



"Self-portrait"

I "work" outside Melissa in Kabulonga. I don't go to school. That life is bad. It is better to go school because you have a better life.

Photographer: James Sokos

5 ~ The state of human development in Zambia

In this Chapter, we present developments in Zambia's human development index (HDI) between 2000, the last reference year made in the 2003 ZNHDR, and 2004, the reference year made in this report.

The concept of human development seeks to capture the process of expanding choices and opportunities for a kind of life people highly value. The HDI attempts to capture the outcome of this process by looking at three key areas of people's aspirations - education attainment, a healthy and long life and material well-being. The HDI is therefore a composite index representing these three outcomes. HIV, through various transmission mechanisms discussed in previous chapters, undermines these capabilities and opportunities.

Long-term trends in Zambia's HDI

This section provides an update of the 2003 NHDR that compared Zambia's long-term trends in HDI with that of eight other countries whose HDI in 1975 (the first year for which HDI was calculated) fell within the range of 0.4 and 0.5 and could thus be considered as having a similar HDI as Zambia's of 0.468. Figure 5.1 on p. 71 thus provides trends in HDI for these nine countries for nearly thirty years. All the nine countries made progress in the HDI between 1975 and 1985. However, only three - Morocco, Ghana, and Papua New Guinea - maintained a steady increase in their index value up to 2000. Of these three, only Morocco has maintained a steady increase in HDI as that of Ghana and Papua New Guinea experienced a small decline between 2000 and 2003.

Zambia in nearly 30 years has performed worse than the other eight coun-

tries. It can be seen from Figure 5.1 that seeds for dismal performance were present even before 1985.

Zambia's HDI grew at a slower rate compared to the other eight countries up to 1985. From then the HDI value declined sharply such that by 1995 Zambia's HDI was lower than its 1975 value. The global Human Development Reports have noted that no other country among the 79 countries with data to allow the calculation of HDI, since 1975, has experienced that kind of reversal. This has happened in a country that has experienced peace since independence in 1964 and still boasts of great development potential given her abundant natural resources and good climate.

Nevertheless, a turn around in the HDI value has taken place in recent years (see Figure 5.2 on p. 71). Zambia's HDI has been rising steadily since 1994, much sharper between 2000 and 2004 from 0.451 to 0.462 respectively. Therefore, the 2004 HDI value narrowly misses the medium HDI mark of 0.500. Of the eight other countries represented in Figure 5.1, only Morocco has performed better than Zambia. The reasons for this performance have been explained in the sections below. They include the sustained growth in the country's economy since 1999, achievements in health reforms and particularly the multisectoral response to HIV and other diseases such as malaria, tuberculosis and diarrhea and gains in education enrolment.

Comparisons of the human development index

HDI values for Zambia and the provinces based on national statistics are presented in Table 5.1 on p. 71*. It is seen that Zambia's

* All the data used are from national statistical sources. The HDI obtained is thus not comparable with that from the global HDR. In particular, whereas the global HDR uses GDP based on purchasing power parity, this is not available for Zambia below the national level. Instead the income per capita from the LCMS has been used as a proxy.

HDI rose from 0.391 in 2000 to 0.462 in 2004. This is in line with the trends discussed above. All the nine provinces have shown improvements in the HDI. An examination of provincial HDI values and rankings in Table 5.1 reveals a number of things.

1. *The line of rail provinces (Copperbelt, Central, Lusaka and Southern) continue to occupy the first ranks of HDI values. These are the most urbanised provinces.* The outcome is also in line with expectations that HDI is lowest in rural areas which have a much higher incidence of poverty. If we exclude the new districts along the line of rail - Mpongwe, Chibombo, Masaiti, Lufwanyama and Kazungula - line of rail districts all fall within the first twenty-one ranks. These new districts are much more rural than the rest of the districts along the line of rail some of which do not even have a proper administration centre. Mpongwe, Masaiti and Lufwanyama formed Ndola Rural before they were split into three. Within the Copperbelt Province they occupy the last three ranks out of ten districts. Chibombo was Kabwe Rural while Kazungula was the rural part of Livingstone.
2. *Among the districts occupying the first twenty-one ranks are seven rural districts some in very remote areas. Mporokoso with HDI of 0.527 occupies the fifth rank followed by Namwala with HDI of 0.519 at seventh rank.* Although Mporokoso has a higher GDP index than the national average, the main factor driving high HDI in these districts is their life expectancy at birth which is higher than the national average, ranging from 53.6 to 62.6 years compared to 52.4 years for Zambia as a whole. Namwala and Itezhitzi, which were once one district, had respectively the highest life expectancy at birth of 62.5 and 62.6 years projected

for 2004. This in turn is due to the low HIV prevalence rates of between 5.2 percent and 7.5 percent compared to the national average of 15.6 percent. This confirms the point made below that HIV is an important factor in determining a district's HDI status.

3. *The largest rise in HDI has been in two rural provinces of the country, that is, North Western and Western provinces, rising by 0.103 and 0.086 respectively.* As a result, Western Province HDI ranking improved from ninth to seventh but ranking remained unchanged for North Western at 5. The least rise in HDI was in Central and Luapula provinces at 0.043 and 0.059, respectively.
4. *Although not providing the whole picture, these trends are in line with recent poverty figures,* which indicate that extreme poverty fell sharply in rural areas from 71 percent in 1998 to 53 percent in 2004 compared to a decline of only two percentage points in urban areas (see Chapter 2).

Explaining developments in human development status

What factors explain these developments in Zambia's HDI? This is a difficult question given the multidimensional nature of the human development concept. To help unravel the factors behind developments in human development as represented by the HDI, it is necessary to examine the changes in variables that constitute the index, i.e. life expectancy and education achievement. Given the theme of this report, it is also necessary to look at how HIV and AIDS may be proving a debilitating factor in each of the variables that constitute the HDI. Realising that human development cannot be narrowly confined to the HDI, this report also provides insights on other factors that are not captured in the HDI but

greatly determine the country's human development path. Of particular interest is unraveling how HIV and AIDS may be complicating Zambia's efforts to improve her human development.

Adult life expectancy

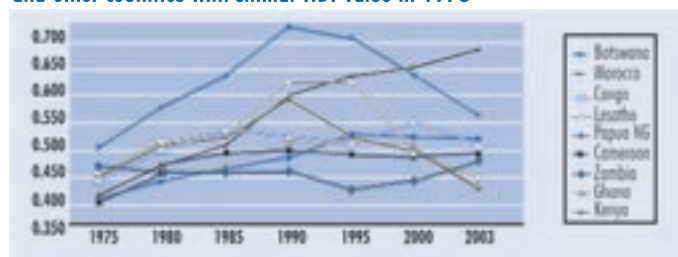
The 2000 Census Report indicates that life expectancy in Zambia rose from 47 years in 1990 to 50 years in 2000. The census projections, which took HIV and AIDS into account, also indicated that life expectancy would improve to 52.7 years in 2004.

Without HIV, life expectancy was projected to increase to 57.5 years. The calculation of the HDI utilised the projected life expectancy with HIV in Zambia for 2004. The HDI value would rise if the projected life expectancy without HIV and AIDS was used. Table 5.2 has provided calculations of HDI based on both life expectancy with and without HIV and AIDS.

What comes out is that, without HIV and AIDS Zambia would have an HDI value of 0.491. Therefore, HIV has reduced the HDI by 0.029 or by 5.9 percent. With respect to provincial rankings, the first five ranks are occupied by the same provinces as in the case of HDI with HIV and AIDS. The biggest changes in ranks are Eastern and Northern provinces, which swap ranks of 6 and 9. Lusaka's loss of the first rank to the Copperbelt was due to the fact that Lusaka had a higher HIV prevalence, a factor that reduced its estimated life expectancy when HIV and AIDS is taken into account.

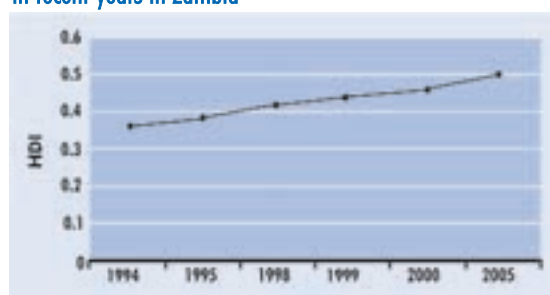
It is also seen that the greatest beneficiaries from a without HIV and AIDS scenario are the line of rail districts which now would occupy the first 13 ranks (see Appendix Tables 1 and 2 on pp. 102-105). As a sign of how the situation would change, Mporokoso which had the fifth rank now drops to 15 - still very respectable for a remote district. The biggest rises in HDI, if the impact of HIV and AIDS on

Figure 5.1: Long-term HDI trends in Zambia and other countries with similar HDI value in 1975



UNDP Database, www.hdr.undp.org/statistics/data/indicators

Figure 5.2: Trends in human development in recent years in Zambia



UNDP, Human Development Reports

Table 5.1: HDI values for Zambia and provinces, 2000 and 2004

	HDI 2000	2000 rank	HDI 2004	2004 rank	2004-2000 HDI difference
Zambia	0.391		0.462		0.071
Central	0.415	3	0.458	4	0.043
Copperbelt	0.481	1	0.552	1	0.071
Eastern	0.340	6	0.406	6	0.066
Lvapura	0.326	7	0.385	8	0.059
Lusaka	0.445	2	0.513	2	0.068
Northern	0.310	8	0.384	9	0.074
North Western	0.350	5	0.453	5	0.103
Southern	0.391	4	0.469	3	0.078
Western	0.300	9	0.386	7	0.086

Appendix Table 1

life expectancy is discounted, are in Northern, Southern and Lusaka in that order. North Western would have the least change.

Changes in HDI taking HIV and AIDS into account have only done so from the perspective of life expectancy. However, this is not the whole picture as HIV and AIDS affects human development in various other ways including education attainment and the standard of living as measured by GDP per capita.

In the last three years, controversy has surrounded the estimation of life expectancy. Estimates provided by international organisations such as the USA Bureau of Statistics indicate life expectancy as low as 33 years. The 2005 UNDP HDR used a life expectancy figure of 37.5 years at birth. However, the Central Statistical Office provides much higher life expectancy of 52.7 years with HIV and 57.5 years without HIV. Without entering into this controversy, this report adopts the CSO estimates so as to be consistent with the principle of relying on official statistics in the production of National Human Development Reports. It is also the only way sub-national HDI values could be calculated which is the main added value of National Human Development Reports to global Human Development Reports.

Developments in recent years indicate that progress is being made in areas that have a bearing on the country's life expectancy. There has been a decline in the incidence of the top six diseases since 2001. This is as a result of the response to health reforms and a change in the treatment regime of these diseases (see Figure 5.3). This has been helped by achievements being scored in halting the spread of HIV and the increased access to antiretroviral treatment, both helping to deal effectively with opportunistic infections.

The multisectoral response, by the government in collaboration with other partners, has helped in improving the institu-

tional environment for mitigating HIV and AIDS. Despite the advances made in responding to the epidemic and its impact on affected households, the epidemic remains a big challenge for Zambia.

A slightly more detailed look at two top diseases - malaria and tuberculosis (one of the non-pneumonia respiratory infections) - provides further evidence of some improvement of well being captured in the HDI. Malaria continued to be Zambia's major cause of morbidity and mortality between 2000 and 2004. However, Figure 5.3 shows that the malaria incidence rate per 1,000 fell from 400 in 2000 to just above 200 in 2004. In addition, deaths caused by Malaria reduced from 9,367 in 2001 to 4,765 in 2004. This progress is attributed mainly to the shift in the malaria treatment policy from Chloroquine to more effective artemisinin-based therapy (Coartem) and improvements in the laboratory services. Additional interventions that have contributed to the decline in Malaria include the integrated vector management system, using insecticide treated nets, indoor-residual spraying, package to prevent malaria in pregnancy and the Malaria in School Health Strategy.

Even though this achievement is impressive, the incidence of malaria and morbidity related to malaria are still too high. The situation has been complicated by the high prevalence of HIV, which by compromising the immunity of those infected makes them much more susceptible to malaria. Provision of health services, specifically malaria control programmes (such as the Roll Back Malaria), should receive higher consideration in the delivery of health care through a multisectoral response.

Some progress has also been recorded regarding the treatment of tuberculosis, a disease that has been worsened by the advent of HIV and AIDS. In 2000, the prevalence rate was estimated at 512 per 100,000 (UNDP/MoFNP, 2005). Nevertheless, the cure rate has been

improving with the introduction of a new treatment regime called directly observed treatment (DOTs) and drug compliance (see Figure 5.4). As a result, TB cure rates have improved for all provinces except Luapula and Southern.

By April 2005, all provinces except North Western recorded cure rates beyond 50 percent. Besides DOTs other factors include the rise in treatment seeking behaviour and improved access to diagnosis and treatment centres. There was also improved supply of TB drugs through the Okinawa Infectious Disease Project, in which Japan provided a continuous supply of TB drugs to last up to the end of 2004.

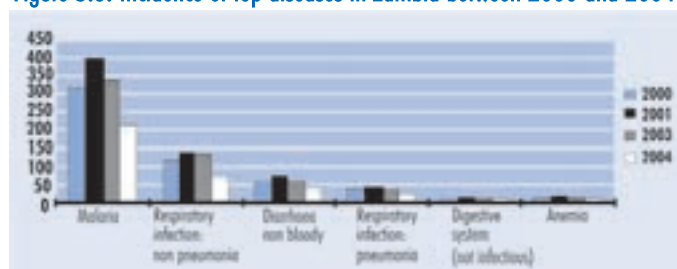
Literacy and education

The rise in the HDI noted above has been helped by improved education achievements. The education attainment index rose to 0.720 in 2004 from 0.620 in 1998 and 0.590 in 2000. An increase in access to education in basic and secondary education is evident (See Figures 5.5 and 5.6 on p. 74). The net enrolment ratio, which was on the decline since 1998, rose from 69.9 percent in 2000 to 76.2 percent in 2003. At the same time, enrolments at secondary schools (grades 8-12) increased from 165,435 in 2000 to 210,061 in 2003 or by 21.2 percent.

These improvements are attributed to policies that have created a positive environment for education, including the successes scored by the Basic Education Sector Investment Programme that ended in 2002 and the adoption of the Free Primary Education Policy in 2002. Funding to the education sector has been on the rise. Thus education has been allocated 27 percent of the total discretionary budget in the 2006 budget compared to 21.7 percent in 2003.

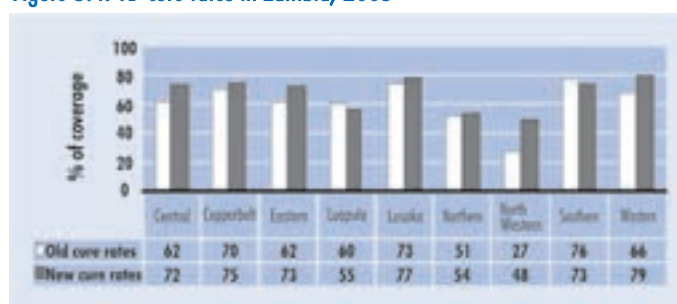
The upgrading of many primary schools to basic schools, i.e. to include grades 8 and 9 classes has helped to push up enrolment in secondary education. As a result, the gross secondary enrolment ratio rose from

Figure 5.3: Incidence of top diseases in Zambia between 2000 and 2004



Ministry of Finance and National Planning, Economic Report, 2004

Figure 5.4: TB cure rates in Zambia, 2005



CBH, 2005. Report on National TB Meeting, April 2005.

Table 5.2: HDI values with and without HIV and AIDS, 2004

	With HIV and AIDS		Without HIV and AIDS		Difference (percent)
	Value	Rank	Value	Rank	
Zambia	0.462		0.491		5.9
Central	0.458	4	0.490	4	6.5
Copperbelt	0.552	1	0.583	1	5.3
Eastern	0.367	6	0.393	9	6.6
Luapula	0.385	7	0.405	8	4.9
Lusaka	0.513	2	0.560	2	8.3
Northern	0.384	9	0.441	6	13.0
North Western	0.453	5	0.470	5	3.7
Southern	0.469	3	0.512	3	8.4
Western	0.386	8	0.410	7	5.9

Appendix Tables 1 and 2.

25 percent in 2000 to 50 percent in 2004. Much of this was accounted for by the increase in the gross attendance rate in grades 8 and 9 from 44 percent in 2000 to 74 in 2004.

Between 2000 and 2004, the number of basic schools rose from 4,378 in 2000 to 6,728 in 2004, an increase of 54 percent. The introduction of Academic Production Unit classes, supported by the construction of more schools and construction of new classrooms has also been favourable to the increase in enrolment rates in both primary and secondary education.

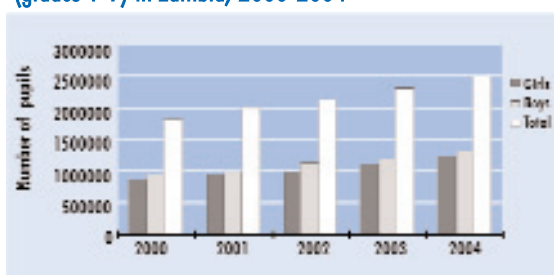
In both primary and secondary schools, an impressive development has been the rising trend in girls' access to education. The gross enrolment ratio for girls in primary education caught up with that of boys at 90 percent in 2002. The higher enrolment figures for girls have been achieved because of the implementation of the Programme for the Advancement of Girls Education. Results have been most impressive in Lusaka which has seen the proportion of girls (50.7 percent) outstrip that of

boys in 2004. Even though a 50:50 boy/girl ratio has been reached at primary school enrolments and to a lesser extent up to grade 8 and 9 in basic schools, areas of concern still remain. Some observers suggest that the quality of education has continued to decline. In many upgraded schools, adequate and well-qualified teachers have not been recruited while overcrowding in classrooms and inadequate supplies of school reading materials have also led to the deterioration of the quality of education. Zambia's quest to reach the HIPC completion point and the cap that was put on public sector recruitments made it difficult to make headway in reducing the pupil-teacher ratio which rose from 38 pupils per teacher in 1996 to 60.7 pupils per teacher in 2004.

HIV and AIDS have not spared the education sector either. The effects have manifested in the decline of the number of teachers. Part of the deterioration in the pupil-teacher ratio has been attributed to AIDS-related deaths. As many as 1,300 teachers died in 1998 due to AIDS-related illnesses. This was about two thirds of all new recruitments. The demand for education is also going down. Children from HIV and AIDS affected households are being withdrawn to help cope with the loss of labour in the home. Where they are not withdrawn altogether, they only attend school intermittently. Their capacity to learn is also affected because they are often tired or are having to deal with negative psychosocial impacts.

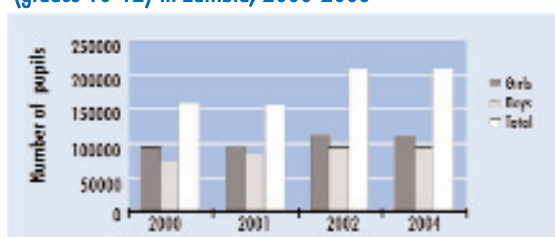
There has been a rapid expansion of the tertiary education sector in recent years. This is mainly due to the success scored in the technical education and vocation training system. According to the Technical Education, Vocational and Entrepreneurship Training Authority and the Ministry of Science, Technology and Vocational Training, the number of approved institutions offering tertiary education, other than universities, rose from 151 in 2000 to 319 in

Figure 5.5: Enrolment in basic schools (grades 1-9) in Zambia, 2000-2004



Ministry of Finance and National Planning, Economic Report, 2004

Figure 5.6: Enrolment in secondary schools (grades 10-12) in Zambia, 2000-2003



Ministry of Finance and National Planning, Economic Report, 2004

2004. In the same period, the number of students increased by 159 percent from 9,660 in 2000 to 32,841 in 2004.

Correspondingly, the proportion of female students has increased slightly to 44 percent in 2004 from 41 percent in 2000.

GDP per capita

The rise in Zambia's human development index has benefited from the economic turnaround the country has experienced in the last few years. The economy for the first time since the first years of independence grew for seven years in a row between 1999 and 2005. As a result, GDP per capita rose by 18.9 percent between 1999 and 2005. The rebound in economic growth has been driven by growth in construction, wholesale and retail trading and mining. The agriculture sector has also grown every year except in 2001 and 2004 when there were droughts. Most impressive has been the growth on non-traditional exports mostly driven by agriculture. The mining sector has seen some new investments resulting in a 60 percent increase in copper output from 256,884 metric tonnes (MT) in 2000 to 410,971 MT in 2004. In the same period, cobalt production increased by 80 percent from 3,538 in 2000 to 6,390 in 2004 (MoFNP, 2003 and 2004).

Despite the overall rise in GDP per capita, it has only translated in an average annual increase of 2.7 percent. Therefore, although the economy has been growing, in per capita terms, given the country's population growth rates, it is not very significant. It is thus not surprising that poverty between 1998 and 2004 dropped only slightly from 73 percent to 68 percent despite this growth. It has thus been suggested that for a significant impact on poverty, the Zambian economy needs to grow constantly at a rate higher than 7 percent (GRZ, 2006).

As seen in Chapter 3, the good economic performance is under threat due to

the negative effects of HIV and AIDS but particularly through decreased productivity, loss of labour due to death and absenteeism, high turnover of employees and increased replacement and training costs as well as the varied but specific impacts on different sectors and households

Fortunately for Zambia, although there is still a long way to go, the national response has been encouraging. Many stakeholders have advocated for the establishment of HIV and AIDS workplace policies and some companies have already developed and started to implement them while many others have been sensitised to develop such policies. However, at current prevalence levels, the epidemic remains a threat to the growth of the economy.

Human poverty index (HPI) in Zambia

The Human Development Report 1997 inaugurated the concept of human poverty - also called the poverty of lives and opportunities - in an attempt to portray the many faces of poverty. Being analogous to human development, human poverty focuses on deprivations in the three essential areas. Human poverty indices were calculated for 1996 and 1998 in the 1997 and 2000 National Human Development Reports, respectively. HPI was not calculated for 2000 in the 2003 ZHDR due to lack of new LCMS data. To allow strict comparison, the 1996 and 1998 HPI for Zambia and the provinces has been recalculated in this report ensuring that the variables being used are the same. For 2004, data could allow the calculation of HPI for districts as well (Appendix tables 4 and 5 on pp. 108-111). A number of observations arise from the trend in the HPI since 1996.

- The HPI for Zambia improved slightly from 31.4 in 1996 to 29.8 in 1998 and to a further 27.0 in 2004. This reflects a slight lessening in the deprivation of the population in access to critical areas to

support human well-being. The HPI looks at deprivation in a number of things that constitute a desirable living standard - lack of access to safe water, health facilities and food, through the proxy of under-five children who are underweight - as opposed to the incidence of poverty that only takes into account expenditure on food to meet the necessary nutrition and other basic needs.

- The modest improvement in the HPI between 1996 and 2004 is disappointing.

It means that, despite the many programmes undertaken since the late 1990s to improve access to facilities that could improve people's lives, there has been no progress made. However, a more detailed look at the different components that constitute the HPI suggests that this is mainly due to worsening deprivation in knowledge, as adult illiteracy rose from 21 percent in 1998 to 32.8 percent in 2004. All the other variables have improved although they remain a source of concern, requiring further progress.

- The rise in the percentage of the population that is illiterate is a build up of many school drop outs in both primary and secondary schools after the abolishment of the free basic education policy in the 1980s. The policy was re-introduced in 2002 but its long term benefits from a literacy point of view are yet to be felt. It is also hoped that the increase in enrolments discussed above in recent years will pave way for a more literate society. However, this can only be after some time. The lesson is that gains made in the social sectors need to be protected because their reversal can take place very quickly with serious long term implications.

Table 5.3: Growth rates of key economic variables, 2000-2004

Item / sector	Growth rates (%)					
	2000	2001	2002	2003	2004	2005
GDP	3.6	4.9	3.3	5.1	5.4	5.2
Population	3.0	2.9	2.9	2.9	2.9	2.8
Mining	0.1	14.0	16.4	3.4	13.9	7.9
Manufacturing	3.6	4.2	5.7	7.6	4.7	2.9
Agriculture	1.0	-6.0	-6.3	8.0	6.1	-4.0
Construction	6.5	11.5	17.4	21.6	20.5	21.2
Wholesale and trading	2.3	5.4	5.0	6.1	5.0	2.4
Non-traditional exports	-10.1	21.2	18.6	-1.5	13.0	19.1

MoFNP, Economic Report 2004 and Macroeconomic Indicators December 2005

Table 5.4: Human poverty index for Zambia and provinces, 1996, 1998, 2004

Region	1996	Rank	1998	Rank	2004	Rank
Zambia	31.44		29.80		27.0	
Central	30.63	3	30.04	4	28.0	4
Copperbelt	27.73	2	28.11	3	15.9	2
Eastern	32.74	4	32.92	5	38.5	9
Luapula	41.78	9	44.93	9	34.3	5
Lusaka	19.59	1	19.20	1	15.2	1
Northern	40.77	8	41.90	8	34.8	6
North Western	34.83	5	41.01	7	37.7	8
Southern	37.20	6	26.78	2	23.2	3
Western	38.62	7	37.16	6	35.4	7

Appendix Table 3

- Provinces along the line of rail have had lower HPI than provinces away from the line of rail which consistently occupied the first four ranks as in the case of HDI. However, this excludes Southern Province, which in 1996 occupied the sixth rank. This was as a result of the high proportion of people without access to safe water because of the severe droughts in the 1990s. As expected, deprivation is more prevalent in rural areas.
- Luapula Province had the most deprived population in 1996 and 1998 on account

of the high under-five child mortality, underweight children and proportion of people without safe water. However, Luapula made a significant improvement in the HPI from 44.9 in 1998 to 34.3 in 2004. In Eastern Province HPI deteriorated sharply from 32.9 in 1998 to 38.5 in 2004. This is mainly accounted for by the drastic rise in adult illiteracy from 29.6 percent in 1998 to 52.4 percent in 2004 compared to the rise in the national average from 21 percent to 32.8 percent respectively.

Conclusions

The discussion on the human development status indicates that Zambia may have started to emerge out of its deep human development crisis compounded by HIV and AIDS in the recent past. However, with some improvement in HDI in the last five years, deprivation to longevity of life, decent standard of living and knowledge all remain sources of great concern. Therefore, the HPI improved only slightly between 1998 and 2004.

As the calculation of HDI and HPI for districts has been done for the first time in this report, it is obvious that further effort is required to improve the data for more meaningful analysis to emerge. The HDI values from some rural districts appear too high compared to the general information known about them. It is nevertheless difficult to verify this without a full validation of each of the variables constituting HDI. Such a validation can only be carried out with the help of the Central Statistical Office. There is potential that district based HDI could be adopted as a criteria for spatial planning and resource allocation aimed at upgrading people's well being.

In order for the country to record improvements in the HDI, a number of challenges have to be overcome. These include: improving adult life expectancy through good health programmes; ensuring

household food security; improving the enrolment and especially the progression of females to secondary schools and tertiary levels whilst ensuring that the quality of education in currently overcrowded schools is improved; and, ensuring that the real per capita income continues to increase through continuous growth of the economy while focusing on broad based economic growth.

HIV and AIDS has compounded these problems by stretching the little resources households have and reduced productivity which have led to increased food insecurity and poverty.