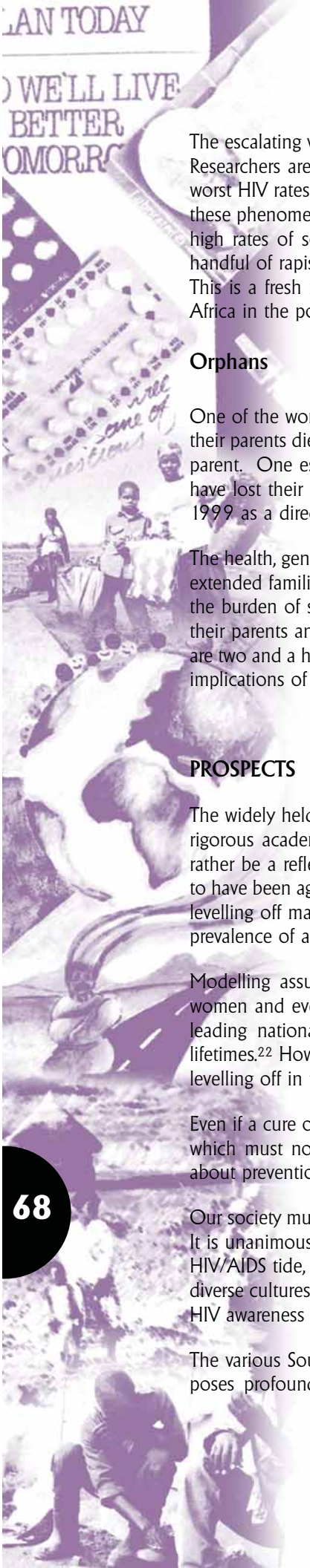
The social impact of HIV infections within households increases certain kinds of long-term expenditure. If infected persons are income-earning, their illness and possible death will reduce the household income. Special nutrition and medical treatment and the inevitable funeral costs constitute major financial burdens on the household budget. This combination of burdens will lead to a further, immediate degradation in the household economic status, adversely affecting the living standard and quality of life of all surviving members.

The people who are now falling ill and dying are the adults and role models in society, which means that a generation of children will grow up without much of the care and many of the role models they would normally have had. This means that South Africa could undergo further degradation of its familial and social fabric, already so severely damaged by apartheid. Unless the increase in the prevalence rate is curbed, South Africa will also experience a sudden and widespread breakdown of the main conduit for transmission of social values, the family. Single parenthood, followed by full orphanhood and child-headed households will become common in some communities.

Impact on women

Household members with AIDS who need special care and treatment may place an extra burden on women, who traditionally take responsibility for the care of family members and children. As single parents, or as widowed heads-of-household, women will bear the brunt of the pandemic.

Women are also the most vulnerable to infection, as explained earlier in this chapter. According to the most recent national antenatal sentinel site survey, there is a rapid increase of HIV infection in several age groups but especially amongst teenage women, which reflects their persistent vulnerability both to pregnancy and HIV infection as well as revealing their male partners' insistence on unprotected sex.



The escalating violence against women in South Africa runs in tandem with the spread of HIV/AIDS. Researchers are beginning to suspect that it is not a coincidence that South Africa is amongst the worst HIV rates and the worst rape statistics in the world, although the causal relationships between these phenomena are not yet evident. Both are independent symptoms of a lack of social cohesion, high rates of social discontent resulting from unemployment and a highly stratified society.[16] A handful of rapists have excused their actions by claiming they were seeking "a cure" with a virgin.[17] This is a fresh manifestation of an ancient and diabolical myth, which has re-emerged throughout Africa in the popular but misinformed backwash against the pandemic.[18]

Orphans

One of the worst consequences of AIDS is that large numbers of children are orphaned when both their parents die from AIDS. In normal times, full orphanhood is rare as there is at least one surviving parent. One estimate projects that, by the year 2005, a million children under the age of 15 will have lost their mothers to AIDS.[19] South Africa may already have had 100 000 "full" orphans in 1999 as a direct result of AIDS deaths.[20]

The health, general well-being and development of these children may be neglected as grandparents, extended families, fictive kin such as social workers and even communities may not be able to carry the burden of so many orphaned children. AIDS orphans have to carry both the trauma of losing their parents and the stigma of the virus. Some studies estimated that death rates among orphans are two and a half to three times higher than for non-orphans.[21] The welfare and social development implications of resultant child-headed households will be unprecedented.

PROSPECTS

The widely held predictions that the incidence of HIV/AIDS will stabilise within a few years requires rigorous academic and scientific ventilation. Elsewhere in Africa, the apparent levelling off could rather be a reflection of weaknesses in the expensive national surveillance systems which are likely to have been aggrevated as prevalence crept into the 40% bracket in some areas. Assumptions about levelling off may also have been unwittingly incorporated from mathematical models based on the prevalence of airborne diseases.

Modelling assumptions about "no risk" groups must surely shrink as infants, toddlers, pregnant women and even grandmothers are added to increasing numbers of rape victims. According to a leading national authority on rape, one in three South African women will be raped in their lifetimes.[22] However, even if we accept the standard "no risk" assumptions, analysts do not expect a levelling off in terms of HIV infections in the foreseeable future.

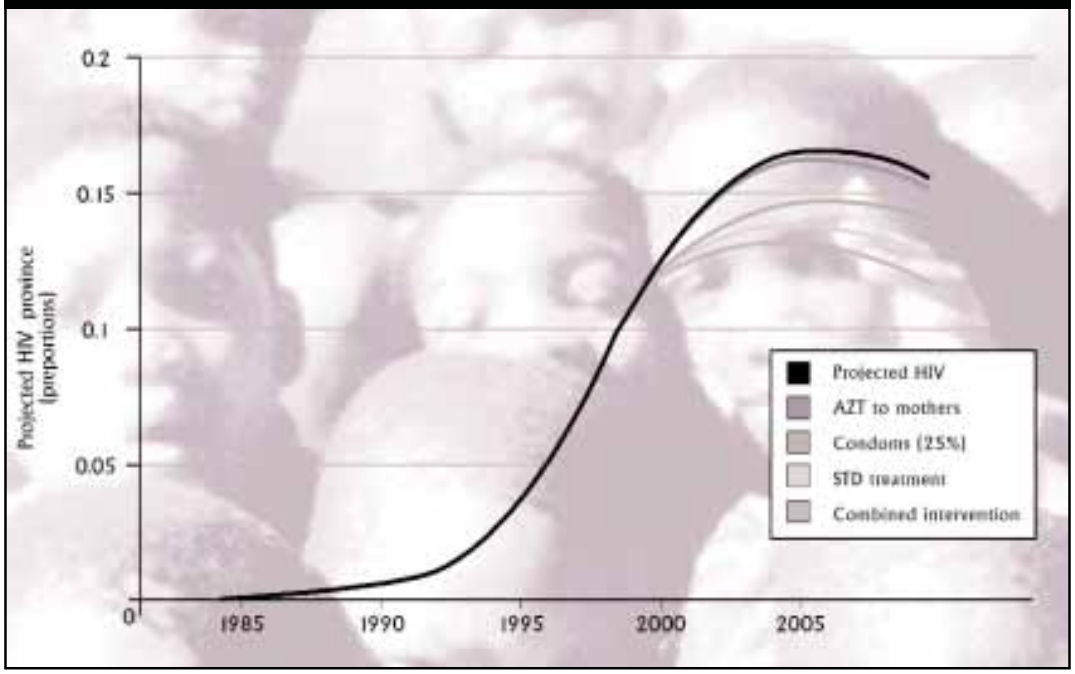
Even if a cure or vaccine is to be found at some time in the future, the main immediate intervention which must now be contemplated is the swift and effective dissemination of specific knowledge about prevention and the management of the pandemic.

Our society must respond immediately, dramatically, decisively, visibly, audibly and above all, credibly. It is unanimously recognized that only three developing countries have succeeded in stemming the HIV/AIDS tide, namely Cuba, Thailand and Uganda. What do the successful programmes from such diverse cultures have in common? Two features are uppermost: first, their governments led aggressive HIV awareness programs; second, Cuba and Thailand launched the earliest possible interventions.

The various South African radio services can reach the illiterate in the remotest village. The disease poses profound cultural problems of communication, which are compounded by the nature of

Figure 4

Impact of possible clinical interventions on the prevalence of HIV in the population[23]



HIV/AIDS, its intimacy with death and the human shame associated with every sexually transmitted infection. Yet, every person in southern Africa, from the youngest to the oldest, must become more aware of this. The situation is not yet hopeless, as illustrated in Figure 4.

The top line in Figure 4 assumes that AZT is given to pregnant women with partial success, resulting in a 25% decrease in mother-to-child transmissions. However, the cost of AZT is out of proportion to the costs and success of the other interventions. The second line from the top assumes that the rate of sexual transmission is reduced through the use of condoms, while the third line assumes that a national campaign manages to treat half of those with STIs. The most successful approach, namely a combination of all three interventions, is represented by the fourth line.

The spread of HIV/AIDS has proven difficult to predict. Weak surveillance systems exacerbate this situation. Early forecasts thus far prove to be too cautious. All spheres of policy making should understand the burdensome complexities of South Africa's AIDS future. It is clear that the pandemic will profoundly change our society in ways one can neither fathom, nor foresee. None of these changes will be progressive or welcome. National life will become more complicated and civil rights will be compromised. South African expectations of the rebirth of a nation will be disappointed unless all people in South Africa come to grips with their personal vulnerabilities to the pandemic, audit the social costs and implement viable preventative programmes.

PRIORITY ISSUES FOR REDUCING THE IMPACT OF HIV/AIDS IN SOUTH AFRICA

It is generally accepted that the impact of the HIV/AIDS pandemic in South Africa can be curbed, notwithstanding the fact that HIV prevalence is already high and rates of new infections continue to increase. One of the prerequisites is that political and religious leaders at all levels, the labour movement, traditional structures and community organisations should demonstrate active and

sustained commitment to this challenge. It should be ensured that HIV/AIDS is explicitly covered in all policies, plans and projects. In fact, all people in South Africa should actively participate as partners in HIV/AIDS campaigns throughout the South African society.[24]

STRATEGIC INTERVENTIONS TO CURB HIV/AIDS

Government is adopting best practices from selected countries where strategic interventions have been successfully implemented to curb the HIV/AIDS pandemic. Moreover, a number of strategic interventions that are of key importance locally have been identified in order to combat the prevalence and impact of HIV/AIDS in South Africa. These include:[25]

- Poverty eradication and accelerated socio-economic development
- Improved prevention programmes, including information, communication and education (IEC) aimed at reducing the stigma attached to HIV/AIDS and assisting people to diagnose the infection in its early stages and to deal with the impact of HIV/AIDS
- Intersectoral coordination and capacity building to ensure the cost-effective use of scarce resources and to meet the needs of affected people, without comprimising other national priorities
- Monitoring and evaluation of the impact of intervention programmes to ensure cost-effective allocation of available resources to HIV/AIDS programmes in the context of sustainable development
- Active involvement of employers and employees in the workplace and mobilising support from organised labour for HIV/AIDS
- Integration of HIV/AIDS interventions into all public and private health care planning and enhancing the skills and knowledge of health workers to ensure cost-effective service delivery in this field
- Financial and social support to infected and affected people, especially orphans
- Improving the social and economic status of women in order to increase the ability of households to cope with the impact of HIV/AIDS and reduce women's vulnerability to HIV/AIDS
- Focused research studies and the development of monitoring systems to improve the quality of information on the impact of HIV/AIDS – to serve as a basis for sound policy making and planning about HIV/AIDS, and to ensure that the effect of HIV/AIDS on society is adequately managed.

2

NOTES

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7. Source: Dorrington. It must be emphasized that these estimates derive from modeled projections, not recorded facts, as exact data are not available.
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19. Department of Health (DOH). 1999. *HIV/AIDS in South Africa: the impacts and the priorities.* Pretoria: DOH.

20. Ibid.

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22. Welman, M. 1999.

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24. Department of Health, *HIV/AIDS in South Africa*: the impacts and the priorities, p.15.

25. Ibid, pp. 24-28.

Appendix 1:

Population and Development Indicators

Demographic indicators

	Total population 1996(1)			Total population 1999 (mid-year estimates)(2)			Sex	Total fertility
	M	F	Total	M	F	Total	ratio (2)	rate(3)
South Africa	19 520 887	21062683	40 583 570	20,814,425	22,239,881	43,054,306	93.6	2.9
Eastern Cape	2 908 056	3 394 468	6 302 524	3,104,818	3,553,852	6,658,670	87.4	3.5
Free State	1 298 346	1 335 157	2 633 503	1,309,985	1,404,669	2,714,654	93.3	2.2
Gauteng	3 750 846	3 597 579	7 348 425	3,991,820	3,815,453	7,807,273	104.6	2.3
KwaZulu-Natal	3 950 527	4 466 493	8 417 020	4,225,575	4,699,068	8,924,643	89.9	3.3
Mpumalanga	1 362 026	1 438 684	2 800 710	1,468,842	1,534,485	3,003,327	95.7	3.1
Northern Cape	412 684	427 639	840 323	431,533	443,689	875,222	97.3	2.7
Northern Province	2 253 073	2 676 292	4 929 365	2,471,837	2,865,430	5,337,267	86.3	3.9
North West	1 649 835	1 704 989	3 354 824	1,759,842	1,802,438	3,562,280	97.6	2.4
Western Cape	1 935 494	2 021 382	3 956 876	2,050,174	2,120,797	4,170,971	96.7	2.3

	Easten Cape	Free State	Gauteng	Kwazulu-Natal	Mpuma-langa	Northern Cape	Nortern Prov.	North West	Western Cape	SA	Male	Fem	Total	Total fertility rate (3)
Total fertility rate	3.5	2.2	2.3	3.3	3.1	2.7	3.9	2.4	2.3	2.9				
Urban (%)	36.6	68.6	97.1	43.1	39.1	70.1	11	35.2	88.9	53.7	49	51	100	2.3
Non urban (%)	63.4	31.4	2.9	56.9	60.1	29.9	89	64.8	11.1	46.3	47.1	52.9	100	3.9
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**48**	**52**	**100**	**2.9**
Population group														
African(%)	86.4	84.4	70	81.7	89.2	33.2	96.7	91.2	20.9	76.7	47.9	52.1	100	3.1
Coloured(%)	7.4	3	3.8	1.4	0.7	51.8	0.2	1.4	54.2	8.9	48.5	51.5	100	2.5
Indian(%)	0.3	0.1	2.2	9.4	0.5	0.3	0.1	0.3	1	2.6	48.9	51.1	100	-
White(%)	5.2	12	23.2	6.6	9	13.3	2.4	6.6	20.8	10.9	48.8	51.2	100	1.9
Unspecified(%)	0.6	0.5	0.8	0.9	0.6	1.4	0.7	0.5	3.2	0.9	49.1	50.9	100	-
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**48.1**	**51.9**	**100**	
Age (%)														
0-14	39.3	31.1	25	35.5	35.7	33	42.2	33.8	28.9	33.9		49.8	50.2	100
15-24	20.3	20.1	18.6	21	20.6	19	21.3	20.3	18.9	20.1		48.6	51.4	100
25-34	12.4	17.2	21.3	15.2	16	15.7	12.2	16.4	18.4	16.1		47.9	52.1	100
35-44	9.7	13.1	15.5	10.9	11.4	12.4	8.4	12.1	13.5	11.8		48.3	51.7	100
45-54	6.3	8	9	7	6.5	8.3	5.2	7.3	8.6	7.2		48	52	100
55-64	5.4	4.9	5	4.6	4	5.5	4.1	4.6	5.6	4.8		42.7	57.3	100
65+	5.8	4.5	4.1	4.6	4.1	5	5.2	4.6	5.1	4.8		38.6	61.4	100
Not stated	0.9	1.1	1.6	1.2	1.7	1.1	1.4	0.9	1.1	1.3		52.1	47.9	100
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**				

Indicators of mortality

	Infant mortality rate(2)	Child mortality (2)	Under5 mortality (2)	Exponential growth rate (%) 1991-1998 (2) M	F	Annual growth rate/annum 1996-2001 (2)	Life expectancy (11) M	F
South Africa	41	13	53	2.35	1.99	2.2	58	67
Eastern Cape	55	19	73	2.31	1.71	-		
Free State	44	24	67	2.12	1.89	-		
Gauteng	36	9	45	2.2	2.18	-		
KwaZulu-Natal	51	17	68	2.38	1.89	-		
Mpumalanga	45	16	60	2.68	2.39	-		
Northern Cape	38	8	46	1.55	1.38	-		
Northern Province	33	10	43	3.31	2.53	-		
North West	36	7	43	2.28	2.06	-		
Western Cape	26	3	29	2.02	1.79	-		
Urban	36	7	43	2.25	2.01	-		
Non urban	53	20	72	2.66	2.13	-		
African	43	19	62	2.65	2.25	2.4		
Coloured	24	15	39	2.07	1.82	1.9		
Indian	19	29	48	1.7	1.57	1.6		
White	19	3	21	1.03	0.74	0.9		

Indicators of education

	Sex ratio in schools year 1999 (13) Primary	Secondary	Learners/educators ratio in the public and independent school sector (primary and secondary school , 1999 (13)	% population aged 20+ no schooling(1)
National	103.4	87.1	32.8	18.3
Eastern Cape	99.9	79.4	35.7	20.2
Free State	104.7	89.1	30.1	15.5
Gauteng	102.9	88.4	28.8	8.6
KwaZulu-Natal	105.4	89.9	35.3	21.7
Mpumalanga	105.3	87.8	35.3	28.1
Northern Cape	102.1	97.3	30.2	20.8
Northern Province	104.6	86.9	32.4	35.1
North West	104.1	88.6	30.2	21.8
Western Cape	102.5	87.6	31.5	6.3
African				23.2
Coloured				9.6
Indian				6
White				1

Social and economic indicators (HH=households)

	% economically active population (1996)			Age dependency ratio(1)	Unemployment rate(1)	Gini coeff.(1)	HDI -1991
	M	F	T				
South Africa	54.4	45.6	56.1	63	33.9	0.7	0.667
Eastern Cape	50.8	49.2	44.2	82	48.5		0.507
Free State	55.8	44.2	59.6	55	30		0.657
Gauteng	56.3	43.7	69.6	41	28.2		0.818
KwaZulu-Natal	53.5	46.5	51.9	67	39.1		0.602
Mpumalanga	55.5	44.5	54.9	69	32.9		0.694
Northern Cape	56.7	43.3	58.6	62	28.5		0.698
Northern Province	49.7	50.3	41.4	90	46		0.47
North West	55.9	44.1	57.1	63	37.9		0.543
Western Cape	55.2	44.8	64.6	51	17.9		0.826
Urban	54.3	45.7	64.1	48	28.6		
Non urban	54.7	45.3	44.4	85	44.6		
African	53.6	46.4	53.8	67	42.5		0.5
Coloured	54.3	45.7	62.9	58	20.9		0.663
Indian	63.7	36.3	57.9	45	12.2		0.836
White	57	43	64.6	46	4.6		0.901
Unspecified	53.7	46.3	55	69	24.1		

	% of HH access to safe water by type(1)									% of HH access to sanitation(1)					
	Tap inside	Public tap	Tap on site	Dam/ river	Borehole/ rainwater	Water carrier	Other	Unspecified	Total	Flush/ chem toilet	Pit latrine	Bucket	None of above	Unspecified	Total
South Africa	40.1	19.6	16	15.6	5.3	1.2	1.1	1.1	100	45.4	35.7	4.5	13.4	1	100
Eastern Cape	22.2	17.6	9.7	44.7	3.6	0.8	0.5	0.9	100	27.8	35.5	5.8	30.2	0.7	100
Free State	38.2	24.3	30.5	1	3.3	0.8	0.6	1.3	100	43.3	26.1	21.3	8.1	1.2	100
Gauteng	67.8	10.3	17.8	0.1	1.3	1	0.5	1.2	100	83.7	11.1	2.1	1.9	1.2	100
KwaZulu-Natal	32.8	17.1	8	30.9	7.9	1.2	0.8	1.3	100	34.7	44.9	0.9	18.3	1.2	100
Mpumalanga	34.6	19.9	26.5	6.3	6.7	3.5	1.4	1.1	100	33.8	53.7	3.4	8	1.1	100
Northern Cape	49	8.7	33.8	3.1	3.2	0.7	0.3	1.2	100	59.5	10.7	19.5	9.2	1.1	100
Northern Province	16.1	40.7	17.8	11.8	9.5	0.9	2.1	1.1	100	11.5	66.7	0.4	20.3	1.1	100
North West	28.1	33.6	19.3	1.8	10.8	2.3	3.1	1	100	29.6	57.4	6.6	5.5	0.9	100
Western Cape	76.1	6.6	14.1	0.6	0.7	0.4	0.8	0.7	100	86.9	4.3	3.7	4.3	0.8	100
Urban	65.9	12.7	18.7	0.3	0.3	0.5	0.7	0.9	100	78	10.8	7.2	3	1	100
Non urban	10.2	27.8	13	33.4	11.1	2	1.5	1	100	7.5	64.7	1.2	25.6	1	100
African	26.3	24.9	18.6	20	6.3	1.5	1.3	1.1	100	31.6	45.5	4.9	16.9	1.1	100
Coloured	73.7	4.6	17.4	1.5	1.5	0.5	0.3	0.5	100	81.5	6.6	7.2	4	0.7	100
Indian	97.2	0.3	1.1	0.2	0.6	0.1	0.1	0.4	100	97.7	1.7	0.1	0.1	0.4	100
White	95.1	0.3	0.7	0.2	2.7	0	0	1	100	98.7	0.3	0	0.1	0.9	100
Unspecified	57.5	11.5	11.4	10.4	3.6	1.3	0.6	3.7	100	62.7	21.2	3.2	9.1	3.8	100

% of HH with X number of rooms (1)													
	0	1	2	3	4	5	6	7	8	9	10+	Unspe-cified	Total
South Africa	0.2	16.9	15.1	13.3	21.2	12.3	8.8	4.8	2.9	1.8	1.7	1	100
Eastern Cape	0.1	18.8	19.9	16.5	21.1	9.6	5.9	3.1	1.9	1.4	1.1	0.6	100
Free State	0.2	19.4	17.5	12.6	21.1	10.9	8.7	4.2	2.4	1.4	1.4	0.2	100
Gauteng	0.2	24.4	11.2	8.7	21.4	10.9	9.2	5.2	3.3	2.2	2	1.3	100
KwaZulu-Natal	0.2	15.3	14.2	13.5	21.9	13.3	9.3	4.7	2.8	1.9	2.1	0.8	100
Mpumalanga	0.1	13.5	14.1	13.9	20.1	12.1	11.3	6.1	3.7	2.1	2.1	0.9	100
Northern Cape	0.2	16	18.7	12.8	21.4	11.2	8.7	5	2.7	1.5	1.3	0.5	100
Northern Province	0.5	10.9	17.7	18.7	16.7	11.8	9.1	5.5	3.5	2.1	1.8	1.7	100
North West	0.1	15.5	17.3	12.4	21.9	11.2	10	5.3	2.9	1.6	1.3	0.5	100
Western Cape	0.1	10.2	12.7	13.3	24.2	19.8	8.9	4.6	2.7	1.6	1.5	0.4	100
Urban	0.1	18.4	12.3	9.9	23.7	13.6	9.7	5	3	1.8	1.6	0.9	100
Non urban	0.3	14.8	19.3	18.4	17.4	10.5	7.6	4.4	2.7	1.8	1.9	0.9	100
African	0.2	21.9	18.3	14.5	21.2	9.2	6.5	3.2	1.8	1.3	1	0.9	100
Coloured	0.1	9.2	14.1	14.4	29.1	21	6.9	2.6	1.1	0.7	0.4	0.4	100
Indian	0	1.7	4.9	10.6	26.2	26.7	15.2	6.7	3.8	1.9	1.8	0.5	100
White	0	1.8	3.5	8.1	16.7	19.2	19.2	12.2	8.2	4.7	4.9	1.5	100
Unspecified	0.1	10.3	10.2	10.9	22.1	18.8	10	5.2	2.8	2.9	1.4	5.3	100

Source for lighting (1)							
	Electricity direct from authority	Electricity from other source	Gas	Paraffin	Candle	Other unspecified	Total
South Africa	55.1	0.4	0.4	12.8	30	1.3	100
Eastern Cape	29.6	0.5	0.6	37.6	30.7	1	100
Free State	57.5	0.3	0.2	6.5	34.1	1.4	100
Gauteng	81.8	0.2	0.2	2	14.4	1.4	100
KwaZulu-Natal	48.8	0.4	0.5	5.4	43.5	1.4	100
Mpumalanga	57	0.3	0.9	9.9	30.3	1.6	100
Northern Cape	71.5	1.3	0.2	6.9	18.7	1.4	100
Northern Province	35.9	0.5	0.5	25.1	36.5	1.5	100
North West	43.8	0.3	0.2	6.7	47.7	1.3	100
Western Cape	86.8	0.3	0.2	6.6	5.3	0.8	100
Urban	78.7	0.2	0.3	6.3	13.3	1.2	100
Non urban	27.8	0.5	0.5	20.4	49.4	1.4	100
African	43.9	0.4	0.5	16.1	37.7	1.4	100
Coloured	85.2	0.4	0.2	4	9.4	0.8	100
Indian	98.5	0.1	0.1	0.3	0.4	0.6	100
White	98	0.4	0.1	0.1	0.2	1.2	100
Unspecified	67.9	0.5	0.3	7.1	20.0	4.2	100

% of HH access to telephone (1)								
	In dwelling/ cell phone	At neighbour near by	Public tel	Another location near by	Another location not near by	No access	Unspe-cified	Total
South Africa	28.6	5.5	35.8	5.4	5.8	18.3	0.6	100
Eastern Cape	15.6	4.7	24.5	3.2	6.3	44.9	0.8	100
Free State	22.9	4.4	46.2	7.8	6.7	11.5	0.5	100
Gauteng	45.3	3.4	40.7	4.2	1.7	3.9	0.8	100
KwaZulu-Natal	26.9	7.4	32.9	4.6	7.7	19.8	0.7	100
Mpumalanga	18.2	3.9	49	7.4	6.3	14.5	0.7	100
Northern Cape	30.7	13.7	31	9.7	2.3	12.2	0.4	100
Northern Province	7.4	5.3	36.7	6.1	13.3	30.5	0.7	100
North West	16.7	4.6	41.6	9.4	7.9	19.3	0.5	100
Western Cape	55.2	8.3	27.3	4.7	1.1	3	0.4	100
Urban	44.3	5.3	39.9	3.3	1.9	4.7	0.6	100
Non urban	5.1	5.7	29.7	8.4	11.7	38.6	0.8	100
African	11.3	5.2	44.6	6	7.8	24.4	0.7	100
Coloured	43.4	14.8	26.2	7.8	1.6	5.7	0.5	100
Indian	76.9	9	10.2	1.8	0.5	1.3	0.3	100
White	88.5	1.3	6.5	2.1	0.2	0.8	0.6	100
Unspecified	49.1	6	22.8	3.9	3	10.3	4.9	100

% of HH access to refusal disposal (1)								
	Removed by local authority at least weekly	Removed by local authority less often	Communal refuse dump	Own refuse dump	No rubbish disposal	Other	Unspe-cified/	Total
South Africa	46.3	2.1	2.8	35.8	10.7	0.2	2.1	100
Eastern Cape	31	1.5	1.5	41.1	23.2	0.1	1.6	100
Free State	58.2	4.5	4.3	25.5	5.5	0.1	1.9	100
Gauteng	81.3	3.9	3.3	6.9	2.2	0.1	2.3	100
KwaZulu-Natal	34.9	1	2.3	45.5	13.5	0.5	2.3	100
Mpumalanga	34.2	1.8	2.9	50.3	8.7	0.1	2	100
Northern Cape	70.0	2.4	4.7	16.5	4	0.3	2.1	100
Northern Province	9.9	0.8	2.5	67.1	17.5	0	2.2	100
North West	32.1	1.5	3.4	53.9	7	0.2	1.9	100
Western Cape	83.1	2.4	3.5	7	1.7	0.2	2.1	100
Urban	83.0	3.3	2.2	6.9	2.4	0.2	2	100
Non urban	3.7	0.6	3.5	69.4	20.3	0.3	2.2	100
African	34.1	2.4	3.1	44.4	13.6	0.2	2.2	100
Coloured	82.6	1.2	3.6	9.3	1.5	0.1	1.7	100
Indian	95.8	0.3	0.2	2.2	0.5	0.1	0.9	100
White	89.7	0.5	0.8	6.4	0.5	0.3	1.8	100
Unspecified	61.3	1.5	2.4	21.8	7.5	0.1	5.4	100

% of total GOV expenditures on (4)						
	1992	1993	1994	1995	1996	1997
Education	20.3	20.8	18.3	20.4	21.2	22.0
Health	9.8	9.4	8.9	9.1	9.5	9.9
Social Security and Welfare	8.0	8.4	13.0	9.2	9.6	9.5
Housing and Community services	4.1	3.5	3.5	3.4	4	4.4

"% of type of disability among disabled people (1)," (Total number of disabled people in South Africa = 3 034 600)								
	sight	hearing	physical	mental	multiple	disabilty not specified	unspe-cified	Total
South Africa	36.0	12.6	18.4	6.3	5.1	9.2	12.4	100
Eastern Cape	32.6	13.8	23.2	8.3	7.3	7.8	7.0	100
Free State	49.0	12.1	15.4	5.1	6.0	6.6	5.8	100
Gauteng	37.3	10.5	12.3	4.2	4.6	11.2	19.9	100
KwaZulu-Natal	32.3	13.3	22.8	7.5	4.4	7.9	11.8	100
Mpumalanga	41.3	13.4	17.4	5.1	3.8	8.0	11.0	100
Northern Cape	35.6	11.6	17.3	7.3	4.6	13.7	9.9	100
Northern Province	31.9	14.5	16.9	6.4	4.5	9.5	16.3	100
North West	41.3	12.0	17.5	5.7	5.4	7.4	10.7	100
Western Cape	24.0	11.2	20.7	8.2	3.9	17.8	14.2	100
Urban	38.5	11.1	16.2	5.5	4.9	10.2	13.6	100
Non urban	33.3	14.3	20.7	7.2	5.3	8.1	11.1	100
African	38.4	12.7	18.6	6.2	5.1	8	11	100
Coloured	23.6	10.6	22.4	9.7	4.2	16.9	12.6	100
Indian	32.8	10.4	20.4	8.4	6.1	11.5	10.4	100
White	18.6	15.9	14.2	6.2	6.5	20.7	17.9	100
Unspecified	10.8	5.1	6.8	3.1	2	7.9	64.3	100
Age								
0-4	23.3	16.8	10.1	2	3.1	15.8	28.9	100
5-9	27.7	20	11.9	4.1	3.5	13.5	19.3	100
10-14	31.7	18.4	12.3	5.7	3.7	12.2	16	100
15-19	35	14.1	12.8	6.9	3.6	11.8	15.8	100
20-24	31.7	11.9	14.4	8.6	3.2	11.7	18.5	100
25-29	30.8	11.1	16.2	9.9	3.3	11.3	17.4	100
30-34	32.4	10.7	18.4	10.4	3.5	10	14.6	100
35-39	33.6	10.4	21	9.7	3.8	9.1	12.4	100
40-44	36.1	9.7	23.4	8.3	4.2	8.1	10.2	100
45-49	40.5	9.1	23.7	6.9	5	6.9	7.9	100
50-54	42.5	8.9	24.8	6	5.6	6.2	6	100
55-59	41.9	9.6	26.2	5.1	6.4	5.9	4.9	100
60-64	44.2	10.8	24.5	4.1	7.3	5.5	3.6	100
65-69	45.4	12.3	22.7	3.5	8	5.1	3	100
70-74	46.3	13.5	20.6	3	9.1	4.9	2.6	100
75-79	47.2	14.4	18.6	2.5	10.8	4.3	2.2	100
80-84	45.2	16.1	16.6	2.3	13.1	4.4	2.3	100
85+	44.7	16.5	15.2	2.1	15.5	3.9	2.1	100
Unspecified	22.5	8.1	13.9	5.6	3.9	9.5	36.5	100

Women empowerment

% of women in management position by sector of economy (1)

	agricul-ture/ hunting/ forestry	mining and quar-rying	manu-fac-turing	Electri-city gas and water	Construc-tion	Whole-sale and retail trade	Transport and commu-nic	Financ-ial and insuranc	Commu-nity/ social	Private house-holds	Diplo-matic servic	Indu-stry NEC
Eastern Cape	15.5	9.9	19.4	15.5	9	37.1	16	34.5	37	35.2	14.7	30.4
Free State	18.2	5	22.8	14.5	8.7	37.9	9.3	31.5	35.3	40.5	50	30.8
Gauteng	19.9	6.9	17.4	15.2	10.7	28.5	25	31.8	37.8	33.4	26.1	25.3
KwaZulu-Natal	14.4	3.5	18.5	11.9	11.9	31	17.3	32	36.2	37.3	35.7	25.6
Mpumalanga	9.7	2.6	10.6	5.5	9.2	33.2	9.5	30.8	34.4	36.3	0	24.7
Northern Cape	13	11.3	24.4	11.4	3.7	38.3	18.2	22	31.8	60	100	27.9
Northern Province	26.8	5.1	24.2	6.3	16.9	39.5	15.8	36.4	30.8	38.4	40	27.8
North West	20.8	1.8	19.6	9.6	10.9	33.9	7.8	30	38.9	42.2	33.3	26.5
Western Cape	13.3	11	24.6	14	8.3	35	22	32.3	36.9	39.5	50	29.3
African	17.3	1.4	20.9	9.8	10	36.2	8.2	27.8	33.8	41.7	30.4	26.9
Coloured	19.9	16.7	32.1	17.4	6.5	43.1	15.7	38.6	34.4	39.9	70	33.9
Indian	11.1	12.9	17.2	11.5	10.7	21.5	14	32	28.8	18.8	12.5	20.2
White	13.6	8.6	17.2	12.5	10.4	31.6	26.4	32.1	39.4	32.3	20.4	26.8
Unspecified	27.3	1.4	28	20.8	12.9	35.5	25.2	38.8	43.4	27.8	0	35
15-24	21.6	8.9	30.3	26.4	12.9	35.9	44.2	49.9	47.4	45.4	62.5	36.3
25-34	18.3	5.3	25	18	12.7	34.9	26.2	40.6	41.9	41.5	34.1	32
35-44	14.8	3.7	19.9	11.3	9.9	35	15.1	29.5	36.1	36.9	25.7	26.7
45-54	14.4	4	15.4	8.3	8.9	29.3	12.3	24.1	32.7	32.9	17.4	22
55-64	8.5	4.7	11.5	6.4	5.9	24.3	11.5	18.7	29.9	24.1	0	18.2
65+	10.1	1.2	10.9	7.7	7.3	22.8	13.1	21.3	25	28.6	0	15.1

	% of parliamentarians F (8)	% households headed by a woman (1)
South Africa		37.8
Eastern Cape	19.1	50.1
Free State	23.3	34.2
Gauteng	17.5	29
KwaZulu-Natal	27.9	39.3
Mpumalanga	22	35.7
Northern Cape	26.6	29.3
Northern Province	32.6	52.2
North West	30.3	37.3
Western Cape	23.8	27.7
Urban		31.8
Non urban		47
African		43.3
Coloured		28.7
Indian		18.5
White		21.8
Unspecified		32.7
15-24		43.4
25-34		32.5
35-44		33.1
45-54		34.9
55-64		43.2
65+		50.8
Unspecified		38.9

Reproductive health indicators

	Maternal mortality(3)	% women aged 15-49 used protection at last sex intercourse(3)	Contraceptive prevalence (women aged 15-49 currently using) (3)			% births with skilled attendants (3)	% under-weight(6)		% of population by distance(in Km) from nearest medical facility(7)		
			Any method	Any modern	Any traditional		Primary school in sub-standards 1&2	Children 6-71 months	>5	1-5	<1
South Africa	150	8.2	62.1	61.2	1	84.4	9	9.3			
Eastern Cape		6.1	60.2	59.9	0.3		9.2	11.4			
Free State		10.9	68.5	67.9	0.6		8	13.6			
Gauteng		10.4	62	60.9	1.1		4.6	5.6			
KwaZulu-Natal		6.7	58.3	57.1	1.2		5.6	4.2			
Mpumalanga		9.5	55.5	53.2	2.2		6.2	7.3			
Northern Cape		5	65.9	65.9	0		20.9	15.6			
Northern Province		6.4	54.9	53.3	1.6		10.4	12.6			
North West		9	69.8	69.6	0.2		12	13.2			
Western Cape		8.1	73.9	73.7	0.2		12	7			
Urban		10	66.8	66	0.8				13	43	44
Non urban		5.5	53.9	52.7	1.2				56	29	16
African		9.2	58.6	57.6	1						
Coloured		5.6	68.8	68.4	0.4						
Indian		1.8	80.1	80.1	0						
White		4.3	76.2	74.9	1.3						
15-19		19.5	66.4	64.4	2						
20-24		14.4	68.6	68	0.6						
25-29		7.6	65.4	64.3	1.1						
30-34		6.6	63.8	62.9	0.9						
35-39		2.6	62.4	61.1	1.3						
40-44		3.5	56.6	55.9	0.8						
45-49		3	45.5	45.1	0.4						

HIV prevalence amongst women attending antenatal clinics in 1998 and 1999 (12)

	Estimation(HIV+) 95% C	
	1998	1999
Kwazulu-Natal	32.5 (29.3 - 35.7)	32.5 (30.1 - 35.0)
Mpumalanga	30.0 (24.3 - 35.8)	27.3 (25.2 - 30.7)
Free State	22.8 (20.2 - 25.3)	27.9 (24.7 - 29.8)
Gauteng	22.5 (19.2 - 25.7)	23.9 (21.7 - 26.0)
North West	21.3 (19.1 - 23.4)	23.0 (19.7 - 26.3)
Eastern Cape	15.9 (11.8 - 20.0)	18.0 (14.9 - 21.1)
Northern Province	11.5 (9.2 - 13.7)	11.4 (9.1 - 13.5)
Northern Cape	9.9 (6.4 - 13.4)	10.1 (6.6 - 13.5)
Western Cape	5.2 (3.2 - 7.2)	7.1 (4.4 - 9.9)
South Africa	22.8	22.4

Estimation(HIV+) 95% C		
	1998	1999
Age		
‹20	21.0 (18.4 - 23.8)	16.5 (14.9 - 18.1)
20 - 24	26.1 (24.1 - 28.1)	25.6 (24.0 - 27.3)
25 - 29	26.9 (24.7 - 29.0)	26.4 (24.6 - 28.3)
30 - 34	19.1 (17.1 - 21.1)	21.7 (19.1 - 23.8)
35 - 39	13.4 (11.2 - 15.6)	16.2 (14.1 - 18.3)
40 - 44*	10.5 (6.8 - 14.1)	12.0 (8.5 - 15.6)
45 - 49*	10.2 (0.4 - 20.0)	7.5 (-.77 - 15.9)

* Note that the wide confidence intervals (CI) are a result of the smaller numbers of women who participated in the study.

Causes of death among children				
"(per 100,000 prevalence rate, 1997)"				
	Measles	Tetanus	Poliomyelitis/AFP	Viral hepatitis
South Africa	13.6	0.2	3.4	7.7

% of important causes of death among adults (3)											
	Blood pressure	Hypertension	Symptomatic astma	Emphysema	Ischaema-tic heart disease	Asthma	Diabete	Chronic bronchi tis	Hyper-cho-lest*	Stroke	Cancer
South Africa	13.25	13.2	7.65	4.5	4.4	3.75	3.05	2.55	1.55	0.95	0.45

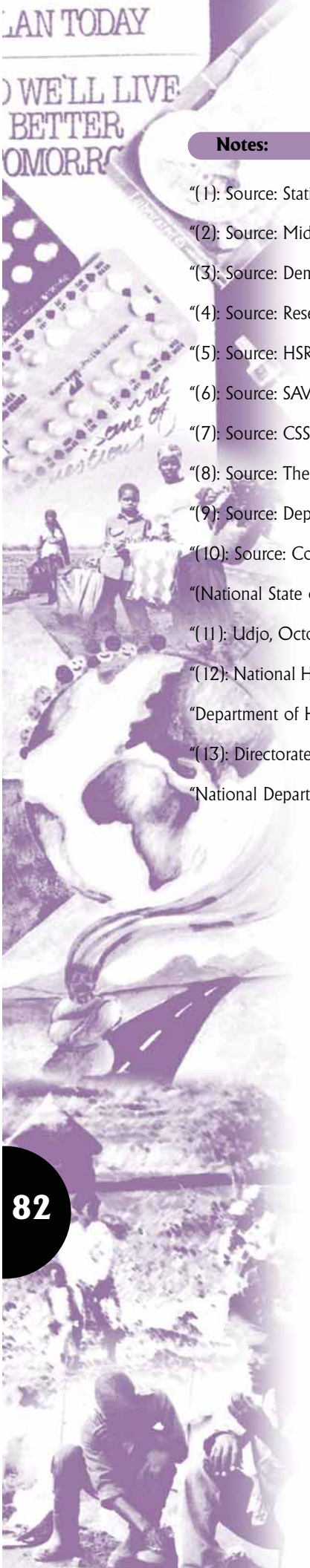
"Source: South African Demographic and Health Survey, 1998"

Indicators on Environment (9)

	% of land usage				
	Potential arable land	Grazing	Conser-ved	Fore-stry	Other uses
South Africa	13.7	66.6	9.6	1.2	5.9
Eastern Cape	6.9	80	3.7	0.8	8.7
Free State	32.6	58.2	2.1	0	7
Gauteng	23.4	20.8	12.2	1.1	42.6
KwaZulu-Natal	13.1	58.3	15.1	5.1	8.5
Mpumalanga	21.2	39.6	28.5	6.7	3.9
Northern Cape	1.3	80.1	11.8	0	6.9
Northern Province	14.2	74	9.7	0.5	1.5
North West	28.3	56.8	6.4	0	8.5
Western Cape	19	70.4	5.6	1.5	3.5

Source	Main sources and the amounts of air pollutants emitted in 1990 in kilotons (10^9g) (10)						
	CO2	CH4	N2O	CO	Nox	NMVOC	SO2
Energy	238554	751	7	1660	1221	88	1695
Transport	31390	39	5	2707	995	569	37
Industrial process	23461	4	2	28	13	194	28
Agriculture*	-20614	1064	61	1286	39	380	3
Waste							

*The negative CO2 value for agriculture represents the the carbon which is taken by plantations (they are net users of carbon rather than producers of CO2)



Notes:

"(1): Source: Statistics South Africa, Census 1996"

"(2): Source: Mid-year estimates Statistics South Africa 1999, Statistical release P0302"

"(3): Source: Demographic and Health Survey 1998, Department of Health"

"(4): Source: Reserve Bank, Quartely Bulletin, December 1999"

"(5): Source: HSR & Epidemiology, Dept of Health.1999 "

"(6): Source: SAVACG (South African Vitamin A consulting Group) Report 1994"

"(7): Source: CSS 1994"

"(8): Source: The Election Bulletin, Sixth edition, WomenÕs Net, Vol1, 8/1999"

"(9): Source: Dept of Environmental Affairs"

"(10): Source: Country study report on greenhouse gas emissions from South Africa, unpublished report"

"(National State of the Environment Report, 1999)"

"(11): Udjo, October Household Survey 1995"

"(12): National HIV Sero-prevalence survey of women attending public antenatal clinics in South Africa, 1999"

"Department of Health/Directorate:Health Systems Research & Epidemiology, April 2000."

"(13): Directorate: Information Systems, Education Management Information Systems (EMIS)"

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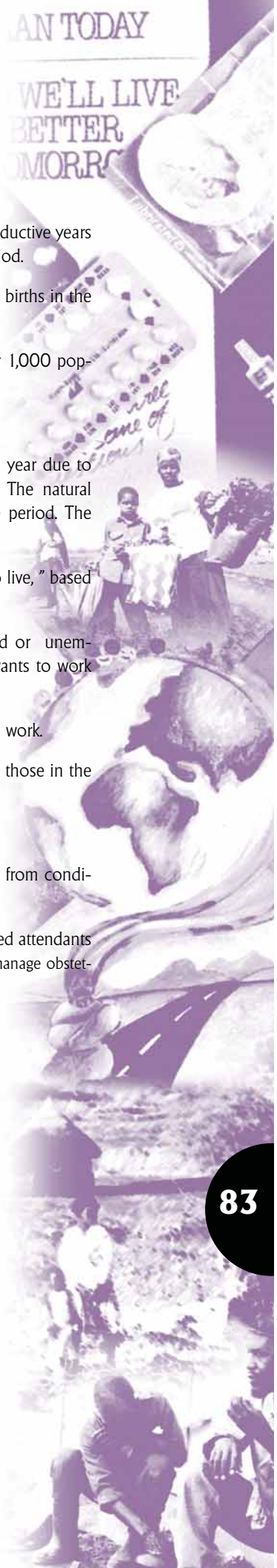
Definitions:

- Sex ratio: number of males for every 100 females in a given population .
- Total fertility rate: the average number of children that a woman would have during her reproductive years if she bore children at the rate estimated for different age groups in the specified time period.
- Infant mortality rate: number of deaths among infants under one year of age per 1,000 live births in the same year.
- Child mortality rate: refers to the annual number of deaths in the age group 1-4 years per 1,000 population in the group.
- Under 5 mortality rate: deaths to children under-5 per 1,000 live births in a given year."
- Annual growth rate: the rate at which a population is increasing(or decreasing) in a given year due to natural increase and net migration, expressed as a percentage of the base population. The natural increase is the surplus (or deficit) of births over deaths in a population in a given time period. The Annual growth rate used in this appendix is exponential growth rate.
- Life expectancy: estimate of the average number of additional years a person can expect to live, " based on the Age-specific death rate for a given year.
- Economically active population: persons aged 15 years or more who are either employed or unemployed but who are looking for work. In other words, someone who is working or who wants to work and is seeking work is defined as economically active."
- Unemployed person: Economically active person who has no work but who is looking for work.
- Dependency ratio: ratio of persons in the dependent ages (under 15 and over 65 years) to those in the economically productive ages (15-64 years) in a population.
- Sanitation: it refers here to the toilet facilities
- Maternal mortality rate: number of deaths to women per 100 000 live births which result from conditions related to pregnancy, delivery and related complications.
- Birth with skilled attendants: proportions of birth attended by skilled health personnel or skilled attendants (doctors , specialists or not specialists and/or persons with midwifery skills who can diagnose and manage obstetrical complications as well as normal deliveries.



Appendix 2:

List of contributors

The following individuals (in alphabetical order) contributed to this report. However, views contained in this report are not necessarily those of any individual contributor. The contributions included the writing of chapters, data analyses, and technical reading and editing.

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