



# Chapter 2

## BOTSWANA: THIRTY-EIGHT YEARS OF PROGRESS AND THE CHALLENGE OF HIV/AIDS

### AN EXTRAORDINARY RECORD OF DEVELOPMENT SUCCESS

As Botswana must look to S&T for new impetus to national development, it should be emboldened by its record of development success and the resources – finance, infrastructure, institutions and human capital - it has accumulated as a result. It is this success that in part inspires the ambitious Vision 2016, Botswana's 1997-2016 agenda for inclusive development and participation in a knowledge economy. Whilst the challenges of yesteryear – basic infrastructure and basic services – are still relevant, their relative importance has diminished. Over the decades, the challenges have changed, as has the context.

National development management must now respond to the more complex challenges of creating individual, firm level, and national level competitiveness. The compelling lesson from the history of developed nations is that this is impossible without investing in knowledge, S&T capabilities. Botswana must invest in (a) incentives across sectors for investment in knowledge, and productivity growth; (b) changing the national psyche to instil a high sense of pride in work, excellence and competitiveness, whilst simultaneously debunking the damaging dependence on the state and its institutions as providers of first resort; (c) raising the quality of knowledge assets such as education and skills through public and private investment and; (d) modernising infrastructure services to meet the demands of the modern firm.

It is no longer enough, for instance, to have a national telecommunications grid with wide coverage. It must also perform in a manner that, at the very least, does not leave users – firms, the Government, educational and research institutions, and individuals at a competitive disadvantage in terms of the system's;

1. relevance
2. accessibility
3. reliability
4. speed, and
5. cost efficiency.

Botswana's decision to conduct an e-readiness assessment in 2003 is thus both timely and appropriate. Botswana must respond to these challenges strategically and with purpose, and should constantly be aware that failure means marginalisation from the knowledge economy.

### THE RECORD

At the time of independence in 1966, Botswana was one of the ten poorest countries in the world. In 1993 prices, its per capita GDP amounted to only P1, 682<sup>1</sup>, the equivalent of \$656 or \$1.80 per day. The economy was predominantly agrarian (40% of GDP came from

1 National Development Plan 9. The pula per dollar exchange rate was 0.3899 dollars per pula in 1993 (Bank of Botswana Annual Report. 2002).

agriculture), the population largely semi-literate, and the known natural resource base very poor. Institutional and physical infrastructure was at best very rudimentary: an administrative capital did not exist and there were only 7 kilometres of tarred road in the whole country and no other communications infrastructure or services of note. Botswana were thus a people profoundly separated by physical space in their 582,000 kilometres<sup>2</sup> of land.

An even more serious development constraint was the lack of state capability. The entire development budget and more than half of the recurrent budget was funded through grants in aid, primarily from the United Kingdom. Institutions of state depended on expatriate personnel because of a very weak base of nationals trained to a level sufficient to run the public sector bureaucracy. Under the circumstances, Botswana's development prospects were considered exceptionally gloomy. Thus, Botswana's development record, one of rapid and sustained growth for more than three decades, could not have been more defiant of initial assessments of the country's post independence development prospects.



*Investing in infrastructure*

Five interrelated factors: mineral wealth; a disciplined, if not cautious approach to macroeconomic management; democracy and good governance; international goodwill; and policy activism towards priority development goals, were decisive in shaping Botswana's development trajectory. Mineral wealth conferred fiscal capacity on the state and with it the ability to drive the development process by, for instance (a) developing capable state institutions to provide public goods such as law and order, foreign policy and macroeconomic management and

2 This is at the 1993 exchange rate of 0.3899 dollars per pula.



management of externalities; (b) investing in infrastructure, human resource development and agriculture; and (c) providing incentives for economic diversification and employment creation.

Good economic and political governance secured, in the first instance, the fundamentals for attracting foreign capital, technology and expertise to develop the mining industry and the non-mining non-agricultural sector. It also secured space for people and traditional institutions of exercising power to adjust to the political processes as a mechanism for exercising power and public choice. International goodwill delivered aid resources needed to support the development of physical and institutional infrastructure. The aggregate outcome was rapid economic development and widespread gains in human welfare. For instance in the period from the time of independence to 1999, that is the period before HIV/AIDS began to reverse the earlier developmental gains:

- Life expectancy at birth rose from 46 years in 1966 to 67.5 years in 1999, thanks to an accelerated programme of expanding access to public health services and improvements in incomes and nutrition.
- The Under-five child mortality rate fell from 151 deaths per thousand live births in 1981 to 49 in 1997 for the above stated reasons.
- The infant mortality rate fell from 71 per thousand live births in 1981 to 38 in 1999.
- The Under-five malnutrition rate fell from 25% in 1981 to 12.9% in 1999.
- The maternal mortality rate fell as a result of an aggressive reproductive health programme.
- Adult literacy rose from 34% in 1981 to 75% in 1999.
- Female illiteracy fell from 64% in 1981 to 29.7% in 1996.
- The net enrolment rate rose from 42% in 1971 to 98.4% in 1997.
- The rate of income poverty fell from 59% of the population in 1985 to 47% in 1993.
- The Human Development Index rose from 0.63 in 1991 to 0.72 in 1997.

The transformation of physical infrastructure, so crucial in building a national S&T capability, and itself a factor in the improvement of human wellbeing, was no less impressive. By 2002, Botswana had bituminised 6, 872 kilometres of the national road network, up from 7 kilometres in 1966. From a zero base in 1966, Botswana has developed a fully digital telecommunications infrastructure, deployed along a circular central transportation corridor linking the country's major population centres, and with spurs connecting these to rural centres off the central corridor. Virtually all major population centres now have electricity, thanks to an aggressive rural electrification programme. Equally spectacular results were achieved in the provision of portable water and the development of health and education infrastructure. The driving force behind these developments was a successful economy and an accountable and conscientious leadership.

## THE ECONOMY

From a human development perspective, three aspects of an economy's development are critical. One is growth, which is a necessary condition for human development. The second is the quality of growth, expressed in terms of breadth and sustainability. The development process benefits the most from sustainable broad-based and pro-poor growth because it has the greatest impact on poverty. The

third essential aspect is the structure of the economy i.e. the sectoral origins of national output, itself a factor in the breadth and sustainability of growth. Structure determines the resilience of the economy in the face of external shocks because a broad based or diversified economy has multiple engines of growth and development and can therefore cope better with a major downturn in one or two sectors than a concentrated economy. Development thus requires a diversified economy.

Botswana's economy is one of the strongest and best managed in the developing world. It exhibits strong fundamentals - fiscal solvency, monetary stability, a healthy external balance, robust growth, and a good sovereign credit rating. But Botswana is essentially a mineral economy; this has several implications for human development. Mining accounts for more than a third of GDP, about 80% of export receipts and about 50% of government revenue. Thus, directly and through its contribution to government revenue and foreign exchange earnings, mining exerts a strong influence on the economy. Figure 2.1 summarises the structure of the economy as it evolved in the 10 years between 1990 and 2000.

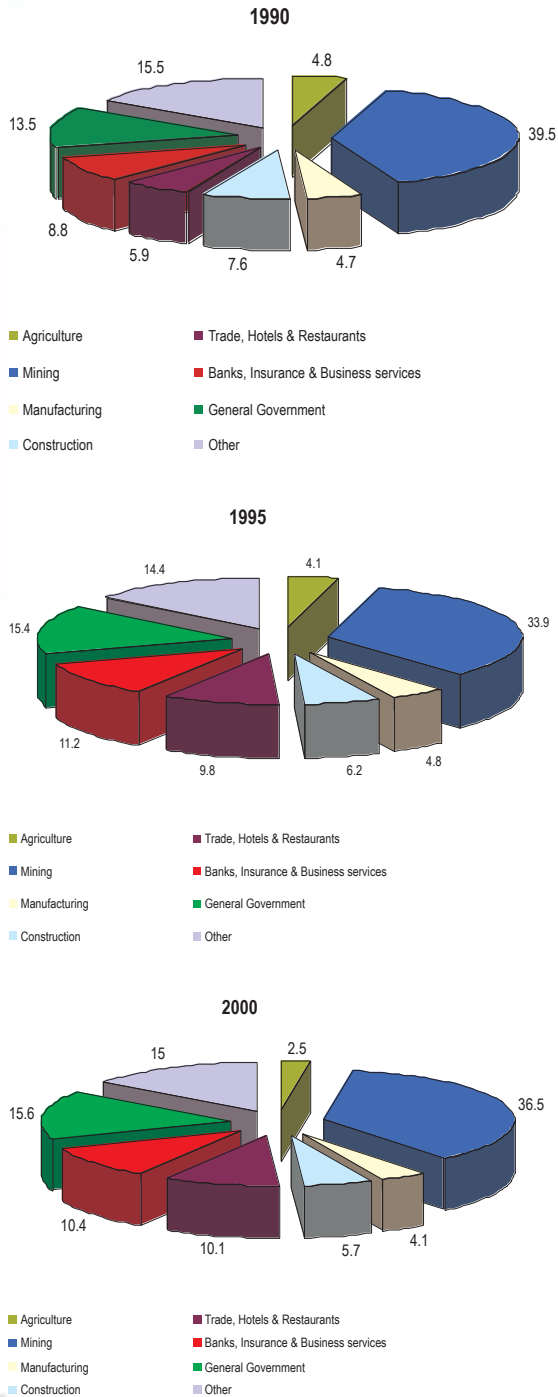
In 1966, the economy was dominated by agriculture, which accounted for about 40% of GDP. By 1985/86, the structure of the economy had changed profoundly. Mining, which was virtually non-existent in 1966, had become the dominant economic activity, accounting for 50.7% of Botswana's GDP. Agriculture's GDP share had by then slumped to 5.8%. It further declined to 3% of GDP in 2002. Mining has a pervasive influence on the magnitude and quality of growth. Driven by mining, Botswana's real GDP growth rate averaged 9.2% per annum over the period 1966-96, the highest sustained growth rate in the world and matched only by China's performance in the 1990s. The growth was however defective, especially in relation to employment creation and poverty reduction. Despite its large GDP share, mining accounts for less than 5% of total formal sector employment and its direct linkages with other sectors of the economy are weak.

The indirect effects of mining on the economy have nevertheless been significant. The GoB receives more than 60% of all mining profits in dividend income (based on its 50% share in DEBSWANA, the diamond mining company) and tax income. The Government thus provides the single most important medium for transforming diamond revenues into benefits for other sectors of the economy. The Government has a deliberate policy of using mineral revenue for investment in incremental productive capacity outside mining. The investments of choice for the GoB have typically been human capital formation, infrastructure development and incentives for non-mining activities. As such, through Botswana's mineral wealth, the Government has attempted to transform its fiscal capital into sustainable capital sources namely human, physical and social capital.

An important but seldom acknowledged function played by mining in Botswana is skills development and inward transfer and diffusion of skills and technology. Mining is both skill and technology intensive. Botswana's mines have trained hundreds of professionals, especially in engineering, to meet their skill requirements. They have also imported technology through equipment, skilled expatriate personnel and mining processes. These have become part of Botswana's invaluable knowledge and technology capital, a sizeable proportion of which has been deployed outside mining.

According to Figure 2.1, some progress was made towards economic diversification in the 10 years to 2000. The mining share of GDP fell 3.4 percentage points to 36.5%. The share of agriculture in GDP declined further from 4.8% in 1990 to 2.5% in 2000. Manufacturing, a key beneficiary of Government assistance under the Financial Assistance Policy of 1982, virtually stagnated whilst the services sector – business services, banking, insurance and retail and leisure/tourism - asserted its position as the economy's best performer in the future.

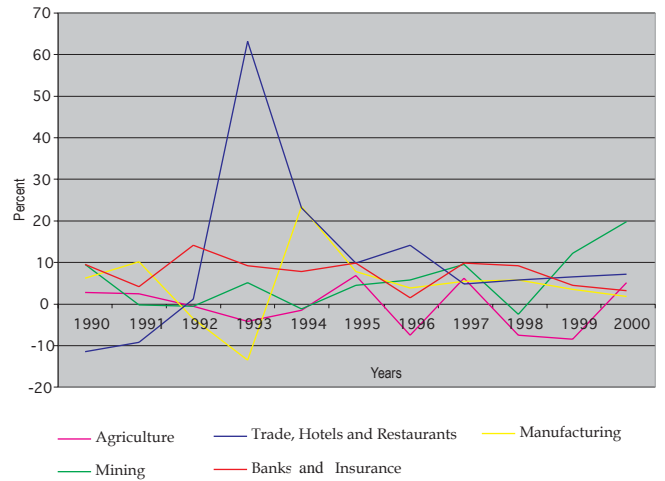
**Figure 2.1: The Structure of the Economy**



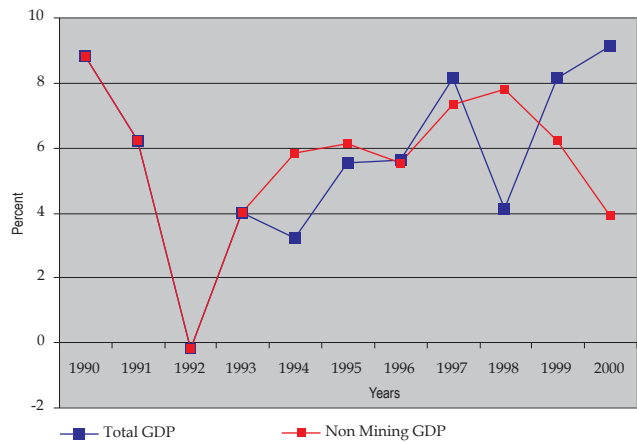
Source: Based on Data from Annual Economic Report. 2002

**Fig 2.2: Annual Growth performance (%) - 1990-2000**

(a) Selected Sectors



(b) GDP



Source: Data from The Botswana Government Annual Economic Report. 2002.

On the basis of sectoral GDP shares, diversification has progressed at a somewhat sluggish pace but this conclusion undervalues the rapid expansion of the financial services and the trade, hotels and restaurants sectors and the momentum they give to the non mineral economy, which, as Figure 2.2(a) shows, have outperformed mining in the 1990s. Besides, with the exception of agriculture, every sector posted decent growth for more than two decades.

A view of diversification based on trends in sectoral GDP shares neglects an important though often under-emphasised aspect of diversification in Botswana, viz., the emergence of fairly potent growth poles across the country. Maun and Kasane in the North are high performance tourist hubs around which vibrant local service economies – retail, building and construction, metal works, garments, food processing etc. - are being built. Other villages, notably Gantsi in the Western region; Letlhakane, Mahalapye, Tutume, Serowe, Palapye and Bobonong in the Central District; and Molepolole and Kanye in the Southern Region have become increasingly viable markets for light industrial, service and commercial artisan based activities.

The emergence of new growth poles could herald the resurgence of agriculture and the rural economy, as they not only become viable regional markets but also serve as input supply points for local producers. But it is still critical to ask the question: could mining have played a bigger role in the development of the economy than it has to date? Probably. The relatively weak linkages with the rest of the economy could perhaps have been stronger had the mining sector and the Government proactively sought to support the creation of local supply capacity for the industry.

DEBSWANA has in fact started on the route of deliberate use of procurement resources to develop backward linkages with the rest of the economy and to support the development of the local SMME sector. One aspect of its approach is investment in the development of agriculture, small business development and tourism. In agriculture, the DEBSWANA approach is based on the application of new knowledge and technology to raise arable farm productivity and viability. Young farmers are being sent to Australia for advanced training to become agricultural entrepreneurs. Locally, both small and large farmers are being introduced to better crop husbandry techniques. The second aspect of the DEBSWANA approach is the affirmative use of procurement resources in favour of local firms. This could of course be taken further to include technical support for firms that supply the mining industry.

The Government has a broadly similar approach in the form of the Reservation Policy and the Local Procurement Programme. It does not, however, use large procurement contracts to support the creation of local supply capacity or to facilitate technological diffusion. Perhaps Botswana should look carefully at the controversial but potentially effective strategy of counter-trade and offset transactions designed to build local supply capacity and diffuse technology. Under such an arrangement, large foreign suppliers will be required to invest a proportion of the value of the contract amount in the local economy in one or several of a number of options that may be prescribed by law. The options include sourcing some inputs locally, investing in the manufacture of some components, creating local capacity to maintain the investment or making a productive investment in an unrelated activity. The Government should consider adopting a similar strategy in the development of ICT skills.

## SOME OF THE CRITICAL WEAKNESSES IN BOTSWANA'S DEVELOPMENT

Botswana's rapid economic and human development has not been perfect. Apart from a slow pace of diversification five other problems, all related to the structure of the economy have dogged Botswana's development. These are, in no particular order, inequality, unemployment, poverty, excessive dependence on the state, and a slow pace of citizen economic empowerment. Technology, or more precisely the technology gap, has had a significant influence on these.

### Problems of Inequality Persist

Botswana has always had an unequal society. Ownership of the main resource in pre-mining Botswana, cattle, has always been highly concentrated. Among traditional farming households, 47% have no cattle and 24% have between one and eleven. At the other extreme, the wealthiest 2.5% of farming households own 40% of the national herd. In addition, there is a gender dimension to the inequality in cattle ownership that is rooted firmly in a tradition and culture that ascribes ownership and control of livestock and related assets – farms, boreholes etc. - to men. Approximately 66% of all female farmers have no cattle compared to 33% for male farmers. The average herd size for women farmers is six compared to twenty for men<sup>3</sup>.

The modern mineral economy has not produced equitable economic development either. Even as it changed the structure of the economy profoundly, mining created new divides. It disproportionately benefited those employed in mining, government and relatively skilled and technology intensive sectors. It has also intensified rural-urban income differentials. According to the 1993/94 Household Income and Expenditure Survey (HIES), the poorest 40% of the population received 12% of national income in 1993/94. The next 40% received 29% whilst the richest 20% received 59%<sup>4</sup>. Botswana's GINI coefficient, estimated at 0.54 in 1993/94, represents a marginal improvement from 0.56 in 1985/86. Inequality has an urban dimension as well. In 1993/94, Rural Botswana had a GINI coefficient of 0.41 compared to 0.45 in urban villages and 0.54 in urban areas<sup>5</sup>.

### Employment and Unemployment

Botswana's spectacular growth performance in the first three decades after independence did not translate well in terms of employment creation. Whereas real GDP grew by 45% between 1991 and 1999, formal sector employment increased by only 13% from 222 800 people in 1991 to 255 607 in 1999. This represents an average annual increase of 1.6% compared to 5% for GDP, or a poor growth to employment conversion rate of 3.1 percentage points of GDP growth to one percentage point increase in employment. However, between 1997 and 2001, formal sector employment grew at the rate of 4.9% per annum, before declining to 1.8% between 1999 and 2002. Thus, unemployment and poverty are serious problems for Botswana despite decent rates of economic growth. More than one in six job seekers could not find a job in 2000. Table 1.4 below gives a breakdown of the structure of the economically active population in 2001.

Table 2.1 provides anecdotal evidence of some interesting labour market trends and policy implications. Wage employment and self-employment have both grown in importance, each rising by three percentage points to 66% and 10% respectively. In the case of self-employment, this is a significant leap (42%), albeit from a small base (7%), and an indication that policy and programme emphasis on promoting self-employment may not be a misplaced bet. Second, labour is leaving the agricultural sector. Whereas 15% of the economically

3 United Nations Development Programme. 1998. Botswana Human Development Report 1997, Gaborone

4 Central Statistics Office. 1995

5 United Nations Development Programme. 1998. Botswana Human Development Report 1997, Gaborone

**Table 2.1:**  
**Breakdown of the Economically Active Population in 1991 and 2001 (%).**

	1999	2001
Salaried/Waged	63	66
Self Employed	6	10
Family Business	2	1
Lands and Cattle Post	15	3
Seeking Work	14	20
<b>TOTAL</b>	<b>100</b>	<b>100</b>

active population was associated with lands and cattle posts in 1991, the figure had dwindled to 3% in 2001. This has significant implications for the future of agriculture.

One likely, and perhaps inevitable, scenario is the emergence of bigger and technology intensive farm holdings, leading to increasing concentration ratios in the sector. The 2002 National Master Plan for Arable Agriculture and Dairy Development (NAMPAADD) will facilitate movement in this direction. Another likely scenario, closely related to the former and also likely to be aided by NAMPAADD, is increased utilisation of labour saving technology in agriculture. Both trends, if they play out, will further squeeze poor people out of agriculture and out of land ownership and control unless mechanisms for creating large farm production units can be found without driving small-holder farmers out of their land.

Although growth in formal sector employment has been sluggish, informal sector employment has generally been buoyant precisely because of strong informal sector employment growth. Employment grew at an annual rate of 8% between 1996 and 2000<sup>6</sup>. Over the same period, the rate of unemployment fell from 21.5% to 15.8%.

Botswana's unemployment problem is a diversification problem. Mining contributes less than five percent of formal sector employment even though its contribution to GDP amounts to nearly 40%. The Government sector accounted for 38% of formal sector employment in 2002. There is therefore an urgent need to generate growth in high job content sectors other than government and hence the Government's heavy emphasis on diversification as an objective.

### Poverty

The relatively low impact of economic growth on poverty is also straining Botswana's development. Most countries with per capita GDP comparable to Botswana's, e.g. Tunisia and Algeria, have income poverty rates of less than 10%. Yet, for Botswana, nearly half the population subsists below the poverty line. This surmise is based on Botswana Institute of Development Policy Analysis (BIDPA), 1997 analysis of the 1985/86 and 1993/94 Household Income and Expenditure Surveys. These surveys suggest that the incidence of poverty declined by only 12 percentage points from 59% to 47% between 1985/86 and 1993/94. But these measures do not account adequately for public provisioning for basic needs – education, health, sanitation etc. and so underestimate the degree of success in poverty reduction from a basic needs perspective. It is precisely because of public provisioning for basic needs that Botswana's indicators of wellbeing improved markedly between 1966 and 1996.

Consensus has emerged that Botswana's problems of poverty and unemployment are ultimately structural. Some of the frequently cited factors are that:

- Outside mining, Botswana's resource endowment is actually very

poor. In particular, the climate and the soils are not well suited to the low-tech small-scale arable farming of the type Botswana are used to and people, as a resource, are too few;

- The market is, at 1.7 million people, too small to support employment creation on the scale required to make rapid progress against poverty and unemployment. It limits the nature and size of firms setting up in Botswana and so influences Foreign Direct Investment (FDI) inflows, technology transfer and growth;
- Botswana is landlocked, which creates high export and import costs because road haulage and air transport are considerably more expensive than shipping and;
- The size of the country and sparse distribution of the population make service provision to this fragmented market costly and difficult.

Technology is a necessary input towards overcoming some of these structural barriers. Agriculture requires hardier seeds and crop husbandry techniques suited to Botswana's harsh soil and climatic conditions. Export growth requires significant gains in productivity and competitiveness. Building a credible S&T capability is an absolute necessity. Among the eight listed issues from the analysis of responses by a group of stakeholders to the question "what causes poverty in Botswana?" were the lack of access to technology, skills and information.

The battle against poverty will be made somewhat more difficult by the toll HIV/AIDS takes on the population's health and the viability of the country's institutions, especially public institutions. Indications are that HIV/AIDS could very easily generate governance failures of catastrophic proportions. Though less dramatic than over crowded hospitals and a high incidence of death, failing education and stunted emotional and intellectual development of children will count amongst the greatest tragedies of this epidemic.

### The Trap of State Provision

An unintended but inevitable outcome of the Government's strategies for expanding access to essential services, expanding opportunities for investment and employment, and ensuring minimum welfare for poor people is an unhealthy dependence on the state. State provision has become a trap. Thus, in a 2002 review of anti poverty initiatives in Botswana, stakeholders are reported as having cited "welfare policies that promote a culture of dependency" among the causes of poverty in Botswana. In the specific cases of drought relief and Accelerated Rain-fed Arable Development Programme (ARAP)<sup>7</sup>, the Report observes:

Whilst poor people were unanimous in their view of drought relief as a useful programme, many of the relatively well-off respondents, including civil servants, expressed concern about the extent to which the programme distorted incentives and choices (e.g. drought relief vis-à-vis arable farming) and engendered a culture of inefficiency thus policy may not only fail to reduce poverty but may in fact exacerbate or cause.

<sup>6</sup> Ministry of Finance and Development Planning. 2003. National Development Plan 9, 2003-2009, Gaborone

<sup>7</sup> Accelerated rainfed agricultural program

### Box 2.1: Botswana's Broad Strategy Against Poverty

Poverty and unemployment have been subjects of considerable policy attention and resource commitment since the early 1980s. They are, quite naturally, key objectives of Vision 2016, which sets ambitious targets for poverty reduction and employment creation - halving the proportion of Botswana living below the poverty line by the year 2006, reducing it to zero by the year 2016, and securing full employment. In 2000/01, the Government undertook a review of the Rural Development Policy of 1973, which it followed in 2002/03 with the development of a National Strategy for Poverty Reduction (NSPR). The Government's approach to poverty reduction has always encompassed three complementary elements, viz.:

a) *Aggressive investment in human capital formation:* This is essentially the Government's basic empowerment strategy. It entails public investment in building essential capabilities such as knowledge, skills and health to enhance human agency and empower people to earn a living. The main interventions are universal access to education, training and health, universal provisioning for basic needs through public and private means and extension services for small, medium and micro entrepreneurs, including farmers.

b) *Infrastructure development:* Infrastructure development may be seen as part of the broader strategy to expand local productive capacity by linking producers to markets and sources of inputs and creating locational incentives for investors in order to create jobs.

c) *Employment creation:* Interventions in this area seek to address the underlying structural causes of poverty: a narrow economic base, lack of access to formal sector employment and the low economic potential of agriculture given local technological and environmental constraints. These measures seek to diversify the economy towards sectors with high labour absorption capacities. To this end, they create opportunity for people to create employment for themselves and others. The most prominent of these are run under the Industrial Development Policy and the SMME Policy. They include the now defunct Financial Assistance Policy (FAP) and its successor, the Citizen Entrepreneurial Development Agency (CEDA). Agriculture specific initiatives, e.g. the Accelerated Rain-fed arable programme (ALDEP) have also been employed. These programmes typically provide subsidies to investors.

d) *Social safety nets:* These measures are intended to address chronic poverty resulting from social disadvantage or adverse circumstances resulting from shocks such as drought, other natural disasters, disease, and infirmity. The programmes include systematic government support for the destitute, the aged, orphans and people with disabilities. They also include direct food transfers to vulnerable groups such as pregnant women, nursing mothers and school children. Drought relief, a measure intended to help people cope with temporary poverty induced by drought, falls within this category.

The malaise of dependency also afflicts the well-off and investors. For instance, the debate on cost sharing and cost recovery in the provision of public services, suggests widespread and stoic resistance. In the business community, lobbying for generous subsidy support diverts government attention from more serious constraints on entrepreneurship development, for instance, skill and technology deficiencies. FAP<sup>8</sup> floundered for these reasons and there are indications that CEDA<sup>9</sup> may experience similar problems. These lessons, still unlearned after more than two decades of undue policy and programme emphasis on finance as a constraint to enterprise development, are the gateway to reform of the business development services support regime.

8 Financial Assistance Policy (that offered grants and loans to would be investors)

9 Citizen Entrepreneurial Development Agency (the successor agency to Financial Assistance Policy that offers loans below market interest rates)

### Citizen Economic Empowerment

Although citizen economic empowerment is often equated to citizen enrichment, which it can very easily amount to if mismanaged, it is in reality a call for inclusive development. Addressing the 1999 Citizen Economic Empowerment Conference, President Festus Mogae observed that citizen concern about economic empowerment is fundamentally about citizens. He says that "... our success in economic development must be mirrored in full and active participation of all citizens in the mainstream of our economic life. This demand ... is legitimate and it must, as such, be espoused vigorously without fear or apology"<sup>10</sup>.

Contrary to the impression created by the citizen economic



There is a need for citizen economic empowerment

empowerment lobby, Botswana has never paid lip service to citizen economic empowerment. Its policy and programme arsenal towards citizen economic empowerment includes subsidised credit through the National Development Bank, FAP, CEDA and similar programmes; reservation of certain economic activities for Botswana entrepreneurs; farm subsidies; and business development support services from partial incubator services to entrepreneurship training. The intensification of the lobby may thus reflect unsatisfactory performance by these programmes.

Unless citizens participate meaningfully in the economy, the economy may in the long run be crippled by political instability emanating from citizen resentment of foreign domination of the economy. Thus, the liberal policies that Botswana has put in place to encourage FDI may require counterbalancing through measures that ensure significant citizen ownership of the economy. If this is a priority, as indeed it is, the Government, think tanks and organisations such as the Botswana Confederation of Commerce, Industry and Manpower (BOCCIM), should develop mechanisms for systematic monitoring and appraisal of progress towards citizen economic empowerment. Thus the country is challenged both to improve the capacity of citizens to participate in the economy, but also to stop the potential brain drain that might follow once individuals have saleable skills to the global world.

### THREE OF THE EMERGING PRIORITY DEVELOPMENT CHALLENGES

The HIV/AIDS epidemic, globalisation and the threat of digital exclusion have emerged as three of the most critical development challenges Botswana must deal with decisively in order to realise sustainable development in the 21st century. Perhaps land and inequality would qualify as a fourth issue because the commoditisation of land and the inefficient mediation of land transactions by the unregulated market has

10 Ministry of Finance and Development Planning. 2000 Report of the National Conference on Citizen Economic Empowerment

unleashed a powerful wave of disempowerment that may evolve into political and racial instability in the foreseeable future.

### Health: Two Decades of Accomplishments Under Threat

From the health perspective, Botswana should have declared "Mission Accomplished" on 31st December 2000 because that date would have marked the successful conclusion of a purposeful crusade for universal access to health by 2000. The "Health for All" crusade was about putting a quality minimum basic health services package within physical and economic reach for every Motswana and the development of capacity within the health system and within individuals and households (through information) to accord all a decent opportunity for a life of "...optimum duration and quality"<sup>11</sup>. Even if the necessary infrastructure and drugs had been put in place, the accomplishment would have rung hollow given the devastating toll the HIV/AIDS epidemic had taken on health sector outcomes and capability. HIV/AIDS is the single most urgent human development concern in Botswana. Botswana is now enduring what must be the worst stage of the epidemic. Poor physical health and death are sapping energy out of households, communities and the entire nation. It's a brutal crisis because it has laid to waste what should no doubt be one of Botswana's greatest achievements; providing universal good basic health care for all.

Until the mid 1990s, when the HIV/AIDS epidemic became visible, Botswana was on course to achieve "Health for All by 2000". That "Health for All" was never about the absence of disease and infirmity should be emphasised. HIV/AIDS took the appeal out of "Health for All by 2000". It was a shock to society and to the health system. It is worth noting that the National Health Policy of 1995 does not explicitly mention HIV/AIDS. In the face of high morbidity and mortality levels, "Health for All by 2000" suddenly sounded hollow because neither the Government nor society were prepared to deal with a shock of the magnitude of Botswana's HIV/AIDS epidemic.

In 1968, Botswana had 141 health facilities of any kind. By 1998 it had built 1324 health facilities, including 30 hospitals, 222 clinics, 330 health posts and 740 mobile stops. In 1968, there was only one Doctor per 26, 315 population. By 1996, this ratio had improved to one Doctor per 3,850 population. Botswana had simply put enough money into the development of health infrastructure and personnel to radically transform the capacity of its health system. And there were tangible rewards in health outcomes in the pre-HIV/AIDS era: - By 1998, 88% of the population lived within 8km of a health facility and trained health personnel attended to 99% of births. Through expanded immunisation, the country has virtually eradicated neonatal tetanus, measles and polio by 2000<sup>12</sup>.

In general, health indicators rose spectacularly from very low levels at independence, suggesting high productivity gains for the health sector. For instance, the infant mortality rate fell from 108 deaths per thousand live births in 1966 to 38.1 in 1999, whilst life expectancy increased by twenty years from 47 in 1966 to 67 in 1999. With the proportion of outpatients treated for tuberculosis (TB) declining from 4.5% in 1983 to about 0.7% in 1989, Botswana was firmly on course to eradicating tuberculosis.

Sadly, these and other achievements are being rapidly obliterated by an HIV/AIDS epidemic of crisis proportions. Tuberculosis, a killer opportunistic infection that thrives on compromised immunity is on the rise. So are infant and child mortality rates. The incidence of malnutrition is also increasing. Life expectancy at birth has fallen from a peak of 67 years in 1999 to 56 years in 2001.

The returns from sustained investment in developing service delivery

capacity across sectors are now being eroded because the direct victims of HIV/AIDS are primarily men and women aged 15-49, in essence the work force. In health, education, agriculture, the military, commerce, industry etc., delivery capacity is shrinking and with it both the supply and quality of public services. The health sector was the first to show signs of stress because the epidemic not only destroys its capacity to deliver but also creates incremental demand for health services.

HIV also puts people out of work, deprives the aged and children of breadwinners. The orphan population in Botswana is estimated at 67, 000 and has already surpassed the capacity of traditional mechanisms for coping with orphanhood. Apart from being dependent on the state and relatives, orphans are an exceptionally vulnerable group because few of them have a decent chance at a normal childhood. Many, especially girls, have had to sacrifice their own childhood and assume parental responsibilities and their attendant dangers prematurely. This has often meant early exit from school, early involvement in sex, often for material reasons and outright commercial sex work to meet basic needs.

The epidemic also erodes the productivity of labour and the



By 1998, 88% of the population lived within 8km of a health facility

competitiveness of Botswana as a country. HIV/AIDS prevalence is a variable with a negative influence in decisions to invest in Botswana because of its impact on labour costs and export competitiveness.

### Globalisation and the threat of Digital Exclusion

Poor people and poor countries are simply being bypassed by the benefits of the current phase of globalisation thanks to iniquitous global trade, investment and intellectual property regimes. Given the preferential market access terms it enjoys for its main non-mineral exports under the EU-ACP (Cotonou) Agreement and Africa Growth and Opportunity Act (AGOA), Botswana may in the short term not suffer as much as other developing countries from the relative lack of progress towards a development friendly global trade and investment dispensation. Even so, it is in the interest of Botswana for a secure and equitable trade and investment architecture to emerge particularly since the special access terms and preferential terms are not guaranteed far into the future. Thus whilst globalisation can be a force for good, through its potential to generate wealth and improve living standards, it is not doing that very well at the moment particularly for developing

11 Ministry of Finance and Development Planning. 1997. National Development Plan 8, 1997-2003, Government Printer

12 Ministry of Finance and Development Planning. 2003. National Development Plan 9, 2003 - 2009, Government Printer

economies.

At the apex of the problems is unfair distribution of benefits from increased trade, investment, and technological innovation. Evidence exists that shows globalisation as practiced is increasing the gap between rich and poor, perhaps due to the fact that the policies that drive the globalisation process are largely focussed on the needs of business. The relentless drive to liberalise trade (to remove trade barriers, promote privatisation, and reduce regulation (including in some instances, legal protection for workers)), has had a negative impact on the lives of millions of people around the world. In addition, many of the poorer countries have been pressured to orientate their economies towards producing exports and to reduce already inadequate spending on public services such as health and education so that they can repay their foreign debt. Whilst Botswana is safe for now from the burden of foreign debts, it has escaped the other pressures of trade liberalisation. The assumed inevitability of globalisation as a technologically driven process that all must adapt to in order to survive and prosper, has resulted in millions of workers living with greater job insecurity.

The impact of globalisation on men and women is often different. Women, particularly those in developing countries, suffer disproportionately when public services are cut back particularly following some of the privatisations as part of the liberalisation process. This is because they have primary responsibility for caring for children and other family members. While the expansion of international trade has generated employment opportunities for women in certain circumstances, trade policies have often served to entrench the traditionally inferior role assigned to women in many countries. Occupational segregation, pay inequality, and unequal access to resources are but a few of the discriminatory measures that women face. The rise of Export Processing zones where large numbers of young women labour in poor and dangerous conditions to produce cheap consumer goods, and the expansion of outsourcing and home-based employment have also raised new issues and concerns for women workers.

Thus Botswana as part of the global society must fight for and find better ways to manage and structure globalisation so that it supports fundamental human rights and sustainable development, and generates prosperity for ordinary people, particularly the poorest. Left unchecked, globalisation could lead to their further marginalisation and impoverishment, thus totally negating the huge development potential that technological developments, especially in the ICT sector, offers.

### Environmental Sustainability

The supply of nature's resources is finite. Thus for development to be sustained, all – current and future generations - must have their fair share of nature's scarce resources. In Botswana, rangeland degradation, depletion of underground water resources, loss of biodiversity and climate change suggest that the management of natural resources is yet to strike an equitable balance within and across generations. Some examples of the challenges include the following:

**Land degradation:** The main environmental issue related to land in Botswana is the degradation of rangeland, defined as “all processes which cause bush encroachment, soil erosion and ultimately result in desertification”. About 60% of Botswana's land area consists of rangeland, supporting cattle, goats, other livestock, and – in many places – wildlife as well. Archaeological evidence indicates that cattle have been reared in eastern Botswana for over 1,500 years. For many people – including many urban dwellers –cattle are an important form of holding wealth.

Since independence, cattle and goat numbers in Botswana have increased considerably fast. Between 1966 and 1982, cattle numbers rose from 1.2 million to almost three million. By 1999, drought and disease had reduced their numbers to 2.4 million. In communal areas, where nearly 85% of Botswana's cattle graze, overstocking has caused extensive overgrazing and rangeland degradation, including soil erosion and bush encroachment. Overstocking is of course not the only cause of soil erosion in Botswana. Climate change, inappropriate crop husbandry techniques, veld fires and land denudation through logging, wood harvesting and human settlement also contribute.

**Depletion of water resources:** That 97% of Botswana's population has access to safe drinking water within a maximum distance of 2.5 kilometers from their homes is remarkable given that water is a very scarce resource in Botswana. But Botswana's water resources are under stress and are being depleted.

There are currently over 18,000 registered boreholes, equipped with diesel pumps, which have been drilled into aquifers all over the country. These supply two-thirds of the water consumed by Botswana, which in 2000 was estimated at 194 billion cubic litres annually. Some 80% of the population, the mining industry, as well as most of the country's livestock, are dependent on underground 'well fields', tapped by boreholes. Just over half the registered boreholes in the country are owned by government, and the remainder by private individuals.

The depletion of Botswana's water resources is a function of low and unpredictable rainfall (average rainfall ranges from a high of 650mm per annum in the North East to only 250mm per annum in the South West), contamination of underground and surface water resources, growing pressure from a rapidly increasing urban population, industrial expansion and livestock consumption.

**Forest and veld products:** About 95% of Botswana is normally covered by vegetation, mostly by mixed tree and grass savannah, with only a small amount of forest. Botswana has 2,600 – 2,800 different plant species, including 17 endemic species. These plants directly sustain human life and provide habitats for many species of wildlife. Moreover, they make a major contribution to water and soil conservation, preserving fragile ecosystems, and maintaining biodiversity. The GoB recognizes over 150 different species of wild plants - vegetables, melons, tubers, herbs, fruits, nuts, grasses - and an equal number of insects.

Forrest and veldt resources are however being depleted rapidly through unsustainable human consumption, e.g. wood for cooking, heating and lighting. Though declining in importance, wood is a dominant source of energy for cooking, heating and lighting in urban and rural areas. It has a host of other critical uses e.g. construction, fencing, furniture and other household goods.

The main factors behind the depletion of woodlands and veld products in many parts of Botswana are population pressure, arable agriculture, privatisation of communal land, competition from livestock and commercial activities

**Wildlife:** Botswana has a rich stock of more wild animals: 164 species of mammals, over 500 species of birds, 157 species of reptiles, 38 species of amphibians and 80 species of fish. The country runs the risk of losing many of these species because of appropriation of their natural habitat for alternative use, drought, poaching and over population.

**Pollution, waste and sanitation:** The rapid urbanisation of Botswana



during the past two decades has resulted in increased pollution of water, air and soil. Only 38% of the 250,000 tons of household waste produced in Botswana annually are actually delivered to disposal sites.<sup>2</sup> In the larger villages, 60% of residents have their refuse collected by the local authority compared to only 70% in rural villages. In rural areas, cattle posts and lands, there is no such service.

In the copper-nickel mining town of Selebi-Phikwe, air pollution is caused by sulphur dioxide emissions from the smelter chimneys and the evaporation of waste liquids from the mine dump. The coal-fed power station at Morupule and the tanneries at Pilane have also been identified as causes of air pollution. Veld fires, windstorms, smoke from wood-burning cooking fires, and the uncontrolled burning of waste at dump sites also contribute to atmospheric pollution. With rapidly rising

numbers of cars on the road in Gaborone, the possibility of air pollution from exhaust fumes also needs to be studied.

**Climate change:** Botswana's climate is strongly influenced by global weather phenomena. The El Nino Southern Oscillation, for example, has a decisive influence on rainfall.

Africa's global greenhouse gas emissions contributions are fairly small, contributing only between 5% and 7% of the global total. Botswana in turn contributes only 0.04% of the global total<sup>13</sup>. Moreover, Botswana's Carbon Dioxide (CO<sub>2</sub>) emissions are more than balanced by the CO<sub>2</sub> uptake of the country's woodlands, making the country a net 'sink' for atmospheric CO<sub>2</sub>.

<sup>13</sup> Based on data from C. J. Matala. 1995. Botswana Dept. of Mines and World Resources 1994-95, A Guide to the Global Environment. World Resources Institute.

