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of Southern Africa

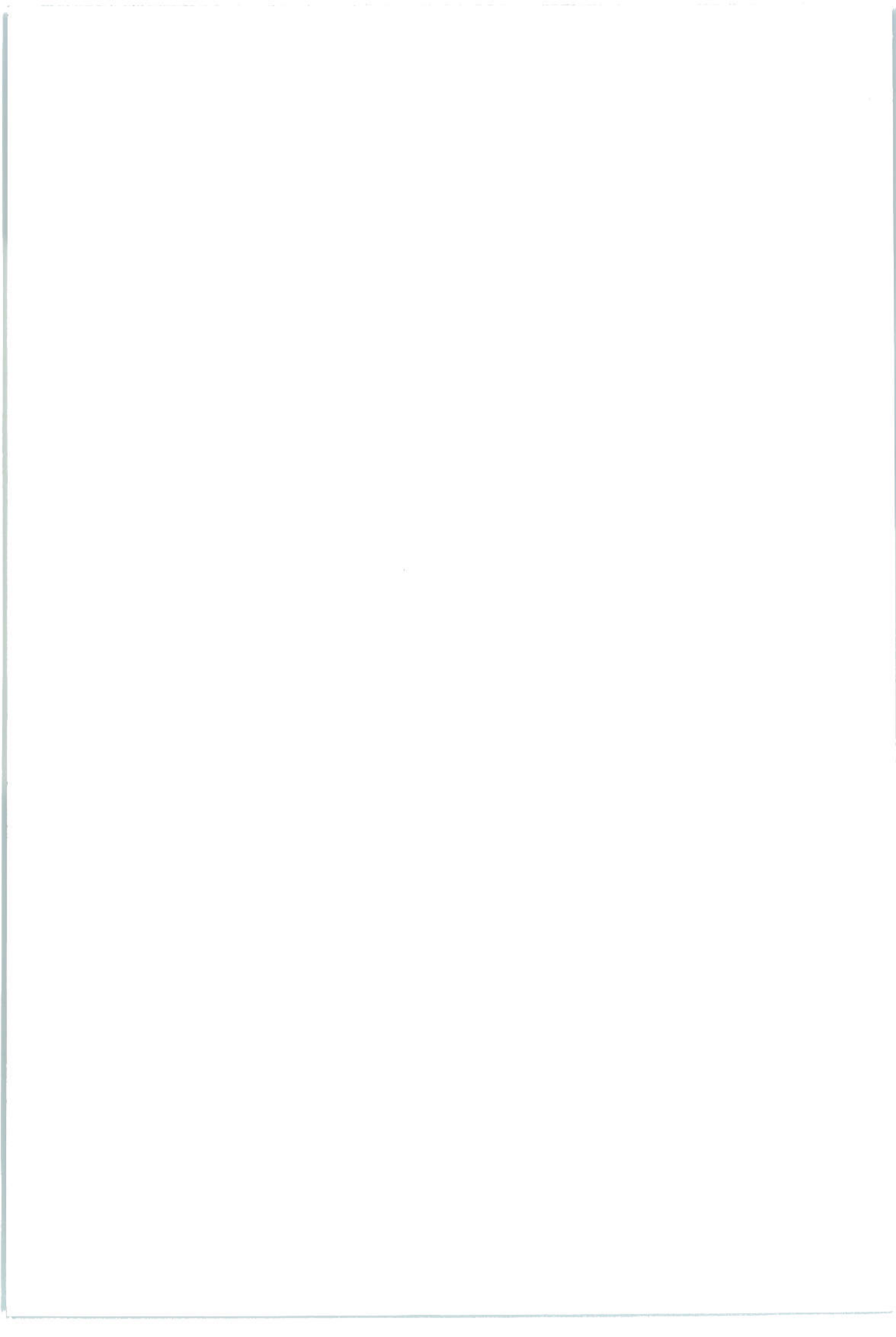


Statistics on living standards and development

Regional poverty profile: eastern and northern Transvaal

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CENTRE FOR POLICY AND
INFORMATION



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Regional poverty profile: eastern and northern Transvaal

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Preface

During 1992, the World Bank approached the Southern Africa Labour and Development Research Unit (SALDRU) at the University of Cape Town to co-ordinate a study in South Africa called the Project for Statistics on Living Standards and Development. This study was carried out during 1993, and consisted of two phases. The first of these was situation analysis, consisting of a number of regional poverty profiles and crosscutting studies on a national level. The second phase was a country-wide household survey conducted in the latter half of 1993.

The project has built on the Second Carnegie Inquiry into Poverty, which assessed the situation up to the mid 1980's.

The Development Bank of Southern Africa (DBSA) was one of several organisations approached by SALDRU to compile a regional poverty profile, in this case of the northern and eastern Transvaal, coinciding with the areas known as Development regions F and G¹. The profiles are intended to outline the extent of poverty in terms of several determinants provided in the initial Terms of Reference, to analyse the available data and to identify data gaps. The document has been published by SALDRU, and was reprinted with permission.

Given the comprehensive information available within DBSA about the region and the need to develop a better understanding of the dynamics of poverty as it affects different sectors, it was decided to go beyond the initial Terms of Reference and provide more detailed reviews of most of the determinants listed. It is hoped therefore that this document will in itself make a useful contribution to development work in the region.

This report comprises four main sections. First, the **Introduction** provides an analytical framework which serves as a basis for the poverty analysis. The second section, **Eastern and northern Transvaal in context**, attempts to provide a macro perspective on the area in terms of the broader South African canvas. The third section, **Poverty in the eastern and northern Transvaal**, contains the synthesis report drawn from the detailed studies, which are in turn contained in the **Addenda**.

The report has been compiled by a team led by Janine Erasmus within the framework of DBSA's Social Dimensions of Development Policy Programme. The contribution of all members of the team and their support staff is gratefully acknowledged.

MIDRAND
November 1993

¹ The use of 'Development regions' should not be taken to imply support for any particular constitutional framework.

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EXECUTIVE SUMMARY

1. INTRODUCTION

The objective of this study is to provide an overview of poverty in the northern and eastern Transvaal. Poverty can be defined as a lack of resources to meet basic needs, such as adequate food, clothing, shelter and basic amenities. It also represents an inability to meet higher order needs, such as the need for personal fulfilment, recreation, freedom and so forth. The determinants of poverty are often seen as related only to income, but people with insufficient income normally develop strategies to cope with the problem. These coping strategies and people's ability to implement them are also important determinants of the poverty they experience.

The northern and eastern Transvaal are on opposite ends of the socio-economic spectrum in South Africa. The eastern Transvaal is one of the most prosperous areas in the country, with a strong economic base. In contrast, socio-economic conditions in the northern Transvaal leave much to be desired. The human development index (HDI) measures the level of human development as represented by life expectancy (as proxy for health, nutrition and so forth), literacy (representing access to opportunities) and Gross Domestic Product (GDP) *per capita* (as proxy for income). The HDI for the eastern Transvaal (0,75) is close to the national average while that of the northern Transvaal is only 0,59, the lowest of the country.

2. INCOME

The income distribution pattern in the study area is markedly skewed. In 1991, more than two thirds of the adult African population of the northern Transvaal area received no income at all. In the eastern Transvaal, the corresponding figure was just less than 50%. (The worst poverty occurred in drought-stricken Lebowa, where 74% of the adult population received no cash income.) However, the African population group's share of real personal disposable income increased sharply between 1970 and 1985. In the northern Transvaal, their share increased by ten percentage points, with growth rates of 6,1% per year up to 1980 and 3,8% thereafter. Despite this increase, people remain desperately poor. In 1991, the *per capita* income of people in urban areas ranged from R1 400 per year in Lebowa and Gazankulu to R4 185 in the whole of the eastern Transvaal. This is far less than their minimum financial requirements. In 1992, the Minimum Living Level (MLL) of an average African biological family was around R750 per month, or around R2 400 *per capita* per year. Even a 'survival living level', consisting only of food, clothing and compulsory payments for housing, is in excess of R1 560 *per capita* per year, implying extreme poverty in rural areas.

3. OPPORTUNITIES

People's opportunities to develop coping strategies depend both on their ability to undertake activities to obtain income, whether in cash or in kind, and on their ability to claim certain sources of unearned income such as pensions.

A first activity is subsistence agriculture. The opportunity to engage in subsistence agriculture has been affected adversely by environmental conditions and drought. However, ever-increasing numbers of people attempt to survive on subsistence agriculture. It is estimated that in 1990, nearly half of the potential labour force of the northern Transvaal were active either in this sector or in the informal activity accompanying it. In Gazankulu, the figure was as high as 66%.

A second possible activity is employment, which is also becoming increasingly scarce. The eastern Transvaal, one of the major employment providers in the country, could offer formal employment to less than 60% of its potential labour force in 1990, while the northern Transvaal managed less than a third, compelling job-seekers to migrate. It is estimated that by 1990 a minimum number of 540 000 males had migrated from the Transvaal homelands in search of employment. While the eastern Transvaal had attracted nearly 130 000 migrants by 1990, its ability to absorb migrants is decreasing as farms and mines offer fewer new employment opportunities. The problem is compounded, and disproportionately experienced, by refugees from neighbouring countries.

Concerning claims, social grants have become an increasingly important survival mechanism in the poverty-stricken rural areas as remittances are becoming a less important or reliable claim. The homeland governments are continually increasing spending on social security and welfare. Since the 1984/85 fiscal year, the average annual growth rate of this expenditure item ranged from 27% in Lebowa to 41% in Venda. In 1992/93 these governments allocated between 12% and 14% of total expenditure to social services.

4. CAPACITIES

A household's capacity to use opportunities depends on its composition, the health and level of education of its members, and its access to services, assets or credit. Other determinants are the mobility of members of the household (to relocate to areas where jobs are available) and power relations.

Concerning household composition, the urban households in the study area normally comprise nuclear families of around four people whereas rural households may include up to nine people. Most household members are young; approximately half of the population is under the age of 15. They have to be supported by adults' wages and aged people's pensions. In addition, the presence of young children often prevents mothers from working.

A second determinant is physical health. This depends on nutrition, morbidity and access to decent health care. Chronic malnutrition, which results in stunting, is the major nutritional problem in South Africa, occurring in nearly a third of rural children under the age of five. In addition, diseases such as malaria, bilharzia, tuberculosis, sexually transmitted diseases and AIDS are prevalent in the area. Health care in the study area is also inadequate, as is reflected by the mortality figures of its population. In 1990, the infant mortality rates for African infants were as high as 54,3 per 1 000 live births in the northern Transvaal and 51,9 per 1 000 per live births in the eastern Transvaal. Homeland government expenditure on health has nevertheless seen significant improvement. Since the 1984/85 fiscal year, growth in health expenditure was around 25% per year in Lebowa, Venda and Gazankulu, whereas KaNgwane realised an annual increase of 68%. In 1992/93 this expenditure item amounted to between 10% and 12% of total government expenditure, with a lower limit of 6% in Venda.

The third determinant, illiteracy, is also pervasive. Only around half the adult population of the eastern Transvaal is literate, along with less than a third in the northern Transvaal. Poor communities widely regard education and training as one of the few avenues of escape from poverty. However, a lack of funds and transport, as well as poor quality education, limit people's opportunities. The poor quality of education is the result of inadequate teacher qualifications, school facilities, text books and equipment. In addition non-formal education and training are insufficient. Nevertheless, government expenditure on education has increased considerably. Since the 1984/85 fiscal year, the average annual growth in education expenditure has been in excess of 30%, with the exception of KaNgwane (25,2%). In the homelands, figures for the 1992/93 fiscal year ranged from 27,2% of total government expenditure in Venda to 45,1% in Lebowa.

Another crucial problem facing the population of the study area is homelessness. Even the most optimistic housing-stock estimates suggest severe overcrowding in both the eastern and northern Transvaal. In the northern Transvaal, the average housing density is an incredible 21 people per dwelling. Water and sanitation coverage is also inadequate, especially in dense settlements which have neither economic base nor reliable water sources. The cost of supplying these settlements with running water is high and the complex systems are often in poor condition. Sanitation coverage is reasonable in proclaimed towns but dense settlements have virtually no sanitation.

There is lack of access to adequate, affordable and secure supplies of energy in the study area. The energy consumption of poor communities in the northern and eastern Transvaal is mainly confined to domestic use, and includes wood, coal, gas, candles and dung, among other sources.

The study area is relatively well provided with roads, and most people have access to them. However, the homeland population own relatively few vehicles, mainly taxis. The increase in taxi services has been necessitated by the inadequate provision of alternative transport. Ownership of donkey-carts or bicycles is limited, and distances are too far to walk. Rail transport is limited to freight and long-distance passenger transport, while bus transport is inadequate.

Most poor households in the study area listen to the radio for information and entertainment. Nine out of ten African households own at least one radio. In addition, three quarters of rural African people listen to the radio, while only a quarter have access to television and a tenth to newspapers.

Access to a healthy environment in the eastern and northern Transvaal has been negatively affected by substantial industrial development and by the general lack of development. The siting of electricity-generating facilities, mining and other heavy industries, particularly within the eastern Transvaal, has impacted on water and air quality. In the rural areas, access to a healthy environment is declining because of the impact of high population densities and an unrelenting reliance on the resource base for subsistence.

It is obvious from the above that rural people in the study area have limited access to services. Access to assets and credit is equally limited. In respect of assets, landlessness is one of the most serious problems facing the homeland population, with more than half probably being landless. This limits their access to credit as they lack collateral. Land-ownership patterns in tribal areas compound the access problem, as power relations within a community influence access to communal land, something which affects single women in particular. Cattle farming is the most important livestock industry in the homelands, although it is not really widespread – less than 13% of Gazankulu households own cattle and most of them do not own enough stock to make a living. Poor people's limited access to credit has resulted in the creation of alternatives to commercial banking, such as *stokvels*, money lenders (*mashonisas*) and burial societies. Several community initiatives to obtain credit have also evolved, often employing group lending schemes.

In respect of mobility, households need certain spatially mobile members in order to take advantage of distant employment opportunities. Mobility is determined by factors such as spatial location as well as by less tangible factors such as access to information networks, employment history, access to cash and, in the case of women, the constraints of their reproductive roles. Officially most of the population of the study area live in rural areas. This is, however, a matter of definition as most urbanisation has occurred in peri-urban and semi-urban areas. People in peri-urban settlements might not have the same access to services as their neighbours, but they have reasonable access to employment opportunities in the town itself. People in semi-urban areas live under worse conditions than their urban or rural counterparts. They are essentially landless and are unlikely to have access to services such as water and sanitation, and are just as remote from urban employment opportunities as their rural counterparts.

The power relations in a community interact with all other opportunities, whether positively or negatively. In the community itself, traditional structures play a significant role, often to the disadvantage of poor women. In peri-urban areas, where traditional structures break down, women find it difficult to enter the mainstream of activity. They commonly have to live on the outskirts of informal settlements where they are even more vulnerable. A final aspect of power relations is labour legislation. The proliferation of lawmaking entities in the study area has created several problems centring on the fact that labour laws lack uniformity, many being outdated.

5. CONCLUSION

To summarise, the rural population of the study area is particularly affected by poverty. The people have little income, and limited opportunities to find formal employment or even engage in subsistence agriculture. Their capacity is impaired by household circumstances, lack of services, assets and credit, spatial constraints and often adverse power relations. Still, the situation is by no means hopeless. People's primary poverty alleviation programmes are their own coping strategies. Poverty alleviation efforts from outside should, wherever possible, build on these strategies and reduce any impediments to their successful implementation. This would result in a poverty alleviation approach, rather than poverty alleviation programmes pure and simple. Such an approach could have three facets, the first of these being to improve economic growth through job creation and the removal of obstructions facing entrepreneurs. A second facet would be human resource development, consisting of improved access to services such as health and education. Finally, social security should be provided for the destitute.

Although policy recommendations are beyond the scope of this paper, certain issues were highlighted by the analysis. First, reliable data to form the basis of effective policy measures geared towards sustainable development are needed. Second, appropriate forms of collaboration and networking among development agencies and organisations at various levels should be investigated. Third, attempts should be made to increase poor people's access to alternative technologies. Lastly, women in the study area are particularly disadvantaged, and gender issues deserve special attention.

1. INTRODUCTION

The objective of this study is to provide an overview of poverty in the northern and eastern Transvaal². Poverty has many different faces. It is a complex, multi-dimensional phenomenon which acts both as a cause and an effect in the lives of those afflicted by it. It is often relative, and always dynamic, exhibiting changing patterns over time and space. Poverty also has racial and gender components, and is a vicious, self-perpetuating cycle. The many interrelationships surrounding poverty have been obscured, and the absolute level of poverty substantially increased, by the implementation of the policy of apartheid in South Africa.

Poverty can be defined as a lack of resources to meet basic needs, such as adequate food, clothing, shelter and basic amenities. It also represents the inability to meet higher order needs, such as the need for personal fulfilment, recreation, freedom and so forth. The determinants of poverty are often seen as income-related factors, but the problem is much broader. People with insufficient income normally develop strategies to cope with the problem, although obviously under stress. People's coping strategies and their ability to implement these strategies are also important indicators of the extent of their poverty.

According to Bekker *et al* (1993) the coping strategies of a household are determined by the opportunities open to it, while the ability to implement the strategies depends on the capacity of the household. The capacity of a household is in turn determined by the demographic profile (its ability to muster labour or transfers, as well as its health or educational profile), its ownership of assets, access to credit and services, the mobility of members of the household and prevailing power relations. In contrast, the opportunities open to a household can be divided into land-based and income-based opportunities. Land-based opportunities include subsistence agriculture, gathering wild greens and fruit and cash cropping, whereas the main sources of income are employment, either locally or at a distance, and income transfers. The latter includes old-age pensions, disability payments and welfare payments.

In determining who the poor really are, one has to judge who are most at risk from poverty. Households facing extreme poverty often share similar characteristics. These include having a young or middle-aged female head of the household, living in remote areas, having limited or no access to urban transfer incomes (ie remittances) and lacking networking opportunities. Being completely dependent on (unreliable) remittances or even on subsistence agriculture in overpopulated areas sharply increases a household's chances of becoming destitute. Natural disasters, such as drought or diseases among cattle, the death of a pensioner, being abandoned by the husband, father or brother, forced resettlement or violence, may often push a vulnerable household into abject poverty with little chance of escape. It follows therefore that, as a rule of thumb, spatial population distribution and the age and gender composition of a population may provide an important clue to the level of poverty in an area.

The northern and eastern Transvaal have a predominantly rural character, with few large towns, and, although poverty is not as visible here as in the informal settlements around urban areas, it is probably more pervasive. The inhabitants of these areas are far from the facilities and employment opportunities available in urban areas, and are often inaccessible to outside relief workers. The invisible poverty in remote rural areas is a common factor in much of the analysis that follows.

²

The northern Transvaal, also called Development region G, comprises Lebowa, Gazankulu, Venda and portions of Transvaal north of Pretoria. The eastern Transvaal, or Development region F, includes KaNgwane and Transvaal east of the Witwatersrand.

Table 1: Salient features of the development regions of South Africa

Indicator	Region									
	A	B	C	D	E	F	G	H	J	Total
Area (km ²)	259 915	282 500	128 399	152 471	109 626	77 070	116 483	30 336	63 279	1 220 088
Population ('000) (1991)	3 546	1 102	2 520	4 964	9 164	2 079	4 724	8 032	1 831	37 962
Growth (%) (1980 to 1991)	2,39	1,31	1,96	1,91	2,15	2,50	3,56	2,05	2,31	2,29
Density (persons per km ²)	13,6	3,9	19,6	32,5	83,6	27,0	40,6	264,8	28,9	31,1
Official urbanisation (%) (1991)	86,3	47,2	53,9	43,3	33,4	36,0	9,1	81,9	34,8	48,8
Growth (1985 to 1991)	2,7	1,3	3,4	3,4	2,2	6,0	4,9	1,1	4,1	2,2
Literacy rate (1990)	75,6	50,3	50,4	61,0	48,5	48,7	32,0	83,0	43,0	57,7
Participation rate	67,5	52,5	64,9	46,8	50,4	59,4	36,3	70,5	59,3	57,3
Absorption capacity	60,0	45,6	55,2	39,3	38,8	51,5	28,5	58,5	53,3	47,9
Real GGP (Rm) (1988)	16 236	2 778	7 364	8 658	17 979	9 841	3 812	47 530	7 352	121 549
Growth (1980 to 1988)	2,0	0,5	-0,7	2,3	2,5	4,4	5,5	1,1	2,6	1,8
Percentage distribution	13,4	2,3	6,1	7,1	14,8	8,1	3,1	39,1	6,0	100
Real GGP per capita (R)	4 735	2 567	2 864	1 880	2 135	5 133	921	5 754	4 201	3 360
Personal Income/GGP (1985)	93,2	87,0	68,1	90,2	87,8	41,0	87,6	77,3	54,6	77,0
Personal income per capita	4 343	1 984	2 184	1 630	1 737	2 347	725	4 558	2 166	2 206
Life expectancy (1990)	65,5	62,6	63,2	63,7	63,8	63,7	62,9	64,7	63,8	64,0
Human development Index	0,82	0,67	0,75	0,68	0,71	0,75	0,59	0,80	0,76	0,77

Source: Operational Information, Development Information Group

2. EASTERN AND NORTHERN TRANSVAAL IN CONTEXT

Despite their spatial proximity, the northern and eastern Transvaal are on opposite ends of the socio-economic spectrum in South Africa. The eastern Transvaal (Region F) is one of the most prosperous areas in the country, with a strong economic base. In terms of a broad range of socio-economic indicators, this development region mostly ranks third, behind the PWV and the Western Cape. In contrast, the development of the northern Transvaal (Region G) leaves much to be desired, and the area normally ranks among the bottom three regions in terms of its socio-economic indicators. Despite these contrasts, the problems facing the regions are common to the country as a whole - unemployment and a lack of adequate services.

Table 1 presents salient socio-economic figures for the nine regions. In 1991, the population of the eastern Transvaal numbered 2,1 million, whereas that of the northern Transvaal numbered 4,7 million, with long-term growth rates of 2,5% and 3,6% respectively. Growth in these areas has been significantly above the South African average of 2,3 % over the same period. This is largely due to forced removals and other pressures which resulted in homeland populations growing substantially faster than the natural population growth. An influx of refugees from Mozambique also contributed to high rates of growth.

At least a third of the population of the eastern Transvaal was officially urbanised³, compared with less than 10% of the people of the northern Transvaal. However, functional urbanisation was rapid in both of these regions, frequently occurring around larger urban areas and leading to the creation of informal settlements.

As far as labour and employment are concerned, the eastern Transvaal showed an above-average rate of participation by adults (above 60%) in the labour market. In contrast, only around a third of the potential economically active population in the northern Transvaal were actually economically active. This reflects large-scale migration of adult males, implying a prevalence of female-headed households and subsistence agricultural activity. This is hardly surprising as the formal economy of the region could accommodate less than 30% of the labour force, compared with more than half in neighbouring eastern Transvaal (higher than the South African average).

The economy of the eastern Transvaal is robust compared with conditions in the rest of the country. The dominant economic sectors are manufacturing and energy, combined with a strong mining and agricultural component. The latter two economic sectors are, however, under pressure. Coal-mining towns are on the decline, a reflection of the state of the international market. A related problem is that, while agricultural production in parts of the region is thriving, it appears to be being undermined by extreme levels of pollution in the highveld areas. Nevertheless, the eastern Transvaal produced nearly a tenth of the Gross Domestic Product (GDP) in 1988, almost three times the contribution of its neighbour, which has relied heavily on (unsustainable) growth fuelled by the government-supported community and social services sector. On a *per capita* basis, the real Gross Geographic Product (GGP) (1985 prices) of the eastern Transvaal area exceeded R5 000 in 1988, compared with R3 400 for South Africa as a whole. In contrast, the figure for the northern Transvaal was less than R1 000. The economy of the latter area has been growing strongly, mostly owing to the expansion of government services. The multiplicity of government services in the northern Transvaal is also its nemesis. The enormous duplication of services and resulting inefficiency have led to the wastage of resources which could otherwise have made a positive impact on the lives of the broader population.

Given the sustained economic growth in the eastern Transvaal, the considerable poverty of some of its population is anomalous. One crucial explanation is reflected in the personal income to GGP ratio, which shows that only 41% of production accrues to the inhabitants of the area as income and the remainder is remitted to the head offices of firms (eg mining houses, Sasol and Eskom), mostly in the

3

Official urbanisation occurs in proclaimed towns (with some form of local authority). Peri-urban loosely refers to informal settlements in the vicinity of proclaimed towns, while semi-urban pertains to concentrations of people of 5 000 and more.

PWV. In contrast, the figure for Region G is 88%. Consequently, the differences in personal income *per capita* are not as significant. In 1985, the figure for the eastern Transvaal was just higher than the national average at R2 347 per year, compared with R725 in the northern Transvaal.

Nevertheless, the inhabitants of the eastern Transvaal on average still fare better than their counterparts in the northern area. The United Nations Development Programme's (UNDP) *Human development report* (1990) calculates a human development index (HDI) consisting of life expectancy (representing health, nutrition and so forth), literacy (representing access to opportunities) and GGP *per capita*, representing income. The HDI for the eastern Transvaal (0,75) is close to the national average while that of the northern Transvaal is only 0,59, the lowest of the country.

3. POVERTY IN THE EASTERN AND NORTHERN TRANSVAAL

In outlining the extent of poverty in the eastern and northern Transvaal, the first section examines the conventional measures of poverty such as income and poverty lines. The opportunities open to the poor are addressed in the second, followed, in the third, by their capacity to implement their coping strategies. The fourth section focuses on poverty alleviation programmes in the study area.

3.1 Conventional measures of poverty⁴

This section considers the income distribution of the population, changes in personal income, poverty lines and expenditure patterns.

3.1.1 Income distribution

Despite the existence of coping strategies, which are implemented under stress, income remains a primary determinant of poverty. Judging purely by the income distribution of the population, the northern Transvaal faces severe problems. In 1991, more than two thirds of the adult African population of this area received no income at all. In the eastern Transvaal, the corresponding figure was just less than 50%. (The worst poverty occurred in drought-stricken Lebowa, where 74% of the adult population received no cash income.) In the northern Transvaal, nearly 75% of African adult women received no income, compared with less than 60% of the males. A skew spatial distribution of poverty was also in evidence, with 70% of adults in the rural areas of the northern Transvaal having no income, compared with only half of the urban dwellers. Over the past decade, the proportion of people earning no income at all has remained fairly constant, partly due to the formidable obstacles to obtaining formal employment.

On the positive side, there was a 34 percentage point decrease in the number of people earning less than R1 000 in the eastern Transvaal, with a 15 percentage point increase in the next income category, between R1 000 and R6 000. This can partly be ascribed to the inflation spiral, as income earners were compensated for cost-of-living increases. However, significant numbers of people received real increases in income, as the remaining 20 percentage point increase was spread over higher-income categories. This points to an ever-widening gap between those who at least earn an income and those who are destitute. This occurred in the northern Transvaal as well, although the improvement in income was less dramatic.

Another positive trend was the increase in the African population group's share of real personal disposable income between 1970 and 1985. In the northern Transvaal, their share increased by ten percentage points, with growth rates of 6,1% per annum up to 1980 and 3,8% thereafter. The situation in the eastern Transvaal remained virtually static over this period, as white prosperity

4

Data used here were drawn from, and are referenced in Addendum D: Income, expenditure patterns and poverty lines.

increased as well. The annual growth in African income was nevertheless 6,8% and 1,9% over the same periods.

3.1.2 Personal Income

The above figures do not take family structures into account. People without any income could be part of a family with more than one income earner (who could be facing a huge dependency burden as discussed in Section 3.3.1). Venda statistics for 1976 and 1989 are revealing – the average number of income earners and/or recipients in Venda households increased from 1,2 to 1,6 over that period. This occurred partly as a result of better pension coverage (although this affected less than a fifth of households), but also because economic necessity forced people to seek paid employment. In 1989, salaries and wages constituted more than 60% of income in Venda, compared with around a third 13 years earlier. Although this figure could imply increased employment and better remuneration, most probably in the public sector, dependency on salaries and wages could make people more vulnerable to cyclic economic downturns or the vagaries of the political system. In addition, it reflects decreased dependence on remittances and farming.

In 1991, the *per capita* income of people in urban areas ranged from R1 400 per year in Lebowa and Gazankulu to R4 185 in the whole of the eastern Transvaal. Although accurate figures are not available, the income of rural people was far lower on average. For instance, the *per capita* income of the population of Venda, the majority of which is rural, was R1 208 in 1989, compared with a figure of R2 435 in the urban areas of Venda a bare two years later.

3.1.3 Poverty lines

The Minimum Living Level (MLL) and Supplemented Living Level (SLL) of the Bureau of Market Research (BMR) are often used as poverty lines. In general, rural poverty lines are considerably lower than urban lines because natural goods such as building materials, fruit and wood are assumed to be available in rural areas. However, in the study area, pre-existing environmental concerns were compounded by the recent drought, and the validity of this premise is questionable. For example, the drought even resulted in some people having to pay exorbitant prices for buckets of water. Despite such (acknowledged) compilation problems, the BMR figures are useful in that data are comparable over time. As can be expected, given the inflation rate, the minimum financial requirements of African biological families in the study area have nearly doubled over the past five years. In 1992, the MLL of an average family was around R750 a month, or around R200 per person. As the *per capita* MLL decreases as the family size increases (eg with regard to housing), these figures cannot be correlated directly with *per capita* income. This said, the monthly *per capita* income figure of R117 in 1989 remains disconcerting.

As the MLL can be broken down, it is possible to deduce a crude 'survival level' consisting only of food, clothing and compulsory payments for housing. Even this figure is in excess of R130 per month, per person, implying extreme poverty in rural areas.

3.1.4 Expenditure patterns

Food, clothing, housing, transport and furniture and equipment remained the five main expenditure items of households over the past decade. Expenditure in the study area exhibited interesting patterns between income groups and thus population groups. Not surprisingly, food constituted a relatively larger part of the expenditure of poor people compared with those in the higher income categories⁵.

⁵

The composition of food expenditure is likely to change as income increases, with relatively less money being devoted to products such as grain.

A more unexpected fact is that people in the same income category, but of different races, differ significantly in their spending patterns, as can be seen from the 1991 data. In the income category R7 500 to R20 000, African people spent relatively more on furniture and food (nearly twice as much as whites), while the white population spent more mainly on housing, as well as small categories such as transport and communication. These expenditure patterns are probably influenced by 'cultural' factors, distance from markets and so forth. A more important factor might be the actual micro distribution of income in the categories, with whites probably occupying relatively higher positions on the scale of income. This assumption is strengthened by the similarity between the expenditure patterns of whites in the lower-income group and those of Africans in the higher-income group. In addition, the expenditure patterns of higher-income groups are also more homogeneous across racial boundaries, with the exception of spending on furniture (Africans) and housing (whites). This probably says more about living conditions in African communities than about people's actual preferences.

Among lower-income groups, the importance of 'survival expenditure' is obvious. A case in point is the 1989 expenditure patterns in Venda. People earning under R2 000 a year spent 60% of their income on food, compared with less than 30% for those earning more than R10 000. The latter group favoured transport and insurance and funds, and paid relatively more income tax, while the former group spent proportionally more on fuel and light, cleaning materials and the support of relatives. Expenditure on education was less than 3% of the expenditure of both groups, although this is often underenumerated, being a quarterly expense.

In summary, the prevailing low levels of income in the area underline the need for coping strategies in a cash-deprived society. The next section will focus on people's opportunities to develop coping strategies.

3.2 Opportunities

People's opportunities to develop coping strategies depend both on their ability to undertake activities to obtain income, whether in cash or in kind, and on their ability to claim certain sources of unearned income such as pensions (Bekker *et al* 1993:30).

3.2.1 Activities

Members of a household may undertake certain activities for the sake of the household itself. In rural areas, these activities would probably include subsistence agriculture, while peri-urban and urban communities would engage in informal activities⁶. They may also undertake similar activities for neighbours, or engage in skilled or unskilled employment locally. Another group of activities is employment at a distance, involving commuting or transhumance. As the population of the study area is mainly rural or peri-urban, attention is largely focused on the activities undertaken by people who are not officially urbanised.

3.2.1.1 Local household activity

Activity in support of the household itself includes fetching and gathering, subsistence agriculture and cash cropping⁷.

⁶ The subsistence sector includes subsistence agriculture and related, normally incidental, informal activities such as selling produce seasonally. The informal sector, in contrast, comprises unrecorded activity mostly undertaken in peri-urban and urban areas, such as backyard repair shops. Self-employment activity is recorded and therefore more formal in nature. Although the type of activity could be similar to that of the informal sector, the entrepreneur faces legal constraints and pays taxes.

⁷ Information contained in this section was drawn from, and referenced in, Addendum F:

* **Fetching and gathering**

One of the basic subsistence activities of a poor rural community is fetching and gathering natural resources. These include building materials, firewood, water, plants for traditional medicine, pesticides, craft work material, dietary supplements, clothing and dyes. The increase in the study area's population density has resulted in increased competition for these scarce resources, with usage tending to exceed natural regenerative capacity. People are forced to gather products further afield, with a consequent spread in environmental degradation. The impact of over-exploitation has been compounded by drought, the commercial sale of some products, and the habitat reduction of many plant species as a result of changing land use. It is clear that subsistence resources available from this source are limited and declining. This places a larger burden on the next opportunity, namely subsistence agriculture.

* **Subsistence agriculture and cash cropping**

The status of the subsistence sector has been downgraded in recent times. The reasons are two-fold. First, in traditional societies, generations of people were able to survive rather well on poor quality soil using 'inferior' techniques. Of late, the intrusion of first world methods and, more importantly, apartheid-induced overcrowding have altered conditions to such an extent that certain survival skills have been lost. The second factor is the creation of a rural 'proletariat' particularly in the Transvaal. While the population of the Transkei, for example, still tries to carve a decent living out of agriculture, the Transvaal population tends to regard its employment opportunities to be those available in the PWV. Families who are supported by migrants often have no intention of relying on agriculture as an opportunity, but generally use it as a hedge against a potential loss of remittances.

The opportunity for subsistence agriculture has also been affected adversely by the environmental conditions and drought described above. At the same time, however, this sector has had to absorb ever-increasing numbers of people. Although accurate figures are not available, it is estimated that nearly half of the potential labour force of the northern Transvaal were active either in this sector or in the informal activity accompanying it. In Gazankulu, the figure was as high as 66%. In total, the subsistence sector involved more than 0,65 million people in 1990. Note that these figures are based on an estimate of the potential labour force that excludes 45% of women as being either at school, students, disabled, or, willingly at home. It is therefore only a minimum estimate of subsistence sector involvement. Assuming that more women would prefer to work⁸, one can estimate a maximum figure of 0,96 million for subsistence sector involvement by including all 'housewives'.

The plight of these people is complicated by the fact that land of a suitable quality is not available, if at all. A substantial proportion of rural people has no access to land. More than 50% of the population in Lebowa and Gazankulu are probably landless (see Section 3.3.2). In addition, thousands of small-scale farmers operate below subsistence level. It is estimated that Gazankulu houses around 62 000 small-scale farmers, KaNgwane 44 000, Lebowa 209 000 and Venda over 42 000. This proliferation of unviable smallholdings, particularly in the peri-urban areas of the homelands, was the result of a combination of land scarcity, increasing urbanisation (in so-called 'denser settlements')⁹ and high

⁷ Cont. Employment, unemployment and the informal sector, Addendum G: Access to land and non-land assets, and Addendum P: Environment.

⁸ In homeland urban areas, certain women would probably prefer not to work, particularly the wives of civil servants. Although their numbers are likely to be small, it must be borne in mind that the figure referred to here represents the maximum possible involvement, and that the true extent of the subsistence sector will lie somewhere between these two extremes. In addition, women involved in the subsistence sector might rely primarily on remittances for survival.

⁹ Although outwardly similar, two types of denser or betterment settlements exist. The first,

unemployment. Another category of small-scale agriculture is found on commercial farms where permanent employees often have access to a small plot for their own use, although this is obviously not enough for self-sufficiency (see Section 3.2.1.3).

3.2.1.2 Local employment

In this section, local employment opportunities are discussed in terms of formal employment, unemployment and the level of education of the labour force¹⁰.

* Employment

Employment undertaken in the local community includes helping other households with the activities discussed above, obtaining unskilled or skilled employment, or being self-employed. In addition, people can try to make a living from the informal sector, or become perpetual job-hunters (being officially unemployed, and actively looking for paid employment).

Information is scarce regarding the prevalence of inter-household assistance with basic activities. The subsistence-related informal activities mentioned in the previous section probably cover most of this, but data constraints prevent disaggregation. Labourers in this type of activity are mostly unskilled, and payment is likely to be in kind rather than cash. Other opportunities for local unskilled employment include road construction, domestic work for local entrepreneurs (eg cleaning shops), participating in small-scale relief projects, and working in small retail establishments. Skilled employment, in contrast, covers teaching, nursing and professional employment such as in the civil service, the latter occurring mainly in urban areas. People in rural areas have limited opportunities for professional employment. Self-employment includes craft, retail and construction work, but differs from informal employment in that it is recorded.

Although net formal employment opportunities in the study area increased between 1980 and 1990, it was far from sufficient to accommodate the ever increasing population. In fact, employment opportunities actually decreased in the eastern Transvaal portion of the study area. This led to a substantial increase in the number of people forced to seek refuge in the subsistence or informal sectors, as well as in official unemployment and migration to neighbouring areas, mainly the PWV. In 1990, only around a million people in the study area were formally employed, of whom more than 400 000 were employed in the eastern Transvaal. Approximately 500 000 others were engaged in informal sector activities, whereas over 200 000 people were officially unemployed¹¹.

To put these figures into perspective, the eastern Transvaal, which is one of the major employment providers in the country, could offer formal employment to less than 60% of its potential labour force in 1990, while the northern Transvaal managed less than a third. The homelands, which are included in these figures, fared even worse on their own. KaNgwane could offer employment to less than a third of its potential labour force while Lebowa and Venda could employ less than a quarter and Gazankulu a dismal 19%.

Although formal employment opportunities are not enumerated directly, the distribution of the economically active population per economic sector is representative¹². In 1991, nearly a quarter of

⁹ Cont. planned settlements, houses people removed from adjacent land to 'improve' agricultural conditions. The second, closer settlements, was created for people involuntarily relocated to the homelands. Neither type shows any correlation between size and service levels.

¹⁰ Data contained in this section were drawn from, and are referenced in, Addendum F: Employment, unemployment and the informal sector and Addendum I: Access to education and training.

¹¹ There could be considerable overlap between these categories.

¹² Note that this gives an indication of where workers are staying, rather than of where they are

formal employment opportunities in the eastern Transvaal were in the agricultural sector, and another quarter in the government-supported community and social services sector. Mining employed an additional 15% and manufacturing 13%. This structure of formal employment has remained stable over the past decade although construction employment has recorded a slight decrease, with a concomitant increase in community and social services. In the northern Transvaal, the largest employment sector was community and social services, which accommodated well over a third of the formally employed, its share having increased quite sharply over the past decade. This illustrates the importance of the public sector as employer in this area, a state of affairs which is quite unlikely to persist. The second largest employer was agriculture, the importance of which has fallen from 30% to 20% since 1980. The only other sector employing more than a tenth of the formally employed was commerce, catering and accommodation.

* Unemployment

The officially unemployed form a small section of the potential labour force, mainly because of the definition of the term. It includes only those who are actively looking for employment, and excludes workers in the subsistence and informal sectors. It is useful for determining how many people have no other options, and gives important clues to the composition of the remainder of the population outside the formal economy.

In the northern Transvaal and KaNgwane, most of the unemployed are male, with a male:female ratio of around 55:45. The fact that relatively fewer women are unemployed does not imply satisfactory employment levels. On the contrary, it reflects the proliferation of obstacles women face when trying to enter the labour force. In addition, the forces which limit women to subsistence agriculture are also strong. Not least of these are their reproductive roles, such as taking care of children and relatives, which dictate that they should remain near their homes most of the day. The opposite is the case in the eastern Transvaal, probably because women have more opportunities for employment in urban areas. In addition, the ranks of the male unemployed are probably swelled by hopefuls who have migrated from neighbouring regions, as discussed in Section 3.2.1.3.

The majority of the unemployed live in rural areas. In the homelands of Gazankulu and Lebowa less than 10% of the unemployed are officially urbanised. In the eastern Transvaal and KaNgwane, the figures are approximately 40% and 20% respectively. This bears out the fact that the barriers to entry into the formal economy are formidable for rural workers. Barriers to mobility include a lack of transport, cash, information and so forth, and are discussed in Section 3.3.4.

* Level of education

The level of education of the economically active population can be seen as representative of the skills composition of the labour force. In 1985, more than 30% of the economically active population of the eastern Transvaal region had received no education at all, and thus tended to be unskilled. Another 35% had received only primary education, which limited their ability to be properly trained. Less than 30% had studied up to secondary level, while only 5% had obtained tertiary education. These qualifications opened up opportunities for them to become fully skilled through training. In the northern Transvaal, the structure was similar, emphasising the desperate need for adequate adult education. The implications of these figures are addressed in more detail in Section 3.3.3.

¹² Cont. employed. Weekly or monthly migrants are normally counted where they work anyway, and only migrants on leave will be excluded from the figures.

3.2.1.3 Employment at a distance¹³

Employment at a distance can be obtained either through migration (or transhumance) or commercial-farm employment. Note that the latter opportunity is not 'at a distance' for all, as regular workers often remain on the farms for most of their lives.

* Migration

In view of the dearth of employment opportunities in the study area in general, and in the northern Transvaal in particular, it is obvious that many were forced down the avenue of employment at a distance. The true extent of migration can never be determined as people often settle permanently in their area of choice along with their families. Thus most urban residents are first or second-generation migrants. One way to approximate temporary migration is to count workers who return to their area of origin at least once a year. Within the constraints of certain assumptions (see Addendum H), the discrepancy in the gender structure of the adult population indicates the number of migrants present in or away from a region. The use of this method results in an undercount¹⁴, but nevertheless yields telling results. It is estimated that, by 1990, a minimum number of 540 000 males had migrated from the homelands in the study area. The corresponding figure for 1980 is 330 000, indicating a drastic deterioration in economic conditions in these areas. The eastern Transvaal remains a significant destination for male migrant workers, having attracted nearly 130 000 people by 1990, compared with around 150 000 a decade earlier. This presumably reflects both the decrease in formal employment opportunities and the fact that many migrants were joined by their families, often settling in informal settlements around large towns such as Witbank. However, with the mining reserves of these towns dwindling, the informal urbanites are faced with the prospect of being uprooted yet again, probably having to move to the PWV.

Anecdotal evidence suggests that migrants from the northern Transvaal first settle in large towns such as Pietersburg, moving slowly southward over time. Many apparently end up in Pretoria rather than on the Witwatersrand. Although the mines of the Western Transvaal, Orange Free State and Witwatersrand used to be a strong pull factor, deteriorating employment conditions have sharply reduced their attraction. Another interesting trend is circular migration, where one member of a family seeks employment in an urban area for a number of years, establishing an informal structure near his (or her) place of employment. After a certain period, or on becoming unemployed, the migrant returns. The structure is then made available (or rented out) to another member of the family. When supplied with building materials, such migrants reputedly even use them to improve the family home. This coping strategy enables the family to spread the risk, ensuring a better chance of survival. Of course, not all migrants are as committed to the family structure, and some disappear altogether, leaving the family in trouble. In addition, many migrants fail to find employment or are the first to be retrenched as they are less well adapted to urban life. They therefore commonly engage in informal sector activity or remain unemployed, unable to support their families.

Refugees from neighbouring countries, mainly Mozambique, form another class of migrants. Many use homelands, especially KaNgwane and Gazankulu, as point of entry into South Africa. Homeland authorities encouraged migration by issuing 65 000 permits to refugees, but other authorities are attempting to reduce the influx. Around 2 000 refugees are currently being repatriated per week. Some of the remaining refugees have been successfully assimilated into the local community, but others have entered into a permanent dependency relationship with charitable organisations or homeland authorities.

¹³ Data contained in this section were drawn from, and are referenced in, Addendum F: Employment, unemployment and the informal sector and Addendum B: Migration patterns.

¹⁴ For every woman who migrates an additional male migrant will be excluded from the calculation.

* Commercial-farm employment

In 1991, the eastern Transvaal had 5 898 commercial farming units, down from a peak of 6 360 in 1988, while the northern Transvaal had 5 410 units, down from 5 740 (Farmworkers, 1992). In line with the decrease in the number of farming units, the surface area under cultivation also decreased notably. This probably resulted from adverse financial and farming conditions, as well as urban expansion.

It is estimated that, country-wide, nearly 1,4 million people are employed on commercial farms. When their families are included, the number dependent on farm employment rises to around 5 million people. Farmers in the eastern Transvaal employed more than 116 000 regular workers and over 41 000 casual and seasonal workers in 1991, while northern Transvaal farmers could provide employment for 64 000 regulars and 32 000 casuals. The highest employment levels of the past decade were achieved in 1986 in the northern Transvaal (115 000 paid workers), and a year later in the eastern Transvaal (194 000). In other words the latter experienced a decrease of nearly 50 000 workers in 1991, and the former nearly 20 000 workers. This decrease mirrors conditions in the rest of the country's agricultural sector where the downturn in agricultural prospects resulted in large-scale retrenchment. This trend was strengthened by increasing mechanisation. The disastrous social implications of this process should not be underestimated. Along with livelihood, farmworkers also lose homes, farm-school facilities, on-farm plots and the like. For those born on the farms prospects are even bleaker because they cannot rely on the strong support networks of non-farm areas.

Although the precise gender composition of the agricultural labour force is not known, many seasonal pickers are female, these wages often constituting the major portion of their earnings. Casual and seasonal workers are especially vulnerable to decreasing employment opportunities.

Farm workers in the Transvaal are mostly poorly paid, with permanent workers earning average cash wages of R175 per month together with R55 worth of in-kind remuneration. This translates into just less than R3 000 a year. Seasonal and casual workers, in contrast, earn R555 per year on average. This can be ascribed to the difference in cumulative working hours, as well as lower rates per hour.

3.2.2 Claims¹⁵

In addition to activities undertaken to obtain income, people also have claims on unearned income. Although only monetary claims are considered here, access to services is also a claim because it is considered a second-order right of people to obtain basic services. Access to services influences the coping strategies of a population, and is discussed in more detail in Section 3.3.3.

Monetary claims include remittances, social pensions, welfare payments (including disability) and private-sector pensions. The right to remittances is an assumed claim, frequently lost when the migrant becomes unemployed or decides to abandon the family in favour of a new urban household. Still, a dormant claim to remittances is sometimes invoked in times of extreme hardship when women travel to urban areas to find their partners. One way of preventing this situation is for parents to waive a portion of lobola payments, which can then be used as leverage against the migrant. The reliability of remittances is also influenced by violence which disproportionately affects migrant workers, although this is probably more relevant to the Natal/KwaZulu area.

The extent of monetary remittances is not known. In the case of northern Transvaal in particular three estimates may be useful. First some surveys on expenditure patterns suggest that workers remit between less than 1% and 10% of their income to their families. Second, remittances constitute part

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Data contained in this section were drawn from, and are referenced in Addendum F: Employment, unemployment and the informal sector, Addendum B: Migration patterns, Addendum N: Health, recreation and nutrition, Addendum Q: Public expenditure and Addendum S: Poverty alleviation programmes.

of the difference between the Gross National Product and the Gross Geographic Product of the homelands. In 1986, the GNP of the northern Transvaal exceeded the GGP by R1 898,5 million. Third, the BMR survey of Venda, discussed above, suggests that 'contributions' (including remittances) fell from 32% of income to a bare 11% between 1976 and 1989. Although this can be partly attributed to an increase in local income, it highlights the tenuous link between rural families and their urban members.

Social grants, such as old age grants, disability grants and welfare payments have become an increasingly important survival mechanism in the poverty-stricken rural areas. In the homelands, around one fifth of households have at least one member of pensionable age (although not necessarily receiving a pension). In the eastern Transvaal area, the 1988 social pension and welfare bill was R27 million, paid to more than 104 000 beneficiaries. This yields an average of roughly R260 per person for the year. Corresponding figures for the Lebowa, Venda and Gazankulu areas in 1987 suggest a yearly payment of R780 (R107 million paid to 137 000 people). The difference in average payments can apparently be ascribed to the fact that the northern Transvaal payments were mostly old-age pensions, which are considerably higher than other social grants. The homeland governments are continually increasing spending on social security and welfare. Since the 1984/85 fiscal year, the average annual growth rate of this expenditure item ranged from 27% in Lebowa to 41% in Venda. In 1992/93 these governments allocated between 12% and 14% of total expenditure to social services. At present, no figures are available for private-sector pension coverage, although this is likely to be extremely limited in remote rural areas.

The impact of pensions extends far beyond the initial number of pensioners. The capacity of households to implement coping strategies is discussed in the next section. The discussion covers the age structure of households, as well as estimates of the number of households having a resident pensioner.

3.3 Capacities

A household's capacity to use opportunities can be defined as its ability to undertake certain activities as well as its entitlement to certain claims (Bekker *et al*, 1993:31). In this section, the capacity of households is discussed according to determinants such as the demographic composition of the household, access to assets and credit, access to public and commercial services, mobility and power relations.

3.3.1 Demographic composition of households¹⁶

The composition of a household establishes its ability to muster labour or claim pensions. This is primarily influenced by the size, age structure and gender composition of the household. Secondary determinants include nutrition, morbidity, the level of education of adults, and training or experience.

* Household size

According to the 1991 Population census, there were nearly 270 000 households in the eastern Transvaal and 600 000 in the northern Transvaal, excluding Venda. In the former area, just over half of these households resided in rural areas, compared with nearly 90% in the northern Transvaal. The sizes of urban households differ from that of rural households in both of these regions, as urban households normally comprise nuclear families whereas rural households include members of the extended family. In the eastern Transvaal's urban areas, for instance, nearly a fifth of households had only four members. In contrast, nearly a quarter of households in semi-urban areas had more than

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Information used in this section was extracted from, and referenced in, Addendum A: Population composition, Addendum H: Mortality and morbidity, Addendum I: Access to education and training and Addendum N: Health, recreation and nutrition.

eight members, and six was the most frequent household size in rural areas. This pattern holds true for the northern Transvaal as well, with the exception of semi-urban areas, where the most common household size is four. This difference is not significant as semi-urban households constitute only 0,2% and 2,5% of the populations of the northern and eastern Transvaal respectively.

* **Household-age structure**

The population of the study area is very young, approximately half of the people are under the age of 15. Rural households tend to have more young and aged members than their urban counterparts. For example, in KaNgwane, rural households on average had 4,7 young people in 1991, compared with only 3,3 in urban areas. The figures for aged people were 0,3 in rural areas and 0,1 in urban areas. The adult population has to support the young by providing food, clothing and so forth. Young people also require additional schooling facilities and, in time, jobs. The burden of supporting the young population is evident from labour dependency ratios. In calculating these ratios, young and old people as well as economically inactive people are included in the dependent ages, and economically active adults are counted as part of the supporting group. In 1991, the dependency ratios for the eastern Transvaal and northern Transvaal were 1,8 and 4,8 respectively. However, this indicator may not be accurate given that the economically active population, by definition, cannot engage in the subsistence agriculture which is so prevalent in the study area. In addition, old people, being eligible for pensions, also help support the family. Including all people over the age of 15 in the supporting-age group, to adjust for pension income, yields dependency ratios of 1,6 and 3,7.

* **Household-gender structure**

In line with the migration of adult males, the incidence of female heads of households is relatively high in the homelands. For example, in KaNgwane rural areas, over 40% of homeland heads were female, as were 28% in urban areas. In Lebowa and Gazankulu, urban households were more likely to have female heads, 36% and 21% respectively compared with 24% and 9% in rural areas.

* **Other determinants**

One of the crucial factors influencing a person's employability is physical health. This depends in turn on nutrition, morbidity and access to decent health care. As far as nutrition is concerned, hunger and malnutrition are important indicators of poverty-related problems such as unemployment, violence and a lack of food-security. The country's rural population often suffers from malnutrition. Chronic malnutrition, which results in stunting, is the major nutritional problem in South Africa, occurring in nearly a third of rural children under the age of five. This is the result of poor-quality diet, insufficient vitamin and mineral intake, and frequent infections over a prolonged time. The level of chronic malnutrition in the homelands ranges from 33,5% in Gazankulu to 36,8% in Venda, significantly higher than the already disturbing 27,2% average for rural South Africa.

Morbidity also impairs employability, not to mention the quality of life. Recurring diseases such as malaria affect the whole of a person's working life and drastically reduce productivity. Anecdotal evidence suggests that external contractors bus their own workers to rural areas as malaria-afflicted locals are unable to cope with the workload. Incidence rates of malaria are particularly high in Gazankulu (128 cases per 100 000 people) and the eastern Transvaal (84), compared with the average of five cases per 100 000 people in Lebowa. Bilharzia is another major health threat, causing general lethargy in victims. This contributes significantly to their perceived unemployability. Tuberculosis is also widespread, especially in KaNgwane (135 cases per 100 000 people), Gazankulu (90) and Venda (76); typhoid fever cases are also frequently encountered in these three areas. Other infectious (albeit not notifiable) diseases such as sexually transmitted diseases and AIDS are reportedly prevalent in the area, especially among refugees and immigrants from neighbouring countries. As HIV-infection is not a notifiable disease and often remains undiagnosed, only a fraction of AIDS cases are reported.

Teenage pregnancy is another impediment to finding employment and early first pregnancies contribute to large families. Women under 20 accounted for a tenth of live births in South Africa in 1990. The African community of the northern Transvaal was particularly affected, with a teenage

pregnancy rate of over 22%. Child-rearing effectively bars women from any meaningful participation in the labour force unless alternative day care can be obtained. Women's choices are even more circumscribed by the fact that, in some districts of the northern Transvaal, contraception is used by only a quarter of the African population.

Illiteracy also limits people's choices, and thus their freedom. Only around half the adult population of the eastern Transvaal is literate, compared with less than a third in the northern Transvaal, which is again the lowest rate in the country. Breaking the figures down by race shows that the white population group is practically totally literate, as are around two-thirds of the coloured and Indian populations. In contrast, the African population group's literacy rates are dismal, reaching 40% in the eastern Transvaal and only 30% in the northern Transvaal. In view of these figures, the desperate need for adequate adult education facilities cannot be overemphasised.

3.3.2 Access to assets and credit¹⁷

The assets of a household include land, livestock, vehicles, furniture and household equipment and savings. These are supplemented by reliable sources of income and access to information networks. The ability of the household to obtain credit is also crucial in determining its asset base. Only land, livestock and credit-based assets are addressed here, the remainder of the above-mentioned assets being discussed in later sections.

* Land and livestock

In traditionally white farming areas, access to land is limited only by the availability of, often subsidised, funds. In contrast, landlessness is one of the most serious problems facing the homeland population and, in particular, people living in semi-urban areas. The problem is not limited to the study area alone. Taking the ten homelands together, at least 562 000 households have no arable land or grazing rights, and are therefore resource-poor. An additional 1 030 000 smallholder households operate at below subsistence level, while 238 000 households are 'progressive emerging farmers' who have incorporated some form of technology and can sell produce and/or livestock. Only around 3 100 households can be counted as commercial farmers. The prevalence of landlessness implies that mere redistribution would not be sufficient to solve the problems of rural development.

Land-ownership patterns compound the access problem, as power relations can influence access to tribal land. Women and women-headed households, in an inferior position of power, often face severe access problems (see Section 3.3.5). In addition, tribal ownership systems do not offer permanent rights to the land, thus inhibiting the use of such land as collateral for credit from commercial institutions. It also discourages investment.

Soil conditions in the northern Transvaal are not particularly conducive to cultivation. For instance, less than 15% of land in the northern Transvaal is potentially arable, and the soil is classified as 'low potential' land. In addition, the Lebowa and Gazankulu area is arid, receiving less than the minimum precipitation required for successful dry-land farming. Water resources are limited, and extensive livestock farming seems the only plausible option for farmers in these homelands. In contrast, the traditionally white section of the eastern Transvaal counts among the most successful farming regions in South Africa, although its production potential is being undermined by the intolerably high levels of pollution. As far as soil quality is concerned, the region accounts for over 40% of the high-potential arable land and more than 15% of medium-potential land in the country. With high-quality soil under afforestation or grazing, the agricultural potential is under-utilised at present. In technical terms, the same applies to KaNgwane, although the lack of a dependable water supply prohibits agricultural expansion in the area.

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Data used in this section were obtained from Addendum G: Access to land and non-land assets, Addendum P: Environment and Addendum M: Access to credit.

Cattle farming is the most important livestock industry in the northern Transvaal, followed by game farming. Cattle farming is nonetheless not really widespread – less than 13% of Gazankulu households own cattle and most of them do not own enough stock to make a living. Stock holdings in certain homelands tend to be associated particularly with chiefs and tribal officials. In these areas, a few large holders commonly account for most of the local herd. Generally, stocking rates in the northern Transvaal greatly exceed the recommended carrying capacity. However, veld systems appear to be resilient and self-regulating in that cattle numbers tend to return to supportable levels as a result of drought.

Communities have been affected seriously by the recent drought, but relief was inadequate. The main actors in the drought relief effort are the Independent Development Trust (IDT) (1993) and the Drought Action Co-ordinating Centre (1993) of the Department of Agricultural Development. The Department was allocated R1 000 million for drought aid to the agricultural sector in the 1992/93 and 1993/94 fiscal years. The largest amounts were allocated to the Joint Services Board in Natal and to the Department of Water Affairs and Forestry for water provision, budgeted at R6 500 million. Amounts in excess of R200 million were allocated for subsidies on carry-over debt and interest on new production credit, whereas only R130 million was allocated to farmers and rural communities in the homelands. Of the various other measures, those more relevant to poverty alleviation include R5 million to retain the services of full-time labourers, R1 million to train workers, R15 million to help Indian farmers and R2,5 million to aid coloured farmers. Money was also allocated to fund the transportation of drinking water, emergency water for stock-watering purposes and the drilling of boreholes. The IDT Relief Development Programme has allocated R99,24 million to 712 programmes since September 1992. Of this amount, R36,94 million was allocated to the northern and eastern Transvaal. In total, R12,7 million was used for emergency water supplies and R69,8 million for 'employment relief'. Capacity training and national activities accounted for a further R16,7 million (IDT, 1993).

* Credit

Poor people have limited access to credit and savings facilities as they lack commercial creditworthiness. This is due to a lack of land-based collateral, of previous experience in business or of fixed assets and savings, the result both of poverty and of the deliberate disempowerment of apartheid. These factors apply disproportionately to poor women, especially those living in rural areas. Many alternatives to commercial banking have sprung up, such as *stokvels*, money lenders (*mashonisas*) and burial societies. However, these alternatives do not offer sufficient facilities. As a result several community initiatives to obtain credit have evolved, often institutionalised by non-government organisations (NGOs). The NGOs tend to favour group lending schemes, which limit default through peer pressure. One such example is the Get Ahead Foundation (GHF), which has extended 13 000 loans totalling R6 million since 1987. A recent evaluation of the programme found that its penetration and recovery rates exceeded expectations, although the latter were still relatively low. The recently established Small Enterprise Foundation, which is located in the northern Transvaal, uses group credit schemes to support business and self-employment opportunities, as does the KaNgwane Economic Development Corporation (KEDC). The KEDC scheme has to date reached 3 000 people, and has virtually no bad debt. The Women's Development Bank also offer group loans or micro-lender credit based on group character references. These loans are extended to women entrepreneurs and by March 1993 the value of the total book was R23 000. Another type of financial service is offered by the Rural Finance Facility, which offers advice and alternative financing arrangements to communities.

Micro-lender credit is available from several smaller NGOs. These include the Get Up Lending Trust, which has lent R1,5 million since its inception in 1985. The Small Business Development Corporation also lends to individuals, although micro-lending forms a comparatively small portion of its total portfolio.

Commercial banks recently developed banking alternatives for the micro-lender market segment. Examples include the Community Banking Project initiated by the Perm, the First National Bank/ACHIB scheme to provide finance to ACHIB members, the First National Bank/FABCOS venture called Future Bank, and the Standard Bank Community Banking Services Unit. As these projects were established only recently, their impact cannot be assessed as yet.

3.3.3 Access to public and commercial services

Access to public services not only influences people's capacities, it is also a right, as noted previously. People in rural areas may find it easier to claim some public services, although this has been endlessly complicated by the vagaries of the apartheid system. Commercial services, however, are less easy to claim, as their availability will depend on the entrepreneur's or corporation's profit opportunity. This is, in turn, influenced by the availability of public services such as roads and communication. Sufficient penetration by commercial services, especially markets, to a large extent alleviates the spatial poverty problem.

The dividing line between public and commercial services has become blurred over time, and no attempt will be made to specify whether certain services should be rendered by the state or the private sector. The services discussed in this section comprise housing, health care and education facilities, water and sanitation, energy, transport, media and communication, and commercial services.

* Housing¹⁸

A crucial problem facing the population of the study area is homelessness. Although housing-stock estimates differ significantly (see Addendum J), all reflect a shortage of houses. Even the most optimistic estimates, when compared with the latest census, suggest severe overcrowding in both the eastern and northern Transvaal. In the eastern Transvaal, more than eight people on average live in larger houses, while the corresponding figure for small houses is four or more people per room. In the northern Transvaal, the average is an incredible 21 people per dwelling. It must be noted that, in the homelands, modern houses are reckoned to have around four rooms, while traditional structures commonly have only one. Obviously houses in some, mainly white, areas are not as overcrowded. However, this implies that other, mainly African, households face severe crowding.

In contrast to these figures, Population Development Programme (PDP) figures suggest that coloured households in the study area suffer the most overcrowding, with room densities¹⁹ of 133% and over, while African households experience room densities of 104% to 124%, the latter figure applying to the eastern Transvaal. Given that the PDP figures include only bedrooms, the discrepancy between these two estimates is astounding. The PDP figures also contrast with the Department of National Health and Population Development's own recent evaluation of basic subsistence facility indicators, which suggested that up to half of the rural population of the country lived in overcrowded conditions. The figure for Transvaal was 49% and that of the northern Transvaal 33%. In addition, it was found that less than 10% of informal dwellings in the northern Transvaal provided adequate health protection, although 85% of formal dwellings were adequate. It is obvious that the need for adequate housing is dire (as is the need for quality research).

It is not always clear whether housing is part of the development problem or the solution as it often brings with it problems of its own. Civil servants in the homelands, for example, have traditionally benefited from cheap housing. If they are suddenly required to pay commercial rents or unsubsidised bond repayment after reincorporation they may no longer be able to afford their homes. In the case of small, especially border towns, many people have overcommitted themselves in terms of housing finance. If this overcommitment forces them to sell their homes, they are unlikely to find buyers

¹⁸ Data used in this section are referenced in Addendum J: Access to housing, Addendum Q: Public expenditure and Addendum H: Mortality and morbidity.

¹⁹ The calculation of these densities is rather complicated, but is based on different combinations of people per bedroom. Two children under ten will count as a single person, and a 100% room density will be reached when 2,5 people live in a single-bedroom house, 3,5 in two bedrooms, 7,5 in four bedrooms and so forth, up to 20 in nine bedrooms.

because the economic base of these towns is dependent on artificial incentives (which are likely to disappear). An additional effect of people being unable to afford bond repayments is that repossessions increase, leading to overcrowding and homelessness elsewhere. This problem is not confined to the African population group alone. Charities in Pietersburg, a relatively prosperous town, report a substantial increase in white homelessness. It is also true that housing commitments not only have serious financial implications for people but impair people's mobility in seeking jobs. This is particularly disturbing in the context of the current high level of unemployment. Another problem is that a sizeable proportion of housing on commercial farms is tied to employment. Continued cutbacks in farm labour will have far-reaching implications for homelessness. Finally, the housing problem is exacerbated by the influx of economic refugees from neighbouring countries.

Expenditure on housing and community development comprises a relatively small proportion of homeland government expenditure. In the 1992/93 fiscal year, expenditure ranged from 4,2% in Lebowa to 9,1% in Venda. Growth in this item has been strong since 1984/85, with average annual growth rates between 40% (Lebowa) and 53% (Venda).

* **Health and recreation facilities**²⁰

Recreation facilities are invaluable in improving family and community bonds. In the rural part of the study area, there is an almost total lack of recreation facilities. Although many attempts are being made to rectify the situation, recreation facilities have to compete for funds with basic needs projects such as water and sanitation supply. Furthermore the facilities that are available are often not shared with the whole community, e.g. school libraries. Certain sporting bodies have made admirable attempts to reach young people, but the impact of these initiatives is felt more in urban areas than in the deep rural areas of the homelands.

It would seem that people's physical access to health services is commonly determined by political boundaries and the affordability of transport. Farmworkers who live on 'white' farms often have to travel long distances to reach homeland services. The differences in the level of services provided in various political areas can be seen from the access ratios for these areas. For example, in 1990, the ratio of hospital beds per 1 000 people was 3,4 for the traditionally white portion of the eastern Transvaal and 5,5 for the same portion of the northern Transvaal. Although the ratio for Venda was a comparable 3,6 and that of Gazankulu 3,2, the other homelands were not as fortunate. In Lebowa, the ratio was 2,2 and in KaNgwane a dismal 1,7 was recorded. Politically-inspired bureaucratic decisions also result in hospitals being built in low-density areas and remaining virtually empty, while adjacent settlements have to rely on the hospital's mobile clinics or ambulances for transport. The availability of medical staff in the study area is hardly better. The ratios of doctors per 1 000 people for the traditionally white portions of the study area are between four and seven times higher than corresponding ratios in the homelands. On the positive side, initiatives are under way to improve the accessibility and affordability of health care in the region, and to reduce the duplication and poor management of available services.

The inadequate health care coverage in the study area is reflected in the mortality figures of its population. According to the PDP's indicators, which might err on the positive side, the life expectancy of the homeland population ranges from 61 years in Lebowa to 65,5 years in Gazankulu and Venda. African males in the northern Transvaal have the lowest life expectancy (59) of all African groups. Women generally outlive men, but the African female population of the northern Transvaal also faces a lower than average life expectancy of 64 years. In contrast, white women in the study area can expect to live to 77 years, and white men to between 68 and 70 years.

Of course, it would be simplistic to tie life expectancy to health care alone. Nutrition, employment, violence, endemic diseases and life style all have an impact on longevity. A more striking indicator of

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See Addendum N: Health, recreation and nutrition, Addendum Q: Public expenditure and Addendum H: Mortality and morbidity for references.

primary health care is infant mortality. In 1990, the infant mortality rates for the white population were 6,2 per 1 000 live births in the northern Transvaal, and 7,1 per 1 000 live births in the neighbouring eastern Transvaal. In contrast, mortality rates for African infants were as high as 54,3 per 1 000 live births in the northern Transvaal and 51,9 per 1 000 per live births in the eastern Transvaal. Again, the northern Transvaal's African population suffered the highest infant mortality rate in the country, according to the PDP. (These figures might significantly underestimate the severity and spatial distribution of the problem. For example, some sources of statistics indicate that the problem is most severe in the eastern Cape.) The indictment of health care does not end there. Among the African population of the northern Transvaal, the teenage birth rate is the highest in the country, as is the total fertility rate. The latter is also influenced by variables such as culture and choice, but the low usage rate of contraception discussed above suggests that most women do not have this choice. In view of the above, the imperative need to upgrade facilities in the northern Transvaal cannot be overstated.

Homeland government expenditure on health has also seen significant improvement. Since the 1984/85 fiscal year, growth in health expenditure was around 25% per year in Lebowa, Venda and Gazankulu, whereas KaNgwane realised an annual increase of 68%. In 1992/93 this expenditure item amounted to between 10% and 12% of total government expenditure, with a lower limit of 6% in Venda. As far as community involvement is concerned, NGOs such as Elim Care Group and the Hlatolanang Community Health Centre are involved in health-related education. Direct aid in terms of food handouts, food-for-work programmes and short-term projects is provided by a multiplicity of NGOs such as Operation Hunger, the Sekhukhuneland Development Forum, Kerklike Aksie Noodhulp, the Rural Foundation, Save the Children, various churches and World Vision. The National Nutrition and Social Development Programme (NNSDP) is a key role player in this process, providing finance to over 200 NGOs in the northern Transvaal alone. A total amount of R72 million has been allocated to NGOs in the northern Transvaal for 1993/94. Of this amount R32,4 million was allocated to Lebowa, R13,7 to the traditionally white area, and R13,0 million each to Venda and Gazankulu. At least 130 000 people benefited directly from this expenditure in 1993/94, not counting those helped through Operation Hunger and the Food Gardens Foundation. Most applications are for feeding projects while creches, schools and community projects also benefit (National Nutrition, 1993).

* **Education and training facilities²¹**

Poor communities widely regard education and training as one of the few avenues of escape from poverty. However, the extent to which they can benefit from education depends on a variety of factors. The first is equity of access. The population in the study area has reasonable access to education (although the question of quality should be addressed urgently). A second issue is affordability. A recent survey (CASE, 1993) suggests that up to two thirds of young African people failed to complete their studies to their own satisfaction. The majority of respondents regarded lack of funds as the primary inhibiting factor. Other inhibiting factors are lack of adequate transport for scholars, poor health and nutrition, and household obligations, such as tending small children or helping on the farm.

An additional factor to consider is the relevance and quality of the education. As far as relevance is concerned, the criticisms levelled against education departments in these areas apply to South Africa as a whole. Major employers, trade unions and other interested parties are unanimous in condemning the African education system as poor, behind the times and unacceptable. Apartheid has restricted quality education to a privileged few. The quality of African education is universally poor due to inadequate school facilities, teacher qualifications, equipment and text books. In contrast to the 90% adequate qualification figure for teachers in the traditionally white departments, figures for the African education departments are dismal. In KaNgwane, only 38% of teachers are suitably qualified, while the DET figure is 40%. The other homelands fare slightly better with figures of 47% in Gazankulu and 48% in Lebowa.

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See Addendum I: Access to education and training for references and an in-depth discussion of the issues surrounding this topic, as well as Addendum Q: Public expenditure.

According to National Education Policy Investigation (NEPI), 'there are strong moral, social, political, economic, and programmatic arguments for increased (public sector) support of early childhood care and education. In situations where initial schooling is of poor quality (as is the case in Black education) it is essential to adopt a combined approach of upgrading primary schooling and providing for the healthy development of children before they go to school, to ensure school readiness and continuity in the learning environment. Early childhood programmes are likely to be most effective when they have a broad development focus which meets the needs of the whole child in an integrated matter' (NEPI, 1992). This issue is often the primary development demand of poor communities, and needs to be addressed urgently.

Attempts to address the inadequacies of the non-formal education and training sectors have met with varying success. Programmes to improve literacy and numeracy and to provide continuing education and training are perceived to be piecemeal and inadequate. Reasons for this state of affairs are the lack of infrastructure, finance and human resources, among others. In general, successful training or non-formal education is employment-related or has evolved at grassroots level. Still, the impact of such programmes remains limited. The central government's subsidy scheme has also proven less than successful. While the number of people trained by the private sector in terms of this scheme has increased, the quality of training has often been ignored. Of late, standardisation, competency-based modular training and the introduction of industry Training Boards have improved the situation somewhat. Still, further improvement in the quality of training staff and adult educators, as well as the cost of training, warrant attention. Training and capacity-building are also provided by NGOs and community-based organisations (CBOs). Organisations which are active in the training and capacity-building field include the Women's Development Bank, the Sekhukhuneland Education Projects Forum (SEPROF), the Thusanang Education Project and several pre-school projects.

Government expenditure on education has increased considerably in the study area. Since the 1984/85 fiscal year, the average annual growth in education expenditure has been in excess of 30%, with the exception of KaNgwane (25,2%). In the homelands, figures for the 1992/93 fiscal year ranged from 27,2% of total government expenditure in Venda to 45,1% in Lebowa.

* **Water and sanitation**²²

The policies of apartheid bear much of the blame for the inadequate distribution of water and sanitation coverage in South Africa. Large parts of the country are poorly serviced by infrastructure, and finance for the maintenance of existing facilities has long been inadequate. In most urban areas, supply standards are very high and the resulting running cost contributions are beyond the means of a large percentage of African consumers. Their inability to afford such tariffs contributes to the neglect of these systems. In the study area, an additional complication is the planning (or even forced location) of denser settlements in areas without any economic base, and, more significantly, where reliable water sources are not available. The cost of supplying these settlements with running water is high and the complex system is often in poor condition due to the lack of income and skills in the local community.

The deteriorating condition of the supply systems was virtually ignored until the recent drought, when the fragile systems broke down, resulting in great suffering. Much of this could have been avoided had maintenance been sufficient. The underlying problems of sustainability would nevertheless remain. In some rural areas, the scarcity of water during the drought has enabled private vendors to charge exorbitant prices. However, most rural users pay little or nothing for water supply. As the supply systems are unreliable, rural users frequently have to resort to traditional, unimproved water sources, with obvious negative implications for their health.

Water and sanitation coverage figures for proclaimed towns are reasonable, with the exception of informal peri-urban areas. For instance, 93% of the population of proclaimed towns in the study area

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See Addendum R: Access to water and sanitation for data references.

have an adequate water supply and 84% have access to adequate sanitation. In contrast, dense settlements have only 23% coverage of water and virtually no sanitation. In rural areas, statistics are based on different definitions, which do not take quality, quantity and reliability into account. These figures imply that 62% of the population have access to an improved water source within 500 m of their homes and only 44% have access to some form of pit latrine.

* **Energy²³**

There is lack of access to adequate, affordable and secure supplies of energy in the study area. The energy consumption of poor communities in the northern and eastern Transvaal is mainly confined to domestic use. A multiplicity of energy carriers is used for cooking, space and water heating, lighting and entertainment. The dominant energy source is wood, which is used by 90% of households in the area. For some, it accounts for their total energy consumption. *Per capita* wood consumption ranges from 370 kg to 560 kg per year. Consequently, demand for wood is outstripping sustainable supply in many rural areas, leading to the increasing scarcity and denudation of natural woodlands. Among other socio-economic and environmental consequences, this increases the time spent collecting firewood, and forces people to use more dung, widely held to be unhealthy and inconvenient. This also reduces soil fertilisation.

In addition to wood, up to 97% of households use paraffin, mainly for lighting and Primus stoves. Paraffin is, however, relatively expensive and not easily available. As a result, many people use candles, which are easily available, although they are perceived to be a major fire hazard. Up to 37 candles are used per person per year. Coal and Liquid Petroleum Gas (LPG) are used mainly for heating and cooking, and LPG for refrigeration. Dung, crop wastes and charcoal serve as back-up sources. Batteries are also used for appliances and entertainment, but are extremely expensive.

Alternative technologies which require little energy have been developed. These include solar cooking apparatuses and so-called 'hot boxes' which preserve energy. These technologies are not in widespread use. One reason is that information on such technologies is not readily available to the poor. Another reason is the demonstration effect of advertising, which implies that only sophisticated technology is adequate.

Electricity is obtained mainly from petrol and diesel generators. As this is expensive, most households would prefer to have access to grid electricity. It is estimated that less than 1% of households in rural areas have such access. Electricity supplies to rural users are likely to be prohibitively expensive, because potential customers are widely dispersed, and their initial demand and consumption levels are likely to be low as is the load factor. As a result, rural households might be unable to afford grid electricity tariffs. Energy expenditure currently accounts for between 9% and 15% of household expenditure in the study area.

* **Transport²⁴**

The study area is relatively well provided with roads, and most people have access to them (except in 'deep' rural areas where remote settlements may be quite inaccessible). Although villages are not necessarily connected to each other by road, they are generally connected to the nearest towns. A substantial proportion of roads is unpaved though generally in good condition. The homeland population own relatively few vehicles, with ownership figures ranging from 20 per 1 000 people in Lebowa to 32 in Venda. In most of these areas, commercial-vehicle ownership figures, which include taxis, are relatively high. Between 1985 and 1990 vehicle ownership increased dramatically (more than doubling in Venda) mainly as a result of an increase in the number of taxis. Taxi ownership in Venda is estimated at around 2 000 while the ownership figure is 3 000 for the rest of the northern Transvaal²⁵. Although figures are not available for the eastern Transvaal, coverage is presumably similar or even better.

²³ See Addendum K: Access to energy for data references.

²⁴ See Addendum L: Access to transport for data references.

The increase in taxi services has been necessitated by the inadequate provision of alternative transport. Ownership of donkey-carts or bicycles is limited, and distances are too far to walk. Rail transport is limited to freight and long-distance passenger transport, while bus transport is on the decrease. Although many areas are well provided with buses, financial constraints have forced major bus operators to shorten routes and reduce travelling frequency. Bus operators are further pressurised by the cost of transporting unsubsidised scholars over long distances (in some cases up to 60 km in each direction), at very low prices. Bus companies in Lebowa and Gazankulu are owned by the development corporations, and subsidised by the South African Government. In addition the respective homeland governments also cover their deficits. Venda and KaNgwane are serviced by private companies, subsidised by the South African government on certain routes, while the Venda government pays subsidies for routes operated in the homeland itself.

Subsistence farmers who produce surpluses often have difficulty in transporting these to the market. Sometimes women carry the produce, and sometimes farmers rent the services of a 'bakkie'-owner. In peri-urban areas, people even use wheelbarrows and shopping carts. For most of the poor in the study area, the lack of access to transport is related to their inability to afford it, rather than to the absence of services. The problem is exacerbated by the fact that most of the poorest sections of the population live in remote areas, at long distances from towns and cities.

* **Media and communication²⁶**

Most poor households in the study area listen to the radio for information and entertainment. As in the rest of the country, stations are controlled by the SABC, with the exception of Radio Thohoyandou. The most popular programmes appear to be news and music, followed by sport. The importance of radio in the run-up to the election cannot be underestimated. It also has tremendous potential for development education in areas such as literacy or health. Nine out of ten African households own at least one radio. In addition, three quarters of rural African people listen to the radio, while only a quarter have access to television and a tenth to newspapers.

The lack of interest in newspapers probably results from high levels of illiteracy, inadequate distribution networks, lack of local content and low disposable income among the poor. Yet newspapers in particular can serve as an important information network, advertising employment opportunities or giving information on new local projects which might require labourers. The study area is well supplied with print media. Of the regional papers, the *Sowetan* has the highest readership, a large percentage of which is urbanised. African magazines are also popular, particularly in urban areas. Local newspapers are mainly targeted at white audiences, with the exception of three white-owned weeklies in Gazankulu, Lebowa and Venda.

As far as communication is concerned, only a fraction of the African rural population have their own phones. In the Transvaal, excluding the Witwatersrand, only around 900 000 people have their own phones (Telkom, 1992). Pay-phones are available in some villages, a total of 9 820 in the whole of the Transvaal. To improve this situation, Telkom plans to introduce cheaper pay-phones into rural areas, such as card phones operating on a debit card system, of which 20 000 are planned, and public desk top pay-phones, which are also cheap to operate. The expense involved in acquiring a phone currently deters many potential customers, and even those who own phones make few calls, relying on their urban relatives to phone them.

* **Commercial services**

The population of the larger towns and cities in the study area have access to adequate shopping facilities, with most of the larger retail chains well represented. In villages and homelands, in contrast,

²⁵ There might be some overlap between these figures.

²⁶ See Addendum O: Access to media for references.

shopping facilities are generally poor. There is some anecdotal evidence of day-long shopping excursions to major centres, especially from KaNgwane to Durban.

In addition to the often suspect quality and limited choice involved in buying at rural outlets, prices can exceed those of urban areas by more than the expected transport differential. This can be ascribed to limited competition, wholesale monopolies and control of local markets by large corporations in some of the main towns, amongst other things. African entrepreneurs also face some legal constraints, with co-ops experiencing difficulty in obtaining licences to supply farmers with diesel.

* **Environmental services**

Access to a healthy environment in the eastern and northern Transvaal has been negatively affected by substantial industrial development and by the lack of development. The siting of electricity-generating facilities, mining and other heavy industries, particularly within the eastern Transvaal, has impacted on water and air quality. Air pollution is exacerbated because of adverse climatic conditions for the dispersion of pollution. Problems of water pollution are compounded by increased demands from water consumers and ecological requirements.

In the rural areas, access to a healthy environment is declining because of the impact of high population densities and an unrelenting reliance on the resource base for subsistence. These areas suffer from deforestation, erosion and falling productivity of the soil and grazing resources.

3.3.4 Mobility of households

Households need certain spatially mobile members in order to take advantage of distance employment opportunities. Mobility is determined by factors such as spatial location as well as by less tangible factors such as access to information networks, employment history, access to cash and, in the case of women, the constraints of their reproductive roles.

* **Spatial location**

Officially most of the population of the study area live in rural areas²⁷. In 1991, only 10% of the population of the northern Transvaal lived within the borders of proclaimed towns, as did a third of the population of its neighbour. This implies that 90% of northern Transvaal households and half of the households in the east live in rural areas. This is, however, a matter of definition, as the trend towards urbanisation has been particularly strong in these areas. Most urbanisation occurred outside the traditional proclaimed towns, in peri-urban and semi-urban areas. Peri-urban settlements are evident around nodal towns such as Witbank and Middelburg in the Eastern, and Pietersburg in the northern Transvaal. Informal settlements have also sprung up around the capitals of the homelands as well as around larger settlements close or adjacent to towns in the traditionally white Transvaal area. Their inhabitants might not have the same access to services as their neighbours, but they have reasonable access to employment opportunities in the town itself.

Semi-urban settlements represent the main form of urbanisation in the homelands. For example, it is estimated that 95% of the population of Gazankulu live in unproclaimed settlements. To a certain extent, these people live under worse conditions than their urban or rural counterparts. They are essentially landless, their unviable smallholdings affording them little opportunity to pursue subsistence agriculture in difficult times. In addition, they are unlikely to have access to services such as water and sanitation, and are essentially as remote from urban employment opportunities as their rural counterparts. Accurate figures are not available, but it is estimated that the average level of

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See Addendum J: Access to housing for references and a detailed discussion of urbanisation issues.

functional urbanisation, which includes semi- and peri-urban concentrations, might be as much as double the level of official urbanisation.

* Other Influences

Prospective migrants living in rural areas face certain logistical problems in finding employment. They have to pay for transport to an urban area and for shelter and sustenance while searching for employment. The prospective migrant's problems are compounded by the need for access to information networks. A friend or relative in an urban area, and preferably one with information on employment opportunities, is invaluable. This is reputed to be one of the main information sources available to rural workers. In the absence of such assistance, access to communication facilities and media can to a certain extent alleviate these problems, as discussed above. In addition, a history of employment in the urban area improves a person's chances of finding employment, because migrants from rural areas experience difficulties in coping in an urban environment, where written contracts and different social codes apply.

Women are again disadvantaged in this process. While women's networks are efficient at enabling local survival, women generally have more difficulty than men in mustering their social networks for the purposes of obtaining employment at a distance. In addition, women with partners find their choices constrained by their partners' preferences. Women's Development Bank field workers relate that women are often prohibited from working outside a certain radius from home. Women's choices are also affected by the ages of their children. Having very young children can prevent a woman from working at a distance. When children are slightly older, the availability of child care is a crucial factor as is emphasised by the expressed need of communities for such facilities. In rural areas, most child minders are grandmothers or other women in the same community who expect some form of remuneration. This again increases women's need for savings or cash.

3.3.5 Power relations²⁸

The power relations in a community interact with all other opportunities, whether positively or negatively. It is common cause that people in a position of power have better access to facilities or land, as noted above. One of the main power relations relevant to homeland communities is, on a macro level, the relationship between the homeland government and the South African Government. In the past, the South African Government has often been seen to 'discipline' homeland governments through fiscal measures. Another basic problem is that local people have long been excluded from decision-making and have seldom been consulted about issues affecting their livelihood. On a more microlevel, the community's own interaction with the homeland government is important. The creation of new elites in the homelands has corresponded to the relative neglect of other communities. In some homelands, it is rumoured that more people receive pensions than is suggested by the age composition of the population. However, in other cases, anecdotal evidence has emerged of people being deprived of pensions through curious bureaucratic decisions. Living far from offices and being illiterate, these aged people have virtually no recourse against possibly corrupt civil servants. In addition, the provision of water to communities has frequently been linked to their support of the homeland authorities.

In the community itself, traditional structures play a significant role. As noted, an amicable relationship between individuals and tribal officials can determine the availability of tribal land and other favours. This underpins the gender division of labour in these areas. Men are often forced to maintain a cordial relationship with the local chief. The time devoted to this activity increases the workload of women who single-handedly have to tend to the family in the evenings. Single women or female-headed households are traditionally excluded from this type of relationship and are therefore disadvantaged. In peri-urban areas, where traditional structures break down, single women still find it difficult to enter

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See Addendum C: Labour legislation for a description of labour laws in the different political entities in the study area.

the mainstream of activity. In informal settlements, women commonly have to live on the outskirts of the area where they are even more vulnerable.

A recent evaluation (Feinstein, 1992) of a programme run by the Lebowa Development Corporation (LDC) deserves mention in this regard. Among 51 respondents who were helped by the LDC, nearly 28% held leadership positions in the tribal authority. Excluding small businesses in remote areas, a full 40% were involved either in the tribal authority or police, or were MPs. In addition, knowing employees of the LDC also seemed to improve people's chances of obtaining loans. Nearly a third of respondents were introduced to the scheme by acquaintances who worked for the LDC. Another interesting fact is that several of the most successful businessmen in the area were either part-time priests or ran their own churches. Community organisation leaders such as members of burial societies, sports clubs or church committees also featured prominently among the respondents. One reason could be that people in prominent positions would be more likely to have collateral than the poor, and are thus more likely to qualify for loans.

A final aspect of power relations is labour legislation. The proliferation of law-making entities in the area has created several problems in this regard. The first is that labour laws applicable in the area lack uniformity, many being outdated. For instance, changes made to South African laws to reflect fair labour practices were not sufficiently incorporated into the laws of the homelands, if at all. This problem is more severe in Lebowa and Gazankulu, which attained self-governing status earlier than KaNgwane. Venda has also enacted its own labour legislation. A second problem is that the homelands lack the necessary infrastructure to apply labour legislation. Third, judges of the Supreme Court in South Africa are required to adjudicate cases of appeal in the homelands. These judges are placed under undue pressure by the differences in legislation as well as their understandable tendency to revert to South African legal principles. Finally, the training of officials responsible for labour matters is normally based on South African legal principles. All of these problems can be eliminated by the reincorporation of the homelands into South Africa, along with capacity-building programmes.

4. CONCLUSION²⁹

It follows from the above discussion that people's primary poverty alleviation programmes are their coping strategies. Poverty alleviation efforts from outside should, wherever possible, build on these strategies and reduce any impediments to their successful implementation. This would result in a poverty alleviation approach, rather than poverty alleviation programmes as such. Such an approach could have three facets, the first of these being to improve economic growth through job creation and the removal of obstructions facing entrepreneurs. A second facet would be human resource development comprising improved access to services such as health and education. Finally, social security can be provided for the destitute.

As far as the government's role is concerned, it is theoretically possible to calculate the impact that changes in government expenditure will have on the very poor. Under a set of stringent assumptions, and using a poverty line such as the MLL, a *per capita poverty gap* can be calculated. This shows the actual amount of income that is required to bring every poor person up to the poverty line under the assumption of perfect targeting. In addition, given a certain growth rate the amount of time it would take to eliminate the poverty gap can then be calculated, as well as the impact of change in expenditure patterns, such as an increase in expenditure or a structural adjustment programme. Details of such calculations for the eastern and northern Transvaal are included in Addendum E. It is clear from these calculations that the relationship between growth and poverty is extremely complex, and that the effect of growth on the poor will be determined by the way in which it was achieved. For instance, the famed trickle-down effect of growth takes a long time to reach the poor, and simple growth is thus insufficient to eliminate poverty. Furthermore, an expenditure increase financed

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See Addendum S: Poverty alleviation programmes and Addendum E: Quantitative aspects of income distribution and poverty for references.

through the budget deficit will reduce growth over the medium-term, with a concomitant increase in poverty. However, an increase in growth through a structural adjustment programme which reduces expenditure is also likely to harm the poor. These calculations thus imply a need for an active redistribution policy targeting the poor in addition to policies dedicated to protecting the poor in the event of a structural adjustment. It also cautions against profligate use of the budget deficit to fund fiscal measures.

While policy recommendations are beyond the scope of this paper, certain issues were highlighted by the above analysis. First, reliable data to form the basis of effective policy measures geared towards sustainable development are needed. Second, appropriate forms of collaboration and networking among development agencies and organisations at various levels should be investigated. This will serve to enhance capacity-building and empowerment. Third, women in the study area are particularly disadvantaged, and gender issues deserve special attention. Lastly, attempts should be made to increase poor people's access to alternative technologies.

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1. DEMOGRAPHY

Addendum A

POPULATION COMPOSITION

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1. INTRODUCTION

In 1970, the population in South Africa (including TBVC states) numbered 21 762 000, increasing at an average annual growth rate of 2,7% to 37 961 000 persons in 1991 according to the latest population census (whites increasing at 1,8%, coloureds at 2,6%, Indians at 2,5% and Africans at 3,0%). Studies by the SA Department of National Health and Population Development show that South Africa can, at the most, accommodate an estimated population of 80 million people due to the lack of water resources. Indications are that if the current growth rate continues, the population could increase from the present 39 million to an estimated 72 million by the year 2016, to 80 million by the year 2020 and approximately 136 million by the year 2040. Should such a trend develop, South Africa could encounter serious development problems with far-reaching social and economic consequences.

Region F has the third smallest population (only about 5% of the total population) and has the second highest growth rate.

Region G has the fourth largest population in South Africa, and has maintained the highest growth rate for two consecutive decades. Region G has the largest proportion of children under the age of 15, with the highest growth rate in this category (nearly 3,8% since 1980). It is the only region to have more children than adults. The region has the lowest functional urbanisation rate, but nevertheless has the third highest population density.

2. CRITIQUE ON THE 1991 POPULATION CENSUS

It was impossible to obtain an accurate count of every South African on a single day such as 6 March 1991, the day on which the 1991 population census was conducted: no census has ever been totally accurate, and none will ever be. It may also be too much to expect that every group in the society will be counted with exactly the same degree of accuracy. Voting behaviour, social attitudes, family structure, income, education and many other characteristics differ according to age, sex, ethnicity and race: so does participation in the national census. It is relatively easy to enumerate the middle class in their suburbs, because they live at easily identified addresses and are likely to receive and return their census questionnaires. But it is much more difficult to enumerate the poor and the alienated, because it is both harder to locate them (they live disproportionately in isolated rural areas and inner-city slums) and more difficult to enlist their co-operation once they are located.

Throughout census-taking history, provinces, local authorities and others have complained that their areas were undercounted by the census. From time to time, evidence of serious undercounting has appeared. For instance, preliminary evaluations suggest that in 1991, Greater Soweto might have been undercounted by as many as 500 000 people. DBSA census studies indicate a high undercount in the 1991 census of African males between the ages of 25 and 54, of which 15% to 20% were probably missed. The other population groups were probably also disproportionately undercounted by the census.

Research has shown that the use of statistical adjustment techniques could achieve a more accurate count of the number of inhabitants than mere enumeration. However, the 1991 census adjustment techniques need to be re-evaluated by demographers.

Other problems associated with the 1991 census and other censuses all over the world include:

- ° digit preference,
- ° poor project drafting and demarcation,
- ° insufficient description of the target population,
- ° poor random sample design,
- ° use of unrepresentative or improbable random samples,
- ° poorly constructed or even invalid questionnaires,
- ° deficiencies in the data collection (fieldwork, fieldworkers, enumerators, controls and the political situation),
- ° deficiencies in data capturing and fault finding, and
- ° the appearance of missing values as a result of incomplete coverage of target populations, unit non-response and item non-response.

Some of the above problems might have occurred during the RSA 1991 population census.

3. REGION F

In 1991, 1 300 000 or 62,5 % of the *de facto* population was settled in the Transvaal portion of the Region. In that year the majority of the population, 1 773 000 or 85,3 % of the total, consisted of Africans. In 1970, 94 000 persons or 7,7% of the *de facto* population of the region were settled in KaNgwane. This number of persons increased to 437 000 in 1985 and 779 000 in 1991, representing 24,6% and 37,5% of the *de facto* population respectively. The increase is the direct result of land consolidation, development of the particular area and, recently, a movement of people from Mozambique.

On examining the average population density of the region, it is found that this indicator increased from 16 persons/km² in 1970 to 23 persons/km² in 1985 and 27 persons/km² in 1991. The actual values during 1991 varied between 17,8 persons/km² in the case of the Transvaal portion of the region and 199,9 persons/km² in the case of KaNgwane.

More than 60% of the region's population was settled in the rural areas during 1985 and 1991. During 1985, 1 188 000 persons or 67% of the population were settled in the rural areas with the remaining 587 000 persons or 33% settled in urban areas. Between 1985 and 1991 there occurred a 1% shift in the population from rural to urban areas, the number of people settled in the respective areas during the latter year numbering 1 368 000 (66%) and 711 000 (34%). The highest degree of urbanisation, viz almost 39 % and 55% of the resident population of the region during 1985 and 1991 respectively, occurred in the Transvaal portion of the region, with KaNgwane experiencing a low degree of urbanisation, viz an estimated 14 and 11% of its population being regarded as officially urbanised.

An examination of the male/female distribution in the region shows the males to outnumber the females. In 1985, there were 955 000 males and 820 000 females in the region, providing a ratio of 1:0,9. In 1991, the males and females numbered 1 075 000 and 1 004 000 respectively, also providing a ratio of 1:0,9. It is interesting to note, however, that during both years, this phenomenon existed in the Transvaal portion of the region, whereas the opposite was the case in KaNgwane. In 1991, the ratio for the Transvaal portion of the region was 1:0,8 whereas this ratio was 1:1,2 in KaNgwane. On examining the male/female distribution between urban and rural areas, the same phenomenon is encountered.

When the age structure of the population in the region is analysed, it is found that 784 000 persons or almost 38% of the population were aged between <1-14 years in 1991. The children in this age group are normally not economically active since part of the group are of a preschool and part of a school-going age. During the same year, an estimated 1 231 000 persons or 59% of the population were

aged between 15 and 64 years, which reflects the number of people who are regarded as economically active or potentially economically active, i.e. persons who present their services for remuneration outside the family. Persons in the age group 65 years plus, i.e. persons who have already retired or will soon be retiring from the labour market, numbered 64 000, accounting for almost 3% of the population.

There is, however, quite a difference in the age structure of the populations in KaNgwane and the Transvaal portion of the region. The distribution in KaNgwane is 48,8% (<1 – 14 years) and 48,3% (15 – 64 years) and 2,9% (65+ years) compared with 31,1% (<1 – 14 years), 65,8% (15 – 64 years) and 3,1% (65+ years) in the Transvaal portion of the region. Of particular significance is the fact that the number of females (213 000) in the potential economically active age group (15 – 64 years) in KaNgwane was almost twice as high as the number of males (163 000), whereas the number of males (490 000) exceeded the number of females (364 000) in the Transvaal portion of the region, indicating the high degree of migrant males to the latter and other more distant regions in South Africa, mainly for purposes of employment.

4. REGION G

In 1970, the *de facto* population of Region G numbered 2 080 000, increasing at an average annual growth rate of 4,3% to 4 724 000 in 1991. The majority of the population, viz 4 162 000 or 88,1% of the total, in 1991 consisted of Africans.

During 1985, 3 258 000 or 86,7% of the *de facto* population of the region were settled in Gazankulu and Lebowa and Venda, with the majority of persons (2 197 000 or almost 58,5%) present in Lebowa. The number of persons in these areas increased to 4 278 000 in 1991, representing 90,6% of the *de facto* population in that particular year.

The average population density of the region shows that this indicator almost doubled between 1970 and 1985, the value in 1970 equalling 17,4 persons/km² and, in 1985, 32,5 persons/km². In 1991, it was 36 persons/km² in the case of the Transvaal portion of the region and 108 persons/km² in the case of Lebowa.

Almost the total population of the region was settled in the rural areas during 1985 and 1991. During the first year, an estimated 3 436 000 persons or 91% of the population were settled in the rural areas with the remaining estimated 321 000 or 9% in the urban areas. In 1991, the two percentages given above remained constant, with an estimated 3 890 000 and 420 000 persons living in the rural and urban areas of the region respectively. The highest degree of urbanisation, viz almost 29% and 34% of the resident population of the region, in 1985 and 1991 respectively, occurred in the Transvaal portion of the region, with the average degree of urbanisation in the other three subregions equalling 5% and 7% in 1985 and 1991 respectively. The lowest percentage was encountered in Venda with an estimated 3% and 4% of its population regarded as urbanised.

A significant feature of the *de facto* population of the region is the distortion in the male/female ratios, with females outnumbering the males. In 1985, there were an estimated 1 708 000 males and 2 180 000 females in the region, providing a ratio of 1:1,3. During 1991, the males and females numbered 1 964 000 and 2 346 000 respectively, providing a ratio of 1:1,2. It is interesting to note that during both years this was true of Gazankulu, Lebowa and Venda, but that the opposite was the case in the Transvaal portion of the region. In 1991, the collective ratio for the first three subregions was 1:1,3 and the ratio for the Transvaal portion of the region 1:0,8.

The male/female distribution between the urban and rural areas, reveals the same phenomena with regard to the difference between Gazankulu, Lebowa and Venda on the one hand, and the Transvaal portion of the region on the other. In the first three subregions, the number of females (2 143 000 in 1991) exceeded the number of males (1 721 000) in both the urban and rural areas, with the opposite being the case in both areas (urban and rural) within the Transvaal portion of the region, in which there were 243 000 males and 204 000 females.

The age structure of the population in the region shows that approximately 2 076 000 persons or almost 48,2% of the population during 1991 were aged between <1 – 14 years. These children under

the age of 15 are normally not economically active since part of the group are of a pre-school and part of a school-going age. During the same year, an estimated 2 066 000 persons or 47,9% of the population were aged between 15 and 64 years, which reflects the number of people who are regarded economically active or potentially economically active, ie persons who present their services for remuneration outside the family. Persons in the age-group 65 years plus, ie persons who have already retired or will soon be retiring from the labour market numbered an estimated 168 000 people, accounting for almost 3,9% of the population.

There is, however, quite a difference in the age structure of the population between Gazankulu, Lebowa and Venda on the one hand and the Transvaal portion of the region on the other. The collective averages for the first two subregions in the various age categories were 50,4% (<1 - 14 years), 45,8% (15 - 64 years) and 3,8% (65+ years), compared with 29,1% (<1 - 14 year), 66,8% (15 - 64 years) and 4,1% (65+ years) in the Transvaal portion of the region. Of particular significance, is the fact that the number of females (1 078 00 collectively) in the potential economically active age groups (15 - 64 years) in each of the above-mentioned three subregions was almost twice as high as the number of males (689 000 collectively), whereas the number of males (168 000) exceeded the number of females (130 000) in the Transvaal portion of the region, indicating the high degree of migration of males to the latter and other more distant regions in Southern Africa, mainly for purposes of employment.

5. HOUSEHOLD STRUCTURE

Table 1 reflects the functional urban and rural population for 1990 and the estimates for the year 2000 for South Africa as a whole. In addition, the average size of households is estimated per population group, enabling the deduction of the number of urban and rural households. It is clear from Table 1 that the total number of households is set to increase by nearly 2 million, most of which will be in urban areas. This implies that, in addition to the current housing backlog, another 2 million shelters will have to be provided by the economy in the next seven years. Although these figures cannot be disaggregated by region, the above trend will probably hold true for Regions F and G as well. Table 2 shows the average number of people per household in Region F and G. It is interesting to note that the dominant household size is smaller in urban areas than in rural areas. Rural households also have a larger number of children and aged people (see Annexure A, Tables 2 and 3).

Table 1: Total *de facto* urban and rural population and household structure, 1990 - 2000 ('000)

Year and population group	Functional urban (excluding migrants ¹)	Functional rural	Total population	Average urban house-hold size ²	Average rural house-hold size ²	Number of urban households	Number of rural households	Total number of households
1990								
White	4 995	476	5 471	3,108	3,200	1 607	149	1 756
Indian	992	20	1 012	4,637	5,300	214	4	218
Coloured	2 923	397	3 320	5,073	5,200	576	76	652
African	13 357	14 892	28 249	5,524	5,120	2 418	2 909	5 327
TOTAL	22 267	15 785	36 877	-	-	4 815	3 138	7 953

Table 1: (continued)

Year and population group	Functional urban (excluding migrants ¹)	Functional rural	Total population	Average urban house-hold size ²	Average rural house-hold size ²	Number of urban households	Number of rural households	Total number of households
2000								
White	5 194	286	5 480	3,108	3,200	1 671	89	1 760
Indian	1 130	47	1 177	4,637	5,300	244	9	253
Coloured	3 417	385	3 802	5,073	5,200	674	74	748
African	23 228	14 052	37 280	5,524	5,120	4 205	2 745	6 950
TOTAL	32 969	14 770	47 739	-	-	6 794	2 917	9 711

Source: Development Bank of Southern Africa and Urban Foundation, 1991

Table 2: Regions F and G: Structure of households, 1991

Region	Urban status	Total households	Number of persons in household							
			1	2	3	4	5	6	7	8+
F	Urban	46.2	7.1	15.4	15.9	19.0	15.6	15.1	3.5	8.4
	Semi-urban	2.5	4.2	7.1	13.3	12.9	12.9	17.1	8.6	24.0
	Non-urban	51.3	6.3	11.9	12.5	14.4	13.4	21.5	4.5	15.5
	Total	100.0	6.6	13.4	14.1	16.5	14.4	18.4	4.2	12.5
G	Urban	10.9	9.0	14.5	14.9	17.4	15.6	16.3	4.2	8.6
	Semi-urban	0.2	4.7	14.6	20.8	22.7	22.1	11.6	1.9	1.6
	Non-urban	88.9	5.2	9.0	12.9	15.9	15.9	23.1	5.4	12.6
	Total	100.0	5.7	9.6	13.1	16.1	15.8	22.3	5.3	12.1

Source: Central Statistical Service, 1991.

1. Excludes all persons accommodated in collective facilities as they have been included in the functional rural column.
2. It is expected that household sizes by the year 2000 will differ from the 1990 data, but in the absence of reasonably credible estimates for that year the household sizes for 1990 were used.

6. CONCLUSION

The populations in Regions F and G comprise about 5% and 12% of the total population in the RSA and more than 60% and 91% respectively were settled in the rural areas during 1991. Very low degrees of official urbanisation were recorded in the homelands, ranging between 3% and 11% for 1991. Functional urbanisation, estimated by DBSA, could range between 41,1 % and 64,9 %. These two regions have very young populations – almost 50% are under the age of 15.

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Table 1: South Africa: De facto population; 1980 to 2005.

Development region	1980			1985			1990			1991			1995			2000			2005			Average annual growth rate				
		%			%			%			%		%			%		%		%		1980-1985	1985-1990	1990-1995	1995-2000	2000-2005
A Total	2748 191	9.3	3163 575	9.4	3632 553	9.6	3690 875	9.5	3933 677	9.5	4330 648	9.2	4781 359	9.1	4781 359	8.9	2.86	2.80	1.61	1.94	2.00	2.86	2.80	1.61	1.94	2.00
Cape portion	2748 191	9.3	3163 575	9.4	3632 553	9.6	3690 875	9.5	3933 677	9.5	4330 648	9.2	4781 359	9.1	4781 359	8.9	2.86	2.80	1.61	1.94	2.00	2.86	2.80	1.61	1.94	2.00
B Total	943 284	3.2	1025 388	3.1	1121 557	3.0	1136 155	2.9	1198 248	2.8	1276 583	2.7	1352 828	2.7	1352 828	2.5	1.68	1.81	1.33	1.27	1.17	1.68	1.81	1.33	1.27	1.17
Cape portion	687 779	2.3	717 488	2.1	758 983	2.0	762 416	2.0	776 303	1.8	805 066	1.7	838 013	1.7	838 013	1.6	0.85	1.13	0.45	0.73	0.81	0.85	1.13	0.45	0.73	0.81
Bophuthatswana	255 505	0.9	307 900	0.9	362 574	1.0	373 739	1.0	421 945	1.0	471 517	1.0	514 815	1.0	514 815	1.0	3.80	3.32	3.08	2.25	1.77	3.80	3.32	3.08	2.25	1.77
C Total	2087 631	7.1	2399 564	7.2	2693 842	7.1	2771 320	7.1	3106 373	7.3	3621 002	7.6	4287 184	7.6	4287 184	8.0	2.82	2.34	2.89	3.11	3.34	2.82	2.34	2.89	3.11	3.34
Free State portion	1864 643	6.2	2112 742	5.9	2331 649	6.1	2391 255	6.1	2645 311	6.2	3053 113	6.4	3581 151	6.4	3581 151	6.7	2.53	1.99	2.56	2.91	3.24	2.53	1.99	2.56	2.91	3.24
QwaQwa	159 328	0.5	222 122	0.7	293 331	0.8	308 902	0.8	379 902	0.9	467 900	1.0	558 973	1.0	558 973	1.1	6.87	5.72	5.31	4.25	3.62	6.87	5.72	5.31	4.25	3.62
Bophuthatswana	63 680	0.2	64 700	0.2	68 862	0.2	71 163	0.2	81 160	0.2	99 989	0.2	127 060	0.2	127 060	0.2	0.32	1.25	3.34	4.26	4.91	0.32	1.25	3.34	4.26	4.91
D Total	3919 956	13.3	4336 981	12.9	4793 322	12.6	4877 221	12.5	5229 385	12.3	5642 279	11.8	6049 217	11.3	6049 217	11.3	2.04	2.02	1.76	1.53	1.40	2.04	2.02	1.76	1.53	1.40
Cape portion	1654 505	5.6	1803 461	5.4	1968 262	5.2	1990 000	5.1	2079 380	4.9	2222 060	4.7	2375 412	4.7	2375 412	4.4	1.74	1.76	1.10	1.34	1.34	1.74	1.76	1.10	1.34	1.34
Ciskei	682 880	2.3	750 000	2.2	817 477	2.2	832 547	2.1	895 655	2.1	953 818	2.0	1008 270	2.0	1008 270	1.9	1.89	1.74	1.84	1.27	1.12	1.89	1.74	1.84	1.27	1.12
Transkei	1582 571	5.4	1783 520	5.3	2007 583	5.3	2054 675	5.3	2254 350	5.3	2466 401	5.2	2665 535	5.2	2665 535	5.0	2.42	2.40	2.35	1.81	1.57	2.42	2.40	2.35	1.81	1.57
E Total	7242 030	24.6	7952 801	23.7	8748 079	23.0	8930 455	23.0	9708 282	22.8	10709 642	22.4	11854 702	22.4	11854 702	22.2	1.89	1.92	2.10	1.98	2.06	1.89	1.92	2.10	1.98	2.06
Natal portion	2393 334	8.1	2470 682	7.4	2614 289	6.9	2639 055	6.8	2740 487	6.4	2942 964	6.2	3195 469	6.2	3195 469	6.0	0.64	1.14	0.95	1.44	1.66	0.64	1.14	0.95	1.44	1.66
KwaZulu	3808 157	12.9	4389 517	13.1	4978 123	13.1	5125 722	13.2	5761 200	13.5	6533 478	13.7	7409 441	13.9	7409 441	13.9	2.88	2.55	2.96	2.55	2.55	2.88	2.55	2.96	2.55	2.55
Transkei	1040 539	3.5	1092 802	3.3	1155 667	3.0	1165 678	3.0	1206 595	2.8	1233 200	2.6	1249 792	2.3	1249 792	2.3	0.98	1.13	0.87	0.44	0.27	0.98	1.13	0.87	0.44	0.27
F Total	1580 822	5.4	1774 810	5.3	2023 282	5.3	2075 217	5.3	2309 185	5.4	2642 862	5.6	3006 659	5.6	3006 659	5.6	2.34	2.66	2.68	2.74	2.61	2.34	2.66	2.68	2.74	2.61
Transvaal portion	1281 197	4.3	1337 933	4.0	1423 686	3.7	1438 306	3.7	1498 301	3.5	1600 725	3.4	1710 768	3.2	1710 768	3.2	0.87	1.25	1.03	1.33	1.34	0.87	1.25	1.03	1.33	1.34
KaNgwane	299 425	1.0	436 877	1.3	599 596	1.6	636 911	1.6	810 884	1.9	1042 137	2.2	1295 891	2.4	1295 891	2.4	7.85	6.54	6.22	5.15	4.45	7.85	6.54	6.22	5.15	4.45
G Total	3150 560	10.7	3756 992	11.2	4418 439	11.6	4559 361	11.7	5173 675	12.1	5855 507	12.3	6618 170	12.2	6618 170	12.2	3.58	3.30	3.21	2.81	2.17	3.58	3.30	3.21	2.81	2.17
Transvaal portion	517 210	1.8	499 134	1.5	498 234	1.3	501 123	1.3	512 848	1.2	553 320	1.2	620 891	1.2	620 891	1.2	-0.71	-0.04	0.58	1.53	2.33	-0.71	-0.04	0.58	1.53	2.33
Venda	381 324	1.3	459 819	1.4	542 529	1.4	559 548	1.4	633 133	1.5	711 686	1.5	784 271	1.5	784 271	1.5	3.81	3.36	3.14	2.37	1.96	3.81	3.36	3.14	2.37	1.96
Lebowa	1761 768	6.0	2196 678	6.5	2659 757	7.0	2755 835	7.1	3176 129	7.5	3621 668	7.6	4033 157	7.6	4033 157	7.6	4.51	3.90	3.61	2.66	2.18	4.51	3.90	3.61	2.66	2.18
Gazankulu	490 258	1.7	601 361	1.8	717 919	1.9	742 855	1.9	851 565	2.0	968 833	2.0	1079 851	2.0	1079 851	2.0	4.17	3.61	3.47	2.61	2.19	4.17	3.61	3.47	2.61	2.19
H Total	6369 645	21.6	7532 689	22.4	8790 827	23.1	9006 875	23.1	9964 202	23.4	11409 766	23.9	13135 130	24.6	13135 130	24.6	3.41	3.14	2.54	2.75	2.86	3.41	3.14	2.54	2.75	2.86
Transvaal portion	5577 447	18.5	6536 875	19.1	7586 686	19.9	7741 500	19.9	8392 996	19.7	9337 114	19.6	10356 475	19.4	10356 475	19.4	3.23	3.02	2.04	2.15	2.09	3.23	3.02	2.04	2.15	2.09
KwaNdebele	151 187	0.5	286 292	0.9	424 587	1.1	471 646	1.2	718 146	1.7	1168 830	2.5	1835 559	3.4	1835 559	3.4	13.62	8.20	11.08	10.23	9.45	13.62	8.20	11.08	10.23	9.45
Bophuthatswana	641 011	2.2	709 522	2.1	779 554	2.1	793 730	2.0	853 060	2.0	903 822	1.9	943 096	1.8	943 096	1.8	2.05	1.90	1.82	1.16	0.85	2.05	1.90	1.82	1.16	0.85
J Total	1449 157	4.9	1639 009	4.9	1829 230	4.8	1867 540	4.8	2031 211	4.8	2250 470	4.7	2488 263	4.7	2488 263	4.7	2.49	2.22	2.12	2.07	2.03	2.49	2.22	2.12	2.07	2.03
Transvaal portion	898 687	3.1	980 531	2.9	1071 203	2.8	1083 995	2.8	1136 708	2.7	1215 290	2.6	1288 854	2.4	1288 854	2.4	1.76	1.78	1.19	1.35	1.18	1.76	1.78	1.19	1.35	1.18
Bophuthatswana	550 470	1.9	658 478	2.0	758 027	2.0	783 545	2.0	894 503	2.1	1035 180	2.2	1199 409	2.2	1199 409	2.2	3.65	2.86	3.37	2.96	2.99	3.65	2.86	3.37	2.96	2.99
Total South Africa	29491 076	100.0	33581 809	100.0	38051 131	100.0	38915 019	100.0	42654 238	100.0	47738 759	100.0	53453 612	100.0	53453 612	100.0	2.63	2.63	2.31	2.28	2.29	2.63	2.63	2.31	2.28	2.29
RSA	17622 993	59.8	19622 421	58.4	21885 545	57.5	22238 524	57.2	23716 011	55.6	26060 300	54.6	28748 392	53.8	28748 392	53.8	2.17	2.21	2.21	2.28	1.98	2.17	2.21	2.21	2.28	1.98
TBVC countries	5197 960	17.6	5826 541	17.4	6492 273	17.1	6634 624	17.1	7240 401	17.0	7875 613	16.5	8492 248	15.9	8492 248	15.9	2.31	2.19	2.21	1.70	1.52	2.31	2.19	2.21	1.70	1.52
Self-governing territories	6670 123	22.6	8132 847	24.2	9673 313	25.4	10041 871	25.8	11697 826	27.4	13802 846	28.9	16212 872	30.3	16212 872	30.3	4.05	3.53	3.87	3.36	3.27	4.05	3.53	3.87	3.36	3.27

1. According to the internationally accepted definition, the de facto population of a country includes all persons physically present in the particular country at the reference date, ie the date of census. Therefore, inhabitants of a country migrating for purposes of employment elsewhere and not enumerated in their country of origin, are not regarded part of their country of origin's de facto population.
2. For the purposes of this report, the population of Walvis Bay has been included in that of Region A.

Source: Development Bank of Southern Africa, 1993

Table 2: Regions F and G: Number of persons per household, 1991

Area	Urban			Rural		
	<15	15-64	65+	<15	15-64	65+
Region F						
Transvaal	1,7	3,5	0,2	2,0	4,4	0,2
KaNgwane	3,3	4,2	0,1	4,7	4,6	0,3
Region G						
Transvaal	1,3	3,2	0,3	1,7	3,8	0,2
Lebowa	2,5	3,6	0,1	3,3	3,0	0,3
Gazankulu	2,9	3,4	0,1	3,7	3,0	0,2

Source: Central Statistical Service, 1991.

Table 3: Regions F and G: Percentage of households with a female head or pensioner, 1991

Area	Female household head		Pensioner	
	Urban	Rural	Urban	Rural
Region F				
Transvaal	14,9	5,5	13,0	13,7
KaNgwane	28,0	42,4	12,9	16,9
Region G				
Transvaal	13,3	7,8	16,8	13,4
Lebowa	36,0	24,3	12,3	21,0
Gazankulu	21,0	9,3	9,4	17,0

Source: Central Statistical Service, 1991.

Addendum B

MIGRATION PATTERNS

by

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1. INTRODUCTION

Migration is divided into population and labour migration in order to assess the full extent of these aspects.

2. POPULATION MIGRATION¹

The relatively high fertility of the African population, the extent of labour migration from the homelands to the common area (particularly to the larger industrial centres), and resettlement can be identified as the three most important factors in the redistribution trends of this population group.

From Table 1, it will be noted that the population growth rates between 1985 and 1991 in Gazankulu and Lebowa were slightly higher than growth rates in KaNgwane, but considerably higher than growth in Venda. During the period 1960 to 1985, KaNgwane had a considerably higher growth rate than other homelands. As indicated in the table, all four homelands experienced positive population shifts in all their magisterial districts during the period 1960 to 1991 (see Annexure B). The positive movement of people into the area is a continuation of a trend which started during the 1960s.

Table 1: Africans: Movement of people and growth rates, 1960-1991

Homeland	Nature of movement	1960 -1970		1970 -1980		1980 -1985		1985 -1991	
		Average annual growth rate (%)	Number of districts	Average annual growth rate (%)	Number of districts	Average annual growth rate (%)	Number of districts	Average annual growth rate (%)	Number of districts
KaNgwane	Positive		3		3		3		3
	Negative								
	Overall	10.1		7.85		12.3		7.0	
Gazankulu	Positive		4		4		4		4
	Negative								
	Overall	8.0		4.2		5.9		7.4	
Lebowa	Positive		11		11		11		11
	Negative								
	Overall	1.1		4.5		5.4		7.8	
Venda	Positive		4		4		4		4
	Negative								
	Overall	4.0		3.8		3.4		4.5	

Source: Development Bank of Southern Africa, 1993. Unpublished information.

¹ As far as additional data sources are concerned, Prof. WP Mostert at the HSRC is currently working on migration in Southern Africa.

According to Mostert (1993), there were positive movements of people into Lebowa during the period 1985 to 1991, although much lower than for the three preceding periods. People from Lebowa moved to KwaNdebele. The pull effect of a metropolitan location can be derived from this trend.

Another phenomenon is the movement of people from the rest of the African continent to South Africa, especially from the neighbouring Southern African countries. This component of migration excludes the official migrants and refers mainly to illegal aliens. It is almost impossible to obtain a estimate of the size of the influx of these people since identification would result in repatriation. Figures obtained from the Department of Interior regarding repatriation may, however, serve as a proxy of the magnitude and trend.

Table 2: Repatriation of Illegal migrants, 1988-1992

Year	Number
1988	44 225
1989	51 550
1990	53 418
1991	61 345
1992	82 275

Source: Department of Interior, 1992. Operational information.

The countries of origin of the 1992 figures were as follows:

Mozambique	:	61 210
Zimbabwe	:	12 033
Lesotho	:	6 235
Other	:	3 097

The rising trend is quite evident and even more disturbing when it is apparent that, according to the same source, more than 2 000 illegal aliens are currently being repatriated per week. Almost 14 000 Mozambican refugees are accommodated in the small town of Humulani in Gazankulu (Tempelhoff, 1993). The Gazankulu Government has extended a hand of friendship to these refugees. Piped water and electricity was installed and food portions are handed out twice daily.

Many Zimbabweans and Mozambicans enter the country and gravitate toward Johannesburg and the surrounding Reef areas. They can often be found working illegally as waiters, barmen, gardeners, etc. These illegal immigrants are depriving needy South African citizens of a place to stay and of facilities subsidised by the South African taxpayer. An array of factors contributing to this phenomenon can be identified, such as political instability, drought in the countries of origin, perceived employment opportunities and the satisfaction of basic needs in South Africa.

3. LABOUR MIGRATION

Due to the lack of information on the size and distribution of migrant workers, an attempt was made to calculate the absenteeism of potential economically active males in the eastern and northern Transvaal regions. The assumption made is that a discrepancy in the male/female composition in the 15 to 64 year age group is indicative of the number of migrant workers per region. In calculating the male absenteeism rates for the regions, it was assumed firstly that only males in the 15 to 64 year age group were liable to migrate (i.e. work on a semi-permanent basis in another area and return home once a year on average). The second assumption was that no females in this age group would migrate. This assumption was patently invalid as substantial numbers of women do migrate, but it was the only plausible way of establishing a minimum level of male migrant workers. A third assumption was that a male:female ratio of 1:1 instead of the actual 0,98:1 would compensate for a possible undercount. The resulting migrant workers figures could be a underestimation, keeping in mind that only male absenteeism is taken into account.

Table 3: Labour migration, 1980 and 1990

Area	1980		1990	
	Migrant workers absent/present ¹	Male absenteeism ratio ² (%)	Migrant workers absent/present ¹	Male absenteeism ratio ² (%)
Eastern Transvaal	146 700	37,6	127 800	24,6
Northern Transvaal	-285 600	-32,6	-458 600	-37,1
Gazankulu	-61 300	-44,8	-96 900	-48,6
Lebowa	-181 900	-37,8	-317 300	-42,9
KaNgwane	-20 500	-24,4	-46 121	-27,3
Venda	-65 800	-53,1	-79 900	-48,1

(-): indicates migrant workers absent from the area.

(+): indicates migrant workers present in the area.

1. Calculated as the difference between the males and females in the 15-64 year age group.
2. Indicates the number of males absent or present in an area as percentage of the number of males supposed to be in the area.

Source: Viljoen, 1991.

It is clear from Table 3 that eastern Transvaal was the destination of a significant number of male migrant workers from other regions in 1990, with nearly 128 000 migrant workers present in the region. In contrast, the northern Transvaal could be seen as a major supplier of migrant workers in 1990, with nearly 459 000 migrant workers absent from the region. The reason is that the homeland areas, namely Gazankulu, Lebowa and Venda, which are part of the northern Transvaal region, could not provide sufficient employment opportunities to accommodate their rapidly growing labour forces. Their workers were compelled to migrate to adjacent regions where the well-developed industrial sector or large mining sectors provided them with the necessary employment opportunities. Nearly 49% of the male labour force in Gazankulu were absent during 1990, with approximately 43% from Lebowa and 48% from Venda. The northern Transvaal region cannot absorb all these migrant workers, explaining the high male absenteeism ratio of the total region.

Although the eastern Transvaal region seemed to be the net provider of employment to migrant workers from elsewhere, this does not mean that the region could provide sufficient employment opportunities to its own fast growing labour force and for the visiting migrant workers as well. Unemployment, therefore, prevailed in the region. KaNgwane, which forms part of the eastern Transvaal, experienced a male absenteeism ratio of approximately 27% during 1990. No significant changes were experienced in the male absenteeism ratios over the last decade. However, the number of people involved increased substantially during this period, mainly as a result of the high population growth rate in these areas.

It is imperative to take cognisance of the fact that these migrant workers remain potentially part of the labour forces of their areas of origin. The income earned by these migrant workers inevitably influences economic magnitudes such as the Gross National Product and the Gross Domestic Expenditure in their area of origin, via the remittances they send home. The magnitude of the contributions of migrant remittances towards household income could not be determined exactly, but it is partially reflected in the observation that the Gross National Product exceeded the Gross Geographical Product, in the northern Transvaal, by an estimated amount of approximately R1 898,5 million in 1986.

4. CONCLUSION

In most of the planning regions in the common area, negative or decreasing population growth rates were found among Africans from 1960 onwards. The high population growth rates and positive movement to the homelands indicate a long-term population shift from the common area to the homelands, with the exception of Transkei and Ciskei. This trend is expected to diminish, although natural population growth in these areas will remain high.

In the homelands, the majority of magisterial districts experienced positive population shifts. Most of the negative shifts which occurred were only slight. Although the migration patterns in South Africa are very difficult to estimate at this point, due to the drought, economic climate, unemployment and circular migration, it is clear that considerable shifts in the African population occurred to the homelands as well as to the metropolitan areas. On balance, as indicated in Annexures B1 and B2, urban populations are growing faster than rural populations, thus indicating a general move to the cities.

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Table 1: Estimated de facto population, population density and movement of people between 1985 and 1991.

Development & subregion	Magisterial district	Total area (sq km)	Population (1985)			Population density per sq km	Population (1991)			Population density per sq km	Growth rate (%) (1985 - 1991)		
			Urban	Rural	Total		Urban	Rural	Total		Urban	Rural	Total
F	KANGWANE	1 770	6 697	101 711	108 408	61.2	15 527	176 583	192 110	108.5	15.05	9.63	10.01
F	KANGWANE	1 379	7 034	120 308	127 340	92.3	14 783	262 183	276 966	200.8	13.18	13.86	13.83
F	KANGWANE	768	46 407	154 709	201 116	261.9	57 589	252 562	310 151	403.8	3.86	8.51	7.49
F	TRANSVAAL	1 787	3 827	27 766	31 623	17.7	23 419	10 036	33 455	18.7	35.24	-15.62	0.94
F	TRANSVAAL	2 265	12 470	33 848	46 318	20.4	16 253	22 050	38 303	16.9	4.51	-6.89	-3.12
F	TRANSVAAL	3 769	19 854	54 435	74 287	19.7	19 264	52 896	72 160	19.1	-0.50	-0.48	-0.48
F	TRANSVAAL	3 034	11 707	19 867	31 574	10.4	12 527	19 449	28 976	9.6	1.13	-3.10	-1.42
F	TRANSVAAL	2 402	30 355	58 567	88 922	37.0	38 106	39 672	77 778	32.4	3.86	-6.29	-2.21
F	TRANSVAAL	3 879	6 690	26 804	33 494	8.6	8 556	21 880	30 436	7.8	4.19	-3.33	-1.58
F	TRANSVAAL	7 304	64 318	63 816	128 134	17.5	61 828	48 253	111 081	15.2	-0.66	-4.23	-2.35
F	TRANSVAAL	2 921	5 335	40 691	46 026	15.8	6 014	51 729	57 743	19.8	2.02	4.08	3.85
F	TRANSVAAL	1 423	78 069	59 480	137 550	96.7	115 836	40 050	155 886	109.5	6.80	-6.38	2.11
F	TRANSVAAL	5 216	12 652	27 737	40 389	7.7	13 459	23 520	36 979	7.1	1.04	-2.71	-1.46
F	TRANSVAAL	5 700	58 540	79 887	138 407	24.3	70 850	68 165	140 015	24.6	3.23	-2.37	0.19
F	TRANSVAAL	2 190	16 988	48 842	65 830	30.1	21 472	40 441	61 913	28.3	3.98	-3.10	-1.02
F	TRANSVAAL	9 816	7 533	21 840	29 372	3.0	7 220	21 840	28 060	3.0	-0.70	0.00	-0.18
F	TRANSVAAL	4 419	18 064	52 835	70 929	16.1	19 755	44 301	64 056	14.5	1.47	-2.89	-1.68
F	TRANSVAAL	4 611	39 707	60 046	99 752	21.6	43 013	42 881	85 894	18.6	1.34	-5.46	-2.46
F	TRANSVAAL	1 871	17 169	15 143	32 312	17.3	17 982	11 937	29 919	16.0	0.77	-3.89	-1.27
F	TRANSVAAL	2 324	2 955	29 954	32 909	14.2	21 824	11 424	33 248	14.3	39.55	-14.84	0.17
F	TRANSVAAL	964	6 917	3 781	10 698	10.8	5 402	3 895	9 297	9.4	-4.04	0.50	-2.31
F	TRANSVAAL	2 836	107 465	52 541	160 006	56.4	131 771	41 510	173 281	61.1	3.46	-3.85	1.34
F	TRANSVAAL	4 392	6 013	33 404	39 417	9.0	6 783	23 445	30 228	6.9	2.03	-5.73	-4.33

Source: Development Bank of Southern Africa, 1993

Table 2: Estimated de facto population, population density and movement of people between 1985 and 1991.

Table 2: Estimated de facto population, population density and movement of people between 1985 and 1991.													
Development & subregion	Magisterial district	Total area (sq km)	Population (1985)			Population (1991)			Population density			Growth rate (%) (1985 - 1991)	
			Urban	Rural	Total	Population density per sq km	Urban	Rural	Total	Urban	Rural	Total	
G	GAZANKULU GIYANI	3 614	9 210	209 771	218 981	60.6	15 063	197 162	212 225	58.7	8.54	-1.03	-0.52
G	GAZANKULU HLANGANANI	521	2 702	70 185	72 887	139.9	4 556	122 893	127 449	244.6	9.10	9.78	9.78
G	GAZANKULU LULEKANI	925	993	7 884	8 877	9.6	4 341	34 427	38 768	41.9	27.87	27.85	27.85
G	GAZANKULU MALAMULELE	1 268	2 320	130 214	132 534	102.1	5 012	174 315	179 327	138.2	13.70	4.98	5.17
G	GAZANKULU MHALA	1 223	4 529	140 798	145 327	118.8	12 850	240 448	253 288	207.1	18.98	9.33	9.70
G	GAZANKULU RITAVI	1 349	8 067	96 449	104 516	77.5	13 887	129 818	143 705	106.5	9.48	5.08	5.45
G	LEBOWA BOCHUM	2 218	0	103 918	103 918	46.9	0	149 866	149 896	67.6	0.00	6.29	6.29
G	LEBOWA BOLOBEDU	1 098	5 568	159 147	164 715	150.0	7 697	188 968	196 695	178.1	5.54	2.80	3.00
G	LEBOWA MAPULANENG	1 194	8 217	170 397	178 614	149.6	8 923	206 323	215 246	180.3	1.38	3.24	3.18
G	LEBOWA MOKERONG	3 718	17 698	302 328	320 026	86.1	29 649	416 503	446 152	120.0	8.98	5.48	5.69
G	LEBOWA NAMAKGALE	154	22 885	22 377	45 262	293.9	28 318	27 120	55 438	360.0	3.61	3.26	3.44
G	LEBOWA NAPHUHO	897	7 759	104 418	112 177	125.1	9 432	158 231	167 663	188.9	3.31	7.17	8.93
G	LEBOWA NEBO	2 773	13 671	250 633	264 304	95.3	18 571	306 328	324 899	117.2	5.24	3.40	3.50
G	LEBOWA SEKGOSSE	624	979	97 189	98 168	157.3	1 825	122 601	124 426	199.4	10.94	3.95	4.03
G	LEBOWA SEKHUKHUNELAND	3 921	4 222	372 918	377 140	96.2	10 485	393 845	404 330	103.1	16.37	0.91	1.17
G	LEBOWA SESHEGO	2 922	38 787	219 953	258 740	86.5	44 261	258 418	302 677	103.6	2.22	2.72	2.65
G	LEBOWA THABAMOOPO	2 618	19 451	254 141	273 592	104.5	32 509	320 685	353 194	134.9	8.94	3.95	4.35
G	TRANSVAAL ELLISRAS	7 926	8 893	13 339	22 232	2.8	9 931	14 594	24 525	3.1	1.88	1.51	1.65
G	TRANSVAAL LETABA	3 367	7 813	47 765	55 678	16.5	9 848	50 050	59 898	17.8	3.71	0.78	1.23
G	TRANSVAAL MESSINA	5 389	11 496	12 414	23 909	4.4	11 005	11 950	22 955	4.3	-0.72	-0.63	-0.68
G	TRANSVAAL PHALABORWA	11 601	10 739	16 555	27 293	2.4	13 948	16 175	30 123	2.6	4.45	-0.39	1.68
G	TRANSVAAL PIETERSBURG	6 405	33 262	54 947	88 209	13.8	39 690	24 517	64 207	10.0	2.99	-12.58	-5.16
G	TRANSVAAL POTGIETERSBURG	15 967	17 913	67 380	85 293	5.3	18 416	51 155	69 571	4.3	0.46	-4.49	-3.34
G	TRANSVAAL SOUTPANSBERG	14 168	12 215	36 935	49 150	3.5	9 808	26 025	35 833	2.5	-3.59	-5.67	-5.13
G	TRANSVAAL THABAZIMBI	10 467	9 903	37 291	47 194	4.5	12 784	36 057	48 841	4.7	4.35	-0.56	0.57
G	TRANSVAAL WARMBAD	4 436	14 895	31 119	46 014	10.4	18 402	23 285	41 687	9.4	3.59	-4.72	-1.63
G	TRANSVAAL WATERBERG	8 235	25 581	50 811	76 392	9.3	13 868	35 124	48 992	5.9	-9.70	-5.97	-7.14
G	VENDA DZANANI	880	471	105 033	105 504	119.9	806	127 284	128 090	145.6	9.37	3.25	3.29
G	VENDA MUTALE	2 907	0	45 295	45 295	15.6	0	58 815	58 815	20.2	0.00	4.45	4.45
G	VENDA THOHYANDOU	2 058	12 787	182 414	195 201	94.8	21 462	227 721	249 183	121.1	9.01	3.77	4.15
G	VENDA VUVANI	962	284	113 535	113 819	118.3	406	145 385	145 791	151.5	6.14	4.21	4.21

2. INCOME INDICATORS OF POVERTY

Addendum C

LABOUR LEGISLATION

by
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1. INTRODUCTION

In terms of the Self-Governing Territories Constitution Act No 21 of 1971, the Venda, KaNgwane, Lebowa and Gazankulu legislative assemblies were empowered to legislate in respect of labour matters (item 13 of Schedule 1 of the Act) with the exclusion of the Workmen's Compensation Act No 30 of 1941 and the Unemployment Insurance Act No 53 of 1946.

Venda and the self-governing territories are, therefore, empowered to make laws on labour matters (with the exception of matters dealt with in the two Acts referred to) and to amend or to repeal any existing law in respect of such matters. Laws applicable in an area at the time that such an area became self-governing remain in force until such laws are repealed or amended by the legislative assembly for that area. Laws in respect of labour matters made in South Africa after the attainment of self-governing status do not apply in the self-governing territories or independent states.

The result is that within each of the five legislative areas different laws on labour matters can and do apply.

When Venda, KaNgwane, Lebowa and Gazankulu became self-governing, various labour laws were in existence, such as the Labour Relations Act No 28 of 1956. At that time (with the exception of KaNgwane), African employees were excluded from the operation of the Act primarily because it was felt that their position was protected by the provisions of the Black Building Workers Act No 27 of 1951 and the Black Labour Relations Regulation Act No 48 of 1953. The provisions of the 1956 Act therefore only applied, in Lebowa, Gazankulu and Venda, to workers who were not African. This is still the case in Lebowa and Gazankulu.

Amendments to the Labour Relations Act enacted in South Africa subsequent to the attainment of self-governing status are not applicable in the self-governing territories or in Venda (which gained independence in 1979) unless adopted by the competent authority of that area. Similarly legislation which existed when the area became self-governing is still applicable unless amended or repealed by the competent authority within the area.

2. REPUBLIC OF SOUTH AFRICA

Legislation currently applicable in the Republic of South Africa is as follows:

2.1 Labour relations

2.1.1 Labour Relations Act No 28 of 1956, as amended.

2.2 Minimum standards legislation

2.2.1 Wage Act No 5 of 1957, as amended.

2.2.2 Basic Conditions of Employment Act No 3 of 1983, as amended.

2.3 Health, safety and insurance

2.3.1 Workmen's Compensation Act No 30 of 1941.

- 2.3.2 Unemployment Insurance Act No 30 of 1966.
- 2.3.3 Machinery and Occupational Safety Act No 6 of 1983.
- 2.3.4 Mines and Works Act No 27 of 1956.
- 2.3.5 Occupational Diseases in Mines and Works Act No 78 of 1973.

2.4 Training

- 2.4.1 Manpower Training Act No 56 of 1981.

3. GAZANKULU AND LEBOWA

In terms of Proclamation R 148 of 1971 and Proclamation R 156 of 1971, the Gazankulu and Lebowa Legislative Assemblies respectively were established and empowered to legislate in respect of labour matters. No labour legislation has been enacted in Gazankulu or Lebowa since they became empowered to legislate in this regard and therefore the South African legislation applicable at the time that they were declared self-governing (Lebowa in 1972 in terms of Proclamation R 225 of 1972 and Gazankulu in 1973 in terms of Proclamation R 15 of 1973) remains in force (See Annexure C hereto).

The Labour Relations Act No 28 of 1956 as amended prior to 1972, in respect of Lebowa, and 1973, in respect of Gazankulu, is applicable in respect of persons 'other than Bantu'.

The Black Building Workers Act No 27 of 1951 and the Black Labour Relations Regulation Act No 48 of 1953 remain applicable notwithstanding the repeal of these Acts in South Africa by Act No 85 of 1980 and Act No. 57 of 1981.

The Black Land Act No 27 of 1913, the Development Trust and Land Act No 18 of 1936 and the Black Administration Act No 38 of 1927 contained provisions relating to labour matters. The Black Land Act and the Development Trust and Land Act have been repealed, as have various sections of the Black Administration Act of 1927. The repeal of these Acts is applicable in Gazankulu and Lebowa. It should be noted, however, that a number of the Regulations enacted in terms of these Acts remains applicable.

The Wage Act No 5 of 1957 is applicable but the amendments made to this Act in South Africa are not applicable in Lebowa and Gazankulu.

The Workmen's Compensation Act No 30 of 1941 as amended and the Unemployment Insurance Act No 30 of 1966 as amended were excluded from the ambit of Lebowa and Gazankulu's legislative powers and are therefore applicable as currently applied in South Africa.

Although the Basic Conditions of Employment Act, as enacted in South Africa in 1983, has not been formally adopted in Lebowa, its provisions are applied in Lebowa.

4. KANGWANE

The KaNgwane Legislative Assembly was established and empowered to legislate in respect of labour matters in terms of Proclamation R214 of 1977. In 1984, KaNgwane was declared self-governing in terms of Proclamation R148 of 1984.

No legislation passed by the South African Parliament in respect of labour matters (with the exception of matters dealt with in the Workmen's Compensation Act and the Unemployment Insurance Act) after the 31st of August 1984 applies in KaNgwane. Labour laws applicable prior to that date, unless repealed or amended by KaNgwane, remain applicable.

The only labour legislation enacted by the KaNgwane Legislative Assembly is the Labour Regulations Repeal Act No 6 of 1986, which repeals Proclamation R74 of 1968 - Black Labour Regulations (Black Areas), 1968. However, as KaNgwane attained self-governing status in 1984 (as opposed to Lebowa and Gazankulu, which became self-governing in 1972 and 1973) most of the Acts referred to in Annexure C1, which were repealed in South Africa but not in Lebowa and Gazankulu, are also no longer applicable in KaNgwane.

5. REPUBLIC OF VENDA

In terms of Proclamation R 119 of 1971, the Venda Legislative Assembly was established and empowered to legislate in respect of labour matters. The Status of Venda Act No 107 of 1979 granted independence to Venda, and laws which applied at the time that Venda became self-governing remain applicable until repealed or amended. (Unlike the self-governing territories, Venda, as an independent state, is not prevented from legislating in respect of matters dealt with in the Workmen's Compensation Act and the Unemployment Insurance Act.) The following labour legislation has been enacted in Venda:

- 5.1 Labour Relations Proclamation of 1991;
- 5.2 Basic Conditions of Employment Act No 11 of 1988; and
- 5.3 Wage Act No 5 of 1981.

6. CONCLUSION AND SOME COMMENTS

There appears to be a large degree of uncertainty as to what labour legislation is currently applicable in certain areas. This leads to numerous labour problems and lack of control.

There is no uniformity in the labour legislation applicable in the areas making up Regions F and G. Whereas South Africa has made numerous amendments to its labour legislation and Venda has enacted its own labour legislation, this has not been the case in the self-governing territories. Even where amendments have been made such amendments have not always kept up with changes in the Republic of South Africa. For example from 1 May 1993 the provisions of the Basic Conditions of Employment Act are applicable to the agricultural sector, which is not the case with the provisions of the Venda Basic Conditions of Employment Act

The amendment and updating of legislation is a lengthy procedure. The self-governing territories have made attempts in this regard but new legislation has still to be approved by the State President and enacted. In the interim outdated legislation is still applicable. The problem is not as severe in KaNgwane, which attained self-governing status some years after Lebowa and Gazankulu. However, there is an urgent need for uniformity in the legislation applicable in the RSA, Venda and the self-governing territories of KaNgwane, Lebowa and Gazankulu. It should be noted that if legislation similar to that applicable in RSA is made applicable in the other territories, the necessary infrastructure to implement such legislation will have to be developed.

The legislative powers granted to Lebowa, KaNgwane and Gazankulu are extensive but they have not been granted the power to legislate on matters related to a Supreme Court, which would include an Appeal Court for labour matters. The power to legislate on a Labour Appeal Court can therefore not be included in any labour legislation in Lebowa, KaNgwane and Gazankulu. A provincial division of the Supreme Court would have jurisdiction in a self-governing territory, and any labour appeal would be dealt with by a Judge of the Supreme Court as provided for under the South African Labour Relations Act of 1956. Judges may therefore tend towards the legal principles embodied in South African legislation, which is known to them, even though the self-governing territories have the power to promulgate original legislation. It also places undue pressure on Judges because of the different legislation applicable in such territories. Another problem is the training of the officials responsible for labour matters, which is generally based on South African principles.

Acknowledgement: Conference Document on 'Legislation in respect of labour relations in the Self-Governing Territories'. (Conference of Ministers of Interior held in Pretoria on the 14th of October 1991).

Annexure C

Labour legislation applicable prior to the attainment of self-governing status by Venda (1973), Gazankulu (1973) and Lebowa (1972).¹

ACT NAME, NO AND YEAR	:	COMMENT
1. Black Land Act No 27 of 1913	:	Repealed in RSA by Act No 108 of 1991 (repeal also applicable in KaNgwane, Lebowa and Gazankulu). A number of Regulations made in terms of this Act remain applicable.
2. Black Administration Act No 38 of 1927	:	Substantial amendment by Act No 108 of 1991 (amendment also applicable in Lebowa, KaNgwane and Gazankulu) Regulations passed in terms of this Act remain applicable.
3. Wage Determinations Validation Act No 16 of 1935	:	Repealed in RSA by Act No 94 of 1981
4. Development Trust and Land Act No 18 of 1936	:	Repealed in RSA by Act No 108 of 1991 (repeal also applicable in Lebowa, KaNgwane and Gazankulu). A number of Regulations made in terms of this Act remain applicable.
5. Factories, Machinery and Building Work Act No 22 of 1941	:	Repealed in RSA by Act Nos 3 and 6 of 1983
6. Workmen's Compensation Act No 30 of 1941	:	Applicable, as amended, in Lebowa, KaNgwane, Gazankulu and RSA
7. Apprenticeship Act No 37 of 1944	:	Repealed in RSA by Act No 56 of 1981
8. Registration for Employment Act No 34 of 1945	:	Repealed in RSA by Act No 62 of 1981
9. Black Building Workers Act No 27 of 1951	:	Repealed in RSA by Act No 95 of 1980

¹ Although Lebowa and Gazankulu have not enacted legislation to repeal or amend the Acts referred to in this Annexure (as is the case in the Republics of South Africa and Venda), this does not necessarily mean that all the legislation described here is applied in the self-governing territories.

Where an Act was repealed or amended in RSA prior to 31 August 1984, such repeal or Act, as amended up until that date, is applicable in KaNgwane. For example Labour Relations Act No 28 of 1956 is applicable in KaNgwane as amended by Act No 81 of 1984.

- | | | | |
|-----|--|---|--|
| 10. | Training of Artisans Act No 38 of 1951 | : | Repealed in RSA by Act No 56 of 1981 |
| 11. | Black Services Levy Act No 64 of 1952 | : | Repealed in RSA by Act No 16 of 1979 |
| 12. | Black Labour Relations Regulation Act No 48 of 1953 | : | Repealed in RSA by Act No 57 of 1981 |
| 13. | Mines and Works Act No 27 of 1956 | : | RSA amendments to the Act are not applicable in Lebowa and Gazankulu. |
| 14. | Labour Relations Act No 28 of 1956 (previously known as Industrial Conciliation Act) applicable in Lebowa and Gazankulu as amended by:
Act No 41 of 1959;

Act No 18 of 1961;
Act No 43 of 1966;
Act No 61 of 1966; and
Act No 21 of 1970.
- definition of 'employee' excludes African workers.

- Proclamation R 102 of 1972: provides that the Act only applies to persons 'other than Bantu' in the areas which now comprise Lebowa and Gazankulu. | : | Amended in the RSA by:

Act No 94 of 1979 (definition of 'employee' amended);
Act No 95 of 1980;
Act No 56 of 1981;
Act No 57 of 1981;
Act No 51 of 1982;
Act No 2 of 1983;
Act No 81 of 1984;
Act No 97 of 1986;
Act No 83 of 1988; and
Act No 9 of 1991.

Proclamation R102 of 1972 no longer applicable in RSA. |
| 15. | Workmen's Wages Protection Act No 40 of 1956 | : | Repealed in RSA by Act No 94 of 1981. |
| 16. | Wage Act No 5 of 1957

In terms of Proclamation R 102 of 1972 (applicable in Lebowa and Gazankulu), any determinations in terms of sect 1 of this Act shall not apply to African workers in Lebowa and Gazankulu. | : | RSA amendments to the Act are not applicable in Lebowa and Gazankulu.

Proclamation R 102 of 1972 no longer applicable in RSA |
| 17. | Black Transport Services Act No 53 of 1957 | : | Repealed in RSA by Act No 114 of 1991 |
| 18. | The Pneumoconiosis Compensation Act No 64 of 1962 | : | Repealed in RSA by the Occupational Diseases in Mines and Works Act No 78 of 1973. |
| 19. | Black Labour Act No 67 of 1964 | : | Repealed in RSA by Act No 4 of 1984 |
| 20. | Shops and Offices Act No 75 of 1964 | : | Repealed in RSA by the Basic Conditions of Employment Act No 3 of 1983 |

21. Unemployment Insurance
Act No 53 of 1946

: Repealed by Act No 30 of 1966 and is
applicable, as amended, in Lebowa,
Gazankulu and RSA.

Addendum D

INCOME, EXPENDITURE PATTERNS AND POVERTY LINES

by

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1. INTRODUCTION

The statistics on the income levels, expenditure patterns and the minimum living levels within the northern and eastern Transvaal regions are dealt with in Sections 2, 3 and 4 respectively. The unavailability of data on all these areas forced certain data to be used as representative of all the areas.

2. INCOME

Due to the unavailability of data, income statistics for analysing the welfare of the people in the northern and eastern Transvaal region were restricted to the following: an overview of the changes in the population distribution according to income groups between 1980 and 1991, the changes in personal disposable income between 1970 and 1985, the average personal income *per capita* and household in the urban areas of the region in 1991, and the changes in the sources of income between 1976 and 1989.

2.1 Population distribution according to income groups

Tables 1 and 2, Annexure D, illustrate the population distribution according to different income groups. The data from the 1980 and 1991 population censuses were used. The income data in both the censuses include pensions, dividends, interest, other regular income and the estimated cash value of fringe benefits provided by employers. They exclude irregular income such as inheritances, matured insurance policies, household allowances and pocket money transferred from one member of the family to another. In the census questionnaire, each individual had to state his or her total income for the 12 month period prior to the census date. Different income groups, however, were used in the two censuses and although the same income groups were used for all the population groups in the 1991 population census, a different set of income groups were used for the white population in the 1980 population census. Therefore, in order to compare the 1980 and the 1991 data, a number of income groups were combined in Tables 1 and 2.

The percentage of people with no form of income is very high in the northern and eastern Transvaal regions, irrespective of the population group. One of the major drawbacks of the population census income data is that the total population is classified into income groups. The 'no income' category (none), therefore, includes all those who have not earned any form of income in the 12 months prior to the census date, even children under the age of 14. In an attempt to rectify this, the age group 0-14 years was subtracted from the total number of people with no income, the assumption being that children under the age of 14 years are not legally allowed to be formally employed. Nevertheless, despite this adjustment, the percentage of people within the 'no income' group remained very high.

From Tables 1 and 2 it is evident that the population distribution between income groups had changed dramatically during the last decade. The consistently high inflation rates of the 1980s and the consequent increases in wage rates had resulted in a major shift from the lower income groups to the higher income groups. In the eastern Transvaal (Table 2), the percentage of whites in the less than R6 000 category dropped from 30,7% to 10,8% and that of Africans from 57,2% to 35,1% for the same period. The lower percentage of Africans in the less than R6 000 income group in the northern Transvaal is the direct result of the high male absenteeism rate in the northern Transvaal. The same trends hold true for the less than R1 000 and the R1 000 to R6 000 income groups with the exception

of the African population group, which experienced an increase in the R1 000 to R6 000 income group, from 5,6% and 16,7% in 1980 to 18,2% and 29,1% in 1991 for the northern and eastern Transvaal respectively.

These increases resulted from the move of the non-urban Africans and African females in the <R1 000 income group mainly to the R1 000 to R6 000 income group. The urban Africans and the African males, however, moved towards the higher income groups. The population distributions per income group of the self-governing territories in the regions, namely Gazankulu, Lebowa and KaNgwane, all confirm the above (Tables 3, 4 and 5). In Gazankulu (Table 3), for instance, the percentage of the urban people in the R1 000 to R6 000 income group decreased from 27,53% to 15,7% between 1980 and 1991, but increased from 2,08% to 28,62% during the same period in the R6 000 plus income group. The same happened with the males in Gazankulu. However, the percentage of non-urban people in the R1 000 to R6 000 income group increased from 4,58% to 15,38% from 1980 to 1991 with an increase from 0,22% to 5,37% in the R6 000 plus group during the same period.

The welfare of the population has not increased as a result of this move to higher income levels. The consistently high inflation rates have eroded the purchasing power of the income earned. But most important of all is the fact that only those who did earn some income moved to higher income levels. A major part of the population did not earn any significant income at all. In 1991, 90,6% and 82,7% of the African population in the northern and eastern Transvaal, respectively, were still earning less than R6 000 per annum. These percentages include that portion of the population (15 years and older) that earned no income, that is 67,8% in northern Transvaal and 47,5% in the eastern Transvaal.

2.2 Personal disposable income

The population census income data indicate the population distribution between income groups and not the actual income earned by the people. To determine the actual income earned, a number of sources has to be used, since no single source gives a complete overview of the income earned in the regions. Limited income data, therefore, were used as representative of the income situation in the regions.

The personal income studies of the BMR provided data on the personal disposable income levels in the regions. The BMR defines personal income as being all current income earned or received from all sources by the inhabitants of an area. Personal disposable income is then calculated by subtracting direct taxes (mainly income tax) and compulsory employee's contributions to social security funds (mainly unemployment insurance funds) from personal income. The income figures at current prices do not reflect the decline in the purchasing power of the income over time, therefore real personal income and subsequently real personal disposable income is calculated by deflating the income at current prices by the consumer price index.

Table 6 depicts the real personal disposable income of the regions in total as well as that of the self-governing territories in the regions. The real disposable income figures range from 1970 to 1985 and are based on the 1985 prices. The figures are available on magisterial district level and are currently being revised and updated to 1990 levels. The series of figures is currently the most comprehensive available and therefore widely used. The data and especially the trends in the income levels proved to be reliable, with the exception of a small number of areas where the 1985 income figures were influenced by external factors at the time of measurement, for example Venda.

The first significant feature in Table 6 is the changes in the population group's shares in total personal disposable income. From 1970 to 1985, the white population share had declined from 59,2% to 56,9% and from 47,7% to 37,4% in the eastern and northern Transvaal regions respectively, while that of the African population had increased from 39,5% to 56,9% and from 51,5% to 61,4% respectively. The share of the coloured and Indian population groups had remained fairly constant. The second significant feature is the remarkable drop in the rate of increase in personal disposable income for the period 1980 to 1985. For instance, the personal disposable income of the Africans in the eastern Transvaal increased at an average rate of 6,5% for the period 1970 to 1980, but dropped to an average annual increase of just 1,9% for the period 1980 to 1985 (Table 6). Although only the growth rates for the African population are provided in Table 6, the same trends also hold true for the other population groups.

The changes in growth rates of real personal disposable income are linked directly to the close relation between real personal income and real GDP. Real GDP increased at a slightly lower rate than real personal income from 1960 to 1975. In the period 1976 to 1980, real GDP increased at a higher rate than real personal income. In the period 1980 to 1985, real personal income growth was once again higher than real GDP growth, only to turn around again for the period 1985 to 1987. There is a pattern of relatively high and low growth rates for successive periods. As far as the share of components of the GDP is concerned, employees' remuneration represented a fairly constant percentage of the total, 57,3% for the period 1970 to 1980. But from 1980 to 1985, this share dropped sharply to approximately 50,5%. Although employees' remuneration is not the only component of personal income, it is certainly the most important part. A drop in the share of employees' remuneration generally heralds a lower growth rate in real personal income compared to that of real GDP, explaining the lower growth rate in real personal income from 1980 to 1985. This trend will repeat itself from 1990 onwards, a direct result of the massive increases in unemployment.

For the self-governing territories, one need only look at the personal disposable figures of the African population since those of the other population groups are either very small (coloureds and Indians) or show a drastic decline as a result of the self-governing status of the area (whites). The same trends as those in the eastern and northern Transvaal are evident in these areas. The figures for Venda show a decrease from 1980 to 1985, but this appears to be the result of some measurement problems during the specific period.

2.3 *Per capita and household income*

Unpublished data from the Development Bank of Southern Africa (DBSA) (Table 7) and data from the BMR's income and expenditure studies on Venda (Table 8) were used as indications of the general trends in the average personal *per capita* and per household income. The DBSA data (Table 7) indicate the average personal income *per capita* and household for the urban areas on a monthly and annual basis for 1991. These figures, although very low, are higher than the actual *per capita* and household figures in the regions, since they do not take into consideration the very low income levels of the rural areas. The average income *per capita* and per household for Venda (Table 8) prove this. The higher *per capita* and household incomes in the total eastern and northern Transvaal compared to that of the self-governing territories are the direct result of the higher income levels of the white population present in the regions. The DBSA data are also only available for 1991.

To determine the changes in *per capita* and household income over the last decade, the changes in the Venda income figures (Table 8) had to be used as an indication since Venda was the only area where these figures were surveyed on a regular basis. The Venda data are, however, at current prices and, therefore, reveal only the increases in the income levels as a result of increased wages, pensions, etc, and not whether the purchasing power of the people has increased or decreased. The current personal income levels in Venda have increased dramatically since 1980 from approximately R65 million to approximately R626 million in 1989. The reason for this seems to be the drastic increase in government salaries, especially those of teachers and nurses, and old-age pensions. The average number of earners per household has also increased.

From Table 8, it is also evident that the sources of income have changed drastically over the last decade. In 1976, salaries and wages were responsible for 36,2% of the income received and this share increased to 60,7% in 1989. The percentage of income received from farming varies from year to year depending on the weather conditions. The income from this source, however, dropped from 10,2% in 1976 to 3,9% in 1989. Income received from family contributions dropped from 32,3% to only 11,0% during the same period.

3. HOUSEHOLD EXPENDITURE

The unavailability of data pertaining to household expenditure on a regional and subregional level is a major drawback to the proper analysis of trends in household expenditure. Numerous studies on income and expenditure patterns have been done, on an *ad hoc* basis only, for certain areas or

population groups. The only exception is the study done on Venda by the BMR. The DBSA *Economic and Social Memoranda* (Spangenberg, 1989 and Spangenberg & Meintjes, 1989) for Regions G and F, made some estimates of the total cash expenditure in the regions during 1986. These estimates are also based on the income and expenditure studies of the BMR.

Household expenditure, as calculated by BMR, comprises the expenditure (cash and in kind) of private households on goods and services, irrespective of their durability. Households are limited to private individuals resident in the area and do not include non-profit institutions and funds. Household expenditure therefore covers all outlays and consumption in kind by private individuals during a particular period. The norm for calculating household expenditure is not the value of purchases, but the sum expended during the period concerned, irrespective of the date and value of purchases. The household expenditure of a population group or area does not mean that all the goods and services were consumed by the particular population group or in the area concerned. For instance, the value of food received by domestic servants is classified under their employer's household expenditure.

Table 9 combines the results of the DBSA's *Memoranda* on Regions G and F, the BMR's expenditure studies for Venda and the BMR study on non-metropolitan African towns in an attempt to indicate the percentage distribution of the cash expenditure per main expenditure group of the regions. Once again, the cash expenditure in Venda was used to indicate the structure and trends of cash expenditure in the African areas of the eastern and northern Transvaal regions. The cash expenditure of the non-metropolitan African towns is included to indicate any possible structural changes in the cash expenditure patterns of Africans between 1989 and 1991.

From Table 9, it is evident that the top five expenditure groups are food, clothing, housing, transport, furniture and equipment, the major expenditure being on the food group. The expenditure patterns of the regions and the pattern for Venda are more or less the same. There were no major changes in the expenditure patterns in Venda from 1980 to 1989. The only two changes worth mentioning are the drop of 3,6 percentage points in the food group and the increase of 5,7 percentage points in the transport group. If the Venda 1989 expenditure pattern is compared with the 1991 pattern of the non-metropolitan African towns, it becomes clear that cash expenditure patterns have remained fairly constant over this period.

Table 9 also depicts the expenditure patterns on the major items in the food group. The major portion of the average cash expenditure on food was spent on grain products, followed by meat products and vegetables, except in the eastern Transvaal where more was spent on meat products than on grain products. The only real difference between the total Eastern/Northern Transvaal regions and Venda as far as food expenditure patterns are concerned was the expenditure on milk and sugar products. The eastern and northern Transvaal regions spent more on milk products, while more was spent on sugar products in Venda and the non-metropolitan African towns. Once again, no major changes had taken place in the expenditure patterns on food items in the African areas of the regions.

Table 10 depicts the percentage distribution of household expenditure in Venda per main expenditure group and income group for 1986 and 1989. It is evident from the table that, in the higher income groups, lower percentages were spent on food and clothing but higher percentages were spent on transport, insurance, recreation, income tax and savings. In an attempt to identify any structural changes in expenditure patterns per income group, the 1986 expenditure patterns in Venda were compared with the 1989 patterns. Although different income groups were used, the two sets could still be compared and no major changes were perceived to have taken place in the expenditure patterns per income group.

The differences in the expenditure patterns between the white and African population groups per income group are evident from Table 11. Although the information is only available for two income groups, it is sufficient to show that differences in expenditure patterns not only exist between the two population groups but also between the different income groups within the population groups. It is important to note that the expenditure patterns of people do not just depend on their levels of income, but also on a number of other factors such as culture, their distance from markets, etc. Table 11 highlights the point that expenditure studies should be done for all population groups at a number of income levels.

4. MINIMUM LIVING LEVELS

The information from *The Minimum and Supplemented Living Level* studies of the BMR (1992b) was used to indicate the changes in the minimum financial requirements needed by a family to survive in the current economic and social context. The MLL is the lowest sum possible on which a specific size family can live in our existing social context. The BMR defines the MLL as follows: '*MLL denotes the minimum financial requirements of members of a family if they are to maintain their health and have acceptable standards of hygiene and sufficient clothing for their needs*'. There is, however, no such thing as a general or universal minimum living level. In any community a minimum living level varies from one family to another, depending on its size, the age structure of its members and their sex composition. For this reason the MLL has to be calculated for as many different types of families as possible.

In calculating the MLL, the BMR has made provision for the following items: food, clothing, compulsory payments to local authorities in respect of rent, miscellaneous services, water, electricity, fuel and light, washing and cleaning materials, transport, medical and dental services and the replacement of household equipment. The quantities allowed for each of these items are strictly determined by a specific set of norms. A complete list of these norms is available in the BMR report on Minimum Living Levels.

The BMR also defines a SLL which makes provision for more items than the MLL. By present standards some of these items may be regarded as necessities and others as desirable amenities for life. To calculate the SLL of a family the BMR added the following items to the MLL: recreation and entertainment, personal care, extra cleaning materials, clothing, transport, food household equipment, additional rent and taxes and contribution to pension, unemployment, medical and burial funds. The items are also determined by specific norms.

Tables 12 and 13 show the MLL and SLL monthly financial requirements of biological families from August 1987 to August 1992. This short period was used because of changes in the method for calculating the MLL and SLL after August 1987. Before August 1987 those levels were calculated according to the actual size of households, their age structure and sex composition. The use of the household as a norm has come under increasing pressure as opposite trends in household and family structures have emerged. Since 1980, lower birth rates were expected resulting in a relative decrease in the number of children between the ages of 7 and 18 and a relative increase in the number of children over 18. From this, one would expect a gradual decrease in the size of an average household. In actual fact the opposite has occurred, the reason being that the percentage of other members in the household had increased rapidly.

To overcome this problem the BMR decided to use the biological family as a norm in their calculations rather than the household. The biological family comprises the man, woman and their children (biological and adopted) who are financially dependent on the father and/or mother.

Tables 12 and 13 show that the minimum financial requirements of a family almost doubled over the five year period from August 1987 to August 1992. These increases are mainly the result of the consistently high inflation rates experienced during this period. However, changes in the sex composition and the age structure of the families also led to increases in the MLL and SLL. With relatively fewer younger children and more older children and adults in the family a larger food mass allowance is required and this led to an increase in the MLL and SLL. The change in age structure also gives rise to added financial requirements in categories such as clothing, personal care and recreation and entertainment, which are items allowed mainly for older children and adults. Those factors, along with the high increases in pension allowances were largely responsible for the higher cost increases of the SLL compared to the MLL.

The BMR calculated an increase in the weighted average MLL for African families in South Africa of 650,5% for the 15 year period from 1977 to 1992. The SLL increased by 667,3% over the same period. This is a disturbing trend in the context of the consistent increases in the number of unemployed and the number of people who had to rely on informal activities for their means of living (see Addendum F: Employment, unemployment and informal sector).

5. SUMMARY

Consistently high inflation rates throughout the 1980s had resulted in a major shift to higher income groups. Nevertheless this move did not mean that the welfare of the people had increased, the reason being that only those who received income had moved to higher levels of income. A major part of the population, especially the non-urban and female African population within the northern and eastern Transvaal regions had received less than R6 000 per annum. Of the 90,6% and 82,7% of the African population in these areas that earned less than R6 000 per annum, 67,8% in the northern Transvaal and 47,5% in the eastern Transvaal earned no income at all during 1991. The African population's share in the total personal disposable income increased from 39,5% to 56,9% and from 51,5% to 61,4% in the northern and eastern Transvaal respectively for the period 1970 to 1985. However, the rate of increase in personal disposable income of Africans dropped markedly during the same period. For instance, personal disposable income for Africans in the eastern Transvaal increased at an average rate of 6,5% for the period 1970 to 1980, but dropped to an average annual increase of 1,9% for the period 1980 to 1985. Over the last decade salaries and wages have become the main source of income in these regions representing 60,17% of all income in 1989, making people more vulnerable to the weakening of economic conditions within the regions and within the country as a whole. Income from farming and family contributions in contrast dropped to a mere 3,9% and 11,0% in 1989.

Food, clothing, housing, transport and furniture and equipment remain the five main expenditure items of households in the last decade. There were no major changes in the expenditure patterns within the regions or within the population groups. However, it did become evident that the expenditure patterns of all the population groups depended not only on income levels but also on factors such as culture, distances from markets, etc and that the expenditure patterns should be calculated for all the population groups on as many income levels as possible.

The minimum financial requirements of a biological family increased by more than 650% in South Africa for the 15 year period, 1977 to 1992. In the northern and eastern Transvaal regions this monthly financial requirement nearly doubled over the five year period 1987 to 1992. This is a disturbing trend when one compares it with the consistent increases in unemployment levels, erosion of household income through inflation and the number of people who rely on informal sector activities for their means of living.

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Table 1: Northern Transvaal 1): Population distribution according to income groups, 1980 and 1991.

Category	Year	Income groups						Total (%)
		None	< R1 000	R1 001 -R6 000	R6 001 -R10 000	R 10 000 +	Unspeci- fied	
		(%)	(%)	(%)	(%)	(%)	(%)	
Population group								
Whites	1980	31.26	5.20	28.54	21.72	10.93	2.34	100
	1991	27.78	1.60	9.71	3.55	55.48	1.88	100
Coloureds	1980	31.69	35.22	27.88	2.58	0.39	2.24	100
	1991	39.27	3.49	29.17	6.26	20.50	1.31	100
Indians	1980	43.22	5.67	26.63	13.79	7.40	3.28	100
	1991	37.69	2.84	9.87	4.30	42.97	2.33	100
Africans	1980	66.90	21.87	5.63	0.16	0.06	5.40	100
	1991	67.75	4.65	18.22	2.29	5.72	1.38	100
Urban								
Whites	1980	31.51	4.76	28.48	22.97	9.97	2.31	100
	1991	26.41	1.61	9.54	3.64	57.40	1.41	100
Coloureds	1980	35.35	26.43	33.14	2.78	0.33	1.96	100
	1991	39.62	3.19	22.60	7.42	25.66	1.51	100
Indians	1980	44.16	3.12	27.39	13.99	7.96	3.38	100
	1991	37.50	2.73	8.75	4.55	44.04	2.42	100
Africans	1980	45.61	28.58	21.75	0.62	0.22	3.21	100
	1991	50.07	4.13	22.21	5.39	16.47	1.74	100
Non-urban								
Whites	1980	30.85	5.94	28.66	19.66	12.51	2.38	100
	1991	30.07	1.62	10.36	3.49	51.55	2.91	100
Coloureds	1980	23.76	54.26	16.49	2.13	0.53	2.84	100
	1991	38.91	3.89	37.42	4.80	13.91	1.07	100
Indians	1980	34.73	28.74	19.76	11.98	2.40	2.40	100
	1991	39.91	4.13	22.48	1.38	30.73	1.38	100
Africans	1980	68.60	21.33	4.33	0.12	0.04	5.57	100
	1991	69.62	4.70	17.72	1.97	4.65	1.34	100
Males								
Whites	1980	12.62	4.00	24.55	36.30	20.52	2.02	100
	1991	12.70	1.30	7.77	2.39	73.88	1.96	100
Coloureds	1980	20.45	33.11	39.21	4.86	0.45	1.92	100
	1991	29.11	2.60	31.85	7.15	27.88	1.42	100
Indians	1980	12.74	5.10	38.59	25.85	14.56	3.16	100
	1991	13.89	2.10	10.06	3.69	67.29	2.97	100
Africans	1980	54.50	27.39	11.20	0.34	0.12	6.46	100
	1991	57.62	4.54	22.32	4.23	9.62	1.66	100
Females								
Whites	1980	51.13	6.49	32.80	6.18	0.71	2.69	100
	1991	43.14	1.90	11.68	4.73	36.75	1.80	100
Coloureds	1980	42.73	37.29	16.76	0.33	0.33	2.55	100
	1991	49.23	4.36	26.54	5.38	13.27	1.21	100
Indians	1980	72.74	6.23	15.04	2.12	0.47	3.41	100
	1991	61.80	3.59	9.68	4.91	18.33	1.69	100
Africans	1980	75.59	18.00	1.72	0.04	0.01	4.65	100
	1991	74.91	4.72	15.32	0.92	2.96	1.17	100

1) Including Gazankulu and Lebowa, excluding Venda.

Source: Central Statistical Service, 1985 and 1992

Table 2: Eastern Transvaal 1): Population distribution according to income groups, 1980 and 1991.

Category	Year	Income groups						Total (%)
		None	< R1 000	R1 001 -R6 000	R6 001 -R10 000	R 10 000 +	Unspeci- fied	
		(%)	(%)	(%)	(%)	(%)	(%)	
Population group								
Whites	1980	31.95	4.75	25.94	22.30	12.29	2.77	100
	1991	29.58	1.56	9.25	3.42	54.27	1.91	100
Coloureds	1980	29.23	33.00	28.15	5.49	0.59	3.54	100
	1991	40.83	3.76	25.79	6.58	20.36	2.68	100
Indians	1980	43.17	5.44	31.59	12.33	3.63	3.85	100
	1991	39.84	2.75	11.36	3.51	41.19	1.34	100
Africans	1980	38.34	40.46	16.72	0.13	0.03	4.32	100
	1991	47.53	6.02	29.11	6.26	8.89	2.19	100
Urban								
Whites	1980	31.81	4.51	27.18	22.41	11.45	2.63	100
	1991	29.43	1.51	8.72	3.48	55.17	1.69	100
Coloureds	1980	23.84	30.34	34.37	6.78	0.80	3.88	100
	1991	43.71	2.82	22.31	6.02	22.11	3.03	100
Indians	1980	41.85	4.46	32.83	13.16	3.64	4.06	100
	1991	41.34	2.75	11.39	3.39	39.74	1.40	100
Africans	1980	36.04	31.05	29.37	0.21	0.05	3.27	100
	1991	50.60	5.21	23.73	5.83	12.24	2.39	100
Non-urban								
Whites	1980	32.13	5.08	24.19	22.14	13.47	2.97	100
	1991	30.02	1.71	10.80	3.25	51.65	2.57	100
Coloureds	1980	37.39	37.04	18.72	3.54	0.27	3.04	100
	1991	31.39	6.84	37.21	8.41	14.61	1.53	100
Indians	1980	48.76	9.59	26.30	8.80	3.61	2.93	100
	1991	29.98	2.81	11.15	4.33	50.76	0.97	100
Africans	1980	39.18	43.93	12.06	0.11	0.02	4.70	100
	1991	45.87	6.34	31.54	6.53	7.61	2.11	100
Males								
Whites	1980	10.52	3.70	22.14	38.17	23.17	2.29	100
	1991	12.90	1.14	7.97	2.33	73.76	1.91	100
Coloureds	1980	15.46	29.34	40.46	10.31	1.06	3.37	100
	1991	31.43	3.16	24.72	8.15	29.75	2.78	100
Indians	1980	11.68	5.19	48.98	23.93	7.14	3.07	100
	1991	13.80	1.85	10.60	4.27	68.15	1.33	100
Africans	1980	21.93	47.05	26.65	0.22	0.05	4.09	100
	1991	32.68	5.22	34.75	10.54	14.31	2.50	100
Females								
Whites	1980	54.87	5.86	30.01	5.32	0.65	3.29	100
	1991	46.98	2.00	10.60	4.57	33.94	1.92	100
Coloureds	1980	44.35	37.02	14.63	0.19	0.06	3.73	100
	1991	51.06	4.41	26.96	4.87	10.14	2.57	100
Indians	1980	74.22	5.68	14.43	0.90	0.17	4.61	100
	1991	68.64	3.76	12.21	2.68	11.37	1.35	100
Africans	1980	57.58	32.72	5.08	0.03	0.01	4.58	100
	1991	64.27	6.93	22.75	1.43	2.79	1.84	100

1) Including KaNgwane

Source: Central Statistical Service, 1985 and 1992

Table 3: Gazankulu: Population distribution according to income groups, 1980 and 1991.

Category	Year	Income groups						Total
		None	< R1 000	R1 001 -R6 000	R6 001 -R10 000	R 10 000 +	Unspeci- fied	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)
Urban	1980	49.91	18.33	27.53	1.26	0.82	2.15	100
	1991	50.88	2.79	15.70	4.21	24.41	2.01	100
Non-urban	1980	72.25	17.93	4.58	0.16	0.06	5.02	100
	1991	72.92	5.37	15.38	1.69	3.67	0.97	100
Males	1980	57.46	23.16	12.27	0.49	0.23	6.38	100
	1991	63.68	5.44	17.29	3.40	8.86	1.33	100
Females	1980	79.03	15.06	1.77	0.04	0.01	4.09	100
	1991	76.30	5.04	14.21	0.90	2.69	0.86	100
Total	1980	71.35	17.94	5.51	0.20	0.09	4.91	100
	1991	71.42	5.20	15.40	1.86	5.08	1.04	100

Source: Central Statistical Service, 1985 and 1992

Table 4: Lebowa: Population distribution according to income groups, 1980 and 1991.

Category	Year	Income groups						Total
		None	< R1 000	R1 001 -R6 000	R6 001 -R10 000	R 10 000 +	Unspeci- fied	
		(%)	(%)	(%)	(%)	(%)	(%)	(%)
Urban	1980	44.62	24.00	26.23	0.79	0.23	4.13	100
	1991	55.91	3.17	16.79	5.19	17.59	1.34	100
Non-urban	1980	70.18	17.39	4.70	0.16	0.05	7.51	100
	1991	75.83	3.92	12.74	1.82	4.33	1.37	100
Males	1980	54.24	22.09	13.51	0.47	0.15	9.52	100
	1991	66.20	3.92	15.57	3.86	8.74	1.70	100
Females	1980	76.68	15.35	2.09	0.05	0.02	5.82	100
	1991	79.32	3.81	11.56	0.94	3.23	1.15	100
Total	1980	68.11	17.93	6.45	0.21	0.07	7.24	100
	1991	74.12	3.85	13.15	2.10	5.42	1.37	100

Source: Central Statistical Service, 1985 and 1992

Table 5: KaNgwane: Population distribution according to income groups, 1980 and 1991.

Category	Year	Income groups						Total (%)
		None	< R1 000	R1 001 - R6 000	R6 001 - R10 000	R 10 000 +	Unspecified	
		(%)	(%)	(%)	(%)	(%)	(%)	
Urban	1980	63.74	20.46	12.89	0.33	0.13	2.45	100
	1991	59.34	3.42	16.68	5.43	12.60	2.52	100
Non-urban	1980	61.94	23.50	6.22	0.20	0.06	8.09	100
	1991	69.22	4.96	15.46	3.07	5.44	1.84	100
Males	1980	45.65	30.81	13.50	0.41	0.13	9.51	100
	1991	55.69	5.58	20.27	5.87	10.15	2.44	100
Females	1980	73.22	18.17	2.05	0.07	0.02	6.46	100
	1991	77.38	4.15	12.06	1.46	3.42	1.53	100
Total	1980	62.06	23.29	6.69	0.21	0.06	7.69	100
	1991	67.98	4.77	15.62	3.37	6.34	1.92	100

Source: Central Statistical Service, 1985 and 1992

Table 6: Personal disposable income, 1970 - 1985 (1985 prices) (R million)

Area	Year		Whites	Coloureds	Indians	Africans	Total	Average annual increase in personal disposable income for Africans	
								1970 - 1980	1980 - 1985
Eastern Transvaal 1)	1970	No.	1 137.5	7.4	19.1	758.4	1 922.4	6.5	1.9
		%	59.2	0.4	1.0	39.5	100		
	1980	No.	1 949.8	45.2	32.6	1 423.9	3 451.5		
		%	56.5	1.3	0.9	41.3	100		
	1985	No.	2 169.4	42.3	35.1	1 566.7	3 813.5		
		%	56.9	1.1	0.9	41.1	100		
Northern Transvaal 2)	1970	No.	672.8	2.8	9.4	726.7	1 411.7	6.1	3.8
		%	47.7	0.2	0.7	51.5	100		
	1980	No.	898.4	9.0	16.8	1 313.9	2 238.1		
		%	40.1	0.4	0.8	58.7	100		
	1985	No.	967.1	12.4	18.0	1 586.6	2 584.1		
		%	37.4	0.5	0.7	61.4	100		
KaNgwane	1970		4.7	-	-	71.2	75.9	11.3	8.3
	1980		15.5	1.4	-	208.4	225.3		
	1985		5.2	2.5	-	310.0	317.7		
Gazankulu	1970		5.2	0.1	-	60.4	65.7	10.5	8.7
	1980		13.1	1.1	0.3	163.5	178.0		
	1985		9.1	1.2	0.3	248.6	259.2		
Lebowa	1970		44.2	0.1	0.1	275.6	320.0	8.4	5.5
	1980		31.4	0.3	0.1	617.7	649.5		
	1985		18.8	0.2	-	806.4	825.4		
Venda	1970		4.7	-	-	84.8	89.5	9.6	-1.9
	1980		10.2	-	-	211.3	221.5		
	1985		8.5	-	-	191.5	200.0		

1) Including KaNgwane

2) Including Gazankulu, Lebowa and Venda

Source: Van Wyk H de J, 1989.

Table 7: Average personal income per capita and per household for the urban areas of the regions, 1991 (Rand)

Area	Monthly		Annually	
	Per capita	Per household	Per capita	Per household
Eastern Transvaal 1)	349	1 807	4 185	21 687
KaNgwane	122	728	1 468	8 738
Northern Transvaal 2)	276	1 488	3 316	17 861
Gazankulu	117	704	1 409	8 443
Lebowa	117	703	1 406	8 438
Venda	203	1 232	2 435	14 785

1) Including KaNgwane

2) Including Gazankulu, Lebowa and Venda

Source: Development Bank of Southern Africa, 1993.

Table 8: Venda: Average income and sources of income, 1976 to 1989

Category	1976	1980	1983	1986	1989
Total income (R '000)	53 708	64 098	143 573	344 453	625 030
Average income (Rand)					
per household	805	1 056	2 044	4 296	7 426
per capita	161	208	377	729	1 208
Sources of income (%)					
Salaries and wages	36.2	39.3	56.2	58.5	60.7
Contributions	32.3	30.5	25.0	14.9	11.0
Farming	10.2	4.9	1.0	5.0	3.9
Other	21.3	25.3	17.8	21.6	24.4
Average number of earners and recipients of income per household	1.21	1.27	1.39	1.56	1.60

Source: Martins, J H, 1986 and 1989

Table 9: Percentage distribution of cash expenditure by main expenditure group						
Main expenditure group	Eastern Transvaal	Northern Transvaal	Venda	Venda	Venda	African non-metropolitan towns
	1986 (%)	1986 (%)	1980 (%)	1986 (%)	1989 (%)	1991 (%)
Food	28.2	35.5	43.1	38.5	39.5	36.8
Grain products	16.3	31.2	41.4	42.6	35.7	24.1
Meat products	32.5	23.0	19.3	17.7	22.6	30.1
Fish products	3.3	2.3	1.3	1.3	1.3	1.7
Fats & oils	4.6	3.9	2.3	3.1	3.1	3.6
Milk products & eggs	11.2	6.5	2.8	3.5	3.9	6.7
Vegetables	11.4	12.4	16.1	11.2	13.2	13.1
Fruits & nuts	5.0	5.4	2.7	5.7	6.4	6.7
Sugar products	2.5	6.2	7.4	7.3	6.7	6.3
Non-alcoholic beverages	4.4	3.6	2.6	2.8	2.6	3.8
Other	8.8	5.5	4.1	4.8	4.5	3.9
Clothing & footwear	9.0	9.1	10.0	9.5	9.9	9.0
Housing	15.8	11.1	3.8	5.3	4.1	9.6
Fuel & light	2.5	2.9	4.1	3.0	2.5	5.2
Transport	14.9	11.9	4.2	8.2	9.9	5.5
Medical care	2.0	1.3	0.5	0.5	0.5	2.5
Education	0.7	1.5	1.7	2.3	2.3	1.4
Recreation	2.1	1.1	0.3	0.1	0.2	0.3
Furniture & equipment	7.4	7.9	10.7	8.1	10.1	8.6
Alcoholic beverages	1.5	1.8	2.7	4.0	1.8	2.0
Cigarettes & tobacco	1.6	1.0	0.3	0.5	0.3	1.4
Cleaning materials	1.7	2.6	3.1	3.2	2.9	2.4
Personal care	3.0	3.0	2.1	2.4	2.2	3.0
Communication	1.2	0.9	0.7	0.6	0.5	1.5
Reading matter	0.9	0.6	0.3	0.3	0.4	0.5
Others	7.5	7.8	12.4	13.5	12.9	10.3
Total	100	100	100	100	100	100
Total cash expenditure (Rm)	2776.4	3841.3	141	312.8	556.1	1)

1) Only total cash expenditure per african household is available, R10 825.

Sources:

- 1) Spangenberg, J P and Meintjes C J, 1989.
- 2) Martins, J H, 1989.
- 3) Martins, J H, 1992.

Table 10: Venda: Percentage distribution of household cash expenditure by main expenditure item and income group, 1986 and 1989

Expenditure item	1986							1989						
	<R1500 (%)	<R1500- R2499 (%)	R2500- R3499 (%)	R3500- R4999 (%)	R5000- R7999 (%)	R8000 + (%)	Total (%)	<R2000 (%)	R2000- R2999 (%)	R3000- R4999 (%)	R5000- R9999 (%)	R10000+ (%)	Total (%)	
Food	62.0	53.7	50.2	45.7	39.9	24.2	38.5	60.0	59.2	56.9	46.5	27.0	39.5	
Clothing & footwear	8.4	11.0	10.4	10.2	10.2	8.6	9.5	10.1	7.6	8.8	10.6	10.0	9.9	
Housing	2.4	3.3	4.3	4.0	3.1	7.9	5.3	2.6	1.7	1.7	3.1	5.7	4.1	
Fuel & light	3.9	3.7	5.0	3.5	3.1	2.1	3.0	3.3	3.4	3.5	3.2	1.8	2.5	
Transport	2.4	4.0	4.8	5.2	10.0	11.7	8.2	2.6	3.7	4.4	6.6	14.4	9.9	
Medical care	0.4	0.6	0.6	0.5	0.5	0.4	0.5	0.4	0.6	0.4	0.5	0.6	0.5	
Education	2.9	2.2	2.2	2.2	2.8	2.1	2.3	2.0	1.7	2.2	2.3	2.4	2.3	
Insurance and funds	0.7	1.6	2.5	1.9	4.1	11.5	6.4	0.4	0.6	1.2	2.3	10.1	6.0	
Recreation	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.3	0.1	0.1	0.2	0.2	
Furniture & equipment	4.9	7.5	6.2	10.2	9.5	8.6	8.1	6.5	8.1	9.4	12.4	9.9	10.1	
Alcoholic beverages	2.7	2.7	2.4	3.2	2.3	1.7	2.3	2.2	3.3	1.8	2.3	1.3	1.8	
Cigarettes & tobacco	0.5	0.6	0.5	0.5	0.6	0.4	0.5	0.6	0.5	0.4	0.4	0.2	0.3	
Cleaning materials	5.4	4.2	3.6	3.8	3.0	2.2	3.2	5.2	4.2	4.1	3.7	1.7	2.9	
Dry-cleaning and laundry	0.0	0.3	0.4	0.5	0.9	0.9	0.7	0.0	0.4	0.4	0.5	0.8	0.6	
Personal care	1.9	2.7	2.3	3.2	2.9	2.1	2.4	2.3	2.4	2.7	2.7	1.9	2.2	
Communication	0.0	0.2	0.2	0.3	0.4	1.2	0.6	0.0	0.2	0.2	0.3	0.9	0.5	
Reading matter	0.1	0.4	0.1	0.3	0.2	0.4	0.3	0.2	0.0	0.3	0.4	0.5	0.4	
Miscellaneous	0.9	0.6	0.8	0.7	0.5	1.2	0.9	1.1	1.8	1.1	0.9	1.3	1.2	
Support of relatives	0.1	0.0	0.1	0.1	0.1	0.6	0.3	0.5	0.2	0.0	0.2	0.1	0.1	
Holiday expenses	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.4	0.2	
Income tax	0.1	0.0	0.3	0.2	0.8	5.3	2.5	0.0	0.1	0.3	0.9	8.7	4.7	
Savings	0.2	0.5	3.0	3.7	4.8	6.5	4.3	0.0	0.0	0.1	0.0	0.1	0.1	
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	

Source: Martins, J H, 1987 and 1989.

Table 11: Percentage distribution of African and White household cash expenditure by main expenditure group and income group, 1991

Main expenditure group	R7 500 - R19 999		R20 000 - R39 999	
	African (%)	Whites (%)	African (%)	Whites (%)
Food	38.6	22.8	21.9	18.9
Clothing & footwear	9.6	5.3	6.6	4.9
Housing	5.2	19.6	9.1	13.7
Fuel & light	5.7	0.4	2.7	0.2
Transport	4	9.1	15	17.5
Medical care	2.5	7.2	3.7	7.8
Education	1.4	0.1	0.8	1.3
Insurance and funds	3.5	5.8	9.3	7.4
Recreation	0.3	1.5	0.3	1.4
Furniture & equipment	11.2	4	9.9	4.2
Alcoholic beverages	3	0.6	1.3	0.6
Cigarettes & tobacco	1.7	0.5	1.1	0.6
Cleaning materials	2.6	1.6	1.7	1.3
Dry-cleaning and laundry	0.6	0.1	0.4	0
Personal care	3.3	4.1	2.5	3.1
Communication	1.7	4.7	1.9	2.5
Reading matter	0.5	0.9	0.6	0.5
Servants	0	4.2	0	3
Support of relatives	0.5	0.9	0.4	0.1
Holiday expenses	0.1	0.6	0.1	1.3
Income tax	0.8	2.2	6	6.9
Miscellaneous	1.8	3.5	1.9	2.8
Savings	1.4	0.3	2.8	0
Total	100	100	100	100

Source: Martins, J H, 1992.

Table 12: Northern Transvaal 1): Minimum Living Level and Supplemented Living Level monthly financial requirements of African biological families, August 1987 to August 1992.

Item	Number of persons per family												Average family			
	2		3		4		5		6		7				8 +	
	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992
Food Clothing Compulsory payments to local authority: 2) Fuel, light and electricity Washing and cleaning materials Education Transport 3) Medical 4) Replacement of household equipment	100.68	184.42	147.2	270.25	192.62	354.02	236.17	434.51	288.28	529.87	350.04	643.97	411.48	757.95	222.99	409.94
	33.18	57.44	46.21	80.31	55.39	96.94	70.58	123.47	81.91	143.36	93.42	164.55	125	219.29	75.2	131.63
	20.06	36.32	20.25	36.54	20.39	36.73	20.6	37.0	20.74	37.2	20.88	37.39	21.21	37.69	20.51	36.91
	29.95	51.88	31.33	54.3	32.37	56.13	33.77	58.54	34.82	60.35	35.86	62.15	37.43	64.89	34.57	57.7
	5.13	9.1	6.98	12.52	9.23	16.32	10.83	19.22	13.37	23.66	13.66	24.61	15.98	28.75	10.32	18.32
	0.33	0.18	0.27	0.14	1.17	0.66	1.65	0.92	2.43	1.33	3.56	1.99	3.54	2.03	1.61	0.9
	9.52	19.03	12.48	24.98	15.81	31.62	19.06	38.12	22.63	45.26	25.94	51.9	30.87	61.78	21.82	43.65
	8.31	22.56	9.53	25.89	10.63	28.85	11.62	31.55	12.49	33.9	13.24	35.95	14.37	39.02	11.26	30.57
	6.54	11.45	9.59	16.77	11.26	19.5	14.31	24.83	15.93	27.4	18.99	32.76	25.14	35.6	15.43	22.06
	213.7	392.38	283.84	521.7	348.87	640.77	418.59	768.16	492.6	902.33	575.59	1055.27	685.02	1247	413.71	751.68
Recreation and entertainment	13.01	19.77	16.75	24.7	17.79	25.5	23.09	32.86	25.1	34.23	27.74	37.12	34.94	46.04	23.31	32.31
Personal care	4.33	8.15	5.58	10.55	7.2	13.61	8.36	15.82	9.74	18.45	8.44	16.13	10.56	20.15	7.71	14.8
Extra washing and cleaning materials	0.29	0.82	0.42	1.02	0.54	1.56	0.66	1.9	0.77	2.23	0.89	2.57	1.06	3.07	0.62	1.78
Extra clothing	5.65	7.33	32.28	10.63	8.37	10.89	9.99	12.93	11.73	15.17	13.49	16.88	15.33	19.33	9.54	12.31
Extra transport	5.38	8.23	7.93	12.13	9.82	15.01	11.7	17.89	14.66	22.42	17.95	27.45	20.19	30.87	12.24	18.71
Extra food	24.55	43.15	35.14	62.22	49.38	86.86	65.06	114.1	78.89	138.56	97.78	171.96	116.69	205.33	59.24	104.1
Extra household equipment	1.63	2.91	1.63	2.91	1.63	2.91	1.78	3.18	1.78	3.18	1.78	3.18	1.78	3.18	1.78	3.18
Contributions to pension, unemployment and burial funds	16.21	28.7	18.13	30.87	19.66	36.41	21.94	39.34	23.64	42.66	25.39	44.95	26.79	47	18.28	38.1
Supplemented Living Level	284.75	511.44	401.7	676.73	463.26	833.52	561.17	1006.18	658.91	1179.23	769.05	1375.51	912.36	1621.97	546.43	976.77

1) Based on the information of the Africans in the Pietersburg area

1) Based on the information of the Africans in the Pietersburg area.

2) Including rent, miscellaneous services and water.

3) Includes transport to work place, shopping areas and schools.

4) Includes contributions to medical funds and dental expenses.

Source: Nel, P A & Dawson, N R A, 1987 and Martins, J H & Van Helden M J, 1992.

Table 13: Eastern Transvaal 1): Minimum Living Level and Supplemented Living Level monthly financial requirements of African biological families, August 1987 to August 1992.

Item	Number of persons per family												Average family			
	2		3		4		5		6		7		8 +		1987	1992
	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992	1987	1992		
		Rand		Rand		Rand		Rand		Rand		Rand		Rand		
Food	99.96	196.18	143.16	281.36	192.4	378.33	238.06	488.23	281.51	554.26	322.16	635.82	399.56	788.13	228.08	444.85
Clothing	32.46	58.28	44.23	80.02	53.64	98.7	64.36	118.89	75.34	139.47	81.48	152.28	106.67	196.68	62.34	114.76
Compulsory payments to local authority: 2)	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45	14.45
Fuel, light and electricity	31.67	58.5	33.14	61.22	34.24	63.26	35.71	65.98	36.81	68.03	37.92	70.06	40.14	74.14	35.38	65.44
Washing and cleaning materials	4.74	8.12	6.35	10.87	8.02	13.59	10.98	18.27	13.2	21.9	12.71	21.38	16.08	27.05	10.18	17.05
Education	0.17	0.1	0.42	0.25	1.68	0.94	2.47	1.39	3.11	1.73	4.34	2.46	4.01	2.29	2.1	1.18
Transport 3)	13.95	28.7	15.22	31.3	16.82	34.59	19.14	39.37	20	41.15	22.51	46.32	24.16	49.69	20.12	41.38
Medical 4)	7.33	19.9	8.42	22.87	9.39	25.49	10.26	27.84	11.03	29.95	11.69	31.73	12.35	33.53	9.82	26.67
Replacement of household equipment	6.45	11.92	9.57	17.21	11.04	19.87	14.17	25.16	15.59	27.72	18.72	33.04	23.37	41.08	13.42	23.91
Minimum Living Level	211.18	396.15	274.96	519.55	341.68	649.22	409.6	779.58	471.04	898.66	525.98	1007.54	640.79	1227.02	393.89	749.69
Recreation and entertainment	10.56	22.13	12.33	25.8	12.98	27.44	13.41	28.28	14.74	30.96	16.25	34.47	21.49	44.84	14.01	29.45
Personal care	3.77	7.65	5.299	10.73	6.12	12.3	7.26	14.58	8.32	16.68	7.68	15.08	9.82	19.46	6.84	13.73
Extra washing and cleaning materials	0.34	1.1	0.5	1.6	0.65	2.08	0.79	2.52	0.93	2.97	1.06	3.41	1.26	4.04	0.75	2.4
Extra clothing	6.4	8.24	7.94	10.3	7.9	10.29	8.55	11.2	9.55	12.5	8.38	10.76	12.35	15.81	8.65	11.25
Extra transport	4.59	8.23	6.18	11.07	8.47	15.18	10.36	18.56	12	21.51	12.51	22.42	16.2	29.05	9.74	17.46
Extra food	24.61	54.5	33.58	74.03	46.34	101.78	55.69	122.28	68.14	148.51	90.23	193.62	96.09	209.92	54.04	118.48
Extra household equipment	1.63	2.91	1.63	2.91	1.63	2.91	1.78	3.18	1.78	3.18	1.78	3.18	1.78	3.18	1.78	3.18
Contributions to pension, unemployment and burial funds	16.04	30.68	20.15	35.04	20.95	39.26	21.73	42.74	23.78	46.6	24.67	49.19	25.76	52.54	19.45	42.16
Supplemented Living Level	279.12	531.59	362.549	691.03	446.72	860.46	529.17	1022.92	610.28	1181.57	688.54	1339.67	825.54	1605.86	509.15	987.8

1) Based on the information of the Africans in the Nelspruit area.

2) Including rent, miscellaneous services and water.

3) Includes transport to work place, shopping areas and schools.

4) Includes contributions to medical funds and dental expenses.

Source: Nel, P A & Dawson, N R A, 1987 and Martins, J H & Van Helden, M J, 1992.

Addendum E

QUANTITATIVE ASPECTS OF INCOME DISTRIBUTION AND POVERTY

by

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1. INTRODUCTION

The purpose of this short note is to suggest some quantitative tools and techniques that allow the measurement of income distribution and poverty and the degree to which poverty can be alleviated in the eastern and northern Transvaal (Regions F and G) as a result of certain macroeconomic policy measures. In doing so, we are concerned with the link between the macroeconomic policy environment and the micro household environment. What follows does not claim to be original. It merely repeats and attempts to simplify observations previously made by the Urban Foundation (1991) and Kanbur (1987a, 1987b). The latter publications are used to such an extent that they are quoted below without specific acknowledgement. Section 2 introduces some basic poverty measures. Section 3 provides simple applications and Section 4 concentrates specifically on the impact of macroeconomic expenditure changes on poverty. Section 5 provides conclusions and tentative recommendations.

2. POVERTY MEASURES

According to Kanbur the most commonly used measure of poverty is the *head-count ratio*, which is the fraction of the number of income-receiving units below the poverty line of total income-receiving units in a society. A crucial ingredient of this basic statistic is a poverty line which for South Africa is available from among others the BMR (1992) in the form of their *minimum and supplemented living levels* estimated twice a year (February and August) for the non-white population groups and selected areas. BMR's MLL is used as a crude indicator for the poverty line for reasons of convenience of display until a more accurate or acceptable estimate is suggested. The 1992 MLL for both regions is estimated at around R750 per month. The MLL is also assumed to apply across population groups.

Furthermore, it is essential that some quantitative notion of income distribution be obtained in order to determine the actual number of people living below the poverty line. The most obvious source of information in South Africa is the population census for the year 1991 (CSS, 1992)¹. For the purposes of this initial investigation the income data for Regions F and G have been broken down into population groups, self-governing territories and the functional areas urban, semi-urban and non-urban².

An income distribution may be viewed as a number of income classes, their average or mean incomes and the number of people in these income classes. Subsequently this can be expressed as a (discrete or continuous) density and cumulative density (or income distribution) function. For purposes of display we will, in what follows, only deal with the discrete formulation. The MLL refers to households as a unit, and the income distribution of the 1991 population census to income-receiving

¹ Shortcomings of the 1991 population census have been discussed in Addendum A: Population distribution.

² A further disaggregation down the magisterial district level is pending on the availability of data on diskette.

individuals but we can divide the MLL by the number of income recipients per households as estimated by BMR. It may be noted that this is a very crude method since it assumes that the number of income recipients is constant across household income classes. For reasons of convenience and display we will, however, use this proxy as a starting point. At a later stage refinement can easily be accommodated. Using an average of 1,5 income earners per household, the MLL of R750 per month for a household is thus converted into an annual individual income of R6 000³.

A cumulative density or income-distribution function can be visualized by the well-known Lorenz curve. Closely related to this is the Gini-coefficient. Gini-coefficients are reported in columns 1 and 2 (see Tables 1 and 2 in Annexure E). Since the upper income group reported by the population census is open-ended it was necessary to estimate an upper boundary in order to determine the average *per capita* income. In column 1 the upper income class ranges from an annual income of R300 000 to R999 999. In column 2 the range is cut by half. As expected the Gini-coefficient is lower in column 2 but it is only a slight drop. Column 3 shows that the elasticity of the Gini-coefficient in respect of the upper income is very low. To come back to the *head-count ratio* mentioned in the beginning of this section we divide the number of poor units q shown in column 5 by total number of units n shown in column 4. The *head-count ratio* H can be found in column 6.

$$(1) \quad H = \frac{q}{n}$$

Given a cumulative income-distribution function for a society it is subsequently possible to determine the *income-gap ratio* by dividing the cumulative incomes received below the poverty line by a hypothetical cumulative income if all people below the poverty line would receive an income equal to the poverty line. The latter is in fact the product of the number of poor people (below the poverty line) and (income at) the poverty line. Put differently, the *income-gap ratio* is the average of the poverty gaps divided by the poverty line. If incomes (y) are arranged in ascending order and the poverty line is z then,

$$(2) \quad y_1 \leq y_2 \leq \dots \leq y_q \leq z \leq y_{q+1} \leq \dots \leq y_{n-1} \leq y_n$$

and the *income-gap ratio* I is

$$(3) \quad I = \frac{\sum_{i=1}^q (z - y_i)}{z \cdot \frac{q}{n}} = \frac{1}{z} (z - \bar{y}_p) = \frac{z - \bar{y}_p}{z} = 1 - \frac{\bar{y}_p}{z}$$

in which $\bar{y}_p$ is the average income of the poor units below the poverty line. The *income-gap ratio* reported in column 9 is an improvement compared to the *head-count ratio* since it shows what the latter ignores, and that is how poor the poor are. In contrast, the *income-gap ratio* remains constant if the number of poor units doubles since the average income below the poverty line does not change, that is it ignores the number of poor units. It is therefore suggested that the *income-gap ratio* I be multiplied by the *head-count ratio* H of equation (1) to arrive at the actual amount of income that is required to bring every poor person up to the poverty line under the assumption of perfect targeting.

$$(4) \quad P = HI = \frac{\sum_{i=1}^q (z - y_i)}{zn}$$

This ratio is referred to as the *per capita poverty gap* P (see column 10). Although perfect targeting is usually not possible it provides a lower bound on the transfer of resources required to eliminate poverty completely.

³ The MLL depends of course on the size of the household. Again for purposes of display an average household size is assumed although this could differ from region to region. The Urban Foundation (1991) has also used an average household size.

3. APPLICATION OF POVERTY MEASURES

The above poverty statistics can be applied to address a number of issues. In the first place it can be determined to what degree the principle of the *trickle down* of economic growth will contribute to the alleviation of poverty. More specifically, we could determine how long it will take for a certain growth rate to raise the average income of the poor to the level of the poverty line. This so-called *crossover time* can be determined with the use of the following equation

$$(5) \quad z = \bar{y}_p (1 + g)^T \Leftrightarrow T = \frac{\ln z / \bar{y}_p}{\ln(1 + g)} = \frac{\ln 1 / (1 - l)}{\ln(1 + g)}$$

in which $\bar{y}_p$ is the average income of the poor people below the poverty line, g is the real annual economic growth rate, T the *crossover time*, z the poverty line and l the *income-gap ratio* defined in equation (3). In columns 11-13 the *crossover time* is presented for growth rates of 1%, 2,5% and 5% per annum⁴. It can be seen that even the most optimistic growth rates require substantial periods of time before poverty is eliminated. Of course we use a very stylized example that moreover assumes that the income distribution and the poverty line remain fixed during the required period. Nevertheless, it can be used as an argument for an active redistribution policy. The growth rates for poor units may safely be assumed to be lower than average. Thus the calculated *crossover time* is likely to be a minimum. The *crossover time* gives us an indication of the magnitude and urgency of the problem and of the role of growth in overcoming it.

An active redistribution policy requires the transfer of income to people below the poverty line. If we assume that perfect targeting is possible then we can determine how much is necessary to eliminate poverty. Since perfect targeting is hardly feasible, the financial requirements can only be regarded as the *minimum financial costs* to eliminate poverty, that is to raise average poor income to the level of the poverty line. This can be calculated by taking the product of the *per capita poverty gap* P , the total number of units n and the poverty line z

$$(6) \quad c = Pzn = \sum_{i=1}^q (z - y_i)$$

It can easily be seen that this is actually the same as the cumulative poverty gap. The *minimum financial costs* are shown in column 14. This can furthermore be related to various other variables such as total income of the poor or total income of those who save. The former can be used to indicate the required redistribution effort and is reported in column 15.

4. THE IMPACT OF CHANGES IN MACRO EXPENDITURE ON POVERTY

Perfect targeting of public expenditures to those below the poverty line is usually not feasible because of administrative costs, corruption and manipulation. Furthermore, non-poor groups may benefit from an increase in government expenditure directed at alleviating poverty⁵. The question, therefore, is to what extent poverty will be alleviated as the result of a certain government expenditure policy. The policy may be an increase in government expenditure to alleviate poverty or a contraction within the framework of a structural adjustment programme. Two stylized instruments are considered: the increase of each income in a group by the same additive amount (noted by the subscript Δ), such as

⁴ It should be realised that these growth rates refer to the income of the poor, which may well be below the macro-economic or macro-regional growth rate.

⁵ If non-poor benefit from government expenditure to alleviate poverty, the poverty gap will not be influenced although the income distribution will worsen.

increases in state pensions or unemployment benefits; and the increase of each income by a given multiplicative factor (noted by the subscript θ), for example as the result of changes in the marginal tax rate or price support⁶.

Let us start with the additive expenditure instrument. For our purposes we consider the *per capita poverty gap* P as defined in equation (4) as our poverty measure. If K is the expenditure change parameter, the percentage change in the *per capita poverty gap* can be determined by

$$(7) \quad \frac{\delta P_{\Delta}}{P_{\Delta}} = \frac{\mu}{Z} \delta K$$

The subscript Δ indicates that we are dealing with an additive expenditure change and μ is the average income of the total number of units (for a derivation see the appendix). The analogue of equation (7) in case of a multiplicative change in expenditure, for example as a result of changes in the marginal tax rate or price support, can be determined by

$$(8) \quad \frac{\delta P_{\theta}}{P_{\theta}} = \frac{1-I}{I} \delta K$$

The subscript θ indicates that we are dealing with a multiplicative expenditure change (for a derivation see the appendix). Preliminary applications of equations (7) and (8) are reported in columns 18 and 19 respectively for $\delta K = 0.1$. Two points follow immediately from the above discussion. In the first place it appears that the additive expenditure change has a far more dramatic impact on poverty than the multiplicative expenditure change. In the case of region F an additive increase of 10% (column 18) will reduce poverty by 35.08%. A multiplicative increase of the same amount (column 19) will reduce poverty by only 6.57%. The reason is that an absolute amount will have a much larger impact on lower incomes. In contrast a multiplicative amount will have a much stronger effect on higher incomes. In other words, the results hold, not because the absolute amount going to poor units is larger, but because the same absolute amount to both groups constitutes a larger percentage increase for the poor units. It may also be noted that given the same expenditure amounts the reduction in poverty is much lower in region G. In the second place it can be seen that fairly simple sensitivity coefficients are required to translate macro expenditure changes into micro poverty changes.

It is possible that an expenditure increase financed through the budget deficit may have a negative effect on the economic growth rate and therefore the trickle down effect on poverty. The reverse is also possible. Suppose macro expenditure decreases by 10% as part of a structural adjustment programme to increase growth by 1%. If the expenditure is of the multiplicative nature and growth trickles down to the microlevel in the same manner as discussed in the previous section, it will take a number of years for the poor to regain the ground they lose as can be checked in Tables 1 and 2. In the case of an additive expenditure contraction, using the same example, the process would take even longer. Again these are very stylized examples, but they can be used as an argument to target expenditure contraction in such a way that the poor are protected.

5. CONCLUSIONS

In reality the determination of the impact of expenditure changes on poverty is not as simple as may appear from our stylized examples. In the first place the individual income earners in our example need to be replaced by groups of households. In the second place if we identify more than one sector in the economy which are influenced in different ways and if the various units in society are not mutually exclusive various additional relationships have to be identified in order to arrive at a single evaluation of poverty changes. A detailed discussion falls outside the scope of this short note but it may be noted that in the context of a typical less-developed country it is possible to identify tradable

⁶ From equation (2) it appears that we only sum poor incomes up to y_0 and Z is therefore not affected. According to equations (3) and (4) the poverty gap is not influenced by a change in non-poor incomes.

and non-tradable production activities and rural and urban units in typical World Bank fashion. Note that the latter distinction is mutually exclusive. A useful property of the *per capital poverty gap* P is that it is additively decomposable. Changes in poverty can thus be determined for individual (mutually exclusive) units and simply be summed to arrive at the change in total poverty, as can be checked in Tables 1 and 2. A more intricate setting than the simple distinction between tradables and non-tradables may be more appropriate for South Africa and needs further investigation. It can be shown, however, that where a unit receives incomes from two different sources, which are both influenced differently by some macro adjustment, the impact on poverty can still be determined in a relatively easy way. The only new element that is required is the mean income from each source of income below the poverty line.

A related issue is the concept of expenditure-switching which involves changing the composition of national output by means of relative price changes. We can think, again in World Bank fashion, of exchange rate policies, trade liberalization, etc. Finally, it is possible to introduce an index that indicates how sensitive our *per capital poverty gap* P is to transfers between poor units. In doing so it is possible to model a decrease in poverty as a result of transfers from high to low poor units and vice versa. P is raised to the power a to reflect 'poverty aversion'. If $a > 1$, transfers from high to low unit will decrease poverty.

In principle the impact of an assortment of changes in macroeconomic policies can be determined using a macroeconomic model such as a simple social accounting matrix (SAM) based model or an applied general equilibrium model. Such models will produce expected changes in household income for the number of households identified, which can in principle be translated into changes in poverty by determining the per capita poverty gap before and after the change in macroeconomic policy.

Because this study is based on a number of assumptions, it should be seen only as a pilot study with the intention of showing possible applications given an appropriate income distribution and MLL on a (sub)regional level.

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Annexure E

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Table 2: An analysis of income distribution and poverty in Region G (1991)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	gini coeff for upper boundary	gini coeff for upper boundary	elasticity of gini coeff in upper boundary	no total number of income earners	q below income earners	H below income earners	income of the poor below mline	income of the poor below mline	income gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio	poverty gap ratio
Urban	0.5002	0.5548	0.0180	201 288	76 427	37.87%	201 000	458 562	58.17%	21.33%	48	19	10	257 558	126.15%	11.33	1.82	34.22%	7.88%
Semi-urban	0.5888	0.5888	0.0000	8 285	3 174	50.50%	12 728	19 044	33.16%	18.75%	71	28	14	8 315	48.82%	0.85	1.64	48.52%	20.15%
Non-urban	0.8442	0.8388	0.0174	957 528	684 451	71.48%	1 444 162	4 106 708	64.83%	46.34%	128	51	26	2 062 544	184.37%	3.79	0.83	9.75%	5.62%
Total	0.8485	0.8434	0.0156	1 185 081	784 052	65.58%	1 657 887	4 584 312	63.84%	41.88%	107	43	22	2 929 415	178.51%	4.80	0.82	12.80%	5.87%
Whites																			
Urban	0.4626	0.4559	0.0280	47 624	6 614	13.89%	19 782	39 684	50.20%	8.97%	15	6	3	19 922	100.81%	10.20	1.70	33.87%	8.82%
Semi-urban	0.3995	0.3995	0.0000	1 993	186	9.81%	477	996	52.12%	5.11%	10	4	2	519	108.84%	13.85	2.31	44.30%	8.49%
Non-urban	0.5588	0.5382	0.0738	21 175	3 381	15.98%	9 840	20 283	51.46%	8.22%	17	7	4	10 443	106.13%	0.88	0.15	2.80%	0.42%
Total	0.4944	0.4825	0.0483	70 482	10 181	14.41%	30 079	60 983	50.86%	7.30%	16	6	3	30 884	102.88%	2.25	0.37	7.30%	8.74%
Coloureds																			
Urban	0.4789	0.4739	0.0210	1 404	557	39.64%	1 475	3 339	55.83%	22.13%	51	20	10	1 864	126.41%	13.01	2.17	38.82%	7.81%
Semi-urban	0.5758	0.5758	0.0000	6	4	66.67%	8	24	66.68%	44.45%	110	44	23	16	200.08%	14.87	2.44	38.89%	5.07%
Non-urban	0.5587	0.5587	0.0000	1 126	713	63.28%	1 877	4 275	56.09%	35.46%	101	41	21	2 368	127.74%	8.33	1.36	24.75%	7.87%
Total	0.5249	0.5219	0.0115	2 536	1 273	50.20%	3 360	7 638	56.01%	28.12%	70	28	14	4 278	127.33%	10.83	1.82	32.53%	7.85%
Asians																			
Urban	0.4795	0.4697	0.0284	1 517	257	16.91%	619	1 539	56.75%	10.10%	19	8	4	820	148.46%	27.01	4.50	75.33%	8.74%
Semi-urban	0.2692	0.2692	0.0000	2	1	25.00%	3	3	0.01%	0.00%	29	12	6	0	0.01%	13.00	2.17	25690.00%	119900.00%
Non-urban	0.5747	0.5747	0.0000	128	56	43.38%	115	333	65.32%	28.32%	57	23	12	218	188.37%	20.28	3.36	51.75%	5.31%
Total	0.4850	0.4787	0.0258	1 647	313	18.87%	738	1 875	66.85%	11.51%	21	9	4	137	154.11%	28.47	4.41	72.75%	6.46%
Blacks																			
Urban	0.5889	0.5539	0.0178	88 224	43 848	48.47%	112 797	281 888	58.93%	28.17%	88	28	14	149 091	132.18%	11.72	1.85	34.30%	7.57%
Semi-urban	0.3374	0.3374	0.0000	3 182	2 123	67.13%	8 141	12 735	36.08%	24.22%	112	45	23	4 584	56.44%	5.71	0.95	28.38%	17.72%
Non-urban	0.6173	0.6131	0.0134	537 885	387 451	73.89%	840 130	2 384 708	64.77%	47.86%	135	54	28	1 544 578	183.85%	8.44	1.07	18.56%	5.44%
Total	0.6171	0.6129	0.0135	829 271	443 222	70.43%	961 088	2 659 329	63.86%	44.98%	122	49	25	1 698 261	178.71%	7.17	1.20	18.72%	5.86%
Whites																			
Urban	0.5001	0.4825	0.0306	14 245	5 051	35.45%	13 025	30 303	57.02%	20.21%	44	18	9	17 278	132.85%	16.24	2.71	47.47%	7.54%
Semi-urban	na	na	na	0	0	na	0	0	na	na	na	na	na	na	na	na	na	na	na
Non-urban	0.6371	0.6332	0.0123	108 787	82 807	75.93%	183 525	485 638	67.01%	50.88%	143	58	29	332 114	203.10%	8.02	1.00	14.88%	4.87%
Total	0.6422	0.6379	0.0133	123 032	87 857	71.25%	176 551	525 942	66.43%	47.33%	125	50	26	340 391	197.90%	7.21	1.20	18.08%	5.88%
Coloureds																			
Urban	0.5303	0.5250	0.0202	48 254	20 302	42.07%	53 328	121 808	58.22%	23.85%	55	22	11	68 481	128.42%	13.52	2.25	40.07%	7.79%
Semi-urban	0.2406	0.2406	0.0000	1 422	881	61.95%	4 100	5 288	22.44%	13.90%	97	38	20	1 188	28.87%	8.13	1.02	45.56%	34.57%
Non-urban	0.8275	0.8224	0.0160	288 427	200 245	69.43%	428 874	1 201 470	64.32%	44.86%	119	48	24	772 798	180.28%	7.43	1.24	19.28%	5.55%
Total	0.6204	0.6155	0.0158	338 103	221 428	65.46%	488 101	1 328 565	63.41%	41.53%	107	43	22	842 464	173.31%	8.30	1.38	21.80%	6.77%

Source: Calculations based on 1991 population census

APPENDIX

The starting point for both the additive and the multiplicative expenditure instruments is equation (4) in which we substitute equation (2).

$$(A1) \quad P = HI = \frac{\sum_{i=1}^q (z - y_i)}{zn} = \frac{H}{zq} \sum_{i=1}^q (z - y_i)$$

First, examine the case of the additive expenditure instrument by increasing each income by the same additive amount Δ . Equation (A1) will change into

$$(A2) \quad P_{\Delta} = HI = \frac{H}{zq} \sum_{i=1}^q (z - y_i + \Delta)$$

A marginal response of the *per capita poverty gap* in respect of a change in D can be determined in the following way

$$(A3) \quad \frac{\delta P_{\Delta}}{\delta \Delta} = \frac{H}{zq} \sum_{i=1}^q 1 = \frac{H}{z}$$

The additive amount D can be expressed in terms of the average income of the total number of units μ by using the change parameter K so that

$$(A4) \quad \Delta = K \mu$$

and

$$(A5) \quad \frac{d\Delta}{dK} = \mu$$

Multiplying equation (A3) through on both sides with equation (A5) will result in

$$(A6) \quad \frac{dP_{\Delta}}{dK} = \frac{H}{z} \mu$$

Rearranging and dividing both sides by P will allow us to rewrite equation (A6) in terms of a relative change in the *per capita poverty gap* which will bring us back to equation (7) of the main document

$$(A7) \quad \frac{dP_{\Delta}}{P_{\Delta}} = \frac{H}{P_{\Delta}} \frac{\mu}{z} dK = \frac{\mu}{zI} dK$$

In the case of a multiplicative change each income will increase by the same factor, say θ . The equivalent to equation (A2) is

$$(A8) \quad P_{\theta} = \frac{H}{zq} \sum_{i=1}^q (z - y_i + \theta y_i)$$

A marginal response to the *per capita poverty gap* in respect of a change in θ can be determined in the following way

$$(A9) \quad \frac{P \theta}{d \theta} = \frac{H}{z q} \sum_{i=1}^q y_i = \frac{H}{z} \frac{1-l}{q} = \frac{H}{z} y_p = H \frac{\bar{y}}{z}$$

If we define the multiplicative change factor θ as the change parameter k , multiply both sides by dk , divide both sides by P and use equation (5) of the main document we arrive at equation (8) of the main document

$$\frac{dP \theta}{P \theta} = \frac{H}{P} \frac{\bar{y}}{z} dk = \frac{H}{Hl} (1-l) dk = \frac{1-l}{l} dk$$

Addendum F

EMPLOYMENT, UNEMPLOYMENT AND THE INFORMAL SECTOR

by

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1. INTRODUCTION

The purpose of this section is to compile statistics on employment, unemployment and informal activity levels in the northern and eastern Transvaal regions. It looks at the distribution of the potential labour force in these regions. The focus is on formal employment, unemployment, informal and subsistence sector activities.

2. AN ASSESSMENT OF THE LABOUR AND EMPLOYMENT SITUATION

To address the labour and employment situation within these regions, the labour force composition of the regions has to be assessed. According to international standards the labour force (or currently active population) comprises all persons of either sex who supply labour for the production of goods and services as defined by the United Nations systems of national accounts and balances. This comprises all persons who are employed, self-employed or unemployed.

A deceptive picture, however, emerges from the composition of the labour force in the northern and eastern Transvaal regions. In order to assess the actual labour and employment situation in these regions it is necessary to look at the composition of the potential labour force, rather than at that of the labour force alone. For the purpose of this section the potential labour force is defined as 95% of the males and 55% of the females in the 15 to 64 age group. This definition is based on the assumption that not all the persons in the 15 to 64 age group are available to the labour market and that the same definition is used for all the areas, urban as well as non-urban areas. The potential labour force, therefore, consists of the labour force plus those persons who are not in the labour force due to the lack of employment opportunities and not because of the fact that they want to be outside the labour force.

In the homeland areas these persons move into the subsistence agricultural sector and the informal activities forthcoming from this sector. These sectors were not included in the self-employed part of the labour force because of its totally informal nature. However, the size of this sector, especially in the homeland and non-urban areas, necessitates its inclusion in the analysis of the labour force composition in these areas. In the northern Transvaal region 47,3% of the potential labour force were active in the subsistence sector in 1990 (Annexure F, Table 1). In Gazankulu, Lebowa and Venda the percentages were even higher, namely 65,9%, 56,4% and 53,5% respectively (Tables 2, 3 and 4). In the eastern Transvaal only 13% of the potential labour force were in the subsistence sector in 1990 and 45% in KaNgwane (Tables 5 and 6).

The activity rates (labour force as percentage of potential labour force) in these areas, with the exception of the eastern Transvaal region are, therefore, very low. The activity rates in 1990 range from 52,7% in the northern Transvaal to 34,1% in Gazankulu, 43,6% in Lebowa, 46,5% in Venda and 55,0% in KaNgwane (Tables 1 to 6). In analysing trends and changes in the different components of the labour force it is important to remember to measure them in terms of the labour force and the potential labour force. This will prevent interpretations based on misleading statistics. For instance, 60,3% of the labour force in northern Transvaal were formally employed in 1990 (Table 1). However, the labour force absorbed only 52,7% of the people available to it in 1990, implying that the formal sector in the region accommodates only 31,8% of its potential labour force. This means that the formal sector in Gazankulu absorbed only 19% of its potential labour force in 1990, that of Lebowa 24,6%, that of Venda 23% and that of KaNgwane 30,4%. The formal sector in the eastern Transvaal

region absorbed nearly 58% of its potential labour force. The remainder of the potential labour force finds refuge in the informal and subsistence sectors activities or migrates elsewhere.

The availability of formal employment opportunities in these areas deteriorated considerably between 1980 and 1990, mainly because of the worsening economic conditions experienced in these areas. This, together with the high population growth rates in these areas, led to substantial increases in the subsistence sectors, and in the male absenteeism and unemployment rates of these areas. This trend is even evident in the eastern Transvaal region where formal employment levels are consistently high.

In the northern Transvaal region the unemployment rate (unemployment and informal activities as percentage of the labour force) increased in 1990 from 20,3% to 39,7% in terms of the labour force and from 9,9% to 20,9% in terms of the potential labour force (unemployment and informal activities as percentage of the potential labour force) (Table 1). During the same period the unemployment rate in the eastern Transvaal region increased from 16,8% to 33,8% in terms of the labour force and from 13,6% to 29,4% in terms of the potential labour force, with even high increases in the homeland areas.

However, large numbers of the unemployed made their way into the informal sector in an attempt to survive. During 1990, 22,8% and 25,2% of the unemployed in the northern and eastern Transvaal regions respectively moved into the informal sector. This left a smaller percentage of the labour force as unemployed according to the strict definition of the unemployed, namely that a person is unemployed when he/she is actively seeking employment but is not in any type of paid employment. This explains the low unemployment rates in Tables 1 to 6. The number of people who relied on the informal sector in 1990 was more than double the number in 1980. The same trends are evident in the homeland areas.

Tables 7, 8 and 9 show the unemployment distribution according to gender, urban, non-urban and population group for 1985. However, no trends could be determined since no data from the 1980 and 1991 population census were available. Table 7 shows that even with the large male absenteeism from these regions (excluding the eastern Transvaal region) there are still more males unemployed than females. The reason for this is that females are more likely to become involved in subsistence sector activities. The higher female unemployment rate compared to that of the males in the eastern Transvaal, resulted from the more formal employment opportunities that are available in the area and the fact that the unemployed males are migrating to the adjacent PWV area. The majority of the unemployed females remain behind because of family obligations, hoping to find employment in the region.

Table 8 shows that the unemployed are to be found mainly in the non-urban areas of the regions. Table 9 explains this by showing that more than 90% of the unemployed are African. The Africans, who represent the majority of the population in the regions, settled in the non-urban area because of the geographical restrictions imposed by either homeland borders or apartheid policies. Another reason for the higher unemployment in the non-urban areas is that subsistence agriculture, which occurs only in these areas, provides a means of survival for the unemployed.

3. CONCLUSION

The inability of the formal sectors in the northern Transvaal and homeland areas to provide sufficient employment opportunities gave birth to enormous subsistence and informal sectors in these areas. More than two-thirds of the potential labour forces in these areas have to rely on these inconsistent and unreliable sectors for their means of livelihood. The eastern Transvaal area does supply sufficient employment opportunities for its own labour force, but it cannot cope with the influx of workers from other areas. This leads to high unemployment in the area. The employment situation in the northern and eastern Transvaal regions deteriorated markedly between 1980 and 1990 and is still on the decline. The continuous drought experienced in these regions aggravates the situation because it reduces the chances of survival on subsistence agriculture.

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Annexure F

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Table 1: Northern Transvaal: Labour force distribution, 1980 and 1990

Labour force category	1980			1990		
	Number	Percent (%)	(%)	Number	Percent (%)	(%)
Potential labour force 1)	1 018 337	100		1 378 600	100	
Subsistence sector 2)	518 780	50.9		651 692	47.3	
Labour force 3)	499 557	49.1	100	726 908	52.7	100
Formally employed 4)	398 601	39.1	79.8	438 180	31.8	60.3
Informally active 5)	52 235	5.1	10.5	165 676	12.0	22.8
Unemployed 6)	48 721	4.8	9.8	123 052	8.9	16.9

Table 2: Gazankulu: Labour force distribution, 1980 and 1990

Labour force category	1980			1990		
	Number	Percent (%)	(%)	Number	Percent (%)	(%)
Potential labour force 1)	141 756	100		198 683	100	
Subsistence sector 2)	101 059	71.3		131 029	65.9	
Labour force 3)	40 697	28.7	100	67 654	34.1	100
Formally employed 4)	32 282	22.8	79.3	37 803	19.0	55.9
Informally active 5)	1 419	1.0	3.5	16 073	8.1	23.8
Unemployed 6)	6 996	4.9	17.2	13 778	6.9	20.4

- 1) Consists of 95% of the males in the 15 to 64 year age group and 55% of the females in the age group.
- 2) Represents the persons active in the subsistence agricultural sector and the informal activities directly forthcoming from this sector.
- 3) Represents all the workers in an area, whether employer, employee, self-employed or unemployed (provision been made for resting migrant workers).
- 4) Persons formally employed.
- 5) Persons in the informal sector.
- 6) Persons unemployed according to the population census definition.

Source: Development Bank of Southern Africa, 1993

Table 3: Lebowa: Labour force distribution, 1980 and 1990

Labour force category	1980			1990		
	Number	Percent (%)	(%)	Number	Percent (%)	(%)
Potential labour force 1)	533 293	100		780 805	100	
Subsistence sector 2)	317 917	59.6		440 166	56.4	
Labour force 3)	215 376	40.4	100	340 639	43.6	100
Formally employed 4)	156 847	29.4	72.8	192 284	24.6	56.4
Informally active 5)	25 537	4.8	11.9	74 415	9.5	21.8
Unemployed 6)	32 992	6.2	15.3	73 940	9.5	21.7

Table 4: Venda: Labour force distribution, 1980 and 1990

Labour force category	1980			1990		
	Number	Percent (%)	(%)	Number	Percent (%)	(%)
Potential labour force 1)	117 441	100		166 376	100	
Subsistence sector 2)	90 390	77.0		89 024	53.5	
Labour force 3)	27 051	23.0	100	77 352	46.5	100
Formally employed 4)	17 341	14.8	64.1	38 322	23.0	49.5
Informally active 5)	5 093	4.3	18.8	12 080	7.3	15.6
Unemployed 6)	4 617	3.9	17.1	26 950	16.2	34.8

- 1) Consists of 95% of the males in the 15 to 64 year age group and 55% of the females in the age group.
- 2) Represents the persons active in the subsistence agricultural sector and the informal activities directly forthcoming from this sector.
- 3) Represents all the workers in an area, whether employer, employee, self-employed or unemployed (provision been made for resting migrant workers).
- 4) Persons formally employed.
- 5) Persons in the informal sector.
- 6) Persons unemployed according to the population census definition.

Source: Development Bank of Southern Africa, 1993

Table 5: Eastern Transvaal: Labour force distribution, 1980 and 1990

Labour force category	1980			1990		
	Number	Percent (%)	(%)	Number	Percent (%)	(%)
Potential labour force 1)	736 572	100		910 407	100	
Subsistence sector 2)	130 787	17.8		118 332	13.0	
Labour force 3)	605 785	82.2	100	792 075	87.0	100
Formally employed 4)	505 784	68.7	83.5	524 030	57.6	66.2
Informally active 5)	76 498	10.4	12.6	199 806	21.9	25.2
Unemployed 6)	23 503	3.19	3.9	68 239	7.5	8.6

Table 6: KaNgwane: Labour force distribution, 1980 and 1990

Labour force category	1980			1990		
	Number	Percent (%)	(%)	Number	Percent (%)	(%)
Potential labour force 1)	104 237	100		205 428	100	
Subsistence sector 2)	58 952	56.6		92 344	45.0	
Labour force 3)	45 285	43.4	100	113 084	55.0	100
Formally employed 4)	34 033	32.6	75.2	62 401	30.4	55.2
Informally active 5)	9 369	9.0	20.7	30 508	14.9	27.0
Unemployed 6)	1 883	1.8	4.2	20 175	9.8	17.8

1) Consists of 95% of the males in the 15 to 64 year age group and 55% of the females in the age group

2) Represents the persons active in the subsistence agricultural sector and the informal activities directly forthcoming from this sector.

3) Represents all the workers in an area, whether employer, employee, self-employed or unemployed (provision been made for resting migrant workers).

4) Persons formally employed.

5) Persons in the informal sector.

6) Persons unemployed according to the population census definition.

Source: Development Bank of Southern Africa, 1993

Table 7: Unemployment distribution according to gender, 1985. 1)			
Area	Total (%)	Male (%)	Female (%)
Northern Transvaal 2)	100	54.2	45.8
Gazankulu	100	57.6	42.4
Lebowa	100	55.0	45.0
Eastern Transvaal	100	45.3	54.7
KaNgwane	100	53.6	46.4

Table 8: Unemployment distribution according to urban and non-urban, 1985. 1)			
Area	Total (%)	Urban (%)	Non-urban (%)
Northern Transvaal 2)	100	10.3	89.7
Gazankulu	100	3.4	96.6
Lebowa	100	8.9	91.1
Eastern Transvaal	100	39.5	60.5
KaNgwane	100	19.1	80.9

Table 9: Unemployment distribution according to population group, 1985 1)			
Area	Total (%)	Blacks (%)	Others 3) (%)
Northern Transvaal 2)	100	99.1	0.9
Eastern Transvaal	100	95.8	4.2

1) All persons unemployed according to the population census definition.

2) Excluding Venda.

3) Including Whites , Coloureds and Asians.

Source: Development Bank of Southern Africa, 1993.

Table 10: Formal employment per economic sector, 1980 and 1991

Area	Agriculture, hunting and forestry, fishing		Mining and quarrying		Manufacturing	Electricity, gas and water	Construction	Commerce, catering and accommodation	Transport and communication	Financing, insurance and real estate	Community, social and personal services	Total
1980												
Eastern Transvaal	No.	121 188	79 632	61 284	18 859	54 412	48 000	23 531	6 473	95 656	509 035	
	%	23.8	15.6	12.0	3.7	10.7	9.4	4.6	1.3	18.8	100	
Northern Transvaal	No.	127 433	48 738	28 561	1 956	21 422	50 739	14 634	5 451	117 563	416 497	
	%	30.6	11.7	6.9	0.5	5.1	12.2	3.5	1.3	28.2	100	
1991												
Eastern Transvaal	No.	114 341	74 706	62 449	18 434	23 020	47 097	19 784	12 425	110 817	483 073	
	%	23.7	15.5	12.9	3.8	4.8	9.7	4.1	2.6	22.9	100	
Northern Transvaal	No.	93 393	38 383	37 190	4 520	32 209	54 608	17 897	10 829	170 665	459 694	
	%	20.3	8.3	8.1	1.0	7.0	11.9	3.9	2.4	37.1	100	

Source: Development Bank of Southern Africa, 1993

Addendum G

ACCESS TO LAND AND NON-LAND ASSETS

by

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1. INTRODUCTION

Improved and equal access to land by all people in South Africa will be especially important in any future agricultural system. Agriculture is the backbone of the rural economy, and the commitment to increased crop production and sales and investment is directly related to land access as it is to security of tenure. Access to land should also be complemented by access to their resources, institutional support, infrastructure and agricultural services. Measures to support access to agricultural land should however take cognisance of the relative scarcity of high-potential agricultural land in South Africa. A thorough assessment of the agricultural resource potential of the region is necessary to ensure the correct use of land and other resources.

2. LAND-USE AND AGRICULTURAL POTENTIAL

Region G

Although 14,2% of land in Region G comprises potentially arable land, the production potential is low. A large section of especially Lebowa and Gazankulu lies in a drought belt receiving less than 500 mm of rain annually, which is regarded as the minimum for successful dryland farming. Available arable land in Region G amounts to only 0,41ha per rural inhabitant. This equates to 3,52, 0,13, 0,15 and 0,15 hectares per person for the Transvaal portion, Lebowa, Gazankulu and Venda respectively. The low rainfall and the nature of the vegetation indicates that a large portion of the region is only suited to extensive livestock farming. There is evidence that land not being utilised for cropping purposes is heavily stocked in especially the homeland areas. Linked to this is the serious problem of environmental degradation. The development potential of the region is seriously hampered by the limited availability of water and it is doubtful whether the irrigation potential can be increased, given the available water sources.

Region F

The region has an estimated total surface area of 77 070 km². The Transvaal portion of the region comprises the largest area, viz 73 153 km² or almost 95%, and includes a large portion of the Kruger National Park, whereas KaNgwane covers 3 917 km² or 5% of the total surface area. Region F accounts for a 42,4% of the high-potential and 16,3% of medium-potential arable land in the commercial farming areas of South Africa. According to McKenzie (1990) high-potential arable land is currently under livestock production and thus has a potential for the lateral expansion of cropping land. It is also estimated that 63% of existing afforested areas in the region are situated in soils with a high agricultural potential. The present forestry utilisation represents almost 46% of South Africa's commercial plantations. Although a high percentage of the country's high-potential arable land occurs in the region it is characterised by lower cropping patterns compared to other regions. The agricultural potential of the region is under-utilised.

An assessment of land-use patterns in KaNgwane shows that the agricultural potential is under utilised. It is estimated that only 47% of available dryland is cultivated annually and that the area for irrigated crop production can still be expanded - only 2 452 ha out of a potential of 29 150 irrigated land is utilised. The lack of a dependable and stable source of water supply currently inhibits KaNgwane from realising its maximum agricultural potential.

3. LAND AND POPULATION

Within the regions there is a marked difference in the nature and level of economic activity and levels of welfare. In Region F, KaNgwane which comprises only 5,1% of the region's surface area, contains more than 28,6% of the region's population and contributes only 1,7% of the region's GGP. In Region G, specifically in the case of Lebowa, more than 60% of the region's population resides on a 19% of the region's surface area and contributes only 22,7% of the region's GGP (See Table 1).

Table 1: Surface area and population density, 1985 and 1991

Development region and subregion	Total area (ha)		De facto population (1985)			(%)	Density persons/km ²	De facto population (1991)			(%)	Density person/km ²
			Urban	Rural	Total			Urban	Rural	Total		
F KaNgwane	3 917	5.1	60 138	376 726	436 864	24.6	111.5	72 259	533 499	605 758	28.6	154.6
F Transvaal	73 153	94.9	526 658	811 292	1 337 946	75.4	18.3	682 249	830 068	1 512 317	71.4	20.7
F Total	77 070	100	586 796	1 188 018	1 774 810	100.0	23.0	754 508	1 363 567	2 118 075	100.0	27.5
G Gazankulu	7 484	6.4	24 126	577 232	601 358	16.0	80.4	33 674	688 407	722 081	15.9	96.5
G Lebowa	22 137	19.0	138 237	2 057 419	2 196 656	58.5	99.2	169 906	2 573 308	2 743 214	60.4	123.9
G Transvaal	80 065	68.7	143 917	355 217	499 132	13.3	6.2	183 526	322 704	516 230	11.4	6.4
G Venda	6 807	5.8	13 542	446 277	459 819	12.2	67.6	22 051	539 333	561 384	12.4	82.5
G Total	116 493	100	320 822	3 436 145	3 756 965	100.0	32.3	409 157	4 133 752	4 542 909	100.0	39.0

Source: Development Bank Southern Africa, 1993.

These inequalities, coupled with the uneven distribution of income in agriculture, has according to Brand (1990) contributed to a disproportionate prevalence of poverty in rural compared to urban areas, and the question of the distribution of access to land between different groups will become an increasingly burning issue in respect of rural areas.

The homeland population increased significantly from 1985 to 1991 as a result of natural population growth as well as in-migration from white commercial-farming areas, which could mainly be ascribed to labour-displacing mechanisation practices encouraged by state subsidies and the general farm recession experienced in white commercial agriculture. The effect of the population increase is reflected in the high population density and in the population-density increase of rural districts in Gazankulu, Lebowa, Venda and KaNgwane (Table 1 has the details).

The effect of land scarcity, the high rate of urbanisation and high unemployment has lead to an increase in non-viable smallholdings, particularly in the peri-urban areas of the homelands. As land availability per family and land quality declined, production followed the same trend. The increasing population growth rate is largely responsible for the declining *per capita* production. Remittances from migrancy are now the major income source of rural African economies. Improving skills and access to technology, inputs and markets would improve incomes, but ultimately the land is not sufficient to sustain the current population and expected population growth. The out-migration from the rural community of able skilled young males has in itself undermined the domestic potential of the rural economy. The land hunger and the wide gap between agricultural and urban earnings have been an important incentive for able-bodied males to seek employment in urban areas.

4. HOUSEHOLD/FARMER TYPOLOGIES

According to Bembridge (1987), the homeland rural economy which accommodates the poorest of the poor is basically one of smallholder activity and small scale non-farming activities requiring low levels of technological skills. Rural households in the homelands fall into four basic categories in terms of resource access and commercial orientation:

- Resource-poor households, comprising 562 000 farmers (31%) who have no arable land or grazing rights;

- Smallholders, comprising 1 030 000 households (56%), who operate at below subsistence levels and who usually do not sell produce;
- Progressive emerging farmers, comprising about 238 000 households (13%), who use some technology and sell produce and/or livestock;
- Market-orientated commercial farmers, comprising only about 3 100 households (0,2%), who make a living from farming.

Most families are therefore landless and/or engaged in subsistence production practised on individual farms of 1 to 5 ha. The vast majority are dependent on non-farm incomes for their livelihood through commuter jobs. Table 2 attempts to delimit the estimated total number of small-scale farmers by homeland.

Table 2: Estimated number of small-scale farmers, 1992

Homeland	Minimum involvement in the peripheral sector	% of total	Estimated number of subsistence farmers *
Transkei	594 023	22.23	282 361
Bophuthatswana	346 830	12.98	164 861
Venda	89 024	3.33	42 316
Ciskei	133 536	5.00	63 475
Gazankulu	131 029	4.90	62 283
KaNgwane	92 344	3.46	43 894
KwaNdebele	68 747	2.57	32 678
Kwazulu	730 296	27.33	347 137
Lebowa	440 166	16.47	209 227
Qwaqwa	45 795	1.71	21 768
TOTAL	2 671 790	100.00	1 270 000

Source: Development Bank Southern Africa, 1992 (as adapted)

* Estimates based on the number of people involved in the peripheral sector.

5. CURRENT LAND OWNERSHIP SYSTEM

Farmers in the homelands gain limited access to land through various tenure systems, namely communal tenure, trust tenure, quitrent, free, holdleasehold and informal land tenure.

Land ownership in the Transvaal portion of Regions G and F is almost entirely private whereas in the case of the homelands title is almost entirely held by the state. The major government-planned tenures are communal tenure under betterment, and trust tenure on the remaining South African Development Trust (SADT) land. Most African-held land in Regions F and G is Trust land and now part of the homelands. Land ownership in Venda comprises tribal land under communal tenure and has never come under Trust. Most land in the homelands falls under betterment land, that is land planned at subdistrict level into areas delimited for residential, arable and grazing use. Only grazing land is truly communally held; the residential site and arable land allotment are individually held. Tenure security is weakening with the growing numbers of landless and increasing land scarcity.

Trust land refers to land bought by the SADT as 'released' land under the 1936 Land Act. Trust land not yet assigned to a specific homeland continues under the South African Government Administration. Table 3 depicts the present location, utilisation and extent of such land in Regions F and G. Most of the SADT land is situated in the Transvaal portion with a low farming potential. More than 95% of the rural households are therefore dependent on non-farm incomes for their livelihood through commuter jobs at industries and mines in the surrounding towns of Brits, Rustenburg, Lichtenburg, Groblersdal and Witbank.

Table 3: SADT land: Potential utilisation in Regions F and G, 1989

Area	District	Total	Grazing land	Arable land	Nature conservation
Witvingef	Potgietersrus	51 032	44 317	2 190	4 515
Strydpoort	Potgietersrus/Pietersburg	35 933	29 288	2 101	4 604
Steilloop	Potgietersrus	43 311	39 541	20	3 750
Immerpan	Potgietersrus/Groblersdal	51 537	40 377	2 122	9 037
Phalaborwa	Letaba	3 555	3 555	-	-
Bosbokrand	Pelgrimsrus	10 125	4 700	1 939	6 600
Bewaarkloof	Pietersburg	24 697	24 397	-	24 697
Soekmekaar	Soutpansberg/Letaba	2 385	1 027	1 358	-
Burgersfort	Lydenburg	8 218	7 803	415	-
Dendron	Pietersburg	31 650	21 028	1 821	8 800
Kalkfontein	Pietersburg	2 142	2 112	30	-
Zaaiplaats	Groblersdal	22 250	13 029	1 082	8 139
Munnik farms	Pietersburg	4 670	4 670	-	-
Pietersburg	Pietersburg	2 848	2 848	-	-
Trichardsdal	Letaba	25 404	6 620	658	18 125
Moepel farms	Potgietersrus	30 207	30 207	-	-
Studholme	Soutpansberg	2 556	2 556	-	-
Klipspruit	Pietersburg	1 297	1 297	-	-

Source: Department of Development Aid, 1989

Quitrent refers to land held under individual perpetual lease by means of the payment of a nominal rent to the government. This tenure system is found in Venda.

Private agri-business has been allowed to lease unsuccessful government development projects and to manage these projects with the aim of increasing output. This has given agri-business access to substantial amounts of land formerly under African occupation.

Informal tenures range between the older common-property frameworks and the newer systems of informal property rights which retain only some of the features of common property. None of them, including those on private land, appears to be a pure system of private ownership. Instead, they retain basic elements of the African social land ethic in determining what is and is not acceptable, while allowing private individual dealings in land.

These informal systems include the following:

1. Conservative communal tenures as found in outlying parts of the reserves where betterment is not being enforced.
2. Adapted modern communal tenure forms occurring in densely populated reserves close to urban centres which assume individual land transactions.
3. *Ad hoc* tenures prevailing on Trust land and homeland areas where betterment has not been implemented.
4. Conservative quasi-communal tenures found on private African land originally bought in undivided shares by tribally-based groups.
5. Landlord-tenant systems occurring on private African land originally bought either by individuals or by purchasing syndicates.

Tables 2 and 3 in Annexure G depict the present ownership situation in Lebowa and Gazankulu.

6. ACCESS TO LAND AND NON-LAND ASSETS

There exists a comparatively large and growing component of the rural population which does not participate significantly in Gazankulu agricultural activities. According to a socio-economic survey in 1986, it would appear that approximately 60% of rural households in Malamulele, 83% in Giyani, 15% in Ritavi and 53% in Mhala have access to arable holdings. The institution of so-called 'denser settlements', as an intermediate level of settlement between the agricultural village and the formally proclaimed town, has served to concentrate the rural population outside the formal towns but with essentially no agricultural rights. Landlessness in the homelands is commonplace and could be ascribed partly to the rapid population increase in the homelands. Estimates range from >50% in Lebowa, 36% in Venda and at least 50% in the more densely populated Gazankulu. Improved credit might increase the use of some arable land currently left uncultivated. An indicator of the severity of the land shortage in the homelands is given by the ratio of arable land to rural population. This state of affairs would inevitably lead to a conflict between the agricultural uses, the conservation of arable land and the residential uses of land.

Dryland farming in Gazankulu, which is essentially a peasant activity, is generally not as actively supported by the Government as irrigation development. Dryland production is essentially for own consumption and for sale to village residents in the relatively close vicinity of producers. The Commission of Enquiry into the Livestock Industry found that only 12,6% of Gazankulu households own cattle and the majority of cattle owners do not possess sufficient livestock to make a living from livestock farming.

The general condition of the natural veld in Region G is poor and is deteriorating at an alarming rate. The main reason for this condition is an overestimation of the carrying capacity of the veld by farmers, which results in an overstocking of the veld. Certain veld types are more vulnerable than others - approximately 584 000 ha of natural veld contains veld types that are extremely vulnerable, while a further 802 758 ha could be described as being vulnerable.

In recent years, the growth of the game farming industry has been threatening conservation farming in the region, mainly for the following reasons:

- the conservation of game is practised at the expense of the conservation of vegetation;
- the fencing of farms and the increase in game numbers;
- insufficient information on game farming and veld management; and
- the exclusion of game in determining the carrying capacity of veld.

An analysis of stock numbers by magisterial district shows that cattle farming is the most prominent and important livestock industry in Region G. A comparison of the present stocking rate (1989) and the carrying capacity per subregion indicate that, except for the Transvaal portion, the present stocking rate (excluding game numbers) exceeds the carrying capacity in all subregions (Annexure G, Table 1).

Stockholdings in certain homelands tend to be associated particularly with chiefs and tribal officials, and very skewed distribution is common with a few large holders accounting for most of the local herd. Unfortunately no figures are available on the actual stock ownership distribution.

Private ownership of farmland is non-existent in KaNgwane and the access to land is through direct allocation of land-use rights to farmers by tribal authorities. These rights are secured by means of a right-to-occupy certificate that is formally registered at the Department of the Interior. This system, however, offers limited opportunities to use land as a collateral when negotiating finance from commercial financial institutions. Furthermore, opportunities for individual farmers to acquire additional land are limited. Land-use rights are not permanent but only long-term arrangements which therefore discourage major investment in land. This lack of a land market in the homelands is probably the most serious single constraint on agricultural development.

7. CONCLUSION AND RECOMMENDATIONS

South Africa finds itself in a rapidly changing political environment in which the restructuring of agriculture and the rural society seem inevitable. In practice, this implies a policy direction aimed at promoting equal access to resources, input, product and potential markets for all who wish to farm in South Africa. Important legislation recently adopted to promote the restructuring of agriculture, including subsistence agriculture, includes the latest land reform measures. Examples of these land reform measures are land reform through Former Settlement (SP), Farmers Support Programmes (FSP) and Private Land Acquisition (PLA).

Land reform on state-owned land

Between one and two million hectares of land have been bought by the Trust but not yet effectively transferred to a homeland. This land could now be sold outright to new farmers under a PLA programme or be used to settle farmers on appropriately designed projects (SPs).

Land reform on communally owned/tribal land

Any discussion of land reform has to include the homelands. This land is by definition subject to multiple claims to rights on the same piece of land. Experience with the farmer support programmes shows in any case that, as farmers start to commercialise their production processes, a land market (with a wide variety of purchase, rental and pledge contractual forms) starts to develop a 'willing partner' basis. It is clear that a longer term view needs to be taken of this issue, and that a bundle of rights to land security and exchange should be promoted. Variations within the FSP approach seem to be the most appropriate models for reform on these lands.

Land reform in existing land markets.

The removal of racial barriers to land ownership means that all farmers will be able to purchase farms as participants in the existing land markets. Some farmers will be able to arrange finance for themselves through normal commercial channels, while others will qualify under the existing funding programmes of the Land Bank and the Agricultural Credit Boards. There are no racial barriers in the access to these financing institutions.

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Table 1: Comparison of actual stocking rate and the carrying capacity of the veld in Region G, 1989

District	Subregion	Total surface area [ha]	Natural grazing [ha]	Ratio: grazing/total %	Carrying capacity [ha/LSU]	Potential Large stock units [n]	Actual stock units [n]	Actual stocking rate [ha/LSU]	Potential minus actual LSUs [n]
Giyani	Gazankulu	3 614 00	2 795 99	77	9	314 16	834 73	3	- 520 57
Malamulele	Gazankulu	1 298 00	1 053 74	81	8	126 96	234 06	5	- 107 10
Mhala	Gazankulu	1 223 00	822 01	67	6	139 32	717 72	1	- 578 40
Ritavi	Gazankulu	1 349 00	770 45	57	6	120 38	300 41	3	- 180 03
	Subtotal	7 484 00	5 442 19	73		700 82	2 086 92		-1 386 10
Bochum	Lebowa	2 208 40	1 934 60	88	17	113 80	503 85	4	- 390 05
Bolobedu	Lebowa	1 113 10	897 98	81	10	89 80	370 90	2	- 281 10
Mapulaneng	Lebowa	1 193 86	728 27	61	8	91 03	356 18	2	- 265 15
Mokorong	Lebowa	3 749 21	2 769 68	74	12	230 81	888 10	3	- 657 29
Namakgale	Lebowa	122 67	84 86	69	10	8 49	na	na	na
Naphuno	Lebowa	1 025 14	806 33	79	10	80 63	945 76	1	- 865 13
Nebo	Lebowa	2 684 94	1 979 91	74	10	197 99	945 76	2	- 747 77
Sekgosese	Lebowa	651 70	533 18	82	14	38 08	266 86	2	- 228 78
Sekhukhune	Lebowa	3 581 60	2 969 71	83	8	371 21	845 57	4	- 474 36
Seshego	Lebowa	2 890 33	2 059 34	71	12	171 61	1 040 95	2	- 869 34
Thabamooopo	Lebowa	2 612 07	2 018 34	77	10	201 83	727 96	3	- 526 13
	Subtotal	21 833 02	16 782 20	77		1 595 28	6 891 89		-5 296 61
Letaba	Transvaal	2 609 09	1 814 86	70	9	201 65	193 49	21	51 21
Messina	Transvaal	4 903 01	4 159 83	85	17	244 70	586 22	9	203 79
Phalaborwa	Transvaal	11 418 00	5 295 28	46	9	588 36	615 85	8	- 39 85
Pietersburg	Transvaal	6 207 00	4 665 56	75	8	576 00	1 798 34	5	- 651 02
Potgietersrus	Transvaal	14 057 00	9 178 55	65	8	1 147 32	760 13	13	105 18
Soutpansberg	Transvaal	13 287 99	9 518 41	72	11	865 31	942 11	11	454 49
Thabazimbi	Transvaal	10 506 01	10 055 49	96	7	1 396 60	402 11	6	- 58 32
Warmbaths	Transvaal	4 420 00	2 406 50	54	7	343 79	1 364 08	10	522 48
Waterberg	Transvaal	16 074 00	13 205 93	82	7	1 886 56	6 662 33	3	- 120 82
	Subtotal	83 482 10	60 300 41	72		7 250 29	214 30	8	- 136 33
Dzanani	Venda	880 00	654 37	74	7	93 48	367 43	3	- 271 74
Mutale	Venda	2 907 00	2 773 22	95	12	231 10	492 34	2	- 316 19
Thohoyandou	Venda	2 058 00	1 323 59	64	6	220 60	1 498 66	5	- 845 08
Vuwani	Venda	962 00	758 82	79	7	108 40	17 139 80		- 6 939 83
	Subtotal	6 807 00	5 510 00	81		653 58			
Total		119 606 12	88 034 80	74	9	10 199 97	17 139 80	5	

na : not applicable

Source: Development Bank of Southern Africa. 1989. Unpublished information.

Table 2: Lebowa: Ownership of land, 1988/89

Magisterial district	Total surface area [ha]	State land [ha]	% of total	Tribal land [ha]	% of total	Private land [ha]	% of total	Other [ha]
Bochum	220 841	123 115	55.7	-	-	97 726	44.3	-
Bolobedu	111 310	71 570	64.3	39 528	35.5	212	0.2	-
Mapulaneng	89 830	89 830	100.0	-	-	-	-	-
Mokerong	374 921	310 339	82.8	39 662	10.6	24 911	6.6	-
Naphuno	114 781	103 854	90.5	10 927	9.5	-	0.0	-
Nebo	267 807	214 802	80.2	38 844	14.5	14 152	5.3	-
Praktiseer	202 461	188 724	93.2	13 737	6.8	-	-	-
Schoonoord	155 699	128 225	82.4	26 025	16.7	1 449	0.9	-
Sekoosese	65 170	39 342	60.4	23 364	35.9	2 464	3.8	-
Seshego	289 033	135 982	47.0	101 602	35.2	47 834	16.5	3 615
Thabamooopo	261 207	164 490	63.0	87 933	33.7	8 784	3.4	-
Forestry	29 554	29 554	100.0	-	-	-	-	-
TOTAL	2 182 614	1 599 826	73.3	381 622	17.5	197 532	9.1	3 634

Source: Lebowa Department of Agriculture, 1989

Table 3: Gazankulu: Functional land-use pattern, 1992

Magisterial district	State Land						Land communally used				Proclaimed towns	Rural settlements	Land hired to individuals	Total
	Governmental projects	GOC	Game reserves	Plantations and woodlands	Dryland		Irrigation farmers/tribe	Community gardens	Grazing (hectares)					
Hianganani	0.0	190.0	0.0	151.9	2.0		93.0	146.0	46 062.0		227.0	3 984.0	1 194.0	52 049.9
Ritavi	107.0	784.0	0.0	41.0	0.0		574.0	57.5	49 153.2		604.0	3 761.0	212.0	55 439.7
Mhala	1 568.0	570.0	27 720.8	0.0	156.0		50.0	15.8	117 824.0		910.0	6 658.7	92.2	15 671.5
Lulekani	0.0	0.0	29 107.1	0.0	0.0		16.2	16.0	25 925.5		723.4	529.8	35 518.4	92 473.4
Malamulele	270.0	1 218.5	0.0	17.3	2 728.0		484.0	123.0	112 513.9		825.0	7 792.5	0.0	126 129.2
Giyani	1 118.1	2 014.0	2 500.0	0.0	15.0		950.0	265.0	228 475.4		1 376.0	5 907.0	1 348.2	304 240.7
	3 063.1	4 776.5	59 327.9	210.2	2 901.0		2 167.2	623.3	639 954.0		4 665.4	28 633.0	38 364.8	786 804.4

Source: Gazankulu Department of Agriculture, 1992

3. NON-INCOME INDICATORS OF POVERTY

Addendum H

MORTALITY AND MORBIDITY

by

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Development Information Group

1. INTRODUCTION

Mortality is the death rate of a population and is usually expressed as the number of deaths per 1 000 persons in a given year. In 1991, 312 000 South Africans died, representing a mortality rate of eight.

Although the death rate measures the proportion of a population that dies each year, comparing death rates amongst population groups does not indicate whether one population is healthier or more long-lived than another. This is because the death rate is strongly influenced by the age structure of the population.

2. LIFE EXPECTANCY

To get a better indication of the survival potential of individuals in a population, as well as among population groups, one must consider life expectancy. Both biological and social factors have an influence on how long individuals live and, by extension, the average life expectancy within population groups. (See Annexure H for details of the Population Development Programme's indicators per development region.)

3. MORTALITY DIFFERENTIALS

The 'Grim Reaper' (an American expression) does not bring death to everyone on an equal basis. Death rates vary according to age, gender, socio-economic status, race, ethnicity and religion.

3.1 Age

The death rate for all population groups in South Africa is relatively high during the first year of life. This rate then declines throughout childhood and early adolescence. It then begins an inexorable rise to the age of approximately 60 years before a decline is once again observed. South Africans are the least vulnerable at ages 10 and 11 when only one out of every 5 000 people dies, and most vulnerable at age 95 when virtually everyone is 'harvested'.

Death in the first year of life, termed infant mortality, is an important demographic variable and is often used as a key measure of a society's quality of life. In many developing countries, where health care systems are inadequate and serious infectious diseases are rampant, one out of every ten newborn babies dies before its first birthday (see also Annexure H).

Table 1: Estimated infant mortality rates, 1990

Area	Infant mortality rate (per 1 000 live births)
Gazankulu	42,0
KaNgwane	51,0
Lebowa	57,0

Source: Development Bank of Southern Africa, 1993

3.2 Gender

Mortality rates for females are lower than for males in all age groups. The net result of this trend can be seen in the South African population male:female ratio of 1:1,02.

The gender difference in mortality is greatest in young adults. For example, the death rate for 15 to 24-year-old males is nearly three times that of their female counterparts. This is a world-wide phenomenon because, according to Department of Health statistics, the leading causes of death (heart disease, cancer, accidents, lung diseases, among others) occur at a higher rate amongst males than females in this age group.

3.3 Socio-economic status

Another world-wide phenomenon is that higher-status individuals live longer than their lower-status counterparts (Rogot, 1988). The RSA and Regions F and G are no exception. All the major indices of social status in the RSA, namely occupation, income and education show an inverse relationship between status and mortality (Mostert, 1993).

3.4 Race and ethnicity

The occurrence of premature mortality differs between racial and ethnic groups. This could be ascribed to differences in family sizes, birth rates, large populations, single parent households, etc.

The biggest difference in the death rates of Africans and whites occurs between ages 25 and 44, when the mortality rate for Africans is more than twice that of whites. In general, Africans die younger than whites and are more vulnerable to the following causes of death: 6:1 African-to-white ratio in homicide, 3,4:1 in Human Immunodeficiency Virus (HIV), 2,7:1 in conditions of newborns and 2,8:1 in kidney diseases¹.

3.5 Under five mortality rate (U5MR)

The under five mortality rate is the annual number of deaths of children under five years of age per 1 000 live births.

UNICEF has chosen the under five mortality rate as the single most important indicator of the state of a nation's children because it reflects (UNICEF, 1989:82)

- the nutritional health and the health knowledge of mothers;
- the level of immunisation;
- the level of Oral Rehydration Therapy (ORT) use;
- the availability of maternal and child health services;
- family income and food availability;
- the availability of clear water and safe sanitation; and
- the overall safety of the child's environment.

The position of the various population groups in the Republic of South Africa is compared to the U5MR in developed (35 deaths per 1 000 live births) and developing (120 deaths per 1 000 births) countries. The United Nations target of 70 deaths per 1 000 live births by the year 2000 has already been achieved by all groups.

¹ A further study of the actual number of deaths per age category, per district and per population group is available from the Demographic Information Bureau, contact person Mr. J Minnie Tel: (012) 325-5100 ext 642.

4. MORBIDITY

Morbidity refers to the incidence of disease and illness in a population. The outbreak of a disease can have serious effects on other aspects of the population. For example those affected could be skilled and educated persons in the workplace, which will impact on productivity and training. It is likely that health care facilities will be placed under severe pressure. Data about the frequency and distribution of a disease can aid in controlling its spread and in some cases lead to identification of its causes.

4.1 Notifiable diseases

The number of notifications of infectious diseases received by the Directorate of Epidemiology for the years 1989 and 1990 is reflected in Table 3. This refers to the whole of South Africa. More details on a limited number of notifiable diseases in Regions F and G are reflected in Addendum N: Health, recreation and nutrition.

Table 2: Incidence of notifiable diseases, 1989 and 1990

Disease	Number		Rate per 100 000 population	
	1989	1990	1989	1990
Tuberculosis (all forms)	68 083	80 318	187,7	215,3
Measles	18 267	10 672	50,1	28,3
Malaria	7 055	6 822	19,3	18,3
Viral hepatitis	2 239	2 639	6,1	7,1
Typhoid fever	2 640	2 146	7,2	5,0
Meningococcal infection	916	926	3,0	2,5
Food poisoning	8	502	0,02	1,4
Trachoma	640	325	1,8	0,9
Tetanus	137	117	0,4	0,3
Rheumatic fever		83		0,2
Encephalitis		59		0,2
Leprosy	44	41	0,1	0,1
Diphtheria	12	34	0,03	0,1
Rabies	20	22	0,05	0,06
Brucellosis	18	9	0,05	0,02
Poliomyelitis	12	5	0,03	0,01
Cholera	3	1	0,0	0,0

Source: Department of National Health and Population Development, 1993. Operational information.

4.2 Acquired Immuno-deficiency Syndrome (AIDS)

The Department of National Health and Population Development (DNHPD) provides a regular update on the number of reported AIDS cases in South Africa, as reflected in Tables 3 and 4.

Table 3: AIDS cases by year of diagnosis, 1982-1992

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Total cases	2	4	8	8	24	40	91	175	318	443	659
Deaths	2	3	8	8	23	33	56	97	88	111	100

Source: Department of Environment Affairs. *Epidemiological Comments*. 15(12).

Table 4: AIDS cases by mode of transmission; 1989

Mode of transmission	All groups			
	Male	Female	Unclassified	Total
Pattern 1				
Homo/bisexual	406	0	0	406
Drug abuse	2	0	0	2
Pattern 2				
Heterosexual	473	492	13	978
Paediatric	199	168	5	372
Haemophiliac	22	0	0	22
Transfusion	17	5	1	23
Total	1 119	665	19	1 803

Source: Department of Environment Affairs. *Epidemiological Comments*. 15(12).

The above information is based on anonymous data provided by the South African Institute of Medical Research (SAIMR). There are, however, shortcomings in this data. Information on confirmed AIDS cases is voluntarily provided to the SAIMR mainly by hospitals where cases of AIDS are commonly being managed. It is widely accepted that many AIDS cases remain undiagnosed and that a proportion of known AIDS cases is not reported. The result is that the figures provided severely underestimate the true case load. Information on the number and characteristics of confirmed AIDS cases does not describe the current status of the HIV epidemic in the population. Infection with HIV is usually followed by a latent or silent period of approximately four and a half years before the first signs or symptoms of illness appear, and it may take up to ten years from the time of infection for development of 'full-blown' AIDS to develop. As a result, AIDS cases only give an indication of the epidemic as it existed approximately ten years earlier.

A widely publicised study by Padayachee and Schall (1990) estimated a doubling time of eight and a half months based on a number of unlinked anonymous surveys in the Johannesburg area. According to their estimates, between 316 725 and 446 300 individuals in the African population of South Africa would have been infected by the end of 1991.

It is important that action on the prevention of the disease be taken by the relevant state agencies, as well as by a range of private sector organisations, including the trade unions and employers. Success will depend on actions taken now and in the immediate future.

5. CONCLUSION

High mortality rates and more chronic health problems are factors relating to lifestyle and health care. High incidence rates of smoking and drinking cause higher mortality rates due to liver, kidney and lung diseases and accidents (Department of Health). In addition regular medical checkups and the early diagnosis and treatment of diseases are not as likely to be available to poorly educated and impoverished individuals.

The quality of mortality data on white, Indian and coloured populations is fair, but poor in the case of the African population.

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Table 1: Selected Population Development Programme Indicators, 1990

Region	Whites		Coloureds		Indians		Africans		Total	
Life expectancy at birth – years ¹										
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
A	70	78	59	66	62	64	60	65	63	68
B	69	76	57	61	56	59	60	65	60	65
C	69	75	59	61	–	–	60	65	61	66
D	68	76	55	62	61	74	59	64	61	68
E	70	76	62	70	63	69	61	66	62	69
F	68	77	62	70	63	69	63	67	63	69
G	70	77	65	72	62	69	59	64	62	68
H	69	75	59	66	67	72	64	69	63	69
J	68	76	63	65	65	70	63	68	64	70
Total	69	76	59	65	64	70	60	67	62	68
Infant mortality rate ²										
A	6,8		25,9		21,3		42,8		24,4	
B	6,0		52,0		21,0		45,3		42,9	
C	10,7		44,9		13,0		51,1		45,8	
D	9,0		33,4		17,9		49,3		44,7	
E	6,5		9,1		14,4		52,0		44,9	
F	7,1		22,2		12,5		51,9		45,1	
G	6,2		23,0		18,0		54,3		52,9	
H	7,2		15,9		7,9		42,6		32,3	
J	7,0		31,3		17,0		45,3		40,1	
Total	7,4		28,6		15,9		48,3		40,2	
Total fertility rate ³										
A	1,5		2,9		2,7		4,4		2,8	
B	2,0		3,1		2,8		4,1		3,6	
C	1,8		2,2		2,1		2,8		2,7	
D	1,6		3,1		2,4		4,4		4,1	
E	1,5		2,8		2,3		2,2		2,2	
F	2,1		2,4		2,1		3,7		3,5	
G	2,4		2,6		2,2		5,7		5,6	
H	1,8		2,8		2,6		2,6		2,4	
J	1,9		2,0		1,8		3,5		3,3	
Total	1,8		2,7		2,3		3,7		3,3	

¹ The average number of years a newborn child can be expected to live, assuming that prevailing mortality conditions remain unchanged.

² The number of live-born children who die under the age of one year, per 1 000 live births.

³ The average number of children that would be born live to a woman during her child-bearing years (15–49) assuming that prevailing fertility rates remain unchanged.

(Continued)

Region	Whites	Coloureds	Indians	Africans	Total
Teenage births⁴					
A	3,8	13,9	8,4	4,6	10,0
B	5,2	14,2	4,7	11,0	11,2
C	7,0	15,5	4,9	13,7	12,9
D	5,8	14,0	4,8	5,5	6,2
E	5,6	14,6	9,1	8,8	8,7
F	8,0	16,8	6,3	13,1	12,4
G	6,6	17,1	5,9	22,3	21,8
H	7,5	12,9	5,6	9,6	9,1
J	7,4	14,6	5,1	7,7	7,8
Total	6,3	14,8	6,1	10,7	10,4
Room Density⁵					
A	54,1	131,2	91,0	154,7	117,4
B	52,0	151,7	89,0	141,1	134,6
C	54,8	152,7	90,1	147,6	136,0
D	56,2	156,3	85,4	138,9	133,8
E	56,7	113,5	100,1	111,4	106,7
F	57,7	133,3	95,0	123,6	114,2
G	53,2	136,4	91,0	104,3	102,9
H	57,4	112,5	89,6	154,7	127,9
J	54,4	123,6	91,0	158,2	144,3
Total	55,2	134,6	91,4	137,2	124,8
Percentage children 6 to 14 years of age not attending school					
A	4,8	9,2	4,0	9,6	8,2
B	9,7	11,0	4,0	28,0	21,6
C	3,5	14,7	3,0	8,0	7,6
D	4,8	7,4	1,1	13,6	12,4
E	1,9	3,3	2,3	16,6	14,1
F	7,5	11,0	3,5	14,6	13,5
G	7,8	4,0	3,8	24,2	23,7
H	2,9	4,3	2,1	2,4	2,6
J	5,7	7,8	3,5	27,4	24,2
Total	5,4	8,1	3,0	16,0	13,6

⁴ The percentage of live births during a specific year that were born to women younger than 20 years of age irrespective of their marital status.

⁵ The average percentage occupancy of habitable rooms – a figure of 100 depicts 100% occupancy (according to Batson's scale), while a figure of less than 100 reflects under-utilisation and *vice versa*.

(Continued)

Region	Whites	Coloureds	Indians	Africans	Total
Literacy⁶					
A	99,0	67,0	84,0	74,0	75,6
B	89,0	49,0	78,0	43,0	50,3
C	99,0	56,0	78,0	43,0	50,4
D	99,0	64,0	91,0	57,0	61,0
E	100,0	70,0	84,0	40,0	48,5
F	99,0	64,0	70,0	40,0	48,7
G	99,0	60,0	70,0	30,0	32,0
H	99,0	87,0	88,0	77,0	83,0
J	99,0	71,0	78,0	34,0	43,0
Total	99,0	65,3	80,1	48,7	57,7

Source: Department of National Health and Population Development, 1993

⁶ The percentage of persons aged 13 years and older with at least a standard 4 qualification.

4. ACCESS TO ESSENTIAL GOODS AND SERVICES

Addendum I

ACCESS TO EDUCATION AND TRAINING

by

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Human Resource Development

1. INTRODUCTION

The objective here is to provide information on the education and training profile of the people of Regions F and G, the availability and accessibility of education and training services and the infrastructure in these regions, as well as some indicators to assess the quality and relevance of such services.

2. CONTEXTUALISATION

Education and training play an important role in preventing people from lapsing into poverty and unemployment or helping them to lift themselves out of poverty or unemployment.

This is so because education and training:

- satisfy a basic human need for knowledge and skills, provide a means of helping to meet other basic needs, and help sustain and accelerate overall development;
- provide essential skilled manpower for both the formal and informal sectors of the economy, provide the means of developing the knowledge, skills, and productive capacities of the workforce, and act as a catalyst in encouraging modern attitudes and aspirations;
- help to determine not only the incomes of the present generation, but also the future distribution of income and employment;
- influence social welfare through indirect effects on health, fertility, and life expectancy, and help to increase the profitability of other forms of social and physical investments;
- contribute to economic development because they are not merely consumption goods but an investment in human capabilities.

Skilled, healthy, and well-educated people are in a better position than others to take control of their lives. Skill formation, in addition to general education, promotes the more productive use of human capabilities. Appropriate education and training result in the better utilisation and management of available resources and facilitate the transfer of more efficient and effective technology. The empowerment of people with knowledge, skills, and attitudes inevitably contributes to a sustainable development process.

Education and training, however, never occur in a vacuum. Their links to other political and socio-economic policies and conditions, as well as their relevance to socio-economic needs and demands, are important factors in determining their effectiveness in alleviating poverty, income inequalities, unemployment, and underemployment.

The extent to which poor people can benefit from education and training opportunities depends on issues such as equity access, quality, and the relevance of such services. If participation is confined to the privileged, then education and training may simply contribute towards the perpetuation of existing inequalities. The adequate geographical spread and availability of the various delivery

mechanisms are therefore essential as is the affordability of such services to the poor. The poor may furthermore be prevented from access to such services as a result of policy gaps, medium of instruction, gender discrimination, poor transport, inadequate vocational guidance, and even poor health, nutrition, or household and other obligations.

If these services are available and fully accessible to the poor, but the quality and relevance of the available education and training are poor and misdirected, then no major impact on poverty can be expected. The quality of education and training services can usually be judged by the quality and quantity of inputs such as: teachers/instructors and their qualities, facilities (size and availability), equipment (availability and appropriateness), teaching and learning aids (including text books), and administrative capacity. The relevance of education and training, in contrast, is affected by the curricula, and its relevance to the needs of society and the economy. It is furthermore essential that any new capabilities acquired as a result of appropriate education and training must be matched by the availability of sufficient job opportunities and a conducive climate for the entrepreneur.

3. EDUCATIONAL PROFILE

The figures provided in DBSA's *Economic and Social Memoranda* for Regions F and G (Spangenberg, 1989:58 - 59, and Spangenberg & Meintjes, 1989: 73-74) show that at least 31% of the economically active population of Region F and 35% of Region G are illiterate as a result of no schooling (see Tables 1 and 2). The data are based on 1985 census figures which do not reflect the level of schooling per standard. It is therefore not possible to determine literacy figures accurately (schooling up to standard two would ensure literacy in the mother tongue, while schooling up to standard four or five would most probably ensure literacy in English). Statistical figures based on the 1991 census (CSS, 1992:169) are available for Regions F and G (see Table 3), but exclude data on Venda. These latter statistics do give levels of education by standard. Functional literacy on various levels can, however, also be obtained by people without formal school qualifications through non-formal education and training programmes. It should therefore be clear that statistics on literacy in South Africa should be viewed with circumspection. The sectoral analyses provided in Annexures J2 and J3 also contain assumptions on literacy rates in these regions.

Table 3 indicates that at least 31% of the total population of Region F had a primary school qualification in 1991, 26% a secondary school qualification, and 2% a tertiary level qualification. Corresponding figures for Region G (excluding Venda) are: 32%, 24%, and 2%.

The fact that compulsory education up to a certain age or for a minimum number of years of schooling is not policy for the Education Departments serving Africans in Regions F and G (Venda, Lebowa, Gazankulu, and KaNgwane) contributes to the relatively high levels of illiteracy in these communities.

4. TRAINING PROFILE

No official statistics are available on the level of vocational training in South Africa, on a regional or national basis. The fact that such a question is not included in the census form must be viewed as a major shortcoming in determining the quality of South Africa's stock of human resources.

Information on skill formation in Regions F and G can, however, be obtained from the figures and interpretations provided in DBSA's *Economic and Social Memoranda* for the two regions (Spangenberg, 1989:61-62, and Spangenberg & Meintjes, 1989: 75-76) as reflected in Tables 4 and 5. According to these figures, only 27,5 persons per 1 000 of the economically active population in Region F, and an even lower 15,3 for Region G received vocational skills training. Further updated information in this regard can be obtained from the *National Manpower Development Strategy for Region F, Phase I - Situation Analysis - Preliminary Draft Report 1992*, carried out by the Division for Human Resource Strategies of the HSRC, and the 1990 *Venda National Manpower Development Strategy, Phase I* carried out by the HSRC and Manstrat (available at DBSA). Further information in this regard is reflected under some of the headings below.

5. ACCESS AND QUALITY INDICATORS FOR FORMAL EDUCATION IN REGIONS F AND G

5.1 Introduction

Education statistics are not compiled per region but per education department. The following Education Departments are currently operative in Regions F and G.

Departments fully bordered by Region F (and only operating in region F):

- KaNgwane

Departments fully bordered by Region G (and only operating in Region G):

- Gazankulu
- Lebowa
- Venda

Departments also operating in other regions:

- House of Delegates
- House of Representatives
- House of Assembly
- Education and Training

To portray a picture of some of the quality and access issues mentioned under I, the following sources were used:-

- * VERWEY, C T, 1992. *Key Indicators with Policy Scenarios for the analysis and planning of primary and secondary education in South Africa.* (ED-Q11 Model) DBSA staff working paper. Midrand: Development Bank of Southern Africa.
- * SPANGENBERG, J P, 1992. *Education in South Africa: A Regional Overview.* Midrand: Development Bank of Southern Africa.
- * DBSA: Internal Education Sector Analysis Region F; G Naidoo (attached as Annexure I2), and Region G: RR Merry (attached as Annexure I3).

Contextual information generated by the DBSA assignment on Education Expenditure will provide a much more comprehensive picture on access and quality aspects of formal education in Regions G and F. This information will be available by November 1993.

5.2 Access to educational institutions

As will be evident from figures quoted under 4.2 there is a reasonable measure of access to primary and secondary schools in both Regions F (1 574 schools) and G (3 650 schools).

At the postsecondary level, the inhabitants of these two regions have access to and make use of the services of correspondence/distance education facilities such as Unisa, Technikon RSA, Technisa, Vista, plus a number of private colleges (Vista and Unisa have major offices in Pietersburg). Region G also has two residential Universities (University of the North and Venda University), while a satellite of Uninorth is operating in Gazankulu and a satellite of the University of Pretoria operates in Witbank. The University of Witwatersrand also operates in the Teacher Training College at Giyani. Many students also enrol at the other residential Universities all over South Africa, but mostly at the University of Pretoria, Wits, and RAU.

There are no Technikons in these two regions, but Technikon Pretoria has a satellite in Nelspruit (Region F) and plans to open one in Pietersburg (Region G). The same Technikon also operates in Venda as part of the Venda University, and through the Tompi Seleka Agricultural College in Lebowa (both in Region G).

Region G has two agricultural colleges (Madzivhandila in Venda and Tompi Seleka in Lebowa) while Region F has only one at Nelspruit (Lowveld Agricultural College).

There are a large number of pre-service Teacher Training Colleges (four in Venda, five in Gazankulu, 13 in Lebowa, and two in KaNgwane). There are plans afoot to rationalise the numbers and to upgrade the remaining facilities. A large number of in-service training facilities for teachers (centralised and decentralised) are also in existence.

Furthermore Venda has three Technical Colleges/Institutes while Gazankulu has one, Lebowa six, KaNgwane one, Pietersburg one, Ermelo one, Witbank two, and Middelburg one.

It is also worthwhile mentioning that there are at least four Agricultural High Schools in these regions.

The sectoral analyses in Annexures I2 and I3 contain information on classroom backlogs.

5.3 Access of pupils to primary and secondary schools and teachers

In Region F there were 608 486 pupils in 1991 being educated by 16 968 teachers at 1 574 schools. The classroom number per region is not available but the pupil-teacher ratio is 36:1, an indication of good average access to teaching.

Table 1 shows the pupils, teachers, schools and pupil-teacher ratios of the seven departments of education operating in Region F. The individual departments experience significant differences in the access of pupils to teachers as shown by the pupil-teacher ratios.

Table 1: Region F: Primary and secondary education per department, 1991*

Department	Pupils	Teachers	Schools	Pupils/ teacher
	Number	Number	Number	Ratio
House of Delegates	2 482	170	15	15:1
Education & Training	289 800	6 635	1 027	44:1
KaNgwane	246 816	6 351	303	39:1
House of Representatives	3 870	139	10	28:1
House of Assembly: TVL	65 518	3 673	219	18:1
Total	608 486	16 968	1 574	36:1

* For primary/secondary breakdown, see Annexure I1.

Source: Spangenberg, 1992:21

Refer to the sectoral analysis of KaNgwane for a detailed breakdown of the situation in that area.

According to the *Population census report 03-10-07* (CSS, 1991:169), the population of Region F was 2 078 977. With 608 486 pupils at school, nearly 30% of the population is enrolled in primary and secondary education. Pupils of ages up to 22 years are still at school, therefore the analysis of pupils versus a school age population of 6 to 18 years is inappropriate. The 30% is an indication of the relatively good access of the population in Region F to education.

In 1991 Region G had 1 653 800 pupils who were educated by 45 298 teachers in 3650 schools. Table 2 presents a summary of the key data for Region G per department.

Table 2: Region G: Primary and secondary education per department, 1991*

Department	Pupils	Teachers	Schools	Pupils/ teachers
	Number	Number	Number	Ratio
House of Delegates	809	57	5	14:1
Education & Training	65 050	1 720	419	38:1
Gazankulu	338 611	8 453	494	40:1
Lebowa	972 743	25 712	1 869	38:1
House of Representatives	1 113	42	3	26:1
House of Assembly:				
Tvl	31 848	1 794	155	18:1
Venda	243 626	7 520	705	32:1
Total	1 653 800	45 298	3 650	37:1

* For primary/secondary breakdown, see Annexure I1.

Source: Spangenberg, 1992:23

See also Annexure I3 for a detailed breakdown of the situation in Venda, Gazankulu, and Lebowa.

The *Population census report 03-10-07* (CSS, 1991:169) presents a figure of 4 142 017 excluding Venda. Based on the *Economic and Social Memorandum* of 1989 (Spangenberg, 1989) the Venda population can be estimated at 575 000 people, therefore presenting a total of 4 717 017 for Region G. With 1 653 800 pupils enrolled the percentage of the population at school was 35% in 1991, which also points to relatively good access to education.

5.4 Continuous access – past trends in enrolment growth

The growth rates in primary pupil enrolment from 1980 to 1985, and from 1985 to 1990 were:

- KaNgwane (F)	8,2%	and	7,5%
- Gazankulu (G)	7,1%	and	6,2%
- Lebowa (G)	2,2%	and	2,8%
- Venda (G)	3,4%	and	2,6%
- Delegates (ALL)	-0,5%	and	-1,0%
- Representatives (ALL)	-0,4%	and	0,4%
- Assembly (ALL)	-0,9%	and	1,0%
- Education and Training (ALL)	1,9%	and	2,8%

(Source: Verwey, 1992)

These relatively low growth percentages may point to the fact that the growth rates for primary pupils reached a satisfactory levels and will in future correlate with the birth growth rate.

The growth rates in secondary pupil enrolment from 1980 to 1985, and from 1985 to 1990 were:

- KaNgwane (F)	15,2%	and	18,2%
- Gazankulu (G)	13,2%	and	15,9%
- Lebowa (G)	13,2%	and	13,3%
- Venda (G)	12,1%	and	11,1%
- Delegates (ALL)	3,1%	and	2,0%
- Representatives (ALL)	7,2%	and	3,4%
- Assembly (ALL)	2,7%	and	-0,6%

- Education and Training (ALL) 9,4% and 11,9%

(Source: Verwey, 1992)

The high growth rates in certain departments are the result of pupils remaining in education when they previously may have dropped out. This points to limited access and limited continuous access in the past.

5.5 Access and survival (dropouts and repeaters)

Although the method of taking Substandard A (SSA) as 100 and dividing the pupil numbers of the following standards into that of SSA is not a cohort flow, it presents a good indication of the places available, as well as of the dropout of previous years. It gives an indication of how many more pupils can be expected and what the backlogs will be in future if all pupils now in Sub A flow through to Standard 10 in future years.

Table 3 presents an indication of the relative distribution per standard taking SSA as 100.

Table 3: The relative distribution per standard of the departments catering for education in Regions F and G, 1990.

Standard	KaNcwane (F)	Lebowa (G)	Gazankulu (G)	Venda (G)	DET
SSA	100	100	100	100	100
SSB	78	85	78	92	79
Std 1	60	86	69	81	63
Std 2	57	82	67	85	63
Std 3	57	82	67	85	63
Std 4	47	76	60	75	52
Std 5	41	71	40	69	48
Std 6	48	71	46	74	51
Std 7	39	64	34	64	40
Std 8	35	58	34	56	32
Std 9	24	53	31	52	25
Std 10	24	64	31	54	17

Source: Verwey, 1992

See also Annexures I2 and I3 for more detail on repeater and dropout rates.

5.6 Access to education and gender (girls versus boys)

Male and female enrolments are presented in the ED-QII report (Verwey, 1992). In certain departments it seems that the boys are greater in number and younger than the girls in the lower standards. The phenomenon may be related to access problems for girls relating to transport problems, distance to school, etc. It may also be caused by the over-enrolment of boys because of the lack of preschool facilities. The girls in contrast, are greater in number than the boys in the higher standards. In departments like Lebowa the percentage of girls in Sub A is 48,4%, reaching the 50% break-even point in Std 4, with 56,8% girls in Std 10. The situation in South Africa therefore appears to be the exact opposite to most other countries in Africa.

5.7 Access to subjects

A wide variety of subjects and choices are available to pupils. In many of the departments the qualifications of the teachers presenting these subjects are not sufficient. Table 4 gives an indication of the subject choices of African standard 10 pupils in the whole of South Africa.

Table 4: Percentage of African pupils involved in various subjects - 1991

Biology	84%
History	43%
Biblical Studies	34%
Agricultural Sciences	26%
Mathematics	26%
Physical Science	16%
Business Economics	16%
Accountancy	9%
Home Economics	4%
Technical Subjects	3%
Typing	1%

(Source: Research Institute for Education Planning, University of the Orange Free State, 1992:16)

The low percentages in certain subjects may be ascribed to both lack of interest and lack of accessibility caused by lowly qualified teachers and high failure rates. There are indications that African pupils in Regions F and G chose even lower percentages of subjects such as Mathematics and the Sciences. Tables 7 to 11 (Annexure I1) give an indication of teachers' qualifications for most of the Education Departments serving Regions F and G.

5.8 Conclusions

From the above it is clear that inhabitants of Regions F and G have reasonable access to educational opportunities despite policy gaps and large backlogs in classrooms in the case of the African communities. The quality of education for Africans measured by all standards is, however, poor and unacceptable. One of the more obvious causes of this state of affairs lies in the qualifications of teachers serving these communities.

In the traditionally white departments, more than 90% of the teachers are adequately qualified, whereas only 38% of teachers are adequately qualified in KaNgwane, 48% in Lebowa, 47% in Gazankulu, and 40% in DET.

5.9 Relevance or external efficiency of education in Regions F and G

The curriculum followed in Regions F and G is basically the same as in all the other regions in South Africa. Fundamental changes in curriculum policy are required to improve the quality and relevance of education for the majority of South Africans. The learning experience of the majority of South Africans needs enhancement, and curriculum policies should be geared towards improving progression and retention rates, and relevance to employment.

Employers expect a certain qualitative level of output from the school system, including appropriate values, attitudes, and subject knowledge. The major employers, backed by trade unions, trainers, educationists and economists, are unanimous in assessing the present school system in South Africa, especially as far as Africans are concerned, as bad, out of date, poor, and unacceptable.

6. ACCESS AND QUALITY INDICATORS FOR NON-FORMAL EDUCATION AND VOCATIONAL TRAINING

6.1 Introduction

The provision and quality of, as well as access to non-formal education and training, within Regions G and F are variable. While issues such as literacy, numeracy, continuing education, technical and vocational training and social enrichment are being addressed, their sustainable

availability is very much determined by the availability of infrastructural, financial, human, and other resources.

Where non-formal education and training have been linked to job-related programmes or have arisen out of a need for trained people expressed or identified by NGOs, CBOs (Community Based Organisations) or the private and public sectors, initiatives have been largely successful. Where large numbers of people were trained as part of central government's scheme to subsidise the training of the unemployed, such training benefited fewer people and is generally not considered successful.

Various subsidy schemes, usually by means of tax relief or tax refunds, have in the past been introduced to encourage training, particularly in the private sector. While the Department of Manpower has reported increases in the numbers trained, appraisals of the training can only reflect quantitative (numerical) increases. Quality, even though courses required registration, was seldom considered and was then only related to the content of a course.

The introduction of (Industry) Training Boards, competency-based modular training and standardisation as an espoused goal, has done much to rectify the above situation. Continued progress in this area, as well as trade union and other pressure should further improve the provision of non-formal education and training.

The quality of training staff, adult educators and training administrators and managers has improved considerably as a result of research and courses targeted at people working within the non-formal education and training sub-sector.

These then are some of the contextual issues within which the provision of non-formal education and training in Regions F and G should be viewed.

6.2 Non-formal education and training – Region G

6.2.1 Role players and activities

The following organisations and groupings contribute the major suppliers and facilitators of non-formal education and training in the region:

- LITERACY AND BASIC ADULT EDUCATION

Gazankulu, Lebowa and Venda Departments of Education
SA Department of Education and Training (DET)
Gazankulu Training Trust (GTT)
Palaborwa Foundation (PF)
Various CBOs and NGOs affiliated to the Northern Transvaal Regional Development Forum (NTRDF)
Rural Foundation.

It is estimated that there are approximately 771 centres in Region G, 423 of which are operated by the Gazankulu, Lebowa and Venda departments of Education and by the DET¹. Attendance at those centres varies. Based on the enrolment figures for education departments it is estimated that approximately 37 000 people are currently enrolled, 9 000 of whom are in literacy programmes. If a literacy rate of 64% is accepted for the region on the basis of sufficient schooling, then the 9 000 estimated as attending literacy classes represents less than 0,6% of all illiterates. If one accepts that +934 000 adults have no formal education, then approximately 3% (28 000) attend adult basic education/continuation classes.

¹ Statistics in respect of centres operated by education departments were obtained from either the 1991 (Gazankulu and Venda) annual reports or the 1990 (Lebowa) annual report and from Mrs. Strydom at DET. The Bureau of Literacy and Literature trains literacy teachers for 40 church and women's organisations which operate at +60 centres in the region. The PF runs, or supports, 16 centres and the GTT four. The Rural Foundation is aware of programmes being run on at least 20 individual farms.

- HEALTH AND HEALTH-RELATED EDUCATION AND TRAINING²

Gazankulu, Lebowa and Venda Departments of Health
Department of National Health and Population Development (NHPD)
Local authority and provincial health services.

These services are provided as an adjunct to primary healthcare services and are aimed at improving nutrition, hygiene, family planning, etc. It is estimated that approximately 150 000 people, mainly women, are reached each year.

- TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

Gazankulu Training Trust
Palaborwa Foundation
Venda National Development Corporation
Lebowa Development Corporation
Lebowa Agricultural Corporation
Far North Regional Training Centre (Pietersburg)
Local business and industry
University of Venda and University of the North and various CBOs and NGOs.

The technical and vocational education and training provided by these organisations are aimed at ensuring that the necessary skills, practice and support are provided to employees, emerging small-business entrepreneurs, small commercial farmers, farm workers and those engaged in the informal sector. This training is essentially in support of economic development. Either due to accreditation through (Industry) Training boards and skilled educators/trainers or due to social commitment, it is generally accepted that this training is of an acceptable to high quality.

The HSRC and Manstrat (1990) have assessed the current need for this training and the region's ability to absorb output at 10 600. Current supply is 5 200³, excluding training done on site at company premises, farms, factories, etc. This in effect means that non-formal education and training opportunities exist for less than 1% of the economically active population. Based on current growth it is expected that + 2 000 new training opportunities will be created per annum. However, the output of trainees in excess of 10 600 will only be absorbed if there is an increase in the economic growth of the region.

The training of the unemployed by regional authorities and the Far North Regional Training Centre has shown a steady decline since 1987. This is due to smaller state subsidies, unwillingness on the part of the unemployed to be trained, the ineffectiveness of the training and the re-positioning of the Regional Training Centres.

- OTHER TRAINING

NGOs
CBOs
Trade Unions
Cultural organisations, etc.

Training is aimed at empowering people and providing the appropriate skills to serve individual, group and community needs.

No accurate figures are available, but approximately 30 organisations provide workshops, seminars, training courses, and so forth, on an *ad hoc* basis each year. The training of union officials in the region has increased, and the care groups operating in Gazankulu and the Gazankulu Women's

² Health is addressed elsewhere. The estimate of 150 000 was obtained from Dr N Crisp, Regional Director - National Health and Population Development and from the 1991 annual reports of the Venda and Gazankulu Departments of Health.

³ Summary of supply demand attached (See Annexure I1, Table 6).

Association hold various education and training activities. They report that at least 900 people attend each year. The Regional Development Advisory Committee (RDAC) and the NTRDF estimate that at least 2 500 people are reached in the region each year by these organisations.

6.2.2 Access

As can be seen only limited numbers of people are provided with opportunities each year. Access is often limited to membership of, for example, a trade union or cultural group, or is sponsored, for example, training for empowerment fuelled by a church, NGO or CBO, or is provided through employment. Further restrictions occur as a result of inadequate funds, limited transportation or because opportunities for training happen at times which do not suit people.

The cost of training also limits its availability. NGOs, Governments, and such like simply cannot pay for, or afford to extend, current provisions.

6.3 Non-formal education and training – Region F

6.3.1 Role players and activities

– LITERACY AND ADULT BASIC EDUCATION

KaNgwane Department of Education
Department of Education and Training
Various private sector companies
NGOs
CBOs.

It is estimated that 35% of the region's population (2 078 977 million) is illiterate because of no or insufficient schooling.

The KaNgwane Government operates 43 adult education centres, annual enrolments of which are approximately 3 400 students. The mining, paper and pulp, agricultural and electricity supply sectors operate a further 31 centres (1992); enrolments in these centres amount to approximately 3 000 per annum. Various church bodies, interest groups, NGOs and CBOs also provide literacy and adult education courses. The RDAC estimates that these organisations provide for a further 2 500 to 3 000 students per annum.

The literacy component accounts for 4 600 or 0.65% of the total estimated number of illiterates while the continuation (ABE) classes with 4 400 students accounts for 0.75% of the +587 000 adults with no formal education.

– HEALTH AND HEALTH-RELATED EDUCATION AND TRAINING⁴

The KaNgwane Department of Health
NHPD
Local and provincial authorities.

These services are provided as an adjunct to primary healthcare services aimed at improving nutrition, hygiene, family planning, etc. It is estimated that approximately 97 000 people, mainly women, are reached each year.

⁴

Health is addressed elsewhere. These figures are an estimate provided by Dr Robertson of Wits University and are based on extrapolations of the number of clinics, health visiting points, hospitals, etc.

- TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING⁵

Lowveld Group Training Centre
Nelspruit and the Group Training Centre – Waltloo, Pretoria
KaNgwane Economic Development Corporation
Agricultural Development Corporation
Palaborwa Foundation
Local business and industry
Various CBOs and NGOs.

The technical and vocational education and training provided by these organisations is aimed at ensuring that the necessary skills, practice and support are provided to employees, emerging small-business entrepreneurs, small commercial farmers, farm workers and those involved in the informal sector. This training is essentially in support of economic development. Due to (Industry) Training Board development, processes of accreditation and skilled educators and trainers, it is also considered to be of an acceptable standard. In 1987 the Central Statistical Service, based on information obtained from the Department of Manpower, estimated that 19 727 people received training in this region.

Where there has been sustained growth in the region, the role of the Regional Training Centre has declined and has to a certain extent been replaced by private sector input. Overall, however, substantially fewer people are being trained than in 1987. The informal training partnership⁶ estimated only 60% of the 1987 figure, or 11 836 people.

6.3.2 Access

As can be seen only limited numbers of people are provided with opportunities each year. Access is often limited to membership of, for example, a trade union or cultural group, or is sponsored, training for empowerment by a church, NGO or CBO, or is provided through employment. Further restrictions occur as a result of inadequate funds, limited transportation, or because opportunities for training happen at times which do not suit people.

The cost of training also limits its availability to many unemployed and poorly paid workers. NGOs, Governments, and such like simply cannot pay for, or afford to extend, current provisions.

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⁵ Detailed information can be found in the draft Phase I report undertaken by HSRC in preparation for the development of a manpower plan for the region (1992).

⁶ The informal training partnership comprises Eskom, Telkom, SAPPI, KEDC and TC-Nelspruit as well as the RDAC-F.

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Table 1: Region F: Level of education of the economically active population (unadjusted figures), 1985

Subregion district	None	%	Primary	%	Secondary	%	Tertiary	%	Total	%
SUBREGION 1:	63 285	34,0	64 528	34,6	49 936	26,8	8 524	4,6	186 273	100
Barberton	16 116	44,6	10 649	29,5	8 066	22,3	1 268	3,5	36 009	100
Kamhlushwa	6 907	38,8	6 648	37,4	3 909	22,0	315	1,8	17 779	100
Lydenburg	6 024	35,0	5 884	34,2	4 475	26,0	814	4,7	17 197	100
Nelspruit	10 216	31,8	9 215	28,7	9 665	30,1	3 052	9,5	32 148	100
Nsikazi	10 641	22,8	19 867	42,6	15 268	32,8	826	1,8	46 602	100
Pilgrim's Rest	6 268	34,8	6 418	35,6	4 448	24,7	888	4,9	18 022	100
White River	7 113	38,6	5 847	31,7	4 105	22,3	1 361	7,4	18 426	100
SUBREGION 2:	51 638	28,6	57 142	31,6	60 338	33,4	11 644	6,4	180 762	100
Belfast	5 134	43,6	3 434	29,2	2 723	23,1	480	4,1	11 771	100
Groblersdal	11 657	50,7	6 963	30,3	3 450	15,0	901	3,9	22 971	100
Middelburg	19 265	30,6	18 480	29,4	21 036	33,4	4 131	6,6	62 912	100
Waterval Boven	1 052	30,4	1 101	31,8	1 147	33,2	159	4,6	3 459	100
Witbank	14 530	18,2	27 164	34,1	31 982	40,2	5 973	7,5	79 649	100
SUBREGION 3:	97 151	31,4	112 696	36,5	84 851	27,5	14 245	4,6	308 943	100
Amersfoort	2 579	50,2	1 614	31,4	796	15,5	145	2,8	5 134	100
Balfour	5 199	34,9	5 784	38,9	3 391	22,8	508	3,4	14 882	100
Bethal	10 922	27,5	13 529	34,0	12 992	32,7	2 303	5,8	39 746	100
Carolina	5 662	45,8	3 821	30,9	2 407	19,5	468	3,8	12 358	100
Eerstehoek	5 497	33,3	7 077	42,9	3 784	22,9	144	0,9	16 502	100
Ermelo	17 685	34,6	17 457	34,1	13 737	26,8	2 306	4,5	51 185	100
Highveld Ridge	19 837	24,0	29 868	36,2	27 868	33,7	5 011	6,1	82 584	100
Piet Retief	11 817	40,4	10 779	36,9	5 748	19,7	890	3,0	29 234	100
Standerton	9 840	25,9	15 758	41,5	10 456	27,5	1 905	5,0	37 959	100
Volkstrust	4 106	36,2	3 821	33,7	2 972	26,2	447	3,9	11 346	100
Wakkerstroom	4 007	50,0	3 188	39,8	700	8,7	118	1,5	8 013	100
TOTAL	212 074	31,4	234 366	34,7	195 125	28,9	34 413	5,1	675 978	100

Source: Development Bank of Southern Africa, 1989

Table 2: Region G: Level of education of the economically active population (unadjusted figures), 1985

Subregion/ district	Total	%	None	%	Primary	%	Secondary	%	Tertiary	%
SUBREGION 1:	124 851	100	50 575	40,5	34 622	27,7	33 322	26,7	6 332	5,1
Bolobedu	14 772	100	6 249	42,3	4 439	30,1	3 573	24,2	511	3,5
Giyani	18 802	100	8 047	42,8	4 482	23,8	4 964	26,4	1 309	7,0
Letaba	27 033	100	15 214	56,3	6 112	22,6	4 354	16,1	1 353	5,0
Namakgale	11 560	100	2 483	21,5	4 614	39,9	4 211	36,4	252	2,2
Naphuno	13 885	100	4 773	34,4	5 017	36,1	3 487	25,1	608	4,4
Phalaborwa	14 432	100	5 099	35,3	2 022	14,0	5 698	39,5	1 613	11,2
Ritavi	15 047	100	4 462	29,7	5 217	34,7	5 033	33,4	335	2,2
Sekgosese	9 320	100	4 248	45,6	2 719	29,2	2 002	21,5	351	3,8
SUBREGION 2:	113 013	100	25 615	22,7	35 617	31,5	42 893	38,0	8 888	7,9
Bochum	9 385	100	4 250	45,3	3 004	32,0	1 551	16,5	580	6,2
Pietersburg	28 913	100	8 420	29,1	4 987	17,2	11 253	38,9	4 253	14,7
Seshego	40 162	100	6 758	16,8	14 711	36,6	16 591	41,3	2 102	5,2
Thabamocpo	34 553	100	6 187	17,9	12 915	37,4	13 498	39,1	1 953	5,7
SUBREGION 3:	95 861	100	36 366	37,9	28 859	30,1	25 083	26,2	5 553	5,8
Mokerong	34 970	100	9 994	28,6	12 598	36,0	10 559	30,2	1 819	5,2
Potgietersrus	32 004	100	16 877	52,7	6 675	20,9	6 340	19,8	2 112	6,6
Waterberg	28 887	100	9 495	32,9	9 586	33,2	8 184	28,3	1 622	5,6
SUBREGION 4:	40 792	100	12 818	31,4	15 069	36,9	10 992	26,9	1 913	4,7
Thabazimbi	24 373	100	7 593	31,2	9 188	37,7	6 613	27,1	979	4,0
Warmbaths	16 419	100	5 225	31,8	5 881	35,8	4 379	26,7	934	5,7
SUBREGION 5:	101 388	100	41 806	41,2	26 673	26,3	26 902	26,5	6 007	5,9
Malamulele	8 174	100	2 900	35,5	2 436	29,8	1 866	22,8	972	11,9
Messina	8 791	100	4 647	52,9	1 705	19,4	1 851	21,1	588	6,7
Soutpansberg	17 430	100	9 029	51,8	2 956	17,0	4 271	24,5	1 174	6,7
Venda	66 993	100	25 230	37,7	19 576	29,2	18 914	28,2	3 273	4,9
SUBREGION 6:	108 039	100	37 958	35,1	37 958	34,4	27 910	26,8	5 037	4,7
Mapulareng	21 306	100	6 442	30,2	8 389	39,4	5 827	28,3	648	3,0
Mala	12 883	100	4 932	38,3	4 068	31,6	3 383	26,3	500	3,9
Nebo	28 839	100	10 222	35,4	9 938	34,5	7 160	24,8	1 519	5,3
Sekhukhuneland	45 011	100	16 362	36,4	14 739	32,7	11 540	25,6	2 370	5,3
TOTAL	583 944	100	205 138	35,1	177 974	30,5	167 102	28,6	33 730	5,8

Source: Development Bank of Southern Africa, 1989

Table 3: Level of education for Development regions F and G, (Urban and non-urban), 1991

Developm. region	Total	None & unspec.	Grade 1 to STD.3	STD. 4	STD. 5	STD. 6	STD. 7	STD. 8	STD. 9	STD.10	Diploma & STD.9 and lower	Diploma & STD10	Degree
REGION F													
Urban	711 425	194 380	117 968	31 314	41 520	59 100	38 351	79 599	34 167	83 176	2 221	20 525	9 104
Male	359 934	94 998	60 244	15 768	20 623	30 366	19 300	39 669	17 843	43 232	1 396	10 615	5 880
Female	351 491	99 382	57 724	15 546	20 897	28 734	19 051	39 930	16 324	39 944	825	9 910	3 224
Semi-urban	37 810	14 926	12 172	2 499	2 086	1 694	1 330	1 272	849	789	9	175	9
Male	17 934	6 937	6 124	1 028	1 016	752	600	535	388	466	0	79	9
Female	19 876	7 989	6 048	1 471	1 070	942	730	737	461	323	9	96	0
Non-urban	1329 742	632 294	298 736	65 856	70 851	64 183	40 965	56 743	29 872	54 978	1 088	10 588	3 588
Male	697 532	315 537	162 336	36 916	39 158	36 132	22 426	30 744	15 935	30 261	608	5 243	2 236
Female	632 210	316 757	136 400	28 940	31 693	28 051	18 539	25 999	13 937	24 717	480	5 345	1 352
Total	2078 977	841 600	428 876	99 669	114 457	124 977	80 646	137 614	64 888	138 943	3 318	31 288	12 701
Male	1075 400	417 472	228 704	53 712	60 797	67 250	42 326	70 948	34 166	73 959	2 004	15 937	8 125
Female	1003 577	424 128	200 172	45 957	53 660	57 727	38 320	66 666	30 722	64 984	1 314	15 351	4 576
REGION G													
Urban	397 522	104 591	63 109	16 219	21 360	30 941	19 493	38 809	21 709	57 193	1 338	15 599	7 161
Male	197 219	50 823	32 567	8 136	10 360	15 361	9 507	18 872	10 350	28 697	712	7 326	4 508
Female	200 303	53 768	30 542	8 083	11 000	15 580	9 986	19 937	11 359	28 496	626	8 273	2 653
Semi-urban	7 559	1 857	1 416	352	400	567	331	1 102	274	910	34	248	68
Male	4 844	1 217	1 005	254	264	378	219	613	168	478	24	173	51
Female	2 715	640	411	98	136	189	112	489	106	432	10	75	17
Non-urban	3736 934	1686 325	808 634	182 718	209 388	201 619	144 008	170 661	141 229	156 235	2 562	28 468	5 087
Male	1703 254	730 984	401 276	84 713	92 685	92 725	63 656	78 083	63 771	77 473	1 100	13 540	3 248
Female	2033 680	955 341	407 358	98 005	116 703	108 894	80 352	92 578	77 458	78 762	1 462	14 928	1 839
Total	4142 015	1792 773	873 159	199 289	231 148	233 127	163 832	210 572	163 212	214 338	3 934	44 315	12 316
Male	1905 317	783 024	434 848	93 103	103 309	108 464	73 382	97 568	74 289	106 648	1 836	21 039	7 807
Female	2236 698	1009 749	438 311	106 186	127 839	124 663	90 450	113 004	88 923	107 690	2 098	23 276	4 509

Source: Central Statistical Service, 1992

Table 4: Region F: In-service training and training of the unemployed, 1985-1987

	Group training centres:			Private training centres and training schemes:			Total training:		
	Total	South Africa ²	Region F	Total	South Africa ²	Region F	Total	South Africa ²	Region F
	(Number of trainees)								
1985									
Total training	94 079	92 276	1 803	499 389	494 731	4 658	593 468	587 007	6 461
Per 1 000 population ¹	8,4	8,7	2,7	44,3	46,7	6,9	52,7	55,5	9,5
Training of unemployed	78 329	77 543	786	190 831	190 777	54	269 160	268 320	840
Per 1 000 population ¹	7,0	7,3	1,2	16,9	18,0	0,1	23,9	25,4	1,2
In-service training	15 750	14 733	1 017	308 558	303 954	4 604	324 308	318 687	5 621
Per 1 000 population ¹	1,4	1,4	1,5	27,4	28,7	6,8	28,8	30,1	8,3
1986									
Total training	156 253	143 924	12 329	425 599	419 499	6 100	581 852	563 423	18 429
Per 1 000 population ¹	13,5	13,2	17,7	36,8	38,6	8,7	50,3	51,8	26,4
Training of unemployed	143 654	133 078	10 576	166 284	166 284	0	309 938	299 362	10 576
Per 1 000 population ¹	12,4	12,2	15,2	14,4	15,3	0,0	26,8	27,5	15,2
In-service training	12 599	10 846	1 753	259 315	253 215	6 100	271 914	264 061	7 853
Per 1 000 population ¹	1,1	1,0	2,5	22,4	23,3	8,7	23,5	24,3	11,3
1987									
Total training	151 330	139 622	11 708	353 257	345 238	8 019	504 587	484 860	19 727
Per 1 000 population ¹	12,7	12,5	16,3	29,7	30,8	11,2	42,4	43,3	27,5
Training of unemployed	128 292	120 607	7 685	102 139	100 853	1 286	230 431	221 460	8 971
Per 1 000 population ¹	10,8	10,8	10,7	8,6	9,0	1,8	19,3	19,8	12,5
In-service training	23 038	19 015	4 023	251 118	244 385	6 733	274 156	263 400	10 756
Per 1 000 population ¹	1,9	1,7	5,6	21,1	21,8	9,4	23,0	23,5	15,0

¹ Training per 1 000 of the economically active population.

² Excluding Region F.

Source: Development Bank of Southern Africa, 1989

Table 5: Region G: In-service training and training of the unemployed, 1985-1987

	Group training centres:			Private training centres and training schemes:			Total training:		
	Total	South Africa ²	Region G	Total	South Africa ²	Region G	Total	South Africa ²	Region G
	(Number of trainees)								
1985									
Total training	94 078	89 964	4 115	499 389	497 854	1 535	593 468	587 818	5 650
Per 1 000 population ¹	8,2	8,3	5,9	43,6	46,2	2,2	51,8	54,5	8,1
Training of unemployed	78 329	75 596	2 733	190 831	190 775	56	269 160	266 371	2 789
Per 1 000 population ¹	6,8	7,0	3,9	16,7	17,7	0,1	23,5	24,7	4,0
In-service training	15 750	14 368	1 382	308 558	307 079	1 479	324 308	321 447	2 861
Per 1 000 population ¹	1,4	1,3	2,0	26,9	28,5	2,1	28,3	29,8	4,1
1986									
Total training	156 253	146 709	9 544	425 599	423 533	2 066	581 852	570 242	11 610
Per 1 000 population ¹	13,1	13,1	12,9	35,6	37,8	2,8	48,7	50,9	15,7
Training of unemployed	143 654	136 127	7 527	166 284	166 131	153	309 938	302 258	7 680
Per 1 000 population ¹	12,0	12,2	10,2	13,9	14,8	0,2	25,9	27,0	10,4
In-service training	12 599	10 582	2 017	259 315	257 402	1 913	271 914	267 984	3 930
Per 1 000 population ¹	1,1	0,9	2,7	21,7	23,0	2,6	22,8	23,9	5,3
1987									
Total training	151 330	142 896	8 434	353 251	349 847	3 410	504 587	492 743	11 844
Per 1 000 population ¹	12,2	12,2	10,9	28,4	30,0	4,4	40,6	42,2	15,3
Training of unemployed	128 292	123 020	5 272	102 139	100 527	1 612	230 431	223 547	6 884
Per 1 000 population ¹	10,3	10,6	6,8	8,2	8,6	2,1	18,5	19,2	8,9
In-service training	23 038	19 876	3 162	251 118	249 320	1 798	274 156	269 196	4 960
Per 1 000 population ¹	1,9	1,6	4,1	20,2	21,4	2,3	22,1	23,0	6,4

¹ Training per 1 000 of the economically active population.
² Excluding Region G.

Source: Development Bank of Southern Africa, 1989

Table 6: Skills training opportunities required per annum in Region G

Area of skills shortage	Need to be addressed by				To be supplied to region
	Venda	Gazankulu	Lebowa	RSA	
Carpentry/joinery					
Artisan	20	15	40	10	85
Non-artisan	40	75	150	45	310
Bricklayer/plaster					
Artisan	30	30	70	20	150
Non-artisan	90	90	70	120	370
Electrical					
Artisan	24	15	45	5	89
Non-artisan	46	35	65	30	176
Plumbing					
Artisan	20	20	35	10	85
Non-artisan	16	16	40	60	132
Auto-mechanical					
Artisan	30	10	0	0	40
Non-artisan	45	50	0	30	125
Spray painting					
Panelbeating	0	0	0	40	40
Welding					
Artisan	0	10	25	15	50
Non-artisan	8	14	30	40	92
	32	25	50	65	172
Total: Non-formal technical	401	405	620	490	1916
Crop production	170	0	0	0	170
Subtropical	100	0	0	0	100
Animal husbandry	120	0	0	0	120
General farm skills	400	0	0	0	400
Farm management and supervision	300	60	0	0	360
Total: Non-formal agricultural	1090	60	0	0	1150
Sewing/dressmaking	80	120	160	50	410
General homemaking	250	200	250	50	750
Health education	50	150	250	0	450
Daycare	150	150	250	0	550
Total: Community development support	530	620	910	100	2160
Business management	160	250	150	0	560
retail management	80	60	80	0	220
Bookkeeping/finance	40	120	150	0	310
Secretarial	150	200	300	60	710
Stores management	20	0	60	0	80
Total: Non-formal business training	450	630	740	60	1880
Total new opportunities per annum	2480	1760	2270	650	7160
Total existing opportunities per annum	140	1570	980	750	3440
Total required per annum	2620	3330	3250	1400	10600
Skills training opportunities					
Shortages as at 04/01/1993	2480	0	2270	650	540

Source: Development Bank of Southern Africa, 1993

Table 7: Qualifications of African Teachers, 1986, 1989 – 1992. Department of Education and Training

	1986				1989 ¹				1990				1991				1992			
	Primary	Secondary	Total	%	Primary	Secondary	Total	%	Primary	Secondary	Total	%	Primary	Secondary	Total	%	Primary	Secondary	Total	%
UNQUALIFIED (Professionally)																				
Std 8 or lower	5 079	36	5 115	1 081	3 542	16	3 558	652	3 042	14	3 056	539	2 769	18	2 787	473	2 686	9	2 695	421
NTC	11	11	12	05	12	9	21	04	22	11	33	06	9	13	22	04	7	18	25	04
Matric or Senior																				
Certificate	2 263	545	2 808	583	2 794	290	3 084	565	2 891	297	3 188	562	2 821	342	3 163	536	3 321	465	3 786	591
Degree	14	164	178	38	12	174	186	34	19	173	192	34	19	232	251	43	26	317	343	54
Subtotal	7 367	756	8 123	1 717	6 360	489	6 849	1 254	5 974	495	6 469	1 140	5 618	605	6 223	1 055	6 040	809	6 849	1 070
NOT ADEQUATELY QUALIFIED																				
Std 6	3 095	26	3 121	660	2 206	7	2 213	405	1 880	13	1 893	334	1 648	11	1 659	281	1 415	4	1 419	222
Std 8	17 479	942	18 421	3 893	12 488	444	12 932	2 368	10 596	443	11 039	1 946	9 054	377	9 422	1 597	7 847	247	8 094	1 265
NTC	30	106	136	29	2	2	4	01	7	2	9	02	5	3	8	01	5	6	1	02
Std10 + <3yr teacher training	8 106	5 358	13 464	2 845	12 646	4 248	16 894	3 094	13 199	3 940	17 139	3 021	16 208	4 008	20 216	3 427	17 404	4 293	21 697	3 390
Subtotal	28 710	6 432	35 142	7 427	27 342	4 701	32 043	5 863	25 682	4 398	30 080	5 301	26 906	4 399	31 305	5 308	26 671	4 550	31 221	4 878
ADEQUATELY QUALIFIED																				
	860	3 192	4 052	856	6 973	8 739	15 712	2 877	9 331	10 861	20 192	3 559	9 180	12 274	21 454	3 637	11 501	14 438	25 939	4 052
GRAND TOTAL	3 6937	10 380	47 317	10 000	40 675	13 929	54 604	10 000	40 987	15 754	56 741	10 000	41 704	17 278	58 982	10 000	44 212	19 797	64 009	10 000

1. Adjustments were made to the data of 1989 to make provision for the Botshabelo area.

Source: Department of Education and Training, 1993

Table 8: Qualifications of African Teachers, 1986, 1989 - 1992. Department of Education and Training and the Self-Governing Territories

	1986				1989				1990				1991				1992			
	Primary	Sec-on-dary	Total	%	Primary	Sec-on-dary	Total	%	Primary	Sec-on-dary	Total	%	Primary	Sec-on-dary	Total	%	Primary	Sec-on-dary	Total	%
UNQUALIFIED (Professionally) Std 8 or lower NTC	10 286 17	85 17	10 371 34	9.85 .03	6 605 18	28 15	6 633 33	5.20 .03	5 488 28	22 16	5 510 44	4.18 .03	4 830 13	24 26	4 854 39	3.48 .03	4 563 8	20 48	4 583 56	3.11 .04
Matric or Senior Certificate Degree	7 741 17	2 412 344	10 153 361	8.64 .34	12 669 20	2 881 428	15 550 449	12.19 .35	11 462 30	2 322 482	13 784 512	10.46 .39	11 673 43	2 887 591	14 560 634	10.45 .46	11 717 81	2 867 821	14 484 902	9.90 .61
Subtotal	18 061	2 858	20 919	19.87	19 312	3 353	22 665	17.77	17 008	2 842	19 850	15.06	16 559	3 528	20 087	14.42	16 368	3 756	20 125	13.66
NOT ADEQUATELY QUALIFIED	5 325	32	5 357	5.09	3 560	10	3 570	2.80	3 041	19	3 060	2.32	2 536	12	2 548	1.83	2 155	4	2 159	1.47
Std 6	33 854	1 346	35 300	33.53	23 314	614	23 928	18.76	19 941	570	20 511	15.56	16 732	483	17 216	12.36	14 108	352	14 460	9.82
Std 8	50	138	188	.18	4	4	8	.01	10	6	16	.01	14	8	22	.02	8	13	21	.01
NTC	19 778	13 493	33 271	31.60	30 114	10 545	40 659	31.87	31 755	9 619	41 374	31.39	35 300	7 728	43 028	30.89	39 158	9 867	49 025	33.28
Std10 + <3yr teacher training	59 107	15 009	74 116	70.40	56 992	11 173	68 165	53.44	54 747	10 214	64 961	49.28	54 573	8 242	62 815	45.10	55 429	10 236	65 665	44.57
Subtotal	2 066	8 172	10 238	9.73	14 502	22 230	36 732	28.80	20 173	26 826	46 999	35.66	23 704	32 677	56 381	40.48	26 683	34 832	61 525	41.76
ADEQUATELY QUALIFIED	79 234	26 039	105 273	100	90 806	36 756	127 562	100	91 928	39 882	131 810	100	94 836	44 447	1 39 283	100	98 491	48 824	14 7315	100

Source: Department of Education and Training, 1993

Table 9: Qualifications of African Teachers, 1986, 1989 – 1992. Department of Education: Gazankulu

	1986				1989				1990				1991				1992			
	Primary	Secondary	Total	%	Primary	Secondary	Total	%	Primary	Secondary	Total	%	Primary	Secondary	Total	%	Primary	Secondary	Total	%
UNQUALIFIED (Professionally)																				
Std 8 or lower	314	1	315	5.39	85		85	1.10	59		59	.75	45		45	.54	43		43	.48
NTC	2	1	3	.06														5		.06
Matric or Senior																				
Certificate	1 339	188	1 527	26.15	1 957	259	2 216	28.69	1 657	211	1 868	23.84	1 586	328	1 914	22.83	1 557	345	1 902	21.28
Degree		15	15	.26	4	41	45	.58	7	61	68	.87	14	74	88	1.05	36	118	154	1.72
Sub total	1 655	205	1 860	31.85	2 046	300	2 346	30.37	1 723	272	1 995	25.46	1 645	402	2 047	124.41	1 636	468	2 104	23.53
NOT ADEQUATELY QUALIFIED																				
Std 6	52		52	.89	34		34	.44	28		28	.36	22		22	.26	15		15	.17
Std 8	1 115	30	1 145	19.61	657	11	668	8.65	569	10	579	7.39	440	4	444	5.30	346	7	353	3.95
NTC	2	5	7	.12					1		1	.01					1		1	.01
Std 10 + <3yr teacher training	1 305	788	2 093	35.84	1 497	480	1 977	25.59	1 522	417	1 939	24.75	1 471	91	1 562	18.63	1 895	396	2 291	25.63
Sub total	2 474	823	3 297	56.46	2 188	491	2 679	34.68	2 119	427	2 546	32.50	1 934	95	2 029	24.20	2 257	403	2 660	29.75
ADEQUATELY QUALIFIED																				
	137	546	683	11.70	1 303	1 397	2 700	34.95	1 697	1 597	3 294	42.04	2 178	2 131	4 309	51.39	2 138	2 038	4 176	46.71
GRAND TOTAL	4 266	1 574	5 840	100.00	5 537	2 188	7 725	100.00	5 539	2 296	7 835	100.00	5 757	2 628	8 385	100.00	6 031	2 909	8 940	100.00

Source: Department of Education and Training, 1993

Table 10: Qualifications of African Teachers, 1986, 1989 – 1992. Department of Education: Lebowa

	1986				1989 ¹				1990				1991				1992			
	Primary	Secon- dary	Total	%	Primary	Secon- dary	Total	%	Primary	Secon- dary	Total	%	Primary	Secon- dary	Total	%	Primary	Secon- dary	Total	%
UNQUALIFIED (Professionally) Std 8 or lower NTC	711	7 4	718 4	4.09 .02	180 1	2 1	182 2	.78 .01	96 1		96 2	.41 .01	84 2		84 2	.33 .01	62 8	1 8	63 8	.24 .03
Matric or Senior Certificate Degree	1 354	491 22	1 845 22	10.50 .13	2 589 1	754 25	3 343 26	14.29 .11	1 602 1	272 76	1 874 77	7.92 .33	1 551 2	553 89	2 104 91	8.20 .35	865 5	239 161	1 104 166	4.24 .64
Subtotal	2 065	524	2 589	14.73	2 771	782	3 553	15.19	1 700	349	2 049	8.66	1 637	644	22 817	8.89	932	409	1 341	5.15
NOT ADEQUATELY QUALIFIED	356 6 242 4		356 6 307 24	2.03 35.89 .14	254 4 199 1		254 4 222 1	1.09 18.05	213 3 598	2 25 2	215 3 623 2	.91 15.31 .01	173 2 923 1		173 2 943 3	.67 11.47 .01	127 2 398	12 2 335	127 2 410	.49 9.25
Std 10 + <3yr teacher training	3 494	2 928	6 442	36.54	5 441	2 485	7 869	33.64	5 746	2 252	7 998	33.79	6 512	1 778	8 290	32.30	7 339	2 335	9 674	37.12
Subtotal	10 096	3 013	13 109	74.59	9 865	2 481	12 346	52.79	9 557	2 281	11 838	50.02	9 609	1 800	11 409	44.45	9 864	2 347	12 211	46.85
ADEQUATELY QUALIFIED	236	1 640	1 876	10.67	2 108	5 382	7 490	32.02	3 490	6 291	9 781	41.33	4 353	7 622	11 975	46.66	4 901	7 609	12 510	48.00
GRAND TOTAL	12 397	5 177	17 574	100.00	14 744	8 645	23 389	100.00	14 747	8 921	23 668	100.00	15 599	10 066	25 665	100.00	15 697	10 365	26 062	100.00

Source: Department of Education and Training, 1993

Table11: Qualifications of African Teachers, 1986, 1989-1992. Department of Education: KaNgwane

	1986				1989				1990				1991				1992			
	Primary	Secon-dary	Total	%	Primary	Secon-dary	Total	%	Primary	Secon-dary	Total	%	Primary	Secon-dary	Total	%	Primary	Secon-dary	Total	%
UNQUALIFIED (Professionally)																				
Std 8 or lower	711	19	790	20.91	419	4	423	7.55	281		281	4.83	145	1	146	2.31	86	1	87	1.36
NTC	1		1	.03	2	1	3	.05	2			.03	1		1	.02		1	1	.02
Matric or Senior																				
Certificate	479	273	752	19.90	1 486	467	1 953	34.87	1 499	433	1 832	33.24	1 543	437	1 980	31.38	1 447	358	1 805	28.12
Degree	1	20	21	.56		38	38	.68	1	32	33	.57		33	33	.52	1	52	53	.83
Subtotal	1 252	312	1 564	41.40	1 907	510	2 417	43.15	1 783	465	2 248	38.67	1 689	471	2 160	34.23	1 534	412	1 946	30.32
NOT ADEQUATELY QUALIFIED																				
Std 6	44		44	1.16	64		64	1.14	43		43	.74	34		34	.54	23		23	.36
Std 8	1 217	40	1 257	33.27	949	23	972	17.35	814	23	837	14.40	620	16	636	10.08	453	14	467	7.28
NTC	1	2	3	.08					1		1	.02								
Std10 + <3 yr																				
Teacher training	387	278	665	17.60	702	232	934	16.68	873	214	1 087	18.70	1 024	144	1 168	18.51	1 298	225	1 523	23.73
Subtotal	1 649	320	1 969	52.12	1 715	225	1 970	35.17	1 731	237	1 968	33.86	1 678	160	1 838	29.13	1 774	239	2 013	31.36
ADEQUATELY QUALIFIED																				
	39	206	245	6.48	427	787	1 214	21.67	655	942	1 597	27.47	1 002	1 310	2 312	36.64	1 036	1 423	2 459	38.31
GRAND TOTAL	2 940	838	3 778	100.00	4 049	1 552	5 601	100.00	4 169	1 644	5 813	100.00	4 369	1 941	6 310	100.00	4 344	2 074	6 418	100.00

Source: Department of Education and Training, 1993

Annexure I2

KANGWANE: FORMAL EDUCATION, A SECTORAL PERSPECTIVE

by

G Naldoo

Human Resources: Regions F and G

1. INTRODUCTION

The Sectoral Perspective is a preliminary effort by DBSA – HRD (Human Resource Development) to collect comprehensive quantitative educational data. It is compiled using available data, suggests trends and directions, and is continuously updated to reflect the current situation of the provision of education.

The perspective is divided into five sections, each covering separate but related aspects. The first section (2.) details the quantitative aspects. The second section (3.) examines the quality of education using key indicators to interpret the numerical information. Sections three (4.) and four (5.) respectively, deal with the managerial and financial aspects of education in KaNgwane. The last section (6.) recommends immediate, medium and long-term actions.

2. QUANTITY OF EDUCATION: INFRASTRUCTURE, ENROLMENTS, STAFFING AND POPULATION

The total population residing within KaNgwane numbered 1 488 466 (HSRC data) in 1992. From a total of approximately 642 010 children between the ages of five and 19, 41% were enrolled at primary and secondary schools.

These children were accommodated in 315 schools with 2 757 classrooms at primary levels and 1 296 classrooms at secondary level, and 6 427 teachers.

Because of the instability in schools it is widely suspected that students migrated from troubled centres to ones of relative stability. Although it is difficult to quantify the migration its impact on education is significant and therefore needs to be kept in mind.

2.1 Pre-primary education (1990)

There were five pre-primary schools which were registered with the Government. These schools accommodated 220 pupils, taught by six teachers. Of these, only one facility is fully supported by the Government and in the other facilities the Government only pays the teachers' salaries.

2.2 Primary education (1993)

There are approximately 230 primary schools with 2 748 classrooms accommodating 179 927 pupils (boys and girls) who were taught by 4 348 teachers, providing a pupil/teacher ratio of 41:1 and a pupil/classroom ratio of 65:1.

2.3 Secondary education (1993)

There are approximately 75 secondary schools with 1 276 classrooms accommodating 777 615 pupils (boys and girls) who were taught by 2 090 teachers to provide a pupil/teacher ratio of 38:1 and a pupil/classroom ratio of 61:1.

1.4 Platoon-system schools (1989)

Because of the lack of clarity as to the definition of these schools, no statistical data have yet been made available for 1990. However, it appears that during 1989 there were 37 schools with a platoon system accommodating 27 196 (primary and secondary pupils). Those pupils were taught by 750 teachers, providing a pupil/teacher ratio of 36:1.

2.5 Double-session schools (1989)

During 1989 there were two schools offering a double session of instruction. The number of teachers at these schools is not known.

2.6 Hostels (1991)

There are three schools with hostels accommodating 639 boarders and one technical school with hostels accommodating 232 boarders. The total number of boarders accommodated in the hostels totalled 871. If the residences of the two teacher colleges are added a total of 2 598 pupils is accommodated. The residential accommodation of students seemed to have increased significantly at the Colleges of Education (CEs) but dropped at schools. The utilisation of school hostels needs to be further investigated.

2.7 Technical centres (1990)

There is one Technical Centre which served 193 pupils, who were taught by 24 teachers.

2.8 Teacher education (1991)

There were two pre-service CEs with a total enrolment of 2 014 students. Of these 459 were enrolled for the Junior Primary Teachers Diploma, 506 for the Senior Primary Teachers Diploma and 1 034 for the Secondary Teachers Diploma. No students were enrolled for the one year Primary Teacher Certificate (PTC) and the PTC primary course. Seventeen students were registered for the Primary Teacher Diploma (PTD) Pre-primary. These students were taught by 147 academic staff, providing an average student/lecturer ratio of 14:1. The student/lecturer ratio used in the South African National Education Policy (SANEP) III formula to generate lecturing posts at CEs suggests that ratios should move to 1:17 by 1995 and 1:25 by 2000.

RIEP projections for teachers in KaNgwane by the year 2000 are 3 950 primary teachers and 2 870 secondary teachers. Taking into consideration the present teacher stock (3 319 primary and 2 050 secondary teachers), an annual erosion factor of 3% and college output (1 500 primary and 1 800 secondary), it is estimated that KaNgwane will have a surplus of 355 primary teachers and 51 secondary teachers by the year 2000. The colleges at present seem to be producing too many teachers. This matter requires further investigation, particularly considering the current disparity between KaNgwane and RSA population figures. The need to consolidate and rationalise the provision of academic staff to CEs is immediately obvious.

3. QUALITY OF EDUCATION

Using key indicators for measuring educational quality, the education received by KaNgwane pupils requires serious attention.

3.1 Progression rate

An analysis of the 1978 - 87 cohort groups shows that the 1987 standard 8 pupils represent 50% of those who began in sub A in 1978. Taking into account a 5,8% repeater rate and a 6,3% dropout rate between standards 8 and 10, the final group entering standard 5 will be only ± 44% of the original 1978 intake group. This suggests that the present holding power of schools is weak and that if a

policy of universal primary education (basic education seven years) is adopted KaNgwane will have to retain 100% of those who started SSA. KaNgwane at present retains less than 44% (DET retains 49,3%).

3.2 Repeater rate and dropouts

During 1991, 19 014 (11%) of primary school pupils and 11 404 (16%) of secondary schools were repeaters. The high repeater rate and a secondary-school dropout rate of 10,7% suggest that primary schools are not preparing students adequately. There are other reasons for the dropout rate such as the political and economic contexts.

Table 1: Summary of matric examination results, 1988-1991

YEAR	NO OF CANDIDATES	NO AND % PASSED	NO AND % FAILED	NO AND % PASSED WITH EXEMPTION
1991	9 807	3 703 (38%)	6 104 (62%)	809 (8%)
1990	8 520	3 248 (38%)	5 272 (62%)	666 (8%)
1989	6 758	2 776 (41%)	3 982 (59%)	623 (9%)
1988	5 631	3 532 (63%)	2 064 (36%)	909 (16%)

Source: KaNgwane Department of Education, 1992

The very low number of those able to proceed with tertiary education is staggering. Attention needs to be paid to this problem.

3.3 Teacher qualifications

Although KaNgwane has an acceptable pupil/teacher ratio at both the primary and secondary levels (cf section 2.4), the ratio of pupil/qualified teacher is high (82:1 primary; 68:1 secondary). Approximately 51,7% (2155) of the total number (4169) of primary teachers and approximately 46,0% (773) of the total number (1680) of secondary teachers are unqualified or underqualified in terms of the White Paper on the Provision of Education in the RSA (1983), which recommends 'M+3' as a criteria for distinguishing between qualified and unqualified teachers. From a budgetary viewpoint it is not clear what proportion of the educational budget allocated to teacher upgrading and in-service training is an area which requires concerted effort by the Department. (From an efficiency and effectiveness point of view KaNgwane's centralised approach to in-service training is questioned. It is recommended that a decentralised approach be considered, with facilitators being trained to take the in-service training to the schools.)

3.4 Curriculum

The quality of student performance in subjects (Mathematics and Science) considered critical for future employment prospects is disconcerting. In 1990 only 8,2% of all Std 10 pupils wrote Mathematics on the Higher Grade. Only +9,7% of them passed and with rather low marks. Similarly, +5,5% of all pupils took Science on the Higher Grade but only 21% passed. The pass rate at Standard Grade was 9,1% in Mathematics, and 21% in Science. In addition, some teachers seem to be teaching subjects other than those for which they are qualified. It is vital that these issues be investigated further so that action can be taken.

3.5 Subject mix

Overall, the general choice of subject mix, particularly in respect of the critical subject areas, is a matter of serious concern. The combination of subjects taken by Std 10 pupils in 1990 was largely dominated by the humanities and the social sciences, to the detriment of Mathematics, Physical Science, technical and commercial subjects. The result is that the education received is not sufficiently employment-related or even suitable for training towards employment.

Table 2: Subject mix, 1990

MOST SELECTED		LEAST SELECTED	
Mother Tongue	96,6%	Maths	13%
Biology	89,4%	Physical Sciences	10,7%
Bible Studies	83,2%	Accountancy	4,8%
Geography	27%	Economics	5,2%
History	23%	Business Economics	44,9%

Source: KaNgwane Department of Education, 1992

The evidence suggests that this situation is not improving. Over the past four years the percentage of the total of all Std 10 pupils taking 'critical' subjects has remained fairly constant since 1987.

Table 3: Enrolment in 'critical' subjects, 1987-1990

	1987	1988	1989	1990
Maths	} 7%	9%	8%	13%
Physical Science	} 5%	3%	6%	10,7%
Accountancy	} 2%	2%	4%	4,8%
Business Economics	} 5%	9%	3%	4,9%
Economics	} 1%	2%	4%	5,2%

Source: KaNgwane Department of Education, 1992

Action must be taken to reverse this trend.

3.6 Classroom backlog

There is still a large backlog in the provision of schools, classrooms and other facilities in the system. The pupil/classroom ratios based on a primary enrolment of 175 829 and a secondary enrolment of 70 402 are 75:1 and 63:1 respectively. Based on these figures it is estimated that KaNgwane has a shortfall of 1 763 (1:40) classrooms at primary level and 930 at secondary level (1:45). The construction of schools and/or classrooms has therefore not progressed at the same pace as teacher provision where a very favourable ratio (41:1 primary and 38:1 secondary) exists. In 1992, 483 new classrooms were built. Current budgetary allocation in this area indicates that KaNgwane will not be able to catch up the classroom backlog, unless additional funds are obtained from the budget or from other sources of finance such as IDT. The large discrepancy in pupil/teacher and pupil/classroom ratios further indicates that some teachers might be teaching outside the classroom or that some teachers might not be teaching a full load. The current platoon- and double-session systems, while problematic in many respects, could provide a sound alternative if properly structured. It is vital that this issue be further investigated to achieve higher levels of efficiency. Furthermore the physical conditions of KaNgwane schools need to be carefully assessed because: (i) it is suspected that schools might be in a poor state of repair as a result of inadequate maintenance operations and unrest in schools; and (ii) basic facilities and infrastructure would seem to be lacking.

3.7 Backlogs in teaching and learning facilities and costs

The situation with regard to the provision of books, stationery and equipment to schools cannot be clearly ascertained from the budgetary allocations. However, attention must be paid to the following:

- the provision of books and equipment according to appropriate and acceptable norms;
- procurement at the lowest cost possible;
- the efficient and timely distribution of books;

- effective systems to ensure the retention of books in the system for at least three years;
- the replacement of books limited to growth in pupil numbers and replenishment needs.

4. MANAGEMENT AND SUPERVISION:

4.1 Availability of data

The lack of data (education information) or lack of access (timeous) to such data for planning and reporting is a major constraint on the effective management of education at all levels.

4.2 Management of data

Improved management of the KaNgwane Education System is required to ensure rational policy-making, effective planning and budgeting, and the implementation of sound financial management. The managerial and supervisory staff of the Department of Education require improved management skills. This applies not only to Head Office staff, but also to school inspectors, principals and heads of departments. The budget reflects insufficient allocation to this item of staff training. Institutional strengthening is required to improve efficiency and effectiveness by:

- analysing and rationalising the existing organisation structure;
- analysing and improving existing systems and procedures;
- analysing the staff training and development needs particularly in critical areas such as planning and budgeting;
- developing an appropriate data base to enhance effective decision-making.

5. FINANCIAL SITUATION AND THE ALLOCATION OF FINANCIAL RESOURCES:

5.1 Budgetary allocation

Severe financial constraints face KaNgwane and resources need to be allocated more effectively and efficiently. The budgetary allocations to education account for a substantial portion of the total national budget.

Table 4: Budgetary allocations, 1988/89-1991/92

YEAR	EDUCATION	KANGWANE TOTAL	% OF TOTAL
1988/89	106 598	296 818	35,9
1989/90	108 647	323 274	33,6
1990/91	205 134	536 837	38,3
1991/92	191 207	540 125	36,0

Source: KaNgwane Department of Education, 1992

The portion allocated to education by RSA is approximately 19%. Allocations in other independent and self-governing territories range from $\pm 17\%$ to $+ 50\%$. Although there is no obvious ceiling to Government investment in education there is a threshold beyond which the burden of education expenditure may disturb the economic balance.

5.2 Recurrent and capital expenditure

Approximately 11% (R22 million) of the 1990/91 educational budget (R205 million) was for capital expenditure. Primary education received 44% (R89,4 million) of the total educational budget and

secondary education received 25% (R51,3 million) while teacher (pre-service) training and technical training received respectively 5% (R10,3 million) and 6% (R1,3 million).

Approximately 14% (R27,6 million) of the total budget was allocated to administration.

Eighty-two % of the total budget is allocated to teachers' salaries, while less than 1% (R31 000) is allocated to the in-service training of these teachers. The 1990/91 budget would seem to be inadequate to cover the total needs of the Department.

5.3 Areas which require attention

- Financial provision for the expansion of services (schools, classrooms, textbooks, etc).
- Financial provision for improvement in the workings/efficiency of the sector; an institutional development programme should be implemented as a matter of urgency. The focus should be on policy-making, planning and budgeting with special staff development programmes in critical areas (planning, budgeting, management, supervisor, administration). The development of a data base should be included.
- Financial provision for improvement in the quality of education; a teacher training strategy should be completed as a high priority given the implications for future planning initiatives such as the need for curriculum reform and the greater emphasis on Mathematics, Science, technical and commercial subjects.

5.4 External funding

Emphasis must also be placed on appropriate the external sources of funds, for example, IDT, SA Housing Trust, Urban Foundation, DBSA and the private sector.

5.5 Efficiency and costs

Attention must be given to containing costs. As an example, the high repeater rate has cost implications, both in terms of staff and facilities. Some costs could be contained by reducing the number of repeaters through strengthening remedial programmes. Approximately 30 000 students repeated standards (Sub A to Std 10) and resulted in the need for an additional 687 teachers and 446 classrooms. The estimated cost of this situation, based on average costs of R25 000 for teacher salary and R30 000 for classrooms, is an operating cost of R13 740 000 and a capital cost of R13 380 000.

The Department of Education has 303 schools, worth, in current building costs, some R909 million (approximately R3 million per school). The budget of the Department reflects no provision for the maintenance of school facilities, and an estimated 1,5% of total budget should be devoted to this function (±R3 million for 1991). It should be noted that the most cost-effective approach for the provision and maintenance of school facilities based on maximum community involvement might not be in place.

There are other areas which are costly to KaNgwane and where efficiency measures could be introduced:

- KaNgwane colleges have a throughput of 70%. The cost based on students failing at CEs is R16 000 pa per student (including capital costs) and R5 000 paper per student (recurrent costs), resulting in a need for additions (at recurrent costs) of R875 000.
- Production of teachers. The cost of every 100 teachers in training over a three-year period (who might not be required as it is estimated that KaNgwane will have a surplus of 400 teachers by year 2000) is the equivalent of a new primary school for 800 pupils.

Rationalisation and performance improvements must therefore be addressed.

Looking at cost effective alternatives in respect of school buildings would enable KaNgwane to reduce its backlog substantially.

6. ACTIONS REQUIRED:

6.1 Immediate

- A cost effective school-building programme, possibly aligned to the community-centre concept, should be instituted by KaNgwane in an effort to address the backlog.
- KaNgwane should implement a rehabilitation programme for school facilities.
- The rationalisation and consolidation of lecturers employed at teacher colleges should be instituted by KaNgwane.
- KaNgwane should implement (with DBSA assistance) an institutional development programme to strengthen the capacity and capability of the Department of Education.
- KaNgwane is developing (with DBSA assistance) a teacher in-service training strategy.

6.2 Medium term

- A re-evaluation by KaNgwane (with DBSA assistance) of the existing technical college in the light of the manpower strategy proposed for Region F, of the need for technical manpower and regional co-operation (Manpower Centre) is necessary.
- A preventative maintenance programme for all education facilities must be developed and implemented by KaNgwane after a full review of existing facilities and the implementation of a rehabilitation programme.
- KaNgwane should improve the utilisation of existing facilities, from tertiary level to schools level, for adult education and community development.

6.3 Long term

- KaNgwane should introduce measures to improve the holding power of schools (dropouts) and to improve student performance. The role of and responsibility for pre-primary educare must be addressed.
- KaNgwane should institute actions to reduce the repetition rate in the schools and to change the mix of subjects selected by pupils.
- KaNgwane should implement a manpower development strategy.

Annexure I3

**FORMAL AFRICAN EDUCATION IN REGION G: A SECTORAL
ANALYSIS**

by

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Centre for Policy Analysis**

A brief summary in table form of data relevant to formal education in Region G is attached. This should be read in conjunction with the various education authority, university and the RIEP annual reports.

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DEVELOPMENT BANK OF SOUTHERN AFRICA
HUMAN RESOURCE DEVELOPMENT
1991

STATISTICS RELATED TO EDUCATION IN REGION G (EXCLUDING WHITE, COLOURED AND INDIAN)

Table 1: Pre-primary education

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Schools 30	313	17	22	382
Teachers 99	599	115	22	835
Pupils 2 667	35 565	2 693	1 050	41 975
P:T ratio 27:1	59:1	23:1	48:1	50:1

Table 2: Primary education

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Teachers 4 809	15 604	5 757	4 641	30 811
Pupils 119 296	630 703	247 673	160 484	1 238 156
P:T ratio 41:1	40:1	43:1	35:1	40:1

Table 3: Secondary education

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Teachers 2 354	10 108	2 696	2 988	18 146
Pupils 85 680	342 040	90 938	81 141	599 799
P:T ratio 36:1	34:1	34:1	27:1	33:1

Table 4: Summary: Pre-primary, primary and secondary

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Teachers 7 262	26 311	8 568	7 651	49 792
Pupils 287 653	1 008 308	341 304	242 675	1 879 940
P:T ratio 40:1	38:1	40:1	32:1	38:1

Table 5: Total number of primary, secondary schools and classrooms

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Primary schools 606	1 253	342	470	2 671
Primary classrooms 4 155	10 492	3 319	2 634	20 603
Intermed. schools 91	0	10	0	101
Intermed. classrooms 987	0	91	0	1 078
Combined schools 1	1	17	0	101
Combined classrooms 19	17	194	0	230
Secondary schools 70	615	342	470	2 671
Secondary classrooms 1 751	5 687	1 778	1 724	10 940
Total schools 768	1 869	494	625	3 796
Total classrooms 6 912	16 196	5 382	4 361	32 851

Table 6: Total number of unqualified and qualified teachers

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Unqualified Primary 324	1 638	1 645	302	3 909
Qualified Primary 4 485	13 964	4 112	4 339	26 900
Total Primary 4 809	15 604	5 757	4 641	30 809
Unqualified Secondary 79	646	407	108	1 240
Qualified Secondary 2 275	9 462	2 289	2 880	16 906
Total Secondary 2 354	10 108	2 696	2 988	18 146
Total Unqualified 403	2 284	2 052	410	5 149
Total Qualified 6 760	23 426	6 401	7 219	43 806
GRAND TOTAL 7 163	25 712	8 453	7 629	48 955

Table 7: Pupil to classroom ratio – average primary and secondary

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Classrooms 6 912	16 196	5 382	4 361	32 851
Pupils 184 976	972 743	338 611	242 675	1 879 940
P:C ratio 41:1	60:1	63:1	56:1	57:1

Table 8: Pupil to qualified teacher ratio – primary and secondary

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Qualified P/Teachers 4 485	13 964	4 112	4 339	26 900
Total pupils 199 296	630 703	247 673	160 484	1 238 156
P:T ratio 41:1	45:1	60:1	37:1	46:1
Qualified S/Teachers 2 275	9 462	2 289	2 880	16 906
Total Sec Pupils 85 680	342 040	90 938	81 141	599 799
P:T ratio 38:1	36:1	40:1	28:1	35:1
Total Qualified Teachers 6 760	23 426	6 401	7 219	43 806
Total Pupils Primary and Secondary 284 976	972 743	338 611	242 775	1 837 955
P:T ratio 42:1	42:1	53:1	34:1	42:1

Table 9: Number of schools, teachers and students in special education

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Schools 7	2	1	1	11
Teachers 168	78	28	59	333
Pupils 1 166	546	291	386	2 389
P:T ratio 7:1	7:1	10:1	7:1	7:1

Note: Education for the aurally, visually, physically disabled.

Table 10: Full-time commercial and technical enrolments of technical institutes

DET	LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Institutions 4	6	1	2	13
Teachers 125	122	27	52	326
Students 1 994	3 168	543	636	6 341
S:T ratio 16:1	26:1	20:1	12:1	19:1

Table 11: Full-time enrolments at teacher training colleges

DET		LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Colleges	1	12	4	4	21
Lecturers	76	700	208	196	1 180
Students I	350	5 749	1 096	854	8 049
Students II	245	3 666	880	439	5 230
Students III	366	2 320	853	878	4 417
Total	961	11 735	2 829	2 171	17 706
S:L ratio	13:1	17:1	14:1	11:1	15:1

Table 12: Summary of institutions and full-time teaching staff and students

DET		LEBOWA	GAZANKULU	VENDA	TOTAL (G)
Institutions	810	2 202	517	694	4 223
Teaching Staff	7 730	27 810	8 945	7 956	52 441
Students	294 441	1 023 757	344 424	245 187	1 907 809

Table 13: University of the North

Table 13.1: Staff

POS/SEX	RECTOR	VICE RECTOR	PROFESSOR	ASSOC. PROFESSOR	SENIOR LECTURER	LECTURER	JUNIOR LECTURER	TOTAL
Male	1	2	35	27	71	117	16	287
Female			2	5	13	34	13	67
TOTAL	1	2	55	32	84	151	29	354

Table 13.2: Students

AREA/SEX	RSA	LEBOWA	GAZANKULU	VENDA	OTHER	TOTAL
Male	1 043	2 809	1 308	253	1 555	6 968
Female	888	1 304	1 129	127	1 031	5 479
TOTAL	1 931	5 113	2 427	380	2 586	12 447

Table 13.3: Student enrolment per faculty

FACULTY SEX	SCIENCE	COMMERCE	AGRICULTURE	ARTS	EDUCATION	LAW	THEOLOGY	TOTAL
Male	604	824	77	3 083	1 353	969	58	6 968
Female	251	368	5	3 452	1 066	337	0	5 479
TOTAL	855	1 192	82	6 535	2 419	1 306	58	12 447

Table 13.4: Student/staff ratio

Students:	12 447
Staff:	351
S:S Ratio:	35:1

Table 14: University of Venda

Only Statistics available

Enrolments:	3 500
Academic Staff:	141
Staff: Student Ratio:	25:1

Table 15: Technikons

AREA/TECHINIKON	LEBOWA	GAZANKULU	VENDA	TOTAL
Northern Transvaal	288	128	448	864
Mangosuthu	0	0	71	71
TOTAL	288	128	519	935

Table 16: Other Universities

AREA/TECHINIKON	LEBOWA	GAZANKULU	VENDA	TOTAL
Zululand	0	0	5	5
Mendusa	205	87	117	409
Vista	3 878	609	388	4 875
TOTAL	4 088	696	510	5 289

Table 17: Summaries

Table 17.1: Tertiary education (excluding teacher-training) students

IN REGION G	IN OTHER REGIONS	STUDENTS PERMANENTLY RESIDENT IN REGION G or TEMPORARILY RESIDENT IN REGION G	AT UNIVERSITIES	AT TECHNIKONS
13 386	6 224		13 361	935
2 586	-		2 586	-
15 947	6 224	TOTAL	15 947	935

Table 17.2: Education In Region G (excluding white, coloured and Indian)

EDUCATION/NUMBER	STUDENTS	TEACHING STAFF	INSTITUTIONS FACILITIES
Pre-Primary	41 975	835	382
Primary	1 238 156	30 811	2 791
Secondary-Academic	599 799	18 146	1 005
Secondary-Technical and Commerce	6 341	326	13
Special-Disabled	2 389	333	11
Teacher Training	17 696	1 179	21
Technikons	935	0	0
Universities		492	2
TOTAL	1 923 238	52 122	4 848

Addendum J

ACCESS TO HOUSING

by

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1. INTRODUCTION

A static description of the current settlement and housing situation in the two regions, although interesting, is not useful in achieving an understanding of poverty in these areas.

Therefore this paper attempts, within the context of information and time constraints, to describe and interpret the role and importance of settlement and housing in both combating and exacerbating poverty. The gaps in data and information needed to support the linkages between settlements, housing and poverty are also noted.

2. CURRENT SITUATION

2.1 Settlements and housing

The patterns of settlements and housing in South Africa are a direct reflection of the inequities and inefficiencies of the political economy experienced by disadvantaged groups of people. Regions F and G are no different.

Because the boundaries of Regions F and G cover areas of the Province of Transvaal of South Africa, the independent homeland of Venda and the self-governing homelands of Gazankulu, Lebowa and KaNgwane, the moves towards rationalising the pattern of settlement and housing provision within the Transvaal still reflect the current constitutional dispensation of separate townships, regulatory frameworks, funding arrangements and housing delivery systems for each of the population groups.

The significance of this is that in each of these areas the reasons for and conditions under which settlements are established differ and influence planning, funding, executing and maintaining settlements, including housing.

2.2 Region F

The definition of the 'urban' population in Region F is based on the 1980 (and 1985) official census definition of 'urban' as proclaimed towns with some form of local authority. Critics (Graaff, 1986) find this definition too narrow and recommend that it be extended to include settlements from which persons commute to proclaimed towns for employment, shopping and other purposes (peri-urban or so-called squatter areas or closer settlements normally surrounding the bigger proclaimed towns); and settlements with populations of over 5 000 people (semi-urban areas, ie agricultural and mining settlements).

According to the 1980 census figures 49 502 people in KaNgwane were defined as urbanised. Graaff estimated that as many as 200 000 people could be regarded as urbanised in terms of the wider definition. In other words 94% and not 17% of the *de facto* population of the territory would be classified as urbanised.

In this section of the report, the 1980 and 1985 census figures on the urbanised population of the region were used, since there are no comprehensive statistics which use Graaff's definition of urbanisation. However, these are supplemented by estimates of the urbanised population of KaNgwane for 1988 provided by the KaNgwane Department of the Interior (Government of KaNgwane, 1988), which include part or all of the peri-urban population, according to Graaff's definition.

Statistical summary

At present, there are 84 towns or urban settlements in Region F. Seventy-six of these are situated in the Transvaal portion of the region and eight in KaNgwane. Sixty-seven of the 76 are proclaimed towns, there being 568 proclaimed towns nationally. Witbank, the largest town in the region, is ranked number nine. Kabokweni, the largest settlement and industrial growth point in KaNgwane, is ranked number 267. The 12 largest towns in the Transvaal portion of the region are among the top 20% of towns nationally, indicating a relatively high degree of urbanisation.

In 1980, the urban population of the region was estimated at 472 644 people. This number increased at an average annual rate of 4,4% to an estimated 586 776 people out of a total regional population of 1 774 810 in 1985. Of the urban total, an estimated 60 127, almost 10%, were settled in KaNgwane with the remaining 526 649 persons, almost 90%, settled in the Transvaal portion of the region. The majority of the people are Africans, 384 679 or almost 66% of the total. Whites number 183 706 or almost 31%, coloureds 10 827, almost 2%, and Indians 7 564, almost 1%.

The 1991 census (provisional) indicates that the population has grown to 2,1m. This census also puts the number of dwellings at a total of 67 623 including houses, flats, town/cluster houses and retirement dwellings. The 1991 CSIR housing stock audit for the De Loor Working Group on Housing Policy (Boutek, 1991) put the figures at 128 274 for formal housing and 98 752 for informal housing, giving a grand total of 227 026 throughout the region. This could mean in excess of eight persons per dwelling and, for many of the smaller dwellings with only one or two rooms, four or more persons per room.

According to a DBSA report (1992a) the total number of beds in publicly administered hostels in the region constituted between less than 4% and 12% of the total beds throughout South Africa. This translates as anything between 39 and 152 880 beds. The reason for the discrepancy appears to be related primarily to methodology and the scope of the survey. For example, in certain instances school hostel beds were included.

2.3 Region G

In 1985 the total regional population had grown to 3 888 325 (DBSA, 1992a) with only 8,5% being classified urban. This tends to hide significant differences between the subregions, namely:

Transvaal:	497 725 population and 28,7% urban,
Gazankulu:	624 535 population and 4,1% urban,
Lebowa:	2 306 236 population and 6,4% urban, and
Venda:	459 819 population and 2,9% urban.

It also hides the very significant phenomenon of functional urbanisation which according to some sources accounts for the growth in peri-urban populations (Graaff, 1986:1)

At present, there are 68 proclaimed towns in Region G, the largest number being in the Transvaal portion of the region (41 towns), followed by Lebowa (15 towns), Gazankulu (eight towns) and Venda (four towns). Pietersburg, the largest town in the region, is ranked number five; Thohoyandou, capital of Venda, is ranked number 91; Lebowa kgomo, capital of Lebowa, is ranked number 131; and Giyani, capital of Gazankulu, is ranked number 352. The 11 selected towns in the Transvaal portion of the region are ranked among the 14 largest towns in the region.

The 11 largest towns in the Transvaal portion of the region, that is towns with a population in excess of 2 500 people in 1985, and each of the proclaimed towns of the other three subregions were selected for study.

In 1980, the population of the selected proclaimed towns in the region was estimated to be 227 000 people, this number increasing at an average annual rate of 5,5% to an estimated 282 800 people in 1985 and 330 000 people in 1987. In 1985 the total population was estimated to be 3 888 325. An estimated 161 100, almost 49%, of this total were settled in Lebowa; 111 000 or 34% in the Transvaal portion of the region; 34 500 or 10% in Gazankulu and 23 400 or 7% in Venda. It is interesting to note that the average annual growth rates of the urbanised population in Venda, Gazankulu and Lebowa between 1980 and 1987 were 19,5%, 11,5% and 5,2% respectively, compared with a growth rate of 2,9% in the case of the Transvaal portion of the region during the corresponding period. The figures reflect the resettlement of Africans from the Transvaal portion of the region to the other subregions. This is especially evident in the decrease in the population of Louis Trichardt following the resettlement of people in Tshikota in Venda and Waterval in Gazankulu.

In 1987, residential structures, consisting of houses, flats and townhouses, as well as hostels, boarding houses and such like, were estimated at 67 160 structures, the majority of which (59 380 or 88,4%), were houses, with an almost equal number of flats and townhouses (3 980 or 5,9%) and other structures (3 800 or 5,7%). The majority of the residential structures were available in the Transvaal portion of the region (an estimated 28 506 or 42%) followed by Lebowa (25 273 structures or 38%), Gazankulu (8 814 structures or 13%) and Venda (4 566 structures or 7%).

According to the 1991 census the formal residential structures totalled 33 636. However, according to the aforementioned CSIR housing stock audit of the same year, the formal housing stock totalled 88 297 and the informal 91 209, giving a grand total of 179 506 dwellings in the region.

All the urban residential structures in the Transvaal portion of the region were assumed to have been supplied with water, sanitation services and electricity in 1987. The other subregions, with the exception of a few proclaimed towns within these subregions, compared favourably with the Transvaal subregion as far as water supply and sanitation services were concerned. However, only 73% of structures in Gazankulu, 68% in Lebowa and 54% in Venda, had access to electricity during that year. These figures do not take backyard structures and peri-urban settlements into account.

According to the aforementioned DBSA report hostel accommodation varies between 1% and 8% of the total beds in South Africa, in other words between 2 981 and 105 531 beds.

Even if the total number of hostel beds (105 531) is subtracted from the total population (3 888 325) this still leaves 3 782 794 people to be accommodated in 179 506 dwellings. This means massive overcrowding of 21 persons per dwelling. These figures only reflect an average and there must be areas which are far worse off.

3. OBSERVATIONS AND PROVISIONAL CONCLUSIONS

South Africa's apartheid policies leave a legacy of fragmentation in the administration of and responsibility for planning and information systems.

Much of the data that is available is inconsistent and does not allow meaningful interpretation at the household level. There are also significant differences in data, which raise questions of accuracy and methodology.

There are distinct discrepancies between the regions and between subregions within the regions. However, it is not clear precisely why these discrepancies exist.

Given the constraints it was difficult to state categorically whether housing was part of the problem or the solution. For example in the homeland areas the rural elite are civil servants with housing benefits. They may in the future find themselves in the position of having to pay economic rent which could potentially substantially reduce their disposable income and thus result in impoverishment, particularly as extended families are frequently involved.

The rental or cost of a mortgage was not investigated but with increasing unemployment and fluctuating interest rates the general incidence of repossessions has been increasing. The implications of this both in terms of possible vacant accommodation and in terms of overcrowding in other forms of accommodation were not examined. A further aspect of the declining economy and unemployment is that not only have people been financially over-committed but, as many of the towns have marginal economic bases, there is no ready market for houses. People cannot realise any of their invested savings and are left destitute, making it difficult even to move away to seek better opportunities. In a sense they represent a new class of economic refugees.

The thousands of refugees from surrounding southern African countries, who use the eastern Transvaal/KaNgwane, in particular, as a foothold into South Africa, were not taken into account. Anecdotal information indicates that their situation in many instances is precarious. However, there are also some success stories of people having been productively absorbed into rural communities.

Much more work is necessary to create a coherent picture of household strategies and how, within this context, the house is viewed. Is it a resource or an asset? Both the house and its contextual relationship within the settlement are important. For example old settlements tend to have larger plots sufficient for a limited level of produce production whereas newer settlements have small plots with no access to commonage thus precluding any produce production.

Notwithstanding the repeal of legislation on migrant labour, migrancy as a necessary economic strategy will continue into the future. This has distinct implications for the rural settlements. Under more normal conditions physical overcrowding could occur but for probably short manageable periods of time. However, under current economic conditions where people are being retrenched *en masse* and returning to their place of origin the potential for severe physical overcrowding is increased.

The picture painted by the information available on rural housing in South Africa is also bleak. What is not clear is how much of the accommodation on farms can be described as being 'tied housing'. This, together with the changes in national labour legislation, could have far-reaching implications for homelessness amongst farm workers currently on 'white' farms. The President's Council *Report on Urbanisation* (1992) proposes the creation of off-farm workers' villages. Such a proposal would require very careful consideration as, without a comprehensive programme in place, this could easily exacerbate rather than enhance conditions.

Under past policies, when people have been eligible for accommodation, the house made available has generally been the same no matter where it is located. Thus although previous studies have indicated a tendency for larger families to be on the periphery the accommodation would have been of the same size as for a smaller family less far out. The house provided thus exacerbated conditions of overcrowding, potentially reinforcing bad health and the like.

Implied in the foregoing discussion is the issue of location. Historically many settlements in South Africa have been created for ideological reasons rather than as part of a coherent development strategy. This former approach has left many settlements peripheralised and isolated in the space economy (Dewar in DBSA, 1992d). This places a major burden on the inhabitants and is a major factor contributing to their structural impoverishment. With the collapse of many industries in 'border areas' and decentralisation points the potential for many more households finding themselves with the millstone of a house and its costs around their necks will increase.

It is important to note that access to services played a significant role in maintaining the fragmented spatial pattern. In the homelands residential services have been substantially subsidised to make their consumption cheap for consumers whereas in South Africa different pricing and cost recovery policies were applied. If a more rational economy is to be attained it needs to be established whether people in unfavourable locations should be encouraged to move and if so how. Pricing policies could play an important role in this sphere but the impact on aggregate social well-being would require careful consideration. In addition, as local authorities rationalise and different forms of amalgamation take place, services and infrastructure policy could, if incorrectly articulated, further impoverish poor communities.

The hostels are a particular form of accommodation brought into prominence in South Africa by apartheid and the attendant migrant labour laws. A distinction needs to be drawn between publicly-

owned and managed complexes and those in the private sector. The main difference is that residents in private hostels are employed, and conditions are 'controlled' by the residence of the person being employment-related. In public hostels, in contrast, although the intention was to make cheap accommodation available to people with jobs this frequently was not the case. Public hostels frequently display a high incidence of unemployment, overcrowding, unhealthy and unsanitary conditions. In this context both the government and membership of the National Housing Forum have agreed to what is termed '*Short term Guidelines*', adopted on 1/11/91 in Randburg by the National Discussion Forum on Hostels and Housing, and the Government. If handled correctly these guidelines and the follow-up, more detailed, long-term work could ensure that hostel-improvement initiatives become more inclusive and address many of the socio-economic issues in a developmental manner so that poverty will start to be redressed. A potentially significant pitfall is that political pressure will allow only superficial upgrading. People will be displaced in order to reduce densities and the cycle of rejection and violence will continue.

Lastly, because the history of low income housing in South Africa has been largely a process in which people were left to their own devices, the concept of self help has in large measure been help yourself to whatever is available. Frequently the pressures of absolute poverty and lack of knowledge have caused materials that are unsuitable for a variety of reasons to be used for building. These materials might have toxic qualities, be unstable and thus have an impact on health conditions. For the same reasons, unsuitable sites are chosen for building, which in turn can have massive debilitating effects on health, family life and in the end on productivity and the ability to enhance personal well-being and reduce poverty.

4. SUBREGIONAL INFORMATION

4.1 Gazankulu (*Source: Boutek/CSIR, 1991. Housing stock in South Africa.*)

In 1984 there were six proclaimed towns in Gazankulu with a population of 23 274 and a total of 3 290 formal housing units. People residing in areas surrounding the proclaimed towns are considered functionally urban. Between 1987 and 1984 the total population in the proclaimed towns increased by an average of 11,9% per annum, while the number of houses increased by an average of 8,3% per annum, resulting in higher occupancy rates.

Apart from the proclaimed townships there were 249 villages/settlements in Gazankulu in 1983 with a total of 75 945 housing units.

The formal and informal housing stock figures provided in this report are derived from the base figures of a 1983 survey conducted by the Department of the Interior and the Posts and Telecommunications Department of the RSA.

Background: Housing stock and dynamics (*Source: Gazankulu Housing Policy and Strategy, 1990*)

The following brief description of the housing situation in Gazankulu consists of information drawn from Section 12 of the Housing Overview and Policy Framework Report produced in the form of a separately bound Data Base.

- * The housing stock in Gazankulu consists of approximately 83 000 housing units, accommodating some 500 000 people.
- * An increase in housing stock of between 75% and 100% will be required by the year 2000. In real terms, this represents the construction of between 62 000 and 83 000 housing units during the next 11 years.
- * Around 95% of the population (or 475 000 people) in Gazankulu live in unproclaimed settlements, and 5% (25 000 people) in proclaimed towns.
- * Of the 95% living in unproclaimed settlements, 49% (233 000 people or 38 000 households) are not in possession of arable and/or grazing rights in the land surrounding the settlement in

which they live. The levels vary considerably, from 17% without land rights in Malamulele to 73% in Mhala. These contrasting statistics are indicative of the variable nature of the settlements in the four regions - Ritavi, Mhala, Giyani and Malamulele.

- * The average percentage income spent on housing in Gazankulu is 4,9% with distinct variations ranging from 6,8% in Ritavi to 3,0% in Malamule. It is not possible to draw a distinction between proclaimed towns and unproclaimed settlements. On average 35% of disposable income is spent on housing in Gazankulu. Only 1,4% of households rent their accommodation. This indicates, for practical purposes, no rental market.

- * Whilst an average of 62% of all housing units in Gazankulu is of traditional construction, district figures vary from 41% in Mhala to 76% in Malamulele. The opposite is demonstrated by figures available from dwellings of modern structure, where the Gazankulu average of 16% disguises a regional variation from 5% (in Malamulele) to 35% (in Mhala). Structures consisting of both traditional and modern technology constitute 22% of the total housing stock. The average estimated market value of a traditional house is R574; a combination structure is worth R4 326 and a modern structure R7 495.

- * The average ratio of structures to rooms is as follows:

°	modern	1:3,9
°	combination	1:1,3
°	traditional	1:1,03

Thus the average modern structure is typically a conventional four-roomed house with a single dwelling situated on each site. The traditional-dwelling form is the opposite with each structure being typically a single room. The combined-technology form of dwelling tends to be more like the traditional, consisting of both single and double-roomed structures.

- * The bulk of housing currently being provided in the unproclaimed settlements does not conform physically to the conventional dwelling usually found in urban towns; such housing amounts to almost 51 000 households out of the estimated total of 83 000 in Gazankulu. For example, although dwellings tend to have fewer bedrooms, households are larger in the unproclaimed settlements. Traditional attitudes towards the use of space seems to prevail in unproclaimed settlements. Furthermore, there is a lower incidence of living rooms in traditional units than in both the modern and the combination structures, also because of a difference in social attitude to space usage. Bathrooms, toilets and kitchens also tend to be less frequent, probably due to the absence of internal toilet and cooking facilities.
- * Approximately 54% of all houses in Gazankulu have grass roofs, 22% have corrugated iron roofs and 21% have grass roofs combined with corrugated iron. Grass as a roofing material predominates in Malamulele and Giyani (76% of all houses in Malamulele and 65% of those in Giyani have grass roofs).
- * With the exception of Giyani-district half of all houses in Gazankulu have clay walls (in Giyani more than two thirds of all houses have clay walls); 25% of all houses have brick walls and 13% have walls built of both clay and bricks.
- * A full 30% of all housing units do not have a separate toilet.
- * Whereas virtually no units of traditional or combined-technology have electricity, few modern structures have electricity. The same is true of telephones.
- * Only 8% of households in Gazankulu have on-site water provision and 62% of all households are more than 100m from their source of water. 20% of all households are between 1 and 6 km from water. This means that roughly 15 000 households are further than 1 km from a water source.

4.2 Kangwane (Source: Boutek/CSIR, 1991. *Housing Stock in South Africa.*)

In 1984 there were eight proclaimed towns in KaNgwane, with a population of 75 198 and a total of 10 274 formal houses. People residing in areas surrounding the proclaimed towns are considered functionally urban. Between 1978 and 1984 the total population in the proclaimed towns increased by an average of 15,9% per annum, while the number of houses increased by an average of 7,7% per annum, resulting in higher occupancy rates.

Apart from the proclaimed townships there were 87 villages/settlements in KaNgwane in 1982, with a total of 47 413 housing units.

The formal and informal housing stock figures provided in this report are derived from the base figures of the 1982 and 1984 surveys conducted by the Department of the Interior and the Post and Telecommunications Department of the RSA.

4.3 Lebowa (Source: Boutek/CSIR, 1991. *Housing Stock in South Africa.*)

In 1985 there were 14 proclaimed towns in Lebowa with a population of 169 466 and a total of 19 479 formal housing units. People residing in areas surrounding the proclaimed towns are considered functionally urban. Between 1979 and 1985 the total population in the proclaimed towns increased by an average of 9,5% per annum, while the number of houses increased by an average of only 3,7% per annum, resulting in higher occupancy rates.

Apart from the formal houses in proclaimed towns there were 981 villages/settlements in Lebowa in 1982 with a total number of 264 740 housing units. Three different forms of settlement may be distinguished in Lebowa, namely 'traditional villages', 'betterment rural villages' and 'closer settlements'. The closer settlements cater for people who possess no farming rights, and live in a semi-urban environment, with no local job opportunities. These people are required to seek employment in nearby urban centres and should therefore be deemed part of the functional urban population.

The formal and informal housing stock figures provided in this report are derived from the base figures of the 1982 and 1985 surveys conducted by the Department of the Interior and the Posts and Telecommunications Department of the RSA.

4.4 Venda (Source: Boutek/CSIR, 1991. *Housing Stock in South Africa.*)

In 1985 there were two proclaimed towns in Venda, namely Makhado and Thohoyandou (the latter includes the adjoining townships of Makarela and Shayandima) with a total population of 10 853 and 261 formal houses. People residing in areas surrounding the proclaimed towns are considered functionally urban. Between 1979 and 1985 the total population in proclaimed towns increased at an average annual rate of 14,6% per annum, while the houses increased at a rate of 18,5% per annum over the same period. A further 2 839 formal houses were identified in some of the larger settlements/villages, resulting in a total of 4 900 formal houses in 1985.

4.5 Rural Transvaal (Source: Department National Health and Population Development, 1991)

During January to March 1991 the Department of National Health and Population Development undertook a national evaluation of basic subsistence facilities which comprised 7 600 dwellings. Nationally, 32,5% of the population in the rural areas of South Africa were found to occupy housing which provided health protection.

The Transvaal as a whole has 26,1% of its population adequately housed. This nevertheless hides the discrepancy between northern and southern Transvaal. In the former 40,9% and in the latter 16,1% are well housed. One third (33,3%) of the surveyed houses were of informal structure and housed 34,1% of the population. In the Transvaal, only 4,5% of the informal dwellings and 77,7% of formal dwellings provided health protection. The northern Transvaal indicated 8,2% for informal and 83,7% for formal. In terms of overcrowding it was found that nationally 49,6% of the rural population

occupied housing where space was inadequate. In the Transvaal as a whole it totalled 48,9% and the northern Transvaal 32,9%.

4.6 Hostels *(Source: Development Bank of Southern Africa, 1992. Gathering and verifying baseline data on hostels in South Africa.)*

Table 1: Hostel beds: Development regions, 1992

Development Regions	CS IR				CSS		Department Health				BDO	
	Total Number	%	Africans Number	%	Number	%	(Public) Number	%	(Private) Number	%	(Public) Number	(Private) Number
A	39 211	7	24 572	5	74 383	6	14 936	6	-			
B	10 106	2	7 534	2	16 599	16	-		-			
C	21 479	4	16 432	4	173 801	14	32 008	12	-			
D	24 011	5	16 825	4	21 105	2	6 970	3	588	1		
E	59 735	11	33 092	7	229 999	18	22 559	8	-			
F	31 964	6	29 350	7	152 880	12	39	0	4 222	4	280	
G	6 819	1	2 981	1	105 531	8	-		-			
H	312 581	59	304 779	67	376 180	30	190 323	71	105 604	96	163 218	23 254
J	23 878	5	20 637	52	106 857	8	-		-			
TOTAL	529 784	100	456 202	100	1 257 335	100	266 835	100	110 414	100		

Table 2: Hostel beds: Provinces and Self-Governing Territories, 1992

Province and SGT	CSS		CSIR		Dept of Health		NPA	BDO
	Number	%	Number	%	Number	%	Number	Number
Cape	112087	10	48931	11	22494	6	-	-
Natal	157838	14	33092	7	22559	6	26125	-
OFS	177131	16	16432	4	32008	8	-	-
Transvaal	694098	61	357747	78	300188	80	-	186752
TOTAL PROVINCES	1141154	100	456202	100	377249	100		
KwaZulu	72161							
KaNgwane	1650							
QwaQwa	5658							
Gazankulu	4080							
Lebowa	31121							
KwaNdebele	1511							
Total SGT	116181							
TOTAL	1257335							

Table 3: Regions F and G: Extract from Population Census 1991: Dwellings

	HOUSE				FLAT				TOWNHOUSE/CLUSTERHOUSE				RETIREMENT DWELLING UNIT				
	ROOMS					ROOMS					ROOMS						
	TOTAL	1-3	4-5	6+		TOTAL	1-3	4-5	6+		TOTAL	1-3	4-5	6+			
REGION 65 (F)																	
URBAN	9 680	8 862	48	3 555	5 259	446	305	116	25	364	25	287	52	8	5	1	2
NON-URBAN	1 117	1 098	16	463	619	11	4	6	1	7	2	5	-	1	-	1	-
TOTAL	10 797	9 960	64	4 018	5 878	457	309	122	26	371	27	292	52	9	5	2	2
REGION 66 (F)																	
URBAN	18 960	16 244	232	7 535	8 477	1 888	1 103	702	83	503	66	307	130	325	309	16	-
NON-URBAN	6 117	5 882	122	2 693	3 067	168	95	62	11	63	4	49	10	4	-	3	1
TOTAL	25 077	22 126	354	10 228	11 544	2 056	1 198	764	94	566	70	356	140	329	309	19	1
REGION 67 (F)																	
URBAN	8 689	7 196	143	2 868	4 158	971	664	265	42	429	88	288	53	93	68	22	3
NON-URBAN	5 307	4 890	256	1 979	2 655	309	198	96	15	103	27	70	6	5	3	1	1
TOTAL	13 996	12 086	399	4 847	6 840	1 280	862	361	57	532	115	358	59	98	71	23	4
REGION 68 (G)																	
URBAN	13 685	11 227	177	4 216	6 834	1 863	1 030	727	106	436	84	298	54	159	151	7	1
SEMI-URBAN	149	148	1	87	60	1	1	-	-	-	-	-	-	-	-	-	-
NON-URBAN	4 782	4 408	195	1 345	2 868	229	131	75	23	138	22	103	13	7	5	2	-
TOTAL	18 616	15 783	373	5 648	9 762	2 093	1 162	802	129	574	106	401	67	166	156	9	1

Table 3: Regions F and G: Extract from Population Census 1991: Dwellings

	TOTAL DWELLINGS	HOUSE				FLAT				TOWNHOUSE/CLUSTERHOUSE				RETIREMENT DWELLING UNIT			
		ROOMS				ROOMS				ROOMS				ROOMS			
		TOTAL	1-3	4-5	6+	TOTAL	1-3	4-5	6+	TOTAL	1-3	4-5	6+	TOTAL	1-3	4-5	6+
REGION 93 (G)																	
URBAN	18	15	3	10	2	-	-	-	-	3	-	2	1	-	-	-	-
NON-URBAN	293	278	14	91	173	11	10	1	-	4	3	-	1	-	-	-	-
TOTAL	311	293	17	101	175	11	10	1	-	7	3	2	2	-	-	-	-
REGION 94 (G)																	
URBAN	19	18	8	7	3	-	-	-	-	1	-	1	-	-	-	-	-
SEMI-URBAN	108	106	7	47	52	2	-	1	1	-	-	-	-	-	-	-	-
NON-URBAN	395	386	45	200	141	4	3	-	1	5	5	-	-	-	-	-	-
TOTAL	522	510	60	254	191	6	3	1	2	6	5	1	-	-	-	-	-
REGION 96 (F)																	
URBAN	10	8	4	4	-	-	-	-	-	2	1	-	1	-	-	-	-
NON-URBAN	134	131	12	53	66	2	2	-	-	1	1	-	-	-	-	-	-
TOTAL	144	139	16	57	66	2	2	-	-	3	2	-	1	-	-	-	-
REGION 64 (F)																	
URBAN	13 748	12331	250	6404	5 677	1109	669	399	41	193	50	105	38	115	100	14	1
NON-URBAN	3 861	3740	84	1072	2 584	106	63	38	5	15	1	11	3	-	-	-	-
TOTAL	17 609	16071	334	7476	8 261	1215	732	437	46	208	51	116	41	115	100	14	1

Table 3: Regions F and G: Extract from Population Census 1991: Dwellings

	HOUSE				FLAT				TOWNHOUSE/CLUSTERHOUSE				RETIREMENT DWELLING UNIT			
	ROOMS				ROOMS				ROOMS				ROOMS			
	TOTAL	1-3	4-5	6+	TOTAL	1-3	4-5	6+	TOTAL	1-3	4-5	6+	TOTAL	1-3	4-5	6+
REGION 69 (G)																
URBAN	5 563	5 505	2 373	3 024	658	470	167	21	181	83	78	20	219	313	87	1
NON-URBAN	2 845	2 763	865	1 787	68	32	21	15	13	2	6	5	1	-	1	-
TOTAL	9 408	8 268	3 238	4 811	726	502	188	36	194	85	84	25	220	313	88	1
REGION 70 (G)																
URBAN	2 174	1 721	799	876	348	233	104	11	58	33	19	6	47	46	1	-
SEMI-URBAN	702	699	346	349	2	-	2	-	1	-	1	-	-	-	-	-
NON-URBAN	1 903	1 791	659	1 066	99	95	33	7	11	-	8	3	2	1	1	-
TOTAL	4 779	4 211	1 804	2 291	449	292	139	18	70	33	28	9	49	47	2	-

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Addendum K

ACCESS TO ENERGY

by

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1. INTRODUCTION

The main aim of this paper is to present a broad profile of the energy situation prevailing in the poor and disadvantaged rural communities in Regions F and G.

2. A BROAD SOUTH AFRICAN ENERGY PERSPECTIVE

A striking feature of the poor communities in South Africa is that their energy consumption is mainly confined to domestic use. In this regard, a multiplicity of energy carriers are used for cooking, space and water heating, lighting and entertainment. This is illustrated in Table 1.

Table 1: Percentage of households in developing areas using different fuels

Fuel type	Outer rural	Rural farms	Inner rural & informal urban	Formal urban
Electricity	<1	14	3	29
Wood	99	97	68	38
Wastes	80	30	22	2
Paraffin	96	19	84	71
Candles	73	86	79	77
Coal	12	5	53	47
LPG	5	9	7	14
Batteries	55	?	60	?

Source: Eberhard, 1990

The average net energy consumption *per capita* per year in rural areas, is depicted in Table 2.

Table 2: Net energy consumption in rural areas (GJ/capita/year)*

Fuel Type	Consumption
Wood	10,27
Coal	0,54
Dung	1,42
Paraffin	0,85

* Note: Net energy = total energy acquired by a consumer.
Source: Eberhard, 1990

2.1 Urban and peri-urban energy profile

In urban areas households rely most on modern fuels but no overwhelming dominance of a single fuel is observed. However, large regional differences in fuel consumption exist. The choice of fuels is determined by location, income, cost of energy carriers, cost of appliances and the availability of electricity. Approximately 29% of African urban households are electrified. Energy expenditure accounts for between 18% and 22% of household income in the informal urban areas and between 7% and 11% in the formal urban areas. Paraffin, liquid petroleum gas and coal are the predominant fuels for domestic purposes in peri-urban areas. Approximately 10% of households in peri-urban areas are electrified. Electricity is generally the cheapest household fuel in these areas (Kotze, 1991).

2.2 Rural energy profile

In the rural areas, traditional fuels such as wood, dung and agricultural residues are vitally important for domestic energy purposes. Wood is the dominant household fuel in these areas. However, demand is outstripping sustainable supply in many rural areas leading to increasing scarcity and denudation of the natural woodland. It is estimated that most natural woodland will be denuded before the middle of the next century at current fuelwood consumption levels of about 13 million tonnes per annum. With cash incomes being limited (arising mainly from remittances from migrant workers) expenditure on energy commodities may account for as much as 25% of total household expenditure (Kotze, 1991). Very few rural households have been electrified due to the high cost of supply.

3. REGIONS F AND G ENERGY PROFILE

As with most developing areas, a lack of detailed and comprehensive data on energy provision and consumption has been experienced in compiling this profile for Regions F and G. The methodology adopted in providing this profile is based on various subregional studies, depicting energy supply and demand patterns typical of poor communities and extrapolated to provide a broad overview for the regions as a whole.

3.1 Fuelwood

Wood is the dominant fuel in these areas as more than 90% of households use wood, which can account for up to 100% of total domestic consumption, mainly for cooking and heating water. Fuelwood consumption varies between 370 kg and 560 kg *per capita* per year. In terms of net energy consumption, it varies between 6,6 and 10,5 GJ/*capita*/year (based on an average of 7,8 persons per household).

Sources of fuelwood provision mainly include natural woodland and woodlots. It is estimated that there are approximately 3 200 hectares of woodlots, mainly for fuelwood purposes, in the regions (see Table 3).

Table 3: Existing woodlots, 1990

Area	Hectares
Gazankulu	44
KaNgwane	1 457
Lebowa	1 095
Venda	641
Total	3 237

Source: Gandar, 1990

Expenditure *per capita* per year varies between nil and R43,00. Although wood, in many cases, is a free source of energy, there are certain social costs to the community at large, which are not reflected such as unproductive time spent on collecting fuelwood and environmental degradation.

3.2 Paraffin

Up to 97% of all households use paraffin mainly for lighting and to a much lesser degree for cooking and ironing. It accounts for up to 8% of total domestic energy consumption. Consumption *per capita* per year varies between four and 24 litres, and net energy consumption ranges from 0,16 to 0,9 GJ/*capita*/year.

Expenditure *per capita* per year on paraffin varies between R5,30 and R32,88. Appliances which use paraffin are mainly lanterns and Primus (pressure) stoves. The major disadvantage of paraffin use is reported to be the high cost and availability.

3.3 Coal

More than 7% of households use coal, which also accounts for up to 7% of total domestic energy consumption, for cooking and heating purposes. Consumption *per capita* per year varies between nil and 30 kg. The net energy consumption varies between nil and 0,79 GJ/*capita*/year. Expenditure *per capita* per year amounts to a maximum of R6,60.

In general it appears that coal is not readily available to rural communities. The availability and affordability of coal stoves further limit the more extensive use of coal.

3.4 Liquid petroleum gas (LPG)

Up to 23% of households use LPG mainly for cooking, refrigeration and heating. LPG accounts for up to 3% of total domestic energy consumption. Up to 5 kg of LPG is consumed *per capita* per year, corresponding to a net energy consumption of 0,24 GJ/*capita*/year. Expenditure *per capita* per year on LPG amounts to up to R14,40. LPG is difficult to obtain and expensive. The general lack of gas appliances is also a constraint in using LPG.

3.5 Candles

Candles provide lighting for up to 96% of households in the regions, and on average account for 1,3% of total domestic energy consumption. Up to R15 *per capita* per year is spent on purchasing candles. The number of candles consumed *per capita* per year is as high as 37. Candles in general are easily available but perceived to be a major fire hazard.

3.6 Dung

Dung is mainly used as a backup fuel or substitute for wood. Consumption varies between 0 and 230 kg *per capita* per year. This corresponds to a net energy consumption of up to 2,7 GJ/*capita*/year. Although dung is free and readily available, it is seen as inconvenient and unhealthy.

3.7 Batteries

3.7.1 Dry cell batteries

Between 54% and 92% of households use batteries, mainly to power appliances and to provide entertainment. The expenditure *per capita* per year on batteries varies between R12 and R32. The contribution of batteries towards net energy consumption (GJ/*capita*/year) is almost negligible. A major disadvantage is that batteries are expensive.

3.7.2 Lead-acid batteries

A small proportion of households (between 6% and 17%) use lead-acid batteries as a source of energy to power TV sets or hi-fi's. As is the case with dry cell batteries, net energy consumption (GJ/capita/year) is almost nil. Using this type of battery incurs less expenditure than dry cell batteries, between R0,60 and R1,92 *per capita* per year. In many instances, the lack and cost of appliances is also a deterrent factor in the use of this type of energy.

3.8 Charcoal

It seems that the use of charcoal is very limited in these regions and therefore no consumption or expenditure information is available.

3.9 Crop wastes

Crop wastes are primarily used as a warming method by an average of 20% of households. Once again, net energy consumption is negligible. A disadvantage of the use of crop wastes lies in the fact that they burn very quickly and are not long-lasting.

3.10 Electricity

3.10.1 Non-grid

Petrol and diesel generators are used to provide power mainly for lighting, TV sets, radios and battery chargers. Approximately 4% of households use generators. Expenditure on this source of energy amounts to R7,00 *per capita* per year, and is thus regarded by the communities involved as an expensive mode of energy generation.

3.10.2 Grid

Only a small percentage of the population in rural areas has access to grid electricity. Potential consumers are widely dispersed, leading to a high distribution cost. Initial demand and consumption levels are also low and associated with low load factors. These aspects make reticulation in these areas very expensive and unaffordable.

4. PREFERENCE

Reticulated electricity is preferred as the most wanted energy source for cooking purposes, followed by wood, coal, gas and paraffin as secondary choices.

A similar preference pattern was once again observed with regard to the use of energy sources for heating purposes. The least preferred choices for both abovementioned purposes include crop waste, charcoal and dung.

5. HOUSEHOLD EXPENDITURE ON ENERGY

It is estimated that expenditure on energy sources accounted for between 9% and 15% of total household expenditure in the region.

6. OTHER ENERGY REQUIREMENTS

Due to the pervasive nature of energy cutting across other services provision, it is also central to the development prospects for Regions F and G. Generally there appears to be a severe lack of access to sufficient and affordable energy in support of sustainable health services, education services, agriculture, water provision and other community services.

7. CONCLUSION

The lack of access (defined as availability, said preference, cost and resource base) to adequate, affordable and secure supplies of energy to the region's rural communities can be regarded as a constraining factor in the development of the region. However, a considerable capital investment would be required for electrification, the preferred energy source, to decrease the burden in terms of cost and effort in the collection of energy resources.

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Addendum L

ACCESS TO TRANSPORT

by

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1. INTRODUCTION

Regions F and G are relatively well provided with roads. Vehicle ownership is relatively low but bus and minibus taxi services are provided in most areas. In low density areas, walking distances to these services may, however, be unacceptably long. Commuter rail services do not operate in the area, although there are limited long distance rail passenger services. Ownership of non-motorised forms of transport (eg bicycles and donkey carts) is very low.

For most of the poor in the northern and eastern Transvaal, lack of access to transport relates to their not being able to afford transport rather than to the absence of transport services. The problem is exacerbated by the fact that most of the poorest sections of the population live far from towns and cities.

2. ROADS

Like most of South Africa, Regions F and G are well provided with roads. Even relatively remote areas are easily accessible by roads and few people do not have access to roads. Although roads do not always exist from one village to another, roads do exist from the villages to the nearest towns. Although many of the roads are unpaved, they are generally in fairly good condition. Details of road lengths (paved and unpaved) and vehicular travel on roads are provided in Tables 1 and 2 in Annexure L. Figures 1 and 2 in Annexure L show the density of the road network and the road provision *per capita*. Road utilisation *per capita* is considerably higher in Region F than in Region G, but this does not necessarily reflect a lack of access to roads in Region G.

3. VEHICLE REGISTRATIONS

Vehicle registration figures for Venda, Gazankulu, Lebowa and KaNgwane are provided by vehicle type in Tables 3 to 6, Annexure L. Vehicle ownership levels in these areas are relatively low. There are 32,4 vehicles per 1 000 population registered in Venda, 20 per 1 000 in Gazankulu, 26,4 per 1 000 in Lebowa and 26,2 per 1 000 in KaNgwane. In most areas the number of commercial vehicles exceeds the number of motor cars. As can be seen from the tables, fairly significant increases in vehicle ownership took place in most areas between 1985 and 1990 (in the case of Venda, growth in vehicle ownership has been more than 100% over this period).

4. RAIL TRANSPORT

Rail lines are shown in Diagrams 1 and 2, Annexure L. Commuter transport by rail is not offered in the region. Long distance passenger services are only offered on two routes. Rail freight services do not operate into the rural areas and are largely limited to the larger towns. Many stations in smaller towns have been closed over the past few years as part of a rationalisation exercise by Spoornet.

¹ Assisted by AJ Mouton, Development Information Group.

5. BUS TRANSPORT

Bus transport services are relatively well provided in most of these regions. Parastatal bus companies operate in both Lebowa and Gazankulu. Lebowa Transport (Pty) Ltd and Gazankulu Transport (Pty) Ltd are both wholly owned by the Development Corporations of the Lebowa and Gazankulu governments respectively. Lebowa Transport Ltd offers services in Lebowa and between Lebowa and the major towns surrounding it. Lebowa Transport operates over 400 buses. The commuter services which it operates are subsidised by the South African Department of Transport. Only weekly and monthly tickets are subsidised by the Department of Transport as a matter of policy. In addition to this Lebowa Transport receives a lump sum grant from the Lebowa Government to cover some of the losses it makes on social services.

Gazankulu Transport (Pty) Ltd offers services in Gazankulu and between Gazankulu and the surrounding towns. There is some overlap between the services offered by Gazankulu Transport and Lebowa Transport. Commuter services operated by Gazankulu Transport are also subsidised by the South African Department of Transport. In addition, last year the Gazankulu Government started paying a subsidy for scholars. About 60 other bus operators operate in Lebowa, Gazankulu and surrounding areas. Most of these are small, one or two bus operations.

In Venda and the surrounding areas, bus transport is provided by a number of private operators. Subsidies on commuter routes between Venda and South Africa are subsidised by the South African Department of Transport. Routes operating within Venda are subsidised by the Venda Government. Like the South African Department of Transport, they only subsidise weekly or monthly tickets.

In KaNgwane and the surrounding areas, bus passenger transport is provided by private bus operators. The largest of these is MatsTrans (Pty) Ltd. Weekly and monthly commuter routes are subsidised by the South African Department of Transport.

As a result of financial constraints many bus operators have either stopped operating certain routes or have reduced their frequency of operation on many routes. In most areas it is likely that the level of service currently offered is lower than that which was offered a few years ago. Many have also shortened certain routes resulting in long walking distances for passengers.

6. SCHOLAR TRANSPORT

Almost throughout the northern and eastern Transvaal scholar transport is a problem for low-income households and for bus operators. In most areas scholar transport is not subsidised by any form of government. Most of the bus operators offer lower scholar fares through cross-subsidisation. There is a great deal of political pressure on bus operators to keep scholar fares low. In KaNgwane, for example, MatsTrans transports scholars at fares equal to approximately 25% of the cost of transporting them. They have not increased their scholar fares since 1986 for fear of reprisals from the scholars.

The problems of scholar transport costs are exacerbated by the long travel distances. Quite a number of bus operators claim to be transporting scholars for distances of over 60 kilometres in each direction, although obviously average distances are much lower. The problem appears to be that certain subjects are limited to certain schools and also that there is a limited number of technical schools.

7. MINIBUS TAXI TRANSPORT

Most areas within both Regions F and G are well served by minibus taxis. All minibus taxis are privately owned. Exact numbers of minibus taxis are not readily available. Although minibus taxis require permits from Local Road Transportation Boards (LRTB) to operate legally, the records of the LRTBs in the northern and eastern Transvaal are not yet fully computerised. In addition, many minibus taxis operate as 'pirates' without permits. In addition permits are not time based and permits may exist for minibuses which no longer operate. It is estimated that in Region G, excluding Venda,

there are about 2 000 minibus taxi permits and possibly as many as 1 000 minibuses operating without permits. Estimates from Venda are that there are about 2 000 minibus taxis operating there. There is likely to be a large overlap between the figures for Region G (excluding Venda) and those for Venda. No figures for minibus taxi numbers are available for Region F, but all indications are that the region is as well, if not better, served by minibus taxis than Region G.

In Venda, there is not a single village for which a permit for a minibus taxi does not exist. Many minibus taxi operators, having obtained a permit, then operate on other routes, which they perceive to be more lucrative. Many of them also avoid operating on unpaved roads. The existence of a permit therefore does not necessarily imply that a service is offered to that area. A similar situation is likely in the rest of the northern and eastern Transvaal.

8. NON-MOTORISED TRANSPORT

Little information exists on the ownership of bicycles, donkey carts, and such like, but a BMR survey of households in Venda in 1989 found that 7% of households owned a bicycle, 1,7% owned a donkey cart and 5,3% owned a motor car. Another survey by the BMR of African households in non-metropolitan towns, which included a town in the study area, found that 7,67% of households owned a bicycle. It is likely that other areas exhibit similar rates of bicycle ownership. Bicycle ownership is thus relatively low and it would appear that bicycles are not widely viewed as an alternative form of transport. This could be due to long travel distances, hilly terrain, the availability of other forms of transport or the lack of sufficient funds to purchase bicycles. Bicycles have also not been 'promoted' as a form of transport and few facilities exist to cater for cyclists.

9. WALKING

Few workers in South Africa live close enough to their places of employment to walk to work. The legacies of apartheid have ensured that most of the poorest people live at great distances from places of employment and other facilities (clinics, magistrates courts, shops, etc). In addition, many people do not have public transport services operating close to their homes. In low density areas in Region G, people have to walk distances of up to four kilometres from their homes to catch a bus or a minibus taxi. This adds significantly to their already long travel times.

10. TRANSPORTING PRODUCE TO MARKETS

Small producers of agricultural products often have difficulties in transporting their produce to markets. In many cases they produce very small surpluses over and above the subsistence level and these surpluses are too small to warrant transporting them to markets. Some market stall holders contract owners of 'bakkies' to go around to small producers and to buy produce which is then sold at the market stall. In other cases, the producers themselves may have to arrange transport for their goods to the stall. They may pay a 'bakkie' owner to transport their goods for them. In some areas donkey carts are still used to transport goods. In some of the more remote areas women carry small quantities of agricultural goods on their heads to road sides from where they sell their produce. Some people also use wheelbarrows to transport goods and, in areas closer to urban areas, it is not uncommon to see supermarket trollies being used to transport produce. There does not appear to be any quantitative data on the lack of transport available for the transporting of very small quantities of produce.

11. AFFORDABILITY

For most of the poor in the northern and eastern Transvaal, lack of access to transport relates to their not being able to afford transport rather than to the absence of transport services. This problem is exacerbated by the fact that most of the poorest sections of the population live at long distances from towns and cities.

A survey on wage levels in Gazankulu showed that the average monthly income for males ranged between R350 and R410, varying by area. The survey showed the average wage for females to vary between R150 and R230. Using subsidised fares from Gazankulu Transport, males travelling 20 kilometres would be spending 15% of their income on transport on average and females would be spending 35% of their income. For 40-kilometre trips the percentages of income would be 23% and 52% for males and females respectively. Given that these are averages, the poorest sections of the population would be spending much higher percentages of their income on transport and many would not be able to afford transport at all. As noted above, lack of affordability of scholar transport is also a major problem. In KaNgwane, the problem is compounded by refugees from Mozambique who have no income but who need transport in order to seek work.

Depending on the bus operator and the routes, subsidised commuter fares range from three to eight cents per passenger kilometre. In KaNgwane, the average cost of a weekly ticket is R14. In many areas of the northern and eastern Transvaal commuters travel more than 40 kilometres in each direction. The cost of transport is therefore relatively high despite the subsidies.

Many of the inhabitants of the rural areas in Regions F and G are either weekly or monthly migrant workers. It is often cheaper to pay for accommodation in a town (or accommodation may be provided by employers) than to travel on a daily basis. In many cases, travel distances are also too long to warrant travelling on a daily basis. Workers may be employed in the PWV area whilst their homes are in the northern and eastern Transvaal.

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Annexure L

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Table 1: Vehicular travel per development region

Development region	Total daily vehicle km (AADT.km/1000)					
	Paved				Unpaved	Total
	Freeway	4 Lane	2 Lane	Total		
A	5 570	1 037	8 982	15 589	1 520	17 109
B	0	0	2 559	2 559	1 309	3 868
C	188	1 092	6 899	8 179	2 126	10 305
D	504	163	7 019	7 686	2 201	9 887
E	6 706	2 600	9 416	18 722	2 372	21 094
F	972	19	8 767	9 758	1 309	11 067
G	110	215	6 420	6 745	1 989	8 734
H	21 310	7 711	11 476	40 497	984	41 481
J	0	1 394	6 807	8 201	1 237	9 438
TOTAL	35 360	14 230	68 346	117 936	15 047	132 983

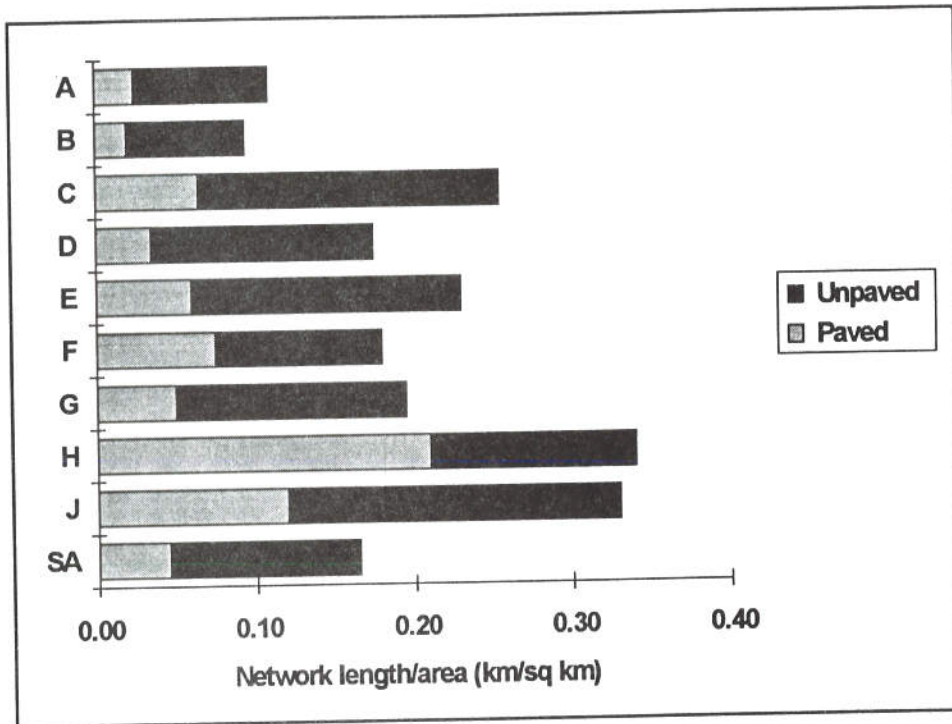
Source: South African Roads Board, 1990.

Table 2: Road length per development region

Development region	Total road length (km)					
	Paved				Unpaved	Total
	Freeway	4 Lane	2 Lane	Total		
A	172	112	8 001	8 285	23 998	32 283
B	0	0	4 916	4 916	19 301	24 217
C	45	281	7 406	7 7329	22 776	30 508
D	111	30	6 519	6 660	24 691	31 351
E	403	255	5 995	6 653	18 063	24 716
F	129	62	6 193	6 384	8 876	15 260
G	22	50	5 946	6 018	17 812	23 830
H	1 055	405	3 720	5 180	3 515	8 695
TOTAL	1 937	1 390	54 200	57 527	148 819	206 346

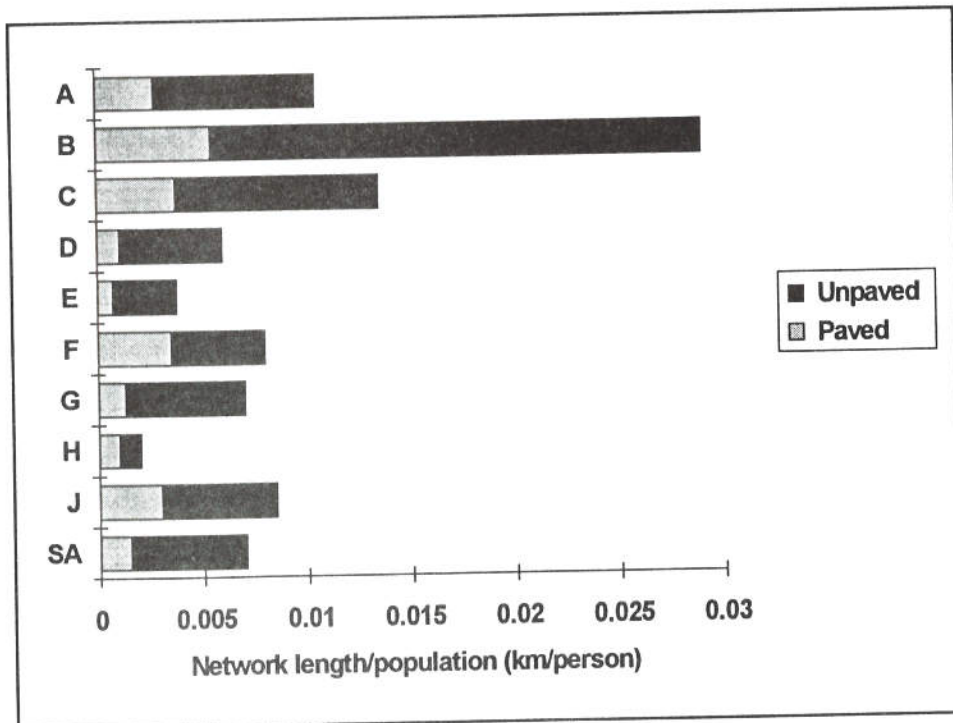
Source: South African Roads Board, 1990.

Figure 1: Network density/Accessibility



Source: South African Roads Board, 1990

Figure 2: Road provision *per capita*



Source: South African Roads Board, 1990

Table 3: Gazankulu: Registered vehicles, 1985 to 1990

District: Malamulele

Type	1985	1986	1987	1988	1989	1990
Motor cars	445	566	612	668	746	788
Mini-buses	82	103	116	131	145	160
Buses	2	3	3	4	5	5
Commercial vehicles	626	748	815	804	840	869
Motor cycles	22	26	27	27	30	31
Tractors	32	33	35	31	32	30
Farming	21	21	23	19	18	17
Other	11	12	12	12	14	13
Trailers	18	21	23	21	21	24
Caravans	3	4	4	3	4	4
Other	0	0	0	0	0	0
Total	1 230	1 504	1 635	1 689	1 823	1 909

District: Giyani

Type	1985	1986	1987	1988	1989	1990
Motor cars	1 884	2 247	2 429	2 315	2 482	2 589
Mini-buses	247	302	336	326	382	419
Buses	60	68	77	77	63	59
Commercial vehicles	1 652	1 893	2 017	1 996	1 957	2 004
Motor cycles	101	113	124	99	97	96
Tractors	62	67	72	65	107	116
Farming	38	40	43	30	58	53
Other	24	27	29	35	51	63
Trailers	140	165	172	171	190	207
Caravans	60	69	71	68	60	63
Other	4	4	4	4	4	4
Total	4 210	4 928	5 302	5 121	5 342	5 537

District: Ritavi

Type	1985	1986	1987	1988	1989	1990
Motor cars	1 101	1 271	1 377	1 375	1 478	1 470
Mini-buses	86	109	137	129	147	161
Buses	62	68	75	67	71	80
Commercial vehicles	1 008	1 153	1 252	1 205	1 257	1 259
Motor cycles	16	18	21	14	13	12
Tractors	36	37	39	37	37	36
Farming	3	4	4	4	3	2
Other	33	33	35	33	34	34
Trailers	266	274	290	276	283	290
Caravans	10	10	13	11	9	10
Other	3	3	3	3	2	1
Total	2 588	2 943	3 207	3 117	3 297	3 319

District: Mhala

Type	1985	1986	1987	1988	1989	1990
Motor cars	1 056	1 264	1 344	1 370	1 379	1 362
Mini-buses	246	294	331	336	362	395
Buses	41	44	48	46	42	40
Commercial vehicles	1 504	1 766	1 859	1 807	1 769	1 738
Motor cycles	19	26	27	29	26	28
Tractors	19	22	22	22	22	21
Farming	11	12	12	12	12	11
Other	8	10	10	10	10	10
Trailers	18	19	19	22	30	32
Caravans	6	7	7	8	8	7
Other	0	0	0	0	0	0
Total	2 909	3 442	3 657	3 640	3 640	3 623

District: Total

Type	1985	1986	1987	1988	1989	1990
Motor cars	4 486	5 348	5 762	5 728	6 085	6 187
Mini-buses	661	808	920	922	1 036	1 135
Buses	165	183	203	194	181	184
Commercial vehicles	4 790	5 560	5 943	8 812	5 823	5 870
Motor cycles	158	183	199	169	168	167
Tractors	149	159	168	155	196	203
Farming	73	77	82	65	89	83
Other	76	82	86	90	109	120
Trailers	442	479	504	490	524	553
Caravans	79	90	95	90	81	84
Other	7	7	7	7	6	5
Total	10 937	12 817	13 801	13 567	14 102	14 388

Vehicles/1000 population 18,2 20,6 21,4 20,3 20,3 20,0

Source: Central Statistical Service, 1988-1991

Table 4: KaNgwane: Registered vehicles, 1985 to 1990

District: Nsikazi

Type	1985	1986	1987	1988	1989	1990
Motor cars	2 320	2 765	2 896	3 383	3 442	3 570
Mini-buses	302	362	385	505	617	653
Buses	370	486	536	549	482	486
Commercial vehicles	2 560	2 981	3 116	3 345	3 576	3 671
Motor cycles	40	50	54	54	59	61
Tractors	13	17	19	26	31	31
Farming	3	5	7	6	7	7
Other	10	12	12	20	24	24
Trailers	52	58	63	72	94	97
Caravans	3	4	5	5	10	10
Other	1	1	1	1	8	8
Total	5 661	6 724	7 075	7 940	8 319	8 587

District: Kamhlushwa

Type	1985	1986	1987	1988	1989	1990
Motor cars	552	712	735	820	930	1 014
Mini-buses	79	108	113	154	191	213
Buses	4	6	6	8	11	11
Commercial vehicles	1 030	1 259	1 304	1 421	1 553	1 669
Motor cycles	43	52	55	57	60	62
Tractors	21	40	42	53	55	57
Farming	16	26	28	31	33	33
Other	5	14	14	22	22	24
Trailers	15	20	20	59	64	70
Caravans	2	2	2	1	1	1
Other	1	1	1	2	2	1
Total		2 200	2 278	2 575	2 867	3 098

District: Eerstehoek

Type	1985	1986	1987	1988	1989	1990
Motor cars	1 063	1 304	1 370	1 459	1 243	1 328
Mini-buses	156	192	202	286	284	375
Buses	28	49	51	55	54	59
Commercial vehicles	1 710	2 037	2 115	2 238	1 976	2 079
Motor cycles	33	37	38	38	35	31
Tractors	24	33	34	50	47	50
Farming	12	19	20	24	19	19
Other	12	14	14	26	28	31
Trailers	36	56	59	72	75	92
Caravans	19	21	21	25	23	24
Other	1	3	3	5	4	4
Total	3 070	3 732	2 893	4 228	3 741	4 042

District: Total

Type	1985	1986	1987	1988	1989	1990
Motor cars	3 935	4 781	5 001	5 662	5 615	5 912
Mini-buses	537	662	700	945	1 092	1 241
Buses	402	541	593	612	547	556
Commercial vehicles	5 300	6 277	6 535	7 004	7 105	7 419
Motor cycles	116	139	147	149	154	154
Tractors	58	90	95	129	133	138
Farming	31	50	55	61	59	59
Other	27	40	40	68	74	79
Trailers	103	134	142	203	233	259
Caravans	24	27	28	31	34	35
Other	3	5	5	8	14	13
Total	8 731	12 656	13 246	14 743	14 927	15 727

Vehicles/1000 population	20,0	27,2	26,7	27,9	26,5	26,2
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Source: Central Statistical Service, 1988-1991

Table 5: Lebowa: Registered vehicles, 1985 to 1990

District: Mokerong

Type	1985	1986	1987	1988	1989	1990
Motor cars	2 193	2 551	2 689	2 663	2 583	2 831
Mini-buses	267	336	366	395	482	583
Buses	58	58	60	58	72	84
Commercial vehicles	2 714	3 057	3 200	3 197	3 039	3 334
Motor cycles	48	52	55	50	41	44
Tractors	188	205	214	200	195	201
Farming	137	144	152	137	128	128
Other	51	61	62	63	67	73
Trailers	103	113	118	110	115	129
Caravans	8	13	14	13	12	13
Other	1	1	1	1	2	2
Total	5 580	6 386	6 717	6 687	6 541	7 221

District: Seshego

Type	1985	1986	1987	1988	1989	1990
Motor cars	2 934	3 828	4 066	4 318	4 618	4 867
Mini-buses	364	476	527	601	692	769
Buses	253	286	297	282	283	290
Commercial vehicles	2 602	3 146	3 307	3 531	3 716	3 905
Motor cycles	58	87	90	89	89	96
Tractors	306	331	345	331	339	346
Farming	243	260	268	259	262	261
Other	63	71	77	72	77	85
Trailers	160	193	203	210	220	233
Caravans	13	13	13	12	14	14
Other	3	3	3	6	6	6
Total	6 693	8 363	8 851	9 380	9 977	10 526

District: Bochum

Type	1985	1986	1987	1988	1989	1990
Motor cars	434	574	619	708	832	955
Mini-buses	74	96	104	124	154	195
Buses	11	15	16	16	16	18
Commercial vehicles	778	929	995	1 106	1 229	1 217
Motor cycles	37	44	48	46	49	52
Tractors	258	267	277	273	283	276
Farming	228	234	242	236	242	230
Other	30	33	35	37	41	46
Trailers	95	98	103	102	114	117
Caravans	0	1	1	1	1	1
Other	0	0	0	0	0	0
Total	1 678	2 024	2 163	2 376	2 678	2 931

District: Thabamoopo

Type	1985	1986	1987	1988	1989	1990
Motor cars	3 193	4 034	4 253	4 858	4 873	5 059
Mini-buses	441	570	613	731	866	941
Buses	63	69	71	79	79	79
Commercial vehicles	3 302	3 902	4 093	4 318	4 558	4 667
Motor cycles	50	67	71	75	78	78
Tractors	244	253	262	257	251	242
Farming	198	204	212	206	199	188
Other	46	49	50	51	52	54
Trailers	168	202	211	218	223	221
Caravans	14	18	19	19	18	18
Other	0	0	1	1	1	1
Total	7 475	9 115	9 594	10 556	10 947	11 306

District: Nebo

Type	1985	1986	1987	1988	1989	1990
Motor cars	2 327	2 840	2 998	2 953	3 172	3 530
Mini-buses	607	714	759	769	860	1 028
Buses	79	83	86	85	90	97
Commercial vehicles	3 471	4 032	4 237	4 247	4 287	4 678
Motor cycles	30	36	37	36	40	42
Tractors	542	570	589	591	588	591
Farming	492	515	532	514	509	509
Other	50	55	57	77	79	82
Trailers	266	285	296	289	296	305
Caravans	10	12	12	13	14	14
Other	2	2	3	1	1	1
Total	7 334	8 574	9 017	8 984	9 348	10 286

District: Sekhukhuneland

Type	1985	1986	1987	1988	1989	1990
Motor cars	2 092	2 607	2 763	3 150	3 026	3 282
Mini-buses	452	577	616	698	781	898
Buses	41	44	45	50	52	62
Commercial vehicles	3 585	4 125	4 366	4 531	4 614	4 938
Motor cycles	101	106	118	102	99	101
Tractors	374	393	414	397	404	405
Farming	307	322	339	325	329	327
Other	67	71	75	72	75	78
Trailers	242	262	274	275	291	314
Caravans	43	49	52	48	50	53
Other	6	6	6	7	8	9
Total	6 936	8 169	8 654	9 258	9 325	10 062

District: Naphuno

Type	1985	1986	1987	1988	1989	1990
Motor cars	886	1 094	1 170	1 220	1 292	1 358
Mini-buses	84	103	117	124	159	188
Buses	60	66	69	65	70	74
Commercial vehicles	1 154	1 340	1 431	1 450	1 493	1 552
Motor cycles	23	26	27	29	25	25
Tractors	56	59	61	60	58	55
Farming	31	33	34	33	32	29
Other	25	26	27	27	26	26
Trailers	63	68	69	70	67	73
Caravans	3	4	4	3	3	3
Other	0	0	0	0	0	0
Total	2 329	2 760	2 948	3 021	3 167	3 328

District: Bolobedu

Type	1985	1986	1987	1988	1989	1990
Motor cars	699	808	872	947	1 097	1 206
Mini-buses	119	158	181	196	256	300
Buses	48	51	56	54	55	54
Commercial vehicles	1 387	1 527	1 630	1 682	1 810	1 873
Motor cycles	11	13	14	14	16	18
Tractors	19	21	23	22	22	21
Farming	17	18	20	19	19	18
Other	2	3	3	3	3	3
Trailers	13	15	15	23	26	31
Caravans	0	0	0	0	1	1
Other	0	0	0	0	0	0
Total	2 296	2 593	2 731	2 938	3 283	3 504

District: Sekgosese

Type	1985	1986	1987	1988	1989	1990
Motor cars	260	385	414	462	537	629
Mini-buses	43	64	71	93	113	150
Buses	2	2	2	4	5	5
Commercial vehicles	311	443	478	554	591	693
Motor cycles	7	8	8	11	11	12
Tractors	12	19	19	18	19	20
Farming	6	7	7	6	6	6
Other	6	12	12	12	13	14
Trailers	7	8	9	10	13	16
Caravans	1	1	1	1	1	1
Other	1	1	1	1	1	1
Total	644	931	1 003	1 154	1 291	1 527

District: Namakgale

Type	1985	1986	1987	1988	1989	1990
Motor cars	1 154	1 352	1 447	1 384	1 447	1 539
Mini-buses	136	160	177	169	182	213
Buses	20	20	21	24	24	24
Commercial vehicles	1 316	1 464	1 551	1 505	1 533	1 606
Motor cycles	49	59	63	57	57	59
Tractors	41	41	44	43	39	37
Farming	31	31	33	32	29	27
Other	10	10	11	11	10	10
Trailers	19	20	22	21	21	21
Caravans	2	2	2	2	2	2
Other	0	0	0	0	0	1
Total	2 737	3 118	3 327	3 205	3 305	3 502

District: Mapulaneng

Type	1985	1986	1987	1988	1989	1990
Motor cars	1 534	1 961	2 094	2 055	2 082	2 270
Mini-buses	368	428	471	465	492	549
Buses	49	81	87	82	87	86
Commercial vehicles	2 376	2 784	2 929	2 829	2 859	3 017
Motor cycles	42	47	50	45	39	41
Tractors	49	58	60	55	50	45
Farming	29	34	36	31	30	25
Other	20	24	24	24	20	20
Trailers	44	49	54	58	58	63
Caravans	9	11	11	13	14	11
Other	1	1	1	3	3	3
Total	4 472	5 420	5 757	5 605	5 684	6 085

District: Total

Type	1985	1986	1987	1988	1989	1990
Motor cars	17 706	22 034	23 385	24 718	25 559	27 526
Mini-buses	2 955	3 682	4 002	4 365	5 037	5 814
Buses	684	775	810	799	833	873
Commercial vehicles	22 996	26 749	28 217	28 950	29 729	31 580
Motor cycles	456	545	581	554	544	568
Tractors	2 089	2 217	2 308	2 247	2 248	2 239
Farming	1 719	1 802	1 875	1 798	1 785	1 748
Other	370	415	433	449	463	491
Trailers	1 180	1 313	1 374	1 386	1 444	1 523
Caravans	103	124	129	125	130	131
Other	14	14	16	20	22	24
Total	48 183	57 453	60 822	63 164	65 546	70 278

Vehicles/1000 population 21,9 25,2 25,6 25,6 25,6 26,4

Source: Central Statistical Service, 1988-1991

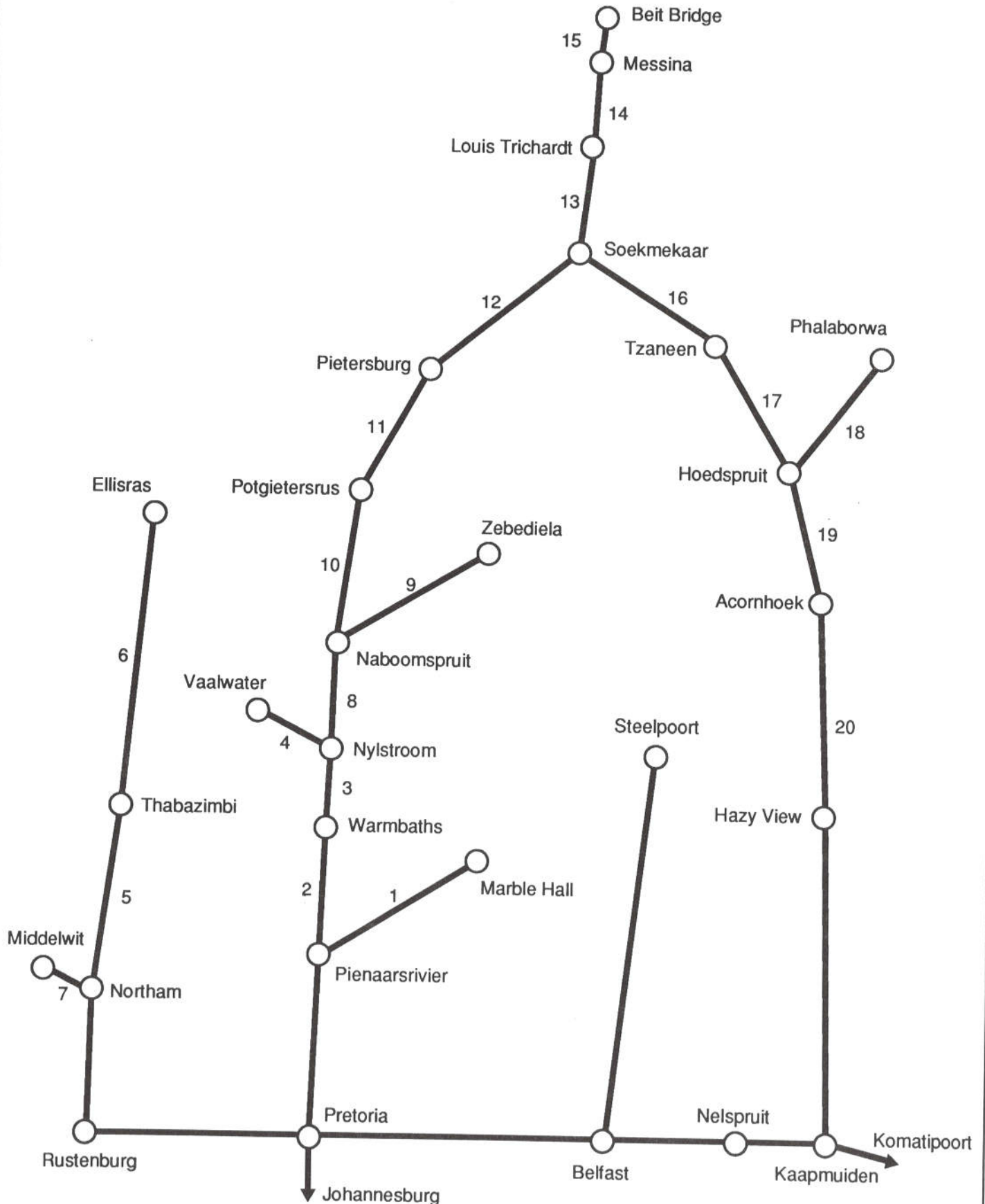
Table 6: Venda: Registered vehicles, 1985 to 1991

Type	1985	1986	1987	1988	1990	1991
Motor cars	2 458	2 839	3 318	3 581	5 501	6 700
Mini-buses	523	597	731	813	1 512	1 912
Buses	105	93	94	94	98	192
Commercial vehicles	3 780	3 929	4 364	4 693	7 015	8 530
Motor cycles	82	72	72	72	124	156
Tractors	123	108	91	74	142	245
Other	124	179	230	234	339	456
Total	7 195	7 817	8 900	9 561	14 731	18 191

Vehicles/1000 population 15,6 16,4 18,1 18,8 27,2 32,4

Source: Republic of Venda, 1990; Development Bank of Southern Africa, 1992e.

Diagram 2 : Railway network, northern Transvaal, 1987



SOURCE: Development Bank of Southern Africa, 1989b.

Addendum M

ACCESS TO CREDIT

by

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1. INTRODUCTION

The access of the poor to credit and savings facilities is severely limited. The major reason for this insufficient access to loan finance is lack of creditworthiness in the eyes of the lenders. The poor do not have collateral in the form of fixed assets or savings to guarantee their loans and generally have no experience in business to lend weight to their loan applications.

Their lack of collateral could be ascribed partly to past apartheid policies, which denied African people the opportunity to own assets. The effects of this scenario are, however, more severely felt by emerging entrepreneurs in the small and medium enterprises (SME) sector. Commercial banks worldwide are reluctant to lend to the poor because of the high risks associated with this market segment. The high risk and accompanying cost of intermediating in this market lie in the high bad-debt rate and the high administrative cost of servicing the many small, short-term loans required in this market.

Due to the virtual non-existence of commercial-bank loan facilities for the poor, informal financial services are used by many of those in need of credit. *Stokvels*, *mashonisas* (money lenders) and burial societies provide for the needs of the poor, but do not in any way address the growing demand adequately.

A few initiatives born out of this situation are discussed below. These are mostly community initiatives institutionalised by NGOs. Some examples of commercial-bank initiatives are also given. These programmes address the very specific financial needs of the poor, which usually include small loans over short periods at flexible terms accessed without collateral. These initiatives address access to credit problems in both rural and urban areas, although not adequately.

2. GET AHEAD FOUNDATION (GHF)

GHF was funded in 1985 and is currently the microlending activity with the biggest clientele in South Africa. Since 1987 the *stokvel* lending programme has extended 13 000 loans totalling R6 million (Schacter, 1992:1). Loans under the *stokvel* programme range from R300 – R1 000.

Get Ahead's scheme functions much like group lending programmes in other parts of the developing world. Field workers promote the organisation in the African townships, encouraging microentrepreneurs wanting to obtain credit to identify a small number of other business people whom they trust, and to form them into a group. Before a group becomes eligible for credit, it must be evaluated by a field worker who, through community sources, attempts to assess the character of the group members and the viability of their businesses. All members of the group are held responsible for the repayment of each individual's loan: the failure of an individual to repay affects the eligibility of every group member for further lending.

Get Ahead is the only programme for which a detailed evaluation is available. The evaluation, conducted recently by USAID's GEMINI project, found that the *stokvel* programme had substantially exceeded expectations in terms of the number of businesses reached and of the recovery rates on loan repayments. The report also recommended, however, that Get Ahead make substantial improvements in the quality of its lending portfolio and the management of its credit operations. The programme's recovery rate – measured at 91% in a recent quarter and 86% over the life of the programme – is low when measured against the better performing microlending programmes in Asia and Latin America.

3. GET UP LENDING TRUST

Get Up is a relatively small programme, which began operating in 1985. Since its inception it has lent out approximately R1,4 million. The programme's current loan portfolio totals R300 000, spread over 400 to 500 borrowers. Get Up makes individual rather than group loans: loan sizes range from R50 to R5 000, with an average loan of R500.

Get Up has only three full-time staff, all based in the Johannesburg/Pretoria area, but it lends to microentrepreneurs throughout the country. Get Up relies principally on government and community officials, as well as current or past borrowers, to recommend new borrowers.

To limit repayment risks on repeat loans, Get Up rates its borrowers on a six point scale according to prior repayment performance. Depending on his or her rating, a borrower seeking a repeat loan may be eligible for a larger loan than the previous one, a loan of about the same size, a smaller loan or no loan at all. Despite this scheme, collection rates are quite low, with only about half of the borrowers up-to-date at any time. In an attempt to improve repayment discipline, Get Up recently introduced an up-front 12% administration fee on all loans, half of which may be refunded if loan payments are made on time. Bad debt is also fairly high at around 15%, which Get Up attributes mainly to the small size and low level of its staff training.

4. SMALL ENTERPRISE FOUNDATION (SEF)

The Small Enterprise Foundation was registered in July 1991 under Section 21 of the South African Companies Act of 1973 as a non-profit company. Its purpose is to facilitate loan capital flows to small African entrepreneurs in South Africa. SEF operates from Tzaneen.

The SEF credit programme is financed according to a 45:55 debt/equity model by DBSA and IDT. SEF has, furthermore, managed to obtain funding from several public and private sector organisations, most of the funding being specifically for recurrent costs. SEF plans to be self-sustainable within five years from 1992. By the end of the five years, SEF plans to have supported 7 000 businesses, created 12 000 jobs, and to be able to mobilise sufficient funding from commercial sources to on-lend to microentrepreneurs.

The SEF credit programme employs a group-based methodology as security. To qualify for SEF credit, microentrepreneurs are required to form groups or *stokvels* of five persons. Each member must operate an enterprise and must want credit for his or her business. The groups are self-selected. Each *stokvel* member must guarantee the loans of other members in their group.

Prior to the issuing of any loans to a group, each group undergoes several training meetings over a five-week period. The objective of this training is to familiarise the borrowers with the programme and with their responsibilities to SEF and each other. The microcredit experience elsewhere strongly suggests that such training is imperative in that it has a dramatic impact on repayment rates.

Initial loans to the *stokvel* members are limited to R300 and must be repaid over ten fortnights. Upon the successful repayment of initial loans, borrowers then qualify for further, successively larger loans of R600, R900, etc, each repayable over one year. Interest is charged at a fixed rate of 25% per annum the full value of the loan. Because the principal amount of the loan declines over the term of the loan, the effective annual rate of interest is 45%. Both loan size and interest rate may vary as the credit programme evolves and matures.

SEF includes a savings principle in their credit scheme. All participants are required to open savings accounts at a local bank. Members contribute group savings at each of their meetings and the group retains full control over its account. When an unquestionable record in effective credit delivery has been built up, SEF can apply to become a deposit-taking institution, and incorporate savings in its services.

5. RURAL FINANCE FACILITY (RFF)

The RFF was formally established in 1991 in response to rural communities' widely expressed need for financial skills and development resources.

RFF responds to requests from rural community groups on two levels:

- a) The first is project specific and entails
 - providing advice
 - developing financial alternatives and setting up a financial package (use is made of group savings and credit schemes)
- b) RFF is also involved in policy negotiations.

Examples of current development programmes supported by RFF include:

Basic needs infrastructure – Domestic Water Supply

In order to fund rural water infrastructure, RFF will facilitate the sale of rural water certificates to donors and investors. Communities will gain access to concessionary finance by raising funds which, when invested, will be sufficient to guarantee repayment.

Village electrification programme – Northern Transvaal

Four northern Transvaal village electricity committees representing 35 000 people approached RFF in 1990 for electrification advice. Extensive consultation indicated popular support for the establishment of formal Village Electricity Co-operatives which will undertake the electrification projects and run group credit programmes to facilitate the cost effective supply of electrical appliances.

Community development trust – Tumahole

The Tumahole Development Trust (TDT) was formed to provide a community structure with which to undertake project implementation. The TDT has applied to the IDT under the capital subsidy scheme which makes grants of R7 500 per residential stand for infrastructure development.

6. COMMUNITY BANKING PROJECT

An admirable new initiative to take banking facilities to the poor is currently being planned. Whereas the projects discussed above cater for the needs of only a small percentage of people demanding financial services, this project plans to make their facilities available to 2 million people.

The Community Bank, a brainchild of the Perm's Bob Tucker will provide the lowest of low cost transmission facilities, mobilise savings from low-value clients and provide low-cost housing finance. These services will eventually be available country-wide in both rural and urban areas.

7. KANGWANE ECONOMIC DEVELOPMENT CORPORATION (KEDC)

KEDC's main instrument for delivering credit to microentrepreneurs is its group-lending scheme, which has been operating for approximately three years and has reached roughly 3 000 people. KEDC claims that the group-lending programme has experienced virtually no bad debt, although the timely repayment of loans is a constant problem.

8. SMALL BUSINESS DEVELOPMENT CORPORATION (SBDC)

The SBDC's 'mini-loan' programme, which makes available loans of between R50 and R5 000, attracts some microenterprise clients, although the proportion of microentrepreneurs among the programme's total client base is not known. SBDC currently has roughly 2 400 mini-loan clients with approximately R6 million of loans outstanding.

SBDC has had serious problems with the quality of its mini-loan portfolio. One-third of the value of the portfolio has been written off since the programme (and the SBDC) was launched in 1981. SBDC attributes this high bad-debt rate to social conditions in the African community. The SBDC finds it difficult to monitor clients and track down delinquent payers in an environment where many

businesses do not have fixed addresses, few have telephones or a dependable mail service, and where people move frequently. These are indeed formidable problems, but they appear to affect SBDC's record of loan collection to a much greater extent than they do the record of NGOs involved in microcredit. The SBDC's difficulties are probably attributable in large part to the fact that, as a large, bureaucratic and formal-sector oriented institution, it does not benefit from the close community contacts or the understanding of community dynamics that many NGOs have.

9. FIRST NATIONAL BANK (FNB)

FNB recently launched a scheme with the African Council of Hawkers and Informal Businesses (ACHIB) under which small loans of up to R2 000 will eventually be made available to ACHIB members. ACHIB, an African business organisation affiliated with the National African Federated Chamber of Commerce (NAFCOC), has approximately 1 000 fee-paying members, and is estimated to have a potential membership of up to 40 000.

The FNB/ACHIB scheme is an example of how a formal financial institution may, by working through an organisation linked to the informal sector, participate in a market which it would not normally find attractive. In evaluating the microenterprise lending market commercial banks are deterred by three important factors: default risk, transaction costs, and unfamiliarity with the clientele and its community. FNB's alliance with ACHIB allows its to reduce each of these factors. Default risk is reduced under a guarantee scheme whereby FNB bears no more than 25% of the risk of each loan (see below). Transaction costs and overheads are reduced by giving ACHIB responsibility for marketing and promoting the scheme among its membership, and initiating loan applications. Potential problems flowing from FNB's lack of familiarity with the clientele are reduced by making ACHIB, an organisation with recognition and credibility among small African traders, the standard bearer of the loan scheme.

Would-be borrowers must open an account at an FNB branch; from this account FNB makes a regular monthly deduction of R50, of which R35 is placed in an investment fund managed by an insurance company on behalf of the ACHIB member and R5 is placed in an ACHIB indemnity fund held on deposit at FNB. Once the ACHIB member has a 12-month track record of consistent deposits, he or she becomes eligible for a loan equal to R2 000 or four times the amount held in his or her investment account, whichever is smaller. In the event of default, FNB may seize the ACHIB member's investment account; after seizure of the investment fund, two-thirds of the remaining amount owed to the bank will be paid out to the ACHIB indemnity fund, which in turn is backed by a guarantee from the DBSA. Any remaining balance (up to 25% of the loan amount) would be a loss to FNB. The scheme was launched in February 1992. It currently has 400 savers, the first of whom will become eligible for a loan no earlier than February 1993.

10. FUTURE BANK

Future Bank was launched in March 1992 as a joint venture between FNB and African business organisations, principally the Foundation of African Business and Consumer Services (FABCOS). Although FNB supplied virtually all the new bank's start-up capital and management expertise, the African business organisations are the controlling shareholders. Future Bank plans to launch community-oriented microenterprise lending schemes. At the moment, its entire portfolio of enterprise loans, which it purchases from an affiliate of FNB, consists of R200 million of loans to independent African taxi operators.

11. STANDARD BANK

Standard Bank launched a Community Banking Services Unit in January 1992; one of its main aims was to provide credit to microentrepreneurs. It plans to develop both a group credit and an individual loan scheme, and expects to have these programmes in operation by late 1992 or early 1993. Loans under these programmes are expected to range from R200 to R5 000.

Like FNB, Standard Bank felt that if its activity in the informal sector was to be profitable, it had to reduce risk, transaction and overhead costs by working with an organisation already active in and

knowledgeable about the informal sector. Standard's partner is the Informal Business Training Trust (IBTT). IBTT, at virtually no cost to itself, performs a marketing function for Standard by making its trainees aware of the lending scheme. Furthermore, the prospective borrowers forwarded to Standard by IBTT have already been screened for creditworthiness, both by virtue of having completed a course of basic business training, and by having overcome hurdles imposed by IBTT to ensure that prospective borrowers are serious and responsible.

12. SUMMARY

Very little quantitative information is available on the extent of the poor's lack of access to credit. The mushrooming of both informal and formal suppliers of credit indicate, however, that the demand for credit among poor communities is huge.

The poor in both urban and rural areas are prevented from using the credit facilities provided by commercial banks, for reasons indicated in the Introduction. The informal and formal initiatives addressing this problem are designed according to the needs and abilities of the target market, which in this case is the poor. Credit is available in small amounts, repayable on terms designed to fit the ability of the borrower; collateral requirements are custom-made and include character-based assessment and group-lending.

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Addendum N

HEALTH, RECREATION AND NUTRITION

by

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1. INTRODUCTION

The major crisis in health care in South Africa stems from historical neglect, the fragmentation of services, centralisation and the lack of a coherent, well funded, and structured, national primary health care programme, notwithstanding the existence of a primary health care policy and a national commitment to it. The northern region is certainly no exception to neglect and is by far the most devastated in respect of health care provision. It is the intention of this paper to look first at the concept of access to recreation, second at nutritional status in Region F and G, and then at access to health care services.

2. ACCESS TO RECREATION

According to Dr Nicholas Crisp the statistics on recreation facilities are non-existent for people who fall within the ambit of this study. Wilson and Ramphela (1989, 246-7) refer to the lack of recreational facilities as contributing, together with the lack of job opportunities, to the break down of stable family life and to unstable (high) population growth rates and increasing poverty in rural northern Transvaal. Although Wilson and Ramphela cite the lack of facilities such as cinemas, sportsfields, swimming pools, community centres in respect of Clarke's Estate in Cape Town, they do not provide more detailed statistics for the northern Transvaal (132). The need for recreational amenities in order to maintain a healthy life style and escape the rigours of the daily struggle for survival is greatest among the impoverished (132).

Enquiries within the education sector reveal that policies are in place to provide recreational facilities at schools¹. Development initiatives by the DBSA, the IDT and Kagiso Trust in the field of Education and Training also ensure the provision of basic (rudimentary) recreational facilities. This often includes the provision of facilities for the use of the community (a levelled field, community hall, library, etc.). Beyond this rudimentary provision, it is true, that 'there is an inverse relationship in the country (especially in Regions F and G) between access to recreational facilities and social need' (132). Experience with DBSA projects in the development field indicates that although policies are in place to provide for community centres, by way of education and/or health expenditure, there is still competition for funds to finance other needs (housing, water and sanitation, etc). In addition, competing authorities often deem facilities their

¹ Further detail can be obtained by making written requests for such information to Dr DPM Botes, Chief Director of Human Resources Development and Supplementary Education at the Department of Education and Training (DET) (Tel: (012) 312-5450).

own. So, for example, educational authorities show great reluctance to open halls and libraries to the community because of their fear that damage will not be made good by the community.

Finally, within the private sector, it is as well to note the development programmes being initiated by major sports bodies in South Africa, notably the Cricket Development Programme². Other notable contributions are made by Rugby, Hockey, and Soccer, though it is probably true that their impact is felt more in the urban centres than in deep rural northern and eastern Transvaal.

3. NUTRITION

The nutritional status of under-five children is an important indicator of quality of life. Hunger and malnutrition are manifestations of poverty-related problems in society, such as lack of food security, unemployment and endemic violence. Accurate and up-to-date information about who the nutritionally vulnerable are and where they are located is essential for effectively addressing the problem. In the absence of a national nutrition surveillance system in South Africa, information about the nutritional status of the population is fragmented, incomplete, and largely outdated (Glatthaar, 1992). Data from isolated case studies in the northern and eastern Transvaal indicate that malnutrition, measured through anthropometric indices, such as weight-for-age (indicating underweight), height-for-age (indicating stunting) and weight-for-height (indicating wasting) of under-five children, is a public health problem in the region.

The Regional Health Organisation of Southern Africa (RHOSA) conducted a national study of childhood protein-energy malnutrition in 1985/86. Findings are presented in Annexure N, Figure 2. Chronic malnutrition (stunting) is most prevalent. Based on the NCHS (National Centre for Health Statistics in the USA) reference values, 14% of 5-year-old rural African children in the northern Transvaal region were found to have a weight-for-age below the fifth percentile. Stunting, as indicated by low height-for-age, was observed in 25% of children in this age group (Glatthaar, 1992).

In a small-scale study conducted in 1992 in two rural areas in Lebowa, 36% of preschool children fell below the NCHS fifth percentiles of height-for-age, and 30% fell below the NCHS fifth percentiles of weight-for-age. Boys had lower mean heights and weights than girls. These findings correspond to those of other surveys in South Africa, leading to the conclusion that the major nutritional problem is one of long-term, chronic undernutrition, due to insufficient kilojoule intake and frequent infection over a long period of time. The study found that diets were generally of poor quality, with low intakes of essential vitamins and minerals. However, few children had an insufficient protein intake (Steyn *et al*, 1992).

The household survey conducted as part of a study entitled *The Review of the Health System in KaNgwane and the South eastern Transvaal* (Marais, 1991) found 15% of KaNgwane children to have a low weight-for-age (under the third percentile). The nutritional status of refugee children in the area was similar (14% of children under five had a low weight-for-age). The prevalence of malnutrition rises in the second and third years of life, and then seems to improve.

During 1992 the Regional Office of the Department of Health in Pietersburg initiated a surveillance system at clinics. Only one district in Gazankulu, namely Malamulele, has to date submitted information based on routine figures from growth charts of services attenders at under-five clinics. Data from Region F could not be obtained. There is some controversy regarding the relationship between clinic-based data and community surveys of nutritional status. More work is urgently required to determine the nutritional status of children more accurately.

2

For greater insight into this field of endeavour, Albie During or Intiaz Patel at the Transvaal Cricket Council (Tel: (011) 788-1008) or Dr. Ali Bacher or Hussein Ayob of the United Cricket Board (Tel: (011) 880-909) can be contacted for information regarding the structure and scope of the Cricket Development Programme.

4. ACCESS TO HEALTH FACILITIES

The 13 reports (but especially volumes 5, 6, 8 and 9), being produced by the Centre for Health Policy Studies at the University of the Witwatersrand on a review of the Health System in KaNgwane and the south eastern Transvaal (August 1991) provides a thorough introduction to issues related to access to health facilities, that is facilities by type, health ratios - staffing patterns, preventative health care, pharmaceutical products and public expenditure.

The team who worked on the Wits study have demonstrated that accessibility does not only mean the availability of physical facilities by type. Accessibility is used as a measure of the physical availability of facilities together with measures of the distance and time taken to reach the nearest primary health care service point, hospital, medical doctor or pharmacy³.

4.1 Region F

In 1990, there were 155 fixed treatment points (including hospitals, health centres and clinics, but excluding mobile clinics) in Region F. The majority of the fixed treatment points, ie 62,5%, were situated in the Transvaal portion of the region while the remaining 37,5% were situated in KaNgwane. There were 5 938 beds available at these fixed treatment points, providing an average of 340 persons per bed compared to, for example, a norm of one hospital bed for every 200 persons. This was down from 322,1 in 1985. The majority of these beds, 4 910 (82,7%) were available in the Transvaal portion of the region and 1028 (17,3%) were available in KaNgwane.

There were 610 doctors and 6 961 nurses in Region F during 1990, of which numbers 546 (89,5%) doctors and 5 995 (86,1%) were present in the Transvaal portion of the region. Compared with the number of doctors (393) and nurses (4 646) in the region during 1985, there has been an average annual increase in the respective numbers since 1985 of 9,2% and 8,4%.

The population per doctor and population per nurse improved slightly between 1985 and 1990, the respective ratios being 4 516:1 (1985) and 3 317:1 (1990) and 382:1 (1985) and 290:1 (1990). A full 80% of all admissions to hospitals during 1990 were in the Transvaal portion of Region F, as were 64,1% of all outpatient attendances. Concerning pension payments, R27 million was paid to 104 232 beneficiaries in the Transvaal portion of the region in 1988. Detailed information on pensions is available from the Department of Health Services and Welfare in Pretoria.

³ A member of the team which completed the KaNgwane and south eastern Transvaal study, Dr Nicholas Crisp (Tel: (01521) 952-946), presently the Medical Officer of Health, northern Transvaal, indicated during a telephone contact (21/4/93) that the lessons learnt from this study have been incorporated into a larger data survey for the whole of Region F and G.

The Data Base for access to health facilities for Region F and G is on a system called FOXPRO. (D-Base file). The data base is linked to a Geographical Information System (GIS), which has three programmes MAPINFO, IDRISI and REGIS, capable of moving from regional analysis down to the level of individual villages.

For Epidemiological information the system used is EPI-INFO Version 6. This is a public domain information system which is regularly updated by the Centre for Disease Control in Atlanta. Currently this data base is capable of growth into the area of epidemiological studies in the private health care sector and plans are in place to begin studies on the quality of services available in Regions F and G to cope with the current epidemiological profile.

Table 1 shows the results of the family planning programme 1990, namely the percentage of women between the ages of 15 and 49 using contraceptives in the Transvaal portion of Region F. Table 2 shows the results of the immunisation programme. The Human Science Research Council conducts periodic family planning/health surveys on a regional level.

Table 1: Eastern Transvaal: Percentage of women using contraceptives, 1990

	South Africa	Planning Region 26	Planning Region 27	Planning Region 28
African	50,7	-	37,7	65,7
Coloured	69,5	47,7	43,1	55,8
Indian	70,1	77,8	73,4	72,5
White	75,1	71,9	69,9	65,7

Source: Department of National Health and Population Development, 1992

Table 2: Eastern Transvaal: Immunisation programme (%), 1990

	South Africa	Planning Region 26	Planning Region 27	Planning Region 28
African	77,0	73,5	72,4	77,8
Coloured	96,8	95,7	96,8	98,3
Indian	98,1	97,4	97,2	96,6
White	98,8	98,5	98,3	98,3

Source: Department of National Health and Population Development, 1992

Notified cases and incidence rates of notifiable diseases are reflected in Table 1 of Annexure N.

4.2 Region G

In 1990 there were 694 fixed treatment points (including hospitals, health centres and clinics, but excluding mobile clinics) in Region G. The majority of the fixed treatment points (72,2%) were situated in the Lebowa portion of the region whereas only 9,5% were situated in the Transvaal portion of the region.

There were 12 931 beds available at these fixed treatment points, providing an average of 342 persons per bed, compared to, for example, a norm of one hospital bed for every 200 persons. The majority of these beds 5 952 (46,0%) were available in the Lebowa portion of the region and 2 740 (21,1%) were available in the Transvaal portion of the region.

There were 582 doctors and 15 014 nurses in Region G during 1990, of which 371 (63,7%) doctors and 7 865 (52,4%) were present in the Transvaal portion of the region. Compared with the number of doctors (502) and nurses (11 197) in the region during 1985, there has been an average annual increase in the respective numbers since 1985 of 3,0% and 6,0%.

During 1990 the population per hospital bed was 342:1, improving from 370:1 in 1985. However, between 1985 and 1990, the population per doctor and population per nurse deteriorated in the case of doctors and improved slightly in the case of nurses, the respective ratios being 7 474:1 (1985) and 7 591:1 (1990) and 335:1 (1985) and 294:1 (1990).

During 1990, 33% of all admissions to hospitals occurred in the Lebowa portion of Region G, as did 46,7% of all outpatient attendances. Concerning pension payments, R107 million was paid to 137 000

beneficiaries in Gazankulu, Lebowa and Venda in 1987. Detailed information on pensions is available from the Department of Health Services and Welfare in Pretoria.

Table 3 provides details of the family planning programme⁴ in 1990, namely the percentage of women between the ages of 15 and 49 using contraceptives in the Transvaal portion of Region G. Table 4 shows the results of the immunisation programme.

Table 3: Northern Transvaal: Percentage of women using contraceptives, 1990

	South Africa	Planning Region 25	Planning Region 44
African	50,7	25,4	34,9
Coloured	69,5	43,6	64,5
Indian	70,1	58,2	64,5
White	75,1	68,0	69,3

Source: Department of National Health and Population Development, 1992

Table 4: Northern Transvaal: Immunisation programme (%), 1990

	South Africa	Planning Region 25	Planning Region 44
African	77,0	83,8	82,7
Coloured	96,8	97,4	-
Indian	98,1	93,7	97,4
White	98,8	98,5	98,4

Source: Department of National Health and Population Development, 1992

Notified cases and incidence rates of notifiable diseases are reflected in Table 2 of Annexure N.

4.3 Critique on the quality of data from the Department of National Health and Population Development

The examination of the quality of the data is critical to the planning and evaluation of the Health and Population Development indicator data. To apply complicated analytical techniques on data of a poor quality is to disregard the science statistical analysis totally.

Poor quality data originate generally from poor planning or other factors such as:

- * vague/indistinct objectives;
- * poor project drafting and demarcation;
- * insufficient description of target population;

⁴ Further information can be obtained from Dr. JPH Rossouw (Tel: (012) 202-9111)

- * poor random sample design;
- * use of unrepresentative or improbable random samples;
- * poorly constructed or even invalid questionnaires;
- * deficiencies in the data collection (fieldwork, fieldworkers, controls and the fieldwork procedures);
- * deficiencies in data capturing and fault finding;
- * the appearance of missing values as a result of incomplete coverage of the target population, unit non-response, or item non-response.
- * comprehensive substitution of non-response cases;
- * non-stipulation of the nature of non-responses or marking of the substitution cases;
- * samples too small, larger samples to cover each district giving better results;
- * lack of funding; and
- * the political situation which causes many problems for the fieldworkers in that it is dangerous to go into certain areas.

All the above factors can contribute to reduction in the quality in health data.

4.4 Data status

The following have recently been compiled:

- 4.4.1 Strategy for the Rationalisation of Public Health Resources of Region G, 1993.
- 4.4.2 Strategy for the Rationalisation of Public Health Resources of Region F, 1993.
- 4.4.3 The Role of Primary Health Care and Local Authorities:
 - Phalaborwa
 - Nylstroom
 - Warmbad
 - Louis Trichardt

Cognisance should be taken of the fact that population statistics in respect of 4.4.1 and 4.4.2 are based on population census information. However, the strategies do provide subregional maps illustrating the location and types of services available. They go even further by providing maps (attached) which remove the political boundaries in an attempt to ensure an accessible distribution of services. It must be noted, however, that the strategies focus on public health care services with the result that little or no statistics are provided for privatised health care. However, Dr N Crisp of the Department of National Health and Population asserts that the percentage of privatised health care is negligible compared to public health in the region. Furthermore, privatised health care is largely centralised.

Whilst the subregional maps (Annexure N, maps 1 to 7) provide a good illustration of what is available, it is important to note that the borders of the subregions are proposed borders and therefore not as yet legitimate. The effects of this are soon seen in the extensive duplication of services, poor management and the inaccessibility of services to the community in the northern region. What is evident is that, depending on the border selected, the data could be manipulated.

4.5 Institutional

The process of political liberalisation in 1990 paved the way towards an integrated health structure at national level. This process prompted stakeholders in the sphere of health care to co-ordinate their efforts. Consequently, a Regional Health Care Committee in Region G, comprising all 'legal' health authorities, was established⁵. There are 14 subcommittees advising on health care, one of which is addressing the provision of facilities and accessibility. Note that NGOs and CBOs are not as yet included in the above⁶. The Progressive Primary Health Care is located in Pietersburg and is perceived to be in its fledgling stage⁷.

5. CONCLUSION

Fielder (1991) defines accessibility in respect of health care as the difficulty or ease of utilisation of the services of a physician when medical care is needed (see Annexure N, Figure 1). If one accepts this definition, data should be provided on two levels, namely:

- * the characteristics of the health care delivery system;
- * the characteristics of the population at risk.

The above studies provide data on the following: population size, volume, type of providers/facilities and distribution of providers/facilities.

Data are lacking in the following:

- * organisation, distance, transportation, time and office hours;
- * family, social structure, culture;
- * income, insurance;
- * technical quality of care;
- * convenience;
- * fun continuity and art of care;

⁵ The following are some of its members:

Chairperson: N Ferreira MEC (TPA)
Secretary: Dr Nicholas Crisp, Regional Director – National Health and Population
(Tel: (01521) 952-946)
Local Authority Representatives
RSC Representatives
Representatives from Regional Professional Forum
Medunsa, Department of Community Health Co-opted.

⁶ The Regional Development Forum chaired by Mr Brian Molefe is, however, aware of the recent strategies and has been consulted.

⁷ Contact people are:

Ms Thangri Poopodi (Head) and Ivan Toms. Note that Dr Nicholas Crisp can provide further statistical input and documentation as well as their contact numbers.

- * nutritional status;
- * detailed information on district level; and
- * there are gaps in the African population data.

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Figure 1: Factors affecting utilisation of health facilities

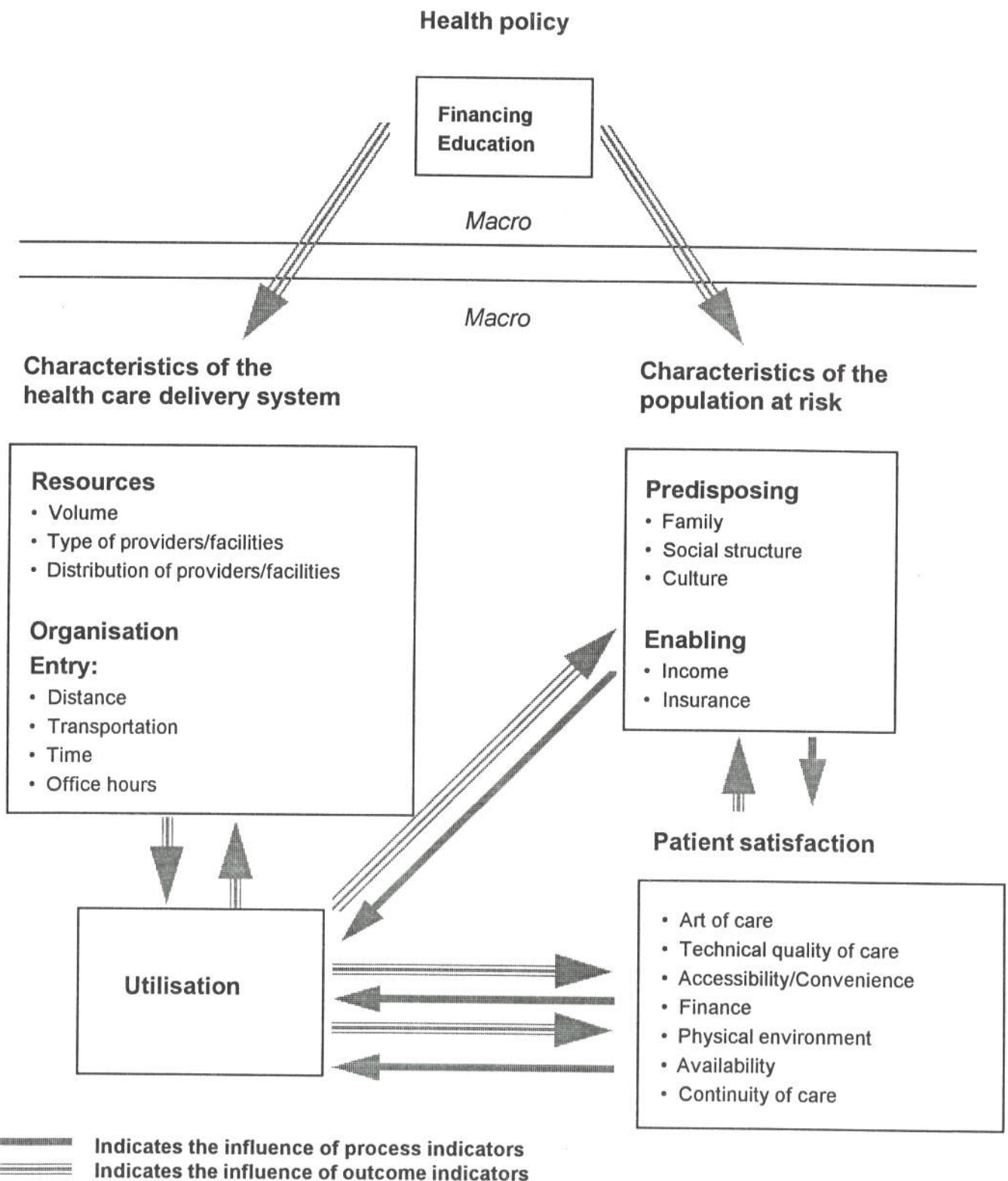
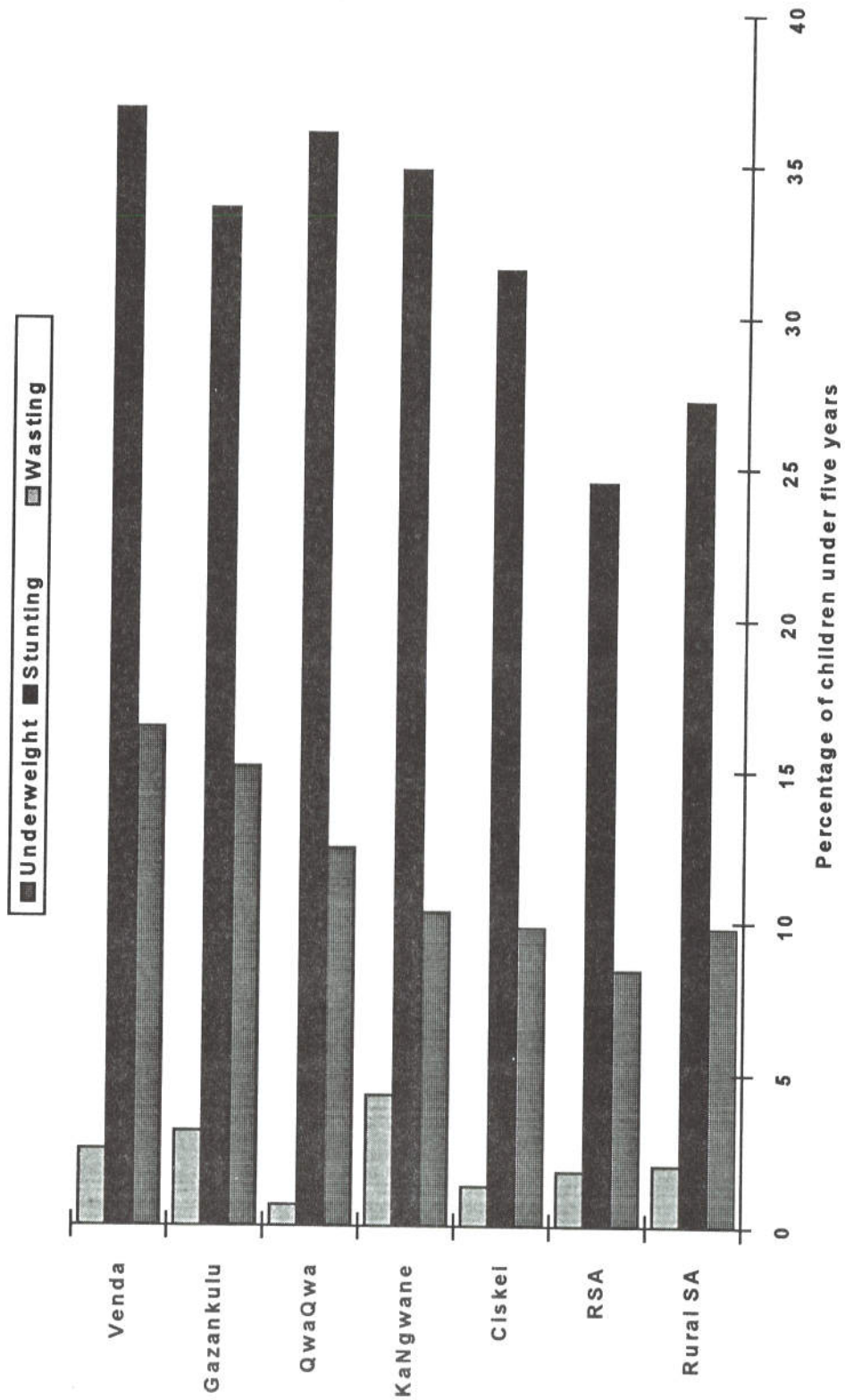


**Figure 2: Rural South Africa:
Prevalence of underweight, stunting and wasting, 1985 - 1986**



Source: Regional Health Organisation of Southern Africa, 1991

Table 1
Notified Cases and Incidence Rates per 100 000 Population of Selected Diseases
in Development Region F, 1989 and 1990

DISEASE	1989		1990	
	Transvaal	KaNgwane	Total	Transvaal KaNgwane Total
Typhoid fever				
Cases	39	186	225	40 168 208
Incidence rate	2,85	31,89	11,52	2,90 26,80 10,38
Meningococcal infection				
Cases	7	2	9	6 7 13
Incidence rate	0,51	0,34	0,46	0,44 1,12 0,65
Measles				
Cases	63	127	190	41 44 85
Incidence rate	4,60	21,78	9,73	2,98 7,02 4,24
Malaria				
Cases	1379	270	1649	1202 602 1804
Incidence rate	100,71	46,29	84,46	87,28 96,03 90,02
Tuberculosis (all forms)				
Cases	860	709	1569	700 847 1547
Incidence rate	62,81	121,57	80,36	50,83 135,11 77,19
Viral Hepatitis				
Cases	33	20	53	44 22 66
Incidence rate	2,41	3,43	2,71	3,19 3,51 3,29
Estimated population (x 1 000)	1369	583	1952	1377 627 2004

Source: Notifications received by the Directorate: Epidemiology, Department
of National Health and Population Development, Pretoria

Notified Cases and Incidence Rates per 100 000 Population of Selected Diseases in Development Region G, 1989 and 1990

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Source: Notifications received by the Directorate: Epidemiology, Department of National Health and Population Development, Pretoria

Table 3: South Africa: Selected health indicators, 1985, 1989 and 1990

Table 3: South Africa: Selected health indicators, 1985, 1989 and 1990																																
Development region	Hospital beds				Beds per 1 000 people				Doctors				Doctors per 1 000 people				Nurses				Nurses per 1 000 people				Fixed treatment points				Treatment per 1 000 people			
	1985	1989	1990	1985	1989	1990	1985	1989	1990	1985	1989	1990	1985	1989	1990	1985	1989	1990	1985	1989	1990	1985	1989	1990	1985	1989	1990	1985	1989	1990		
A. Total(SA:CP)	15006	20083	20297	48.0	57.2	55.9	4418	4704	4967	14.1	13.4	13.7	20270	24097	25166	64.9	68.6	69.3	404	406	418	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
B. Total	3658	4164	4949	35.7	37.8	44.1	287	314	262	2.8	2.9	2.3	3490	4514	4271	34.0	41.0	38.1	166	181	200	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
South Africa(CP)	3140	3395	3807	43.8	45.2	50.2	278	297	248	3.9	4.0	3.3	2816	3059	3058	39.2	40.8	40.3	128	129	152	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
Bophuthatswana	518	769	1142	16.8	21.9	31.5	9	17	14	0.3	0.5	0.4	674	1455	1213	21.9	41.5	33.5	38	52	48	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
C. Total	8049	9525	10856	33.5	36.2	40.3	1069	1151	1179	4.5	4.4	4.4	8054	9819	10414	33.6	37.3	38.7	155	172	178	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
South Africa	7674	9135	10277	32.9	35.6	39.2	1062	1139	1169	4.5	4.4	4.5	7872	9426	10086	33.7	36.8	38.4	144	158	165	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Orange Free State	7292	8349	9491	34.5	36.5	40.7	1052	1120	1150	5.0	4.9	4.9	7141	8649	9309	33.8	37.8	39.9	124	135	142	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
OvaQwa	382	786	786	17.2	28.3	26.8	10	19	19	0.5	0.7	0.6	731	777	777	32.9	28.0	26.5	20	23	23	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Bophuthatswana	375	390	579	57.2	57.4	84.1	7	12	10	1.1	1.8	1.5	182	393	328	27.8	57.8	47.6	11	14	13	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
D. Total	17362	19315	19559	40.0	41.1	40.8	999	1785	1850	2.3	3.8	3.9	17082	18220	18325	39.4	38.8	38.2	486	530	563	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
South Africa(CP)	9380	11566	11742	52.0	59.8	59.7	741	1305	1335	4.1	6.7	6.8	9981	11249	11261	55.3	58.2	57.2	220	238	261	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Ciskei	3030	3374	3447	40.4	42.0	42.2	105	313	344	1.4	3.9	4.2	3219	2651	2651	42.9	33.0	32.4	106	109	113	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Transkei	4952	4375	4370	27.8	22.3	21.8	153	167	171	0.9	0.9	0.9	3882	4320	4413	21.8	22.0	22.0	160	183	189	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
E. Total	30956	34614	37924	38.9	40.3	43.4	3488	3869	4129	4.4	4.5	4.7	33019	39476	39622	41.5	46.0	45.3	516	533	610	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
South Africa	28114	32175	35494	41.0	43.2	46.7	3423	3801	4056	5.0	5.1	5.3	31020	36828	36921	45.2	49.5	48.6	422	444	522	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Natal	18548	22459	23597	75.1	86.9	90.3	3127	3329	3491	12.7	12.9	13.4	24943	28403	29639	101.0	109.9	113.4	221	234	292	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
KwaZulu	9566	9716	11897	21.8	20.0	23.9	296	472	565	0.7	1.0	1.1	6077	8425	7282	13.8	17.4	14.6	201	210	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Transkei	2842	2439	2430	26.0	21.3	21.0	65	68	73	0.6	0.6	0.6	1999	2648	2701	18.3	23.2	23.4	94	89	88	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
F. Total(SA)	5519	5458	5938	31.1	27.7	29.3	393	525	610	2.2	2.7	3.0	4646	6008	6961	26.2	30.5	34.4	121	147	155	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Transvaal	4481	4420	4910	33.5	31.4	34.5	372	491	546	2.8	3.5	3.8	4169	5151	5995	31.2	36.6	42.1	79	91	97	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
KaNgwane	1038	1038	1028	23.8	18.4	17.1	21	34	64	0.5	0.6	1.1	477	857	966	10.9	15.2	16.1	42	56	58	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
G. Total	10152	10957	12931	27.0	25.6	29.3	502	542	582	1.3	1.3	1.3	11197	16449	15014	29.8	38.5	34.0	407	637	694	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
South Africa	8679	9484	11005	26.3	25.3	28.4	476	506	553	1.4	1.3	1.4	10354	15330	13854	31.4	40.9	35.7	357	579	631	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Transvaal	2161	1894	2740	43.3	38.0	55.0	338	359	371	6.8	7.2	7.4	5771	7680	7865	115.6	154.1	157.9	31	34	66	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Lebowa	4726	5462	5952	21.5	21.3	22.4	78	96	133	0.4	0.4	0.5	2879	4744	4468	13.1	18.5	16.8	276	484	501	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Gazankulu	1792	2128	2313	29.8	30.7	32.2	60	51	49	1.0	0.7	0.7	1704	2906	1521	28.3	41.9	21.2	50	61	64	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Venda	1473	1473	1926	32.0	28.1	35.5	26	36	29	0.6	0.7	0.5	843	1119	1160	18.3	21.3	21.4	50	58	63	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
H. Total	32476	34287	44513	43.1	40.2	50.6	7342	7859	8248	9.7	9.2	9.4	35286	42626	45061	46.8	50.0	51.3	421	450	519	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
South Africa	32025	33740	43700	46.9	43.5	54.5	7307	7791	8193	10.7	10.0	10.2	34587	41116	43803	50.7	53.0	54.7	381	396	469	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Transvaal/OFS	31501	33740	43700	48.2	45.8	57.6	7306	7780	8170	11.2	10.6	10.8	34499	40972	43578	52.8	55.6	57.4	354	364	435	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1		
KwaNdebele	524	524	524	18.3	0.0	0.0	1	11	23	0.0	0.3	0.5	88	144	225	3.1	3.7	5.3	27	32	34	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Bophuthatswana	451	547	813	6.4	7.2	10.4	35	68	55	0.5	0.9	0.7	699	1510	1258	9.9	19.7	16.1	40	54	50	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
I. Total	5985	8220	9633	36.5	45.9	52.7	479	545	556	2.9	3.0	3.0	4778	6625	6211	29.2	37.0	34.0	131	160	166	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
South Africa(Tvl)	4136	5660	5830	42.2	53.8	54.4	437	464	491	4.5	4.4	4.6	3536	3944	3977	36.1	37.5	37.1	59	64	78	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Bophuthatswana	1849	2560	3803	28.1	34.7	50.2	42	81	65	0.6	1.1	0.9	1242	2681	2234	18.9	36.4	29.5	72	96	88	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Total South Africa	129163	146623	166600	38.5	39.5	43.8	18977	21294	22383	5.7	5.7	5.9	137822	167834	171045	41.1	45.3	45.0	2807	3216	3503	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Total RSA	95645	111566	126114	48.8	52.2	57.6	18069	19849	20769	9.2	9.3	9.5	113126	133204	139848	57.8	62.3	63.9	1620	1695	1941	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Total TBVC	15490	15927	18510	26.6	25.1	28.5	442	762	761	0.8	1.2	1.2	12740	16777	15958	21.9																

1. Excluding beds at mental and dental institutions.

Table 4: Department of Community Health, Medunsa, 1993

Personnel Category	Active Posts	Filled Posts	Count
Administration clerk	664	660	37
Administration clerk, Chief	24	27	12
Administration clerk, Senior	227	296	40
Administration officer	63	56	35
Administration officer, Senior	24	23	23
Administration officer, Assistant	4	4	2
Artisan A Group	62	55	21
Artisan B Group	39	29	15
Artisan foreman	18	14	14
Communication officer	1	1	1
Communication liaison officer	9	1	1
Community liaison officer, Chief	3	6	5
Community liaison officer, Senior	11	3	2
Dietician	14	9	13
Dietician, Senior	1	1	1
Director	2	1	1
Director (Med)	3	2	2
Director (Prof)	1	1	1
Director, Assistant	9	9	6
Director, Assistant (Prof)	1	9	6
Director, Chief	2	9	6
Director, Chief (Prof)	1	9	6
Director, Deputy	3	3	3
Director, Deputy (Med)	3	3	2
Director, Deputy (Prof)	2	2	2
Driver	132	123	28
General Assistant I	3 654	3 452	48
General Assistant II	1 522	1 531	40
General Assistant III	700	663	36
General foreman	3	4	4
General foreman, Senior	2	2	1
Health inspector	42	40	7
Health inspector, Chief	6	6	3
Health inspector, Control	2	2	2
Health inspector, Senior	12	12	5
Medical natural scientist	2	2	1
Medical natural scientist, Principal	3	3	1
Medical officer	188	170	30
Medical officer, Principal	12	11	6
Medical officer, Senior	25	21	15
Medical superintendent	27	23	29
Medical superintendent, Chief	1	7	11
Medical superintendent, Senior	11	7	11
Medical technologist	17	17	10
Medical technologist, Senior	1	1	1
Messenger	10	11	10
Nursing assistant	1 967	1 611	39
Nursing assistant, Senior	436	371	32
Nursing service manager	44	41	25
Nursing service manager, Chief	2	2	2
Nursing service manager, Senior	16	14	11
Occupational therapist	29	21	23
Occupational therapist, Chief	1	1	1
Pharmacist	56	39	35
Pharmacist, Chief	1	1	1
Pharmacist, Principal	4	1	3
Pharmacist, Senior	16	11	14
Physiotherapist	36	24	25
Physiotherapist assistant	16	15	8
Physiotherapist, Chief	1	1	1
Physiotherapist, Senior	1	1	1
Professional nurse	2 601	2 013	42
Professional nurse, Chief	233	191	40
Professional nurse, Senior	845	610	42
Radiographer	2	2	1
Radiographer, Senior	2	2	1
Secretary	5	5	2
Security guard I	3	3	1
Social worker	3	3	3
Social worker, Chief	1	1	1
Specialised auxiliary officer	250	235	28
Specialised auxiliary officer, Chief	3	3	3
Specialised auxiliary officer, Senior	98	98	14
Specialist	46	33	12
Specialist, Chief	1	1	1
Specialist, Senior	11	9	7
Staff nurse	2 537	1 884	35
Staff nurse, Senior	211	138	28
Telecom operator	132	128	30
Telecom operator, Senior	2	2	2
Typist	70	67	26
Typist, Chief	2	2	2
Typist, Principal	2	2	2
Typist, Senior	2	2	2

Source: Medunsa, 1993



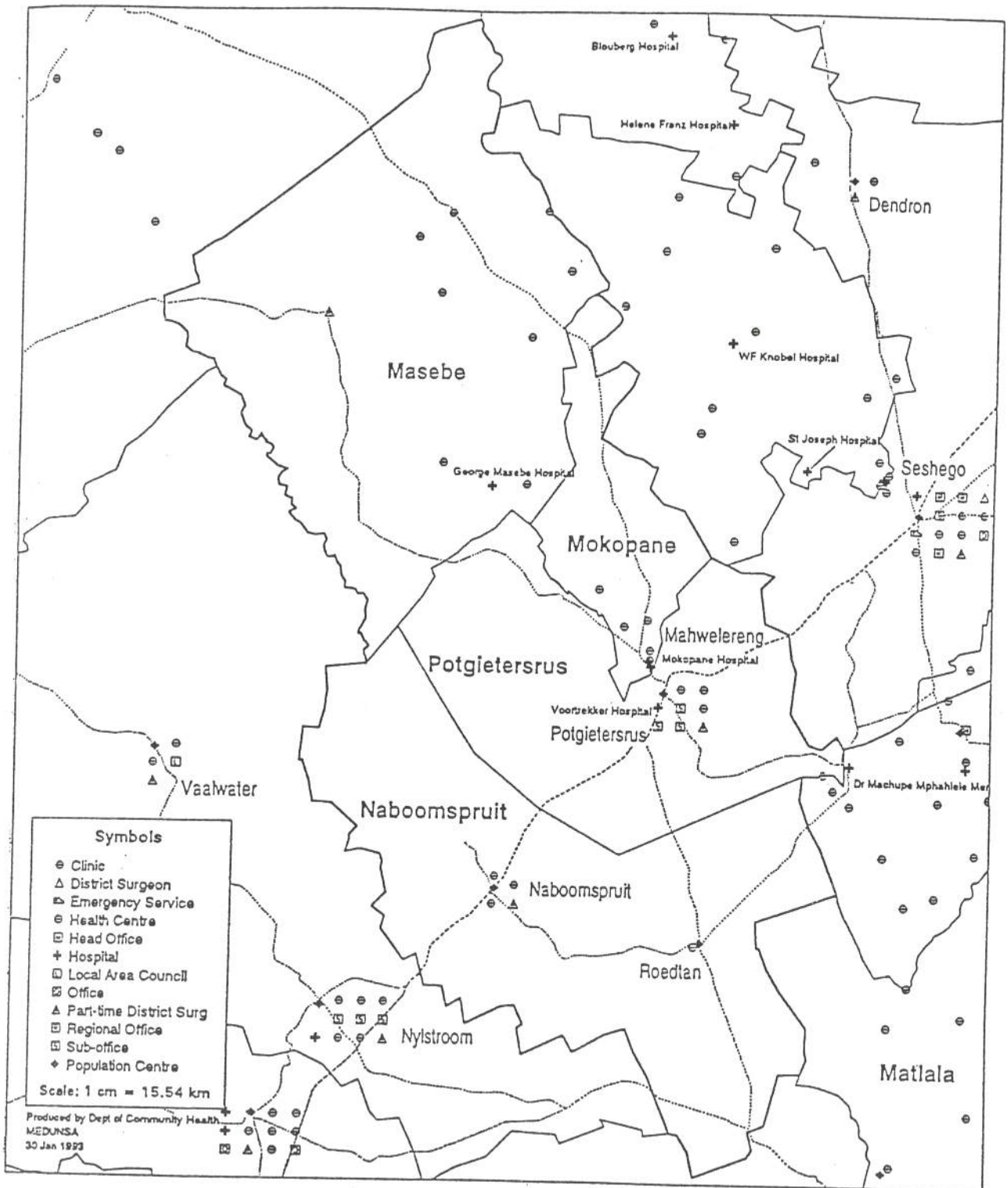
N	Area	Pop	PopDen	Beds	Beds/1000	Drs/100000	Nur/100000	PerCap Exp
Ellisras	13876	108890	8	126	1.16	4.2	32.4	41
Thabazimbi	10991	46036	4	60	1.30	8.7	54.5	59
Warmbad	4571	49458	11	150	3.03	7.7	77.2	81
Waterberg	8277	57201	7	214	3.74	13.1	99.1	149

261 585

Notes

PopDen = Population Density / square kilometer, Beds = Include hospital and clinic/health centre beds, as well as chronic care beds
Nur/100000 = Registered nurses per 100000 population, PerCap Exp = Per capita expenditure

Subregion 2

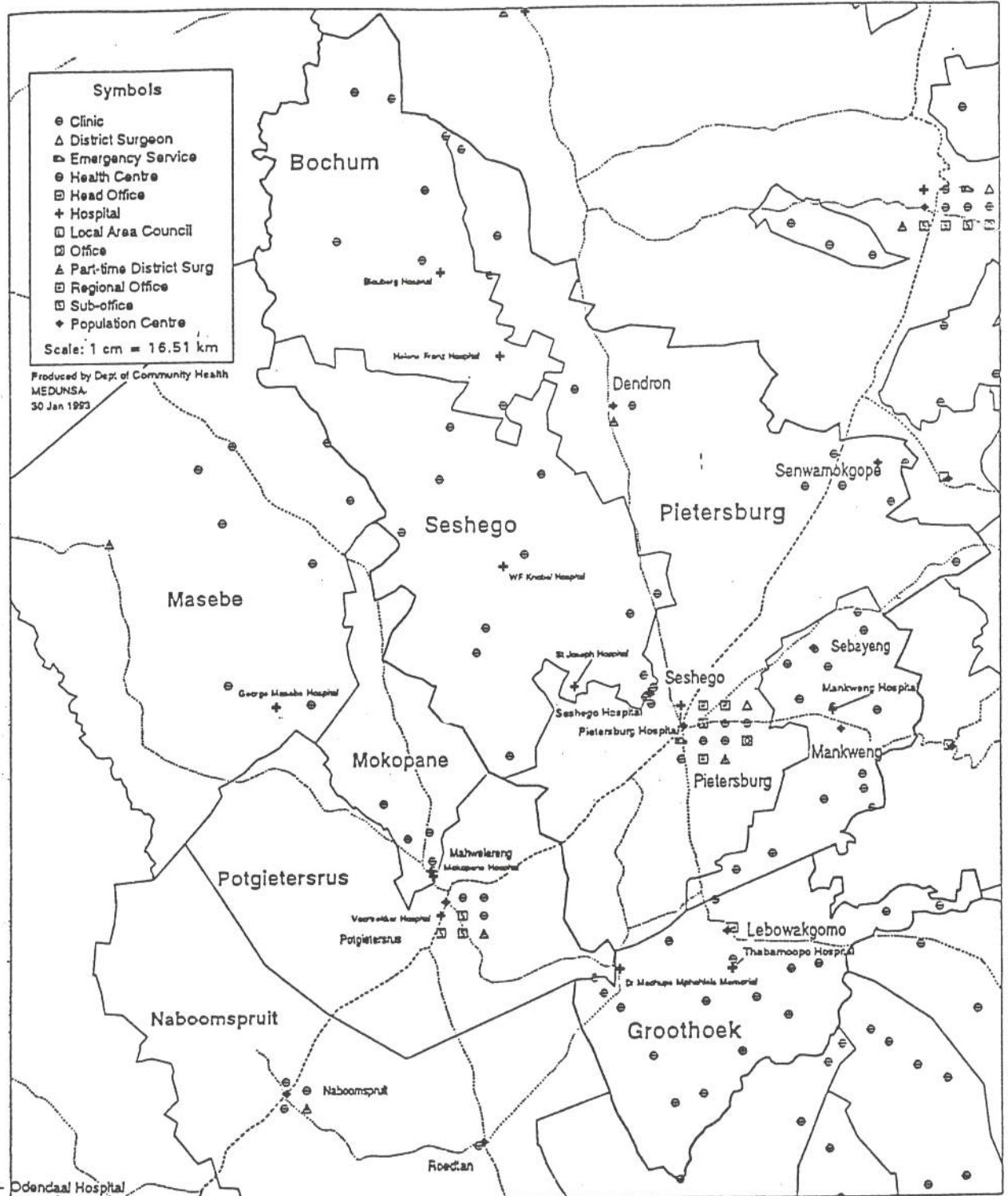


N	Area	Pop	PopDen	Beds	Beds/1000	Drs/100000	Nur/100000	PerCap Exp
Masebe	4627	206946	45	300	1.45	6.6	40.6	45
Mokopane	570	63169	65	378	5.98	29.3	188.4	204
Naboomspruit	4006	23669	6	5	0.21	4.2	29.6	22
Potgietersrus	2624	20738	8	74	3.57	11.6	178.4	231

Notes

PopDen = Population Density / square kilometer, Beds = Include hospital and clinic/health centre beds, as well as chronic care beds
 Nur/100000 = Registered nurses per 100000 population, PerCap Exp = Per capita expenditure

Subregion 3

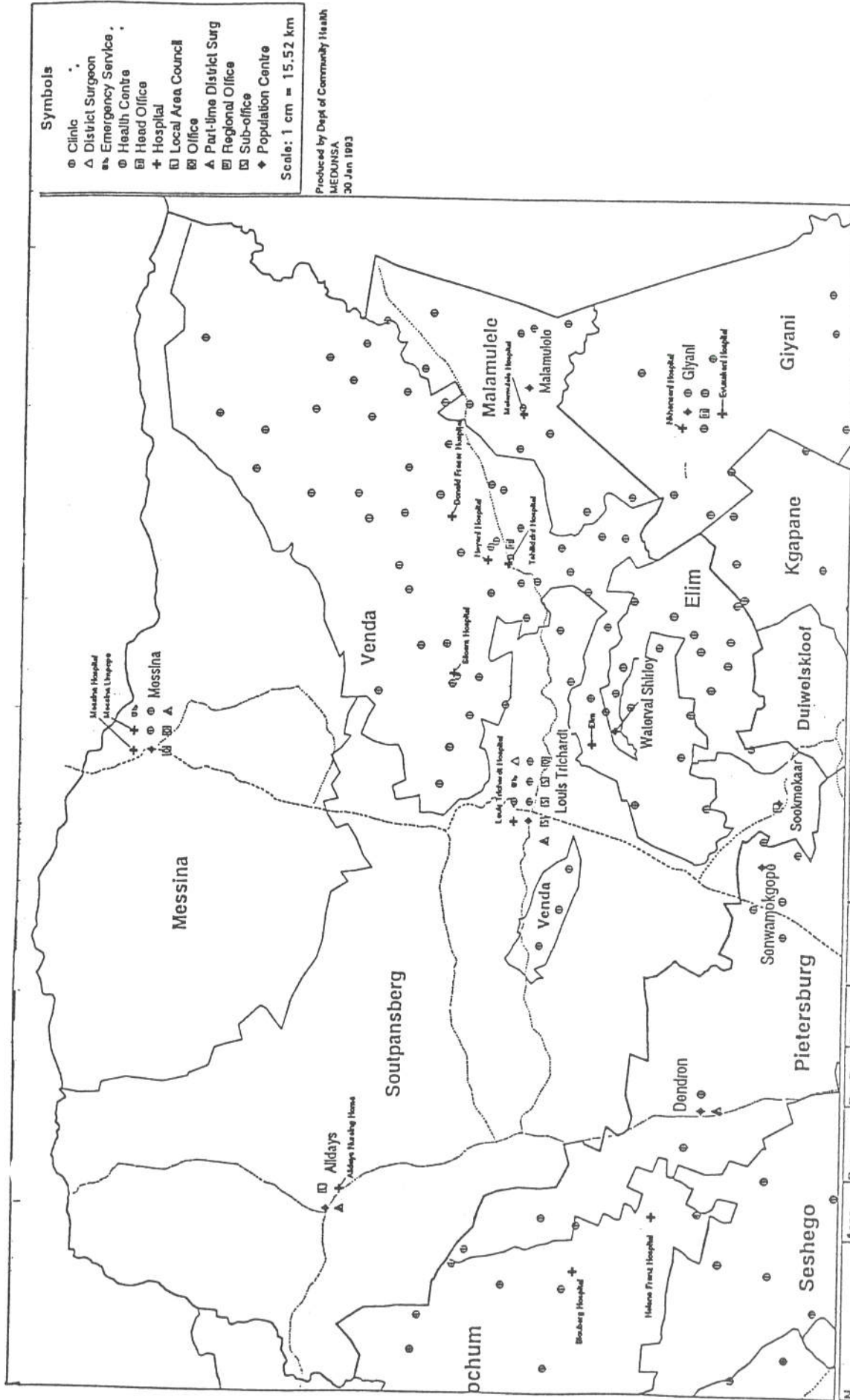


IN	Area	Pop	PopDen	Beds	Beds/1000	Drs/100000	Nur/100000	PerCap Exp
Bochum	2319	122126	53	243	1.99	7.9	55.7	59
Groothoek	1856	209211	113	3079	14.72	10.1	177.8	166
Mankweng	1101	134424	122	414	3.08	16.4	104.1	93
Pietersburg	5225	150453	29	578	3.84	19.4	194.3	290
Seshego	3007	300178	100	497	1.66	6.5	53.6	53

Notes

PopDen = Population Density / square kilometer, Beds = Include hospital and clinic/health centre beds, as well as chronic care beds
 Nur/100000 = Registered nurses per 100000 population, PerCap Exp = Per capita expenditure

Subregion 4

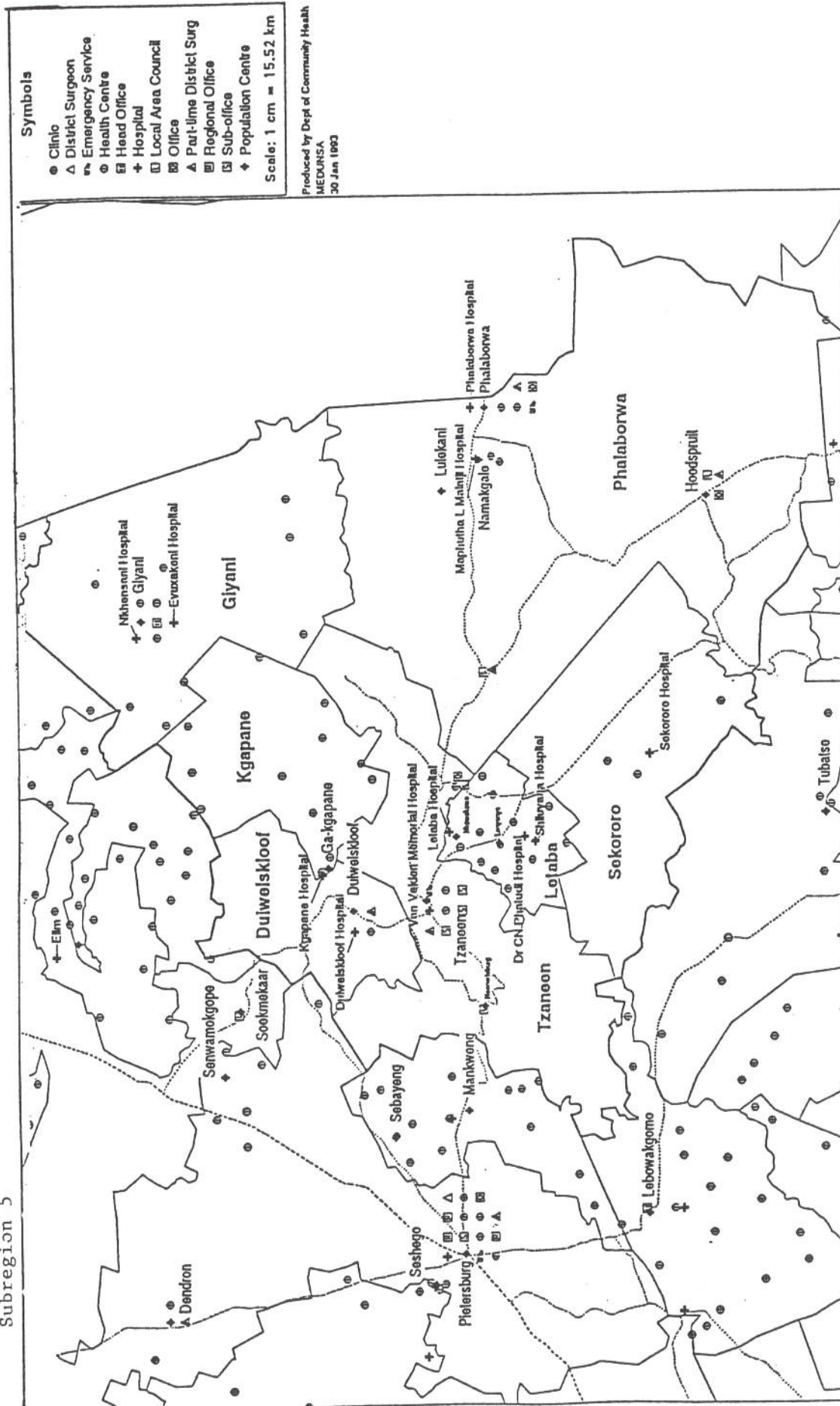


Notes

PopDen = Population Density / square kilometer
Beds = Include hospital and clinic/health centre beds, as well as chronic care beds
Nur/100000 = Registered nurses per 100000 population,
PerCap Exp = Per capita expenditure (R)

N	Area	Pop	PopDen	Beds	Beds/1000	Dra/100000	Nur/100000	PerCap Exp
Elim	848	151734	179	549	3.62	11.3	118.0	106
Malamulele	1378	140377	100	426	2.07	3.7	82.2	65
Messina	5938	22446	4	106	4.72	9.4	70.8	116
Soulpansberg	10058	53843	5	49	0.91	6.3	51.5	83
Vanda	5993	561384	94	1725	3.07	3.8	54.2	58

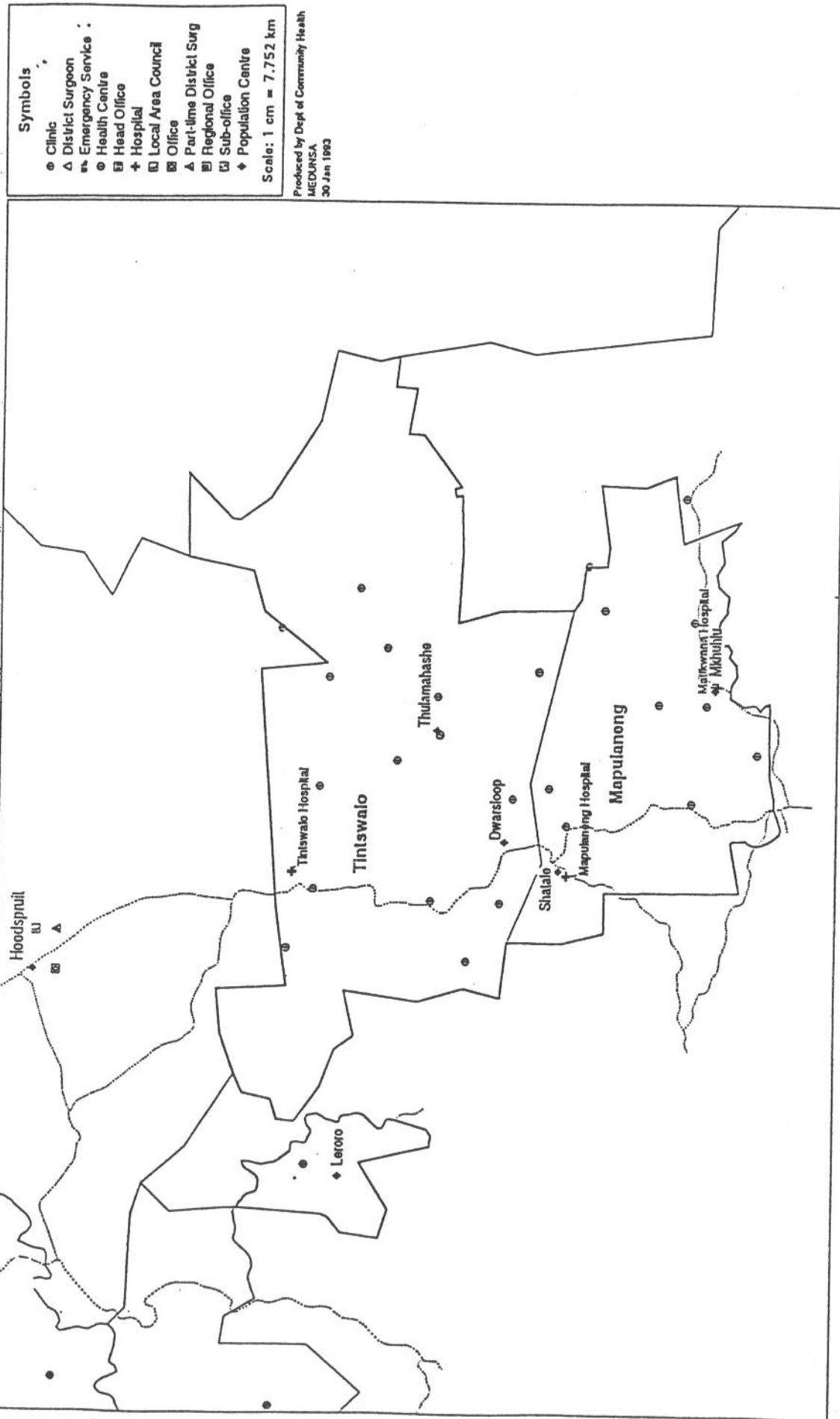
Subregion 5



N	Area	Pop	PopDen	Beds	Dre/100000	Nur/100000	PerCap Exp
Duwelskloof	997	12169	12	252.05	10.7	95.3	110
Giyani	2747	152412	55	860.564	6.9	129.3	216
Kgapane	1270	251520	190	324.129	10.1	44.1	54
Lelaba	598	131834	220	824.625	18.3	136.5	184
Phalaborwa	6442	107289	17	298.278	12.5	118.4	119
Sekororo	2070	149259	72	3302.21	3.8	37.5	67

Notes

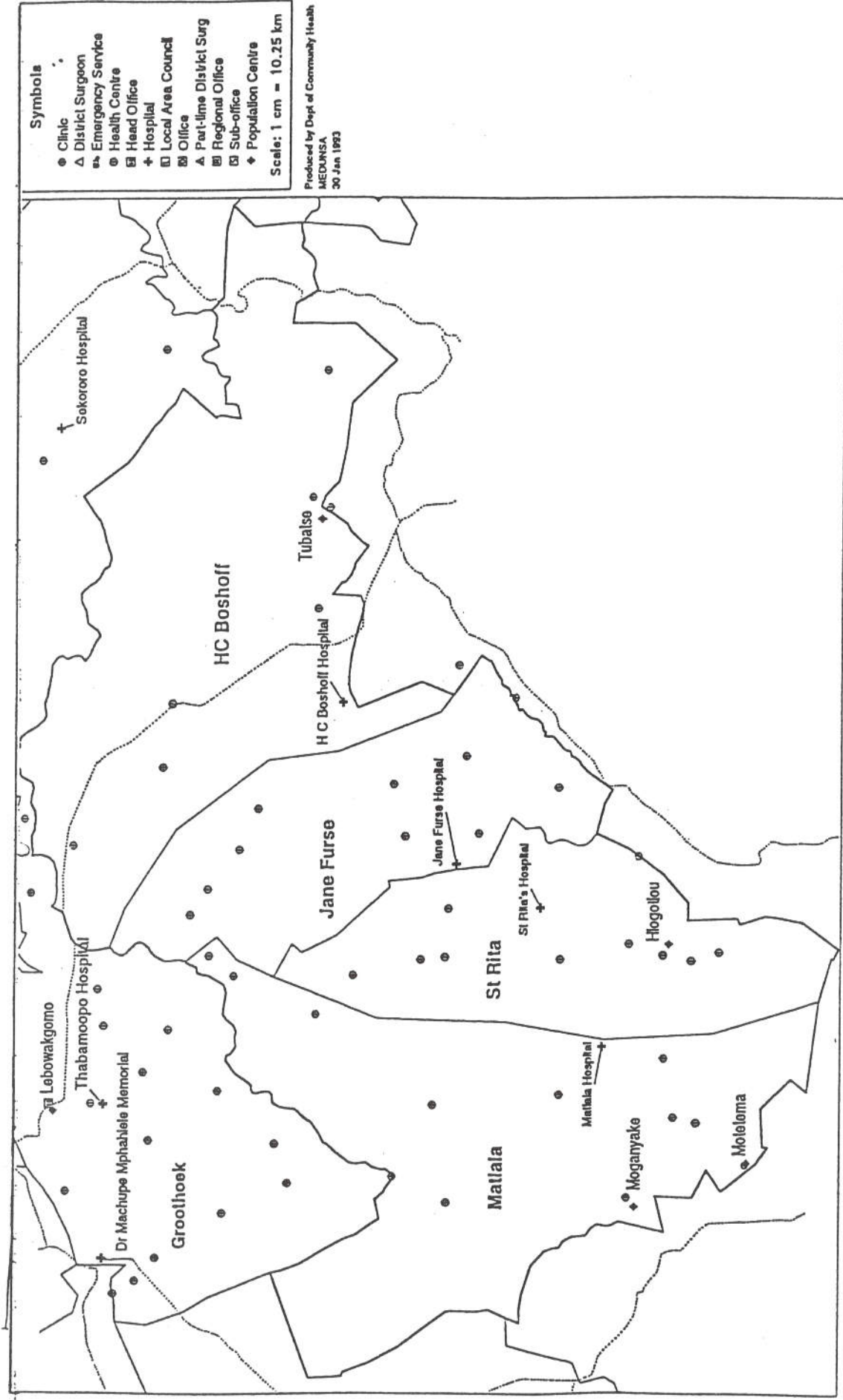
PopDen = Population Density / square kilometer
 Beds = include hospital and clinic/health centre beds, as well as chronic care beds
 Nur/100000 = Registered nurses per 100000 population
 PerCap Exp = Per capita expenditure (R)



Notes
PopDen = Population Density / square kilometer
Beds = include hospital and clinic/health centre beds, as well as chronic care beds
Nur/100000 = Registered nurses per 100000 population,
PerCap Exp = Per capita expenditure (R)

N	Area	Pop	PopDen	Beds	Beds/1000	Drs/100000	Nur/100000	PerCap Exp
Mapulaneng	768	131441	171	676	5.14	16.5	109.6	175
Tlatswalo	1734	267083	154	380	1.45	4.7	54.9	56

Subregion 6



N	Area	Pop	PopDen	Beds	Beds/1000	Dre/100000	Nur/100000	PerCap Exp
HC Boshoff	2577	305945	119	553	1.81	2.0	32.0	32
Jane Furse	1310	152502	116	480	3.15	9.9	110.8	99
Matlala	2283	212151	93	236	1.11	3.8	42.0	47
St Rita	1335	122649	92	389	3.17	8.2	93.8	91

Addendum O

ACCESS TO MEDIA

by

HM Henning
Corporate Communications Division

1. INTRODUCTION

Most poor households in rural and semi-urban areas of South Africa listen to the radio for information and entertainment. As in the rest of the country, the radio broadcast in the northern and eastern Transvaal is largely SABC-controlled and, though an independent content analysis of the African stations has not been done, the most popular programmes are news and music. Audience surveys show that in the Transvaal, excluding the PWV, it is mostly urbanised African people who read newspapers whereas 62% of African people living in towns and villages listen to the radio. This finding is consistent with the levels of functional and total illiteracy, especially among rural people. A study done by Rhodes University found that illiterate people did not comprehend visual two-dimensional images, such as photographs or line drawings, providing a further reason for the preference of radio. The lack of qualitative research in this area indicates the need for further study. However, these seminal findings are important, first as radio would have to be a primary source for the communication of the electoral process, and second for the development of community-responsive radio in the development for South Africa.

2. ACCESS TO MEDIA

Access to the free flow of information, especially a free press, has been used to measure human development¹. However, others have argued that development and democracy do not necessarily depend on each other². It becomes a moot point whether to measure people's poverty in relation to their access to a free press.

2.1 Print media

According to the All Media Products Survey (AMPS) done by the South African Advertising Research Foundation (SAARF) and using the Newspaper Press Union's (NPU) regions, in the Transvaal excluding the PWV³, *Sowetan* is the most-read daily newspaper with 331 000 African readers (as opposed to circulation). *City Press* has 266 000 African weekly readers and *Sunday Times* has

¹ The *Human Development Report* (UNDP, 1991) defines the goal of human development as the increase of people's choices. They must therefore enjoy the freedom to exercise those choices. The report mentions the *World Human Rights Guide* by Charles Humana listing 40 indicators of freedom. The positive *freedom for* includes the right to independent newspapers, radio and television and book publishing.

² Dr Guy Berger, editor of *South*, an independent weekly newspaper for the western and southern Cape, argues that while the media have an obligation to democracy and development, a free market and free press are not necessarily supportive. The free press ends up serving the most powerful groups in that marketplace, and low profit media, like print, are always threatened by market pressure such as accountability to shareholders and corporate owners.

³ The NPUs region B is Transvaal excluding PWV.

230 000 African readers in those areas. Of these, the majority (31%) of the *Sowetan* readers are urbanised⁴ in the area, whereas 2% of these readers live in villages⁵. 'African magazines'⁶ in contrast, have a readership of 870 000 in the area, in other words 19,3% of all African readers sampled in the country hail from this area. The number of multiple readers of dailies, weeklies and monthlies is not reflected. Both sets are nevertheless urbanised and one can assume a high correlation.

The local newspapers available in these areas are weekly English and Afrikaans newspapers with white target audiences⁷, but two of these publishers produce newspapers aimed at African audiences with coverage ranging from community news and national political news to education and sport. These are:

- * *Gazankulu Times* (owned by Lowveld Publishers) published weekly with 7 000 copies circulated;
- * *Lebowa Times* (owned by Northern Transvaal Newspapers) is a weekly publication with a circulation of 16 000 and an estimated readership of 80 000;
- * *Venda Mirror* (published by a company of the same name) has a weekly circulation of between 5 500 to 7 500 with an estimated readership of 70 000.

2.2 Electronic media

Radio listenership is much higher and indicative of both an African oral tradition as well as high levels of illiteracy. The lack of rural-biased print media and delivery infrastructures, the long distances to delivery points for newspapers, and the low levels of disposable income available for discretionary items such as buying a newspaper could be the reason for low African audiences. However, it is more likely illiteracy that makes this medium less attractive. The AMPS shows that 49,3%, or 2,2 million, African listeners in the NPU region B listen to radio (more than six times the number of newspaper readers). In less concentrated urban areas with communities of less than 40 000 people, 62% of Africans are radio listeners, whereas only 2,4% read a daily newspaper.

The only radio station in the area that is independent of the SABC is Radio Thohoyandou, owned by the Venda government. It is mainly a music station with phone-ins. It transmits in Venda on FM and in (township) English on MW. The AMPS 1992 reflects a listenership of 150 000.

According to the SABC the cultural and news content in the 18:30 to 21:30 peak slots – for some stations the only period of transmission – from Monday to Saturday received the highest audiences in the northern and eastern Transvaal where there was transmission of:

Table 1: Radio stations and listenership, 1992

Station	Transmission area	Peak time listenership
Radio Lebowa	Lebowa	340 000

⁴ SAARF divides community size into cities with populations larger than 250 000 people and towns are defined as having population of between 40 000 to 249 999.

⁵ Defined by AMPS as communities with a population less than 500.

⁶ *Bona, Drum, Jive Music Magazine, Pace, Thandi, Tribute* and *True Love*.

⁷ *Letaba Herald, Lowveld News, Noord Transvalers, Northern Review, East Transvaal Advertiser, Palaborwa Herald, Zoutpansburger* are owned by various small publishing houses.

Station	Transmission area	Peak time listenership
Radio Venda	Thohoyandou	36 000
Radio Tsonga	Middelburg, Dullstroom	80 000
Radio Ndebele	Ellisras, Potgietersrus	41 000
Radio Swazi	Lowveld, KaNgwane, East Rand	272 000

Source: All Media Products Survey, 1993

No independent research on the message content of these radio stations has been done.

3. MEDIA RESEARCH STUDY

The only qualitative information about the access that rural poor people have to mass media is contained in a pilot study on the rural areas of the eastern Cape by Rhodes University's Department of Journalism and Media Studies, entitled *Rural Media*. Although the study was area-specific, its findings are relevant for other rural areas with similar infrastructural conditions, low household incomes and low levels of literacy, such as the eastern and northern Transvaal.

This study raises the important issues of communicating the electoral process to a low-literacy audience⁸. It found that six out of every ten people defined as African are illiterate and have little or no opportunity to become literate. It also found that illiteracy also has consequential incomprehension of visual two-dimensional images, such as photographs or line drawings. For an illiterate person a picture is not seen as a representation of something else, but as an object in itself in which a perspective of depth is not comprehended. However, most people, no matter how remotely situated they were, had access to radio.

The study draws on a demographic report of Market Research Africa, which found that nine out of every ten African households in South Africa had at least one radio. Their sample also showed that approximately 82% of the African population had a positive perception of African language radio, 72% listened to the SABC's Nguni/Sotho series, 84% listened to any station without preference. Radio stood out among all the media as the most favourable medium of communication with the outside world. Three quarters of the population listened to radio and only one tenth of the population turned to newspapers for information, a twentieth to magazines and a quarter to television.

The pilot study found that 60% of the interviewees listened to the radio in the morning (between 6 am and 1 pm), 49% listened in the evening, with the afternoon being least favoured. The programmes people listened to were news (89%), followed by popular music (43%) and sport (26%). The least popular programmes were competitions and educational programmes. Eight in ten listened to African radio stations. Only 46% of the interviewees had a vague to moderate idea of what an election was, while 54% had no idea whatsoever.

4. CONCLUSION

The findings of the pilot project point to the lack of qualitative research in this area. There is a great need for further study. However, its seminal findings have important implications not only for involving rural communities in 'a free and fair' election and the ongoing process of democracy and development,

8

The study draws on lessons learned from the first democratic elections held in Namibia and Zimbabwe.

but the high listenership of radio provides important avenues for well-planned and presented education, multi-media literacy programmes with community involvement, health⁹ and other ongoing development issues for rural people. By implication, therefore, there is a need for an impartial SABC board, deregulated air waves, community-controlled radio and funding, public or private, for radio technology, capacity and control at community level.

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⁹ SPEAK radio project launched its first community-run radio programme on health in Khyalitsha. The transmission equipment cost less than R4 000 and the community participants, mostly women involved in a community health programme, participated in a week-long workshop before they produced their own radio programme. Women in the community carried their radios onto the streets to listen to the limited broadcast, and turned it into a community participating event.

Addendum P

ENVIRONMENT

by

PH Baskind
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1. INTRODUCTION

The environmental concerns impacting on the poor in the northern and eastern Transvaal regions are twofold – those that arise from substantial industrial development and those that occur due to a lack of development.

Industrial development is centred in the eastern Transvaal Highveld. Coal-based electricity generation, mining, agro-industry, chemical and ferro-alloy manufacturing impact on air and water quality. This in turn affects the poor's environment.

Conversely, large parts of the region, and particularly KaNgwane, Lebowa, Gazankulu and Venda, are characterised by rapid population growth, low family incomes and high population densities. The result is increasing competition and stress on the natural resource base on which the poor depend.

The underlying cause of environmental degradation, in the developed and developing areas, is the lack, or attenuation, of property rights for natural resources. The impacts of the poor on the environment mainly result from communal property rights which have not adequately adjusted to cater for increased competition for resource use. This causes an individual's maximising behaviour to conflict with the goal of sustainable utilisation. Utilisation is in excess of the natural regenerative capacity of the resource.

The impact of the environment on the poor in the eastern and northern Transvaal regions result mainly from the prevalence of externalities originating from the industrial sector. These industries dispose of their waste in a privately efficient way, but this imposes costs on society. Polluted water transfers health, purification and other costs onto downstream users. Air pollution similarly impacts on affected communities. Because poor communities lack viable options to avoid the external effects, the social costs absorbed by them are assumed to be relatively severe.

The impact of the poor on the environment is discussed in Section 2 and the impact of the environment on the poor in Section 3.

2. IMPACT OF THE POOR ON THE ENVIRONMENT

A high percentage of the population in the eastern and northern Transvaal regions lives in the rural areas. There is a lack of formal economic opportunities, and subsistence agriculture and pastoralism are commonly practised. Rapid population growth, high population densities, and in some instances increasing levels of poverty (Table 1) result in heightened competition for land, water and fuel. The use of these resources exceeds their natural regenerative capacity, and degradation results. A cycle of deprivation occurs with an intensification of resource use required for survival, and further degradation.

The major impact of poverty on the environment in the eastern and northern Transvaal regions is a decline in the productivity of agricultural, pastoral and energy resources. This is reflected in soil loss and erosion; a reduction of ground cover and encroachment of invasive biota; and an increase in the distance and time required to collect fuelwood.

Table 1: Population indicators, 1980-1989

Indicators	Eastern region		Northern region			
	E.TVL	KaNgwane	N.TVL	Venda	Lebowa	Gazankulu
Year	1987	1987	1986	1986	1986	1986
Population density (persons/km ²)	24,1	124,3	34,0	70,1	111,5	87,6
GGP <i>per capita</i> (R)	413	6 746	1 178	604	301	494
Population growth rate (%)	2,3 ¹	7,8 ¹	4,3 ²	3,8 ²	5,5 ²	5,0 ²

1 = 1980 to 1985

2 = 1980 to 1986

Source: Spangenberg, J P & Meintjes, C J, 1989.

2.1 Soil resources

South Africa has a complex soil mantle that is vulnerable to physical, chemical and biological degradation. It is estimated that sandy soils comprise about 32% of the total and are vulnerable to erosion and compaction. Forty per cent of the country's soils have a moderate to high rainfall erosivity with 60% containing very low organic matter (DEA, 1992).

Natural soil is estimated at one tonne per hectare per annum (DEA, 1992) and accelerated soil loss reaching close to a figure of three tonnes per hectare. This is ten times as great as the rate of soil formation (Verster et al, 1992).

The accelerated loss of soil results from inappropriate farming practices, overgrazing, the expansion of cultivation into unstable areas, and the removal of vegetative cover.

Though no specific data are available for the eastern and northern Transvaal regions, it is assumed that conditions and causes are comparable to those throughout the country. High-sediment yields in some rivers, particularly in the northern region, eg Steelpoort tributary of the Olifants River, indicate that soil loss due to poor agricultural practices are being experienced.

2.2 Grazing resources

Pastoralism plays an important economic and cultural role in both the eastern and northern Transvaal regions. In the northern region 73% of land is allocated for grazing land and in KaNgwane 44% (Spangenberg, J P & Meintjes, C J, 1989).

In KaNgwane, Venda, Lebowa and Gazankulu grazing is a communal resource. Rising population densities in these areas, combined with the need to transform grazing into arable land or urban settlements, have increased the pressure on the remaining resource.

Very few empirical studies have been done, but it is generally agreed that stocking rates far exceed the official recommendations (Shackelton, 1993). For example, in Subregion 6 of the northern region (Mhala, Mapulaneng, Nebo, Sekhukhune), the carrying capacity was 8,1 ha/LSU compared to an actual stocking rate of 2,6 ha/LSU in 1990 (Ekobest, 1991).

Visually these areas appear to be heavily overgrazed and, because of the loss of ground cover, to be subject to erosion. Productivity is also assumed to be impaired. However, because of the lack of

quantitative evidence, the extent to which this has ecological and economic consequences is the topic of some debate (Shackelton, 1993). Throughout Southern Africa's communal grazing areas, stocking rates 200% to 400% of the recommended are the norm, yet it appears that the areas continue to support these 'excessive' numbers.

Two studies done in the semi-arid eastern Transvaal Lowveld recorded a change in species composition (replacement of annuals by perennials and palatable species by unpalatable ones) and a reduction in tuft size under a heavy grazing regime on communal land. However, in the arid regions, results of studies to determine species-composition changes due to overstocking have been inconsistent. These systems appear to be 'resilient and event-driven' with rainfall being the overriding factor. Droughts appear to regulate cattle numbers to what is environmentally sustainable (Shackelton, 1993).

In addition to grazing, ground cover is utilised by the local community as a source of plants for traditional medicines, pesticides, craft work material, dietary supplements, clothing, building materials, dyes, etc. In some instances, the collection, transportation and sale of these products are income-generating activities. However, the availability of these resources is being threatened by over-exploitation – for local consumption and export to urban areas – and by a reduction in the habitat required for many species – through agricultural, urban and industrial sprawl (Heinsohn & Woodburne, 1993).

2.3 Energy resources

In the rural areas of the eastern and northern Transvaal, 90% of households use wood as their major energy source. Wood is also used in the construction of huts and kraals. Per capita consumption varies between 370 kg per annum to 560 kg per annum, but expenditure on fuelwood varies between zero and R43,00 per capita per annum (Stassen & Mouton, 1993).

The limited expenditure on wood and empirical studies indicate that a substantial proportion of the wood consumed is collected from the natural woodland. The rapid population growth rate and influx of refugees from Mozambique have increased the demand for this 'free' resource in the face of falling supply. Utilisation in many areas has already exceeded the sustainable yield.

In the Mhala region of Gazankulu, respondents to a study (Griffen *et al*, 1992) report an increase in the distance travelled and time spent on wood collection. In 1990 a roundtrip to collect fuelwood varied from 3 hours and 27 minutes to 4 hours and 37 minutes and a household spent between 38 and 60 hours per month on this pursuit. In addition, increasing circles of deforestation occur around settlements and respondents report resorting to the (illegal) cutting of live wood.

The commencement of the felling of live wood denotes a point of critical transition. The gathering of wood is no longer of relatively minor environmental importance, but becomes the impetus for the destruction of tree and woody plant cover. This not only deprives the community of a theoretically renewable resource but also exposes the soil, increasing the risk of erosion (Baskind, 1989).

3. IMPACT OF THE ENVIRONMENT ON THE POOR

The siting of electricity-generating facilities, mining and other heavy industries within the eastern Transvaal region, and particularly the Highveld subregion, has brought economic prosperity to the area. However, negative environmental externalities are prevalent and impact on communities living within, and outside of, the region. The most serious impacts relate to water and air quality.

In the absence of quantitative information, it is assumed that the externalities impact to a greater extent on poor communities because they do not have the resources to avoid absorbing the social costs. For example, their options to move to an unpolluted area are limited as are the possibilities of accessing other water sources. In addition, because of the dispersed nature of the pollutants and large number of affected parties, the compensation negotiations are extremely difficult.

3.1 Air pollution

In terms of atmospheric environmental degradation, the eastern Transvaal ranks with other major industrial regions in the world (Verster *et al*, 1992). The area is rich in coal suitable to supply power stations. Cost advantages have resulted in ten Eskom and five municipal/private coal-fired power stations being established in the Highveld region. Together they produce about 80% of South Africa's electrical power requirements but also release large amounts of sulphur dioxide (in excess of 1,1 million tonnes per year), NO_x , CO_2 , hydrocarbons and particulate matter (DEA, 1992).

In addition to the power stations, other heavy industry contributes to the pollution load. Ferro-alloy smelters, three Sasol oil-from-coal plants, fertiliser and chemical factories, cement-manufacturing plants, paper and pulp mills and various agro-industries are all sources of air pollution (DEA, 1992). Other sources of pollution include smouldering-coal discard dumps and domestic coal combustion.

Because of the concentration of polluting industries in the eastern Transvaal Highveld some empirical studies have been done. Table 2 (Els, 1990) indicates the extent of emissions and their respective sources.

Table 2: Air emissions on the eastern Transvaal Highveld; 1987

Source	Particulates	Emission (tonnes per year)				
		SO_2	NO_x	Hydro-Carbons	CO	CO_2
Power stations	355 843	1 110 585	371 791	363	43 538	135.4×10^6
Brickworks	not known	2 634	142	362	11 487	0.582×10^6
Ferro-alloy works	27 713	1 557	small	small	small	0.463×10^6
Steel	12 582	78	not known	small	small	not known
Sawmills	2 110	499	604	907	5 337	0.325×10^6
Paper, pulpmills	44	79	small	not known	11 430	not known
Petrochemical	433	7 019	not known	245 527	small	not known
Domestic	19 465	36 984	2 919	19 465	87 593	4.863×10^6
Coal dumps	small	54 390	not known	not known	not known	not known
Motor vehicles	4 466	small	28 464	47 277	212 503	not known
Other	4 608	3 903	3 091	small	small	0.370×10^6
Total	427 264	1 217 728	407 011	313 852	371 888	142×10^6
Variance since 1984	+ 14%	+ 17%	+ 15%	+ 14%	+ 10%	+ 15%

Source: Els, 1990

Table 2 indicates that 90% of SO_2 , NO_x and CO_2 emissions in the eastern Transvaal Highveld originate from coal combustion at power stations.

A study of the meteorological factors impacting on the area by Tyson, Kruger and Louw in 1987 for the National Programme for Weather, Climate and Atmospheric Research at the CSIR found that 'the eastern Transvaal Highveld is characterised by climatic conditions which are highly adverse for the dispersion of atmospheric pollution, namely high atmospheric stability, clear skies and low wind speeds, generally associated with a high pressure system prevailing over the region. Moist unstable conditions and rainfall are confined almost exclusively to the summer period. The dry stable winter period is of great significance for the accumulation of atmospheric pollution. During winter, temperature inversions occur almost every night at the surface while elevated inversions occur with high frequency. The elevated subsidence inversion is steep enough to preclude vertical dispersion of pollutants above this level on most days throughout the year.' (Petrie *et al*, 1992)

The extent of air pollution in the eastern Transvaal is of concern both in terms of its possible health impact on affected communities and its impact on the extensive afforestation and agricultural developments in the region. Neither of these areas has been well researched.

An epidemiological prevalence study by Zwi *et al* (1990) attempted to determine the impact of industrial pollution on the health of communities living close to emission sources. The study was conducted on white school children in the eastern Transvaal Highveld and among their counterparts in "non-polluted" towns in the Transvaal. Cough, wheeze, asthma and chest illnesses were more frequently reported in children from the polluted areas and these children were also found to be shorter.

Township dwellers are probably subjected to higher levels of pollution both outdoors and indoors. The inefficient combustion of coal used for domestic cooking and heating results in high concentrations of SO₂ and particulates. This may cause respiratory illness in susceptible groups (Von Schirnding, 1992). Quantitative data is not readily available and no assessment has been made of the extent of social costs incurred.

3.2 Water pollution

In general, water quality problems in the eastern and northern Transvaal mirror those throughout the country. According to the Department of Water Affairs salination, and to a lesser extent eutrophication, pollution by trace metals and micro-pollutants are causing quality to deteriorate (DWA, 1986). Depending on the nature of economic activity and land use in the catchment, the sources of the pollution (both point and diffuse) include mining and industrial activity, agricultural runoff, and urban runoff particularly from informal settlements.

The heavy concentration of industry, mining, intensive agriculture (utilising fertilisers, herbicides and pesticides) and rapidly expanding informal urban settlements within the eastern Transvaal detrimentally impact on water quality. This is illustrated in Table 3 which provides data on the salinity status of dams whose water is sourced from catchments falling within the eastern region.

Table 3: Salinity status of dams, 1986

	CAPACITY	TDS CONCENTRATION			SAMPLING PERIOD
	(MILL M³)	(in mg/l. equalled or exceed for % of time			
		10%	50%	90%	
Vaal	2 190,6	177	13	99	4/68 – 11/84
Vaal Barrage	61,5	710	495	210	1/73 – 9/85
Loskop	180,0	182	139	106	5/68 – 9/85

Source: Department of Water Affairs, 1986.

Deteriorating water quality impacts on the ability of power stations to operate efficiently and can negatively affect crops which are intolerant of high salinity levels. The extent to which this occurs has been extensively researched (see for example Van Rooyen *et al*, 1992; Herold *et al* 1992; Chutter *et al*, 1992). Analysis of the resulting social costs has been more limited and less vigorous (see for example Louw *et al*, 1990)

The eutrophication of many of the river systems has accelerated due to the rapid growth of urban settlements. Many of these settlements are unplanned, and sanitation and waste disposal are inadequate. This impacts severely on quality. Some of the Limpopo catchment's tributaries, which draw from the Witwatersrand and Pretoria areas (and the Hartbeespoort Dam), have experienced eutrophication problems.

The Olifants system is reported to be highly acidic largely as a result of pollution from coal-mining activity in the Witbank area. The Komati suffers from similar problems, but not to the same degree. This is cause for concern for tobacco and other irrigation farmers, for the power stations and river ecology.

In both the eastern and northern Transvaal, competition for the use of the scarce water resource is intensifying, affecting both flow and quality. The concentration of pollutants in the rivers is influenced by river flow. In a number of catchments, extensive commercial afforestation and irrigation has, particularly in drought years, severely impacted on the quality and quantity of water received by downstream users. There is little agreement on water allocations and receiving water quality objectives required to maintain the aquatic and riverine ecosystems of downstream users, that is the Kruger National Park and adjoining private conservation and eco-tourism destinations. This is currently the subject of an in-depth quantitative study – the Kruger National Park Rivers Programme. In addition, minimum flow requirements for Mozambique need to be determined.

A number of water-related health problems are experienced in the eastern and northern Transvaal. These are not necessarily due to the impacts of development – malaria and schistosomiasis is endemic to the region; and there is an increased risk of diarrhoeal death amongst children because of limited access to adequate sources of water and sanitation. The incidence of methaemoglobinae in infants due to groundwater contamination is not known, but is not thought to be significant despite high concentrations of nitrates in certain areas of the northern region (Steffen et al, 1991).

4. CONCLUSION

Environmental concerns in the eastern and northern Transvaal mirror those affecting the poor nationally and internationally.

In the rural areas, the impacts are related to high population densities and reliance on the resource base because of high levels of poverty. Poorly defined property rights for the resources inhibit the ability to manage them on a sustainable basis.

Particularly in the eastern Transvaal, environmental externalities are prevalent due to the high concentration of industrial activity. The ability of poor people to avoid the social consequences is limited because the impacts are diffuse, and their monetary and political power are insufficient to negotiate compensation.

In general, sufficient quantitative information to support many of the statements made in this document regarding conditions in the northern and eastern Regions is lacking.

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Addendum Q

PUBLIC EXPENDITURE

by

WJ Botha
Structural Adjustment Programme

1. INTRODUCTION

The public expenditure of a country consists of the cost elements incurred by rendering non-market services primarily to collective consumption by the other subjects of economic activity and the transfer of income to these subjects. The public goods and services are not provided for commercial or financial reasons or, if of a commercial or financial nature, not on a wide basis or not primarily for profit.

To determine the distribution between the rendering of the non-market services and the transfer of income to the other subjects of economic activity the expenditure has been classified according to the functions of government and their economic characteristics.

This report therefore provides an exposition of the expenditure of the subsectors of the regional governments in Development regions F and G.

2. STATISTICAL SUMMARY

2.1 Region F

2.1.1 Public expenditure

From Table 1 (Annexure Q) it is evident that the total expenditure of the government of KaNgwane increased from R69,1 million in 1984/85 to R711,9 million in 1992/93, representing an increase of 930% over the nine-year period or an average annual increase of 33,8%.

The government spent a substantial amount of its expenditure on education, comprising primary, secondary and technical training. In 1992/93 the relative share of education in the total expenditure comprised 37,5%. In 1984/85 the corresponding figure was 39,9%.

Also characteristic of the expenditure pattern of the government is the priority being given to other social development programmes. As indicated in Table 1, an amount of R88,4 million or 12,4%, and R83,6 million, or 11,8%, of the total 1992/93 budget were allocated for the development of the social security and health services, respectively.

2.1.2 Current expenditure

Turning to an analysis of the economic nature of the expenditure it is evident that R618,3 million, or 86,8%, of the total government expenditure in KaNgwane was required to maintain the current activities of the government and R93,7 million, or 13,2%, was applied for capital formation purposes. The major portion of the current expenditure, R521,7 million, or 84,3%, was required for purchasing goods and services, ie remuneration of employees (R335,7 million or 64,3%) and other purchases of goods and services (R186,0 million or 35,7%) the remainder of the amount consisting of subsidies and current transfers (R92,1 million or 14,8%) and interest payments (R4,5 million or 0,7%) (Table 2).

2.1.3 Capital expenditure

The total capital expenditure of KaNgwane (Table 2) amounted to R16,8 million in 1984/85 and increased by 457,7% to R93,7 million in 1992/93. The average annual growth rate of capital expenditure was 24,0%.

2.2 Region G

2.2.1 Government expenditure

From Table 3 it is evident that the total expenditure of the government subsector in Development region G increased from R844,9 million in 1984/85 to R5 906,7 million in 1992/93, representing an increase of 600% over the nine-year period or an average annual increase of 27,5%.

The government subsector spends a substantial amount of its expenditure on education, comprising primary, secondary, tertiary and technical training. In 1992/93 the relative share of education in the total expenditure was 38,3%. In 1984/85 the corresponding figure was 28,4%.

Also characteristic of the expenditure pattern of the government subsector is the priority being given to social development programmes. As indicated in Table 3, an amount of R1366,3 million, or 23,1% of the total 1992/93 budget, was allocated for the development of the health and social services of the region. Social security and welfare alone amounted to R803,5 million, or 13,6% of the budget expenditure for 1992/93.

Confining attention to an exposition of the expenditure in the subregions of Region G, it is found that R3057,6 million, or almost 52% of the total government expenditure in the region, was incurred in the Lebowa portion during the 1992/93 financial year (Table 6), the largest amounts having been spent on education (R1380,5 million or 45,1%). With regard to the economic sectors of Lebowa, R131,9 million (4,3%) was spent in the Agricultural sector whereas R73,7 million (2,4%) was spent in the Transport sector and only R49,6 million (1,6%) in the Fuel and Energy sector.

In the remaining two subregions (Tables 4 and 5), the highest amount, R1509,0 million, or 25,5% of the total, was spent in Venda, the major portion of which was required by the social development programme, Education (R410,0 million or 27,2%). Social Security and Welfare (R198,0 million or 13,1%) and Housing and Community Services (R138 million or 9,1%).

An amount of R581,1 million, or 9,8%, was spent on general public services, on which subregion Lebowa spent R219,4 million, or 37,8%, subregion Venda R209,0 million, or 35,9%, and subregion Gazankulu R152,7 million, or 26,3%.

2.2.2 Current expenditure

Turning to an analysis of the economic nature of the expenditure, it is evident that R5157,2 million, or 87,3% of the total government expenditure in Region G, was required to maintain the current activities of the governments and R749,5 million, or 12,7%, was applied for capital formation purposes in 1992/93. The major portion of the current expenditure, R4068,0 million, or 78,9%, was required for the purchase of goods and services, ie remuneration of employees (R2929,0 million or 73,3%) and other purchases of goods and services (R1139,0 million or 26,7%) the remainder of the amount consisting of subsidies and current transfers (R900,7 million or 17,5%) and interest payments (R188,5 million or 3,7%) (Table 7).

Examining the economic nature of the expenditure in the three subregions the division of the expenditure between current and capital in 1992/93 was as follows: Gazankulu 92/8, Lebowa 87/13 and Venda 83/17 (Tables 8,10 and 9 respectively).

2.2.3 Capital expenditure

The total capital expenditure of Region G (Table 7) amounted to R153,5 million in 1984/85 and increased by 389% to R749,5 million in 1992/93. During 1984/85 the main capital expenditure in the

three subregions, in order of relative importance, were: Vena 24,8%, Lebowa 17,8% and Gazankulu 14,2%. The corresponding figures for 1992/93 were: Venda 16,8%, Lebowa 13,4% and Gazankulu 7,6%.

3. CONCLUSION

The expenditure structures and positions of Venda, Gazankulu, KaNgwane and Lebowa are influenced by the economic, institutional, financial and sectoral issues prevailing in Regions F and G. The current expenditure situation has also manifested itself from long-term historical trends and developments. High average annual growth rates were experienced by the regional governments. The composition of public expenditure according to programme shows changing relationships between the main spending items. Expenditure on social services clearly remains the largest and most rapidly growing item in the total expenditure.

The composition of public expenditure according to economic category shows that, over the past decade, the government sector has acquired a growing share of economic resources, thus limiting unduly the more productive sectors. Current expenditure clearly became the larger item, and capital expenditure a decreasing item in the total expenditure.

Key issues impacting on the regional government budgets are the difficulty of controlling expenditure items, significant and politically sensitive changes and the linking thereof to budgeting, and the governments' debt positions (mainly due to payment of short-term debts).

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Table 1: KaNgwane: Functional classification of government expenditure, 1984/85 to 1992/93

R'million											
Functions	Actuals							Budgets			Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93		
1. General public services	14,3	16,9	34,1	37,1	45,7	54,5	65,7	73,9	76,5	23,3	
2. Defence	-	-	-	-	-	-	-	-	-	-	
3. Public order and safety	0,8	1,2	8,5	10,1	12,6	17,9	23,2	36,3	42,8	64,5	
4. Education	27,6	40,0	52,0	82,8	113,8	130,6	207,9	254,0	266,8	32,8	
5. Health	1,3	18,8	23,0	30,1	34,7	44,6	57,9	72,6	83,6	68,3	
6. Social security and welfare	9,9	11,6	14,4	18,6	27,8	42,4	55,7	78,9	88,4	31,5	
7. Housing and community development	1,9	0,4	15,8	28,0	20,6	29,2	35,5	39,7	43,8	48,0	
8. Recreation, cultural and religious	0,4	0,2	0,4	0,8	0,9	0,6	2,2	1,6	0,8	9,1	
9. Fuel and energy	4,4	6,0	8,1	10,7	8,2	9,5	10,4	9,8	9,8	10,5	
10. Agriculture	7,2	11,1	14,5	18,2	20,5	19,7	22,5	27,9	25,4	17,1	
11. Mining, manufacturing and mineral resources	-	-	-	-	-	-	-	-	-	-	
12. Transportation	1,3	11,1	6,8	16,5	13,9	23,8	25,0	19,6	19,7	40,5	
13. Other economic affairs	-	-	0,1	-	0,3	-	-	-	-	-	
14. Expenditure unspecified	-	9,0	10,9	19,1	26,8	18,4	26,5	30,5	54,3	-	
Total	69,1	126,3	188,6	272,0	325,8	391,2	532,5	644,8	711,9	33,8	

Source: Development Bank of Southern Africa, 1993

Table 2: KaNgwane: Economic classification of government expenditure, 1984/85 to 1992/93

R'million

Functions	Actuals							Budgets			Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93		
A. Current expenditure	52,3	72,5	137,3	186,1	247,1	311,3	436,1	535,3	618,3	36,2	
1. Expenditure on goods and services	41,9	60,3	117,3	164,1	212,1	262,3	367,5	452,4	521,7	-	
1.1 Salaries and wages	26,4	46,6	70,0	99,0	130,0	172,5	247,1	319,5	335,7	37,4	
1.2 Other purchases of goods and services	15,5	13,8	47,3	65,1	82,1	89,8	120,4	132,9	186,0	36,4	
2. Interest payments	-	-	1,0	-	2,0	2,0	2,2	2,4	4,5	-	
3. Subsidies and other current transfers	10,4	12,1	19,0	22,0	33,0	47,0	66,4	80,5	92,1	31,3	
B. Capital expenditure	16,8	53,9	51,6	86,0	79,0	79,7	96,4	109,8	93,7	24,0	
Total	69,1	126,5	188,9	272,1	326,1	391,0	532,5	645,1	712,0	33,9	

Source: Development Bank of Southern Africa, 1993

Table 3: Region G: Functional classification of government expenditure, 1984/85 to 1992/93

R'million											
Functions	Actuals						Budgets				Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93		
1. General public services	97,1	127,2	136,4	145,8	188,9	217,5	239,6	342,6	581,1	25,1	
2. Defence	16,9	20,0	21,6	22,3	40,7	41,0	66,2	75,5	89,0	23,1	
3. Public order and safety	39,2	47,5	54,2	91,5	134,5	180,0	203,7	242,8	285,9	28,2	
4. Education	240,4	327,5	458,0	638,7	826,3	1 036,2	1 453,6	1 881,5	2 264,8	32,4	
5. Health	97,0	122,9	169,2	213,5	283,6	319,5	428,1	544,0	562,8	24,6	
6. Social security and welfare	93,6	113,4	144,9	205,8	266,2	376,4	421,0	670,7	803,5	30,8	
7. Housing and community development	18,8	18,3	92,7	115,7	111,5	177,6	243,5	327,2	373,6	45,3	
8. Recreation, cultural and religious	2,8	1,2	5,9	3,4	4,3	3,6	4,8	6,4	8,4	14,7	
9. Fuel and energy	30,4	28,5	24,3	55,4	80,1	43,4	53,3	69,1	71,6	11,3	
10. Agriculture	95,1	105,8	101,7	133,9	133,0	150,9	192,5	286,8	266,2	13,7	
11. Mining, manufacturing and mineral resources	15,4	13,6	17,0	28,0	30,0	19,0	13,0	20,0	30,0	8,7	
12. Transportation	48,0	50,9	94,4	98,5	112,0	107,3	118,2	146,7	223,3	21,2	
13. Other economic affairs	4,6	13,3	3,0	35,4	23,4	3,9	18,4	10,1	26,4	24,4	
14. Expenditure unspecified	45,6	70,6	123,8	177,6	193,0	139,1	234,9	247,4	320,1	27,6	
Total	844,9	1 060,7	1 447,1	1 965,5	2 427,5	2 869,4	3 690,8	4 870,8	5 906,7	27,5	

Source: Development Bank of Southern Africa, 1993

Table 4: Venda: Functional classification of government expenditure, 1984/85 to 1992/93

R'million

	Actuals							Budgets			Average annual growth rate 1984/85- 1992/93
		1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	
Functions											
1. General public services	31,2	26,5	26,0	26,0	41,0	63,0	56,0	63,0	209,0	26,8	
2. Defence	16,9	20,0	21,6	22,3	40,7	41,0	66,2	75,5	89,0	23,1	
3. Public order and safety	9,8	14,0	10,4	28,7	39,3	70,0	64,8	47,5	39,0	18,8	
4. Education	67,8	75,4	76,0	105,0	143,0	201,0	278,0	318,0	410,0	25,2	
5. Health	15,0	18,7	20,0	29,0	42,0	53,0	69,0	79,0	90,0	25,1	
6. Social security and welfare	12,6	15,5	36,0	49,0	64,0	95,0	140,0	184,0	198,0	41,1	
7. Housing and community development	4,6	8,3	47,0	50,0	15,0	78,0	110,0	110,0	138,0	53,0	
8. Recreation, cultural and religious	-	-	-	-	1,0	1,0	2,0	2,0	3,0	-	
9. Fuel and energy	4,1	4,7	6,0	9,0	13,0	-	-	-	-	-	
10. Agriculture	28,3	23,6	23,0	27,0	33,0	40,0	56,0	62,0	68,0	11,6	
11. Mining, manufacturing and mineral resources	15,4	13,6	17,0	28,0	30,0	19,0	13,0	20,0	30,0	8,7	
12. Transportation	21,5	30,4	60,0	65,0	69,0	54,0	69,0	80,0	90,0	19,6	
13. Other economic affairs	-	0,2	-	18,0	20,0	1,0	12,0	3,0	15,0	-	
14. Expenditure unspecified	18,0	23,5	30,0	35,0	40,0	40,0	91,0	114,0	130,0	28,0	
Total	245,2	274,4	373,0	492,0	591,0	756,0	1 027,0	1 158,0	1 509,0	25,5	

Source: Development Bank of Southern Africa, 1993

Table 5: Gazankulu: Functional classification of government expenditure, 1984/85 to 1992/93

Functions	Actuals							Budgets				Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1992/93		
1. General public services	24,0	42,1	54,7	63,6	65,6	64,1	99,9	136,7	152,7	26,0		
2. Defence	-	-	-	-	-	-	-	-	-	-		
3. Public order and safety	8,6	11,3	12,9	17,6	28,1	29,3	36,6	51,6	58,8	27,2		
4. Education	42,8	63,1	95,9	149,9	198,9	225,4	321,7	427,9	474,3	35,1		
5. Health	25,4	28,6	44,2	53,6	77,7	85,1	114,3	142,1	159,9	25,9		
6. Social security and welfare	14,7	20,6	24,3	45,9	54,6	73,6	81,0	112,2	163,4	35,1		
7. Housing and community development	5,3	6,1	28,4	34,6	48,8	40,8	64,4	89,0	105,9	45,4		
8. Recreation, cultural and religious	0,7	1,0	3,4	3,3	2,9	2,2	2,2	3,9	5,4	29,1		
9. Fuel and energy	8,6	11,2	3,0	28,9	35,6	15,9	27,0	33,5	22,0	12,5		
10. Agriculture	18,2	29,2	29,0	34,7	40,6	36,1	52,0	59,5	66,3	17,5		
11. Mining, manufacturing and mineral resources	-	-	-	-	-	-	-	-	-	-		
12. Transportation and communication	21,3	13,4	15,4	15,4	25,6	30,9	18,1	23,9	59,6	13,7		
13. Other economic affairs	1,6	0,5	2,7	3,0	2,8	2,6	6,2	6,8	5,2	15,9		
14. Expenditure unspecified	3,8	17,2	26,1	30,3	50,4	51,5	65,4	51,3	66,6	43,0		
Total	175,0	244,3	340,0	480,8	631,6	657,5	888,8	1 138,4	1 340,1	29,0		

Source: Development Bank of Southern Africa, 1993

Table 6: Lebowa: Functional classification of government expenditure, 1984/85 to 1992/93

R'million

Functions	Actuals						Budgets				Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93		
1. General public services	41,9	58,6	55,7	56,2	82,3	90,4	83,7	142,9	219,4	23,0	
2. Defence	-	-	-	-	-	-	-	-	-	-	
3. Public order and safety	20,8	22,2	30,9	45,2	67,1	80,7	102,3	143,7	188,1	31,7	
4. Education	129,8	189,0	286,1	383,8	484,4	609,8	853,9	1 135,6	1 380,5	34,4	
5. Health	56,6	75,6	105,0	130,9	163,9	181,4	244,8	322,9	312,9	23,8	
6. Social security and welfare	66,3	77,3	84,6	110,9	147,6	207,8	200,0	374,5	442,1	26,8	
7. Housing and community development	8,9	3,9	17,3	31,1	47,7	58,8	69,1	128,2	129,7	39,8	
8. Recreation, cultural and religious	2,1	0,2	2,5	0,1	0,4	0,4	0,6	0,5	-	-	
9. Fuel and energy	17,7	12,6	15,3	17,5	31,5	27,5	26,3	35,6	49,6	13,7	
10. Agriculture	48,6	53,0	49,7	72,2	59,4	74,8	84,5	165,3	131,9	13,3	
11. Mining, manufacturing and mineral resources	-	-	-	-	-	-	-	-	-	-	
12. Transportation	5,2	7,1	19,0	18,1	17,4	22,4	31,1	42,8	73,7	39,3	
13. Other economic affairs	3,0	12,6	0,3	14,4	0,6	0,3	0,2	0,33	6,2	9,5	
14. Expenditure unspecified	23,8	29,9	67,7	112,3	102,6	101,6	78,5	82,1	123,5	22,9	
Total	424,7	542,0	734,1	992,7	1 204,9	1 455,9	1 775,0	2 574,4	3 057,6	28,0	

Source: Development Bank of Southern Africa, 1993

Table 7: Region G: Economic classification of government expenditure, 1984/85 to 1992/93

Type of expenditure	Actuals						Budgets				Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93		
A. Current expenditure	691,4	872,3	1 194,1	1 663,7	2 075,9	2 552,2	3 410,7	4 463,6	5 157,2	28,4	
1. Expenditure on goods and services	537,4	696,6	1 006,5	1 396,7	1 667,9	2 029,0	2 831,3	2 606,3	4 068,0	28,6	
1.1 Salaries and wages	397,4	521,0	684,0	923,0	1 172,0	1 064,5	2 140,5	2 757,4	2 929,0	28,4	
1.2 Other purchases of goods and services	140,0	175,6	322,5	473,7	495,9	524,5	690,8	848,9	1 139,0	29,2	
2. Interest payments	27,6	23,8	24,0	43,0	99,0	91,5	128,6	130,2	188,5	27,1	
3. Subsidies and other current transfers	126,4	151,9	163,6	224,0	309,0	431,7	450,8	727,1	900,7	27,8	
B. Capital expenditure	153,5	188,3	253,0	306,0	366,0	316,4	278,4	407,2	749,5	21,9	
Total	844,9	1 060,7	1 447,1	1 969,7	2 441,9	2 868,6	3 689,1	4 870,8	5 906,7	27,4	

Source: Development Bank of Southern Africa, 1993

Table 8: Venda: Economic classification of government expenditure, 1984/85 to 1992/93

Type of expenditure	Actuals							Budgets				Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93			
A. Current expenditure	210,5	223,0	271,0	390,0	478,0	638,0	910,0	1 121,0	1 397,0	26,1		
1. Expenditure on goods and services	168,9	177,9	223,0	322,0	380,0	506,0	707,0	845,0	970,0	23,6		
1.1 Remuneration	109,8	114,4	150,0	211,0	247,0	345,0	503,0	595,0	624,0	24,3		
1.2 Other purchases of goods and services	59,1	63,5	3,0	111,0	133,0	161,0	204,0	250,0	346,0	22,2		
2. Interest payments	-	-	-	9,0	24,0	38,0	76,0	103,0	140,0	-		
3. Subsidies and other current transfers	41,6	45,1	48,0	59,0	74,0	94,0	127,0	173,0	287,0	27,3		
B. Capital expenditure	34,7	51,4	102,0	106,0	127,0	117,0	115,0	72,0	112,0	21,9		
Total	245,2	274,4	373,0	496,0	605,0	755,0	1 055,0	1 193,0	1 509,0	25,0		

Source: Development Bank of Southern Africa, 1993

Table 9: Gazankulu: Economic classification of government expenditure, 1984/85 to 1992/93

R'million

Type of expenditure	Actuals						Budgets				Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93		
A. Current expenditure	131,7	198,8	278,0	377,0	521,0	562,6	826,3	994,9	1 114,9	30,6	
1. Expenditure on goods and services	83,0	123,6	161,0	214,0	282,0	332,0	478,5	624,5	661,3	29,6	
1.1 Remuneration	28,6	44,4	87,4	109,0	161,0	132,6	221,3	230,6	252,4	31,3	
1.2 Other purchases of goods and services	3,8	7,2	7,0	9,0	19,0	19,9	34,2	16,6	20,6	23,5	
2. Interest payments	16,3	23,6	22,6	45,0	59,0	78,1	92,3	123,2	180,6	35,1	
3. Subsidies and other current transfers	43,4	45,4	62,0	104,0	111,0	95,0	62,8	143,7	225,3	22,9	
B. Capital expenditure	175,0	244,3	340,0	481,0	632,0	657,6	889,1	1 138,6	1 340,2	29,0	
Total											

Source: Development Bank of Southern Africa, 1993

Table 10: Lebowa: Economic classification of government expenditure, 1984/85 to 1992/93

R'million

Type of expenditure	Actuals							Budgets				Average annual growth rate 1984/85-1992/93
	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93			
A. Current expenditure	349,2	450,5	645,0	896,7	1 976,9	1 351,6	1 674,4	2 382,9	2 645,4	28,8		
1. Expenditure on goods and services	204,6	283,0	373,0	498,0	643,0	827,5	1 159,0	1 537,9	1 643,7	29,5		
1.1 Remuneration	52,3	67,7	162,0	253,7	201,9	230,9	265,5	403,5	540,7	33,9		
1.2 Other purchases of goods and services	23,8	16,6	17,0	25,0	56,0	33,6	18,4	10,6	27,9	38,3		
2. Interest payments	68,5	83,2	93,0	120,0	167,0	259,6	231,5	430,9	433,1	25,9		
3. Subsidies and other current transfers	75,4	91,5	89,0	96,0	128,0	104,4	100,6	191,5	412,2	23,7		
B. Capital expenditure	424,7	542,0	734,0	992,7	1 204,9	1 456,0	1 775,0	2 574,4	3 057,6	28,0		
Total												

Source: Development Bank of Southern Africa, 1993

Addendum R

ACCESS TO WATER AND SANITATION

by

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1. INTRODUCTION

In Regions F and G (taken together) the degree of coverage in proclaimed towns is very high: 93% adequate water supply and 84% adequate sanitation. Using similar definitions of 'adequate provision' the figures for so-called dense settlements are very low: 23% for adequate water supply and 0% for adequate sanitation. Using different definitions, coverage in rural areas is estimated as follows: 62% have access to an improved water source within 500 metres and 44% possess some form of pit latrine. While in a few areas residents purchase water at high cost from private vendors, the majority, particularly in rural areas, pay little or nothing toward water supply. The available service is consequently of extremely variable quality in terms of level of service and reliability, requiring frequent resort to traditional, unimproved water sources.

2. OVERVIEW

Water supply and sanitation In South Africa

Throughout South Africa the provision of water supply and sanitation facilities reflects the inequalities of past apartheid policies and the institutional confusion resulting from the artificial and multiple division of responsibilities. Not only are large parts of the country poorly served in terms of capital expenditure, but this is compounded by a lack of financial provision for operations and maintenance, which leads to a further drop in service. Needless to say, these areas are largely inhabited by the voiceless rural poor.

There are in contrast situations, mostly in urban areas, where the level of service provided is of a very high standard, requiring a running cost contribution from consumers, which not all can afford to pay. Consequently payments are not being made and systems are rapidly deteriorating through inadequately funded operations and maintenance. There is a strong case for recovering costs from consumers, but the presence of large numbers of poor consumers makes the application of such a policy somewhat problematic.

This inequality of provision and of maintenance continues because the water and sanitation sector in the developing areas of South Africa still suffers from a lack of policy direction and fragmented institutional responsibilities (WS2000, 1991).

Water supply and sanitation In Regions F and G

Regions F and G display the above characteristics in abundance. In these regions the forced relocation of communities is evidenced by large numbers of artificial villages (dubbed 'dense settlements' by the Urban Foundation demographers) created where neither the land nor local water sources can sustain them. Attempts have been made to supply many of these with water, usually through expensive and complex regional schemes which demand high running costs and skilled operators. Many such schemes are operating inefficiently through lack of income, skills and management.

In general, the neglect of operations and maintenance was unremarked by homeland governments until the recent drought. Emergency teams surveying the worst affected areas concluded that the majority of problems would not have occurred if previously installed facilities had been kept in working

order. It appears that, when breakdowns occurred in the past, either they were reported and ignored, or consumers did not know whom to contact and just went back to traditional unimproved sources – which were the first to fail under drought conditions. The rural poor have really suffered in the recent drought (Williamson, 1992).

When assessing the degree of coverage for water supply and sanitation, it should be noted that different yardsticks have been used to define 'coverage' in some instances, and 'adequate coverage' in others. In general, the standards used in urban areas, both town and dense settlements, are higher than those used in rural areas. For example, an unimproved pit latrine would not be considered adequate sanitation in an urban area, whereas in rural areas, any latrine would be counted in the sanitation figures. Likewise, rural dwellers are prepared to walk longer distances to less abundant water sources than their urban relatives. Hence the apparent higher coverage percentages for some rural areas when compared with adjacent urban areas.

3. REGIONAL SUMMARY

Regions F and G are institutionally complex. Each of the four homelands is in at least three parcels of land and the Transvaal portion has five Regional Services Councils (RSCs). Each of the homelands is severely constrained in their ability to improve, operate and maintain water supplies and sanitation in rural and 'dense settlement' areas, where the majority of the poor reside. All homelands in these regions have high incidences of typhoid – most are over three times the national average (PDG, 1992 and 1993).

The summary part of Annexure R, Table 1: 'Access to water supply and sanitation' indicates that in the two regions (taken together) the degree of coverage in proclaimed towns is very high: 93% adequate water supply and 84% adequate sanitation. Using the same definitions of 'adequate provision'¹ the figures for so-called dense settlements are very low: 23% for adequate water supply and 0% for adequate sanitation. Using different definitions, coverage in rural areas is estimated as follows: 62% have access to an improved water source within 500 metres; 44% possess some form of pit latrine. While it is possible that some inhabitants of traditional villages have a higher level of service than those in dense settlements, it is highly unlikely. The higher figures reported for rural areas are misleading since they do not take into account the quality, quantity and reliability of any service so reported.

4. SUBREGIONAL DETAILS

Region F – KaNgwane

KaNgwane's coverage figures reflect the general trend:

	<u>Population</u>	<u>Water</u>	<u>Sanitation</u>
Towns	75 000	100%	60%
Dense settlements	187 000	39%	0%
Rural	223 000	73%	79%

The poor sanitation of towns and denser settlements consists mostly of unimproved pit latrines, one town having bucket latrines. There were some VIP latrines but these were not counted separately. In some areas households are fined if they fail to build a latrine, but they may not be used regularly or kept clean.

¹ Palmer Development Group/UCT use the following definitions for their survey in urban areas: Adequate access to water – piped supply (or borehole) within 250 meters or one tap per 30 households; adequate sanitation – waterborne, VIP latrine or aquaprivy (PDG, 1992 and 1993).

In the towns, residents pay a flat rate of R3 per month for water consumed. Poor water supply in dense settlements is due to a lack of piped systems and the use of informal sources such as private boreholes. Services in rural areas vary enormously. One survey showed that 27% of households spent more than 30 minutes per day collecting water – and such collection times reduced the amount of water collected. In fact 44% of households consumed less than the 20 litres per head considered desirable for health purposes (Marais, 1991). It is not clear whether any of the above figures include the large numbers of Mozambican refugees 'temporarily' resident in KaNgwane.

Region F – Transvaal portion

These coverage figures reflect clear disparities between urban and rural areas:

	<u>Population</u>	<u>Water</u>	<u>Sanitation</u>
Urban	649 000	94%	78%
Rural	869 000	51%	16%

Urban sanitation figures include over 100 000 people using bucket latrines, which are considered inadequate sanitation. The situation is very poor for farmworkers and residents of so-called 'African spots' whose refusal to be moved resulted in badly neglected services. For example, in Sakhile, outside Standerton, there are reported to be 35 000 people sharing standpipes at a rate of 600 per standpipe (PDG, 1993). Water charges in urban areas vary from 51c/kilolitre to R1,97/kilolitre or flat rates of R8,50 pm to R20,00 pm.

The above rural figures are an estimate based on the DNHPD survey of Basic Subsistence Indicators for the 'Southern Transvaal' which included this area (DNHPD, 1991).

Region G – Venda

Venda's coverage figures are as follows:

	<u>Population</u>	<u>Water</u>	<u>Sanitation</u>
Towns	19 000	100%	100%
Dense settlements	87 000	17%	2%
Rural	354 000	75%	77%

Poor sanitation in denser settlements is mostly due to the widespread use of unimproved pit latrines. In rural areas there is no indication of the quality of pit latrines but it is assumed to be low (HRSC, 1989). Poor water supply in dense settlements is due to the inadequate numbers of public standpipes.

This area suffered very much in the recent drought – both from poor yields and poorly maintained infrastructure. In the towns, water charges are only 40c/kl for consumption up to 12kl/month.

Region G – Gazankulu

Gazankulu's coverage figures are as follows:

	<u>Population</u>	<u>Water</u>	<u>Sanitation</u>
Towns	28 000	100%	100%
Dense settlements	133 000	36%	0%
Rural	464 000	95%	50%

Poor sanitation in dense settlements is due to unimproved pit latrines, often built by householders under threat of a fine. The denser-settlement water supply lacks sufficient public standpipes. It is also underdesigned, which means that residents at the end of long supply lines do not receive water all day, especially during times of low-river flow. In parts of densely settled Malamulele residents have access to only 8 litres *per capita* per day (PDG, 1993).

In proclaimed towns, R10,00 pm is charged for water, but rarely collected. There is no charge for residents of denser settlements. Rural sanitation figures are extrapolated from a survey of the Ritavi district by the Gazankulu Government of Health (GG, 1992).

Region G - Lebowa

Lebowa's coverage figures are as follows:

	<u>Population</u>	<u>Water</u>	<u>Sanitation</u>
Towns	162 000	100%	100%
Denser settlements	732 000	18%	0%
Rural	1 412 000	50%	50%

The situation is similar to Venda and Gazankulu. Given the high population, there is enormous need in Lebowa. Unfortunately there are few statistics on the situation in rural Lebowa. In denser settlements, service levels of 50 to 60 households per standpipe are not uncommon. The subregion suffered badly during the drought. It appears that no payments are collected for water supply and sanitation at present.

Region G - Transvaal portion

Coverage figures are as follows:

	<u>Population</u>	<u>Water</u>	<u>Sanitation</u>
Urban	149 000	72%	99%
Rural	349 000	72%	28%

It is not clear why the urban water and sanitation statistics are inconsistent. They were obtained from separate surveys at different times, but it is probable that the sanitation figure is too high. The rural figures reflect the state of service to farmworkers (DNHPD, 1991). Urban water is charged between 64c/kl and R1,25/kl.

4. IMPACT ON THE POOR

Water supply is a high priority for every community. In poorly served rural communities it is usually the first 'demand' on governments. Where the supply is in private hands, water is often sold at very high prices - forcing unhealthy restrictions on poor families. Conversely, a government-sponsored supply often fails to charge or collect payments (which would be much less than privately-vended water) and systems fail through poor maintenance, partly due to lack of income. Typically, governments have failed to consult users and involve them in designing a system that the consumers can afford to support. A *de facto* subsidy system ensues which undermines the long-term reliability and sustainability of the supply. The same happens with expensive sewerage systems in towns where large sections of the population cannot afford the full running costs.

The high capital and running costs of full water supply and sewerage, and the uncertain future of informal urban settlements, frequently leads to no provision of services in those areas. The same happens in rural areas where the decision-makers only favour one (expensive) type of water-supply system. Nothing gets done while the homeland governments seek in vain for external funding.

5. PROSPECTS FOR THE FUTURE

There have been considerable investments in water supplies in Region F and G over the last decade. These have definitely improved the lot of many people, but the money has not, in general, been spent to the best effect. In particular, the facilities installed have not been adequately operated and maintained, frequently leading to system failure. The pending reincorporation of homelands should provide an opportunity to rehabilitate systems and institute workable operating systems.

There are some moves towards more realistic service levels: eg community-based water supplies instead of regional schemes; VIP latrines in urban areas instead of only sewerage – or nothing. If this happens, limited capital resources will be spread further. At the same time, however, there will probably be more emphasis on consumers paying the full running costs of a service. This should be achievable if users are involved in decisions concerning levels of service and responsibilities for operations and maintenance.

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Annexure R

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Table 1: Regions F and G: Access to water supply and sanitation

AREA	POPULATION	--- WATER ---		--- SANITATION ---		NOTES
		Adequate	%age	Adequate	%age	
REGION F						
KaNgwane						
Towns	75,000	75,000	100%	45,000	60%	PDG
Dense	187,000	72,000	39%	0	0%	PDG
Rural	223,000	162,790	73%	176,170	79%	Note 1&2.
Subtotal	485,000	309,790	64%	221,170	46%	
TVL Part						
Urban	649,000	610,000	94%	503,000	78%	PDG
Rural	869,000	443,000	51%	139,000	16%	DNHSTvl.
Subtotal	1,518,000	1,053,000	69%	642,000	42%	
TOTAL F	2,003,000	1,362,790	68%	863,170	43%	
(Urban F)	911,000	757,000	83%	548,000	60%	
(Rural F)	1,092,000	605,790	55%	315,170	29%	
REGION G						
Venda						
Towns	19,000	19,000	100%	19,000	100%	PDG
Dense	87,000	15,000	17%	2,000	2%	PDG
Rural	354,000	265,500	75%	272,580	77%	Notes1&2
Subtotal	460,000	299,500	65%	293,580	64%	
Gazankulu						
Towns	28,000	28,000	100%	28,000	100%	PDG
Dense	133,000	48,000	36%	0	0%	PDG
Rural	464,000	440,800	95%	232,000	50%	Note1,2,3
Subtotal	625,000	516,800	83%	260,000	42%	
Lebowa						
Towns	162,000	162,000	100%	162,000	100%	PDG
Dense	732,000	132,000	18%	0	0%	PDG
Rural	1,412,000	706,000	50%	706,000	50%	Note1,2,4
Subtotal	2,306,000	1,000,000	43%	868,000	38%	
TVL Part						
Urban	149,000	108,000	72%	148,000	99%	PDG
Rural	349,000	251,000	72%	98,000	28%	DNHNTvl
Subtotal	498,000	359,000	72%	246,000	49%	
TOTAL G	3,889,000	2,175,300	56%	1,667,580	43%	
(Urban G)	1,310,000	512,000	39%	359,000	27%	
(Rural G)	2,579,000	1,663,300	64%	1,308,580	51%	
TOTAL F&G	5,892,000	3,538,090	60%	2,530,750	43%	
(Towns)	1,082,000	1,002,000	93%	905,000	84%	
(Dense)	1,139,000	267,000	23%	2,000	0%	
(Rural)	3,671,000	2,269,090	62%	1,623,750	44%	

NOTES

1. Different criteria (definition of adequate) for urban and rural areas.
 2. Rural data based on surveys with very limited samples.
 3. Gazankulu rural sanitation data based on Government survey in Ritavi.
 4. Lebowa rural sanitation coverage assumed same as Gazankulu due to lack of data.
- DNH STvl. Percentage coverage for 'Southern Transvaal' applied to SA portion of Region F.

SOURCES

Department of National Health and Population Development (DNHPD), 1991.
Palmer Development Group (PDG), 1992.
Urban Foundation, 1991.

5. POVERTY ALLEVIATION PROGRAMMES

Addendum S

POVERTY ALLEVIATION PROGRAMMES

by

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1. INTRODUCTION

The purpose of the task was to assess the existing programmes on poverty alleviation in Regions F and G. The paper focuses on the measures taken to alleviate poverty. Data were gathered through liaising with NGOs involved in the regions, government officials, literature (reports etc.) reviews of and interviews with some victims of poverty. The problem is that there are no easily available compiled comprehensive empirical data on this issue. As a result, programmes lack a theoretical and data base, proper co-ordination and adequate targeting with clear verifiable indicators of success on real poverty victims ie women, children and the aged. Consequently, any input made by poverty alleviation measures, if any, remain speculative.

1.1 Definition of poverty alleviation

The definition of poverty alleviation is closely related to and based on the definition of poverty. The definition of poverty in this paper refers to lack of adequate basic necessities such as food, clothing and shelter. It includes lack of health care facilities, education and related facilities, rudimentary infrastructure such as marketing outlets, roads and communication facilities within the area(s) and to the outside 'world'. The alleviation of poverty programmes and measures refers to the provision of basic necessities and the improvement of the physical and social infrastructure as listed under the definition of poverty. Alleviation-of-poverty programmes are to include the effective participation of the affected people, directly or through their representatives, and ideally at all levels, gender, age and sectors. The construction of roads, markets, health centres, schools, etc can be done through labour intensive public works and/or community self-help programmes. Training and institutional capacity-building to empower the affected people and promote sustainable development forms the central core of long-term poverty alleviation measures. On-the-job training, essentially for the youth, will provide both skills and income while contributing to the growth of the economy.

2. MEASURES TAKEN TO ALLEVIATE POVERTY

2.1 Central Government

There are no comprehensive and/or consolidated data available indicating poverty alleviation measures by the central government in Regions F and G. Some piecemeal scattered data are found, more often anecdotal and/or self-reported by officials. The drought relief measures were largely directed to the white farmers who received the bulk of the funds. Some limited funds covered the African farmers and farm workers. The central government primarily helps IDT and DBSA with funding to support poverty alleviation projects through grant and loan funding in Regions F and G respectively. The National Nutrition and Social Development Programme (NNSDP) focusing on nutrition, is another effort by central government to address poverty in these regions, especially in Region G. Some of NNSDP's efforts are channelled through nutrition-based NGOs in the two regions.

2.2 Homeland Governments

This refers to Lebowa, Gazankulu, Venda and KaNgwane. They do not have enough resources, especially trained people, to plan and implement poverty alleviation measures effectively. The Lebowa Government, for instance, had a budget for only R238 000, instead of the R2 million required to cover the needs of over 3,6 million people, 65% of whom are regarded as very poor. To this is to be added the poor in Venda, Gazankulu and part of KaNgwane. The budget levels of these additional 'states' did not exceed that of the Lebowa government. Hence their continued inability to address the poverty through poverty alleviation measures. The payment of pensions – old age, disability and sometimes unemployment benefits – are some of the poverty alleviation measures undertaken. Most, if not all the pension funds come from the central government.

The departments of works of the homeland governments help other involved NGOs with limited equipment and person-power. They work jointly with other NGOs though these NGOs retain their autonomy in helping the people to help themselves. The participation of the victims of poverty in the programmes is still in need of serious attention and improvement.

2.3 Parastatals

The term refers for instance to 'homeland' development corporations and to an extent, to IDT and DBSA.

Kagiso Trust, though itself an NGO, provides funding to other NGOs involved in poverty alleviation measures. Most of its funding has gone into water supply and related infrastructure.

IDT's involvement in poverty alleviation is mainly through income-generating, drought relief measures, housing and infrastructural development projects. These funds go into community structures, of which 70% goes into salaries, and 30% into equipment, administration, stock and maintenance. The community is then assisted in selecting projects/programmes of their choice, determined by their urgent development needs.

2.4 NGOs

There are many NGOs (see Annexure S for examples) providing food subsidies as measures of poverty alleviation (food packages/food gardens on self-help basis) as well as limited development projects and programmes. Their support on on-food activities includes: low-level training, agricultural, infrastructural development and technical assistance. Further, they provide low level consultancy and limited research services on poverty issues in these areas.

They function independently of one another as there is no adequate co-ordination nor an umbrella NGO. They promote a popular participative approach in their community development facilitation work. The beneficiaries of almost all NGO services are mostly women, children, the aged (elderly) and youths. This suggests that the poor and unemployed in these regions are largely constituted by these groups.

2.5 Private sector

There are no known comprehensive data found on the involvement of the private sector in poverty alleviation programmes in the two regions. Occasionally, the private sector, white commercial farmers sell their produce, ie vegetables, fruits, etc, in the two regions. This serves as an indirect poverty alleviation measure.

2.6 Beneficiaries

The victims of poverty who are to be beneficiaries of poverty alleviation measures are trying, in their various limited ways, strategies of survival such as small-scale farming, working for limited wages on

farms, where possible selling wild fruit, making and selling artifacts, etc. These efforts are largely self-help strategies – both individual and collective – in the context of community development and/or co-operative ventures. They are severely constrained in their attempts to break out of the vicious cycle of poverty by the lack of lucrative markets, resources – financial, material, organisation/managerial and technical skills. They do not have easy access, if any, to credit and other developmental loans as they do not have collateral or knowledge of where and how to get the rotational credit from some groups which provide revolving loans.

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SPANGENBERG, J P & MEINTJES, C J, 1989. *Economic and Social Memorandum Region F*. Midrand: DBSA.

Interviews with individuals from government workers and NGOs list provided – working in Regions F and G.

Annexure S

NON-GOVERNMENTAL ORGANISATIONS

1. The Northern Transvaal Regional Development Forum (NTRDF)

The NTRDF is the main forum of community-based organisations in the region. It is possibly the best organised and best developed of the regions which make up the National Development Forum. The NTRDF has firm community support and appears also to be respected. It is committed to democratic bottom-up development and has the ability to mobilise community participation as was seen, for example, in the recent drought workshop. The NTRDF is likely to become an even more important role player once an interim government is in place.

The NTRDF functions on a regional basis. The southern border of the NTRDF is slightly different from Region G. Thus areas of KwaNdebele around Rust der Winter fall in the NTRDF region and the area around Warmbaths fall outside. The region is divided into six subregions, namely far northern, northern eastern, central, eastern, western and southern. Little organising work has been done in the western and southern regions, chiefly because of logistical problems. The NTRDF has a strong presence in the other four subregions. Each subregion is divided into three or four zones. The NTRDF office in Pietersburg is in contact with all the zonal fora. However, the zonal structures often do not have the capacity to keep the office informed about local fora. The Pietersburg office is of the opinion that many more local fora have been established than they are aware of. The NTRDF regards the quarterly regional assemblies as their chief capacity-building exercise.

The NTRDF has close links with the ANC but is taking care not to be viewed as an ANC structure. This is in large part the reason for the physical separation of the NTRDF and ANC offices. As will be seen below, the NTRDF has links with the majority of NGOs in Region G.

The NTRDF is busy establishing district committees to assist the National Nutrition and Social Development Programme of the Department of Health. These district committees will advise the regional health co-ordinating committee, which is looking at Region G as a whole and not at planning programmes for individual government jurisdictions. The NTRDF and its constituent structures are prepared to have contact with governments in the region on specific issues.

The NTRDF recently organised a very successful drought workshop. Following a resolution passed at this workshop, the NTRDF is organising a consultative drought conference which will involve all the role players in the region.

2. Sekhukhuneland Development Forum

In October 1991 the idea of a co-ordinating development forum was raised in Sekhukhuneland. The forum was launched in February 1992. Most of the development projects in the area are run by women's groups. Projects focus on childcare, gardening, sewing and brickmaking. There are also a number of educational projects. Activities are co-ordinated by the Forum which also assists with fund-raising. The Sekhukhuneland Development Forum is part of the NTRDF.

3. Sekhukhuneland Education Projects Forum (SEPROF)

SEPROF is situated at Jane Furse in Sekhukhuneland. Thirty-eight educational projects are affiliated to SEPROF, of which 20 are preschool projects and 18 are involved in upgrading for matric and career guidance. SEPROF facilitates the co-ordination of these projects, and is a member of the NTRDF and of the Sekhukhuneland Development Forum.

4. Hlatolanang Community Health Centre

The project is situated in Jane Furse and has as its main aim a primary health care focus on kwashiorkor. Well-designed buildings are being erected. The project has the potential to become a model for rural health care. Member of NTRDF.

5. Akanani (Elim)

The project is multi-faceted: one of its primary foci is capacity-building for CBOs and co-operatives. Training in marketing and production is given to two textile co-operatives in the vicinity. It is involved in literacy work and career guidance and uses drama for health education purposes. Member of NTRDF. Building-design skills are made available to other CBOs in Region G. The Gazankulu Government is not particularly in favour of Akanani.

6. Civics

The civics are strong in some villages but not in others. They are sometimes divided on local issues. In some villages the civics are development structures linked to the NTRDF. However, the NTRDF is cautious about pushing the civics towards development as they do not want to inherit their problems.

7. COSATU

There is very little development involvement except in Phalaborwa where they are active in the NTRDF.

8. AZAPO

Imbeloko (the women's section) has attended NTRDF meetings but does not appear to be active.

9. PAC

A member of PAC is on the NTRDF trust but the PAC is not directly involved in development as an organisation. It supports development through other organisations and Community Development Trusts.

10. SACC

The SACC is working with refugees in the northern Transvaal. There is now an SACC drought committee with a co-ordinator from the region.

11. Anglican Church

They are working with refugees in the north.

12. Catholic Church

The Catholics have started development projects wherever they are established. The two most prominent in the area are the Luckau Farmers Association and the project at Glen Cowie. Both these projects are members of the NTRDF.

13. Lutheran Church

The church runs the Lobethal conference centre in Lebowa which is a major resource in the area.

14. Contralesa

Contralesa is a member of the NTRDF. The NTRDF policy is that chiefs should be informed of development issues. They are welcome to be members of the forum but should not hold senior positions just because they are chiefs. In some cases chiefs have taken the development initiative in their areas, eg Rishaka Rashitanga in Sibasa.

15. Fieldworkers Network

The network consists of fieldworkers from projects and development organisations in the northern and north eastern Transvaal. It started in the 80s as a support network. It holds four workshops a year, which focus on training and discussion. Over 30 organisations are involved. Interest in the network may be waning, but it played a major role in creating the development climate which enabled the NTRDF to be launched.

16. NE Transvaal Co-operative Network

This is similar to the Fieldworkers Network described above, but it is for co-operatives.

17. Progressive Primary Health Care Network (PPHCN)

This network draws health workers together throughout Region G. It is part of the National PPHC Network.

18. Operation Hunger

They have gardening and brickmaking projects in Sekhukhuneland and Gazankulu. Member of NTRDF.

19. World Vision

They work chiefly with refugees. Part of NTRDF.

20. Thusanang Education Project

This is an education project similar to SEPROF and was recently started around Ga-Matlala.

21. Preschool projects

Preschools are mushrooming all over the region. Some funding comes from Kerklike Aksie Noodhulp.

22. Care Groups

Care groups are facilitated from the hospitals at Elim, Malumulele, Letaba and Tintswalo. The groups are involved in health education, sewing, brick making and community gardens. Some of the groups are assisting the NTRDF in establishing local fora.

23. Others

Other NGOs in the area include the Peace Accord, Rural Advice Centre (RAC), Nebo Democratic Development Forum, EDA, National African Farmers Union (NAFU), Transvaal Rural Action Group (TRAC), Foskor Development Trust and Palaborwa Foundation.

6. GENERAL

Addendum T

SUMMARY OF DATA DEFICIENCIES

1. Population

The 1991 census was probably an undercount and structural errors were observed.

2. Migration

The 1991 census gender structure was unreliable. DBSA figures were used, but these probably underestimate the problem.

3. Income and expenditure

CSS income distribution categories differ between years. The BMR income data provide comprehensive statistics only for 1985, with 1991 figures available only for urban areas. The BMR expenditure studies cover mainly urban areas.

4. Labour and employment

Statistics used here are based on DBSA 1991 figures. The informal sector statistics should be seen as a proxy only.

5. Land and non-land assets

There are no data giving a breakdown of cattle or land ownership patterns.

6. Education and training

The PDP's literacy statistics are questionable. Pupil-related population data often excludes the TBVC countries. Training data are mostly *ad hoc*, while pre-primary education data are scarce.

7. Housing

The CSIR housing statistics prepared for the De Loor Report are only urban, per region, while data for the TBVC countries and self-governing territories are based on DBSA's 1985 estimates. Rural statistics are virtually unobtainable. In addition, PDP indicators of crowding are questionable.

8. Energy

Data on non-commercial energy sources are unobtainable. Consumption patterns of transitional fuels, for example paraffin, are inadequately covered, and electricity grid data are incomplete.

9. Transport

Access to roads is not covered; data on subsidies are confidential, and there is no database on taxis.

10. Credit

Most data on the informal sector are qualitative and there are no data on people's actual access to credit.

11. Health, recreation and nutrition

Recreation data are unobtainable while anthropometric data are *ad hoc*. PDP data on health indicators are questionable. There are no affordability/accessibility data eg on transport, while the quality and convenience of care are not known. Data are also required on a district level.

12. Environment

No data are available on regional basis and other studies are mainly *ad hoc*.

13. Public expenditure

Data for the latest years are only budgeted figures, as Auditor-General reports are behind schedule.

14. Water and sanitation

Data on rural areas are questionable and survey definitions often differ.

15. Poverty alleviation programmes

Data on central government involvement are limited, while there are no detailed statistics of NGO operations, and no data on private sector involvement.

Addendum U

LIST OF DISTRICTS

1. EASTERN TRANSVAAL (Development region F)

Magisterial district	Area
Amersfoort	Transvaal
Balfour	Transvaal
Barberton	Transvaal
Belfast	Transvaal
Bethal	Transvaal
Carolina	Transvaal
Eerstehoek	KaNgwane
Ermelo	Transvaal
Groblersdal	Transvaal
Highveld Ridge	Transvaal
Lydenburg	Transvaal
Middelburg (Tvl)	Transvaal
Nelspruit	Transvaal
Nkomazi	KaNgwane
Nsikazi	KaNgwane
Piet Retief	Transvaal
Pilgrim's Rest	Transvaal
Standerton	Transvaal
Volksrust	Transvaal
Wakkerstroom	Transvaal
Waterval-Boven	Transvaal
White River	Transvaal
Witbank	Transvaal

2. NORTHERN TRANSVAAL (Development region G)

Magisterial district	Area
Bochum	Lebowa
Bolobedu	Lebowa
Dzanani	Venda
Ellisras	Transvaal
Giyani	Gazankulu
Letaba	Transvaal
Lulekani	Gazankulu
Malamulele	Gazankulu
Mapulaneng	Lebowa
Messina	Transvaal
Mhala	Gazankulu
Mokerong	Lebowa
Mutale	Venda
Namakgale	Lebowa
Naphuno	Lebowa
Nebo	Lebowa
Phalaborwa	Transvaal
Pietersburg	Transvaal
Potgietersrus	Transvaal
Ritavi	Gazankulu
Sekgosese	Lebowa

Sekhukhune
Seshego
Soutpansberg
Thabamoopo
Thabazimbi
Thohoyandou
Tsitala
Vuwani
Warmbaths
Waterberg

Lebowa
Lebowa
Transvaal
Lebowa
Transvaal
Venda
Venda
Venda
Transvaal
Transvaal

Addendum V

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