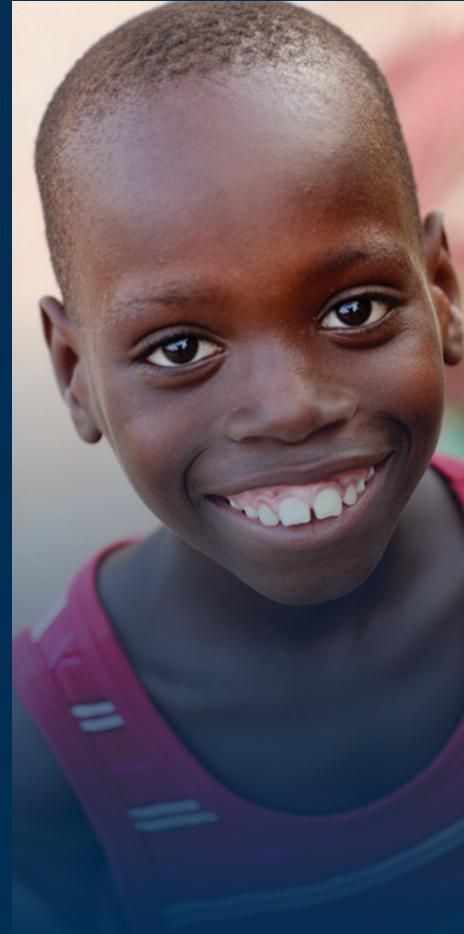




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BOTSWANA:

Systematic Country Diagnostic



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March, 2015

Botswana Systematic Country Diagnostic

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Acronyms

ARAP	Accelerated Rainfed Arable Programme	HH	household
BAIS	Botswana AIDS Impact Survey	HIES	Household Income and Expenditure Survey
ARV	anti-retroviral	HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
BDC	Botswana Development Company	IFSC	International Financial Services Centre
BDP	Botswana Democratic Party	IISD	International Institute for Sustainable Development
	Botswana Export Development and Investment Authority	IMF	International Monetary Fund
BEDIA	Botswana Institute for Development Policy Analysis	ISPAAD	Integrated Support Programme for Arable Agricultural Development
BIDPA	Botswana Investment and Trade Centre	JICA	Japan International Cooperation Agency
BMC	Botswana Meat Commission	km	kilometer
bn	billion	LEA	Local Enterprise Authority
BNPC	Botswana National Productivity Centre	LIMID	Livestock Management and Infrastructure Development
BoB	Bank of Botswana	LPI	Logistics Performance Index
BoP	Balance of Payments	m	million
BPC	Botswana Power Company	M&E	Monitoring & Evaluation
BTC	Botswana Telecommunications Company	m ³	cubic meters
CAGR	compound annual growth rate	MFDP	Ministry of Finance and Development Planning
CBM	coal-bed methane	MFN	Most Favored Nation
CEDA	Citizen Entrepreneurial Development Agency	MMEWR	Ministry of Minerals Energy and Water Resources
CPF	Country Partnership Framework	Mt	metric tonne
CPI	consumer price index	MTEF	Medium Term Expenditure Framework
CWIS	Core Welfare Indicators Survey	mtpa	metric tonnes per annum
DALY	disability-adjusted life years	MW	megawatt
EDD	Economic Diversification Drive	NBFI	non-bank financial institution
EESB	Employer and Employee Survey Botswana	NCD	non-communicable disease
EPA	Economic Partnership Agreement	NDP	National Development Plan
FAO	UN Food and Agricultural Organization	NPV	net present value
FDI	foreign direct investment	NSP	National Strategic Plan
FMD	foot & mouth disease	OECD	Organisation for Economic Cooperation and Development
GDP	gross domestic product	PEFA	Public Expenditure and Financial Accountability
GHG	greenhouse gas	PPP	public private partnership
GIA	Government Investment Account	PV	photovoltaic
GIC	growth incidence curve	R&D	research and development
GNI	gross national income	REER	real effective exchange rate
GoB	Government of Botswana	SACMEQ	Southern and Eastern African Consortium for Educational Quality
		SACU	Southern African Customs Union

SB	Statistics Botswana
SBI	Sustainable Budget Index
SCD	Systematic Country Diagnostic
SMEs	small and medium enterprises
TB	tuberculosis
TEC	Tertiary Education Council
TFP	total factor productivity
TIMMS	Trends in International Mathematics and Science Study
TKR	Trans-Kalahari Railway
	Travel and Tourism Competitiveness Index
TTCI	(World Economic Forum)
UHT	ultra high temperature
UNDP	United National Development Programme
UNECA	United Nations Economic Commission for Africa
	United Nations Educational, Scientific and
UNESCO	Cultural Organization
	United Nations Research Institute for Social
UNRISD	Development
WACS	West Africa Cable System
	Wealth Accounting and the Valuation of
WAVES	Ecosystem Services
WDI	World Development Indicators
WEF	World Economic Forum
WHO	World Health Organisation
WUC	Water Utilities Corporation
	Zambezi Integrated Agricultural Development
ZIADP	Program

Executive Summary

Introduction

Botswana has been one of the world's fastest growing economies over the past 50 years, allowing the country to move from being among the poorest to upper middle income status – this has had the effect of pulling the majority of the population out of poverty. At the same time, many Batswana are still poor, inequality is among the highest in the world, and human development outcomes are far below the norms for an upper middle income country. Moreover, the country remains reliant on a diamonds and public sector driven model. This makes it vulnerable both to short term shocks and structural changes.

The future will be more challenging. Diamond revenues will decline in the medium term. This will raise fiscal and external vulnerabilities; and increasing environmental risks will put even more pressure on a fragile resource base. While Botswana is rightly praised for its management of resource wealth, it is apparent that the high levels of investment by government (in health, education, and infrastructure) are not delivering quality outcomes, making it increasingly difficult to meet the objectives of growth, diversification, and poverty elimination. Indeed, some of the foundations which drove the development success of Botswana over the past half century are being eroded or face risks.

In this context, this Systematic Country Diagnostic (SCD) is intended to assess the priorities for Botswana to make rapid progress in achieving the objectives of: i) elimination of extreme poverty on a sustainable basis; and ii) ensuring shared prosperity by improving the welfare of the less-well-off in the country. It includes individual chapters analyzing the opportunities and challenges to meeting these objectives with respect to: growth; inclusiveness; and sustainability. The SCD concludes with a prioritization of the key challenges.

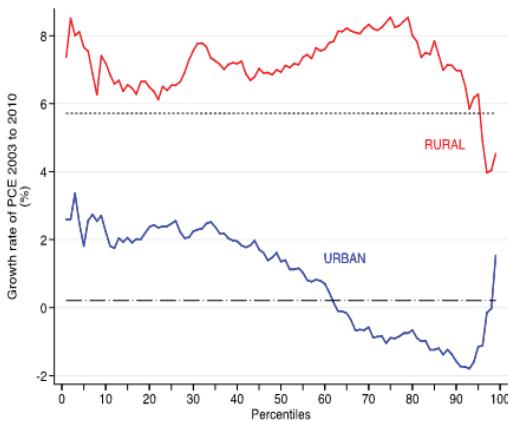
Poverty declining rapidly but low job creation keeps inequality extremely high

Poverty has fallen sharply, with the national poverty rate down from 30.6 percent in 2003 to 19.4 percent in 2010 and extreme poverty now below 14 percent. While nearly all spatial and demographic groups experienced improvements, growth was strongly pro-poor over the past decade. The largest declines in poverty were in rural areas (where it fell by almost 21 percentage points), in the regions furthest from Gaborone, and among the elderly, women, and children. Consumption growth among the bottom 40 percent far outstripped that of the top income deciles.

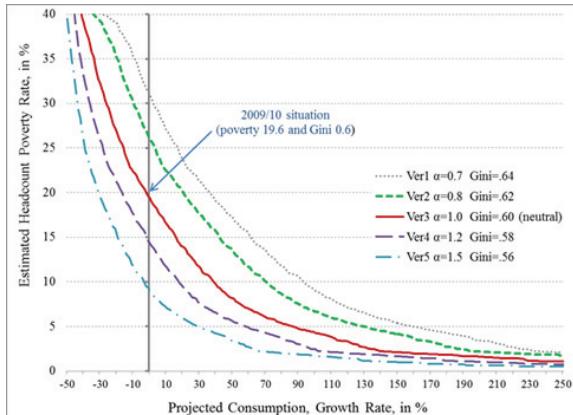
But poverty is still high in rural areas, remote communities, and in households headed by females and by those with low levels of education. Most notably, poverty is concentrated among children and youth, which has important implications for inclusion and inter-generational transmission of poverty. Moreover, while many have escaped poverty and have progressed through the income ranks, there are still a large number of people just marginally above the poverty line and at risk of falling back into poverty. This is particularly a risk for smallholder households in rural areas.

High levels of poverty in Botswana are tied closely to the country's extraordinarily high inequality, which has restricted the extent to which growth contributed to poverty reduction. Inequality has fallen over the last decade, with the national Gini coefficient (of per capita consumption) down from 64.7 to 60.5. But this still leaves Botswana among the most unequal societies in the world. Declining inequality has been driven mainly by substantial regional convergence – inequality in Botswana is no longer simply a spatial story, but instead is explained primarily by within-group differences, most importantly by access to productive livelihoods. Indeed, the most important driver of poverty and inequality reduction has been employment, although most of this has come through heavily subsidized smallholder agriculture.

Growth has been pro-poor: growth incidence curves for urban and rural areas, 2003-2010



Reducing inequality is the key to rapid poverty elimination: poverty trace curve



Building upon the poverty reduction efforts of the past, Botswana has a unique opportunity to eliminate extreme poverty and reduce inequality. To achieve this will require a broad set of integrated measures including the deepening of inclusive growth and improving the targeting and efficiency of social protection spending. Inclusiveness will require broad-based job creation, enhancing productivity, and changing the structure of growth. Effectively, this will require a fundamental shift in Botswana's growth model, from one dependent on extractives and the public sector to one based on a diversified, competitive private sector.

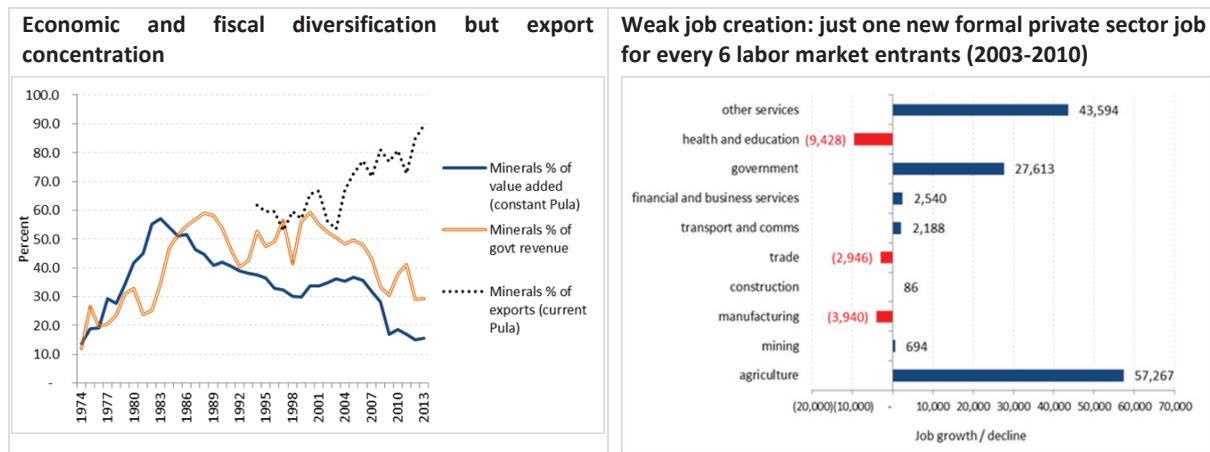
Growth: traditional drivers waning; need for jobs-intensive, export-oriented, private sector-driven model

Botswana's traditional growth model has involved diamond revenues being channeled through the government, with subsequent high investment in infrastructure, health, and education. The model has served Botswana well, delivering sustained, high growth over many decades (with growth still robust in the 5-6 percent range) but it also has significant drawbacks. Most notably this model has been poor in generating jobs, contributing to high inequalities. It has also created a strong dependence on the state, both as the main investor and employer in the economy. Indeed, the formal private sector created just one job for every 6 new entrants to the labor market over the past decade, and the non-farm, informal sector remains small and lacking dynamism.

Botswana has achieved substantial diversification over the past decade, with the services sector and household consumption becoming the largest contributors to GDP. But the sustainability of diversification and of growth is of concern for three reasons. First, maintaining the pace of consumption growth will become increasingly difficult in an environment of weak job creation, slow wage growth, and growing household debt. Second, growth through public investment-led capital deepening will continue to be constrained by fiscal tightening, low productivity, and poor returns on public investment. Finally, failure to diversify exports will heighten the risk of external imbalance, which will seriously restrain growth, perhaps even triggering a GDP contraction. On a positive note, demographics should offer a boost to growth in the medium term, with the dependency ratio expected to fall by 40 percent between 2000 and 2040. Moreover, while total factor productivity has been a drag on growth over the past 15 years, evidence suggests non-mining (labor) productivity, particularly in the services sector, is increasingly contributing positively to growth.

Diversification in the mining sector offers potential to support external and fiscal balances, but it is not the solution to sustainable poverty reduction due to its limited job creation potential. Instead, what is required is the development of a more competitive, outward-oriented private sector, particularly in employment-

intensive services sectors (like nature-based tourism and some high value-added business services) where Botswana can exploit global or regional comparative advantage. With a small domestic economy, successful development of the private sector will depend crucially on export markets. This requires improving the integration of Botswana's firms into regional value chains which, in turn, requires addressing the trade policy and trade facilitation barriers that regional trade and investment.



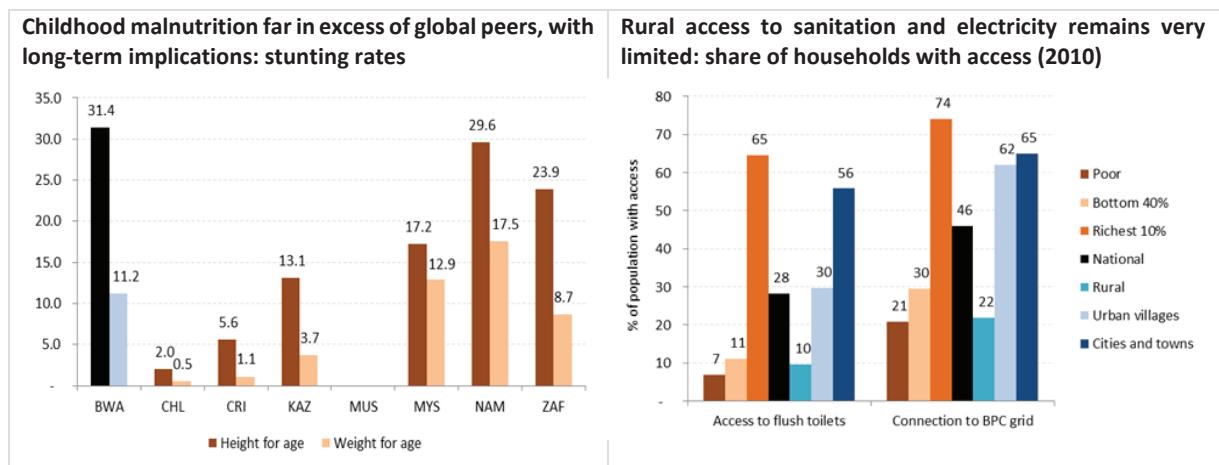
Delivering a new growth model for Botswana will require the private sector to take the lead in investing and developing competitive, outward-oriented firms. At the moment, while entrepreneurs are emerging, the private sector remains shallow. Encouraging entrepreneurs to invest in export-oriented activities will require reforming the existing inward-looking investment environment which raises the relative returns to focusing on domestic non-tradables and government contracts. It will also require addressing the high costs of operating in Botswana. Progress is being made on many aspects of the 'Doing Business' agenda, but firms remain weakly competitive. Improving productivity through investment in workforce development (skills, training, and work ethic) and the adoption of technology will be critical to developing more competitive firms. So too will be improving connectivity by improving the trade facilitation environment (promoting value chain integration), improving air transport links, and improving the quality and cost of ICT infrastructure. It may also require re-focusing industrial policy on sectors where Botswana's comparative *disadvantages* are less binding, including modern commercial services and tourism.

Inclusion: despite broad and well-intentioned investment, barriers remain

But growth alone, even jobs-intensive, broad-based growth, is not sufficient to eliminate poverty and reduce inequalities. Moreover, wider notions of human development, encompassing health, human capital, freedom, and voice are all critical to individual well-being, and contribute to ensuring the sustainability of economic gains. Botswana has invested over decades to provide widespread and equitable access to basic services, including health, education, and infrastructure. This has been costly given the country's dispersed population. Results are mixed – in health and education broadly equitable coverage has been achieved; in basic services, especially sanitation and electricity, major gaps (especially urban-rural) remain. Across the board, however, quality and consistency remain a problem, raising barriers to individuals achieving productive, sustainable livelihoods, particularly in poor households and (still) in rural areas.

As a result of heavy and sustained investment in ARVs and other treatment programs, Botswana has turned the corner on HIV/AIDS. However, it still has a major impact on households and on the healthcare system, contributing to poor outcomes in other areas, like maternal and child health and some non-communicable diseases, and limiting the ability of women (especially as single head of households) to engage in productive

employment. Poor child nutrition represents a serious threat to inclusion, given its long term impacts on health and cognitive abilities. Access to basic infrastructure still suffers from major rural-urban gaps, with just 42 percent of rural households having access to proper sanitation and 22 percent to electricity. Access to land is generally equitable, but becoming an increasing problem (at the individual and municipal level) in the context of rapid urbanization and inflexible land ownership structures.



Despite huge public investment in education (on average close to 8.5 percent of GDP) and generally equitable access, outcomes are not only unequal, but also weak across the board. Moreover, changing demographics, linked to declining infant and child mortality, is putting pressure on the secondary education system. The secondary education system in particular is failing to equip young Batswana with the skills that are needed for them to contribute productively to firms and to society. This failure of the education system, combined with a labor market that has failed to create employment opportunities (particularly for women), increasingly restricts the long-term prospects for youth. Tertiary education remains a key route to quality employment, but enrolment growth has been slow and tertiary and vocational systems align poorly with labor market needs. Poor Batswana, especially in rural areas, still have few formal financial assets, which not only heightens vulnerability, but hinders their capacity to invest in sustainable livelihoods, for example in improving farm productivity or in household enterprises.

Social protection systems have been effective in reducing the level and depth of poverty, but they could be much better targeted to reach poor households, and made much more efficient. They could also be better linked with other key interventions, including health, education, and active labor market programs. This would improve both efficiency and effectiveness of delivery and make a major contribution to sustainable poverty reduction by limiting inter-generational transmission of poverty.

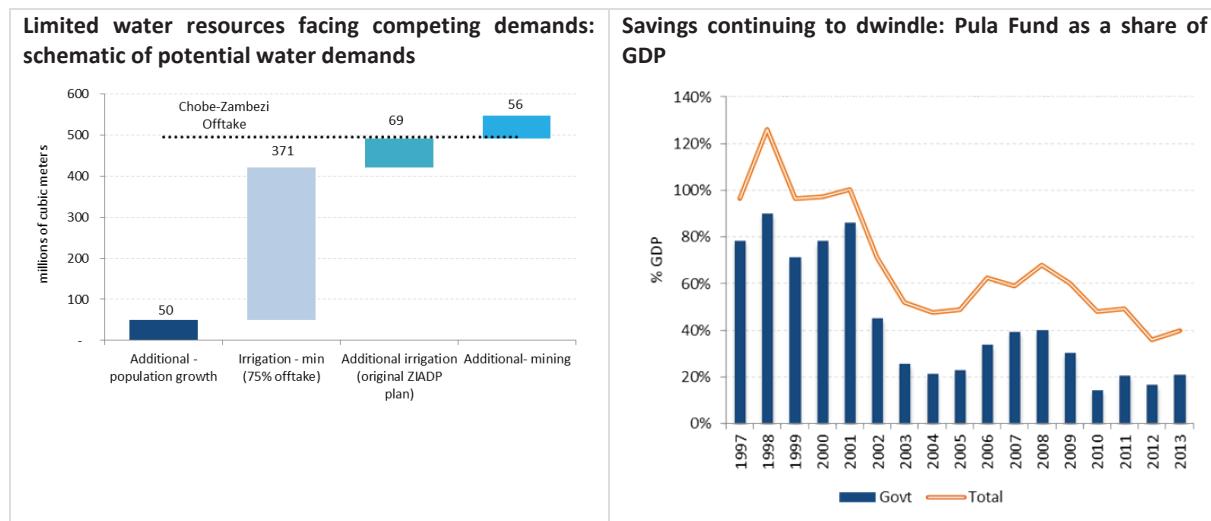
Botswana remains a cohesive society, with a strong democratic and consultative tradition. However, some groups – most notably women, some ethnic groups, and possibly youth – face limitations on their voice and participation in society, and especially in the policy environment. Civil society remains overly-reliant on government, particularly in the context of declining donor funding. Together, these dynamics point to an environment where the poor and vulnerable are highly dependent not just on the benevolence of a centralized government, but also on its effectiveness.

Sustainability: resource vulnerability raising challenges for long-term growth and inclusion

Botswana has a long history of effective management in the conversion of natural capital wealth to investment in productive capital and human capital. It is has been effective in maximizing revenue capture

from diamonds and it has invested wisely in infrastructure and human capital. However, there is increasing evidence that the quantitative process of wealth conversion is not being matched in qualitative terms –i.e. that public investment has not been efficient.

Natural resources wealth remains the foundation for growth and inclusion in Botswana. But it is also constrained, fragile, and open to many competing demands. Understanding the trade-offs involved in various development scenarios will be critical to managing resources for both sustainability and effective outcomes. Water is the most critical resource in this regard. While substantial investments are being made to increase access to water, demand is also rising, perhaps at a faster pace. There is an urgent need to ensure that development decisions take into account water resources and their alternative uses, that further sources (especially regional) be pursued, that efficient technologies are invested in, and that water pricing adequately reflects scarcity and opportunity costs. Similar considerations are relevant in managing energy and biodiversity resources.



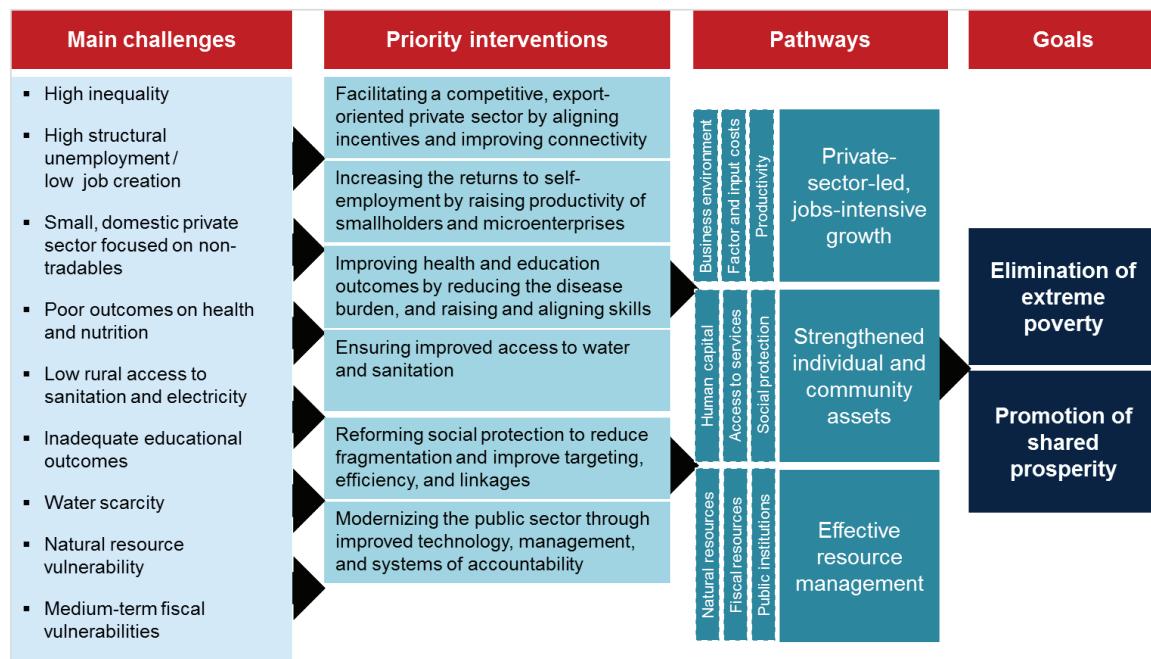
In the context of declining diamonds revenues and SACU revenue vulnerabilities, fiscal prudence and rebuilding fiscal and external buffers will be critical for sustainability. This will require not only broadening the tax base, but also consolidating spending, particularly given the continued high fiscal burden from HIV/AIDS. Both will be a challenge. In terms of consolidation, reform and downsizing of the public sector will need to be part of the answer. Stepping up the pace of outsourcing and privatization will face many political hurdles, but it will be critical to achieve these aims and to support private sector development.

Above all, improving outcomes in Botswana will require a significant reform and modernization of the public sector, which is increasingly seen as a source of weakness rather than strength. Poor outcomes in public investment have been most visible, but the problems appear to run across the board. Reforms will require improvements in planning, procurement, and management processes. They will also require far greater attention to monitoring and evaluation. But more than anything, they will require a new approach to government – a mindset that focuses on efficiency and accountability. This, in turn, will require improvements in capacity (human capital), as well as an adoption of modern technologies and techniques. Support for a more effective public service, as well more informed policymaking, requires substantial upgrading of statistical capacity to ensure access to more regular, consistent, and comprehensive data.

Priorities for eliminating extreme poverty and boosting shared prosperity

Botswana faces a broad range of constraints in achieving the transition to this new growth model, and subsequently in making continued, rapid progress toward eliminating poverty and delivering shared prosperity. The SCD identifies 30 main challenges organized across the three pathways of: i) establishing an environment for private sector-led, job-creating growth; ii) ensuring inclusion by strengthening individual and community assets; and iii) ensuring the sustainability of growth and inclusion through effective management of resources. A combination of desk assessment and consultation were used to identify the highest priority challenges, with the most important criteria focused on the impact that addressing these challenges would have on eliminating extreme poverty and ensuring shared prosperity. This process resulted in identifying 7 broad priority areas for intervention, as shown below:

Overview of identified priority interventions to eliminate extreme poverty and promote shared prosperity



The SCD argues for a fundamental shift to a new growth model; one that creates sufficient, broad-based employment. This will require the **development of a competitive and export-oriented private sector**, including:

- *Establishing the incentives to support an export-oriented private sector*, including trade, competition, and immigration policies that ensure access to competitively priced inputs and skills, and incentives to compete in tradable sectors. This will require a rethink of a wide range of trade and industrial policies that promote national champions, localization, and ‘citizen empowerment’ through protection.
- *Improving connectivity*: Helping to close Botswana’s connectivity gap – thus increasing market access and lowering costs – is critical to competitiveness. This will require a focus on: i) improving national and regional trade facilitation to support integration into regional and global value chains; ii) improving air connectivity to open up opportunities in key sectors; and iii) improving the speed, quality, and cost effectiveness of ICT infrastructure (especially broadband).

But developing a competitive private sector capable of generating broad-based employment will take time. The reality is that the process of structural change will take 10-20 years to achieve. During this time a large share of the population (at least in rural areas) will still rely on farming. And even for those in the urban villages and outside of the agricultural sector, Botswana's formal labor market is not likely to provide sufficient income-earning opportunities for all Batswana. Many of the poor and 'near-poor' that fall outside the formal labor market will continue to face risks of falling back into poverty. For this reason, there is a need to focus on increasing the opportunities and **returns to self-employment by raising productivity of smallholders and microenterprises**. Improving productivity and increasing agricultural incomes is the key to reducing vulnerability and developing a more vibrant rural economy. The agenda for raising smallholder productivity will focus on establishing the right incentives for smallholders to adopt more appropriate technologies and methods to improve yields and mitigate risks and strengthen the extension system. Outside of agriculture, interventions will promote a more dynamic microenterprise sector, both in rural and urban areas, with a focus not only on entry into self-employment and the SMME sector but improving productivity within the sector through capacity building and access to services.

Developing a new growth model will also require a step-change in the productivity of Botswana's firms, which is dependent on substantial improvements in **human capital, including education and health**:

- *Education:* Raising the quality of education, with a specific focus on aligning skills with labor market needs will equip Batswana, especially its youth, to participate productively in the economy, whether through formal employment or micro-enterprises. The focus will be on increasing the relevance of skills and improving intangible skills like communication and work ethic.
- *Health:* This will focus on the health barriers to skills acquisition and labor market participation, in particular childhood malnutrition, and the impact of disease (especially HIV) on female participation in income-earning activities. Intensifying efforts to improve outcomes in HIV prevention is likely to be critical over the medium term.

Ensuring sustainable growth of formal commercial activities, sustainable livelihoods, and quality human development outcomes in the future will increasingly require focus on **infrastructure and policies for water and sanitation**. None of Botswana's growth opportunities will be achievable over the long term if sustainable sources of water are not made available, if new technologies are not adopted, and if pricing policies are not reformed to ensure its efficient use. Moreover, addressing the major gaps in access to sanitation is likely to be critical to ensuring improved livelihoods and reducing incidence of disease and malnutrition. Interventions in this area are expected to focus on infrastructure development, support for regional integration of water resources, adoption of recycling and other technologies, and introduction of policies to ensure water pricing reflects true value (and opportunity costs).

But even with greater job creation and self-employment, improved human capital, and access to resources, a relatively small minority Batswana will fall not be in a position to participate. **With a focus on reforming social protection, Botswana has a unique opportunity to eliminate extreme poverty within the next 5-7 years.** Among the priorities for the reform of social protection include adopting technologies and processes to improve targeting efficiency, consolidating the fragmented programs and introducing a single household-level grant as 'last resort' protection, introducing conditional interventions to promote behavioral changes, and more effectively linking social protection with public works and active labor market programs.

Finally, none of the priority interventions outlined above will deliver rapid and sustainable progress on the twin goals without addressing fundamental enablers, including **modernization of the public sector and improved management of increasingly-scarce natural resources**:

- *Public sector modernization for effectiveness and sustainability:* Delivering on any of the

interventions discussed in this SCD requires a substantial, if not leading, role from the public sector. Improving public investment management, project management, and program delivery through adopting modern technologies, systems, and processes, and putting in place systematic and meaningful processes for monitoring and accountability will be fundamental to addressing the above challenges and maintaining sustainability.

- *Natural resources management to support sustainable growth and livelihoods:* Botswana's natural resources will remain at the heart of the country's success. But they are highly constrained, fragile, and face many competing demands. Putting in place effective systems for planning that take clear account of the (often irreversible) implications on critical resources will be critical to maintain sustainability over the medium term.

In summary, Botswana has a genuine opportunity to eliminate extreme poverty in the coming years. But the real challenge will be making this sustainable and, most critically, to reducing the extreme levels of inequality that still hinder macro level growth and micro level inclusion. This will require a change in Botswana's growth model built on an export-looking private sector underpinned by higher skilled, more productive, and more entrepreneurial individuals, households, and firms. It will also require balancing competing demands for limited natural resources, particularly water. Underpinning all of this is the imperative for a more modernized and effective public sector.

1. Setting the scene

1.1. A global success story, but not shared among all Batswana

Botswana has been among the world's biggest development success stories of the past half century. One of the ten poorest countries at independence in 1966, Botswana's GNI per capita has since grown five times faster than the global average (Figure 1). Botswana's success was catalyzed by the discovery of the world's richest deposits of diamonds. But it has also been a story of effective governance and economic management, as the country invested minerals rents in physical capital, human capital, and institutions. To put this into perspective, at independence Botswana had just 6 kilometers of paved roads, 3 secondary schools, and few health facilities; only 1.5 percent of the population had completed primary education. Today, there are 7,000 km of paved roads, more than 300 secondary schools, and 95 percent of the population lives within 8 kilometers of a health facility; primary education is free and the enrolment rate has reached 90 percent.

But poverty and inequality remain serious challenges. Despite considerable progress, nearly a fifth of Batswana still live in poverty, with almost 14 percent in extreme poverty¹. Moreover, Botswana ranks as one of the most unequal countries in the world, with a Gini coefficient 60.5². This, in combination with the devastating impacts of HIV/AIDS (Botswana has the world's second highest rate of HIV), has contributed to human development outcomes that are among the lowest in the world for a country at Botswana's level of development (Figure 2).

Figure 1: GNI per capita, Atlas method - current US\$ (1966 v 2013)

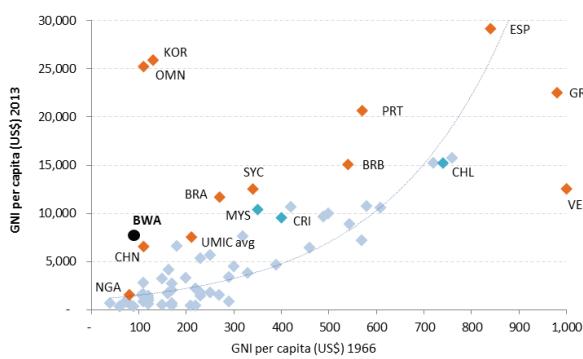
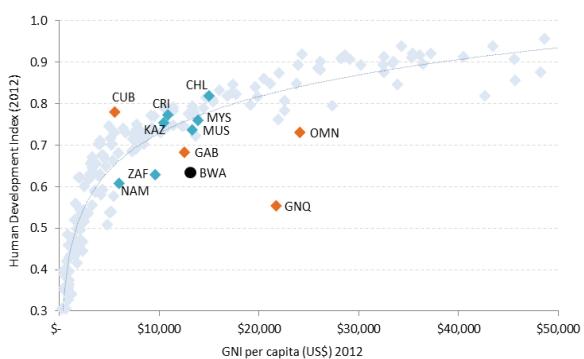


Figure 2: Human Development Index (HDI) and GNI per capita (2012):



Left panel: Data source – World Development Indicators (WDI); Figure only plots countries with GNI per capita reported in WDI and with values less than US\$1,000 in 1966 and less than US\$30,000 in 2013; total of 68 countries

Right panel: Data source – WDI; Figure excludes countries with GNI per capita above US\$50,000 in 2012

Note: Throughout this document, we compare Botswana (abbreviated as BWA in the charts) to a set of 'peer countries' (where data is available) selected based on their having a combination of size, income level, location, and/or other characteristics (e.g. natural resource dependent, landlocked, low population density) similar to Botswana. These peer countries are: Chile (CHL); Costa Rica (CRI); Kazakhstan (KAZ); Malaysia (MYS); Mauritius (MUS); Namibia (NAM); and South Africa (ZAF). Other countries are highlighted in various charts to point out countries with similar results to Botswana or those that are outliers.

¹ Estimates by the World Bank (World Bank, 2014) put the national poverty line in 2009/10 at 19.4 percent and the food poverty line (a definition of extreme poverty) at 13.8 percent, based on data from the 2009/10 Core Welfare Indicators Survey. Both the national poverty line and the food poverty line are based on the definitions of Statistics Botswana. In addition, the same study estimates the internationally comparable US\$1.25 poverty line (another measure of extreme poverty) to 13.4 percent in Botswana in 2009/10. See chapter 2 for a more detailed discussion.

² As measured by per capita consumption. See chapter 2 for a more detailed discussion.

These challenges are well understood. They are reflected, for example, in the government's Vision 2016, which aims at "prosperity for all", with the goals of: poverty eradication; a more equitable distribution of income; and rapid economic growth and diversification. And they are operationalized in the current National Development Plan (NDP 10: 2009-2016), whose implementation is organized around four pillars: i) Economy and Employment; ii) Social Upliftment; iii) Sustainable Environment; and iv) Governance, Safety & Security. They are also not new challenges. Successive governments have grappled with them, with only limited success. This highlights their difficulty, and also indicates that success is not likely to come from 'more of the same'.

1.2. Preparing for a more challenging future – a framework for asset building

Diamonds are not forever. This is well accepted in Botswana, and indeed the need to promote diversification for the day when resources run out has been central to the economic development discourse almost since diamond production first started. While diamonds may not be fully exhausted for another generation, output is already well past its peak. Thus, preparing for a post-diamonds world is still at the heart of Botswana's development challenge. In this respect, progress has been made on diversification. The non-mining sector's contribution to value added (in current Pula) has grown from two-thirds to three-quarters over the past decade. As Botswana seeks to develop a still more diversified, competitive, and inclusive economy, it has a number of assets on which it can draw, including:

- *Minerals diversity*: Outside of diamonds, Botswana is a significant producer of copper/nickel (which has long been the #2 mineral export), and recent finds of natural gas, uranium, and potentially iron ore have potential to contribute substantial export earnings. But the biggest opportunity may lie in coal, where Botswana is estimated to have more than 200 billion tons of coal reserves (around two-thirds of Africa's total), although it is not yet proven commercially viable.
- *Biodiversity*: Botswana's biodiversity resources, including the recently UNESCO-listed Okavango Delta, as well as Chobe and the Kalahari, are at the heart of the successful nature-based tourism industry and play an important role in the economic and cultural life of Botswana's rural communities.
- *A history of good governance*: Botswana is consistently ranked among the top countries in Africa in ratings of governance, which helps ensure an enabling environment to manage effectively the balance between growth and redistributive policies.

At the same time, Botswana also faces vulnerabilities on many fronts that risks continued progress toward the goals of poverty eradication and inclusive growth. Indeed, some of the foundations which drove the development success of Botswana over the past half century are being eroded or face risks, including:

- *Macro-economic and fiscal*: Vulnerability arises from heavy reliance on diamonds and SACU customs receipts, both of which are volatile and face existential threats. The depletion of diamonds may also expose the country to severe external imbalances.
- *Social*: Improved social indicators have relied on heavy government investment, while the quality of the investment has been below par; a sustained growth / fiscal shock could seriously hamper government's ability to continue to support social spending.
- *Environmental*: Both growth and poverty reduction are at risk from acute shortages of water and energy, which threaten agricultural, industrial, and tourism sectors. Climate change is expected to hit Botswana particularly hard, with significant impacts on agricultural production and health.
- *Institutional*: Public sector capacity to plan and implement is perceived increasingly to be a source of weakness rather than strength, as evidenced by recent problems with major projects like Morupule B, SSKI airport, Fengyue Glass, stadiums, and schools. This is a risk in a country that relies so heavily on the government for investment and service delivery.

To eliminate rather than just alleviate poverty, particularly in the context of declining resource rents, will require diversification. But the answer is not to be found simply in a focus on diversification of production and exports

per se. Instead, what is needed is for Botswana to be more effective than it has been in the past in converting its natural resources wealth into productive assets and institutions, for its citizens and its firms, to support the development of a competitive, inclusive, and resilient private sector led economy. With this, the aims of economic diversification will be achieved (Box 1). It will also require continued focus on ensuring that all Basotho, regardless of location, background, and needs have access to quality assets and public services, including health, education, infrastructure (water, sanitation, electricity, housing), and credit. Finally, and critical to addressing all the challenges Botswana faces, is the need to improve the effectiveness, efficiency and accountability of public investment and public service delivery to ensure the sustainability of natural and fiscal resources and quality of development outcomes.

It is important to recognize that none of this is easy. It is also important to accept Botswana's reality. It is a small, landlocked country with a highly dispersed population and very challenging agri-climatic conditions. Its modern economy is still in relative infancy – just 40 years ago virtually no formal businesses operated in the country and only a fraction of the population were formally educated or participated in the modern economy. While the prudent management of diamonds resources has opened up huge opportunities that Botswana has exploited well, these historical and structural challenges restrict Botswana's potential today. In particular, Botswana's small and dispersed population raises barriers to achieving agglomeration and scale and increases service delivery costs. Moreover, highly specific skills are naturally in short supply and entrepreneurialism is still nascent. In this context, Botswana cannot do everything itself. Instead it must focus (where it has comparative advantage and can exploit niche opportunities) and it must be open to the region and the world (where it is more efficient and effective to exploit resources outside its borders).

Box 1: Diversified Development – an asset-building framework

A recent World Bank flagship report – *Diversified Development: Making the Most of Natural Resources in Eurasia* – outlined an innovative framework for looking at policies to promote diversification. Behind it was the key finding that the long-term experience of resource-rich nation (such as the United Kingdom and the United States, Australia and Canada, and Argentina and Brazil) shows that diversification of exports or production is neither necessary nor sufficient for economic development. Instead, the report found that diversification is the *result* and not the cause of successful development. And successful development in resource-rich countries is directly linked to how successful countries are in converting their resource revenues into built capital, human capital, and institutions.

So from a policy perspective the implication of these findings is that countries should worry less about trying to diversify production or exports, but rather focus on building diversified national asset portfolios – to ensure better balance between natural resources, built capital, and economic institutions, with an important focus on intangible assets intangible such as education levels, quality of healthcare, and institutions for managing volatile resource rents, providing high-quality public services, and effectively regulating private enterprise.

Source: World Bank (2013a)

1.3. Objectives and approach of the Systematic Country Diagnostic

The objective of this Systematic Country Diagnostic (SCD) is to address the question: *what are the most critical constraints (and opportunities) facing Botswana in accelerating progress toward the goals of ending extreme poverty and promoting shared prosperity in a sustainable manner?* The emphasis of the SCD is on identifying priorities over the next 5 to 7 years, while recognizing that some critical interventions will only bear fruit over the longer-term.

The SCD is expected to be a relatively brief report, based on a comprehensive analysis of the available evidence³, and developed in consultation with national authorities and other stakeholders, as well as all parts of the World Bank Group. In that context, this note draws from an extensive set of reports, papers, and studies carried out by the World Bank, the government of Botswana, development partners, and academics and research institutions. A full list of these reports is provided in Annex 5 and most are also included in the references at the end of the note. It is worth noting in particular the forthcoming World Bank *Botswana Poverty Assessment*, which formed the critical baseline for assessing poverty trends in Botswana.

In addition, the SCD was informed by extensive consultations with key stakeholders in Botswana, including government, parastatals and agencies, the business community, civil society organizations, development partners, academics and research institutes. The purpose of the consultations was to seek inputs from key external stakeholders on specific issues as part of the systematic and evidence-based identification of Botswana's key opportunities and challenges towards achieving the twin goals. Stakeholder consultation included several workshops as well as one-on-one sessions. Annex 2 provides a brief overview of these consultations. The SCD benefited in particular from consultations with government in the context of Vision 2041 and of NDP 11.

1.4. Structure of the note

The remainder of this SCD is structured as follows:

- *Chapter 2: Understanding poverty in Botswana: profiles and progress:* presents an analysis of recent trends in poverty, inequality, and the welfare of the bottom 40 percent of the population; it includes profiles of the poor by demographic and geographic perspectives, as well assessing the main determinants of poverty.
- *Chapter 3: Growth assessment: drivers, constraints, and risks:* presents an analysis past growth patterns and recent trends, including an assessment of the main sectors, trade and investment, and private sector development, as well as implications for labor markets.
- *Chapter 4: Inclusion assessment: building assets at the micro-level:* assesses the degree to which individuals and groups are in a position to build and leverage assets to contribute to and benefit from growth; this includes analysis of education, skills, health, and other key assets along dimensions of gender, location, socioeconomic status, and ethnicity.
- *Chapter 5: Sustainability assessment: managing resources for long-term prosperity:* assesses the increasing challenges Botswana faces in managing natural resources and fiscal vulnerabilities, and analysis the effectiveness of the public sector in managing these challenges and in converting natural endowments to productive, sustainable assets.
- *Chapter 6: Prioritizing the challenges:* summarizes the main challenges and identifies key short and medium term priorities to meeting the aims of poverty eradication and improving the welfare of the bottom 40 percent in a sustainable way.

³ SCDs are not expected to carry out substantial new research or analysis, but should identify key knowledge gaps for future work.

2. Understanding poverty in Botswana: profiles and progress

Identifying the challenges to eliminating poverty and promoting shared prosperity requires an understanding of the scope and nature of poverty in Botswana today. This chapter, which draws on the recently completed Botswana Poverty Assessment⁴, will show that Botswana has made major strides in reducing poverty over the past decade. Nevertheless, poverty remains relatively high and concentrated among certain groups. Most importantly, inequality is still extremely high, and acts as a barrier both to growth and poverty reduction.

2.1. Overview: poverty, shared prosperity, and inequality

Improvements across the board, driven by rural areas

By all measures, poverty declined sharply and living standards improved in Botswana over the last decade (Table 1). The share of the population below the national poverty line fell from 30.6 percent to 19.4 percent between 2003 and 2010. Thus, around 150,000 people moved out of poverty. Similarly, the incidence of extreme poverty, as measured by the national food poverty line or the international standard US\$1.25/day, fell from around 23 percent to between 13 and 14 percent during this period. The depth and severity of poverty⁵ has also fallen – i.e. the poor have become less poor. Measures of asset poverty and food poverty confirm these trends, but also highlight that poverty remains a serious concern in Botswana (Table 1).

Poverty reduction has been accompanied by significant improvements in shared prosperity. The growth incidence curve⁶ (Figure 3) shows consumption per capita among the bottom 40 percent of population grew 4.9 percent annually in real terms between 2003 and 2010, compared with just 1.1 percent for the upper two quintiles. Performance on this ‘shared prosperity indicator’ was among best in Africa, although just average compared with other upper middle income countries. Reductions in poverty were strongest in rural areas, while in urban areas improvements were modest (Table 1). Figure 3 shows why this was the case – across all income deciles, consumption growth in rural areas was far above urban areas. Moreover, in urban areas, per capita consumption actually declined for the top 40 percent of the income distribution between 2003 and 2010, suggesting the possibility of a squeeze on the urban middle class.

Table 1: Poverty rates by stratum, 2003 and 2010

	National poverty rate			Extreme poverty rate			US\$1.25/day poverty rate		
	2003	2010	Change	2003	2010	Change	2003	2010	Change
Botswana	30.6	19.4	-11.2	22.7	13.8	-8.9	23.6	13.4	-10.2
Cities/Towns	10.7	8.0	-2.6	5.1	4.7	-0.4	5.1	4.4	-0.7
Urban villages	24.9	19.9	-5.0	18.5	14.2	-4.2	19.3	13.7	-5.5
Rural areas	45.2	24.4	-20.8	35.0	17.8	-17.2	36.4	17.5	-18.9

Data source: Statistics Botswana (2014) comprising HIES (2003) and CWIS (2010)

Note: National poverty rate calculated at national poverty datum line as defined by Statistics Botswana; Extreme poverty rate calculated based on food portion of the national poverty line as defined by Statistics Botswana; US\$1.25 per day is the internationally comparable measure of extreme poverty which measures the share of the population with consumption per capita less than \$1.25 PPP a day expressed in the 2005 prices.

⁴ World Bank (2014a). The Poverty Assessment is based on the two most recent household surveys – 2002/03 and 2009/10

⁵ Measured by the poverty gap, which declined 46 percent for national poverty and 47 percent for extreme poverty.

⁶ Ravallion and Chen (2003); Growth-incidence curves plot per capita expenditure growth rates against percentiles ranked by the per capita expenditure, from poorest to highest – it provides a picture of how much growth has favored different income groups.

Figure 3: Growth incidence curves for urban and rural areas, 2003-2010

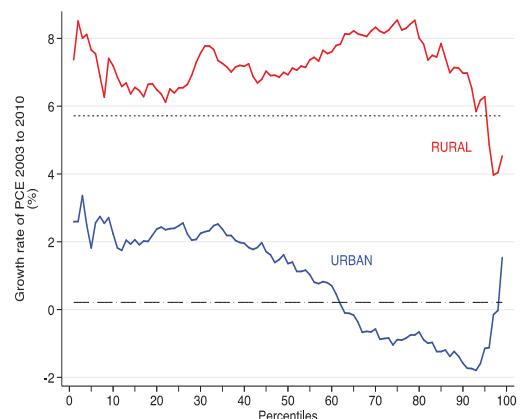
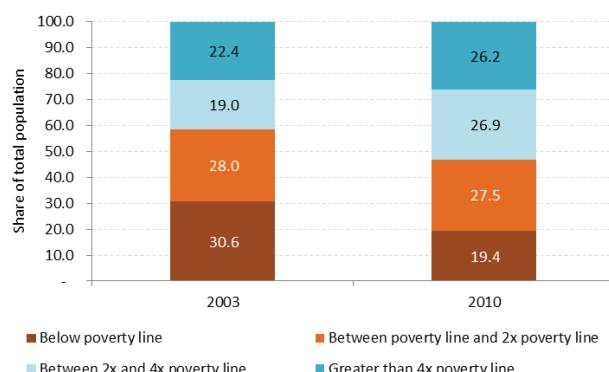


Figure 4: Distribution of population by consumption levels (2003 v 2010)



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

But many still at risk and inequality high

Figure 4 shows that Botswana made serious progress not only in moving people out of poverty, but also in transitioning them up through higher levels of consumption. While only 36 percent of the population had consumption more than twice the poverty line in 2003, this increased to 53 percent by 2010. But this also means that almost 28 percent of the population, while technically ‘non-poor’, is consuming at a level below an average P530 monthly (in nominal, 2009/10 Pula⁷). Given that a large share of these people are living in rural areas and dependent on subsistence farming and small holding of livestock, which is prone to significant output volatility, many remain at serious risk of falling back into poverty, at least on a temporary basis.

Box 2: Alternative measures of poverty⁸

Food poverty

Given the poor agricultural potential of much of Botswana, access to food remains an important dimension of poverty. A similar picture is revealed with respect to the depth of food inadequacy. At least 25 percent of Botswana was undernourished between 1990 and 2013, peaking at 36.3 percent in between 1998 and 2000; the incidence of food inadequacy⁹ averaged 43.5 percent, between 1990 and 2013. Both these are far above the average for upper middle income countries, and even higher than the Sub-Saharan Africa average. However, as with other dimensions of poverty food poverty fell significantly (by more than 20 percent) between 2006-08 and 2013.

Asset poverty

Ownership of physical assets is frequently used to examine the welfare status of households. Findings from the most recent household surveys show the number of assets owned by an average household increased by around one unit between 2003 and 2010. This translates to a steep decline of close to 40 percent asset poverty – from more than half of all households in 2003 to 30.7 percent in 2010. Growth in asset ownership was steepest for cell phones (from 15 percent to over 43 percent) and televisions (from 4 percent to 24 percent) among the poor, and in electric / gas cookers (from 36 percent to 56 percent) among those above the poverty line. Improvements in asset ownership were biased toward

⁷ This is the national average of households; Botswana’s poverty line is constructed so that each individual household would have a different line (based on location, size, etc)

⁸ Further discussion on poverty and access to basic services is covered in Section 4 of this report.

⁹ Source: FAO; Analogous to the well-known headcount poverty rate, food inadequacy is the proportion of the population whose food access is considered inadequate when benchmarked against minimum dietary energy.

households in rural areas (71.3 percent growth in assets) versus cities and towns (21.4 percent) and urban villages (38.2 percent). Growth in asset ownership was highest among the poorest deciles, which led to halving of the gap between rich and poor. Despite these gains, asset poverty remains high (60.4 percent for the poor) and concentrated in rural areas, among unemployed, and female-headed households.

Declining poverty has contributed also to reductions in inequality, although inequality remains exceptionally high by global comparison. The Gini coefficient of inequality¹⁰, as measured by per capita consumption, declined from 64.7 percent to 60.5 (Table 2). Using an alternative measure, per capita consumption among the richest 10 percent of households in Botswana was 19.2 times that of the poorest in 2003, it declined to 13.7 times by 2010. But this still leaves Botswana near the top of the table as one of the world's most unequal economies. The data show that it is the broad welfare improvements in rural areas driving the reduction in aggregate inequality, with within-group inequality in rural areas hardly changing over the decade.

Table 2: Inequality indices: 2003 and 2010

	Gini index			90 th / 10 th percentile ratio		
	2003	2010	Change	2003	2010	Change
Botswana	64.7	60.5	-4.2	19.2	13.7	-5.5
Urban	61.8	60.7	-1.1	19.6	15.0	-4.6
Rural	60.9	56.8	-4.1	10.7	10.5	-0.2

Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

2.2. Who are the poor and the less well-off in Botswana?

Like anywhere in the world, poverty, shared prosperity, and inequality in Botswana are unevenly distributed across groups and locations. The good news is that, in general, the biggest gains in recent years were experienced by the most vulnerable groups in Botswana.

Spatial: rural concentration, but changing patterns

Historically, poverty in Botswana has been strongly spatially defined – concentrated in rural areas and in remote regions. Generally, poverty rates increase the further one moves out from the A1 corridor in the southeast Lobatse, through Gaborone, to Francistown. As Figure 5 illustrates, the large majority of the poor are in the southeast and northeast of the country, where the population is concentrated, but acute levels of poverty are found in more remote areas, most prominently in the far northwest (Ngamiland) around the Okavango and Chobe, and in the west and southwest (Kgalagadi)¹¹. Pockets of very high poverty are also found in the southeast of the country, particularly in Kweneng and parts of the Central district.

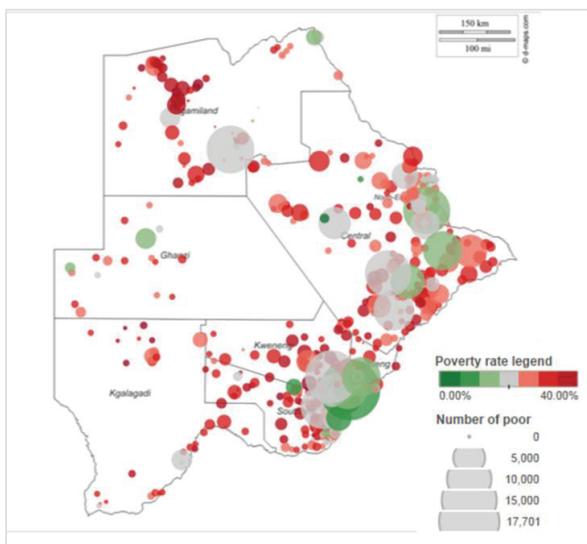
But while this spatial distribution of poverty has remained more or less consistent over time, contributing to the persistence of high rates of rural-urban migration over decades, the relative differences across locations have changed considerably. 87 percent of the fall in poverty between 2003 and 2010 occurred in rural areas; by consequence, poverty fell most sharply in the more remote regions, which are almost entirely rural. This has contributed to substantial regional convergence – as of 2010, only North West (30.1 percent poverty rate) and Ghanzi (26.0 percent) remain with poverty rates that are substantially above the national average (Figure 6).

¹⁰ We focus on the consumption measure of inequality in part because income data from the household surveys is incomplete. Note also that our measure of consumption inequality differs from the number published by Statistics Botswana, which uses a different methodology and calculates consumption at the household level.

¹¹ The Northwest and Southwest account for just 22 percent of the poor, while the Northeast accounts for 41 percent of the poor, and the Southeast for 38 percent of the poor

Patterns of extreme poverty have followed similar trends. Today, only marginally more of the poor (around 55 percent, or 190,000 individuals) live in rural areas, with the 45 percent (around 160,000 individuals) in urban settlements, mostly urban villages.

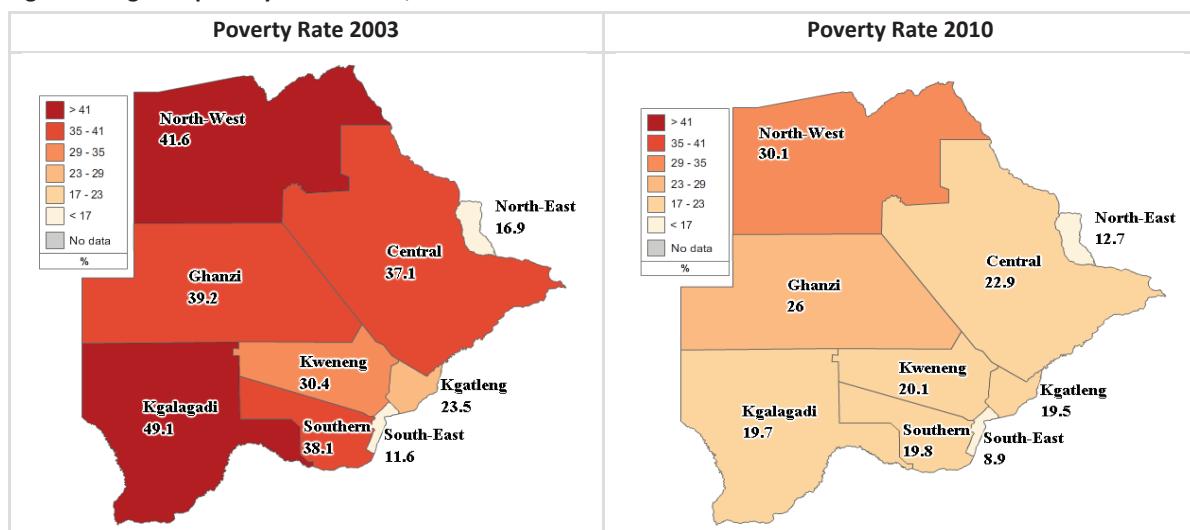
Figure 5: Poverty rates by village



Data Source: Statistics Botswana (2014) comprising HIES (2003) and CWIS (2010)

Note: Each dot represents a village, with color-coding indicating average poverty headcount (darker indicates higher poverty); size of dot indicates relative population levels

Figure 6: Regional poverty in Botswana, 2003 and 2010

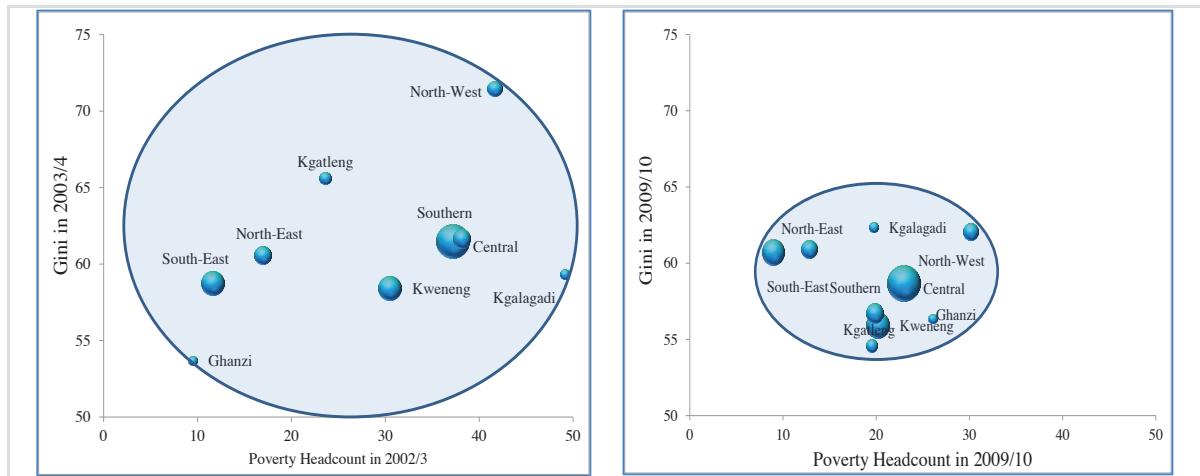


Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

This pattern of urban/rural convergence contributed significantly not only to reducing overall inequalities in Botswana, and to reducing the regional manifestation of inequality, which traditionally followed along the regional poverty distribution, with highest inequality in the Northern and South-Western parts of the country, and relatively lower inequality in the Central-Southern areas. The reduction in inequality between 2003 and 2010 was concentrated in the rural North-West and rural South-East provinces, while in Gaborone inequality actually increased by 3.6 percentage points (from 57.0 to 60.5). The strength of the spatial driver

of poverty reduction is illustrated starkly in Figure 7, which shows the significant convergence of both poverty and inequality across Botswana's regions.

Figure 7: Convergence in regional poverty and inequality in Botswana (2003 v 2010)



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

Demographic: pockets of concentrated poverty: children, large families, and female-headed households

Poverty is increasingly concentrated amongst the youngest Batswana. Historically, poverty followed a U-shaped pattern, peaking with the young and over 65s, with the working age population having much lower rates. However, between 2003 and 2010, poverty rates for these groups, particularly for the elderly and children under 5, fell sharply. As a result, children (age 0-19) are now the only age group whose share of the poor (57 percent) is higher than their share of the population (44 percent), with those between the ages of 6 and 14 now accounting for close to 30 percent of all the poor. Figure 8 shows that extreme poverty is also most pronounced among children, with the 6-14 age group having by the highest rate (20.3 percent, almost 60 percent higher than the national rate), followed by the 0-5 age group (18.5 percent). Overall, the chances of being poor are more than 36 percent higher among children than the general population. The age demographics of poverty are linked closely to household structures – *larger households* with more children are significantly more likely to be poor. In 2010, poor families had an average household size of 6.2 persons, while households of 5 or fewer have a poverty rate well below 10 percent.

Figure 8: Poverty levels and distribution by age group, 2003 and 2010

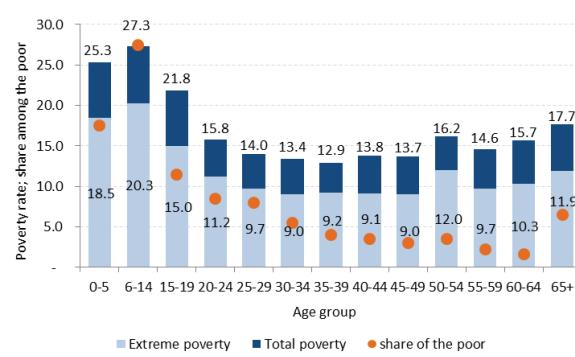
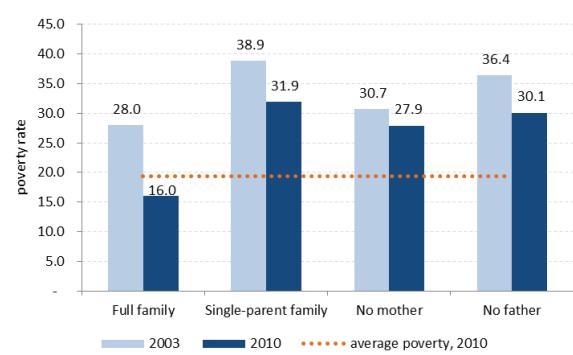


Figure 9: Poverty rates by family structure, 2003 and 2010



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

Family structure also has a substantial influence on the likelihood of being poor, with the poverty rate in single-parent families almost double that in families with both parents (Figure 9). The poverty rate for full families fell by 12 percentage points over the decade, suggesting the increasing importance of having scope for flexibility among earners at the household level.

While the *gender gap* is narrow on measures of overall poverty (20.5 percent of females versus 18.2 percent of males), female-headed households are significantly more likely to be poor – 58 percent of poor households are headed by females. This gap widened over the past decade.

Education also plays a crucial role in explaining poverty. More than 50 percent of households headed by someone with no more than a primary education are in the bottom two consumption quintiles (40 percent) versus less than 18 percent of those with a tertiary or university degree (Figure 10). However, poverty rates fell least among the secondary educated population between 2003 and 2010, underlining the declining relative returns to secondary education.

Finally, poverty levels are highest among the *unemployed and inactive*. In 2010, the rate of poverty in households where the head of household was employed was below 8 percent, while the rate for those that were unemployed was above 19 percent (Figure 11). The big change over the decade is the massive reduction in poverty in households whose head was inactive, from over 40 percent to 17 percent – the likelihood of being poor is now higher among households with an unemployed head than an inactive head. Employment is a buffer but not a guarantee against poverty – more than half of all poor households in Botswana (and almost two-thirds of poor households in cities) are headed by an employed individual.

Figure 10: Distribution of educational attainment by household consumption quintiles, 2010

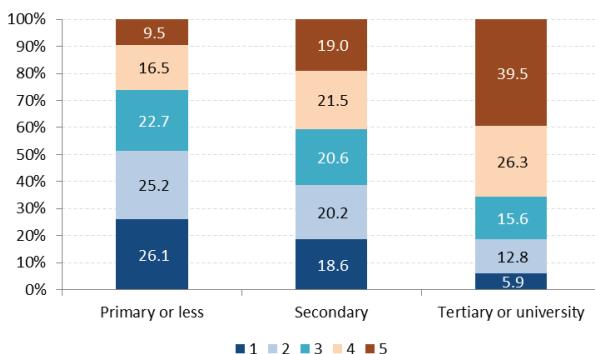
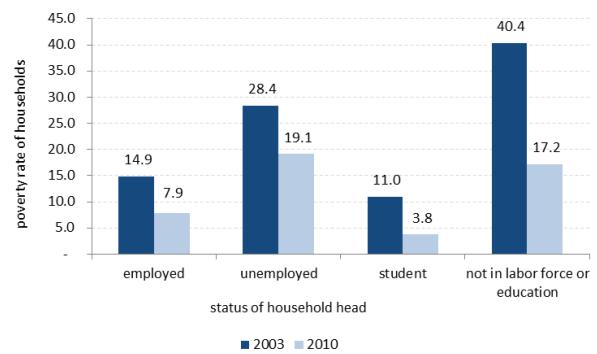


Figure 11: Household poverty level by employment status of head of household, 2003 and 2010



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

Determinants: employment, transfers, demographics, and credit driving down poverty

Employment, including formal jobs and self-employment, was by far the most important factor in driving higher consumption and poverty reduction over the past decade (Figure 12). The dynamics of the employment rates have been pro-poor and associated with rapid poverty reduction, particularly in rural areas. Demographic factors made the second greatest contribution to reducing poverty over the decade. As a result of declining fertility combined with HIV/AIDS-related mortality, the average household size declined by more than 16 percent in just 7 years (from 4.14 to 3.46). Subsequently the dependency ratio fell from 0.34 children and elderly per household

to 0.29¹². This explains almost one quarter of the poverty reduction between 2003 and 2010. In urban areas, increased access to loans (household lending from the banking sector expanded at close to 20 percent annually during the decade) also played an important role, accounting for more than 16 percent of the reduction in poverty between 2003 and 2010.

Figure 12: Contribution to poverty reduction by main factors, 2003-2010

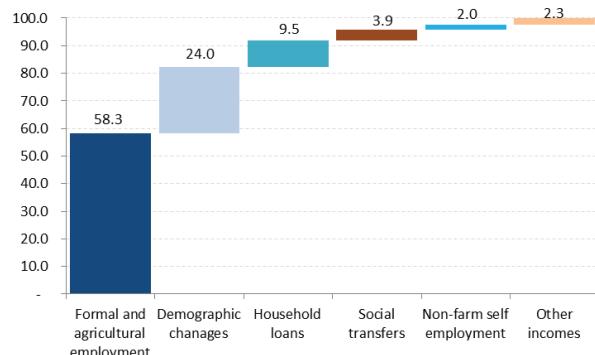
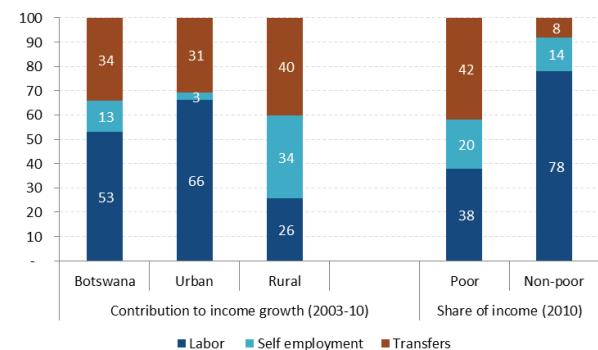


Figure 13: Contribution to income growth by location and share of income by poverty status



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

While social transfers appeared to be less important as a direct contributor to poverty reduction, they actually played a substantial complementary role. First, the large majority of employment came not through wage employment but through subsistence farming, subsidized substantially through programs providing in-kind transfers, like ISPAAD¹³. Thus, in effect, much of what appears to be employment-led poverty reduction really reflects social transfers. More than half of poor households in Botswana are headed by a working adult; but 80 percent of these working poor are self-employed, with about half of those in agriculture. Indeed, evidence from rural households suggests the combination of direct transfers and programs like ISPAAD, along with wage employment by at least one household member, was the key to escaping poverty. Social transfers were also critical for reducing the depth of poverty. Almost seven out of ten people, and up to nine in ten people among the poorest 20 percent, live in households receiving some form of government support from various social protection programs. Increased social transfers accounted for 34 percent of income growth among all households between 2003 and 2010, and 40 percent in rural households (Figure 13). For poor households, more than 40 percent of income came from social transfers in 2010.

As illustrated in Figure 14, inequality is explained mainly by within-group differences¹⁴ than by any aggregate determinant. Among the factors that do have some measurable impact are household size, number of children, and poverty status. Other factors like location (urban / rural and region), gender, educational attainment, and employment status have surprisingly little explanatory power. Moreover, these between-group determinants – in particular, location, gender, poverty status, and household size, contributed significantly to convergence over the past decade (Figure 15).

¹² Dependency ratio measures the average ratio of children under 15 years and above 65 years to total number of people in the household

¹³ Integrated Supported Program for Rainfed Arable Agricultural Development; See section 3 for additional details

¹⁴ Inequality is decomposed here to differences between categories (e.g. being in an urban versus a rural location) and differences within categories (differences among individuals in either an urban or a rural location); this decomposition follows the methods described in Shorrocks (1980)

Figure 14: Share of between and within-group inequality, 2010 (Theil)

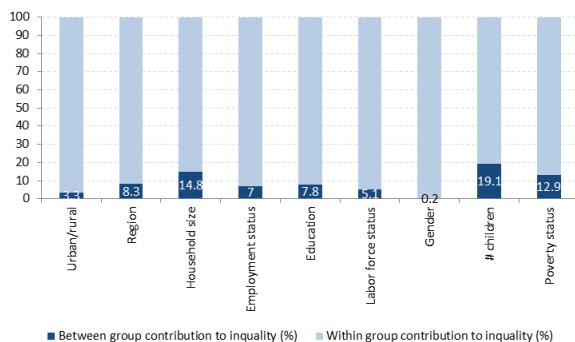
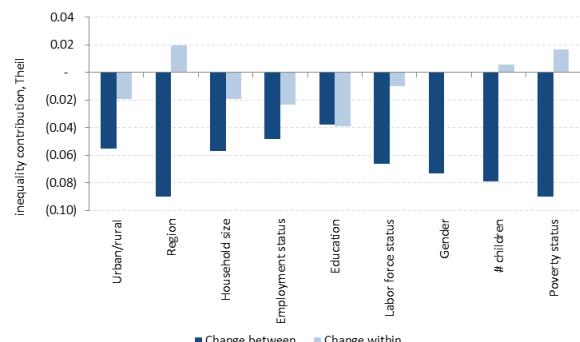


Figure 15: Absolute change in between and within-group inequality, 2003-2009 (Theil)



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

Box 3: Sectoral and historical factors behind inequality in Botswana

At the heart of Botswana's inequality problem is the extractives-based economy, and the fact that this economy emerged suddenly in a context devoid of almost any developed economic institutions. Prior to the discovery of diamonds Botswana was one of the world's poorest nations, with no real jobs or wealth creating sectors beyond rearing cattle. Diamonds brought wealth to the government, but not widespread employment. The mining sector overall accounts for less than 15,000 jobs – just 2.5% of national employment; moreover spillovers from infrastructure and supply chains are very limited. Thus, the spread of diamonds wealth required direct central redistribution from government. And by investing mineral rents in long-term asset building (physical and social infrastructure), the process of redistribution is necessarily slower than it would have been had the government, for example, made direct payments to its citizens. Given the nature of this growth dynamic, high concentration is not surprising. In this context Botswana's level of inequality is not out of line with global norms, particularly given the relative recent transformation of its economy (compared with countries like Chile, for example, where copper was a dominant sector from the early 20th century, but where inequality levels remain very high).

But inequality in Botswana has deeper roots, with historical inequalities strong both between and within groups. Given the harsh physical environment of Botswana, groups located in more parts of the country vulnerable to regular droughts (Okavango, Kgalagadi and Ghanzi and parts of the Kweneng and Ngakaketse) were less able to invest in education and building up productive assets¹⁵. And Tswana societies were strongly hierarchical – the elite controlled the cattle and access to water, while the serfs were left largely herding and without assets¹⁶.

2.3. Looking ahead: jobs are the key to reducing inequality and eliminating poverty

The inequality-poverty link

The dynamics discussed in this section contributed to a reduction in the headcount of the poor by more than 11 percentage points between 2003 and 2010. Two-thirds of the fall in the national poverty rate is explained by changes in inequality, which was the result of the disproportionately fast growth in the rural areas. Indeed, analysis suggests that if the growth rate in agricultural employment was in line with urban growth, the headcount poverty rate and inequality would have remained almost unchanged.

¹⁵ UNRISD (2012)

¹⁶ BIDPA and UNECA (2013)

Micro simulations indicate that, assuming the dynamics of growth from the 2003 to 2010 period continued, the national poverty level should have declined a further 3.7 percentage points to 15.7 percent, with extreme poverty falling to 10.5 percent (Figure 16; Figure 17). Assuming the main growth projections and the structure of growth remains in line with projections over the next five years, poverty should fall further, to just under 12 percent by 2018. Thus, in the current trajectory, Botswana should be in a position to continue to see relatively rapid poverty reduction over the next few years. Beyond this, however, further reduction in poverty will become much more difficult due to the high levels of inequality that remain. Projections suggest that the current growth trajectory will result in slowing reduction in inequality – in fact, inequality may well increase slightly in the next five years.

Figure 16: Poverty projections - national poverty headcount rate by location

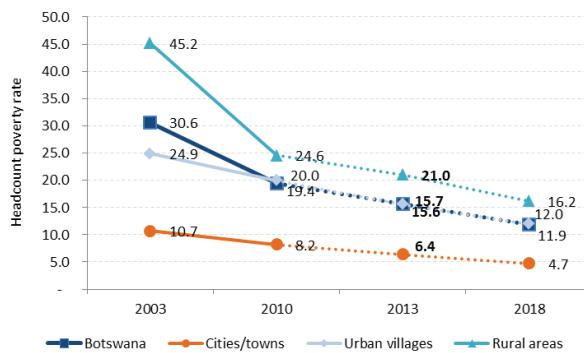
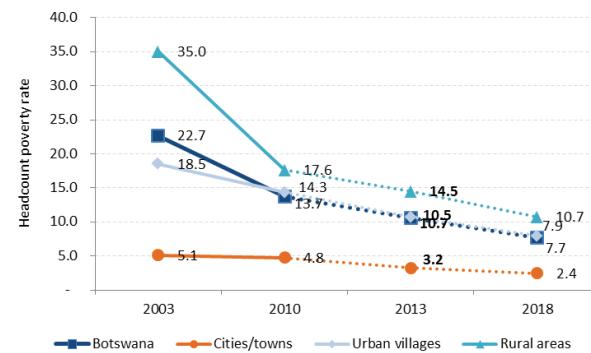


Figure 17: Poverty projections - extreme poverty headcount rate by location



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

In a neutral growth scenario (i.e. where consumption growth is constant across income groups), a 40 percent cumulative growth rate in consumption per capita is required to halve the poverty rate (from 19.4 to 10 percent). Assuming average growth of 4 percent per annum it would take 7 to 8 years to achieve this goal, and thus up to 25 years to eradicate poverty. If growth coincided with further reduction of the inequality, poverty could be reduced much faster; thus, halving the poverty rate could be achieved in 4 years if growth is associated to the 2 percentage point reduction in the Gini coefficient (Figure 18). By contrast, an increase in inequality would have the opposite effect: if the Gini coefficient increases by 2 percentage points, poverty will not fall even with cumulative growth of 30 percent.

Social protection can play a major role in eliminating extreme poverty

Thus, for Botswana to achieve continued rapid progress toward eradicating poverty, not only will robust aggregate growth be needed, but growth will need to continue to be at least as strongly pro-poor as it has been over the past decade. One key to achieving this will be through social protection systems. Social protection is already playing an important role in poverty reduction in Botswana. The simulated poverty headcount at the national poverty datum line is 25 percent lower than it would be in the absence of social protection transfers (19.4 versus 24.3). Moreover, the depth of poverty is much lower as a result of social protection: the poverty gap is estimated to be 69 percent lower as a result of social protection. Findings from a recent assessment of Botswana's social protection program¹⁷ indicates that the total amount spent on social assistance annually in Botswana would be more than enough to completely close the consumption gap and eradicate poverty.

¹⁷ World Bank and BIDPA (2013)

Assuming perfect targeting, the annual cost of giving every poor person just enough to fill in their consumption gap would be P407 million or 0.33 percent of GDP – this is far below the level spent on social protection at present (Figure 19), and even on some individual programs within it. *Further details on social protection and the potential impact of social protection reforms on poverty reduction and inclusion are provided in chapter 4.*

Figure 18: Poverty trace curve – assessing poverty at different levels of inequality

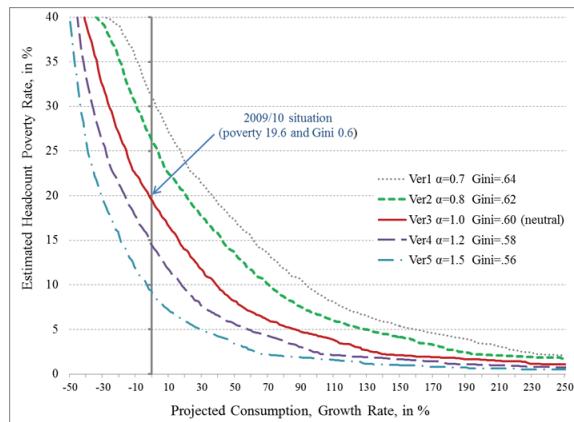
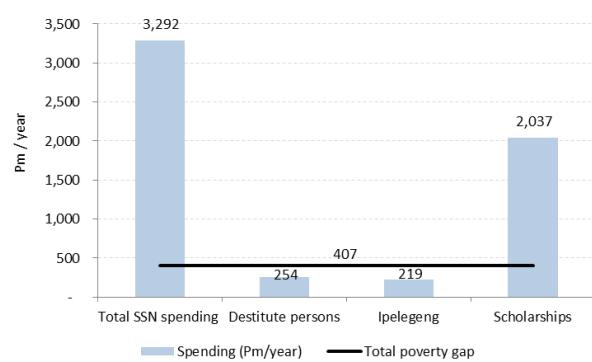


Figure 19: Social protection spending relative to consumption gap (2009/10)



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

Left panel: 2003 and 2010 are actual figures, 2014 and 2018 projections based on the micro simulation approach

Right panel: World Bank Staff's calculations. Where α is the disproportional ratio of consumption growth of bottom 40 percentile of consumption distribution. $\alpha=1$ suggests neutral growth. $\alpha < 1$ indicate increase in the inequality, while $\alpha > 1$ suggests reduction in the inequality or pro-poor growth. The neutral growth scenario is depicted in the red line. The initial situation is 19.4 poverty rate and 0.6 Gini. Higher inequality shifts the PTC lines upwards, while lower inequality pushes them downwards. The higher the inequality the more consumption growth is required to reduce poverty

Broad-based job creation is the key to making poverty elimination sustainable

However, while social protection can play a key role in shifting inequality and reducing poverty, it will not be sufficient, and certainly not sustainable, in isolation. Reducing inequality will require much higher rates of employment, both formal and informal. Botswana has experienced high structural unemployment (averaging around 20 percent) combined with relatively low labor market participation over a long time period. While unemployment was historically a rural phenomenon, strong rural-urban migration has shifted part of the problem into the urban areas. But regardless of the location, at the heart of the problem is the extractive nature of the Botswana economy, and the growth model that derives from it, which has failed to create the employment opportunities necessary to ensure the sustainability of poverty elimination shared prosperity. *Chapters 3 and 4 explore the potential for greater employment generation in more detail, assessing the macro-environment for sustainable growth, and the micro-level environment for individuals and groups to take advantage of growth for productive employment and to improve human development outcomes.*

3. Growth assessment: drivers, constraints, and risks

Eliminating poverty and ensuring shared prosperity on a sustainable basis requires strong growth. But as this chapter will show, the nature of growth will need to change, from public sector channeling of minerals revenues to a model which is private-sector driven, export-oriented, and, most importantly, job creating.

3.1. Historical growth model and the challenge of diversification

A history of strong growth on the back of diamonds

Botswana has experienced sustained growth – GDP per capita expanded at an annual average of 6.4 percent for close to 50 years. Such rapid growth was made possible by the unique impact of large diamonds revenue (see Box 4). At its peak in the early 1980s, minerals (mainly diamonds) accounted for more than 50 percent of Botswana's GDP and fuelled annual growth well in excess of 10 percent (Figure 20). Following the 1980s, however, GDP growth slowed rapidly as diamonds moved into steady-state production, and growth trended further downward during the 2000s. While slowing growth is not to be welcomed, neither should it be unexpected. Botswana's rapid growth in the 1980s and 1990s came off an extremely small base – at independence, Botswana's per capita GDP was just US\$80 (around US\$480 in 2005 prices). In fact, Botswana's growth compares favorably with the Growth Commission's "post-war growth success stories"¹⁸, and remained on track with this benchmark in the 2000s up until the global financial crisis.

Box 4: Diamonds in Botswana - a unique situation in a unique industry

There is no doubt that Botswana played its hand well since the discovery of diamonds. But it is also important to recognize just how special a hand the country was dealt. Following discovery of diamonds just after independence, the first major mine opened at Orapa in 1972, with Jwaneng (the world's richest diamond mine) opening in 1982. Thanks to the unique historical structure of the industry, diamonds have largely avoided the cyclical booms and busts in pricing that characterize most natural resource commodities. Until relatively recently, Debeers¹⁹ controlled more than 90 percent of the world's supply of diamonds, and were strongly vertically integrated from mining through distribution, marketing, and retailing. This extreme market power allowed Debeers to maintain rising prices and income by controlling output²⁰. For Botswana this has meant stable income flow and avoidance of volatile swings in terms of trade that can depress growth. Perhaps most importantly, Botswana's position in the diamond sector is unique among resource-rich countries. Botswana's diamond mines are by far the largest and most productive (profitable) in the world. This allowed the Government of Botswana to negotiate from a position of power, which enabled it to secure more than 80 percent of the revenue stream flowing from diamond operations in Botswana, and more recently to secure major concessions from Debeers to move global diamond aggregation and sales to Gaborone to support the development of diamond value-addition in Botswana.

While this unique situation has clearly been a boon to Botswana, it also raises certain challenges, which are discussed throughout this note. An obvious one is the heavy reliance of the government on diamond revenues. A related, and perhaps more far-reaching one, is the fact that the impact of diamonds on the economy is almost purely fiscal – the sector creates little employment and there are relatively few supply and infrastructural spillovers. This has serious implications for the inclusiveness of growth, and puts extraordinary obligation and responsibility on government, as the intermediary of diamonds rents.

¹⁸ Commission on Growth and Development (2008); the report highlights the cases of 13 countries (including Botswana) which experienced rapid and sustained GDP growth in the era since the Second World War

¹⁹ Now owned by Anglo-American

²⁰ In practice, output is also managed to avoid major fluctuations, with cyclical excess stockpiled and later released into the market.

But diamonds are (still) not forever

Growth since the crisis has been robust, averaging more than 6 percent annually between 2010 and 2013 – more than twice the global average. This comes despite value added in the mining sector remaining 40 percent below its pre-crisis peak. Indeed, while the return to solid growth is partly a function of stabilization in the mining sector, the crisis may have accelerated the ongoing structural decline of diamonds. It would be wrong to dismiss the continued growth potential of the diamond sector in Botswana. New discoveries have led to several new mine openings recently, and the development of new extractive technologies is likely to extend the life of some of the country's most productive mines. Moreover, global demand looks to outstrip supply in the medium term, which should contribute to buoyant market prices. The development of a diamonds cutting and polishing industry in Gaborone is also helping Botswana to capture additional value beyond rough diamond exports. But despite these positive developments, Botswana is already past the heady days of the diamond bonanza. Diamond production began to decline from its peak of over 34 million carats already by 2007 and has plateaued around 22 to 23 million carats. Further exploitation of Botswana's largest mines (Jwaneng and Orapa) will require substantial new investments, which will reduce profits and the fiscal take. So while recent reports of diamond production extending to 2050 may well come to fruition, the basic fact that diamonds are a declining resource remains as relevant as ever.

The growth model: diamonds revenues and public investment

Botswana's traditional growth model has involved taking mineral revenues and investing in education, health, and other public and social infrastructure, with the intention of building the infrastructure and human capacity for the development of sustainable, diversified sectors. This has meant high levels of public investment with growth being driven by capital deepening. Despite the changing economic structure in recent years, fixed capital formation remains well above the levels of peers (Figure 21), although it is still well below the levels of many East Asian economies (which reach 35-40 percent) and below the target of 40 percent (average 1996-2016) initially set in Vision 2016²¹. The relatively high levels reflect continuing investment in infrastructure by the public sector, which accounts for around 40 percent of capital formation, and by parastatals.

Figure 20: Real²² GDP growth: annual and decadal average (1970-2014F)

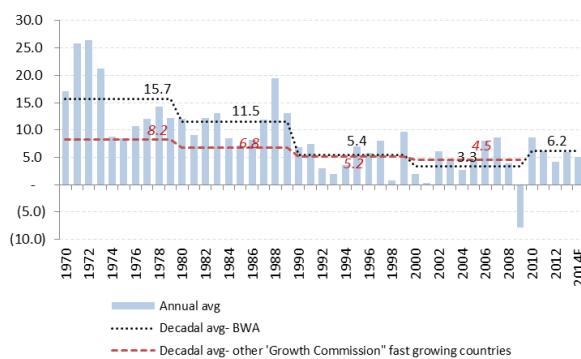
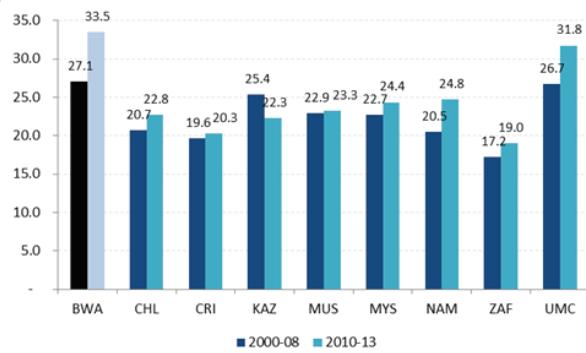


Figure 21: Gross fixed capital formation as share of GDP: average 2000-08 and 2010-13



Left panel: Data sources - Statistics Botswana and WDI; Latest decadal average covers actuals 2010-2013; World Development Indicators (WDI); "Other Growth Commission Countries" include Brazil; China; Hong Kong SAR, China; Indonesia; Japan; the Republic of Korea; Malaysia; Malta; Oman; Singapore; and Thailand; Taiwan, China not included.

Right panel: Data source – WDI

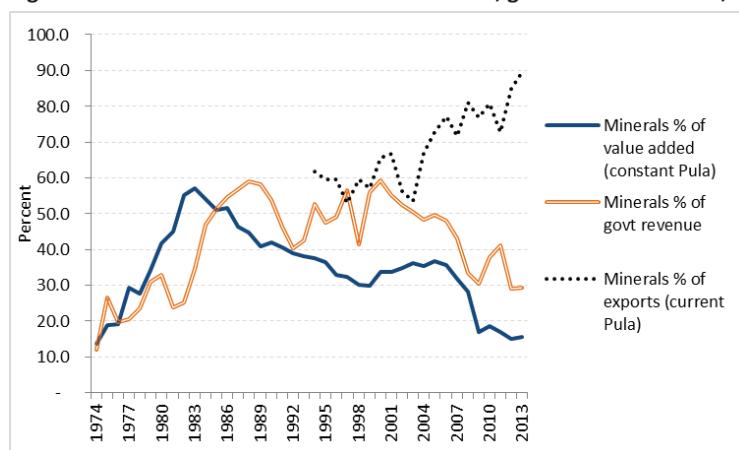
²¹ OECD (2013)

²² All real / constant GDP and value added figures in this note are shown at 2006 prices

Did the model work? A snapshot of progress on diversification

There is no doubt that Botswana has diversified significantly in recent decades. On the most basic measure of diversification – share of economic output – minerals contribution has declined from a high of close to 60 percent of value added in the early 1980s to below 16 percent in constant terms (Figure 22). Similarly, the contribution of minerals to fiscal revenues declined from around 60 percent (reached in 1988 and again briefly around 2000) to around 30 percent today. On the other hand, Botswana remains almost fully dependent on diamonds for its exports – indeed, even more so today than it has been in the past²³. This raises questions over the sustainability of other aspects of diversification, as will be discussed in the next section and again in Chapter 5. And given the importance of government employment and spending in driving many other parts of Botswana’s economy, the real impact of diamonds goes much deeper. The reliance on diamonds was laid bare during the 2008-09 global financial crisis, when major decline in the global market for diamonds contributed to a 8 percent contraction in Botswana’s GDP and forced the government to run down significantly their fiscal buffers and take on substantial new debt.

Figure 22: Minerals contribution to value added, government revenue, and exports over time



Data sources: MFDP, BoB

3.2. The challenge of diversification remains

A consumption-led growth model, but is it sustainable?

So what is replacing diamonds in the growth model? Figure 23 and Figure 24 show clearly it has been services and consumption. The structure of output in Botswana was remarkably static between 1994 and 2003. But services began to play a more important role in the pre-crisis years, and accelerated through the crisis, with mining’s contribution to GDP falling from one-third to one-quarter following the crisis. This was not simply due to declining diamonds output – two-thirds of the growth in services contribution to GDP was explained by real growth in services, while just one-third is explained by declining minerals output. While all parts of the services sector are growing, in the post-crisis years growth has been particularly strong in consumption-oriented segments, in particular retail and vehicle trade. Data on GDP composition by expenditure also gives an indication of how important consumer spending has become for Botswana’s economy (Figure 24). Again, the post-crisis period marks a significant shift from the previous 15 years, with net exports turning negative, investment rising

²³ Although some of the very recent growth in the share of diamonds exports (since 2010) is related to diamond aggregation and re-exports

moderately, and household final consumption increasing sharply, from less than 40 percent of GDP to 50 percent between 2010 and 2013. Between 2004 and 2013, per capita consumption in Botswana grew by close to 9 percent annually in real terms (15.6 percent in nominal terms – see Figure 27), from less than 2 percent annually in the period 1994-2003.

How sustainable is this new pattern of consumption-led growth? Consumption share of output in Botswana has historically been low, and it remains well below the level in peer countries (Figure 28). However there are three main reasons to be concerned over sustainability of the diversification trajectory, and therefore of growth more generally: i) weak private sector job creation, low wage growth, and increasing household debt; ii) the continued reliance on public investment to drive growth, in the context of future fiscal vulnerabilities; and iii) the failure of export diversification and the vulnerability of growth to declining external balances.

Figure 23: GDP composition by sector (5-year avg in current prices)

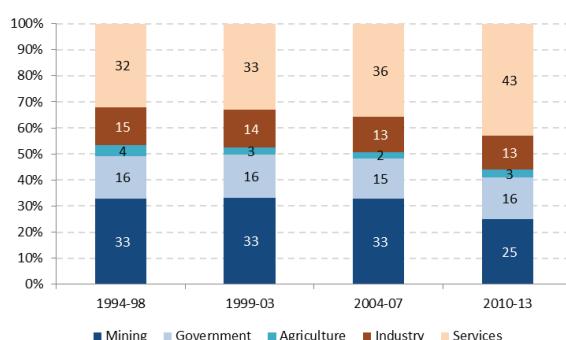
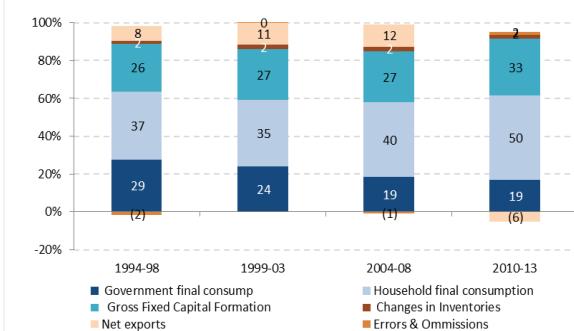


Figure 24: GDP composition by expenditure (5-year avg in current prices)



Data source – Statistics Botswana; Main year of the global economic crisis (2009) excluded

Weak job creation, slow wage growth, and increasing household debt

One of the concerns about the nature of growth in Botswana is its weak capacity to create jobs. An assessment of the most recent household surveys²⁴ (2003 and 2010) shows a mixed picture of the labor market. While employment grew strongly and unemployment fell between 2003 and 2010, more than half of all new jobs came in small-scale or subsistence agriculture (where the poor are concentrated), heavily supported through government programs like ISPAAD. Evidence from similar previous programs²⁵ suggests that employment levels may fall back sharply if subsidies were to be discontinued or scaled back. Outside of agriculture, job creation has mainly been coming from the public sector, although this has slowed considerably since a de facto hiring freeze was imposed in 2010.

The private sector is struggling to create jobs. The formal private sector created on average just over 3,000 jobs per year over the period 2003 to 2010, far below the level needed to absorb the 15,000-20,000 annual new entrants to the labor market (Figure 25)²⁶. And the non-farm informal sector has not been effective as either a stepping stone to formal sector employment or to absorb excess labor. While the pace of growth of non-farm self-employment has increased in recent years, it still accounts for just 23 percent of private sector employment

²⁴ Statistics Botswana does not carry out regular labor market surveys. It publishes quarterly estimates formal employment (although the last published is only from September 2012). The last labor market survey was carried out in 2005-06.

²⁵ For example, the Accelerated Rainfed Arable Programme (ARAP)

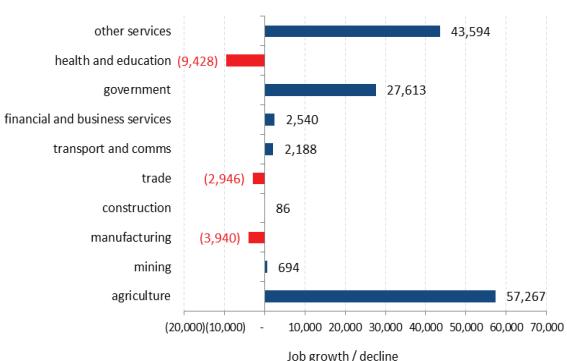
²⁶ World Bank (2014c)

and 10 percent of all employment, well below the level in peer countries. Job creation has been particularly weak in urban areas, where non-agricultural private sector employment grew below 1 percent annually between 2003 and 2010. And virtually all private sector job creation has come in untraded (local) services. By contrast the manufacturing sector has shed jobs and the construction sector has been stagnant (Figure 26). Thus, opportunities for lower and mid-skilled Batswana have been limited.

Figure 25: Formal sector employment and annual growth: 1999-2012



Figure 26: Job creation (formal and informal) by broad sector: 2003-2010



Left panel: Statistics Botswana (various reports)

Right panel: Data source: Statistics Botswana (2014) comprising HIES (2003) and CWIS (2010)

KNOWLEDGE GAP: THE INFORMAL ECONOMY IN BOTSWANA

As noted above, while subsistence agriculture is large and growing in Botswana, informal activities outside the agricultural sector appear to be relatively small in size lacking dynamism, particularly in light of limited employment creation in the formal sector. Labor market surveys that cover the informal economy come out only infrequently (every 5-7 years) and provide only a broad snapshot of those earning incomes in informal activities. Beyond this little is known about the Botswana's informal economy: the nature of activities; the factors which contribute to informal participation; the constraints to formality and to operating informally; and perhaps most importantly, the potential of home-based enterprises and other informal activity in absorbing labor, supporting household incomes, and moving people out of poverty. Moreover, the degree to which the formal and informal economy operate as complements or substitutes (and what potential there is for this to change in the future) is poorly understood.

In this labor market environment, households are becoming increasingly indebted, as growth in wages, particularly among public sector workers²⁷ (Botswana's core consuming class) has been far below the rate of consumption (Figure 27). Between 2004 and 2013, bank lending to households grew by more than 20 percent annually. This comes off a low base – bank credit to the private sector in Botswana still represents only around 30 percent of GDP, well below all peer countries (Figure 28). But this is almost double the level of a decade ago; and a recent analysis of take-home pay²⁸ in the public sector shows that average loan repayments (including for mortgages) rose from 14.5 percent of gross salary in 2004 to 21.5 percent in 2014²⁹.

This expansion in credit excludes debts to smaller microlenders, which have grown rapidly, retail store credit,

²⁷ However, as Grynberg (2014) shows, while wage growth in the public sector has been restrained, there has been a rapid growth in allowances, which have grown in share of total emoluments from 33 percent in 2005 to 45 percent in 2014.

²⁸ Grynberg (2014)

²⁹ The public sector has an arrangement with bank and large microlenders to ensure monthly loan repayments by garnishing wages at source, virtually eliminating repayment risk.

and other non-bank sources of credit. With interest rates currently at their lowest level in more than 20 years, the concern is that any future increases in the interest rate may expose significant vulnerabilities. This is not likely to threaten stability in the financial sector (non-performing loans remain low) but may result in stress on Botswana's households, and contribute to slowing growth.

Figure 27: Nominal consumption, wage, and lending growth (2005-2013)

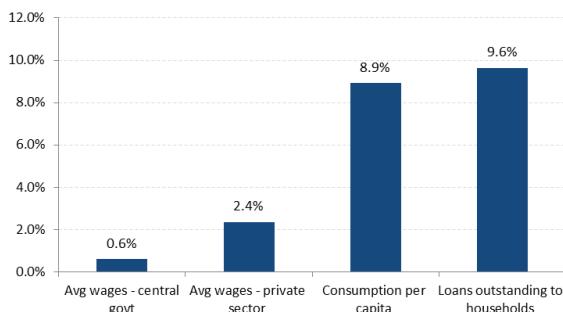
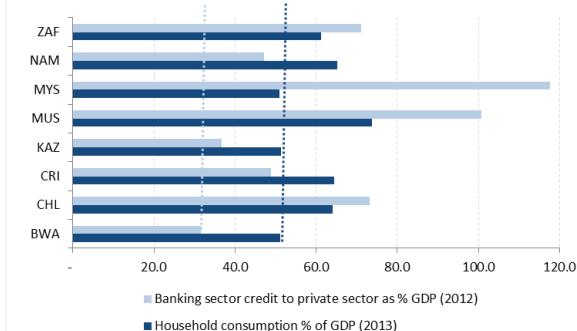


Figure 28: Consumption and credit: Botswana v peer countries



Left panel: Data sources – Bank of Botswana; Statistics Botswana; Wage data based on average monthly cash earnings, 2004-2012

Right panel: Data source: WDI

Overreliance on public investment and weak productivity performance

Diversified growth in Botswana has relied extensively on investment, most of which has originated from the public sector and parastatals. Figure 29 shows that capital deepening has accounted consistently for around two-thirds of growth since the early 1990s. Total factor productivity (TFP), meanwhile, has had a negative contribution to growth throughout the period. While capital stock grew strongly and consistently, the pace of growth in labor and in human capital (proxied by education levels) slowed throughout the 2000s. With fiscal conditions tightening, government will not be in the position to continue to drive such high investment levels on a consistent basis in the medium term, raising the importance of private sector investment, but also of making a step change in productivity performance.

Figure 29: Growth accounting analysis with human capital by period, 1994-2010

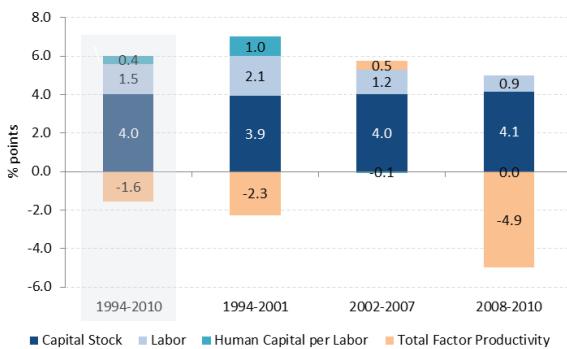
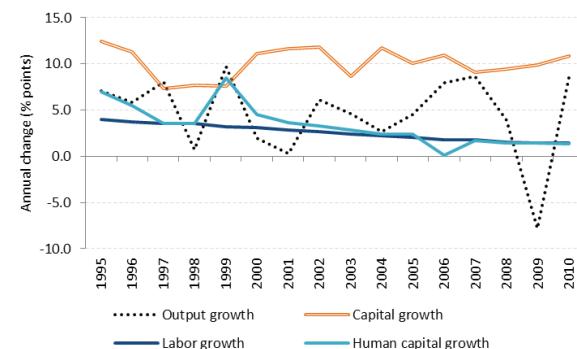


Figure 30: Annual growth of components of growth accounting model, 1995-2010



Data sources: various, including WDI, Statistics Botswana (2014), MFDP, BoB

Note: Growth rates are weighted according to the income share of capital = 40%

Analysis of productivity in Botswana is somewhat distorted by the large contribution of the mining sector and its volatility. Clearly the major drop in TFP between 2008 and 2010 is a function of the collapse in mining output in the context of a large fixed stock of capital and relatively limited variable labor. Unfortunately, data does not

allow for a robust analysis of TFP at the sectoral level. But it is possible to do so for labor productivity, and here the story is different. Figure 31 shows that non-mining labor productivity contributed around 1.3 percentage points to annual (non-mining sector) growth between 1996 and 2010. Productivity growth contribution was also fairly steady across this period, although it was particularly rapid in 2008-2010 (which may be distorted by the fiscal stimulus which inflated the non-mineral economy). At the same time, demographic factors, perhaps linked to HIV/AIDS, were a drag on growth across the period.

Most of this productivity growth is being driven by the services sector (Figure 32), while manufacturing has also had a positive contribution, although the latter in the context of jobs-shedding. Indeed the data on capital and labor contributions highlight the slow growth in employment in the overall economy. But they also show that while the link between growth and employment is weak overall, it is much stronger in the non-mining economy. The non-mining primary sector, mainly agriculture, contributed negatively to productivity growth. Looking more deeply at the services sector, most sectors experienced productivity growth although the largest sector from an employment perspective – government – contributed negatively to productivity growth. The combination of relatively strong employment growth in low productivity sectors like agriculture (and to a degree, government) contributed to a negative inter-sectoral impact on growth, indicating low poor allocative efficiency. So while productivity growth is robust in the tertiary sector, overall productivity growth is being held back by slow structural change – labor is not moving quickly enough out of the primary sector and into the secondary and tertiary sectors.

Figure 31: Decomposition of non-mining per capita value added growth, by 5-year periods, 1996-2010

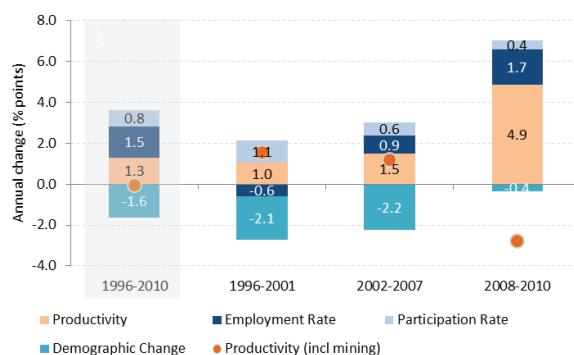
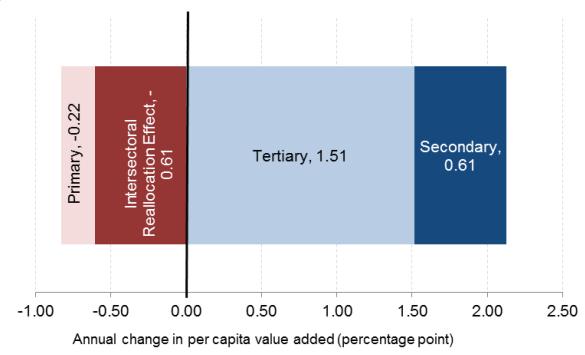


Figure 32: Decomposition of non-mining labor productivity growth by broad sector, 1996-2010



Data sources: various, including WDI, Statistics Botswana (2014), MFDP, BoB

Note: Shapely decomposition analysis

External vulnerability

Botswana's failure to achieve successful diversification of exports raises a significant risk to growth in the medium term. The countercyclical strategy in response to the collapse of diamonds exports during the global financial crisis had a severe impact on Botswana's foreign exchange reserves, and only limited progress has been made on rebuilding them since. Foreign exchange reserves fell from 90 percent of GDP in December 2008 to just 55 percent of GDP in December 2013 – a decline of almost 40 percent. Box 5 presents a basic simulation of the external implications of Botswana experiencing another demand shock for diamonds. It also models the more certain, longer-term scenario of slow decline in diamonds output. The simulations show that the real concern is indeed not another shock, but the longer-term decline of diamonds. It shows clearly that in the absence of significant growth in exports outside of diamonds, Botswana may already begin to experience a balance of payments crisis by the late 2020s. Such a situation would quickly become unsustainable and could lead ultimately to a substantial contraction of GDP.

Box 5: Simulating a short-term shock and the long-term decline of diamonds on external balances

Short-term shock scenario:

In terms of balance of payments (BoP), if we assume that a major global shock to the diamond market had a total impact equivalent to the loss of 6 months of diamond exports (similar to the global financial crisis), the cost would be P17.5 billion, or just under 40 percent of annual exports (net of diamond re-exports). Maintaining imports in the face of such a shock would be feasible, although the foreign exchange reserves would drop significantly to around P50 billion – or down to some 40 percent of 2013 GDP. Import cover would also fall by around 4 months as a result. Essentially, Botswana could afford to withstand one more crisis of a similar magnitude to that of 2008-9, but it would use up the last of the ‘spare capacity’ in the foreign exchange reserves to support the BoP.

Slow decline scenario:

Although the present buffers can accommodate a shock to diamond exports, their ability to cope with long-term structural change is quite different. Botswana is already past peak diamond production and within ten years it is likely to reach peak revenues in nominal terms (Figure 33). Without substantial growth in non-diamond exports, this will quickly lead to balance of payments deficits and require a drawdown of foreign exchange reserves. With diamonds accounting for 75 percent of total exports, it is evident that a decline in diamond exports – in real terms, relative to GDP, not necessarily in absolute pula terms – will quickly deplete the foreign exchange reserves, unless other adjustments take place. Although the dynamics of such long-term developments are complex, a simple modeling exercise suggests that even with a slow reduction in diamond exports, the foreign exchange reserves would be exhausted after ten years³⁰ (Figure 34). In practice of course, such a situation is not sustainable and would require either a substantial expansion of non-diamond exports or would lead to severe import compression and a decline in investment that the economy would contract (experience negative growth).

Figure 33: Projected future diamond revenues, 2014-2040

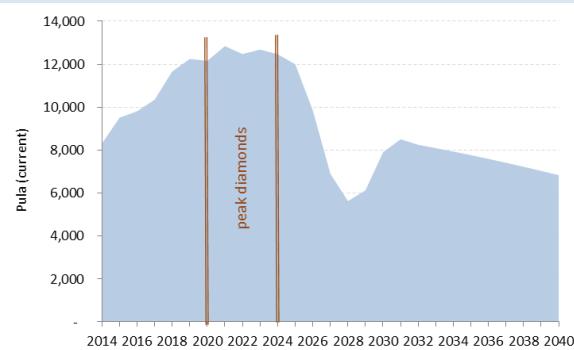
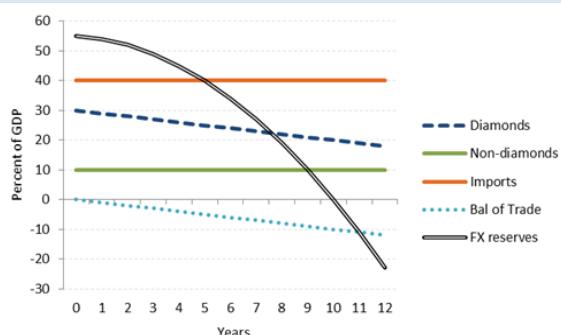


Figure 34: Simulation of impact of slow decline of diamond exports on foreign exchange reserves



Source: Econsult Botswana (2014a)

Conclusions on the growth model

The discussion in this section has highlighted that while economic diversification is happening, there is reason to question its potential to deliver sustainable growth and poverty reduction. Sustainability will require more employment-intensive growth, higher levels of private sector investment, and, critically, a greater export-orientation of non-mining growth.

³⁰ The parameters of the modelling exercise are as follows: diamond exports start at 30% of GDP and decline by 1% of GDP per year; non-diamond exports and imports are steady at 10% and 40% of GDP respectively; the foreign exchange reserves start at their current level (55% of GDP).

3.3. Where will future growth come from?

Much effort at sectoral diversification, but limited results

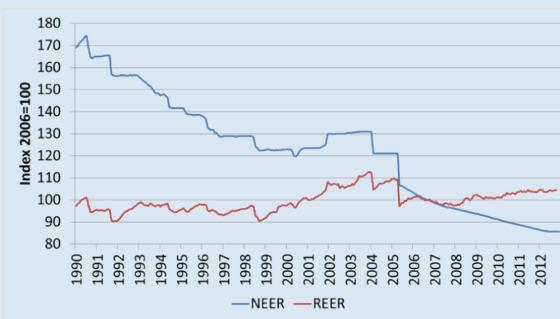
Sectoral diversification has been at the top of the national agenda for more than 30 years, attested by a long list of programs, going back to the Local Preference Scheme (1976), the Reserved Sectors Policy (1982), the Financial Assistance Program (1982), and the more recent ‘Hubs’ and Special Economic Zones, along with agencies (CEDA, LEA, BEDIA/BITC, etc.) established to promote diversification and the development of the domestic private sector. The most recent policy – the Economic Diversification Drive (EDD) – aims to develop a diversified private sector through a two stage process involving: i) local preferences in government procurement; followed by, ii) facilitating competitiveness for firms to participate in regional and global export markets. Government is also pursuing Michael Porter’s cluster approach. While both initiatives have identified priority areas for Botswana’s diversification efforts, there is only limited common ground between the two.

Despite concerted efforts, progress toward diversification – at least in terms of establishing regionally competitive non-resources sectors – has been slow. While there are no significant macroeconomic barriers to diversification (Box 6), there are a number of structural issues, most notably lack of scale economies, as well as supply side barriers that hamper diversification, both across the board and in specific sectoral contexts.

Box 6: Diversification in Botswana: a non-traditional case of Dutch Disease?

Despite Botswana’s reliance on natural resource exports, diversification does not appear to have been hampered by any obvious Dutch disease effect, at least in terms of its traditional manifestation through an overvalued real exchange rate. While Botswana accumulated large foreign reserves by running trade surpluses every year from 1983 through 2008, the real exchange rate (REER) was managed to fluctuate within a relatively narrow range over this time (Figure 35). An analysis of equilibrium exchange rates found that the Pula was overvalued around half of this period, but only by 1.2 percentage points³¹, not sufficient to have a significant dampening effect. In addition, wages in tradable sectors like manufacturing are highly competitive in the region, with minimum wages at just one-sixth the level in neighboring South Africa. But many of aspects of Botswana’s economy suggest that other symptoms of Dutch Disease are indeed present, and may play a critical role in dampening the development of diversified, tradable sectors. These include: high structural unemployment, a high share of employment in the public sector, and a domestic business community focused on local non-tradables and government contracts.

Figure 35: Index of nominal and real Pula exchange rate, 1990-2012 (2006=100)



Sources: World Bank (2012a); EConsult Botswana (2013)

³¹ World Bank (2012a)

Comparative advantage and jobs intensity

While solid arguments can be made to support any of the broad sectors, there is perhaps a need to look more critically at Botswana's sources of comparative advantage (or alternatively its disadvantages in terms of climate, scale, and location). Given the emphasis on employment for poverty reduction, consideration also needs to be given to the degree to which patterns of sectoral growth will contribute to broad-based job creation, as well as its sustainability over time. Table 3 provides a very simplified assessment of broad sectors based on these criteria. It suggests that mining is a clear source of comparative advantage and potentially an important contributor from a fiscal perspective, but it contributes little to jobs growth and, subsequently, aggravates high inequality. It is also not sustainable from an environment perspective. Agriculture is a critical sector for poverty alleviation and has the potential for broad-based employment impact, but from a commercial perspective it fails to pass the test of comparative advantage or sustainability. Manufacturing sits somewhere in the middle, with potential for broad-based job creation, but held back by weak comparative advantage, in particular lack of scale economies and high transport costs, offset somewhat by the potential for competitive energy costs³². Finally, services appear to offer the best combination of comparative advantage (especially in tourism), sustainability, and jobs intensity. Services also represent a sector where Botswana is least constrained by comparative disadvantages of scale and geography.

Table 3: Assessment of broad sector relevance

Sector	Comparative advantage (L, M, H)	Jobs intensity (L, M, H)	Sustainability (L, M, H)	Comments
Mining	H	L	L	Fiscal importance
Agriculture (crops and livestock)	L	H	L-M	Critical for poverty alleviation
Manufacturing	L-M	M	M-H	Traditionally important for diversification
Services (Tourism, Business services, ICT, Trade, Transport, Finance, etc.)	M	M-H	H	Largest contributor to output

Source: Authors

The remainder of this section provides a brief summary on the current development and growth prospects in each of these broad sectors.

Mining: significant growth potential but not easily realized and not without drawbacks

Although diamond output is not likely to return to previous peaks, the recent shift of Debeers' sales activities to Gaborone, the establishment of an alternative sales channel (through the Botswana government-owned Okavango Diamond Company), and the continued development of value-added polishing and manufacturing, offers the potential for the development of high value-added employment and greater spillovers to the national economy. Outside of diamonds, a number of other minerals commodities are historically or potentially important in Botswana, including:

- **Copper-nickel:** Historically Botswana's second largest minerals subsector, copper-nickel production has been ongoing since the early 1970s, with 5 main mines operated by four companies: in Selebi-Phikwe

³² Although this would tend to benefit capital intensive sectors and thus may have limited impact on direct employment creation

(operated by BCL); Phoenix (Tati Nickel); Mowana and Thakadu (African Copper); and Boseto (Discovery Metals). While the sector has struggled in recent years with declining reserves and lower global prices, significant new deposits have been identified around Selebi-Phikwe and in Ghanzi and Ngamiland. These new finds open up the potential for measurable growth in copper production to offset the ongoing decline in nickel; however, their locations are not well-served by existing infrastructure. Moreover, significant fluctuations in global prices make copper-nickel an unstable contributor to output and fiscal revenues.

- **Coal:** Botswana is estimated to have more than 200 billion tons of coal resources (around two-thirds or Africa's total), with about 40 billion tons of proven reserves³³. The vast majority of this remains unexploited. Currently coal is produced only in small quantities (around 2-3 million tons per year) from a single mine at Morupule, and used mainly for domestic power generation. Growth in coal has the potential to be important as a contributor to exports and government revenue. And while neither of these will be anywhere near the scale of diamonds, coal does have greater non-fiscal linkages with the domestic economy, with higher employment elasticity (up to 60,000 jobs are forecast in a high-growth coal scenario³⁴) and potential supply chain and infrastructural links. Monetizing this opportunity will, however, require attracting investment to support the massive infrastructure expansion (Box 7). This appears to be far from certain, however, as the commercial case remains vulnerable to many potential changes in the global environment, most importantly the demand, and therefore price, for coal. Moreover, the environmental implications of coal, particularly its demands on scarce water resources but also greenhouse gas emissions, have implications that must be considered.

Box 7: Monetizing coal: how and where?

Botswana's coal resources are huge, with proven reserves sufficient for hundreds of years of production. But even proven reserves are of no value unless they can be monetized, and this requires not simply extracting them but getting them to where they can be used. Botswana's coal is low to medium grade (in line with South Africa's) which is generally sufficient for global market needs. But exporting coal would require major investments in infrastructure, including both rail and ports (the latter would require dedicated capacity to ensure Botswana's exports were not ultimately held back due to bottlenecks over which they had no control). Three main options are being considered in this respect:

1. *Trans-Kalahari Railway via Namibia:* This option has received the most attention and been assessed for close to a decade. It would involve a greenfield 1,500km railway development as well as new port facilities in Walvis Bay, with total costs estimated at US\$12-15 billion. Capacity would be at least 50 mtpa.
2. *Limpopo Line via Zambia and Zimbabwe and Mozambique:* This option involves development of a 1,100km railway via Zambia and Zimbabwe to the proposed Techobanine port south of Maputo, in Mozambique. Capacity would also be at least 50 mtpa
3. *Waterberg via South Africa:* This option would involve connecting into the existing Transnet rail network exporting via Richards Bay. While this option would have the lowest investment requirements it also offers significantly less capacity; not more than 10-20 mtpa

A second option is power generation. The huge power deficit in the region represents an opportunity for Botswana to expand its coal power generation sector, both to support domestic generation (an additional 600MW are planned over the next decade) and for regional exports³⁵. In fact, exports and power generation are complementary – the washing and sorting process in exporting coal results in substantial 'waste' (tailings) that can be used for power generation.

³³ Resources exist with potential viability, while reserves are technically and economically feasible to extract

³⁴ IISD (2014)

³⁵ It is important to note here that while there is a shortage of electricity generation in the region at present, there are also many investments being planned across the region, including from countries that have the potential to generate power at equal or even lower cost than Botswana (e.g. Mozambique, with gas-fired power).

If Botswana is to reach full development of its resources (estimated variously at least 70-90 mtpa), then at least two of the above options will need to be implemented. The choice and the viability comes down to the interplay among three main factors: 1) the quality of Botswana's coal; 2) the cost to get it to where it needs to be; and 3) global prices. The problem is that the calculation of 1 and 2 shows that 3 (price) matters a lot, and of course price is changing all the time. Moreover, it is vulnerable to future downside risks (e.g. a climate change deal, China making a marginal shift away from coal power), which makes it challenging for any private investor to plant a firm stake in the ground. For the same reasons, it is risky for government, as such investments are largely inflexible (sector specific) and irreversible, leaving the prospect of the government being left with a costly and underutilized asset should external conditions change.

Sources: Grynberg (2012); World Bank (2014d); Wood Mackenzie (2011)

- *Gold*: Although it has a long history in Botswana, only one mine is currently in operation (Mupane). Production is low and declining, with reserves diminishing and no major new finds.
- *Soda ash*: Exploiting the Makgadikgadi salt pans, Botswana produced around a half a million metric tons per year of soda ash and salt over the past decade. Botswana is estimated to have the second largest reserves of natural soda ash in the world and is the fourth largest global producer. However, the sector is not likely to grow dramatically from its current level.
- *Uranium*: Substantial uranium deposit exists in northeast Botswana and could be relatively easily exploited, although depressed current market prices have put off investment.
- *Coal-bed methane (CBM)*: Linked to the large coal deposits (see below) are substantial deposits of CBM, which could be used for power generation or as a fuel source. Viability has not yet been established, but development prospects are being tested and could be significant.
- *Iron ore*: While no production currently exists, Rio Tinto reportedly discovered large iron ore deposits in Southwestern Botswana in 2014, in what could be an extension of South Africa's hugely productive Sishen deposit. Should this prove viable it would be a substantial development.

Table 4: Minerals sector: current output and NPV of future resource rents

	Output - 2012		Estimated future resource rents – Net present value (2012)	
	US\$ million	%	US\$ billion	%
Diamonds	3,065	84%	127	82%
Copper-nickel	447	12%	7	5%
Coal	10	0%	20	13%
Gold	81	2%	--	--
Soda ash and salt	56	2%	--	--
Other (cobalt, silver)	5	0%	--	--

Source: World Bank (2014d); Resource rents estimated based on: calculated values for resource rent per unit; and assumptions about the future costs and prices, the pace of future exploitation, and the proportion of saleable reserves. Assumes: (1) resource rents stay constant in real terms; (2) known reserves are exploited at the current (constant) rate until exhaustion; (3) 50 percent of known reserves are saleable; (4) there are no new discoveries or additions to reserves; and (5) the applicable discount rate for the purposes of present value calculation is 10 percent, as the calculation is in real terms, the following resource valuations are derived. For coal assumption based on estimated reserves of 40 billion metric tons, production of 50 mtpa, and resource rent of 40 pula per metric ton.

In summary, the minerals sector certainly has a role to play in supporting future diversification, particularly from a revenue perspective. But the significant environmental risks it poses and its limited job creation potential mean it is far from being the answer to Botswana's diversification challenge.

Agriculture: a disconnect between poverty alleviation and commercial potential

With 70 percent of Botswana covered by desert, poor soils, and perennial droughts, it is not surprising that agriculture contributes less than 3 percent to Botswana's GDP despite very high levels of government financial

support³⁶. Yet the sector is still responsible for more than for a quarter of all employment (over 150,000 workers) and plays a critical role in the rural economy, although this is mainly from the perspective of poverty alleviation (subsistence farming) than from a commercial perspective. More than 60 percent of value added in agriculture comes from livestock, mainly through beef, which has traditionally been Botswana's second largest goods export. The sector remains largely dependent on traditional management through communal grazing, reliant on subsidized veterinary services, and has struggled with cyclical problems of disease (FMD), compounded by quality and traceability problems that shut off the lucrative European export market from 2010-12, and with the near-collapse of the Botswana Meat Commission (BMC). Future growth will depend on raising productivity, which will in turn depend on shifting toward more commercial models and improving the incentive mechanisms to both traditional farmers and exporters.

Crop farming is dominated by traditional, mainly subsistence³⁷, farmers. While domestic production of grains and horticulture is growing, Botswana remains a large net importer of food staples. Commercial production is concentrated in the far north at Pandamatenga (mainly sorghum) and parts of the Southeast (mainly horticulture). The potential of agriculture to be a more significant contributor to sustainable poverty reduction depends on raising productivity of small farmers (Box 8) and livestock holders and ensuring the sustainability of support programs like ISPAAD. A review of ISPAAD³⁸ shows that while it has been successful as a poverty alleviation instrument, reaching more than 100,000, primarily vulnerable, beneficiaries, it has failed in its other primary objective – to promote farming as a commercially sustainable source of employment. The review showed that output per worker has not improved and cereal yields remain at just one-third the ISPAAD target. Reasons for low productivity are manifold, but among them are: i) weak incentives to farmers under existing programs like ISPAAD, which are poorly targeted and have limited requirements (and enforcement) for adopting improved techniques; ii) a disconnect between the technologies promoted by extension services and the social and economic realities of farmers; and iii) poor skills among smallholders³⁹.

Beyond agriculture's role as a social safety net, it is questionable whether the sector (i.e. commercial farming) has a significant role to play as a driver of growth and employment. Plans are underway to exploit the potential for large-scale irrigation in the Chobe district, through the Zambezi Integrated Agricultural Development Project (ZIADP). This project would channel water from the Zambezi to irrigate as much as 35,000 hectares (versus around just 2,000 hectares currently under irrigation in the entire country). While the initial ZIADP project developed in the late 2000s was ultimately rejected, the project has now been restructured and a feasibility study is expected to be completed by the end of 2014. Such a project would contribute significantly to ensuring Botswana's food security objectives, but it would come at a large financial cost as well as a large opportunity cost (particularly with respect to scarce water resources) – *this will be discussed more in chapter 5*.

Box 8: The importance of agricultural productivity for rural poverty reduction

With more than half of all rural jobs coming in the agricultural sector, eliminating poverty in rural areas, where it is most entrenched, clearly requires addressing agricultural earnings potential. And this requires significant improvements in agricultural productivity. According to the 2014 African Transformation Report⁴⁰ Botswana's cereal yields average 375 kilograms per hectare compared to an average of 2,045 per hectare in the other 14 Sub-Saharan African countries

³⁶ Findings from the recent agricultural public expenditure review (World Bank, 2014c) indicate that public expenditure on agriculture stands at roughly 50 percent of agriculture's value-added. This is among the highest in Sub-Saharan Africa, where a typical level of government expenditure would be 10 to 15 percent of value-added.

³⁷ Data indicates that less than 15 percent of farmers in traditional sectors market their crops (World Bank, 2014)

³⁸ UNDP (2012)

³⁹ World Bank (2014c)

⁴⁰ ACET (2014)

covered in the report. And productivity in the sector has not improved in a decade.

Why does agricultural productivity matter? Raising yields and output per worker – through improved technologies, practices, and by shifting to higher value added crops – increases farm earnings. This not only has the direct effect of improving outcomes of agricultural households, but also has several important indirect impacts that go well beyond agricultural households. First, higher incomes in agricultural households will have spillover effects on the non-farm rural economy, as these households increase consumption of other goods and services. And as urban villages grow in Botswana, demand for food may create opportunities for non-farm employment in food processing⁴¹. Second, improved agricultural productivity will help contain rising prices in food, by far the most important component of the consumption basket in poor households. Higher incomes in agricultural households are also associated with greater investment in education, contributing over time to non-farm productivity and employment. And improved productivity in agriculture contributes to urbanization, which at the household level can provide additional incomes and insulation from shocks, and at the aggregate level is in most cases associated with declining poverty over time.

Source: World Bank (2014b)

Manufacturing: 30 years of running to a standstill

Botswana's manufacturing sector remains small, fluctuating between 5 and 6 percent of GDP over the past twenty years compared to an average of over 21 percent in middle income countries. Despite this limited output contribution, manufacturing accounts for more than 11 percent of all formal jobs in the country and is particularly important for male workers in urban areas. The performance of the manufacturing sector has been decidedly mixed over the past decade. Overall, manufacturing output was up 11 percent in nominal terms between 2000 and 2013 (4.4% in real terms), with stronger growth since 2006 (Figure 36). However, labor intensive sectors like apparel have shrunk dramatically since the crisis – value added in the apparel sector in 2012 was just P180m (in current prices), down almost 40% from its pre-crisis peak.

Figure 36: Manufacturing sector performance (2000-2012)

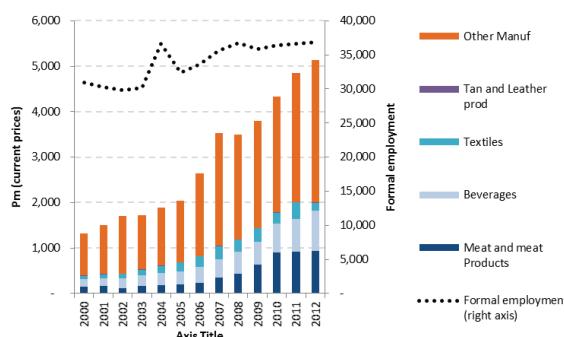
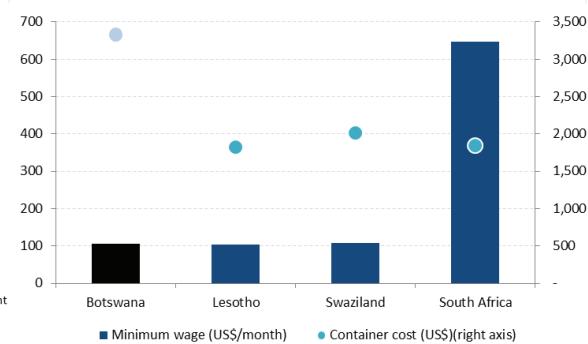


Figure 37: Comparison of regional minimum wages and costs of importing and exporting



Left panel: Data source – Statistics Botswana (GDP Series; Formal Employment Statistics; Industrial Statistics)

Right panel: Data source – World Bank, Doing Business 2014; Minimum wage is the minimum wage level for a 19 year-old worker or apprentice in US\$/month; Container cost takes the average cost for an import container and an export container (US\$)

There is an ongoing debate on Botswana's potential to compete in labor intensive manufacturing. Despite its status as the one of the richest countries in Africa, Botswana is by no means a high wage country. In fact, minimum wages in manufacturing are just one-sixth the level in South Africa and are on par with levels in Lesotho and Swaziland (Figure 37). So why is Botswana not attracting labor-intensive production from South Africa to

⁴¹ World Bank and Agence Française de Développement (2014)

anything like the (still moderate) degree in Lesotho? Clearly, productivity is part of the story, as are issues of scale economies and location. In the absence of an existing manufacturing sector, Botswana relies on importing virtually all inputs to any manufacturing process. And given its landlocked location and high transport costs (Figure 37), much of this labor cost advantage is eroded (see Section 3.4).

One bright spot in the manufacturing story is the recent growth of the diamond cutting and polishing sector, following the establishment of the Diamond Hub. While data on the diamond cutting and polishing remains weak, it is likely to be Botswana's largest single manufacturing sector in terms of employment, although its contribution to manufacturing value-added may be relatively limited. As the diamond cutting and polishing example suggests, there will certainly be niche opportunities for Botswana to develop manufacturing, particularly where the country has access to unique resources. On the other hand, developing a large-scale manufacturing sector, either in capital intensive or assembly type activities, appears to be hindered by significant structural barriers.

Services: strength in tourism and other emerging sectors, but competitiveness still weak

Services have been the biggest contributor to GDP and employment growth in recent years. The sector expanded 14 percent in nominal terms (7.5 percent annually in real terms) between 2000 and 2013, with strong growth across all segments (Figure 38), with the most rapid growth in has come in locally traded activities like retail and household enterprises. Despite the relatively disappointing performance of the International Financial Services Center (IFSC)⁴², modern services sectors like finance, communications, and business services remain important in Botswana (Figure 39) and continue to grow moderately well. Investments in projects like the Innovation Hub indicates continued emphasis on developing Botswana as a 'knowledge' or 'headquarters' economy, leveraging the strength of Botswana's macro environment, relatively good infrastructure, and its educated population (although constraints in the latter two represent important barriers to growth in the sector).

Figure 38: Share (2010-13) and growth (% CAGR, current) of services subsectors (2000-13)

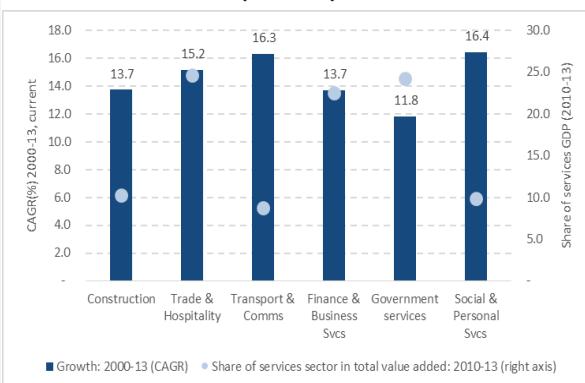
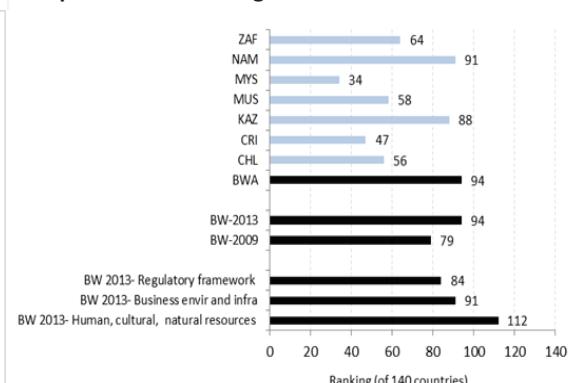


Figure 39: World Economic Forum Tourism Competitiveness rankings



Left panel: Data source – Statistics Botswana (GDP Series)

Right panel: Data source – World Economic Forum (2013)

⁴² IFSC was established in 2003 to attract investment in offshore banking, finance, and business services, with a special regulatory framework and tax concessions. As of 2012 IFSC had attracted less than 50 firms. Numerous arguments have been put forth to explain the performance, including the 2020 'sunset clause' in tax concessions, lack of appropriate legislation in areas such as investment funds, insufficient scope of double taxation agreements, and general lack of flexibility to respond to changing needs and circumstances in the market (World Bank, 2012b)

Tourism, built around the country's natural resources but with potential beyond this, remains Botswana's most important services export and a critical sector for employment and poverty reduction. The latest update of Botswana's tourism satellite accounts (2009) shows the sector accounts for up to 6.5 percent of GDP and employs 45,000, including indirect and induced effects. The sector is also an important source of foreign direct investment (FDI), although citizen-owned companies now account for half of tourism establishments⁴³. Botswana's tourism built its success around low volume, high value, nature-based tourism in national parks and game reserves in the north of the country. But this positioning, combined with fragile ecosystems, restricts its expansion. The need for diversification outside of the UNESCO-listed Okavango Delta and Chobe areas is well understood. However, growth is also limited by serious weaknesses in competitiveness. Figure 39 shows Botswana's competitiveness has slipped in recent years, with its global ranking (at 95th of 140 countries) in the World Economic Forum's *Travel and Tourism Competitiveness Index* (TTCI) now well behind peers. Among the main issues barriers to growth in tourism are the following⁴⁴:

- *Skills*: The 2013 TTCI ranks Botswana 128th of 140 countries. This is partly driven by HIV-related issues, but also reflects lack of specialized tourism training (rank 94th) and difficulties in bringing in skilled foreign labor (125th). While the number of training institutions offering hospitality/tourism has increased in past years, none are singularly focused on hospitality/tourism, and specific knowledge gaps as well as core skills (business management, problem solving, customer service, and tourism-related technology) are lacking.
- *Air connections*: No direct, long haul connections are available and regional connections are costly.
- *Visas*: Many of the growing tourism supply markets, such as China and India, are not on the visa exemption list, often leading to significant delays.
- *Land access*: Investors often struggle with both land allocation and land use processes
- *Conservation*: Botswana has long been lauded for its strong wildlife conservation efforts, but important challenges exist, including decreasing wildlife numbers due to drought, habitat loss, and increased poaching. The situation has been exacerbated by the recent widespread use of fencing to control diseases in the cattle population.
- *Other policy challenges*: While the recent ban on hunting boosts Botswana's conservation credentials, it may also work directly against the product and geographical diversification of the tourism sector, hitting some poor communities hard and potentially raising risks of poaching.

3.4. Expanding trade and investment and deepening regional integration

Botswana must become a country of exporters if it is to achieve its aims of diversification and private sector development. This is the lesson learned by many successful small countries like Singapore, Mauritius, and Ireland. With a small domestic market, achieving the scale needed for productivity and growth requires selling into regional markets and beyond. So while much of the recent emphasis in industrial policy and private support has focused inward (e.g. developing local supply opportunities for government procurement), there is a need for greater emphasis on integrating with global markets – this is what made Botswana's traditional export sectors (diamonds, beef, tourism) successful. And the starting point for this is through greater emphasis on regional trade and integration.

A narrow, concentrated, and weak export base

Figure 40 shows that while Botswana has run a trade deficit since 2008, driven by consumption-driven import growth, export performance overall has remained relatively buoyant since the crisis, with 2013 exports more

⁴³ World Bank (2012a)

⁴⁴ World Bank (2012a)

than twice their 2010 levels in nominal Pula terms. But export participation outside of commodities remains limited, and performance is declining. In fact much of the export growth since the crisis is explained by diamonds⁴⁵ re-exports, along with the sharp decline in the Pula-dollar exchange rate⁴⁶. Overall, between 2010 and 2013, the contribution of diamonds to exports was around 76 percent (and reached 84 percent in 2013). Looking beyond diamonds, other minerals (copper-nickel, soda ash, and gold) dominate the rest of export basket, taking the total minerals contribution above 90 percent of goods exports. Beyond this, only the beef sector had exports of more than US\$100m in 2013. Moreover, services exports, which accounted for around 15 percent of total exports in the early 2000s appear to have stagnated, and their contribution has subsequently fallen to just 5 percent of exports in 2013⁴⁷.

Poor non-commodity export performance highlights a weak export base. Less than 10 percent of firms export, and of those that do, the majority export on a very small scale (less than P100,000 per year), and to few markets (Botswana's exporters sell, on average, in only 2 percent of markets that import their products). Moreover, the survival rate of new exports in foreign markets is unusually low – just 40 percent of export relationships survive into a second year.

While mining, beef, and tourism are associated with global markets, for the majority of firms and sectors in Botswana, taking advantage of export opportunities means selling more to the region, and in particular to South Africa. Given its proximity⁴⁸ to South Africa's Gauteng province (the largest economic agglomeration in Africa), its substantially favorable labor environment (including wages and labor relations), and advantages of stability and security, Botswana should be a relatively attractive location for regional trade and investment. In the context of the development of a SACU regional industrial policy built around the development of regional value chains, Botswana could be positioned well to participate in regional value chains in agribusiness, light manufacturing, and services. To date, however, such trade has been limited.

Figure 40: Exports, imports, and trade balance as a share of GDP (2004-13)

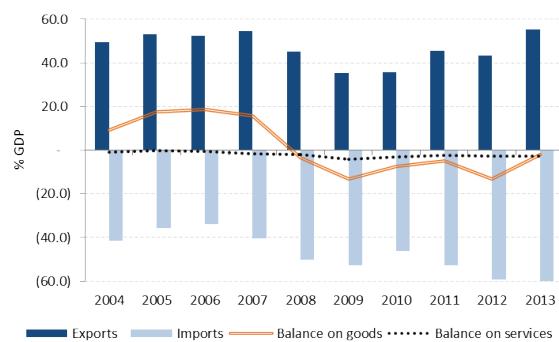
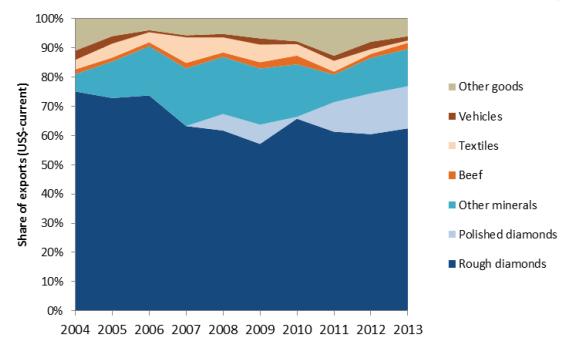


Figure 41: Distribution of goods exports (in current US\$) by main sector (2004-13)- excluding re-exports



Data source: Bank of Botswana; Note: left panel includes diamond re-exports; right panel excludes diamond re-exports

Barriers to regional and global value chain integration

Some of the challenges to exploiting the potential of regional trade can be addressed behind the border in

⁴⁵ From 2012, Debeers shifted global diamond aggregation activities to Botswana. As a result, Botswana records substantial imports of diamonds from other Debeers locations followed by exports as these are sorted and mixed with Botswana rough diamonds for export

⁴⁶ The Pula depreciated by close to 25 percent against the dollar between 2010 and 2013

⁴⁷ This should be caveated by the fact that data on services in Botswana is unreliable.

⁴⁸ Gaborone lies just 300 km from Johannesburg

Botswana, but many of them require improved regional cooperation. Despite operating within the world's oldest customs union (SACU), both tariff and non-tariff barriers increasingly restrict competitiveness. A recent analysis of the impact of SACU external tariffs⁴⁹ shows that import tariffs raise the cost of inputs in Botswana's manufacturing sector by an estimated 10 percent and creates a substantial bias to producers to sell in domestic and regional rather than global markets (equivalent to a 46 percent premium). This undermines the long-term competitiveness of Botswana's private sector.

Even trade within the region is fraught with barriers. Member states, including Botswana, use SACU's infant industry protection clause to block imports. Botswana bans or restricts imports of bread, live chickens, broilers, and fertilized eggs, as well as cattle, and (at certain times of the year) horticulture; and places import levies on UHT milk (40 percent), chicken (40 percent), and wheat flour (15 percent). A number of non-tariff barriers are also in place, mainly to protect primary producers and food processors. Botswana's own producers face similar restrictions in trying to sell into regional markets. Overall, Botswana is the least integrated among all SACU countries both in regional and global value chains.

Limited FDI

In a context where trade increasingly operates within global and regional value chains, expanding and diversifying exports depends not just on the domestic firms but also on attracting foreign direct investment (FDI). This is all the more important for a small economy like Botswana's. According to a recent OECD report⁵⁰, outside of oil-producing countries, Botswana was Africa's sixth most attractive target for FDI between 2003 and 2011. However, these volumes remain small, just over 3 percent of GDP on average over the past two decades, lower than most peers. Over the past decade, the largest share of FDI has gone into diamonds (38 percent) and other mining, although significant investment has come into services, including financial services, communications, real estate, and tourism⁵¹. Overall, however, non-mining investment has largely been market-seeking, with relatively few investors establishing in Botswana to export regionally or globally.

What is preventing higher levels of FDI in Botswana, despite it having a lower effective tax rate than most peers and being rated recently as the top FDI destination in the world⁵²? Investment policy, while it has some shortcomings, is not likely to be a significant barrier. As noted by the recent OECD *Investment Policy Review*⁵³, the regulatory framework for investment has been strengthened recently with laws facilitating business establishment and strengthening investor and intellectual property protection, although some restrictions and uncertainties remain with respect to investment and ownership (preferences for domestic investors) and access to land. But more likely the main factors restricting FDI are similar to those that hamper the development of domestic investors and exporters.

Part of the story is structural – why would an investor set up in Botswana and import virtually all its inputs from South Africa only to turn around and export virtually all its output back to South Africa? The economics have to be extremely compelling. As Section 3.5 will show, costs and other constraints make the business case difficult except in niche situations, and existing barriers to smooth regional trade undermine many of them.

⁴⁹ World Bank (2012a)

⁵⁰ OECD (2013)

⁵¹ OECD (2013)

⁵² In Foreign Policy magazine's 2014 Baseline Profitability Index. The index assesses eight factors — economic growth, financial stability, physical security, corruption, expropriation by government, exploitation by local partners, capital controls, and exchange rates — to determine the investment value of an economy based on the security and rate of return on investment.

⁵³ OECD (2013)

3.5. Building a broader, deeper, and more competitive private sector

Changing the growth model and developing an export-oriented, diversified economic base relies on the presence of a strong private sector, where entrepreneurs invest and have the competitiveness to survive and expand in export markets. But as discussed elsewhere in this note, both the nature and competitiveness of Botswana's private sector has, to date, fallen short: entrepreneurship has been limited in scope and concentrated on non-tradables; export participation has been limited; and survival of firms and exports has been low. This suggests the constraints to private sector investment relate both to the nominal returns on investment (competitiveness), and on the relative returns in the context of alternative sources of employment and investment. This section discusses some of the factors impacting both of these, discussing the incentive framework and the business environment that entrepreneurs face in Botswana.

Entrepreneurship: trending upward, but weak survival

At the heart of the discourse around private sector development in Botswana is the concern over what is perceived as low levels of entrepreneurship. This has long been identified, and significant programs and resources, including agencies like CEDA and LEA, were designed to address this gap. Given Botswana's history (there was very little established business at the time when diamonds were discovered) and the attractiveness of public sector employment, lack of entrepreneurship is not surprising. Indeed, around two-thirds of all university-educated Batswana were employed in the public sector as of 2010.

But the latest data from the *Global Entrepreneurship Monitor* (2014), presented in Figure 42 and Figure 43 suggests the picture is not quite so simple. While Botswana has a low number of active entrepreneurs, the overall share (20.9 percent of the adult population) is higher than in some peers and perhaps substantially above perceptions. The data also suggests that entrepreneurialism is gaining ground fairly quickly: while just 3.4 percent of the adult population is running an established business (among the lowest in the entire survey), the rate of new business establishment is 10.2 percent, higher than almost all peers. Moreover, close to 60 percent of those surveyed indicated an intention to start a business – the highest among peers and nearly four times the rate in South Africa. This picture of dynamism is supported by data from the Registrar of Companies, which shows a high rate of company formation, running at around 1,500 per month.

Figure 42: Total Entrepreneurial Activity (TEA) rates

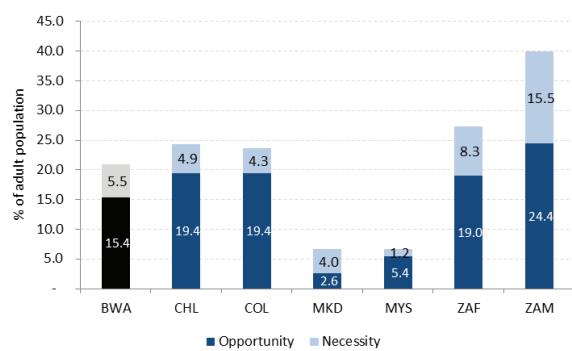
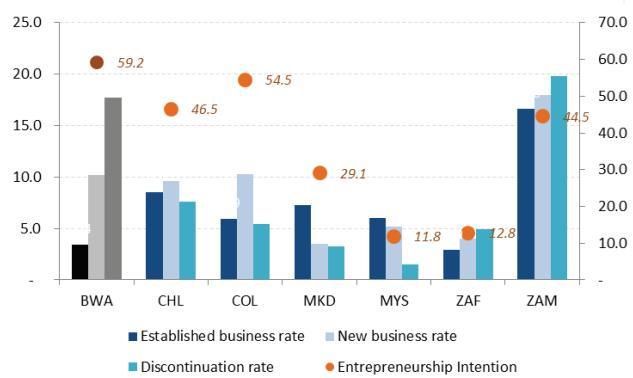


Figure 43: Phases of entrepreneurial activity and intentions



Data source – *Global Entrepreneurship Monitor* (2014)

Note: Data not available for most of the standard "peer countries" used in this report; alternatives peers are presented here: COL=Colombia; MKD=FYR Macedonia; ZAM=Zambia

Notes (left panel): TEA measures the share of the adult population engaged in the process of starting a business and those running new businesses less than 3.5 years old; "Necessity" entrepreneurs indicates those whose motives for engaging in entrepreneurial activity was out of necessity (i.e. no employment opportunities) versus those that seek to exploit perceived opportunities.

Notes (right panel): "Established business rate" measures those in business for more than 3.5 years, while "New business rate" measures those in process of starting or which have been established for less than 3.5 years.

The big question is what drives the gap between the static and dynamic picture emerging from the survey? One interpretation is that the long-term efforts to promote entrepreneurialism (perhaps combined with fewer public sector opportunities) are finally bearing fruit. A less sanguine interpretation points to the extremely high discontinuation, or failure, rates (Figure 43) and suggests there is a problem with either the quality of the entrepreneurs (selectivity, incentives, and / or capacity) and / or with the business environment in which they operate. The reality is we have limited understanding of how various factors come together to shape entrepreneurship decisions and small business success in Botswana.

Moreover, there are likely to be considerable differences in how these factors shape the outcomes for entrepreneurs with high growth potential and those in the microenterprise sector, including many informal enterprises. Recent research⁵⁴ on the microenterprise sector in Botswana shows that just one in five of them are ‘active’ enterprises (i.e. run by ‘opportunity’ entrepreneurs); the rest of involuntary (i.e. set up out of necessity to earn an income) – the opportunity entrepreneurs tend to be younger and better educated and focus on higher value-added businesses like manufacturing, transport, and non-retail services. While capacity constraints appear to be a problem for all small businesses in Botswana, they may be most binding for microenterprises, which also face perennial challenges (common across countries) of access to finance.

Openness and competition: costly protection, reluctant privatization, and distorting incentives

Attracting domestic entrepreneurs and FDI to invest in tradables in Botswana requires first a policy environment that enables private firms to be competitive and gives them the incentive to focus on exports. While there are clearly issues of scale and capacity in the private sector, it is also true that the domestic environment, and government policies, have not been effective in significantly raising the bar for firm competitiveness. In fact, through protection and incentives that raise the relative returns to focusing on the domestic market, they may contribute to undermine the potential for a more competitive private sector to emerge. Indeed, this may well be a critical factor behind the entrepreneurship question discussed above.

Part of the issue is competition. Long-standing policies to protect the domestic market for producers in certain sectors have knock-on effects on other producers in non-protected segments of the market, as well as for consumers. The most prominent case is in the poultry sector, where SACU ‘infant industry’ protection has been in force for two decades. A recent study⁵⁵ shows that as a result of these policies Botswana not only has the among the highest poultry prices in Africa, but also that small farmers are increasingly squeezed out by the large, protected players. And carrying out these policies necessarily leads to privileging certain sectors, or parts of sectors, over others. Programs like EDD have the potential to support the development of new domestic entrants to the market, but they need to be managed carefully to avoid entrenching already powerful firms. Ensuring graduation of firms from local procurement preferences and emphasizing the ‘long-term’ aspects of the EDD strategy (building firm-level competitiveness, with an emphasis on export markets) will be critical.

Some of the biggest concerns with competition arise in sectors where parastatals play a dominant role. In telecommunications, Botswana Telecommunications Corporation (BTC) has an effective monopoly on the fixed-line network, including the local loop, national backbone, and international gateway⁵⁶. Despite government commitment, plans to sell 49 percent of BTC have repeatedly stalled. This has contributed to a broadband environment that is steadily declining in its regional and competitiveness – Botswana ranked 108th of 157

⁵⁴ World Bank and BIDPA (2011)

⁵⁵ Africa Competition Forum (2013)

⁵⁶ World Bank and BIDPA (2013)

countries in ITU's 2012 *ICT Development Index*, down 10 places from 2002. Inadequate technology and capacity and high prices resulting from underinvestment and lack of competition has severe implications on stifling development of a potentially important knowledge-based services sector in Botswana. Beyond telecommunications, parastatals dominate across the energy, transport, and communications sectors and government is invested in firms in a wide range of sectors, including banking, insurance, real estate, education, trade, and agribusiness.

Privatization and PPP have been prominent in government plans since 2002, and in 2009 the PPP Policy and Implementation Framework was developed, directing the establishment of a PPP unit. But the unit remains without a head, and no PPP legislation has followed⁵⁷. Important privatizations are nearing completion, including the National Development Bank and BTC, and BPC recently invited proposals for an independent power producer to invest in a 300MW plant at Morupule. Overall, however, the capacity and will to implement privatization and PPP quickly remains questionable. This not only narrows the scope of activities for domestic private sector investment, but contributes to an environment where entrepreneurs face relatively high cost and poor quality in critical services inputs.

Skills: poor work ethic, skills gaps, and closed market

Setting aside the incentive environment which biases against investment in tradables, entrepreneurs that persist are faced with a host of barriers to competitiveness. Chief among these is the broad issue of access to skills and its contribution to low productivity. Although firm quantitative evidence is difficult to come by, the issue of poor 'work ethic' of Batswana has been highlighted consistently in the annual World Economic Forum Global Competitiveness Index as the single biggest constraint facing firms in Botswana, and has been echoed by politicians and the business community. Evidence from the 2010 Employer and Employee Survey Botswana (EESB)⁵⁸, supported by a study carried out by the Botswana National Productivity Centre (BNPC)⁵⁹, found the biggest skills gaps were not technical but behavioral, with personal characteristics such as honesty, commitment and hard work, reliability and punctuality, communication, and team work considered most crucial for employers.

But the skills issues go beyond work ethic. Despite large investments in education, outcomes in primary and secondary education trail objective benchmarks (see chapter 4). And while the Tertiary Education Council has put in place measures to address quality and relevance in Botswana's tertiary sector, there is concern that Botswana's system is poorly aligned with the needs of employers, having long been structured to turn out civil servants, while the vocational system fails to address the higher level technical training needed by employers. Moreover, slow growth in tertiary enrolment may be a barrier to innovation and Botswana's attempts to develop a knowledge economy. Results from the ESB indicate the number of firms citing insufficient skills as their single most important constraint grew from 10 percent to 18 percent between 2005 and 2010⁶⁰, while time required to fill vacancies is growing, despite high levels of unemployment.

Constraints to accessing skills are aggravated by a restrictive regime for obtaining work permits for foreign skilled workers. Despite moving to a points-based system to make the process more transparent, domestic firms and foreign investors almost unanimously cite work permit restrictions as the most serious barrier to growth and

⁵⁷ However, there is guidance on PPP procurement and PPP projects could be implemented under the existing Public Procurement and Asset Disposal Board.

⁵⁸ World Bank (2012c)

⁵⁹ BNPC (2010)

⁶⁰ World Bank (2012c)

investment. The recent launch of the ‘one-stop-shop’ at BITC may help alleviate the procedural delays in obtaining permits, but process is only part of the issue. It is clear that deeper political considerations are at play, and that the objectives of ‘citizen empowerment’ are driving the policy around skilled immigration. Skills shortfalls not only reduce productivity and hinder new growth, they also contribute to Botswana’s low levels of investment in R&D and broader innovation, both in the private and the public sectors.

Business environment: Doing Business still a work process

While work permits are often cited as the biggest constraint facing businesses in Botswana, other aspects of the business regulatory environment also hinder the development of a more diversified and competitive private sector. Figure 44 shows that while Botswana rates well relative to peers on some measures of the ‘Doing Business’ index, including resolving insolvency, registering property, protecting investors, and paying taxes, it is far behind in: i) starting a business; ii) trading across borders; iii) getting credit; and iv) getting electricity. Substantial efforts are being made, through Botswana’s Doing Business Committee, to address these. To date, significant qualitative improvements have been achieved in improving the administrative and regulatory environment, but since 2010 these four areas have failed to improve significantly in relative terms.

Figure 44: Doing Business rankings versus peer average (2014)

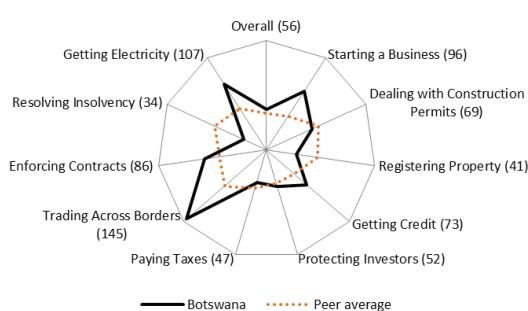
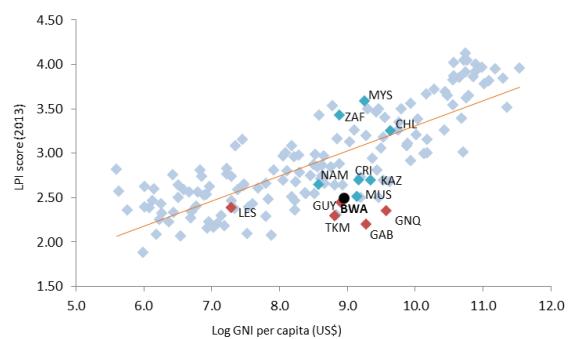


Figure 45: Logistics Performance Index over- and underperformers relative to income level (2014)



Left panel: Data source – World Bank – Doing Business (www.doingbusiness.org); “distance to frontier” calculated as DB score relative to highest performer in that category across time

Right panel: Data sources – WDI; World Bank – Logistics Performance Index (<http://lpi.worldbank.org/international/global/2014>)

Connectivity: trade facilitation and infrastructure gaps

Botswana’s trade enabling environment remains a serious barrier to exploiting regional and global trade opportunities. Botswana ranked 88th of 138 countries in the World Economic Forum’s 2014 Global Enabling Trade rankings, and 145th of 189 countries in the World Bank’s 2014 Doing Business rankings for Trading Across Borders. Its score in the latest World Bank Logistics Performance Index (LPI) 120th of 167 countries – places it amongst the poorest global performers relative to its income level (Figure 45). Botswana’s landlocked position and distance from ports is a structural barrier that raises costs for exporters and importers. These costs add an average of 15-20 percent to imports – some three to four times higher than in developed countries⁶¹. In Botswana’s case, the problem is not so much infrastructure, but scale and coordination challenges (which contribute to high transport charges due to directional load imbalances), aggravated by regional policy issues,

⁶¹ World Bank (2011)

including restrictions on third-country transit and cabotage⁶², as well as lack of standardized regional road charges and third-party insurance. In addition, border delays – most often linked to EDI systems for customs and inspections by other border agencies (e.g. agriculture or health) – continue to be a significant source of cost and time for Botswana's exporters, who see 24-hour border posts as a necessity to help overcome the responsiveness challenge that results from Botswana's relatively peripheral location.

And while Botswana's internal infrastructure is generally well developed, significant gaps remain in connecting to regional and global markets. Road infrastructure is broadly adequate and will be improved with the construction of the Kazungula Bridge to Zambia (construction beginning in the second half of 2014). Rail infrastructure, however, requires massive investment if it is to support growth of the minerals sector (see Box 7) and air transport infrastructure remains at a limited scale, with no long-haul connections yet established⁶³ – this represents an important constraint to development of key sectors like tourism, finance, and business services. Regional energy connections need to be strengthened further to ensure secure, cost effective access to electricity. Finally, the recent landing of the WACS submarine cable to Namibia gives Botswana a second option for routing broadband, which should offer potential to reduce the cost of broadband connections, which have been prohibitive⁶⁴. At the moment, however, broadband prices remain high and inconsistent access to high-speed services represents a serious constraint to the development of Botswana's fledgling modern services export sector.

Access to finance: a perennial, but poorly understood, issue for SMEs

Crucial to the development of any private sector is a financial sector that ensures access to credit for firms (of all sizes), to support start-up, expansion, and ongoing operations. Botswana has a relatively strong financial sector that was largely unaffected by the global financial crisis⁶⁵; it ranks fairly well (although below peers) on the global rankings of financial sector development (Figure 46). It also ranks moderately well on access to finance. Despite this, SMEs indicate they continue to face challenges in accessing credit for investment and working capital. There are several possible reasons for this. First, as in many countries, the structure and incentives in Botswana's financial sector biases away from support to SMEs. With relatively risk-free Bank of Botswana Certificates, T-Bills, and government bonds along with a largely captive market of government employees against which lending is backed by salaries and a corporate market including large parastatals, the fragmented and relatively high-risk SME market has been relatively unattractive. Until recently, this was aggravated by limited competition, although recent growth of entrants has stirred some banks to focus attention on SMEs. A third reason is related to the SMEs, which are often micro in nature and may in fact be unbanked as individuals. Grassroots, non-bank financial institutions that could provide micro-financing services have not yet emerged. Finally, mobile phone-based banking offers some promise to support access to finance for micro-businesses; however, initial pilots have not gained much traction outside urban areas. Under the Financial Sector Development Strategy (2012-16), a number of initiatives are underway to modernise many aspects of the

⁶² Third country transit rules prevent, for example, a Botswana-registered transporter from transporting goods between Zimbabwe and South Africa unless they are transiting through Botswana; while cabotage restrictions would prevent, for example, a South Africa transporter from picking up and/or dropping off a load in Botswana as part of a trip delivering a shipment from South Africa to Zambia.

⁶³ Although there is direct connection to Nairobi (just over 4 hours) several times a week.

⁶⁴ World Bank and BIDPA (2013)

⁶⁵ According to the Financial Sector Strategy (World Bank, 2012b) "Banking system assets increased from 17 percent of GDP in 1989 to 49 percent in 2010, and bank lending increased from 8 percent to 21 percent of GDP over the same period. Significant money and capital markets have been established. In particular there has been dramatic growth of the non-bank financial institution (NBFI) sector... the sector has remained sound and profitable, and where problems have arisen they have been resolved smoothly through appropriate regulatory intervention... Initiatives are currently underway to modernise many aspects of the regulatory structure, including the preparation of new legislation governing the regulation of banks, insurance companies, and pension funds."

regulatory structure, including the preparation of new legislation governing the regulation of banks, insurance companies, and pension funds. To date, however, progress on implementation of the strategy has been slow.

In the meantime, the historical gap in credit to the private sector has been filled through government institutions including the National Development Bank and, most notably, CEDA, which provides substantial and heavily subsidized loans and credit guarantees to SMEs. However, CEDA has had a relatively poor record of success in its lending portfolio, with very high rates of non-performing loans. While some reforms of CEDA structures and processes may be required, poor performance also suggests there may be a lack of sufficient credit-worthy SMEs.

Overall, while finance is often noted as a constraint to investment, there is little evidence that it is indeed a binding one. Results from the most recent World Bank Enterprise Survey (2010) show Botswana outperforms regional and global averages in terms of the share of firms with access to credit, the share of investments financed by bank credit, and the share of firms that perceive access to finance to be a major constraint.

Figure 46: Global Competitiveness rankings for financial sector (2014) – Botswana v peers

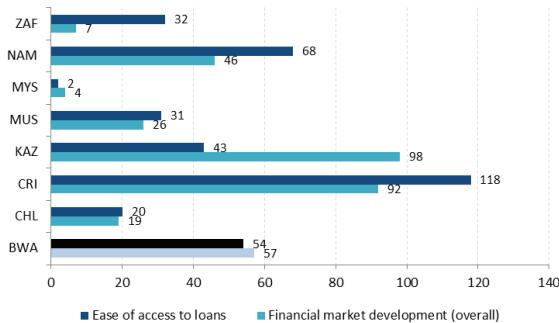
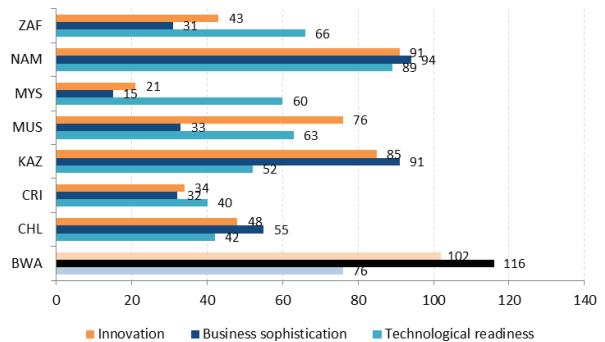


Figure 47: Global Competitiveness rankings for technology and innovation (2014) – Botswana v peers



Data source – World Economic Forum (2014)

KNOWLEDGE GAPS: COST OF CAPITAL, ACCESS TO FINANCE, AND CONTRIBUTION OF THE FINANCIAL SECTOR

While there is much speculation and anecdotal discussion in Botswana on the challenge of SME access to finance, there have been no comprehensive surveys to understand the nature of finance demand and provision in Botswana. Moreover, there have been few analysis to assess the degree to which interest rates over time have been a barrier to firm take-up. More broadly, the remains very little understanding of the degree to which Botswana's financial sector is supporting or constraining investment, particularly from the domestic private sector. Similarly there is limited understanding of the role of access to finance in constraining development of non-farm self employment and microenterprises. At minimum, there is a need to carry out a baseline survey on SME access to finance and the contribution of bank finance to investment in key sectors.

Technology: low adoption and misplaced focus

Finally, private sector competitiveness is also hindered by low levels of technology adoption. Botswana ranks very poorly on global measures of technological readiness and innovation (Figure 47). While this reflects problems across the entire innovation system in Botswana, at the heart of the issue is low level of technology use and overall weak business sophistication in Botswana – Botswana ranks 116th of 144 countries worldwide on business sophistication in the Global Competitiveness Index. The establishment of the Botswana International University of Science and Technology, the expansion of the University of Botswana and other institutions, and the investment in developing the Botswana Innovation Hub, will contribute to supporting innovation and development of the knowledge economy. Yet Botswana's science and technology strategy biases the country toward 'blue-sky' innovation, emphasizing spending on research and development and establishing an environment for leading-edge technology development. In the context of weak business sophistication and low

technology adoption, and in a country with limited scale and still relatively low levels of human capital development, the opportunities for growth through technology might be better oriented toward learning rather than creating, with a subsequent emphasis on technology adoption and absorption.

3.6. Growth: brief summary of main messages and key challenges identified

This chapter argued that Botswana needed to shift its growth model away from a reliance on diamonds and the public sector toward a model that can deliver the broad-based employment growth that will be needed to ensure sustainability of poverty elimination, shared prosperity, and over time, structural change. Such a model will need to be built around development of a diversified, competitive, private sector, oriented toward export markets and focused on activities where Botswana has or can develop strong comparative advantage. In the short-to-medium term, this should also be supported by a dynamic and productive informal sector, including both farm and non-farm activities that can absorb a rapidly expanding labor force.

Building a competitive, outward-oriented private sector requires improving the absolute and relative returns to investing in such activities. This, in turn, requires: i) reforming a policy environment that incentivizes focus on the domestic non-tradables and the public sector; and ii) improving the competitiveness of firms and the environment in which they operate, to increase the returns to investment. The assessment of the incentives and investment environment carried out in this chapter identified a number of issues that currently constrain the realization of this new growth model. Table 5 summarizes these issues and identifies the channel through which they impact the twin goals – *this is analyzed in further detail in Chapter 6 and Annex 1*.

Table 5: Summary of main issues identified – Chapter 3

Area	Specific issues	Channel for impact on twin goals
Smallholder productivity	Low productivity of agriculture and livestock smallholders; driven by many factors including: i) incentives; ii) limited effectiveness of extension services; and iii) skills	Raises vulnerabilities to elimination of extreme poverty; limits potential of non-farm private sector (esp rural)
Non-farm self-employment and microenterprises	Relatively small in size and failing to absorb large structurally unemployed population	Direct impact on sustainability of poverty elimination by putting large burden on social protection systems; blocking pathways for youth in the labor market
Incentive environment	Industrial and trade policy bias against investment in tradables and limit integration in regional and global markets	Lowers private sector investment in employment-creating activities by lowering returns to investment through higher costs and lower access to productivity enhancing spillovers
Competition	Policy environment and dominance of state/parastatals crowds out private sector, raises input costs and jeopardizes quality	Lowers private sector investment in employment-creating activities by lowering returns to investment through higher costs and lower access to productivity enhancing spillovers
Labor supply	Skills and competency gaps and poor work ethic; difficult access to work permits for importing skills	Lowers private sector investment in employment-creating activities by lowering returns to investment through lower productivity
Business regulations	Administrative and regulatory burdens, including business registration, etc.	Lowers private sector investment in employment-creating activities

Area	Specific issues	Channel for impact on twin goals
Hard infrastructure for connectivity	Gap in key rail infrastructure to monetize mineral assets	Risks sustainability of poverty elimination and growth due fiscal and external vulnerabilities
Soft infrastructure for connectivity	Gaps in air connections, ICT, and cross-border trade facilitation	Lowers private sector investment in employment-creating activities by raising input costs, limiting connectivity, and lowering productivity
Access to finance	Low levels of inclusion for rural and micro firms	Lowers private sector investment in employment-creating activities and raises vulnerabilities to elimination of extreme poverty by limiting potential for investments in farm and non-farm self-employment and microenterprise sector
Technology and innovation	Low levels of technology adoption	Lowers private sector investment in employment-creating activities by lowering returns to investment through lower productivity

4. Inclusion assessment: building assets at the micro level

It is clear from the experience of Botswana and many other countries that growth alone is not sufficient to eliminate poverty and reduce inequalities. Moreover, for individuals, income or consumption growth – in a static sense – is only part of the story. Broader notions of human development⁶⁶, encompassing health, human capital, freedom, and voice are all critical to individual well-being⁶⁷, and contribute to ensuring the sustainability of economic gains. This chapter focuses on the capacity of all individuals and groups in Botswana to access and build assets, and to leverage those assets to contribute to and benefit from productive growth.

Overall, the Government of Botswana has long invested heavily in ensuring access of its citizens – regardless of who they are, what special needs they may have, and where they are located in the country – to basic public services, including health facilities, education, infrastructure, and social safety nets. As a general rule coverage is broad, although gaps exist in key infrastructure and serious challenges remain in ensuring the quality, consistency, and efficiency of delivery.

4.1. Health and nutrition

The starting point for citizens to be in a position to contribute to society and take advantage of opportunities afforded by growth is to ensure they are healthy and have access to the nutrients required to remain so. As highlighted in the discussion of Botswana's poor human development outcomes (Figure 2), health is a major factor hindering individual capacity and contributing to poverty in Botswana. The Government recognizes this, and over several decades has maintained a high level of investment in health. Data from the National Health Accounts⁶⁸ shows that between 2007 and 2010, health expenditure averaged 5.5 percent of GDP, among the highest in the region and at the high end of the range for middle-income countries. This has allowed for the development of maintenance of an extensive health network. 95 percent of the population (and 89 percent of the rural population) lives within 8 kilometers of a health facility. Immunization coverage and antenatal service delivery coverage are notably comprehensive. But outcomes are uneven, and the high level of spending remains weakly associated with key outcomes like life expectancy, child and maternal mortality, and child nutrition, all of which remain seriously out of line with expectations for a country as developed as Botswana.

HIV/AIDS: turning the corner, but impacts remain huge and widespread

One of the principal reasons for poor outcomes is, of course, the HIV/AIDS pandemic, which has now been impacting Botswana for more than two decades. Despite progress, HIV prevalence is estimated at 18.5 percent of the general population⁶⁹ – the second highest rate in the world. The impact of HIV/AIDS differs markedly by gender and age, with rates highest among females between 30 and 50 and males between 35 and 60 (Figure 48). It is estimated that more than half of all women between the ages of 35 and 39 have tested positive for HIV. Overall the prevalence rate for women (20.8 percent) is well above the rate for men (15.6 percent).

From the start, the government declared HIV a national emergency and committed itself to a long-term response⁷⁰. This was seen most notably in the pioneering decision to make anti-retroviral (ARV) medicines freely available to the entire population, to ensure broad testing, and to target mother-to-child transmissions. The results are clear to see: prevalence rates in the young adult population have declined substantially over the past decade (Figure 49) and mother-to-child transmissions fell from 40 percent to just 4 percent (and HIV prevalence

⁶⁶ UNDP (2010)

⁶⁷ Sen (1999)

⁶⁸ Ministry of Health (2012)

⁶⁹ Statistics Botswana – BAIS IV Survey (2013)

⁷⁰ Presidency and National AIDS Coordinating Agency (2009)

in the 18 month to 4 year old age group has fallen to just 1.2 percent). The latter is particularly important for reducing the inter-generational impacts of the disease on poverty and inequality. The widespread availability of ARVs has had a huge impact in controlling the sickness and death rates linked to HIV, making HIV now a chronic rather than a crisis situation. But there are genuine concerns that success may have bred complacency. Incidence rates are still high, especially among young women, and evidence from the recent BAIS IV survey shows that risky behaviors have increased⁷¹. Prevention efforts are still under-resourced.

Figure 48: HIV prevalence by age cohort and gender, 2013

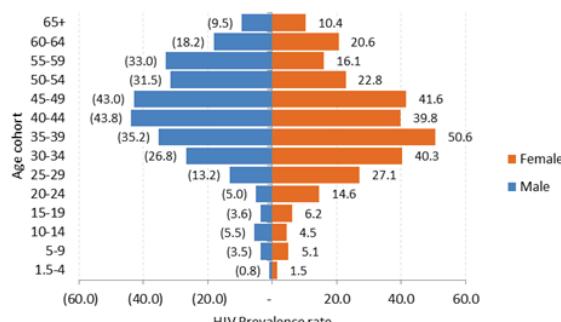
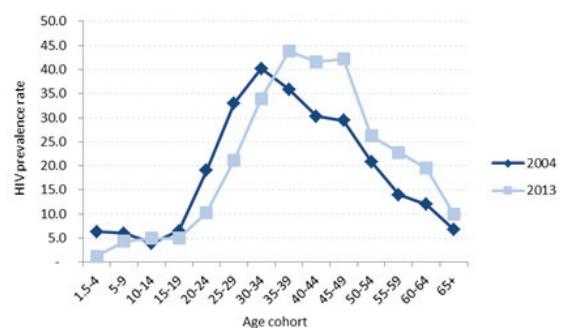


Figure 49: HIV prevalence by age cohort, 2004 v 2013



Data source: BAIS IV Survey, Statistics Botswana (2014)

HIV continues to impact both the scale and inclusiveness of growth. At an aggregate level, the magnitude of the epidemic tripled crude mortality rates (deaths per 100,000 of population) in Botswana between 1991 and 2003, and resulted in unprecedented death rates among young adults across all social strata. HIV has had a disproportionate effect on women and children – women not only have higher rates of HIV but also bear the burden of looking after other family members who have the disease. And while parent-to-child transmission of HIV has been virtually eliminated, a large number of children suffer from having been orphaned. The BAIS IV survey found 14.4 percent of children in Botswana had lost at least one parent from HIV. Finally, fiscal sustainability of treating HIV/AIDS and its impacts will be an increasing challenge (see Chapter 5 for a more detailed discussion of the fiscal risks associated with HIV/AIDS).

Maternal and child mortality levels far too high

The effects of HIV on households and on the healthcare system also contribute to poor outcomes on other health indicators, including maternal and child mortality and child nutrition. Both maternal and infant mortality rates are declining, but they remain far above global peers (Figure 50) and off track for meeting the Millennium Development Goals. More than half of all deaths of children under five in Botswana are a result of preventable diseases. Government is investing both to understand the factors contributing to these high rates (e.g. through the recent establishment of a Maternal Mortality Audit Committee) and to put additional resources into local health clinics (e.g. to improve the provision of emergency obstetric care).

⁷¹ This is attributed partly to engrained cultural norms and insufficient spending on prevention, especially on communications and other strategies focused on behavioral change. There is also some evidence of moral hazard, as a result of the guaranteed availability of free ARVs.

Figure 50: Maternal and infant mortality rates

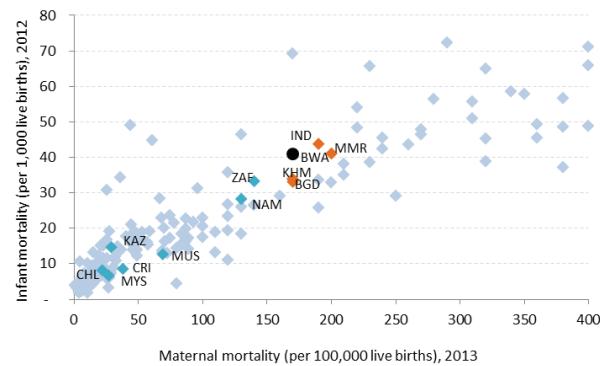
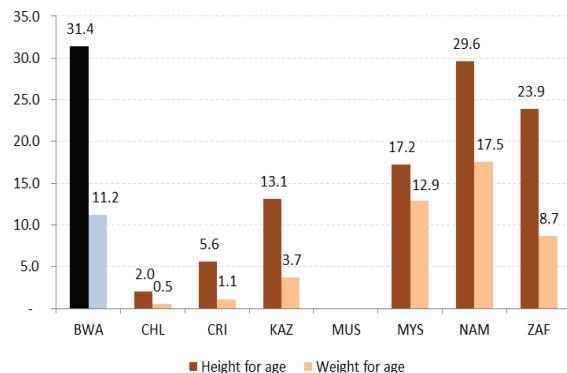


Figure 51: Malnutrition rates



Left panel: Data source – WDI; BGD=Bangladesh; IND=India; KHM=Cambodia; MMR=Myanmar

Right panel: Data source – WDI; “Height for age” (stunting) measures percentage of children under age 5 whose height for age is more than two standard deviations below the median for the international reference population ages 0-59 months; ‘Weight for age’ measures percentage of children under age 5 whose weight for age is more than two standard deviations below the median for the international reference population ages 0-59 months

Childhood malnutrition is putting many Batswana at risk from the start

An area that may have the biggest impact on inclusion and inter-generational poverty transmission is child nutrition (Box 9). Chronic under-nutrition (stunting) in Botswana is 30 percent higher than in South Africa and many multiples higher than in global peers (Figure 51). Less than one in four newborn children are exclusively breastfed for the first three months in Botswana. Diarrheal diseases continue to be a challenge and put formula-fed children at a particularly high risk of malnutrition and death. Figure 52 shows that socio-economic status and location both matter for malnutrition. The poorest 20 percent of Batswana children are 50 percent more likely to be malnourished than the richest 20 percent. And a child in the rural Southwest is 40 percent more likely to be malnourished than one in Gaborone. Data on access to medical services (Figure 53) suggests that coverage in equitable, but also indicates that differences are more an issue of location than of income⁷².

Figure 52: Stunting by socio-economic status and location, 2010

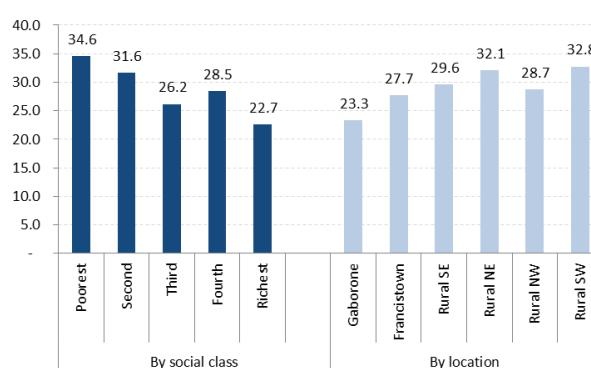
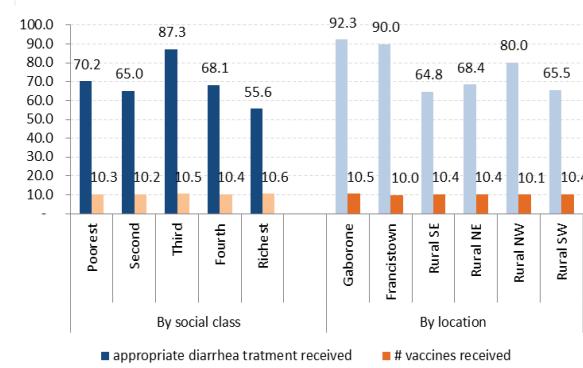


Figure 53: Access to health services for children by socioeconomic status and location, 2010



Data Source: World Bank (2014a, forthcoming) based on data from Statistics Botswana comprising HIES (2003) and CWIS (2010).

⁷² Interestingly, while the rural Northwest is the poorest among all regions in the country, it has a relatively low rate of stunting compared to other non-urban regions and also has a much higher rate of appropriate diarrhea treatment.

On the other hand, Botswana has an extensive program of nutrition support, including Tsabana (nutritional supplement), which is distributed to almost all households with children, regardless of income. And stunting rates for the richest households in Botswana (22 percent) are still far above international norms. This suggests it is not simply a question of access to food or of income. In addition to the low levels of breastfeeding (attributed to the HIV epidemic), lack of nutritional education, poor hygiene, and intra-household distribution of food are all seen to be part of the problem.

Box 9: Malnutrition and development

Under-nutrition, manifested as being underweight and having vitamin and mineral (micronutrient) deficiencies, is one of the world's most serious but least addressed public health challenges. Children between 0-24 months of age are highly susceptible to becoming undernourished, due to their rapid growth which, if coupled with repeated childhood infections/illnesses and inadequate nutrition, leads to slowing/reduced growth. At an aggregate level, under-nutrition results in an estimated 261 million lost disability-adjusted life years (DALYs) globally each year⁷³, with economic costs in terms of lost national productivity and growth ranging from 2-3 percent of GDP in some countries⁷⁴.

Under-nutrition has a particularly big impact on inclusion, because the effects are long-lasting and impact on a child's life chances by affecting academic performance and future earnings. The effects of low weight and micronutrient deficiencies include irreversible physical and cognitive damage, including suboptimal brain development and reduced disease resistance (which increase the severity of illnesses such as pneumonia, diarrhea, and malaria). Recent studies have further indicated that low-birth weight infants and stunted children may be at greater risk of chronic diseases, such as diabetes and heart disease⁷⁵.

Sources: UNICEF (2012); World Bank and BIDPA (2013);

KNOWLEDGE GAPS: CHILDHOOD MALNUTRITION – CAUSES AND IMPACTS

As discussed above the problem of malnutrition in children is deep and widespread in Botswana. It is also puzzling given the relative quantity and quality of financial and nutritional support provided to poor (and even non-poor) households. It is also not clear how extensive is the impact of malnutrition. Given the potential importance of malnutrition on long term outcomes, further research on these issues should be a priority.

Non-communicable diseases on the rise

Looking ahead, Botswana faces a challenge to maintain the quality and coverage of the health system, particularly given its small, dispersed population. While HIV/AIDS will continue to a priority, other diseases (including drug-resistant TB and potentially malaria), and non-communicable diseases (NCDs), are a growing issue – indeed, NCDs are expected to become the leading cause of morbidity and mortality by 2030.

4.2. Basic resources and services

Botswana's harsh and volatile natural environment is a significant barrier to escaping poverty for the individuals and communities in its rural areas. And low population density, makes widespread provision of basic resources and services challenging and costly. Significant improvements have been made in access to essential services over the last decades, but inequities in access and quality persist.

⁷³ Lopez et al (2006)

⁷⁴ Victora et al (2008)

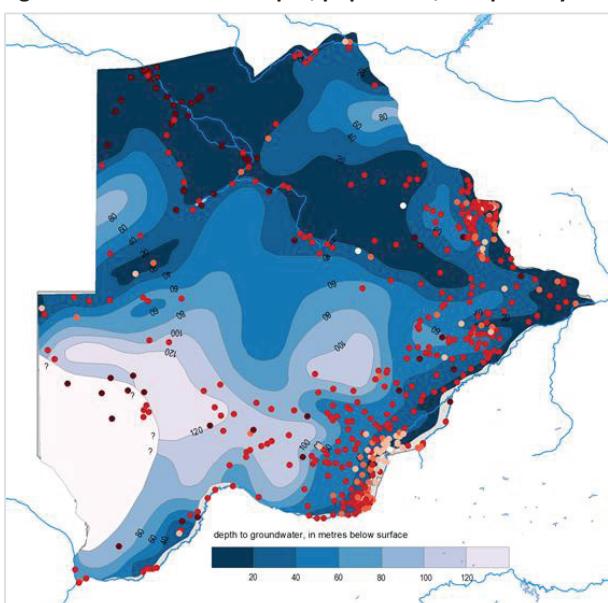
⁷⁵ Victoria, C.G. et al. (2008)

Water is broadly available, sanitation is not

For a country as arid as Botswana, access to water resources has always been a critical determinant of well-being. Indeed, the historical development of private water syndicates as a means of financing the development and maintenance of boreholes and dams⁷⁶ is seen as a factor contributing to the persistence of inequalities in Botswana⁷⁷.

Figure 54 shows that the large majority of the population is concentrated in relatively water-scarce areas; and that the most acute poverty seems concentrated where water is *both* least and most available. Access to water is one of the few issues that have taken on an ethnic element in Botswana, with the contentious issue of the rights of the Basarwa (San) to drill boreholes on their land in the Central Kalahari Game Reserve⁷⁸.

Figure 54: Groundwater depth, population, and poverty



Data sources: Statistics Botswana (2014) incorporating HIES (2003) and CWIS (2010); IISD (2014) for water map

Botswana has been very successful in ensuring wide access to clean water, with more than 95 percent of the population having access to “improved drinking water sources”⁷⁹, with a commitment to universal access by 2016. Government also subsidizes water and structures tariffs so that prices are kept low for the poor, and for household users in general⁸⁰.

⁷⁶ Private syndicates (user groups) acquire water rights and are responsible for operating and maintaining boreholes / dams (as well as paying a portion of capital costs). In return they obtain exclusive use without any charges for the water.

⁷⁷ UNRISD (2012)

⁷⁸ In 2010 a High Court ruling upheld the restrictions on San drilling boreholes on their homelands in the game reserve; this was reversed in a 2011 Appeal Court ruling

⁷⁹ Improved drinking water source includes piped water on premises (piped household water connection located inside the user’s dwelling, plot or yard), and other improved drinking water sources (public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, and rainwater collection, as defined by WHO).

⁸⁰ Low baseline rates are in place for household use up to 40 liters per person per day.

However, despite some progress, sanitation remains a serious gap⁸¹. Only 64 percent of the population, and just 42 percent in rural areas, has access to improved sanitation. This is far behind peers (except Namibia), most of which have achieved almost universal access (Figure 55). Just 7 percent of the poor and 11 percent of the bottom 40 percent in Botswana have use of personal or communal flush toilets; moreover, the urban-rural divide is strong, with just 10 percent of rural households having access compared to 56 percent of urban households (Figure 56). Poor access to sanitation undoubtedly has a significant impact on health outcomes of the poor, with consequences for poverty and inequality.

Access to electricity remains low in rural areas

Similarly, access to electricity in Botswana remains very low by global standards (Figure 55), and is again characterized by significant disparities in access. While BPC reports that the rural electrification rate has now reached 55 percent, this remains low in global terms and below the NDP 10 target. Moreover, data from the 2009/10 household survey (CWIS) highlights major disparities in access to the grid both between urban and rural households and across the income distribution. Figure 56 shows access to the grid among the richest decile (74 percent) is more than 3.5 times that of the lowest decile (21 percent) and 2.5 times that of the bottom 40 percent of the population (30 percent)⁸². Again, the cost of rolling out access to dispersed rural populations is a significant barrier. As a result, public facilities have been prioritized in many remote areas. On the other hand, to date, there has been limited use of distributed technologies (e.g. solar panels) to overcome these challenges.

Figure 55: Access to electricity and improved sanitation versus peers, latest

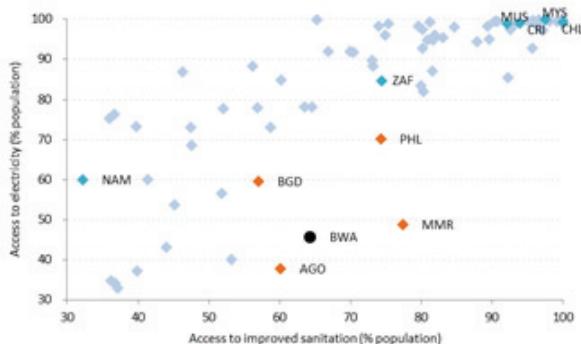
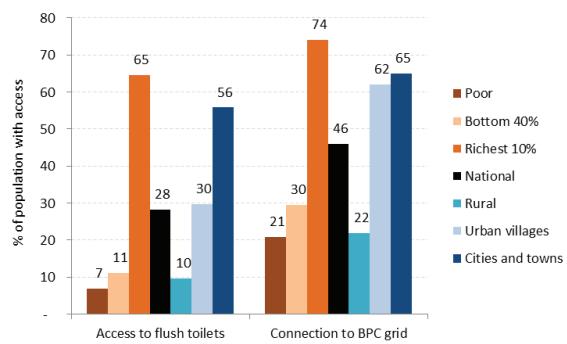


Figure 56: Household access to sanitation and electricity, 2010



Left panel: Data source – WDI; access to improved sanitation data from 2012; access to electricity data from 2011

Right panel: Data source – Statistics Botswana (2014) comprising HIES (2003) and CWIS (2010)

Communications and transport infrastructure is relatively extensive

Limited coverage of the electricity grid contributes to low penetration of fixed-line telephony and broadband, particularly in rural areas. On the other hand, massive expansion of mobile phone penetration opens up significant potential for information and market access to the poor. From the early 2000s, mobile phone subscriptions went from almost none to reach a penetration rate in 2010 of 118 per 100 population – the highest in Sub-Saharan Africa. This expansion was made possible by regulatory reforms that substantially liberalized the

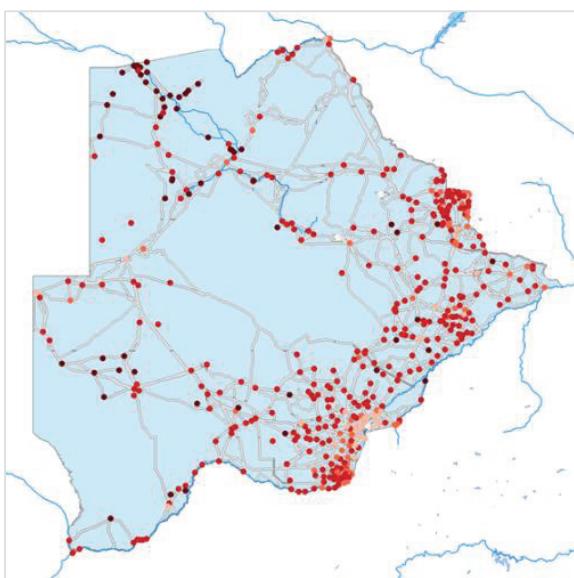
⁸¹ Improved sanitation facilities include flush/pour flush (to piped sewer system, septic tank, pit latrine), ventilated improved pit latrine, pit latrine with slab, and composting toilet, as defined by WHO.

⁸² Note that the specific access figures quoted in Figure 56 come from the 2009/10 household survey (CWIS) and are significantly lower than what is reported by BPC, which cites the 2011 population census.

market over the decade⁸³.

Road transport infrastructure is relatively extensive. On a per capita basis, Botswana has one of the densest road transport networks in Sub-Saharan Africa. And quality is relatively good, with 80 percent of the main road network and 73 percent of the rural network rated as in “good or fair” condition⁸⁴. Figure 57 shows that the vast majority of villages are located within 2 km of main roads, although many of the poorest villages are off the road network or linked only through tertiary roads. In the urban context, the lack of public transportation may increasingly become a barrier to inclusion, as poor Batswana may be forced to spend higher shares of their income on transport due to greater distances between housing and employment opportunities.

Figure 57: Road network, population, and poverty



Data sources: Statistics Botswana (2014) incorporating HIES (2003) and CWIS (2010); Kaiser Associates Economic Development for road network data on GIS

Land and housing becoming a constraint

While the constitution provides no guarantee of right to land, government policies since independence have ensured equitable access to land for all Batswana⁸⁵. Any Motswana can apply for land anywhere in the country and obtain a customary land right certificate, allowing use of the land for residential, grazing, or arable purposes⁸⁶. Access to the commons has a long tradition in Botswana, and the vast majority of the country's 2-3 million cattle herd graze on communal lands⁸⁷. For the most part, access to land is inclusive, even if it is plagued by administrative bureaucracy and time delays.

⁸³ World Bank and BIDPA (2013)

⁸⁴ Data source: WDI

⁸⁵ Idasa (2012)

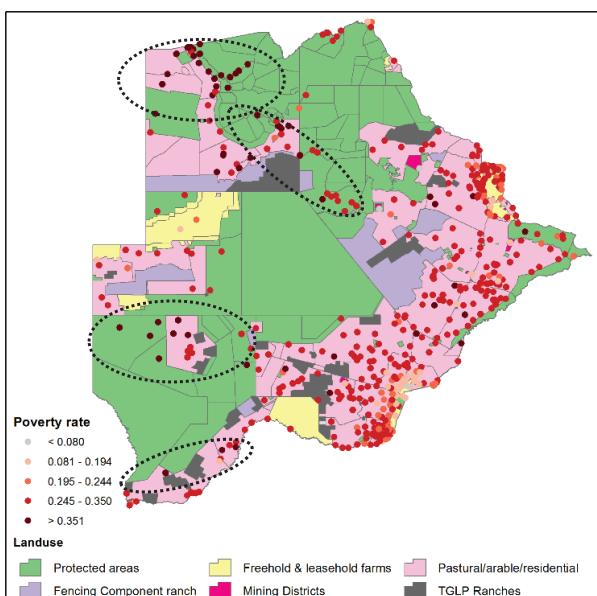
⁸⁶ The land board issues a customary grant, which gives the recipient an indefinite right to use of the land – this right can be inherited and transferred (e.g. through sale).

⁸⁷ Although in practice, this is controlled by exclusivity of water access, which means that communal grazing tends to be organized at the community level.

There are, however, some exceptions. First, from a gender perspective, while there is no discrimination in access to land, Tswana tradition has, at least until very recently, restricted women from inheriting property (see Section 4.4). Second, the secondary market for purchasing residences is constrained by the fact that customary grants are not accepted by banks as collateral for mortgages. While it is possible to transfer these to a common law lease, the poor are often restricted from doing so due to lack of knowledge and the costs. Poorer farmers also tend to be excluded from accessing commercial agricultural land due to the costs and processes (e.g. business proposal and bank statement required) involved⁸⁸. Moreover, the policy to allow commercial livestock farmers to fence off grazing areas has cut off some poor communities from access to natural resources (see Section 5.2).

More broadly, one challenge for poor, rural communities is that while Botswana has plenty of land, much of it is controlled for specific use. Over 43 percent of Botswana's land is designated for conservation purposes. Another 15 percent is in use as freehold or leasehold farms, fenced grazing areas, game ranches, or mining. At the aggregate, this still leaves a lot of land, but in some locations, accessing suitable land can be a challenge. Figure 58 shows that many of the poorest communities are located around conservation-controlled areas.

Figure 58: Land use, population, and poverty



Data sources: Statistics Botswana (2014) incorporating HIES (2003) and CWIS (2010); IISD (2014) for land use data

At the opposite end of the spatial hierarchy, access to land in cities, the urban fringe, and nearby urban villages – particularly in Gaborone, but also in Francistown, Lobatse, and Kasane-Kazungula – is becoming increasingly constrained. Pressures from urbanization are exacerbated by land allocation and tenure systems which restrict the growth of cities. Gaborone, for example cannot expand its geographical footprint as it is hemmed in by tribal and freehold lands. This not only limits availability of land for residential purposes, but makes it difficult for local government to invest in the public infrastructure (roads, dams, water treatment facilities, solid waste, etc) required to meet the needs of the growing urban population⁸⁹. In theory, government has the authority to implement compulsory purchase of land. However, to date it has tended to avoid taking this step to convert

⁸⁸ Idasa (2012)

⁸⁹ Stockholm School of Economics (2013)

agricultural to urban land use around cities due possibly to cost and cultural considerations. As a result, however, land gets trapped in its lowest productivity use, and the costs for land and housing around cities face strong upward pressures. This may raise the costs of migration and restrict the mobility of the rural poor, while also contributing to environmental damage and lowering the quality of life for existing urban residents.

This, for example can be seen in the prevalence of overcrowded housing (typically measured as more than two persons per room). More than 42 percent of the population is defined as living in overcrowded housing in 2010, with around 10 percent living with 4 or more persons per room. While some argue that the practice of living many to a room is a cultural norm in Botswana, in fact it confined predominately to the poor. Poor households have an overcrowding headcount rate over 70 percent – 10 times that of rich households. Like other correlates of poverty, overcrowding is biased toward: rural, peripheral areas (rural South-West had the highest rate while Gaborone had the lowest); households where the head has lower educational attainment; and in female-headed households. Overcrowding matters, because it is linked to poor health outcomes (spread of communicable diseases) as well as poor educational outcomes (lack of quiet locations to study), and as such has significant implications for inclusion.

4.3. Education and skills

Equitable access overall

Access to quality education is among the most critical determinants of inclusion in any society, as it is central to building capabilities at the individual level. Botswana is no different – educational outcomes are highly correlated with labor market and poverty outcomes. Over several decades, Botswana has made large public investments in education, averaging more than 8 percent of GDP annually, and accounting for close to one-quarter of total government spending. This allowed for expansion of schools to reach all parts of the country, improved equipment and materials in schools, declining (and low, in global terms) pupil-teacher ratios, improved access to accommodation for teachers, and increasing qualifications of teachers⁹⁰. This in turn has contributed to substantial increases in enrolment and completion rates, and in reducing illiteracy dramatically among the working age population. At the same time, changing demographics, linked to declining infant and child mortality, is putting pressure on the secondary education system.

Botswana has placed significant emphasis on equity of access and quality. A recent assessment as part of the regional SACMEQ⁹¹ program confirms that material and human resources are distributed equitably to schools both across and within regions. Botswana has also been effective in ensuring equal access to education for girls and women. The primary completion rate is higher for females than males, as is the enrolment and completion rate for secondary education. Despite this, shortcomings in the educational system raise barriers to inclusion at two levels: i) significant disparities remain across socioeconomic groups and locations; and ii) for all Batswana, relatively poor outcomes raise concerns over the quality of education.

Barriers to inclusion

The net primary enrolment rate rose from around 80 percent to 84 percent during the 2000s, but this still means several thousand children between the ages of 6 and 12 are not being educated in schools. What is unclear is whether this actually means many children are falling outside the education system completely (i.e. never going to school) or is driven by ages at which children start primary school (see below). Enrolment lags well behind middle income peers (despite substantially higher spending – see Figure 59). Moreover, a large number of

⁹⁰ Idasa (2012)

⁹¹ SACMEQ (2011)

children do not progress from the primary to the secondary level, where enrolment drops to just 61 percent (although it increased more than 7 percentage points in a decade), and most students leave before the senior secondary level. These shortfalls in educational participation are biased toward the poor rural populations. Figure 60 highlights major disparities in educational outcomes from an income and spatial perspective. The poor tend to both start school later and finish earlier. By age 6, only 25 percent of poor children had started school compared to 33 percent of the middle class and rich⁹²; similarly, 49 percent of the poor finish school between ages 15 and 18 versus just 36 percent of the rich.

One factor contributing to weak outcomes among the poor at the secondary level may be cost. While education is free at primary level, ‘cost-sharing’ fees were introduced in 2006 –P300 for junior secondary per year and P450 for senior secondary⁹³. Exemptions are available for the extremely poor, but for a family of five with two earners on minimum wage, these fees would account for between 6 to 9 percent of earnings. Along with other costs, notably transport, this may represent a barrier to some households, with implications for inclusion. Indeed, the indicator of progression to secondary school has sharply dropped for females in 2006, when the cost recovery fee was introduced. But most likely this is only a small part of the story, with a number of other factors coming into play that prevent the poor from completing education. The 2010 household survey asked respondents to indicate reasons for having stopped schooling – among those most associated with poverty were: lack of affordability; lack of interest; family illness or death; and becoming pregnant.

Figure 59: Primary enrolment and public spending on education

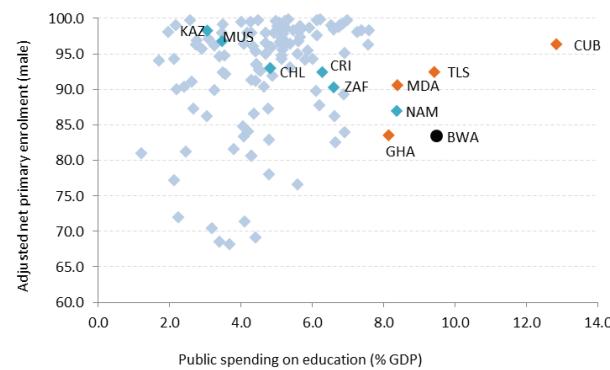
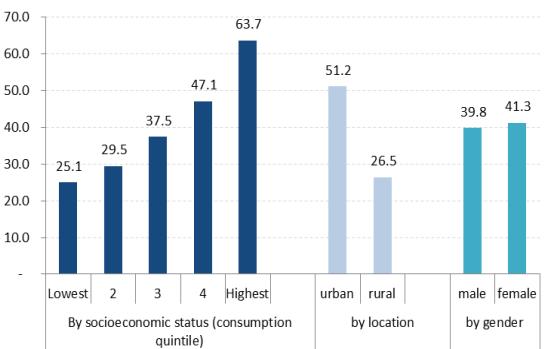


Figure 60: Share of Botswana population with at least secondary education by characteristic, 2010



Left panel: Data source – WDI; adjusted net primary enrolment rate measures the number of pupils of the school-age group for primary education, enrolled either in primary or secondary education, expressed as a percentage of the total population in that age group (as per UNESCO definition); CUB=Cuba; GHA=Ghana; MDA=Moldova; TLS=Timor-Leste

Right panel: Data source – Statistics Botswana (2014) comprising data from CWIS (2010)

At the tertiary level, Botswana’s enrolment rate (16.4 percent) is less than half the middle income country average – Mauritius, for example, reached almost 40 percent tertiary enrolment in 2012. At the aggregate level, the limited supply of highly educated Batswana may contribute to the particularly high returns to university education (Figure 62). While government supports students at the tertiary level (the budget for scholarships and sponsorships was more than P1.7 billion in 2012), much of this goes to households in the middle and upper income deciles.

⁹² In 2009, the gross primary school enrolment ratio was at least 25 percentage points higher than the net enrolment ratio, indicating that 25 percent were outside the target age cohort

⁹³ According to NDP 10, school fees represent 5 percent of the total costs of operating secondary schools

Quality concerns across the board

The second concern in education is around quality. As noted earlier, educational outcomes appear to be increasingly insufficient to meet labor market needs. As a result, individuals are finding it difficult to leverage their assets into productive, income-earning employment. Figure 61 shows the considerable gap in Botswana's student test scores relative to international peers (with the notable exception of South Africa). At the tertiary level, too, the Tertiary Education Council is attempting to address ongoing concerns over the quality and relevance of tertiary education, which is seen to be increasingly out of line with labor market needs. Finally, outcomes as measured by test scores also show significant disparities between the rich and poor, despite the efforts of government to address equity concerns. In fact, Botswana has the one of the largest gaps in test scores between students from rich and poor households among 13 countries in Eastern and Southern Africa (only Mauritius and Seychelles had higher gaps)⁹⁴. Students from the richest 25 percent of households scored on average 23 percent higher than their peers from the poorest 25 percent of households in reading and 15 percent higher in math. Declining quality of education may be contributing to the situation whereby secondary school leavers and graduates are seeing their relative gains in the labor market eroded over time.

Figure 61: TIMSS Science and Math test scores – international comparison for 8th grade (2011)

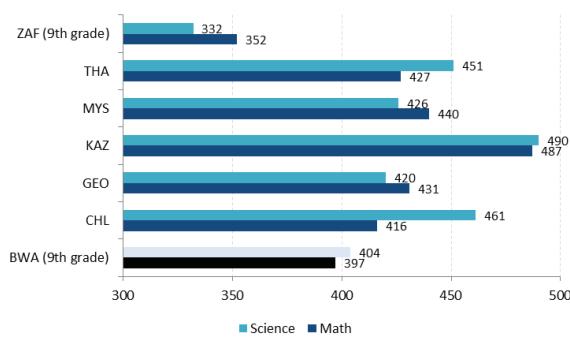
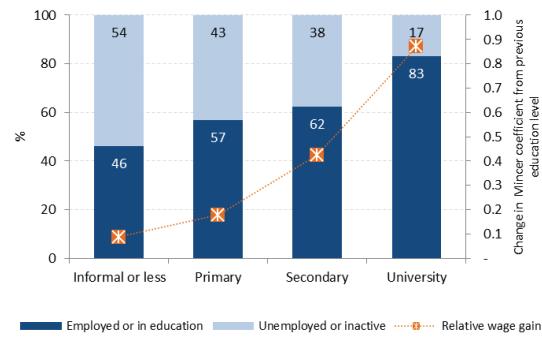


Figure 62: Returns to education – employment status and wage gain by educational attainment, 2010



Left panel: Data source – <http://timssandpirls.bc.edu/>; Mean international score = 500; Botswana and South Africa tested students at 9th grade level, while other countries shown tested at 8th grade; GEO=Georgia and THA=Thailand; other peer countries shown elsewhere in this note and not reported here did not participate in TIMSS in 2011.

Right panel: World Bank (2014b), based on data from CWIS (2010)

4.4. Financial assets

Still more cattle than bank accounts—big gap with the poor and rural

The only available global dataset on financial inclusion – Global Findex – indicates just 30 percent of the adult population in Botswana is banked; in rural areas it is just 22 percent (Figure 63)⁹⁵. This places Botswana easily the lowest among peer countries. Moreover, Botswana shows by far the biggest gap among peers in financial inclusion between the bottom 40 percent and top 60 percent of the population. Less than 14 percent of the bottom 40 percent of Botswana's population has access to a formal financial institution (compared to an average

⁹⁴ SACMEQ (2014)

⁹⁵ The FinScope Access to Finance Survey (FinMark Trust and EConsult Botswana, 2013), which is regarded as the main source of data on financial inclusion in Southern Africa, indicates a higher rate of financial inclusion in Botswana (as per 2009), with 41 percent banked (26 percent in rural areas), 18 percent using other formal financial products, and another 41 percent excluded. This places Botswana ahead of Namibia but still well behind South Africa.

of 42 percent in the peer countries). The rural-urban divide is stark here, with nearly 50 percent of Botswana's urban residents banked versus just over 20 percent in rural areas. Gender differences are, however, relatively limited (Figure 64).

Lack of access to formal finance makes households vulnerable to short terms shocks (e.g. illness, loss of employment). It may also be a significant barrier to their potential to invest to build human and other physical assets, or to start and operate a small business, although other forms of assets (i.e. cattle; and for the poor, other small stock like goats) remain important in Botswana⁹⁶. Informal moneylending is increasingly common in Botswana. The Findex dataset indicates that in urban areas obtaining a loan from a private moneylender was more common than obtaining it from a formal bank.

While substantial public financial assets were invested in funding a pension fund for civil servants, just 13 percent of the Batswana are covered by a formal pension system. Government does provide a universal old age pension, but this is insufficient a means of support, meaning that the majority of the bottom 40 percent are dependent on family in their old age⁹⁷.

Figure 63: Share of adult population with account at a formal financial institution- versus peers, 2011

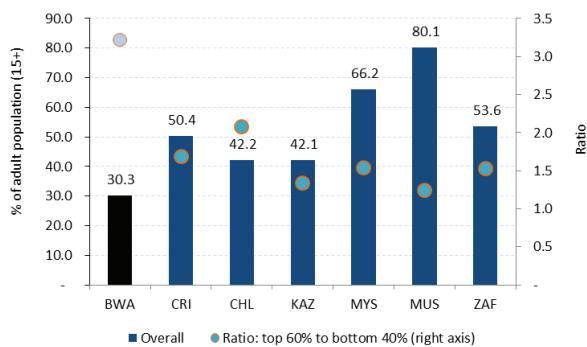
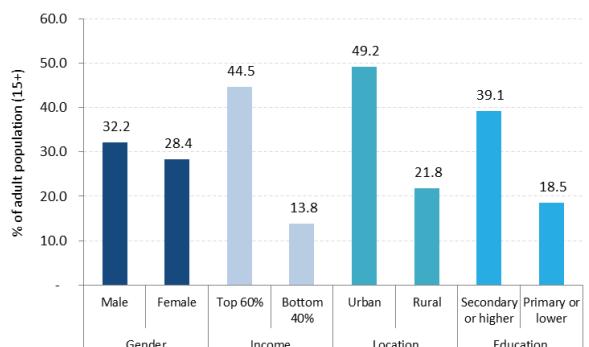


Figure 64: Share of adult population with account at a formal financial institution – by group, 2011



Data source: World Bank, Global Findex Database of Financial Inclusion

Women do not appear to face significantly greater barriers in accessing formal finance. However, female-headed households do tend to own fewer assets, including smaller land plots and fewer livestock. In addition, women face barriers to wealth accumulation – under Tswana tradition, women cannot inherit property, such as land, housing, and cattle. However, in 2012 a landmark ruling at Botswana's High Court overruled these traditional laws, setting a legal precedent that the right to equality enshrined in Botswana's constitution overrules customary practices.

4.5. Labor markets

Big challenges for youth and women

Unemployment persists at over 17 percent and inactivity rates have increased substantially, meaning that little over half of the working age population is in employment. The problem is particularly acute among youth. In the

⁹⁶ Cattle are a common vehicle for wealth accumulation in rural areas (and among working-age, urban males); this is evidenced by the fact that less than 10 percent of the country's communally-grazed cattle are marketed in any year.

⁹⁷ The Old Age Pension is a universal cash payment of P250 per month (US\$33) as of 2012/13, equivalent to 37 percent of the food poverty line (World Bank and BIDPA, 2013)

20-24 age cohort, nearly 47 percent of the population is either unemployed or inactive (Figure 65). Substantial youth unemployment has long-term implications on labor market outcomes and earnings, and prevents individuals from beginning to accumulate transferrable skills and wealth. It places additional burdens on families who are often called on to support unemployed youth, as well as on the state. While the government provides no unemployment insurance it does invest in countless training, entrepreneurship development other support programs targeted at youth.

As discussed in Chapter 3, jobs are not being created at anywhere near the pace needed to enable young Batswana to make effective use of their human capital endowments. The formal private sector created just 1 job for every 6 Batswana that reached working age over the last decade. And the non-farm informal sector accounts for just over 11 percent of employment in Botswana, compared to a regional average of 15 percent for upper middle income countries and 20 percent in resource-rich countries like Botswana⁹⁸. Job creation has been particularly weak in cities, while it has been more buoyant in rural areas, although a substantial share of rural job creation has come in subsistence farming.

Figure 65: Employment status by age cohort (youth), 2010

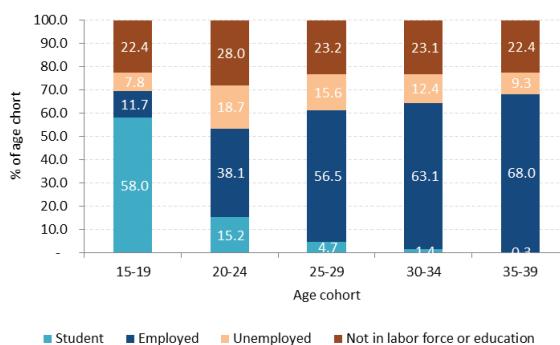
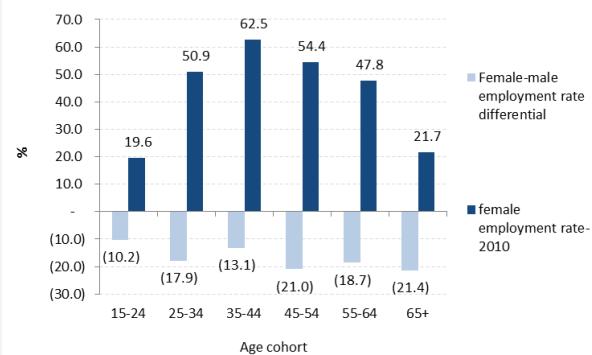


Figure 66: Female employment rate and differential with male rate, 2010



Data source: Statistics Botswana (2014) comprising data from CWIS (2010)

Despite significant gains over the past decade, the labor market continues to reflect substantial barriers to inclusion of women in Botswana. Gender differences in labor market outcomes are striking: participation of males is 13.3 percentage points higher than for females (65.7 to 52.4 percent); the employment rate is more than 15 percentage points higher (56.6 to 41.5 percent); the unemployment rate is 7 percentage points lower (13.8 to 20.8 percent); and men earn 29 percent more than women. The gender gap is particularly stark in the younger age cohorts (Figure 66). This does not appear to be a function of an education and skills gap; in fact, women show higher enrolment and performance in education through the secondary level. Rather, it appears to be a gap in how the multiple roles of females in society (as mothers, carers, managers of households, and earners) is managed both formally (in labor markets) and informally (culturally).

Surprisingly, the gap in labor market outcomes between males and females grew at a time during which the fertility rate fell sharply. And while outcomes for older women have improved significantly over the past decade, the disparity with male counterparts is even larger in these cohorts. Among the factors contributing to these disparities is the fact that females tend to have responsibility not just for raising children but also looking after sick family members (including spouses, parents, and siblings). In the context of the HIV/AIDS epidemic this may

⁹⁸ World Bank and Agence Française de Développement (2014)

have severely curtailed the potential for women to increase their participation in the labor market. By contrast, at the highest skills levels female outcomes are at par or even ahead of males, although this is distorted by high public sector employment⁹⁹. Women are, in fact, strongly over-represented in public sector employment, particularly at the high skill end, and in self-employment at the low skill end. They are under-represented in the private sector across all skill levels.

4.6. Social protection system

Modernization to improve effectiveness and efficiency

Social protection systems not only play a critical role in poverty alleviation, but are fundamental to facilitate the productive potential of individuals in vulnerable situations and to help stem the intergenerational transmission of poverty. Botswana has a mature and comprehensive social protection system covering social insurance, active labor market programs, and social assistance. Overall, Botswana spends 4.4 percent of its GDP to social protection. Botswana's allocation to social assistance (as compared with social insurance) is relatively high (Figure 67).

Figure 67: Social protection spending as share of GDP-peer comparison

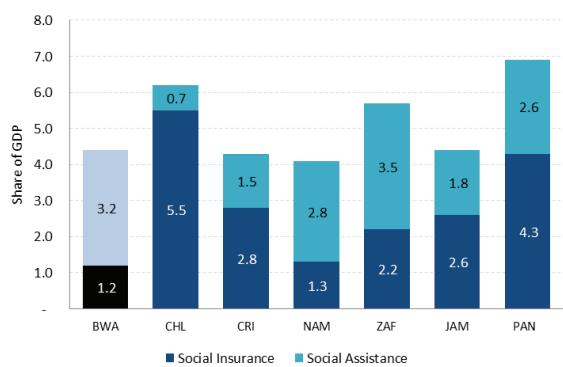
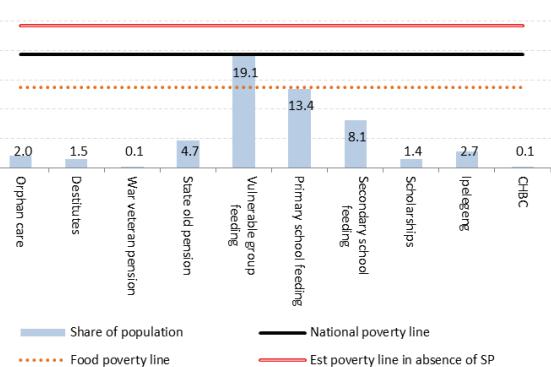


Figure 68: Targeting and outcomes of social protection, 2012



Source: World Bank and BIDPA (2013)

Left panel: JAM=Jamaica; PAN=Panama; Data unavailable for other peer countries included elsewhere in this report.

Right panel: SP=social protection

As noted in Section 2.3 spending is making a difference – the simulated poverty headcount in the absence of social protection is 25 percent higher (at 24.3 percent) and the poverty gap is 69 percent lower (Figure 68), suggesting that the program is most effective at alleviating poverty of the very poor rather than lifting the poor out of poverty. School meals, old age pensions, and several forms of government aid, provided in kind or in cash, have the largest effect on reducing the poverty gap.

Modernization of social protection programming, however, could contribute to even larger gains against poverty, particularly extreme poverty. First, reducing the fragmentation of existing programs (Figure 68) could help improve the efficiency of current social protection spending. At the moment, there exist many, overlapping programs, none of which is nearly sufficient to reach all the poor. The World Bank's Social Protection and Labor Strategy, 2012-2022, highlights that reforms toward a systems approach to social protection can improve

⁹⁹ More than 70 percent of university-educated women in Botswana work for the government.

effectiveness through “*better designed tax/financing arrangements, economies of scale, and common platforms such as registries.*”¹⁰⁰

Second, improved targeting of programs could reorient social protection spending to benefit the country’s poor. At present, the distribution of social assistance spending is biased towards programs which by design are not meant to target only the poor; non means-tested programs, pensions and annuities take up the majority of the social assistance budget and are biased toward richer segments of society. For example, 45 percent of spending in the broadly-defined social protection budget goes to non means-tested scholarships and sponsorships. These have an important role in national human capital development, but arguably have limited impact on the poverty eradication targets. More progressive targeting mechanisms, and/or scaling up of programs that specifically target the poor, could increase the effectiveness of social protection to combat poverty. Evidence from across Africa suggests that inclusion and exclusion errors are minimized when a combination of targeting mechanisms (such geographic, categorical and community targeting, as well as proxy means testing) are adopted.

Third, social protection programs also can be designed specifically to help break the cycle of inter-generational poverty transmission. More focus could be placed on conditional safety net interventions that promote behavior changes (nutrition, education, and preventive health care including HIV prevention), public works that could invest in much-needed public goods (such as sanitation) and linkages with active labor market programs. Indeed, while several active labor market programs are in place (e.g. the National Internship Program, the Apprentice Program, the Youth Development Fund, and the Youth Empowerment Fund), they account for just 4 percent of spending on social protection and labor, and remain poorly integrated with social assistance programs. Finally, existing social protection programs have limited coverage of the informal sector and integration with community-based initiatives.

4.7. Social cohesion, voice, and participation

Cohesive society

Despite diversity in ethno-linguistic groups¹⁰¹, the Tswana (which incorporated a number of these groups) account for 79 percent of the population. This consolidation of identity, along with a tradition of consultation and democracy, and the lack of strong colonial institutions¹⁰², has contributed to social cohesion. Botswana is the only country in Sub-Saharan Africa to have experienced no ethnic violence since independence, and ethnicity has played a limited role in electoral politics. While the Botswana Democracy Party (BDP) has maintained power since independence, opposition is substantial, and the country’s institutions are largely open and responsive. The traditional *kgotla* system retains an important role and consultations at the village level, and between government and communities, are expected.

But gaps are emerging

Yet, concerns remain that civil society as a whole is weak and overly reliant on government, all the more so given the decline in donor funding that resulted from Botswana reaching upper middle income status. Indeed, questions are sometimes raised over the degree to which Botswana is truly an open democracy or a consolidation of elite interests¹⁰³. While Botswana rates in the middle of peers on global ratings of ‘voice and

¹⁰⁰ World Bank (2013c)

¹⁰¹ Among the ethnic groups found in Botswana are the Kalanga, Basarwa, Herero, Basubiya, Bambukushu, Babirwa, Batswapong, Ndebele, Bamangwato, Bakwena, Bakgatla, Bamalete, Batlokwa, Bayeyi, as well as people of European and Asian descent (BIDPA and UNECA, 2013)

¹⁰² The British governed Bechuanaland as a protectorate and ruled indirectly, through local chiefs (Leith, 2005)

¹⁰³ Leith (2005), Idasa (2012)

accountability' (Figure 69) its performance on this component of the *World Governance Indicators* is below its overall average and has slipped over the decade. While the government is open to civil society, they are also seen to do little to support it, treating civil society more as a mechanism for service delivery than as a contributor to policy¹⁰⁴. Moreover, specific groups do face some challenges to ensuring voice and agency. Most notable here are women. Following the 2014 general elections, just 8 percent of seats in parliament (5 of 61) are held by women – this is far below peers and represents a halving of women's participation since the beginning of the 2000s (Figure 70). It is also far below the 50 percent threshold called for in the Protocol on Gender and Development, which Botswana has not signed. The winner-takes-all structure of the electoral system in Botswana may contribute to relatively low success of female and other non-traditional candidates.

Figure 69: Voice and accountability rating – Botswana versus peers and over time

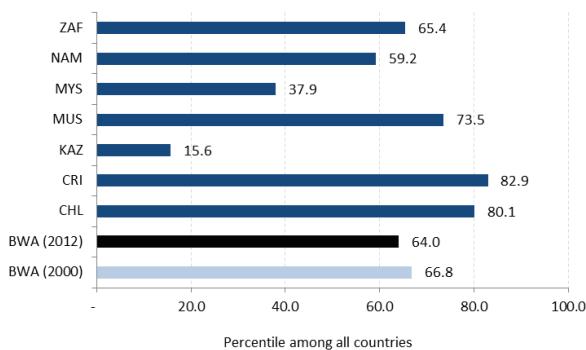
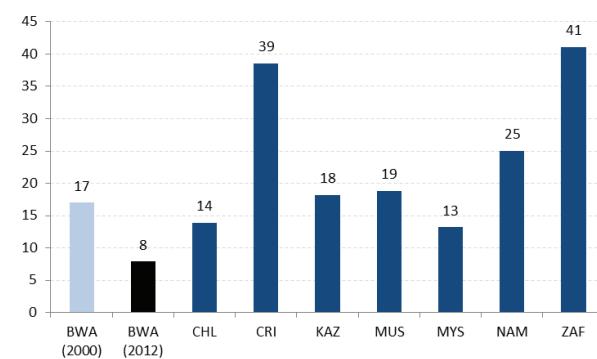


Figure 70: Share of parliamentary seats held by women – Botswana versus peers and over time



Left panel: Data source – World Bank, *World Governance Indicators*
Right panel: Data source – WDI (Inter-Parliamentary Union data)

Concerns are also raised about voice and rights given to ethnic minorities. Most prominent is the long-running saga between the government and the Basarwa (San), which aside from the specific conflict around their rights in the Central Kalahari Game Reserve, are generally poor, marginalized and unrepresented in national fora. Beyond the Basarwa, there is growing public debate around ethnicity, which has contributed to further opening of voice to minor tribes, for example through the amendments to Sections 77,78, and 79 of the Constitution, which had previously reserved the right of permanent membership in the House of Chiefs to the 8 Tswana-speaking tribes.¹⁰⁵

Finally sexual minorities face significant discrimination, with homosexuality technically illegal. This prevents representative groups from getting a seat at the table of most discussions with government.

4.8. Inclusion: brief summary of main messages and key challenges identified

This chapter argued that Botswana has made great efforts to ensure equitable access of its citizens to the infrastructure and services required to build productive assets and enable quality human development outcomes. This has been achieved through heavy investments in basic public services, including health facilities, education, infrastructure, and social safety nets, which has been particularly costly in an environment where: i) a small population is dispersed over a large geographical area; and ii) the low starting point in terms of

¹⁰⁴ Idasa (2012)

¹⁰⁵ BIDPA and UNECA (2013)

infrastructure and institutions (as well as outcomes). Overall, Botswana has been successful in ensuring equity of access, although gaps exist in key infrastructure and serious challenges remain in ensuring the quality, consistency, and efficiency of delivery.

Improving human development outcomes and ensuring that individuals can more effectively contribute to growth and competitiveness of the economy will require improving overall outcomes in health, where the impacts of HIV remain significant, and where childhood malnutrition is a major blight. It will also require improving both broad quality and equity in education and skills development and closing gaps in access to key infrastructure in rural areas, particularly in sanitation but also in access to electricity. In addition, improvements are needed in the functioning of key markets, including financial markets, labor markets, and land and housing, to ensure greater inclusion of vulnerable groups, particularly women and youth. Table 6 summarizes these issues and identifies the channel through which they impact the twin goals – *this is analyzed in further detail in Chapter 6 and Annex 1:*

Table 6: Summary of main issues identified – Chapter 4

Area	Specific issues	Channel for impact on twin goals
HIV prevention	Continued high incidence rates and backsliding in risky behaviors; prevention under-resourced	Lowers human development through health impacts; Risks sustainability of poverty elimination by increasing fiscal vulnerabilities; Lowers firm and public sector productivity through poor health and by restricting access of females to labor markets
Childhood malnutrition	Extremely high childhood malnutrition, with high rates even among richer deciles despite extensive nutrition program	Reduced cognitive potential and health impacts raises risks of sustaining poverty elimination and lowers firm productivity by lowering the capacity of skills supply
Access to sanitation	Very low levels of rural access to proper sanitation	Direct impact on human development outcomes; Impacts skills supply and productivity potential through indirect impacts on health and potentially childhood malnutrition
Rural access to electricity	Rural access to electricity still below targets; costs of access high in the absence of implementing alternative technologies	Lowers private sector investment and investment in micro-enterprises by limiting scope of operations and raising input costs; lowers productivity of rural smallholders
Access to land and public services in the urban fringe	Increasing constraints in access to land contributing to high costs of land and housing, overcrowding, sprawl, and challenges of delivering public services in rapidly expanding urban villages	Direct impact on human development outcomes through overcrowding and potential health risks; Lowers private sector investment and investment in employment-creating activities by putting pressure on costs (land, facilities, services, labor)
Quality and equity of educational outcomes	Despite heavy investments in education, test scores and labor market outcomes indicate serious gaps in knowledge, poor skills alignment, and poor ‘intangible’ skills (work ethic, communication, etc.)	Lowers private sector investment in employment creating activities by lowering productivity; lowers potential for self-employment activities; impacts productivity and quality of public service

Area	Specific issues	Channel for impact on twin goals
Financial inclusion for the rural poor and SMMEs	Rural Batswana (especially poor) largely unbanked; major gaps across rural-urban and income strata	delivery
Inclusion in formal labor markets for youth and females	Youth and females with particularly low rates of labor market participation and employment; Particularly strong gap in private sector, while public sector (traditionally more open to women and youth) no longer growing employment, and barriers to self-employment	Lowers private sector investment in employment creating activities by lowering productivity; risks sustainability of poverty elimination by reducing potential of women and youth to build skills and financial assets
Efficiency and effectiveness of social protection system	Social protection playing important role in reducing level and depth of poverty but targeting, coverage, and administration of system inefficient; poor links to programs to break inter-generational cycle	Limits potential to eliminate extreme poverty and raises the risks of sustainability of poverty elimination through failure to facilitate individual asset-building and to control fiscal costs.
Strength of civil society and voice of excluded	Low levels of participation of women in politics; civil society dynamic but increasingly reliant on government	Lessens the probability of policies targeted to address key gaps in inclusion

5. Sustainability assessment: managing resources for long-term prosperity

Botswana's long-term success has derived from its effective management in the conversion of natural resources wealth into productive infrastructure and human capital. As this chapter will show, the future will be more challenging, as natural resources wealth will become increasingly vulnerable, leading to a more constrained fiscal environment and thus threatening both growth and inclusion. Overcoming these challenges will require even more effective governance and resource management in the future. It is precisely here – in the effectiveness and efficiency of the public sector – that Botswana has struggled in recent years, and where it will require the most significant reforms and modernization to ensure it is able to continue on the path to poverty elimination and shared prosperity.

5.1. Sustainability in Botswana: a wealth accounting framework

Natural capital and wealth conversion – the numbers look good

Wealth accumulation is fundamental to ensuring sustainable growth and development. But wealth comes in many forms – natural capital (including minerals, croplands, forests, etc.), produced capital (machinery, equipment, and infrastructure), human capital, and social capital – all of which can be built up as well as depleted. So growth that simply runs down assets is obviously less sustainable than growth that is associated with maintaining and building assets. Natural capital is most critical in this assessment, as once it depletes, it cannot be replaced. Therefore, sustainability of growth and poverty reduction depends on converting natural resources into renewable assets, including high quality human capital, financial reserves, and physical assets. This is measured through an indicator of *changes in wealth per capita*¹⁰⁶.

The wealth accounting analysis shows that while Botswana has substantial natural capital in nominal terms (around US\$15,000 per person), it makes up only 17 percent of the country's total wealth in 2010¹⁰⁷, substantially lower than resource-reliant peers like Kazakhstan (Figure 71).

This suggests Botswana has been effective in converting natural endowments into other forms of capital. Indeed, between 2000 and 2010, Botswana's natural capital wealth actually declined in real terms, due mainly to the fall in value of diamonds production¹⁰⁸; yet Botswana's total wealth per capita grew robustly over this period – faster than in almost all peers, most of which experienced stronger growth in natural capital wealth (Figure 72). It also contrasts sharply with the Sub-Saharan African trend, which has seen persistent declines in wealth caused by resource depletion without sufficient savings and investment. Botswana's high gross savings, which have averaged more than 40 percent of GNI over the past decade, and its relatively high levels of education

¹⁰⁶ With annual wealth data not readily available, change in wealth per capita can be calculated based on the investments in and depreciation of capital following the concept of adjusted net savings (which is already estimated). Where population is not static, however, population growth needs to be factored in, since by the end of the year total tangible wealth would be shared by the larger national population. Therefore, the measure is calculation as follows: Δ Wealth Per Capita = Gross Saving – Consumption of Fixed Capital + Education – Natural Capital Depletion – Population Adjustment. Negative changes in wealth per capita could be caused by either a decrease in total wealth (i.e., increases in income are generated at the expense of asset depletion) or total wealth growing at a rate that is lower than the growth of population (i.e., the savings rate does not keep up with population growth).

¹⁰⁷ Note that the natural capital data does not include water. In addition, diamonds are not normally included in the measure of subsoil assets. However, for this exercise, diamonds have been included given their critical importance in Botswana.

¹⁰⁸ In fact, natural capital wealth increased up until the crisis

expenditures, have sustained a positive trend of wealth accumulation. In addition, steady growth in produced capital and foreign assets helped to offset declining natural resources wealth.

Figure 71: Structure of wealth by form of capital, 2010 – Botswana and peers

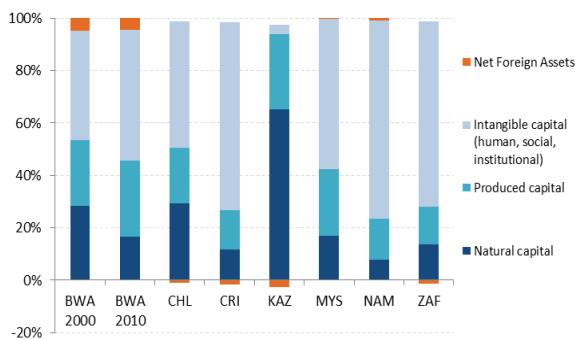
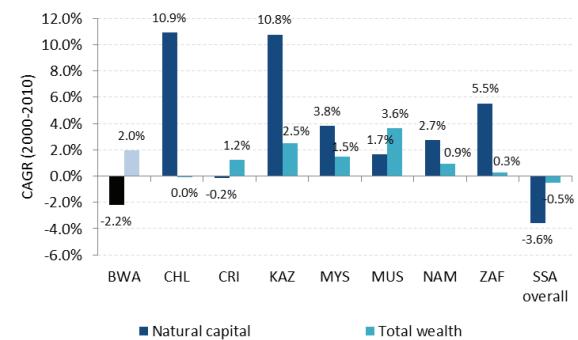


Figure 72: Growth in natural capital and total wealth, 2000-2010 (CAGR) – Botswana and peers



Data source – World Bank, *Wealth of Nations database, 2014*; Subsoil asset data for Botswana replaced by mineral accounts to include diamonds; Note that Botswana's energy wealth (which includes coal, oil, and natural gas) is assessed at zero value for two reasons: i) according to the wealth accounting methodology, mineral reserves that are not yet in production are not included in the natural capital measure; and ii) existing coal production in Botswana has been assessed to have a negative per unit rent (see World Bank, 2014d)

Effective institutions for managing resource rents

How did Botswana succeed in converting natural to productive capital? First, it is important to acknowledge the limitations of this accounting exercise. A critical assumption is that all public investment spending translates fully into capital stock – a situation possibly far divorced from any practical reality¹⁰⁹. Indeed, the degree to which this quantitative conversion of assets has been matched in qualitative terms is the fundamental question Botswana; and there are many reasons to be concerned, particularly in recent years.

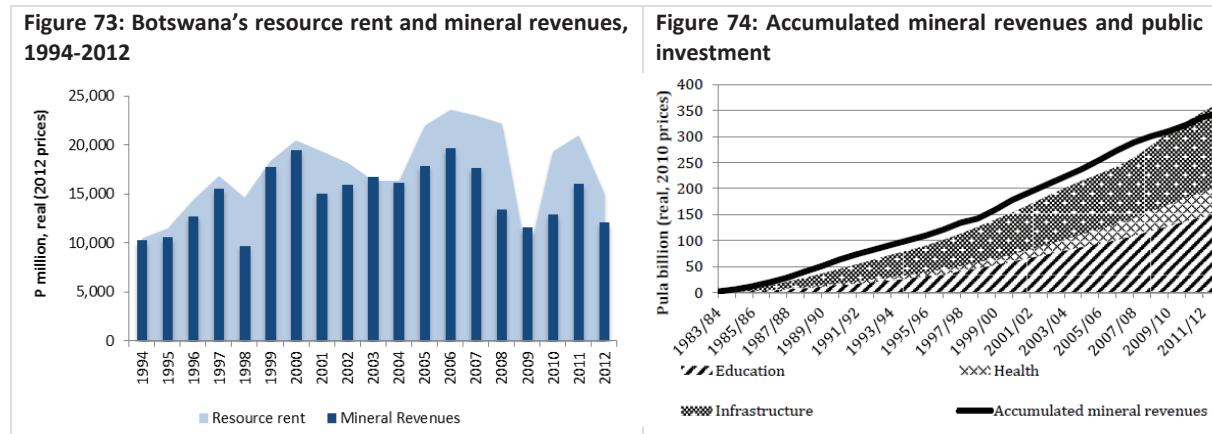
Putting this question aside for the moment, it is certainly the case that effective management and conversion of resource rents has been recognized as one of the principal factors behind Botswana's historic success (see Box 10). Specifically, Botswana has done two things well. First, it has been effective in extracting resource rents through a variety of mechanisms (e.g., royalties, taxation, dividends). Figure 73 shows that over the past 20 years, mineral revenues were equal to 83 percent of mineral rents. This is obviously thanks in large part to diamonds (see previous discussion in Box 4). Nevertheless, the willingness and capacity of government to negotiate such a large revenue share is almost without precedent globally.

Second, Botswana spent the mineral windfalls wisely, at least in the sense that these revenues were directed almost exclusively to investment in physical and human capital assets rather than financing recurrent spending – investment has been divided between physical assets (44%), education and training (42%), and health (14%) (Figure 74). Notably, however, financial savings have been relatively limited (see Section 5.3)

Botswana's public finance policy framework follows the principle of sustainable development in mineral-rich countries: revenues from minerals, being derived from the sale of an asset, are used to finance investment in other assets that will generate future income when the mineral resources are depleted. The implementation of the asset-preservation principle has been historically monitored through the Sustainable Budget Index (SBI),

¹⁰⁹ World Bank (2013a)

which prevents the use of mineral revenues to finance recurrent (non-investment) spending¹¹⁰. For most of the past three decades the SBI has been below 1.0, indicating the budget has been ‘sustainable’. However, external analysis, including from the IMF argues that the fiscal balance needs to be improved significantly to ensure sustainability of mineral wealth for future generations¹¹¹.



Source: World Bank (2014d).

Box 10: Successful institutions for managing resources wealth in Botswana

Botswana’s long-term success in extracting resource rents and channeling them to productive activities, while avoiding serious governance lapses (the so-called ‘resource curse’) that plague many resource-rich countries, can be put down to a number of key institutions:

- *Democracy and Parliament*: Elections have been held regularly since independence in 1966 without major incidents, allowing citizens to hold to account those managing resource revenues on their behalf;
- *Long-term economic planning and fiscal discipline*: There is a close connection between long term planning and the budget. Mineral revenues can be spent only for capital projects included in the national development plan (NDP), and on education, training, and health. The fiscal rule and link with NDPs, which are developed and debated through public consultation, helps avoid ‘prestige projects’ and limits potential for corruption.
- *Regulating and managing the mining sector*: Botswana establishes clear, demarcated responsibilities for the natural resource sector, which avoids conflicts of interest: The Minister of Minerals, Energy, and Water Resources (MMEWR) issues prospecting licenses on a first-come, first-served basis and collects mineral royalties; Botswana Unified Revenue Service (BURS) collects mining taxes and dividends. Both report to Parliament and the Office of the Auditor-General.
- *Anticorruption institutions*: A transparent budgetary and procurement process (through a centralized procurement agency) helps prevent corruption. The Directorate on Corruption and Economic Crime was established in 1994 to drive the anticorruption agenda.
- *Pula Fund to invest revenues*: To preserve part of the diamond revenues for future generations¹¹², Botswana’s Pula Fund is managed by the Executive Team of the BoB, without undue interference from the government.

Source: ACET (2014)

¹¹⁰ Note that spending on health and education (even if recurrent in nature) is considered to be ‘asset building’ and therefore part of development expenditure for purposes of the SBI rule.

¹¹¹ The IMF analysis suggests that in order to fully preserve mineral wealth for future generations, the non-mineral primary balance would need to around 5 percent of non-mineral GDP versus a level in 2013/14 of around 14 percent (IMF, 2014)

¹¹² As discussed earlier, the Pula Fund has, to date, not ostensibly played a role as a fund for future generations.

Challenges lie ahead

Despite this success, a number of challenges lie ahead. First, questions are increasingly being asked as to whether the quantitative conversion of assets is paying off in real terms – i.e. are these investments actually delivering *sufficiently productive assets*? The issues of low productivity, poor educational and health outcomes, skills gaps, and infrastructure shortfalls suggest there may already be a serious gap between outputs and outcomes as a result of investment quantity not being matched by quality. Second, Botswana faces a future with significant vulnerabilities, most notably in its natural assets but also (and relatedly) in its macro-fiscal situation, which may make it increasingly difficult to sustain the progress toward poverty reduction, much less improve the effectiveness of spending and drive growth. The remainder of this section discusses the challenges to sustainable transformation of resource wealth for poverty reduction in Botswana by looking at: *natural resources management, fiscal management, and public sector management*.

5.2. Natural resources management: recognizing the trade-offs

Natural resources: a blessing and a curse

Minerals aside, Botswana relies on the natural environment for growth and sustainable livelihoods – the rural population is highly dependent on the agricultural and livestock sector, remote communities make extensive use of the country's biodiversity, and tourism, Botswana's most important non-mineral foreign exchange earner, is intimately linked to the environment. But Botswana's environment is also volatile and fragile. With rainfall highly variable across space, seasons, and years, Botswana is vulnerable to floods and, on a recurring basis, to drought, particularly in its western and southern regions. During the last 25 years, the country was affected by at least 5 major droughts.

Moreover, climate change is likely to aggravate the existing vulnerabilities. Projections suggest that average temperatures could rise by 2-4 degrees Celsius by 2100, with precipitation decreasing by 5 percent and dam yields declining 10-14 percent by 2050¹¹³. This will have serious implications for water security. Certain parts of the country may also face greater risks of food security as a result, although aggregate grain production is expected to increase. In addition, recent outbreaks of malaria have raised concern that climate change may be spreading the disease into parts of the country where residents have not developed immunity.

KNOWLEDGE GAPS: CLIMATE CHANGE

While Botswana is in the process of developing a climate change strategy, there is still relatively limited understanding of how climate change is likely to impact key resources, how these changes may affect vulnerable rural communities, and what implications this may have on migration and urbanization.

The importance of natural resources management is well accepted in Botswana, as evidenced by the incorporation of sustainable management of natural resources as a priority in both NDP 10 and Vision 2016, which states clearly: “*The natural resources of Botswana are one of its greatest assets. The strategy for protecting these resources must be based upon sound domestically based research as to the extent of mineral and water resources, the possible implications of increases in manufacturing, urbanisation, tourist volumes or long term changes in climate, and the effect of the use of water resources both within Botswana and in neighbouring countries ... The results of research must then be translated into effective measures that will protect the resource base and environment in a sustainable way so that they can be enjoyed by the citizens of the future.*”¹¹⁴

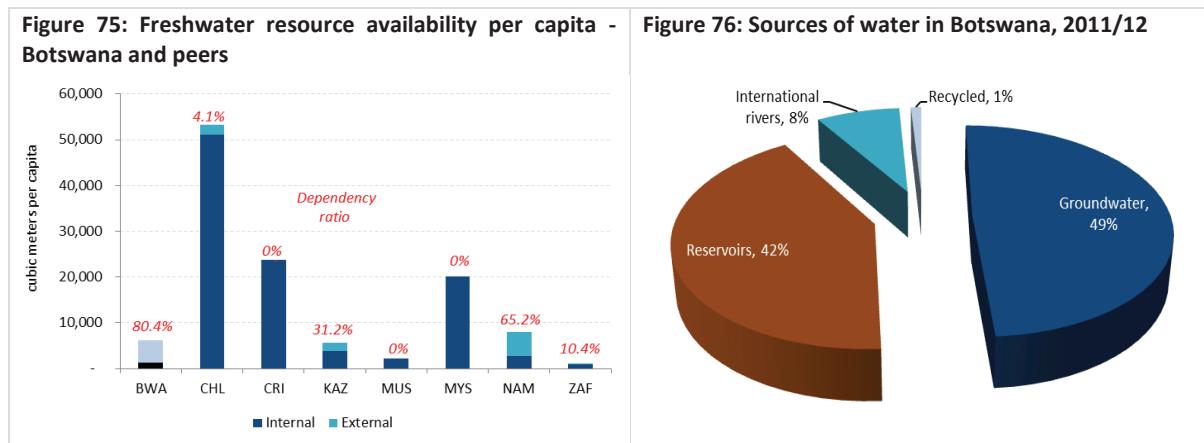
¹¹³ IISD (2014)

¹¹⁴ Republic of Botswana (2010)

Water: capacity constraints, vulnerabilities, and competing demands

Botswana is one of the most water-stressed countries in the world, characterized by general scarcity and high dependency on internationally shared and trans-boundary waters. Figure 75 shows that 80 percent of Botswana's available freshwater resources are located outside national boundaries, in basins shared between 3 (Okavango) and 8 (Zambezi) states. In the case of the Okavango, the water source is also one of the world's most important, and fragile, wetland habitats. Low and unreliable rainfall, extremely high levels of evaporation¹¹⁵ and flat topography result in low rates of surface runoff and of groundwater recharge. Moreover, Botswana's dispersed population and the significant spatial mismatch between water resources (northwest) and population centers (southeast) make the fixed costs to deliver water particularly high. Recent experience highlights these challenges. While severe water shortages persist in the southeast (as of September, 2014, the Gaborone dam remains at a critical 11.3 percent of capacity, equivalent to just four months' supply), the north of the country experienced flooding and overloading of dams, without the infrastructure to transfer the water to the southeast.

Groundwater (boreholes) accounts for around half of all water used in Botswana (Figure 76). Availability, depth, and quality (e.g. salinity) of water from boreholes varies substantially across the country, as does their potential for recharge. The majority of the 25,000 registered boreholes in the country are for domestic purposes and livestock, although wells also service some large mines and villages¹¹⁶. For the most part, existing boreholes are not in imminent danger of collapse, but they are also not sufficient to support growth. Essentially, groundwater resources are at or near their capacity for sustainable use.



Left panel: Data sources – Internal (2011) WDI; External calculated based on FAO estimate of dependency ratio (2008); Dependency ratio measures the share of freshwater resources that are not controlled within the boundaries of the country

Right panel: Data source – World Bank (2014e)

Dams remain the main source of surface water, particularly for serving the large population centers in the country. Current dam capacity is around 800 million cubic meters¹¹⁷, although actual yield tends to be much lower due to sporadic rainfalls, poor conveyance, and high evaporation rates. Substantial investments have been made in dams in recent years, notably the Dikgatlhong Dam – by far the largest in Botswana, and more are being planned.

¹¹⁵ Estimated at 98.5 percent

¹¹⁶ IISD (2014)

¹¹⁷ Plus an additional 200m m³ from Molatedi dam, which is located in South Africa but serves Botswana

To date, perennial rivers – of which there are two, Okavango and Chobe-Zambezi – play a limited role in Botswana's water use. While the Okavango already provides some limited feeds to communities in the northwest, volumes from the Okavango tend to be extremely variable between dry and wet years. For this reason, and due to concerns over the fragility of the critical Okavango ecosystem, large-scale water extraction has not been pursued. But Botswana recently negotiated the right to abstract 495 million m³ annually from the Chobe-Zambezi, with the proviso that 75 percent of this would go toward irrigation¹¹⁸.

Botswana has achieved significant improvements in productivity of water use over the last 20 years – real GDP per cubic meter of water used has grown around 3 percent per year and water use per capita has declined by nearly 12 percent. Nevertheless aggregate water use has grown by around one-third to 200 million m³ over this period¹¹⁹. Moreover, the intensity and productivity of water use varies dramatically across sectors (Figure 77). As in most countries, agriculture is the biggest user of water – it accounts for 45 percent of all water used in the country¹²⁰, followed by mining and households, each with around 20 percent. But agriculture and mining are also by far the least productive users of water – together they produce 20 times less GDP per unit of water than the rest of the economy (and agriculture alone is 57 times less productive¹²¹) and almost 12 times fewer jobs. Of course, these sectors are also critical for the economy (mining) and for poverty alleviation (agriculture), so this may well be a cost worth bearing, but where supply constraints may require decisions around what activities do and do not take place, it is a tradeoff that at least needs to be considered.

Figure 77: Intensity and productivity of water use by sector, 2011-12

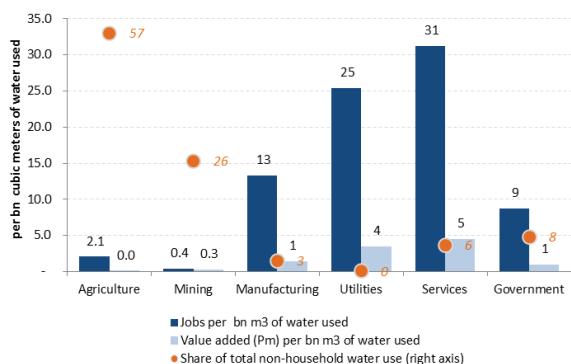
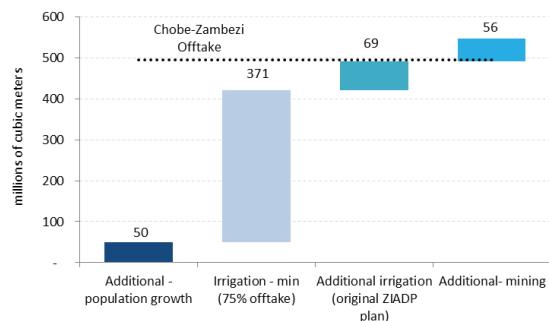


Figure 78: Sources and scale of potential future water demand, millions of m³



Left panel: Data source – World Bank (2014b, 2014e) jobs include formal and informal employment as of 2010 household survey (CWIS)
Right panel: Data source – derived from Grynberg and Sekakala (2013) and IISD (2014)

Indeed, supply is constrained relative to demand. Most estimates suggest that Botswana has reached capacity for sustainable water consumption from existing internal resources. The current and planned sustainable groundwater and safe dam yields amount to 242 million m³. Recent analysis of the water accounts¹²² shows that demand is already at 200m m³ and a “business as usual” scenario will push demand to 229 million m³ in 2020

¹¹⁸ In requesting the abstraction right, Botswana had to put forth a specific proposal for its use, which centered on the Zambezi Integrated Agricultural Development Project (ZIADP)

¹¹⁹ World Bank (2014e)

¹²⁰ 57 percent of non-household use

¹²¹ Within agricultural the data suggests that the livestock sector is more productive than the crop producing sector; moreover most livestock makes use of captive boreholes that are, for the most part, rechargeable and self-sustaining.

¹²² World Bank (2014e)

and 286 million m³ in 2030. And this does not even take into the significant new developments in mining¹²³. In addition, major new projects that are targeted for economic diversification and food security – notably the ZIADP agricultural project around Kasane¹²⁴ and the huge volumes of coal from Mmamabula and elsewhere that are slated for export or electricity production¹²⁵ – all are extremely water intensive. Thus, even taking into account the Chobe-Zambezi offtake and the major investment in regional water infrastructure, including the North-South Carrier (NSC)¹²⁶, to meet the demands of rapid urbanization, demand is likely to outstrip supply before long (Figure 78). This has several implications.

First, some projects and policy objectives may need to be reconsidered in the light of competing demands for water, with those that can deliver sustainable value added and broad-based employment given priority over those that are non-renewable and/or offer less potential for growth and poverty reduction. For example, expansion of irrigated cropland by 13,000 hectares to meet targets for food security would increase water demand by an additional 130 million m³ annually; and expanding the livestock sector by 50 percent would require an additional 30 million m³ annually. Ensuring sustainability may require scaling back mega projects like ZIADP or reconsidering the possibility of finding regional solutions to food security objectives (Box 11). Second, more efficient technologies for water supply and use (including for sanitation and industrial purposes) will need to be prioritized in order to make substantial improvements in productivity. At the moment, 25 percent of all water supply in Botswana is lost through the Water Utilities Corporation distribution system; additional losses by the many self-providers such as mines and irrigators is not even tracked. One priority will be investing in recycled water for use in metropolitan residential environments as well as for irrigation (in the southeast of the country)¹²⁷. At the moment, Botswana makes almost no use of recycled water, while in Namibia, for example, all metropolitan water is recycled. Third, new sources of non-domestic supply may be necessary – this could include accessing water from the Lesotho Highlands¹²⁸. Indeed, Botswana needs to reassess the role of regional markets for accessing key resources across the board and perhaps revisit its policies on self-sufficiency in the light of resource trade-offs (Box 11).

Finally, and critical to any efforts to promote efficiency in water use and to support the shift from groundwater to surface water, will be designing a water pricing model that continues to support low cost access to meet the basic needs of the poor while ensuring access to appropriately priced water for commercial purposes. At the moment, government continues to subsidize WUC to the tune of P250m a year¹²⁹. And holders of rights to groundwater still pay nothing based on use, and so have no incentives for prudent use of water or investment in water efficient technologies. In South Africa, by contrast, a resource management tariff is applied for groundwater use. An important step toward this has been taken by recent recognition of groundwater as a strategic resource, but putting policy into action will be critical.

¹²³ Grynberg and Sekakela (2013)

¹²⁴ Based on the original feasibility study for ZIADP, water requirements were estimated around 440m m³ (Grynberg and Sekakela, 2013); the project set out in that study has, however, been shelved and a new feasibility study is being undertaken in 2014.

¹²⁵ Export grade coal must be washed before it can be sold; coal burned for electricity also makes significant use of water. Current estimates of water use from Morupule A and B is around 2 million m³; production of additional 600MW of electricity over the next decade is expected to add an additional demand of 1 million m³ (IISD, 2014)

¹²⁶ The NSC carries raw water south for a distance of 360 kilometers to Gaborone. Phase 1 was completed in 2000 with implementation of Phase 2 aimed at duplicating the pipeline to carry water from the Dikgatlhong Dam. A proposed extension to deliver water from the Zambezi would add more than 500 kilometers to the total pipeline length.

¹²⁷ Treated wastewater amounts to an estimated 20 to 30 million m³ annually, but only 10 percent is currently re-used

¹²⁸ A study supported by the World Bank (funded by the Multi-Donor Trust Fund for Cooperation in International Waters in Africa) will be carried out in 2014-14 to assess the viability of options for Botswana to access water from the Lesotho Highlands.

¹²⁹ Grynberg and Sekakala (2013)

Regardless of what investments are made and technologies deployed, it is critical that the intensity of water demand, productivity, and investment costs are taken clearly into account when considering which sectors and projects are pursued to achieve the ultimate aims of diversification, job creation, and poverty reduction. As competition for water resources rises and water scarcity grows, it will be critical that Botswana needs to be in a position to make careful and informed allocation strategies that prioritize the most beneficial sectors, balancing economic, strategic, and livelihood benefits, including employment.

Box 11: Self-sufficiency versus security: resource trade-offs and the importance regional markets

Given the fragile natural environment, uncertain weather patterns, and landlocked location, it is natural for Botswana to be particularly concerned about guaranteeing security of access to key resources like food, energy, and water. Recent events like the spike in global food prices following the global financial crisis, and the power crisis resulting from the problems with Morupule B have contributed to lend weight to the arguments that Botswana needs for self-sufficiency. At the moment, Botswana does not have any formal policies calling for self-sufficiency. Indeed, in the case of food, for example, Botswana explicitly shifted its policy from self-sufficiency to security in the early 1990s. Yet, in practice there are stated aims to achieve self-sufficiency in some aspects of food production (for example, grain – this is part of what is behind the ZIADP project) and in energy.

This is not inherently problematic, and in the case of energy, Botswana's comparative advantage in coal and solar resources may make this a logical strategy. But it also should not be a strategy pursued without taking clear account of the resource trade-offs and the costs. On the trade-offs, as discussed in this section, self-sufficiency in food and energy both have serious implications for water demand. This, in turn, has implications not only on sustainability but on costs (accessing new water resources will require major infrastructural investments).

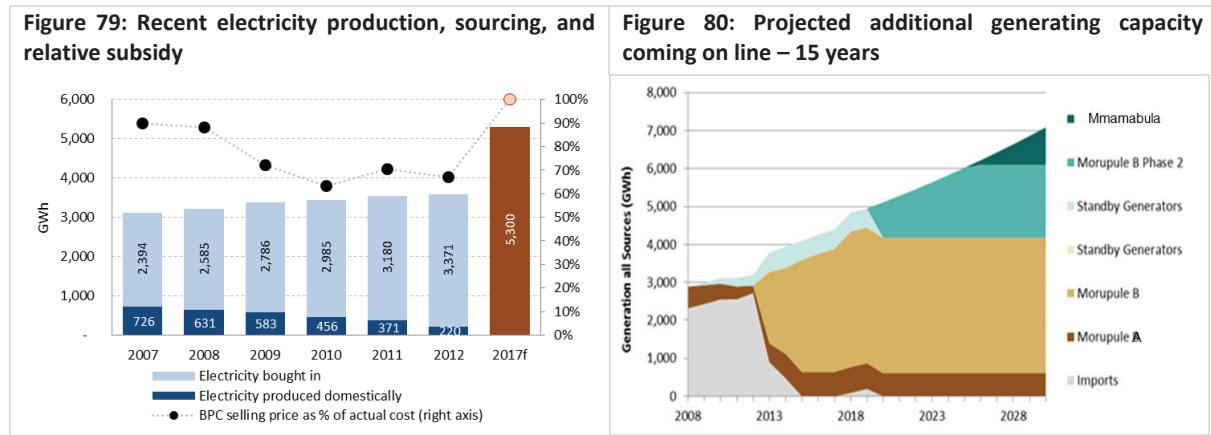
More generally, recognizing costs of self-sufficiency relative to the availability, costs, and risks of alternative regional sources is critical. Botswana is a well-integrated state that is party to many regional agreements, including a customs union, a regional free trade agreement, and regional arrangements on power sharing and water. Indeed, the recent situation with Botswana's power crisis shows just how important access to regional resources is for Botswana.

Energy: crisis past? Need for a more sustainable future

Given the scale of Botswana's coal and solar resources, reliable, cost effective energy might be a source of comparative advantage for the country. Instead, Botswana has faced an electricity crisis in recent years, due largely to problems with the commissioning of the Morupule B plant. Since 2012, Botswana has relied on imports for more than 90 percent of its electricity needs (Figure 79), and with the end of the long-term purchase agreement with Eskom (designed to coincide with the planned commissioning of Morupule B), Botswana was forced to purchase electricity at premium tariffs without guaranteed supply. This contributed to serious energy shortfalls, instability, and rising tariffs, which hit productivity (particularly in the already-struggling manufacturing sector) and threatened growth. It also hit the government's budget, as it was forced to make a cash injection of more than P2 billion to BPC in 2013.

The problem of Morupule B is of a technical nature and ultimately will be solved. However, it will take time. Indeed, while all units of Morupule B began for the first time to operate in tandem and at their design capacity in June 2014, all units were again down in October 2014 – this highlights the technical risks that remain. Thus, the supply crises that Botswana has experienced in recent years are likely to recur over the next two to three years, with implications for firms, citizens, and government finances.

Substantial new capacity is expected to come on board over the next decade (Figure 80) – installed capacity at Morupule B is expected to increase to 4000 GWh by 2018 and to 6000 GWh by 2025¹³⁰. Botswana may even become a significant exporter of power to the region. Again, however, this has trade-offs, as coal-fired power plants have extensive water requirements, which are likely to deplete local groundwater sources as well increase water effluents and air pollutants. It will also massively increase greenhouse gas (GHG) emissions. Given Botswana's local population and industrial density, air pollution and GHG emissions may not be a top priority in the short term. However, over time, it may need to be given greater consideration.



Left panel: Data source – BPC Annual Report (2012)

Right panel: Source – IISD (2014)

A more pressing environmental issue linked to electricity is deforestation. Lack of access to electricity in rural areas contributes to a situation where the vast majority of rural households rely on fuel wood for cooking. Estimates from FAO suggest the deforestation rate in Botswana was close to 1 percent annually between 1990 and 2010¹³¹. In the absence of alternative solutions, this will ultimately risk energy security in poor, rural households and damage the wider ecosystems on which they rely. Several ongoing programs aim to promote the use of improved cook stoves in rural areas; in the longer term, however, increased rural electrification will be critical to manage this risk.

As with water, Botswana will need to confront pricing in considering the management of energy resources going forward. At the moment, government sets an energy tariff below BPCs costs. While this amounted to around 10 percent in the past, rising tariffs from Eskom and other factors related to the Morupule crisis has contributed to this pricing shortfall increasing to 30 percent in recent years (Figure 79), which is subsidized by government transfers. This is not sustainable. Part of the answer certainly lies in improving the efficiency and the parastatal through internal improvements and introduction of competition to the market. But government may also need to consider the relative importance of energy tariffs in supporting access to electricity and the competitiveness of firms. This highlights the direct link between industrial policy and resource management, a link which today is not being considered adequately. A proposal has been tabled to establish a utilities regulator for water and power, a step which would at least help depoliticize pricing.

¹³⁰ IISD (2014)

¹³¹ IISD (2014)

Linked to this is the question of renewable energy, which to date has played a minimal role in Botswana. More than 90 percent of current electricity generation comes from coal-fired plants (either Morupule or imported from South Africa), while solar generation accounts for less than 0.1 percent of installed capacity¹³², despite Botswana's clear natural comparative advantage in solar. However, in recent years, the government has put increasing focus on solar as part of efforts to promote energy security and facilitate improved access to rural areas. This has included subsidized photovoltaic (PV) packages in rural villages, the commissioning of a 1.3MW PV plant in Phakalane¹³³, and feasibility study for a 200 MW Concentrating Solar Thermal Power plant¹³⁴. In the context of huge coal reserves, renewables are unlikely to play more than a supporting role in the Botswana's energy regime in the medium term, but it will continue to be important as a complement to coal.

Biodiversity: risks more far-reaching than they appear

Home to the largest inland delta in the world – the UNESCO-registered Okavango – and countless other unique ecosystems, Botswana's biodiversity is important in global terms. It is also critical as a driver of national growth and diversification, and supporter of sustainable rural livelihoods. Biodiversity supports livelihoods through agricultural production, hunting and gathering of veld products, and for commercial purposes such as game ranching, fishing, hunting and eco-tourism. Biological resources are further used by community-based organizations through community-based natural resources management projects for subsistence and commercial purposes. But in the context of rapid population growth and urbanization, biodiversity resources in Botswana are increasingly coming under threat from a variety of factors including: habitat destruction, habitat conversion and disturbance, barriers to wildlife movement, high populations of elephants, unknown effects of the safari hunting industry, increases in poaching, disruption of natural fire regimes, overuse and over-collection of wild plant species, alien invasive species, climate change, and changes to hydrology and water quality of inflowing rivers

In the Okavango, for example, human settlement growth has increased rapidly over the past decade, contributing to land degradation and conflict over natural resources. In Kgalagadi, where just 1 percent of the land is arable, rising populations in rural communities rely extensively on agriculture and livestock, putting huge pressure on the land. Beyond land, rural communities are heavily dependent on wildlife and natural resources (e.g. traditional medicines). There are strong links between poverty in rural communities and risks to biodiversity, including overuse as well as poaching.

Any decision to monetize coal resources – whether through export of coal or energy – will have consequences for Botswana's natural environment, which will in turn impact the potential for the development of other renewable sectors like tourism. For example, based on projections of increased output of coal-fired power generation, annual emissions of greenhouse gases will be 2.0 to 2.4 times their 2012 levels by 2030¹³⁵. While the effects may be mitigated, it is important to recognize that the decisions taken may be irreversible.

Conflicts in resource demands across communities and industries require careful management and an understanding of the tradeoffs involved in policy decisions. For example, fencing of grazing land on commercial cattle farms is a critical step to ensure access to EU export markets. But has implications for local communities, who lose access to resources, and the to the tourism sector, which for example, is faced with disruptions to traditional wildlife migration routes. Similar to the situation with water, there are costs and benefits that can be

¹³² IISD (2014)

¹³³ Funded by JICA

¹³⁴ IISD (2014)

¹³⁵ Calculated based on data from IISD (2014)

quantified so that policy decisions can be taken with recognition of the tradeoffs. There are also clear complementarities in ensuring an environment that facilitates key industries like tourism while also supporting sustainable livelihoods for poor communities. The launch of a National Biodiversity Strategy in 2014 will be a critical step in providing both the information and the policy framework to put such considerations into action.

5.3. Fiscal management: what is the right size for Botswana's government in the future?

Fiscal and financial management is central to the conversion of natural endowments to productive assets. This includes effective and sustainable revenue extraction, well-targeted and controlled spending, and a sound investment and debt management strategy. Historically Botswana has been broadly successful in all three of these areas, although shortfalls in each of them raise risks for the sustainability of growth and poverty reduction. This is particularly salient given that the fiscal environment in which government operates will surely become increasingly less comfortable in the future.

First, excessive reliance on volatile and vulnerable revenue streams make it critical for Botswana to continue to (re) build financial buffers, but it also underscores the importance of developing broader, more sustainable revenue streams. Second, while Botswana has used its mineral revenues effectively to invest in physical assets and build short term buffers, the protection offered by these buffers has been shown to be relatively shallow, and the government revenues have not been invested to build up long-term financial assets for future generations. Third, while fiscal consolidation has been marginally successful, the government is still far from its targets and the space for reduced spending (without compromising continued poverty reduction and growth) is limited. Government will need to focus on taking out structural costs in government, while at the same time improving the quality and efficiency of service delivery.

Vulnerable revenue streams: diamonds and the SACU Customs Pool

Botswana's fiscal reliance on diamonds is well understood, and the country has long had a policy of building up buffers to manage short term shocks for both fiscal and balance of payment purposes. Savings from fiscal surpluses are deposited at the Bank of Botswana (BoB)¹³⁶, and can be used to finance fiscal deficits. Similarly, savings from balance of payments (BoP) surpluses are also deposited at the BoB and can be used to finance BoP deficits¹³⁷. To understand Botswana's vulnerability to shocks, it is instructive to look at the most recent global financial crisis (2008-09), when the international market for rough diamonds virtually shut down. As a result, the current account, which registered a surplus of 15 percent of GDP in 2007, collapsed to a deficit of 11.5 percent of GDP in 2009. Similarly the fiscal balance fell from a surplus of 5.5 percent of GDP in 2007-08 to a deficit of almost 13 percent of GDP in 2009-10. Government did not attempt to restore fiscal and external balance. Instead, it pursued a countercyclical policy to maintain demand and drew down accumulated financial assets to finance the resulting deficits (as well as taking on substantial new borrowing). It is generally accepted that this approach was successful – government stimulus enabled the non-mineral economy to continue to grow through the crisis. But it came at a cost, significantly depleting the main financial buffers. Since then, only limited progress has been made in rebuilding them. Foreign exchange reserves as a share of GDP are today 39 percent below their pre-crisis level, and government net financial assets 57 percent lower (Table 7).

¹³⁶ These are held in: i) the Government's current account for day-to-day running; and ii) the Government Investment Account (GIA) – a longer-term vehicle for managing shocks and business cycle fluctuations

¹³⁷ The foreign exchange reserves are partitioned into the Liquidity Portfolio and the Pula Fund. The former portion represents conventional foreign exchange needs to finance transactions, while the latter represents longer-term savings. Note that while the Pula Fund is usually classified as a Sovereign Wealth Fund, it does not have a separate legal existence. Moreover, there is a lack of clarity in its objectives, in terms of whether it is for short-term stabilization purposes only, or is intended to have an intergenerational savings component.

Table 7: Size of financial buffers, pre- and post- financial crisis

Buffer (% GDP)	Pre-global financial crisis	Current
Foreign exchange reserves	90% (Dec 2008)	55% (Dec 2013)
Government net financial assets	61% (March 2008)	26% (March 2014)

Source- EC Consult Botswana (2014a), based on data from BoB and MFDP; foreign exchange reserves pre-crisis= December 2008 and current=December 2013; Government net financial assets pre crisis= March 2008 and current= March 2014

As discussed in Box 5, simulations suggest that Botswana's fiscal buffers remain sufficient to manage another shock of the size of the 2008-09 global financial crisis, but not much beyond it. More importantly, the longer-term decline in diamonds revenue (starting from the late 2020s) will quickly create both fiscal and balance of payments problems. It is therefore important in the short term that Botswana continues to rebuild fiscal buffers to better withstand shocks and manage the transition to a non-diamonds economy. This will require further attention to fiscal consolidation (*see below*).

It also highlights the continuing importance of diversifying the revenue base, an area where Botswana has already had some success. Indeed, even while minerals revenues have continued to grow in nominal terms, their share of government revenue has declined steadily, from consistently above 50 percent in the early 2000s to just above 30 percent today. Part of this has come from expansion of tax revenues through a broader non-mineral income tax base, as well as through growing fees and other levies; together, these have grown from just 20 percent of revenues a decade ago to more than 30 percent today (Figure 81). The other major piece of the story is the rapid growth of revenues from the SACU customs pool, following the renegotiated revenue-sharing formula which came into effect in 2005¹³⁸. The SACU customs pool contribution shot up from just 15 percent of revenues in the period 2000-05 to 25 percent just 5 years later – a growth of 25 percent annually over this period. They are now the largest contributor to the budget, accounting in 2012-13 for almost 35 percent of revenues.

Figure 81: Contribution to government revenue by 5-year period, 2000-01 to 2014-15

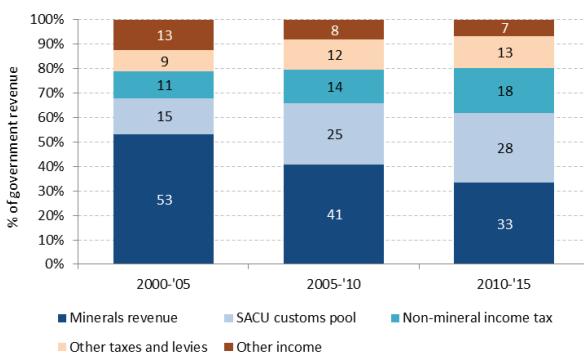
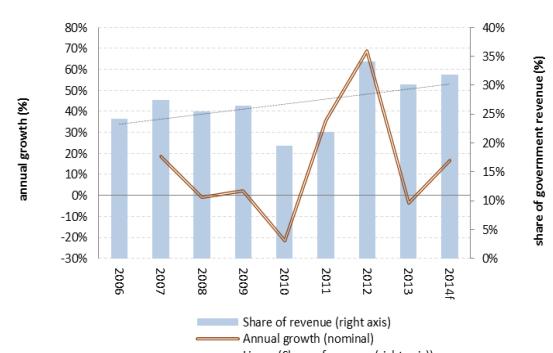


Figure 82: SACU revenue evolution – growth and share of revenue, 2006-07 to 2014-15



Data source; BoB and MFDP

But SACU revenues have proven volatile (Figure 82), and although the two year lag between collection and distribution at least allows for advanced planning, their volatility again underscores the critical importance of Botswana having adequate buffers. Perhaps more important, like diamonds, the future of SACU revenues may

¹³⁸ The new formula was part of the 2002 revised SACU agreement, but came into effect in the 2005-06 fiscal year

be less abundant than its present. Discussions on a revision to the SACU revenue sharing formula have been going on for years with no resolution in sight. More recently, South Africa has become more outspoken over its unhappiness with the formula¹³⁹, and there has been speculation that radical changes to the formula, or even to SACU itself, may be imminent. Whatever the ultimate result, Botswana (along with Namibia) is likely to be on the losing end of any change to the formula (as the richest country in the region and a net recipient in the sharing). In this context, Botswana rising fiscal dependence on SACU revenues raises vulnerabilities.

In this context, it is imperative that Botswana continue to expand its revenue base to find more diversified and sustainable sources of income. Of course, extracting revenues from new, non-diamonds minerals developments – particularly around coal – will be an important priority. However, the potential scale of these revenues needs to be kept in perspective. They will not be inconsequential, but neither will they come anywhere close to replacing the hole that will be left by declining diamonds revenue (see Box 12). Therefore, the focus on building sustainable revenues must go much wider. The newly proposed fiscal rule that aims to require a minimum collection of 30 percent of non-mining revenue to non-mining GDP will help in this regard. So too will ongoing efforts by BURS to bring a larger share of the population into the tax system. Further reforms to simplify the tax system and close many loopholes that enable firms and individuals to avoid taxes (for example, the many tax write offs that can be taken again agricultural costs and incomes, even by wealthy urban residents who maintain cattle in the countryside) will also be needed.

Box 12: Coal as a revenue stream – assessing the potential

While Botswana has large reserves of coal, monetizing them will still require major investments in export infrastructure (see Box 7), which are yet proven to be commercially viable. The analysis below does not evaluate these projects, but instead focuses on potential fiscal revenue impacts based on different potential export coal scenarios. The analysis is based on the following scenarios:

Scenario	Export Volumes (mtpa)			Comment
	2020	2030	2040	
Low	20	20	20	Export link through South Africa
Medium	60	60	60	Trans-Kalahari Rail or Limpopo
High	60	100	100	Trans-Kalahari Rail or Limpopo

Other assumptions

Coal price: P300/tonne fob mine mouth, constant throughout the projection period, in real 2012 prices (equivalent to approx. US\$ 40/t)¹⁴⁰.

Tax revenues: royalties (3%); profits taxes (25%); withholding taxes on dividends and interest (10%).

Other parameters: taxable profit as % of gross output (20%); dividends as % of post-tax profits (67%); interest costs as % of total costs (10%).

Other economic variables: the scenarios also incorporate projections of diamond output, exports and revenues; other minerals and non-mining output; fiscal revenues and spending, prepared by Econsult Botswana.

Government participation: it is assumed that GoB does not exercise its option to acquire up to a 15% equity stake in coal mining projects (at cost) at the time of granting a mining licence. If it does exercise this option, it will involve upfront costs (to meet GoB's share of equity investment costs), but yielding higher future revenues.

¹³⁹ South Africa essentially subsidizes the other countries of SACU through the revenue sharing formula (most notably Lesotho and Swaziland, but to a lesser degree also Namibia and Botswana). The other members argue it is compensation for the costs imposed on them by South Africa's trade and industrial policy (which determines SACU's tariff-setting)

¹⁴⁰ Additional costs of loading transport and port handling fees would add approximately US\$ 50/t to give a fob onboard ship price of US\$ 90 (which is higher than the current world market price).

The projections indicate that the economic contribution (fiscal revenues and exports) of coal mining will increase sharply under all scenarios, albeit from a very low base. Revenues would reach close to P2,500m by 2020 and nearly P7,000m by 2040 under a moderate growth scenario (a high growth scenario would put 2040 revenues over P11,500m). Nevertheless, fiscal revenues from coal are likely to remain lower than fiscal revenues from diamonds in nominal terms, through to at least 2040, despite the decline in diamonds (Figure 83). The reason for this is threefold. First, the value of diamond exports is projected to remain higher than that of coal exports until at least 2030, and even after that time coal exports will only exceed diamond exports only under the “High Coal” scenario. Second, the profitability of diamond mining remains much higher than that of coal mining. And third, the effective tax rate on diamond mining profits is much higher than that on coal mining.

As a result, the potential contribution of coal mining to government revenues is relatively small, even under the “High Coal” scenario¹⁴¹. Under the moderate scenario, coal revenues can be expected to peak and just above 3 percent of government, just one-tenth the level of diamonds today.

Figure 83: Projected fiscal revenues from coal and diamonds (P million, nominal)

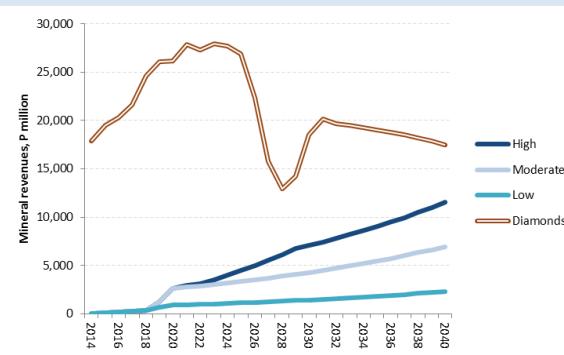
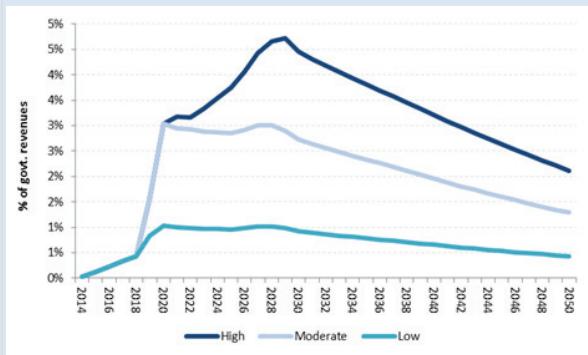


Figure 84: Projected fiscal revenues from coal as percentage of total revenues



Source: EConsult Botswana (2014b)

Has Botswana saved enough for the future?

Most countries dependent on extractive resources establish some sort of sovereign wealth fund where funds are invested for the long term in foreign assets for the purposes of stabilization and/or savings for future generations. Botswana’s Pula Fund is essentially the sovereign wealth fund for Botswana. While the Pula Fund has played an important stabilization role (*see further discussion in Section 5.3*) it is less clear whether it is intended to be used for inter-generational savings. In any case, the overall level savings available in the Pula Fund, particularly following the recent global economic crisis, is far from sufficient to play the role of intergenerational savings. Having started the 2000s at around 100 percent of GDP, the Pula Fund is now just 40 percent of GDP (Figure 85). Recent estimates suggest that after 30 years and several hundred billion Pula of minerals revenues, less than 1 percent has been saved in the form of net financial assets¹⁴².

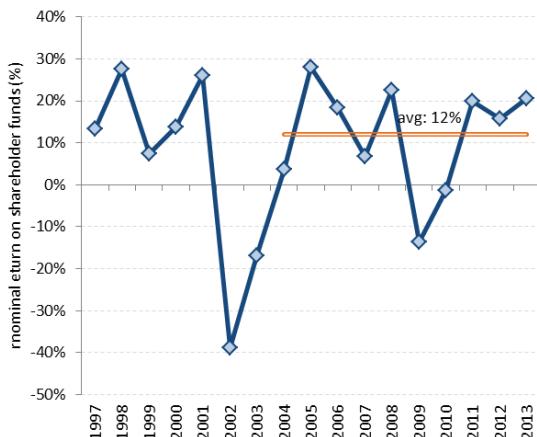
¹⁴¹ All of the results presented here are dependent on the coal price, which it is assumed is marginally above current, relatively low levels (in real terms). Any substantial increase in coal prices would increase taxable profits and hence government revenues

¹⁴² World Bank (2014d)

Figure 85: Pula Fund as a share of GDP



Figure 86: Estimated return to GoB funds at the BoB



Source: Econsult Botswana

The issue of savings also becomes relevant in the context of increasing concerns over the quality of public investments – i.e. are these investments actually delivering *sufficiently productive assets*? The issues of low productivity, poor educational and health outcomes, skills gaps, and infrastructure shortfalls suggest there may already be a serious gap between outputs and outcomes as a result of investment quantity not being matched by quality. This raises further questions over the capacity of public sector to deliver sustained high levels of investment, and of the economy to absorb it. In this context, with government investments delivering relatively strong nominal returns (estimated around 12 percent annually over the past decade – see Figure 86), it may be argued that a greater shift toward savings over investment might be a more prudent strategy. The announcement in September 2014 of a newly-proposed fiscal rule that would put 40 percent of mineral revenues into an inter-generational savings fund, suggests that government is indeed committing itself to greater long-term savings.

Given the current level of savings, rebuilding fiscal buffers will require the government to generate fiscal surpluses in the coming years. With the stated intention to save more – for the purposes of building an intergenerational savings fund or simply because the relative returns to saving are higher than for investing – even larger surpluses will be needed. This implies the greater attention to fiscal consolidation.

Fiscal burdens and the need to reduce the size of government

Achieving fiscal sustainability and rebuilding buffers will depend on reducing ongoing fiscal liabilities. Government expenditure remains at 35-36 percent of GDP, far below the 30 percent target set out in NDP 10 (Figure 87). But reducing expenditures in an environment where the government plays a critical role in poverty reduction, employment, and growth, and where substantial investments in physical and human capacity are still needed, is no easy task.

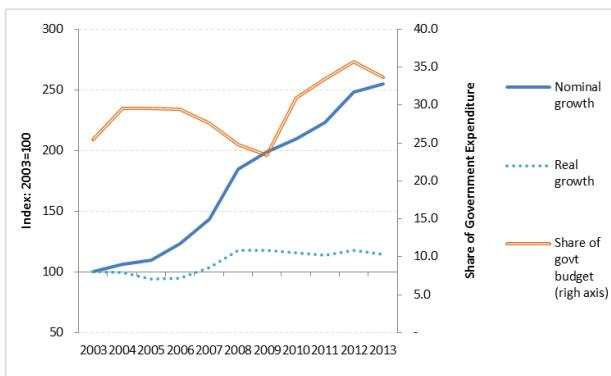
The distribution of expenditure has been remarkably consistent over two decades. The notable exception is the health budget, which more than doubled as a share of spending, from just 5 percent in 1995-99 to more than 11 percent in the most recent period. This is primarily a function of the HIV/AIDS epidemic, which has not squeezed out spending on other priorities in the short term, but more importantly set in place a long-term fiscal burden (see Box 13), aggravated further by declining donor funding to the HIV/AIDS program. With an additional 5 percent of government revenues going into healthcare, finding ways to reduce the overall spending envelope is made all the more challenging. The biggest spending category for government is education. As discussed previously, outcomes in the sector have been relatively poor given the level investment put in. But the education

share of expenditure has already declined in recent years, and further cuts may be counterproductive given the improvements required.

Figure 87: Expenditure and fiscal targets – recurrent and development, 2006-2015



Figure 88: Government wage bill growth trends, 2003-13



Data source: BoB and MFDP

Box 13: The fiscal burden of HIV/AIDS

While Botswana has one of the most progressive anti-retroviral (ARV) programs in the world, HIV prevalence remains extremely high (at 24% of the adult population) and constitutes a major source of vulnerability for the country. Indeed, the free ARV program is itself a source of fiscal vulnerability, as it has contributed to a huge rise in healthcare spending (per capita health spending in Botswana rose 12 percent per year between 1995 and 2012).

Recent economic analysis¹⁴³ estimates that the fiscal costs of HIV/AIDS will rise from the already high level of 10.8 percent of government revenues in 2013 to 12.2 percent by 2021. The same analysis estimates the overall fiscal burden (net present value of all future costs¹⁴⁴) to be equivalent to almost two times Botswana's current GPD. About half of this comes from the fiscal burden of supporting those individuals who have already contracted the disease, reflecting the long-term fiscal costs of the ARV program. But it also demonstrates the large potential reduction of the fiscal burden that could result from improved prevention of future infections.

At the same time that the ARV program represents a long-term fiscal burden, it is also of course, fundamental to addressing the huge negative impacts (including macro and fiscal) on Botswana. Looking simply from a productivity perspective, the impact is significant – evidence shows that absenteeism rates in the diamond mines declined rapidly after the ARV initiation and remained low over 2-4 years¹⁴⁵. But while Botswana has an extensive and generous ARV program with high initial take-up rates (212,000 were on ARVs in 2012¹⁴⁶), longer-term retention is lower than might be expected – around 86 percent at 12 months but falling to around 67 percent at 60 months. Thus, without a stronger program for prevention and retention, it is likely prevalence rates will remain high and sickness levels may rise over time, hitting productivity and while also raising further the healthcare costs.

Beyond addressing prevention and retention, further technical and implementation efficiency gains also will be critical to managing the fiscal liability. There are a number of areas in which technical efficiencies could be explored, including through better integration with other services, improving management and coordination, and identifying efficient links into community systems to support prevention and treatment response.

¹⁴³ Lule and Haacker (2012)

¹⁴⁴ Using a 3 percent discount rate

¹⁴⁵ Habyarimana et al (2007)

¹⁴⁶Source: WHO

An obvious and much-discussed target for improving fiscal sustainability is reducing the government wage bill. This has indeed been stated policy since at least 2009. But again, implementation has been a challenge, as illustrated in Figure 88 and Figure 91. While the nominal wage bill has continued to grow, its rate of growth has halved since 2009. Moreover, in real terms (discounted by CPI) the wage bill is flat since 2008. Yet, as a share of the government budget, wages have continued to rise, reaching nearly 36 percent in 2012-13 – more than 10 percentage points higher than they were in 2003-04. Thus, wages are increasingly squeezing out the available space for other spending in the government budget. What these figures suggest is that while government has managed to restrain wage inflation, it has failed to make headway in reducing the size of the civil service. Government has indicated plans to start outsourcing and privatizing activities, although little has yet transpired. Speeding up these efforts will be critical to achieving targeted reductions in the size of government and reducing overall spending. And while privatization of the large parastatals may not be relevant for the wage bill specifically¹⁴⁷, many of them are heavily subsidized and represent significant fiscal burdens on government.

Overall, however, while savings can surely be found across the board through downsizing or eliminating ineffective programs and projects (including the many moribund ones that never have their plug pulled) and through headcount reductions, achieving cost and efficiency savings while also improving outcomes is not likely to be achievable through any short-term program or piecemeal efforts. Instead, a comprehensive and sustainable answer can probably only be found in a thorough modernization and reshaping of the public sector (see section 5.4), one that aims not just to reduce costs but ensure improved value. This will involve some of the outsourcing and privatizations noted above, but will need to go much further in order to change the way government does business, and to improve its effectiveness and accountability.

5.4. Public sector management: at the heart of Botswana's challenge

Declining government effectiveness

Governments obviously play a critical role in the process of converting natural endowments to productive, sustainable assets, through the investments they make, the policy and regulatory environment they establish, and the institutions they oversee and shape. The role of government is all the more central in resource rich countries, where the rents earned from natural endowments come almost exclusively in the form of taxes, royalties, and dividends channeled to the central government. Botswana's government and its institutions have developed in this environment, with a primary role to distribute the gains of natural resources wealth. As discussed, they have been very successful in many respects and over many years. Moreover, Botswana continues to be rated well in terms of governance. Botswana is regularly rates among the best in Africa on global indicators of governance (e.g. Ibrahim Index of African Governance; Transparency International Corruption Perceptions Index) (Figure 89). Effective checks and balances exist in government, and institutions on the whole remain robust, inclusive, and transparent.

Yet, questions are increasingly being asked as to whether the approach to government that served Botswana so well in the past, when the emphasis was on state-building and broad service delivery, still appropriate in an environment where the role for government is more as a facilitator, and where efficiency and effectiveness are paramount. Indeed, governance (broadly defined), but more specifically public sector management, is perceived increasingly as a source of potential weakness rather than strength for Botswana, raising risks for the sustainability of growth and poverty elimination objectives. This seems to be recognized, too, in some international ratings - Figure 90 shows that Botswana trails non-regional peers in the *World Governance*

¹⁴⁷ Staff in the parastatals are obviously not part of the public sector headcount

Indicators rating on “Government Effectiveness” and, like its regional peers, has seen its rating deteriorate over the past decade. Anecdotally, concerns around capacity and skills in government are widespread.

Figure 89: Ibrahim Index of African governance, 2014

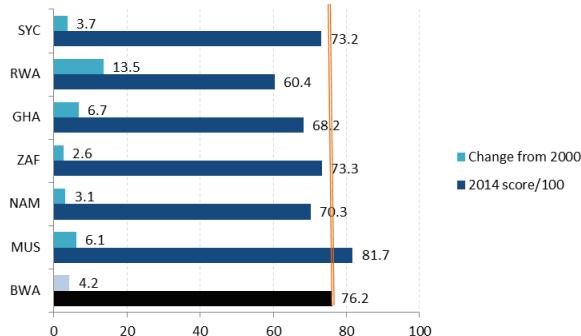
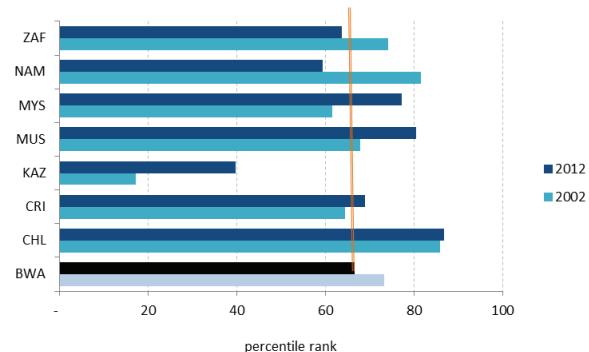


Figure 90: Government Effectiveness ratings



Left panel: Source - <http://www.moibrahimfoundation.org/interact/>; GHA=Ghana; RWA=Rwanda; SYC=Seychelles

Right panel: Source: World Governance Indicators; figure shows percentile rating on the indicator for “Government Effectiveness”

Public investment management and public financial management in the spotlight, but problems deeper

The performance shortfalls in public sector management have been most notable in public investment over recent years. Morupule B project stands out in the public’s mind. But the examples of poor project planning and mismanagement pervade the recent public sector landscape: the airport and stadium projects that not only failed to meet the target to be ready for World Cup 2010 in South Africa, but remained incomplete by the time the 2014 World Cup came around; the Fengyue glass project that almost brought down Botswana’s most profitable parastatal; and delays and cost overruns in school, road, and other projects. In addition, many high profile projects that have been under discussion for up to a decade have not moved beyond paper to become policy or “shovel-ready” projects (or indeed, be killed off because they are deemed not to be feasible or appropriate) – including Special Economic Zones, the Zambezi Integrated Agricultural Development Program, and to some extent the Trans-Kalahari Rail.

Although limited forensic analysis of these projects has yet been carried out, the problems that plague public investment management appear to be comprehensive, from planning through procurement, management, and monitoring and evaluation. The World Bank’s *Public Expenditure Review*¹⁴⁸ highlighted this concern clearly:

“Botswana has in the past been seen as a best-practice leader in terms of its programming of public investment, but discipline appears to have been lost gradually over time. The historic abundance of resources appears to have weakened the attention paid to cost-benefit analysis of projects. This is apparent in the emergence over the years of project delays and increasing costs. Problems that should be identified at the screening and appraisal stages of projects are not. Deterioration in project performance has ensued. With poor ex ante scrutiny of economic benefits, ex post returns from public investment have fallen, even if this has not been accurately measured. Poor planning, including poor financial management and procurement planning, is evidenced by constant delays in project implementation.”

And while many contend that Botswana has many good strategies but simply has an implementation problem,

¹⁴⁸ World Bank (2010)

there is also an argument that implementation failure is partly a function of poorly designed policies, strategies, and projects, inadequate prioritization, and failure of accountability.

KNOWLEDGE GAPS: PLANNING, PROCUREMENT, AND PROJECT MANAGEMENT

While public expenditure reviews have been carried out on the national and sector level in Botswana, there has been little research undertaken to understand the practices and procedures that are involved in project planning, in procurement, and project management, in order to understand better the factors shaping decision-making and the impacts this has, both in terms of fiscal management as well as project and program outcomes.

Linked to the problems in public investment are issues of public financial management, including the lack of a medium-term expenditure framework (although the MTEF is now being piloted) and weak links between the macro framework of the national development plans and the budget plans of its individual components¹⁴⁹. These problems go beyond capital projects, though, and appear to affect all aspects of the link between financial planning and implementation. One of the outcomes of this situation is the chronic underspending in the development budget, as delays shift planned spending into subsequent fiscal years. In fact, the gap between budgeted and actual spending (as well as revenue) is significant across many parts of the government budget and has increased in recent years (Figure 91), as noted in the most recent PEFA report¹⁵⁰. And beyond high profile public investment, the poor outcomes in education and skills, SME development and diversification, agricultural productivity and to some degree health, suggest that similar problems of planning and implementation may also be hitting long-term, programmatic activities, and smaller-scale projects as well.

The challenges outlined above go beyond public investment and public financial management, and beyond project management to encompass design and delivery of programs as well. As discussed throughout this note, efficiency and outcomes of key government programs and services – including education, health, and social protection among others – suffer from outcomes that fall short of expectations, particularly given the high level of resources they consume.

Contributing factors to the public sector challenges

Why effectiveness of public service delivery appears to be suffering in Botswana, a country renowned for good governance and a strong civil service is difficult to identify clearly. At a broad level the delivery challenges appear to coincide with a shift in the role of government from broad institution building (laying down the ‘hardware’ of the nation) to more specific, targeted, and technical delivery (the ‘software’). While the first era was about blunt coverage of infrastructure and services, the current era is more about efficiency and quality of service delivery. The nature, structure, and culture of government required to deliver in that first era is unlikely to be the same as the one required to deliver in the current one; yet this adaptation does not appear to have taken place.

Linked in part of this shifting requirement on the role of government, capacity is likely to play at least some role. While the government of Botswana has a strong overall civil service, the reality in a small country like Botswana is that the human resources available for increasingly complex, sophisticated, and highly specific technical tasks (in water, energy, health, education, etc.) is necessarily limited.

Failure to adopt modern technologies (including ICT systems) and approaches is another factor that has been identified across many areas of service delivery. In the area of social protection, for example, the information systems used to manage the program are outmoded; more advanced systems are now routinely used by

¹⁴⁹ World Bank (2012)

¹⁵⁰ Republic of Botswana (2013)

governments throughout Africa, including many in low income economies. A similar picture emerges at Statistics Botswana (see below) and across many other ministries and agencies.

Finally, lack of monitoring and evaluation (M&E) of projects and programs across the board represents a serious gap that handicaps policy and program planning in the future, as it makes it impossible for government to understand whether or not they are meeting their objectives and to evaluate the reasons for it. The National Strategy Office (NSO) is leading efforts to put in place a comprehensive M&E system for government. To deliver in this will, however, require addressing accountability, which has been a long-running one in Botswana and is linked with the previously discussed issue of work ethic. Efforts have been made to raise accountability in government through the implementation of performance monitoring systems. In practice, however, these systems have been difficult to manage and have had little impact. Improving accountability is part of the NSO's work on M&E, and most likely will require changes in culture as well as in the performance contracts agreed in the civil service, both at the individual level and between institutions (e.g. introducing enforceable service level agreements between government departments and agencies).

Weak statistical capacity

Behind the M&E and accountability problem is a serious weakness in statistical capacity, which hinders evidence-based policymaking and undermines the potential to monitor the performance and impact of government policies and programs. Figure 92 shows that Botswana's statistical capacity trails well behind peers and experienced a major deterioration over the past decade.

Figure 91: Over/under spending on original budget

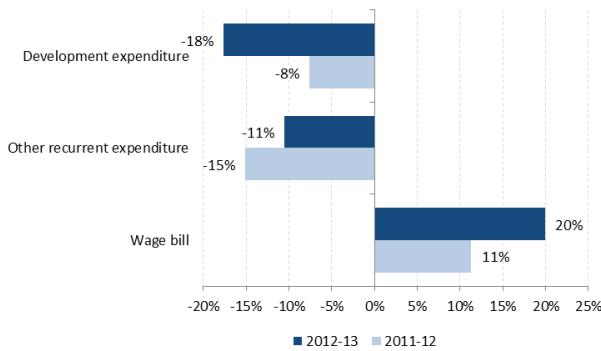
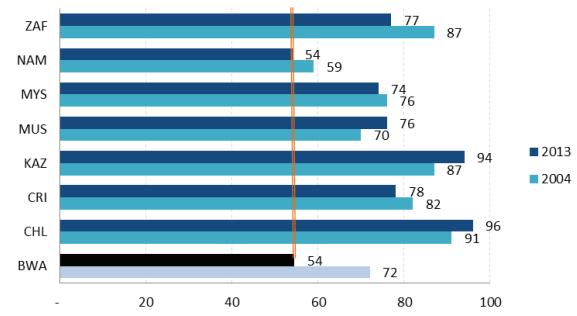


Figure 92: Statistical capacity rating



Left panel: Data source – MFDP

Right panel: Data source – World Bank Bulletin Board on Statistical Capacity

One reason for the declining performance may be the transition of Statistics Botswana (SB), which became an independent agency in 2010. A new National Statistical Development Strategy is underway, covering nine main areas of statistics, and support is being provided by UNDP and other donors and development agencies. But significant attention and resources are still required to ensure that the national statistical system collects and analysis data on a more frequent basis. At the moment, Botswana lacks frequent social, labor, and industrial indicators. The main household survey has been conducted only twice over the last 13 years (2002/03 and 2009/10) and a labor force survey has only been conducted once in the last ten years (2008; the next is planned for 2017). Moreover, the last household survey results were published only three years after their collection and, as of November 2014, the detailed results of the 2011 Census have yet to be published. Such low frequency data collection and delays in dissemination impede evidence based policymaking, and the implementation of programs designed to address employment, poverty, and growth. Implementation of an ongoing multi-topic household survey as a core instrument for data collection is one important step that should be taken to address statistical shortcomings.

But lack of data is also a function of a mindset in government that has perhaps paid too little attention to costs and outcomes. For example, one of the reasons why the pace privatization and outsourcing is so slow is that no data exists to allow for a proper pricing of government service delivery: for example, how much does it cost to treat a patient for TB? to provide vocational training to an out-of-work adult? of delivering electricity to a rural village? Without an understanding of such costs it is impossible to judge the trade-offs of private supply, and the efficiency of public supply.

5.5. Sustainability: brief summary of main messages and key challenges identified

This chapter argued that Botswana success has been built around its effective conversion of natural assets to built capital and human capital, through effective financial management and good public sector governance. But the effectiveness and efficiency of that conversion is increasingly being called into question and Botswana faces a future of much greater uncertainty in terms of natural and fiscal resources. This will require much greater cognizance of the trade-offs inherent in using natural resources for growth, as well as more effective practices to manage natural resources to contribute to growth and sustainability, most critically in the water sector, but also with respect to energy and biodiversity.

Botswana's macro-fiscal situation, while much stronger than in many countries, also faces considerable vulnerabilities in the context of declining diamonds output. This will require greater focus on (re-)building buffers to manage fiscal and external risks, which in turn will require government to make hard choices in delivering on fiscal consolidation. Indeed, this is likely to require a fundamental rethinking of the scope and role of government in the economy. It will also require a change of mindset of action in the government to adopt a more modern, efficiency-driven, and accountability minded approach to service delivery.

Improving human development outcomes and ensuring that individuals can more effectively contribute to growth and competitiveness of the economy will require improving overall outcomes in health, where the impacts of HIV remain significant, and where childhood malnutrition is a major blight. It will also require improving both broad quality and equity in education and skills development and closing gaps in access to key infrastructure in rural areas, particularly in sanitation but also in access to electricity. In addition, improvements are needed in the functioning of key markets, including financial markets, labor markets, and land and housing, to ensure greater inclusion of vulnerable groups, particularly women and youth. Table 8 summarizes these issues and identifies the channel through which they impact the twin goals – *this is analyzed in further detail in Chapter 6 and Annex 1:*

Table 8: Summary of main challenges identified – Chapter 5

Area	Specific issues	Channel for impact on twin goals
Planning for sustainable natural resources management	Competing demands on vulnerable natural resources; need for stronger and more systematic approach to assessing and analyzing trade-offs	Risk of sustainability of growth by depleting key sources of comparative advantage; risk of sustainability of poverty elimination by depleting sources of livelihoods, especially in rural areas
Water sector investment and policy	Need for investment to secure access and distribute; changing policies with respect to water pricing to encourage most productive use and adoption of efficient technologies	Current approach risks pace and sustainability of growth by inefficient use of scarce resource
Energy supply and distribution	Ongoing technical problems with implementation of Morupule B, with implications for supply and cost; limited	Lowers firm investment in employment creating activities due to lower productivity resulting from lack of secure

Area	Specific issues	Channel for impact on twin goals
	attention to renewables	power connections; risk to fiscal sustainability
Protecting biodiversity	Competing demands (communities, mines, farming) risking fragile ecosystems that are critical for tourism, culture, and livelihoods	Risk of sustainability of growth by depleting key sources of comparative advantage; risk of sustainability of poverty elimination by depleting sources of livelihoods, especially in rural areas
Revenue management and diversification	Key revenue sources (diamonds and SACU revenues) volatile and vulnerable prompting need to broaden revenue streams	Risks to sustainability of growth through fiscal vulnerability
Reform of parastatals	Government creating increasing parastatals with significant cost implications; substantial annual subsidies required in several major parastatals (e.g. BPC, Air Botswana)	Lowers firm investment in employment creating activities due to lower productivity resulting from poor quality and/or high cost inputs; risk to fiscal sustainability
Consolidation of public sector	Government expenditures as share of GDP remain well above target levels and rebuilding buffers will require even greater savings to be achieved; high wage bill and other recurrent costs persistent	Risk to fiscal sustainability (but consolidation risks lowering growth)
Modernization of government systems and processes	Ministries and agencies reliant on old technologies and processes undermining efficiency and effectiveness of programs and projects	Cross-cutting risk to efficiency and effectiveness of service delivery
Project and program management	Ineffective planning, procurement, and project management linked to capacity and procedures	Cross-cutting risk to efficiency and effectiveness of service delivery
M&E and accountability	Lack of attention to monitoring and evaluation and weak accountability systems	Cross-cutting risk to efficiency and effectiveness of service delivery
Statistical capacity	Insufficient frequency, scope, quality of data collection and slow dissemination	Cross-cutting risk to efficiency and effectiveness of service delivery and policies targeting poverty and growth by undermining potential for evidence-based policymaking

6. Prioritizing the challenges

Botswana does many things well, but it also faces many constraints to achieving the goals of sustainable poverty elimination and shared prosperity: constraints to achieving jobs-intensive, private sector driven growth; to ensuring that all Batswana can contribute to and share in the gains from growth; and to balancing competing demands to ensure sustainability of natural, financial, and institutional resources. Prioritizing from among these constraints is not simple, but by assessing potential impact, complementarities, and sequencing, a set of 7 broadly-defined priorities are identified for implementation. These include: i) Facilitating a competitive, export-oriented private sector by aligning incentives and improving connectivity; ii) Increasing the returns to self-employment by raising productivity of smallholders and microenterprises; iii) Improving health and education outcomes by reducing the disease burden, and raising and aligning skills; iv) Ensuring improved access to water and sanitation; v) Reforming social protection to reduce fragmentation and improve targeting, efficiency, and linkages; vi) Modernizing the public sector through improved technology, management, and systems of accountability; and, vii) Mainstreaming the management of scarce natural resources

6.1. Introduction and summary of the challenges

The analysis presented in this note shows that while Botswana has made substantial progress in poverty reduction over the past decade, both poverty and inequality remain extremely high for a country of its income level. **Fundamentally, this is because the nature of growth in Botswana has not been conducive to reducing poverty and inequality in a sustainable way. Therefore, at the heart of the challenge Botswana faces is the need for a new growth model, one that is employment-intensive and driven by a competitive and export-oriented private sector.**

As chapters 3-5 of this note describe in detail, Botswana faces a broad range of constraints to achieving the transition to this new growth model, and subsequently to making continued, rapid progress toward eliminating poverty and delivering shared prosperity. Table 9 summarizes the 30 broad challenges identified in chapters 3-5 of this note. They are organized along the main chapters—specifically, around three pathways:

1. Establishing an environment for private sector-led, job-creating growth
2. Ensuring inclusion by strengthening individual and community assets
3. Ensuring the sustainability of growth and inclusion through effective management of resources

Table 9: 30 challenges for Botswana to address to achieve poverty elimination and shared prosperity

Pathway	Broad challenge identified	Specific constraints
Establishing an environment for private sector-led, job-creating growth	1. Smallholder productivity	Low productivity of agriculture and livestock smallholders; driven by many factors including: i) incentives; ii) limited effectiveness of extension services; and iii) skills
	2. Non-farm self-employment and microenterprises	Relatively small in size and failing to absorb large structurally unemployed population
	3. Incentive environment	Industrial and trade policy bias against investment in tradables and limit integration in regional and global markets
	4. Competition	Policy environment and dominance of state/parastatals crowds out private sector, raises input costs and jeopardizes quality
	5. Labor supply	Skills and competency gaps and poor work ethic; difficult access to work permits for importing skills
	6. Business red tape	Administrative and regulatory burdens, including business registration
	7. Hard infrastructure for connectivity	Gap in key rail infrastructure to monetize mineral assets

	8. Soft infrastructure for connectivity	Gaps in air connections, ICT, and cross-border trade facilitation
	9. Technology and innovation	Low levels of technology adoption
Ensuring inclusion by strengthening individual and community assets	10. HIV prevention	Continued high incidence rates and backsliding in risky behaviors; prevention under-resourced
	11. Childhood malnutrition	Extremely high childhood malnutrition, with high rates even among richer deciles despite extensive nutrition program
	12. Access to sanitation	Very low levels of rural access to proper sanitation
	13. Rural access to electricity	Rural access to electricity still below targets; costs of access high in the absence of implementing alternative technologies
	14. Access to land and public services in the urban fringe	Increasing constraints in access to land contributing to high costs of land and housing, overcrowding, sprawl, and challenges of delivering public services in rapidly expanding urban villages
	15. Quality and equity of educational outcomes	Despite heavy investments in education, test scores and labor market outcomes indicate serious gaps in knowledge, poor skills alignment, and poor 'intangible' skills (work ethic, communication, etc.)
	16. Financial inclusion for the rural poor and SMMEs	Rural Batswana (especially poor) largely unbanked; major gaps across rural-urban and income strata
	17. Inclusion in formal labor markets for youth and females	Youth and females with particularly low rates of labor market participation and employment; Particularly strong gap in private sector, while public sector (traditionally more open to women and youth) no longer growing employment, and barriers to self-employment
	18. Efficiency and effectiveness of social protection system	Social protection playing important role in reducing level and depth of poverty but targeting, coverage, and administration of system inefficient; poor links to programs to break inter-generational cycle
	19. Strength of civil society and voice of excluded	Low levels of participation of women in politics; civil society dynamic but increasingly reliant on government
Ensuring the sustainability of growth and inclusion through effective management of resources	20. Planning for sustainable natural resources management	Competing demands on vulnerable natural resources; need for stronger and more systematic approach to assessing and analyzing trade-offs
	21. Water sector investment and policy	Need for investment to secure access and distribute; changing policies with respect to water pricing to encourage most productive use and adoption of efficient technologies
	22. Energy supply and distribution	Ongoing technical problems with implementation of Morupule B, with implications for supply and cost; limited attention to renewables
	23. Protecting biodiversity	Competing demands (communities, mines, farming) risking fragile ecosystems that are critical for tourism, culture, and livelihoods
	24. Revenue management and diversification	Key revenue sources (diamonds and SACU revenues) volatile and vulnerable prompting need to broaden revenue streams
	25. Reform of parastatals	Government creating increasing parastatals with significant cost implications; substantial annual subsidies required in several major parastatals (e.g. BPC, Air Botswana)
	26. Consolidation of public sector	Government expenditures as share of GDP remain well above target levels and rebuilding buffers will require even greater savings to be achieved; high wage bill and other recurrent costs persistent
	27. Modernization of	Ministries and agencies reliant on old technologies and processes

	government systems and processes	undermining efficiency and effectiveness of programs and projects
28. Project and program management	Ineffective planning, procurement, and project management linked to capacity and procedures	
29. M&E and accountability	Lack of attention to monitoring and evaluation and weak accountability systems	
30. Statistical capacity	Insufficient frequency, scope, quality of data collection and slow dissemination	

6.2. Description of prioritization process

Each of the challenges in Table 9 was then assessed within a ‘theory of change’ framework, shown in Annex 1 (Table 10), identifying: i) the desired results that would hope to be achieved by removing these constraints; and ii) the logical links of how removal of the constraints would ultimately impact the twin goals of poverty elimination and shared prosperity via the three broad pathways. For example, the high-level desired results of addressing the challenge of ‘smallholder productivity’ is *‘improved productivity of agriculture and livestock smallholders through adoption of appropriate technologies and methods and mitigation of risks’*; achieving this desired result would be expected to support achievement of the twin goals through the following links: *‘Supports sustainability of extreme poverty elimination; raises farm incomes which contribute to supporting growth of the non-agricultural rural sector’*. By mapping the pathway, this approach helps to highlight key complementarities across the challenges as well as the degree to which addressing certain challenges may be pre-requisites to unlock others.

In order to identify priorities, each of these challenges was then assessed against a set of criteria, outlined in Box 14. A quantitative score was given for each, with the assessment of impact on achieving the twin goals weighted heaviest. See Annex 1 for a detailed description of the quantitative assessment process; results are shown in Table 11 of Annex 1.

Box 14: Criteria for prioritization

Following were the criteria used in scoring the challenges as part of the prioritization exercise. Each of the categories

- *Impact on the goal of eliminating extreme poverty:* To what degree would resolving the constraint (or exploiting the opportunity) have a direct impact on eliminating extreme poverty?
- *Impact on the goal of delivering sustainable welfare improvements to the less well off:* To what degree would resolving the constraint (or exploiting the opportunity) have a direct impact on supporting sustainable incomes and livelihoods of the bottom 40 percent of the population? The emphasis here is on interventions that will support sustainable, job-creating growth.
- *Time horizon of impacts:* Over what timeframe will the impact be realized? While the focus of the CPF is a 5 to 7 year period, some of the priority issues will necessarily be longer term in nature. This is particularly true in Botswana, where many of the challenges are structural in nature and are focused on preparing the country for a more challenging environment in the medium-to-long term. The assessment, therefore, attempts to balance short and longer-term impacts.
- *Complementarities:* To what degree does the issue have influence across different domains (growth, inequality, sustainability) and/or would magnify the positive impact of addressing other constraints? As with the assessment of ‘pre-conditions’, all issues have some complementarity. Here, the assessment rated more highly those issues that had clear impacts across more than one pathway.
- *Evidence-base:* Based on the quality of the evidence, how confident are we in the identification of the issue as a priority? In many cases, the evidence base in Botswana – through statistics, strategies and reports – is relatively solid, despite the fact that data is often weak. That said, however, much of the evidence in several cases remains anecdotal and/or difficult to quantify (for example, the state of public sector effectiveness and the factors contributing to it). In these cases, issues were rated as having a lower evidence base to support the assessment.

- *Adequacy of existing interventions:* The intention of the SCD is not to identify issues that have somehow been completely passed over by policymakers. This is unrealistic, and indeed it would be concerning if such issues were identified. In fact, all of the challenges identified here are being addressed in some form (with greater or lesser priority and effectiveness) by the Government of Botswana. This criterion aims to identify areas where significant additional public intervention is warranted.

Overall, the desk analysis resulted in identifying 15 of the 30 challenges as ‘highest’ and ‘high’ priority (see *Annex 1*, *Table 11* and *Table 12*). There were a variety of reasons why other identified challenges did not rank among the top 15. Most commonly it was because either: i) they had a long pathway to impacting poverty elimination and shared prosperity; and / or ii) there was already a fairly effective intervention in place to address the challenge.

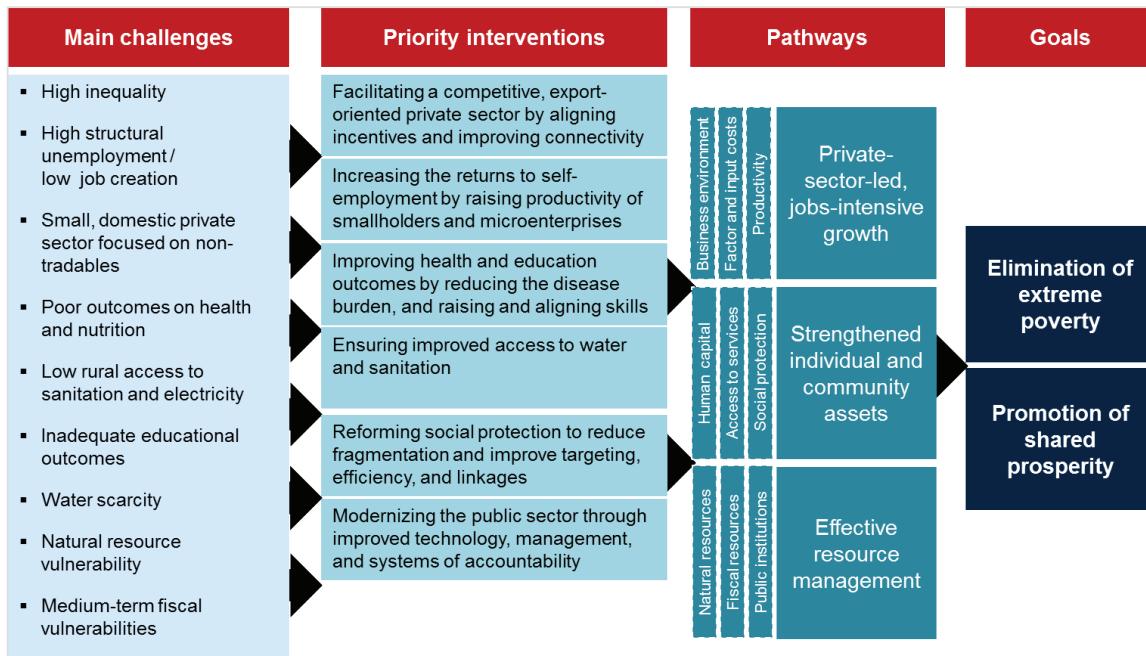
To complement and enrich the desk assessment, consultations were held with key stakeholders. This included a workshop within the World Bank, soliciting input from across the global technical practices, and 3 workshops in Botswana, with government, private sector and civil society, and development partners. Details on the consultations throughout the SCD process are presented in *Annex 2*. During the consultation sessions, the analysis from chapters 3-5 of this note was presented, along with the logic leading to the identification of challenges and priorities. This was followed by discussion on the analysis and identification of priorities. While overall the consultations underlined broad support for the analysis and priorities identified, the consultations impacted the prioritization process in several ways:

- *Recognizing the limitations of quantitative rankings:* As expected, individuals and organizations with vested interests in certain sectoral and technical areas that were not identified as priorities in the desk analysis often made strong arguments to the contrary, and with strong technical expertise in the area, these arguments were of course fairly effective. This underlined the contestability of quantitative ratings and the importance of leaving scope for flexibility in the CPF process, by grouping together some identified priorities into broader categories.
- *Highlighting the critical role of improving government effectiveness:* Consultation sessions, particularly in Botswana, put strong emphasis on the priority of addressing issues related to government effectiveness, with many stakeholders pointing to this as the single most important priority.
- *Linkages and complementarities:* The consultation sessions were particularly helpful in further identifying the linkages and complementarities across challenges, which again support the idea of grouping together some identified priorities into broader categories.
- *Status of ongoing interventions:* The consultations were particularly helpful in providing additional details on the nature and status of existing interventions (by government, development partners, etc.) to address many of the challenges identified.

6.3. Prioritization: final results

Pulling together the results from the prioritization exercise, Figure 93 provides an overview of the challenges and priority interventions identified. These are shown with their links to the three pathways highlighted throughout this note and, ultimately, to the twin goals. It is important to note here, that prioritization of some challenges does not suggest ignoring others. All the issues discussed in this note are important to ensuring sustainable, inclusive growth and poverty reduction in Botswana. And to some degree, government will need to put time and resources into all of them. The purpose of the SCD prioritization is to identify those challenges that are likely to have the greatest bearing on eliminating absolute poverty and on improving the welfare of the less-well-off in the medium term. Thus, they are proposing an emphasis rather than a sole focus.

Figure 93: Overview of identified priorities to eliminate extreme poverty and promote shared prosperity



These final priorities are discussed in further detail in what follows:

As discussed throughout this note, eliminating poverty and improving the welfare of the bottom 40 percent of the population will require a fundamental shift to a new growth model, one that creates sufficient, broad-based employment. This will require the **development of a competitive and export-oriented private sector**:

- *Facilitating an export-oriented private sector by aligning incentives and improving connectivity:* The need to develop a more competitive private sector is well understood in Botswana and efforts have long been made to support it. The question is what is holding this back? Fundamentally, it is a question of the relative returns available to entrepreneurs to invest in tradables. As such, the SCD focuses on two specific issues within the private sector development agenda:
 - i. *Establishing the incentives to support an outward-oriented private sector*, including trade, competition, and immigration policies that ensure access to competitively priced inputs and skills, and incentives to compete in tradable sectors. Skilled and talented Batswana have long faced an environment where the most attractive career choice has been to join the public sector. And for those looking to become entrepreneurs, the easiest and highest returns could be found by focusing on domestic non-tradables and government contracts. But with a small domestic market, building competitive, productive firms capable of generating significant employment, firms must be looking instead to export markets. This will require a rethink of a wide range of trade and industrial policies that promote national champions, localization, and ‘citizen empowerment’ through protection.
 - ii. *Improving connectivity:* The returns to export-oriented activities in Botswana are relatively low due to a variety of factors. Some of them are structural (e.g. lack of scale) and others policy induced (high input costs, low productivity). While high input costs can be partly addressed through the incentive environment discussed above and productivity addressed through improvements in human capital (discussed below), helping to close Botswana’s connectivity gap – thus increasing market access and lowering costs – is critical to competitiveness. This will require a focus more on soft than hard infrastructure, including: i) improving national and

regional trade facilitation to support integration into regional and global value chains; ii) improving air connectivity to open up opportunities in key sectors; and iii) improving the speed, quality, and cost effectiveness of ICT infrastructure (especially broadband). From an industrial policy perspective, it may also necessitate a stronger focus on sectors and activities where Botswana is less constrained by geography, most notably in modern commercial services and tourism.

But developing a competitive private sector capable of generating broad-based employment will take time. The reality is that the process of structural change will take 10-20 years to achieve. During this time a large share of the population (at least in rural areas) will still rely on farming. And even for those in the urban villages and outside of the agricultural sector, Botswana's formal labor market is not likely to provide sufficient income-earning opportunities for all Batswana. Many of the poor and 'near-poor' that fall outside the formal labor market will continue to face risks of falling back into poverty. For this reason, there is a need to focus on increasing the opportunities and **returns to self-employment by raising productivity of smallholders and microenterprises:**

- *Raising productivity of smallholders and microenterprises:* As noted above, many of the poor and non-poor reliant on agriculture remain highly vulnerable. Recent expansion of subsistence agriculture appears to have played a fundamental role in reducing poverty and inequality over the past decade. But it relies heavily on government subsidies and is vulnerable to a variable climate and water availability (especially for livestock). Unless productivity improvements can be made, smallholder agriculture may not be sustainable, and tens of thousands of households will remain at risk of falling back into poverty. By contrast improving productivity and increasing agricultural incomes is the key to developing a more vibrant rural economy, which will in turn create non-farm employment opportunities. The agenda for raising smallholder productivity will focus on establishing the right incentives for smallholders to adopt more appropriate technologies and methods to improve yields and mitigate risks and strengthen the extension system. Outside of agriculture, interventions will promote a more dynamic microenterprise sector, both in rural and urban areas, with a focus not only on entry into self-employment and the SMME sector but improving productivity within the sector through capacity building and access to services. Given the relatively limited existing knowledge of the sector, a starting point will be deepening the knowledge based to ensure that interventions are informed by a strong evidence base.

Developing a new growth model will also require a step-change in the productivity of Botswana's firms, which is dependent on substantial improvements in **human capital:**

- *Human capital for employment, productivity, and human development:* Botswana's private sector requires a workforce with better, more appropriate skills and with a much-improved work ethic; this will be the key to improving firm-level productivity and driving competitiveness in diversified sectors. But it also requires a much-improved health environment, to ensure that all individuals have the capacity to contribute to productivity and are in the position to enjoy adequate human development outcomes. This requires a specific focus on elements of both education and health:
 - i. *Education:* Raising the quality of education, with a specific focus on aligning skills with labor market needs will equip Batswana, especially its youth, to participate productively in the economy, whether through formal employment or microenterprises. The focus will be on increasing the relevance of skills and improving intangible skills like communication and, most importantly, work ethic.
 - ii. *Health:* This will focus on the health barriers to skills acquisition and labor market participation, in particular childhood malnutrition, and the impact of disease (especially HIV) on female participation in income-earning activities. Intensifying efforts to improve outcomes in HIV prevention is likely to be critical over the medium term.

Ensuring sustainable growth of formal commercial activities, sustainable livelihoods, and quality human development outcomes in the future will increasingly require focus on **infrastructure and policies for water and sanitation**:

- *Water and sanitation for growth, security, and human development:* None of Botswana's growth opportunities will be achievable over the long term if sustainable sources of water are not made available, if new technologies are not adopted, and if pricing policies are not reformed to ensure its efficient use. Moreover, addressing the major gaps in access to sanitation is likely to be critical to ensuring improved livelihoods and reducing incidence of disease and malnutrition. Interventions in this area are expected to focus on infrastructure development, support for regional integration of water resources, adoption of recycling and other technologies, and introduction of policies to ensure water pricing reflects true value (and opportunity costs).

But even with greater job creation and self-employment, improved human capital, and access to resources, a relatively small minority Batswana will fall not be in a position to participate. **With a focus on reforming social protection, Botswana has a unique opportunity to eliminate extreme poverty within the next 5-7 years:**

- *Reforming social protection:* Not only is Botswana close to reaching the goal of poverty elimination, but it has a social protection system which has the scale and breadth to deliver it. Indeed, as discussed in this note, Botswana's social protection system has the potential of virtually eliminating extreme poverty without additional resource implications. Beyond this, it has the potential to build an effective bridge to addressing many other aspects of the inclusion challenge, including health, education, and labor markets. In this sense, prioritizing social protection reform in the short term seems an obvious first step to addressing the twin goals. Among the priorities for the reform of social protection include adopting technologies and processes to improve targeting efficiency, consolidating the fragmented programs and introducing a single household-level grant as 'last resort' protection, introducing conditional interventions to promote behavioral changes, and more effectively linking social protection with public works and active labor market programs.

None of the priority interventions outlined above will deliver rapid and sustainable progress on the twin goals without addressing fundamental enablers, including a major **modernization of the public sector and improved management of increasingly-scarce natural resources**:

- *Public sector modernization for effectiveness and sustainability:* Delivering on any of the interventions discussed in this SCD requires a substantial, if not leading, role from the public sector. Improving public investment management, project management, and program delivery through adopting modern technologies, systems, and processes, and putting in place systematic and meaningful processes for monitoring and accountability will be fundamental to addressing the above challenges and maintaining sustainability.
- *Natural resources management to support sustainable growth and livelihoods:* Botswana's natural resources will remain at the heart of the country's success. But they are highly constrained, fragile, and face many competing demands. Putting in place effective systems for planning that take clear account of the (often irreversible) implications on critical resources will be critical to maintain sustainability over the medium term.

6.4. Implementation of the priority interventions

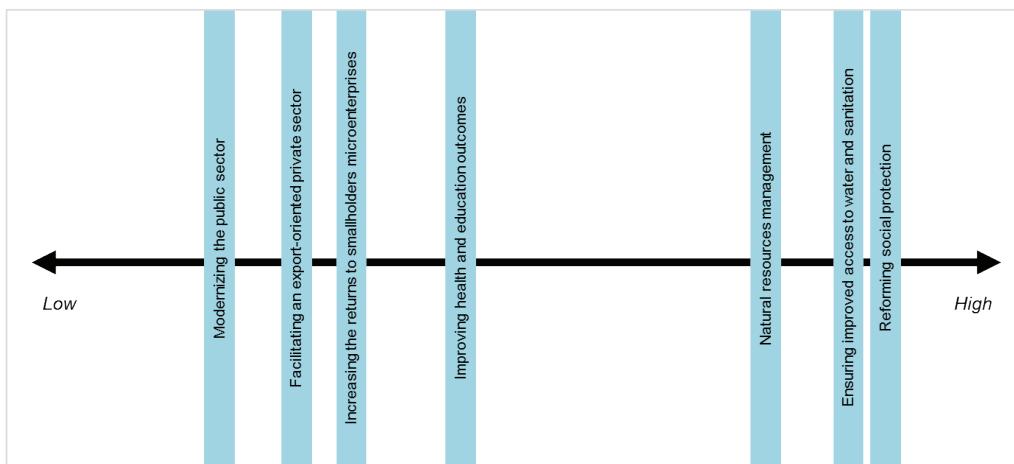
Concerns over declining public sector effectiveness aside, Botswana overall has a capable and committed civil service which is in a good position to implement the package of priority interventions outlined in this note. Indeed, as discussed, virtually all of these issues have already been identified in government policy and strategy documents and interventions are already underway in the majority of them. In some cases – for example related

to employment creation (National Employment Strategy), educational quality and skills development (National Education and Skills Development Strategy), natural resources (Biodiversity Plan), and poverty (New Poverty Eradication Framework) – major new policies and strategies are in the process of being launched. In other areas (e.g. health, water, exports, etc.) masterplans and strategies have long been in place. Specific programs are in place to target many of the issues identified in the SCD.

But the fact that strategies, policies, and programs have been in place to address what are still identified as priority challenges suggests they have not been fully effective, and raises some questions on implementation potential. Figure 94 provides a broad assessment of implementation potential across the 7 priority areas – it considers both capacity and political will.

Overall, social protection reform and water sector interventions are deemed to have the best potential for implementation in the next 5-7 years. By contrast public sector modernization and interventions to support an export-oriented private sector are deemed to have the lowest implementation potential among the 7 priorities. This is a function of capacity, political will, and the relative difficulty in having an impact. With regard to public sector modernization, there no settled position in government on what is behind the problem and how it should be addressed. On private sector development, while some aspects of the agenda are uncontroversial and easily implementable, others may clash with goals of supporting citizen empowerment and localization through active trade and industrial policy interventions. In areas like human capital development, there is strong political will to support priority interventions, but achieving results can be difficult, and some capacity limitations exist.

Figure 94: Summary assessment of implementation



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Annex 1: Detailed description and results of prioritization process

In order to define priority interventions, each of 30 challenges identified in this note was assessed against a set of 6 criteria shown in Box 14 of Chapter 6. For each challenge, each criterion was scored on a 1-3 basis (low to high, in terms of importance of priority). Impact on the twin goals was separated to assess each independently: first, assessing the impact of eliminating extreme poverty; and second, assessing the impact of the issue in supporting sustainable growth, focused specifically around generating sustainable income and employment opportunities for the bottom 40 percent of the population. The reason for separating the assessment of impact into these two issues is that Botswana's levels of absolute poverty are relatively low and may be addressed effectively through a set of interventions that may well be different than those that are required to ensure sustainable improvements of livelihoods. They are also likely to be shorter-term in nature.

In scoring, impact on each of the twin goals was accorded twice the weight of the other criteria.

The result was a raw score that was then converted into a rank. Where two challenges received the same raw score, they were given a common ranking – this was the case across many of the challenges. Table 11 summarizes the results of the desk prioritization assessment. Overall, the desk analysis resulted in converting the 30 challenges to 8 ranked sets of priorities. Those that achieved a ranking among the top 3 were marked as 'highest' priority; those ranked in the range of 4-5 were marked as 'high' priority; and those ranked 6-8 were marked as 'secondary' priority¹⁵¹. Those marked 'highest' and 'high' priority in Table 11 are highlighted and listed in Table 12. This results in a prioritization of 15 of the 30 challenges identified – 5 across each of the three main pathways.

To give a sense of the reasons why others challenges were identified as among the top priorities, Table 11 provides some very brief explanations. In most cases it came down to particularly long pathways to impacting the twin goals (both in terms of time and the degree to which they were removed from other challenges and/or several stages downstream) and the degree to which there was already a strong intervention in place to address the challenge. In addition, many of the challenges, particularly in the pathway of job-creating growth were expected to have a limited impact on elimination of extreme poverty, as the nature of the challenge often is disconnected from the extreme poor. Finally, several potentially important challenges lacked sufficiently strong supporting evidence.

To give a sense of the reasons why others challenges were identified as among the top priorities, Table 13 provides some very brief explanations. In most cases it came down to particularly long pathways to impacting the twin goals (both in terms of time and the degree to which they were removed from other challenges and/or several stages downstream) and the degree to which there was already a strong intervention in place to address the challenge. In addition, many of the challenges, particularly in the pathway of job-creating growth were expected to have a limited impact on elimination of extreme poverty, as the nature of the challenge often is disconnected from the extreme poor. Finally, several potentially important challenges lacked sufficiently strong supporting evidence.

Finally, Table 14 maps the 15 identified high priority challenges to the set of 7 priority interventions shown in Figure 93 of Chapter 6. In some cases, challenges mapped to more than one intervention.

¹⁵¹ This rating of 'highest', 'high', 'secondary' was chosen to highlight the fact that none of these challenges should be considered low priority. By definition, the analysis in this note was designed to identify the most important challenges facing the country in addressing the twin goals. Therefore, all the challenges identified here should be considered important.

Table 10: Summary of key challenges, desired results, and pathways to achieving twin goals

Pathway	Broad challenge identified	Desired results	Links in the pathway to poverty reduction and shared prosperity
Establishing an environment for private sector-led, job-creating growth	Smallholder productivity	Improved productivity of agriculture and livestock smallholders through adoption of appropriate technologies and methods and mitigation of risks	Supports sustainability of extreme poverty elimination; raises farm incomes which contribute to supporting growth of the non-agricultural rural sector
Non-farm self-employment and microenterprises	Larger and more dynamic self-employed and informal sector to create income-earning opportunities and absorb excess labor in the medium term	Alleviates burden on social protection system for poverty elimination; provides pathway for youth into labor markets	
Incentive environment	Industrial and trade that promote investment in tradables, exports, and support regional integration	Raises private sector investment in employment-creating activities by increasing returns to investment through lower costs and improved access to productivity enhancing spillovers	
Competition	Contested domestic markets with strong competition / regulation driving quality and cost effectiveness of key input sectors	Raises private sector investment in employment-creating activities by increasing returns to investment through lower costs and improved access to productivity enhancing spillovers	
Supply of skilled labor	Alignment between labor market needs and skills of the labor force; strong work ethic driving productivity; open access to skilled immigration delivers spillovers to domestic labor market	Raises private sector investment in employment-creating activities by increasing returns to investment through higher productivity	
Business regulations	Botswana among the most ‘business-friendly’ environments (as measured by ‘Doing Business’) with easy business set up and access to key inputs and services	Raises private sector investment in employment-creating activities by lowering fixed costs of entry	
Hard infrastructure for connectivity	Private sector investment to develop key infrastructure for minerals exports (e.g. rail)	Supports sustainability of poverty elimination and growth due by ensuring sustainability of fiscal and external balance	
Soft infrastructure for connectivity	Non-structural connectivity gaps closed through improved access to quality, cost-effective ICT, improved trade facilitation, and increased air connectivity	Raises private sector investment in employment-creating activities by lowering input costs, improving connectivity, and increasing productivity	
Technology and innovation	Policies and mechanisms in place to facilitate technology transfer and licensing; firms actively seeking access to global technologies and processes	Raises private sector investment in employment-creating activities by increasing returns to investment through higher productivity	

Pathway	Broad challenge identified	Desired results	Links in the pathway to poverty reduction and shared prosperity
Ensuring inclusion by strengthening individual and community assets	HIV prevention	Rapid decline in incidence rates of HIV, contributing within a generation to a sharp fall in the prevalence of HIV	Improves inclusion through health impacts; Supports sustainability of poverty elimination by reducing fiscal vulnerabilities; Increases firm and public sector productivity through improved health and by increasing access of females to labor markets
	Childhood malnutrition	Sharp fall in child malnutrition rates across all demographics and income groups, contributing to lower prevalence of other health problems and improved educational outcomes	Improves inclusion through improved cognitive potential and health impacts supports risks sustainability of poverty elimination and raises firm productivity by increasing the capacity of skills supply
	Access to sanitation	Widespread access to appropriate sanitation facilities across the country, contributing to lower prevalence of disease and child malnutrition	Improves inclusion; raises skills supply and productivity through indirect impacts on health and potentially childhood malnutrition
	Rural access to electricity	Widespread availability of electricity across the country, making use of the most cost effective technologies, including renewables	Increases private sector investment and investment in micro-enterprises by increasing scope of operations and lowering input costs; raises productivity of rural smallholders
	Access to land and public services in the urban fringe	Effective metropolitan planning and management of land and infrastructure, contributing to functional urban areas with access to affordable housing, transport, and municipal services	Direct impact on inclusion by reducing overcrowding and potential health risks; Increases private sector investment in employment-creating activities by controlling costs (land, facilities, services, labor)
	Quality and equity of educational outcomes	Botswana's students raise substantially their performance in international tests; students given a clear path of quality educational and vocational support, delivering a more competitive labor force	Raises private sector investment in employment creating activities by increasing productivity; Improves inclusion by raising potential for self-employment activities; impacts productivity and quality of public service delivery
	Financial inclusion for the rural poor and SMEs	Financial inclusion gaps closed, with broad access to credit for self-employed and SMEs through Botswana	Raises private sector investment in employment creating activities and lowers vulnerabilities to elimination of extreme poverty by increasing potential for investments in farm and non-farm self-employment and microenterprise sector
	Inclusion in formal labor markets for youth and females	Substantial increase in labor market participation by youth and women	Raises private sector investment in employment creating activities by increasing productivity; supports sustainability of poverty elimination by increasing potential of women and youth to build skills and financial assets
	Efficiency and effectiveness	Highly efficient social protection system capable of	Raises potential to eliminate extreme poverty and

Pathway	Broad challenge identified	Desired results	Links in the pathway to poverty reduction and shared prosperity
	of social protection system	eliminating extreme poverty without raising spending; system well-linked to other programs (health, active labor market programs, etc)	supports the sustainability of poverty elimination through by facilitating individual asset-building (thus reducing inter-generational transmission of poverty) and controlling fiscal costs.
	Strength of civil society and voice of excluded	Much increased female participation in Parliament (reaching at least 30% in medium term) and in the private sector; autonomous and sustainable civil society	Raises the probability of policies targeted to address key gaps in inclusion
	Ensuring the sustainability of growth and inclusion through effective management of resources	<p>Planning for sustainable natural resources management</p> <p>Systematic approach to assessing and analyzing trade-offs mainstreamed into development planning and policy across government and the private sector</p>	<p>Supports sustainability of growth by maintaining key sources of comparative advantage; supports sustainability of poverty elimination by ensuring access to sources of livelihoods, especially in rural areas</p> <p>Ensures sustainability of growth by efficient use of key resources</p>
	Water sector investment and policy	Long term water security achieved through domestic and regional investments and agreements; water pricing reflects true costs, ensuring more productive use; water-saving technologies adopted by government and the private sector, including use of recycling in municipal water	Raises firm investment in employment creating activities due to higher productivity resulting from reliable access to electricity
	Energy supply and distribution	Long term energy security achieved through domestic and regional investments and agreements; energy pricing reflects true costs, ensuring sustainability of investments (especially by private sector)	Raises firm investment in employment creating activities due to higher productivity resulting from reliable access to electricity
	Protecting biodiversity	Biodiversity protection mainstreamed into policy and planning of public and private sector; Growth and income-generating potential of biodiversity actively recognized and supported	Supports sustainability of growth by protecting key sources of comparative advantage; supports sustainability of poverty elimination by protecting and promoting sources of livelihoods, especially in rural areas
	Revenue management and diversification	Non-SACU and diamond revenues represent the major of government revenue in the medium term, while ensuring a fair but competitive tax environment	Supports sustainability of growth through overcoming fiscal vulnerability
	Reform of parastatals	All parastatals either privatized or operating in competitive market conditions, without recourse to subsidies	Raises firm investment in employment creating activities due to higher productivity resulting from higher quality and/or lower cost inputs; supports fiscal sustainability
	Consolidation of public sector	Government expenditures fall to 30 percent of GDP	Supports fiscal sustainability

Pathway	Broad challenge identified	Desired results	Links in the pathway to poverty reduction and shared prosperity
		through control of recurrent expenditures; government wage bill declines as a share of GDP, while still maintaining competitive salaries to attract skilled civil servants in technical and managerial positions	
Modernization of government systems and processes		Botswana government agencies consistently adopting world-leading approaches and technologies (within cost limits)	Cross-cutting support to efficiency and effectiveness of service delivery
Project and program management		Cadre of well-trained project managers, with institutional arrangements and a project management culture instituted across government	Cross-cutting support to efficiency and effectiveness of service delivery
M&E and accountability		Robust M&E system implemented and consistently used and updated across all projects, programs, and policies in government; accountability (linked to M&E) part of the human resources culture in government	Cross-cutting support to efficiency and effectiveness of service delivery
Statistical capacity		Frequent, high quality data collection of households and firms, with rapid and high quality analysis and dissemination, making use of the most effective global technologies and practices	Cross-cutting support to efficiency and effectiveness of service delivery and policies targeting poverty and growth by supporting potential for evidence-based policymaking

Table 11: Summary of prioritization assessment

Challenge	Impact on eliminating extreme poverty* (Small, Medium, High)	Impact on sustainable welfare improvements* (Small, Medium, High)	Time horizon of impact (Short, Medium, Long)	Complementarities (Weak, Medium, Strong)	Evidence base (Weak, Medium, Strong)	Adequacy of existing interventions (Weak, Medium, Strong)	Priority level (highest, high, secondary)
Establishing an environment for private sector-led job-creating growth							
Smallholder productivity	High	High	Medium	Medium	Medium	Weak	Highest
Non-farm self-employment and microenterprises	High	High	Short	Medium	Weak	Medium	Highest
Incentive environment	Small	High	Medium	Medium	Medium	Weak	High
Competition	Medium	Medium	Medium	Medium	Medium	Medium	Secondary
Supply of skilled labor	Medium	High	Medium	Strong	Strong	Medium	Highest
Business regulations	Small	Medium	Medium	Medium	Strong	Strong	Secondary
Hard infrastructure for connectivity	Small	Medium	Medium	Medium	Strong	Strong	Secondary
Soft infrastructure for connectivity	Small	High	Medium	Medium	Strong	Medium	High
Technology and innovation	Small	Medium	Medium	Medium	Medium	Medium	Secondary

* Weighted at twice the level of other categories

Note: scores are in the range of 1 (lowest) to 3 (highest) in each category; "Time horizon of impact" and "Adequacy of existing interventions" are scored in reverse to their qualitative order (e.g. long time horizon scored as 1 not 3; weak adequacy of existing interventions scored as 3 not 1).

Challenge	Impact on eliminating extreme poverty* (Small, Medium, High)	Impact on sustainable welfare improvements* (Small, Medium, High)	Time horizon of impact (Short, Medium, Long)	Complementarities (Weak, Medium, Strong)	Evidence base (Weak, Medium, Strong)	Adequacy of existing interventions (Weak, Medium, Strong)	Rank
Ensuring inclusion by strengthening individual and community assets							
HIV prevention	Medium	Medium	Medium	Strong	Strong	Medium	High
Childhood malnutrition	Medium	High	Medium	Strong	Medium	Medium	Highest
Access to sanitation	Medium	High	Short	Medium	Medium	Medium	Highest
Rural access to electricity	Medium	Medium	Medium	Medium	Weak	Medium	Secondary
Access to land and public services in the urban fringe	Medium	Medium	Medium	Medium	Weak	Medium	Secondary
Quality and equity of educational outcomes	Medium	High	Medium	Strong	Strong	Medium	Highest
Financial inclusion for the rural poor and SMMEs	Medium	Medium	Medium	Medium	Weak	Medium	Secondary
Inclusion in formal labor markets for youth and females	Medium	Medium	Medium	Medium	Medium	Medium	Secondary
Efficiency and effectiveness of social protection system	High	Medium	Short	Strong	Strong	Medium	Highest
Strength of civil society and voice of excluded	Small	Medium	Medium	Medium	Weak	Medium	Secondary

* Weighted at twice the level of other categories
Note: scores are in the range of 1 (lowest) to 3 (highest) in each category; "Time horizon of impact" and "Adequacy of existing interventions" are scored in reverse to their qualitative order (e.g. long time horizon scored as 1 not 3; weak adequacy of existing interventions scored as 3 not 1.)

Challenge	Impact on eliminating extreme poverty* (Small, Medium, High)	Impact on sustainable welfare improvements* (Small, Medium, High)	Time horizon of impact (Short, Medium, Long)	Complementarities (Weak, Medium, Strong)	Evidence base (Weak, Medium, Strong)	Adequacy of existing interventions (Weak, Medium, Strong)	Rank
Ensuring the sustainability of growth and inclusion through effective management of resources							
Planning for sustainable natural resources management	Medium	Medium	Medium	Strong	Medium	Medium	High
Water sector investment and policy	Medium	High	Medium	Strong	Strong	Medium	Highest
Energy supply and distribution	Small	Medium	Medium	Strong	Medium	Medium	Secondary
Protecting biodiversity	Medium	Medium	Medium	Strong	Medium	Medium	High
Revenue management and diversification	Medium	Medium	Long	Strong	Strong	Strong	Secondary
Reform of parastatals	Small	Medium	Medium	Medium	Strong	Weak	Secondary
Consolidation of public sector	Small	Medium	Medium	Strong	Medium	Medium	Secondary
Modernization of government systems and processes	Medium	Medium	Short	Strong	Medium	Weak	Highest
Project and program management	Medium	Medium	Short	Strong	Strong	Weak	Highest
M&E and accountability	Medium	Medium	Long	Strong	Strong	Strong	Secondary
Statistical capacity	Medium	Medium	Long	Medium	Strong	Medium	Secondary

* Weighted at twice the level of other categories

Note: scores are in the range of 1 (lowest) to 3 (highest) in each category; "Time horizon of impact" and "Adequacy of existing interventions" are scored in reverse to their qualitative order (e.g. long time horizon scored as 1 not 3; weak adequacy of existing interventions scored as 3 not 1)

Table 12: Top 15 challenges identified through the desk prioritization

Pathway	Broad challenge
Establishing an environment for private sector-led, job-creating growth	Smallholder productivity
	Non-farm self-employment and microenterprises
	Incentive environment
	Supply of skilled labor
	Infrastructure for connectivity
Ensuring inclusion by strengthening individual and community assets	HIV prevention
	Childhood malnutrition
	Access to sanitation
	Quality and equity of educational outcomes
	Efficiency of social protection system
Ensuring the sustainability of growth and inclusion through effective management of resources	Planning for sustainable natural resources management
	Water sector investment and policy
	Protecting biodiversity
	Modernization of government systems and processes
	Project and program management

Table 13: Second priority challenges

Pathway	Broad challenge	Reasons for not rating within top priorities
Establishing an environment for private sector-led, job-creating growth	Competition	Long pathway to twin goals; weak impact on extreme poverty
	Business regulations	Long pathway to twin goals (focused on business entry versus competitiveness per se); weak impact on extreme poverty; adequate intervention in place
	Hard infrastructure for connectivity	Not a binding constraint except in minerals; Weak impact on extreme poverty; Potential negative spillovers for addressing other challenges
	Technology and innovation	Long pathway to twin goals; lack of strong evidence base
Ensuring inclusion by strengthening individual and community assets	Rural access to electricity	Weak evidence base on links to poverty reduction and SMME development; interventions making progress
	Access to land and public services in the urban fringe	Weak evidence base
	Financial inclusion for the rural poor and SMMEs	Weak evidence base
	Inclusion in formal labor markets for youth and females	Weak evidence base to identify specific interventions or even systematic exclusion
	Strength of civil society and voice of excluded	Long pathway to twin goals
Ensuring the sustainability of growth and inclusion through effective management of resources	Energy supply and distribution	Despite current problems, adequate interventions are in place to address the challenge over time
	Revenue management and diversification	Long pathway to addressing twin goals; adequate interventions are in place
	Reform of parastatals	Long pathway to addressing twin goals
	Consolidation of public sector	Long pathway to addressing twin goals
	M&E and accountability	Long pathway to addressing twin goals; adequate interventions are in place

Pathway	Broad challenge	Reasons for not rating within top priorities
	Statistical capacity	Long pathway to addressing twin goals; adequate interventions are in place

Table 14: Mapping broad challenges to priority interventions

Pathway	Broad challenge	Mapped to priority
Establishing an environment for private sector-led, job-creating growth	Smallholder productivity	Facilitating a competitive, export-oriented private sector by aligning incentives and improving connectivity
	Non-farm self-employment and microenterprises	Increasing the returns to self-employment by raising productivity of smallholders and microenterprises
	Incentive environment	Facilitating a competitive, export-oriented private sector by aligning incentives and improving connectivity
	Labor supply	Facilitating a competitive, export-oriented private sector by aligning incentives and improving connectivity; Improving health and education outcomes by reducing the disease burden, and raising and aligning skills
	Infrastructure for connectivity	Facilitating a competitive, export-oriented private sector by aligning incentives and improving connectivity
Ensuring inclusion by strengthening individual and community assets	HIV prevention	Improving health and education outcomes by reducing the disease burden, and raising and aligning skills
	Childhood malnutrition	Improving health and education outcomes by reducing the disease burden, and raising and aligning skills
	Access to sanitation	Ensuring improved access to water and sanitation ; Improving health and education outcomes by reducing the disease burden, and raising and aligning skills
	Quality and equity of educational outcomes	Improving health and education outcomes by reducing the disease burden, and raising and aligning skills
	Efficiency of social protection system	Reforming social protection to reduce fragmentation and improve targeting, efficiency, and linkages
Ensuring the sustainability of growth and inclusion through effective management of resources	Planning for sustainable natural resources management	Mainstreaming the management of scarce natural resources
	Water sector investment and policy	Ensuring improved access to water and sanitation; Mainstreaming the management of scarce natural resources
	Protecting biodiversity	Mainstreaming the management of scarce natural resources
	Modernization of government systems and processes	Modernizing the public sector through improved technology, management, and systems of accountability
	Project and program management	Modernizing the public sector through improved technology, management, and systems of accountability

Annex 2: Summary of consultations

Consultations on the SCD in Botswana were carried out over three periods: i) in development and review of the initial concept, between March and May, 2014; ii) as part of the analytical stage, between June and August, 2014; and iii) in reviewing the draft report and selecting priorities, between August and September, 2014. The table below provides an overview of the consultations carried out in Botswana as well as internally at the World Bank over each of these stages.

Stage	In Botswana	World Bank (internal)
Concept development and review	<ul style="list-style-type: none"> March, 2014: SCD launch consultation workshops with government, private sector, civil society, and development partners 	<ul style="list-style-type: none"> April, 2014: SCD brainstorming workshop May, 2014: SCD Concept Note review meeting
Analysis	<ul style="list-style-type: none"> June, 2014: one-on-one meetings with private sector, development partners, and local researchers / technical experts 	<ul style="list-style-type: none"> June-August, 2014: one-on-one meetings with Bank technical experts and global practices
Draft review and prioritization	<ul style="list-style-type: none"> September, 2014: SCD draft report review and prioritization workshops with government, private sector, civil society, and development partners 	<ul style="list-style-type: none"> August, 2014: SCD draft report review and prioritization workshop with country team and global practice representatives

The tables below indicate the participants in each of the consultations carried out in Botswana:

March, 2014 SCD kick-off consultations:

Organization	Representative
Ministry of Finance and Development Planning	Mr. Sekwakwa
Ministry of Minerals, Energy, and Water Resources	Mr. Paya
Ministry of Health	Hon. Seakgosing; Dr. El-Halabi
Ministry of Trade and Industry	Hon. Magkato-Malesu
National Strategy Office	Mr. Corea; Mr. Morapedi
Ministry of Public Administration and Presidential Affairs	Hon. Masisi
Office of the President	Dr. Mothibi; Mrs. Misuenyane; Dr. Kereteletswe
Ministry of Local Government and Rural Development	Hon. Siele
Ministry of Environment, Wildlife and Tourism	Hon. Khamma; Mr. Fitt
Ministry of Education and Skills Development	Hon. Masimolole; Mrs. Muzila
Ministry of Agriculture	Hon. Molebatsi; Mr. Letshewenyo
Statistics Botswana	Mrs. Majelantle
Public Procurement and Assets Disposal Board	Mrs. John

June, 2014 one-on-one consultations:

Organization	Representative
United Nations Development Program (UNDP)	Anders Pedersen (Resident Coordinator)
World Health Organization (WHO)	Dr. Tebogo Madidimalo (National Professional Officer-HIV/AIDS)
UNICEF	Scott Whoolery (Deputy Representative); Jun Fan

US Embassy	Domingo Villaronga (Economist)
Botswana Institute for Development Policy Analysis (BIDPA)	Tebogo Seleka (Executive Director); Roman Grynburg; Grace Kgakge-Tabengwa; Gape Kaboyakgosi; David Mmopelwa; Patrick Malope (Senior Research Fellows)
Botswana National Productivity Centre (BNPC)	Tebogo Kesupile (General Manager)
Letshego Financial Services	Christopher Low (Group Managing Director); Colm Patterson (Group Chief Financial Officer); Frederick Mmelesi (CEO, Botswana)
Delta Dairies	Dr. Sigwele (Managing Director)
Foamex	Lisani Ndaba (Managing Director)
Senn Foods	Lakshmi Venkataraman (Managing Director)
Ecosurve	David Parry (Director)
Centre for Applied Research	Jaap Arntzen (Director)

September, 2014 draft review and prioritization workshops:

Organization	Representative
Ministry of Finance and Development Planning	K. Ndobano (DSMP)
Ministry of Minerals, Energy, and Water Resources	T. G Dedede (Acting DPS)
Ministry of Health	Koona Keapoletswe (Acting DPS)
Ministry of Trade and Industry	Sehume Kgabi (Chief Economist)
National Strategy Office	Uttam Corea (Director General); Mbakiso Morapedi (Senior Manager); David Sefawe (Senior Manager)
National AIDS Coordinating Agency (NACA)	Grace Muzila (Coordinator)
Diamond Hub	Mmetla Masire (Coordinator)
Botswana National Productivity Centre (BNPC)	Phumzile Thobokwe (Manager); Letsogile Batsetswe (Research Consultant)
Botswana Communications Regulatory Authority (BOCRA)	Noble Katse (Director of Business)
BIDPA	Monnane Monnane (Research Fellow)
University of Botswana	K. Nthomang (Professor)
Botswana Innovation Hub	Tigele Mokobi (Communications Manager)
Hospitality and Tourism Association (HATAB)	Lily Rakorong (CEO)
Letshego Financial Services	Frederick Mmelesi (CEO, Botswana); Mythri Sambasivan-George (Group Head of Corporate Affairs)
NGO Council Secretariat	Vuyelwa Segokgo (Program Manager)
NGO Council	Gaontebale Mokgosi
Econsult Botswana	Dr. Keith Jefferis (Director)
WHO	Dr. F. Zawaira (Resident Representative)
US Embassy	M. Murphy (Chargé d'Affaires); Forrest Graham (Political Officer); Chansonette Yun (Economist Officer)
UNICEF	Scott Whoolery (Deputy Representative)
UNDP	Anders Pederson (Resident Coordinator)
British High Commission	Nick Pyle (High Commissioner)
German Embassy	R. Ulrich (Ambassador); Joachim Schmitt (Counsellor Cooperation)

Annex 3: Assessment of key knowledge gaps

Throughout this note key knowledge gaps have been identified. These are topics that are critical to understanding the challenges facing Botswana, but where we have limited quantitative and qualitative evidence to enable taking a clear position on the degree to which the issue is a priority and/or on the interventions required to address it. Below is a summary of these key knowledge gaps. It can be viewed as a set of research priorities for the Government of Botswana, development partners, academics, and research institutions over the next few years.

Knowledge gap	Description
The informal economy	While subsistence agriculture is large and growing in Botswana, informal activities outside the agricultural sector appear to be relatively small in size lacking dynamism, particularly in light of limited employment creation in the formal sector. Labor market surveys that cover the informal economy come out only infrequently (every 5-7 years) and provide only a broad snapshot of those earning incomes in informal activities. Beyond this little is known about the Botswana's informal economy: the nature of activities; the factors which contribute to informal participation; the constraints to formality and to operating informally; and perhaps most importantly, the potential of home-based enterprises and other informal activity in absorbing labor, supporting household incomes, and moving people out of poverty. Moreover, the degree to which the formal and informal economy operate as complements or substitutes (and what potential there is for this to change in the future) is poorly understood
Relative cost of capital, access to finance, and contribution of the financial sector	While there is much speculation and anecdotal discussion in Botswana on the challenge of SME access to finance, there have been no comprehensive surveys to understand the nature of finance demand and provision in Botswana. Moreover, there have been few analysis to assess the degree to which interest rates over time have been a barrier to firm take-up. More broadly, the remains very little understanding of the degree to which Botswana's financial sector is supporting or constraining investment, particularly from the domestic private sector. Similarly there is limited understanding of the role of access to finance in constraining development of the non-farm self-employment and microenterprise sector. At minimum, there is a need to carry out a baseline survey on SME access to finance and the contribution of bank finance to investment in key sectors
Childhood malnutrition: causes and impacts	The problem of malnutrition in children is deep and widespread in Botswana. It is also puzzling given the relative quantity and quality of financial and nutritional support provided to poor (and even non-poor) households. It is also not clear how extensive is the impact of malnutrition. Given the potential importance of malnutrition on long term outcomes, further research on these issues should be a priority.
Climate change impacts	While Botswana is in the process of developing a climate change strategy, there is still relatively limited understanding of how climate change is likely to impact key resources, how these changes may affect vulnerable rural communities, and what implications this may have on migration and urbanization.
Planning, procurement, and public management: underlying factors of declining public sector effectiveness	While public expenditure reviews have been carried out on the national and sector level in Botswana, there has been little research undertaken to understand the practices and procedures that are involved in project planning, in procurement, and project management, in order to understand better the factors shaping decision-making and the impacts this has, both in terms of fiscal management as well as project and program outcomes. This analysis may be used as a case example to generalize on the wider issue of (apparently) declining public sector effectiveness.

Annex 4: Assessment of data availability and gaps

The table below provides a brief overview of data availability and quality in Botswana, as identified during the process of carrying out the SCD analysis.

Broad area	Assessment of data availability and quality
Macroeconomic and trade	Generally good and up to date, although some important gaps (e.g. in distinguishing between public and private investment); increasing challenges with trade data in the context of rapidly growing diamonds re-exports; services trade data limited and highly unreliable
Fiscal and debt	Generally sufficient, although less frequently updated; projections broadly sufficient but not highly reliable, particularly at the sectoral level
Employment	Very weak; twice annual survey of formal sector, but household surveys (capturing informal sector) carried out very infrequently (1994, 2003, 2010); data quality may also be an issue (e.g. income data limited and unreliable for non wage-earning households)
Poverty and social	As above
Industry, private sector	Very weak : industrial census or other firm-level data available
Health (HIV)	Generally good; new HIV survey (BAIS IV) released in May 2014
Environmental	Limited, but good data available on some aspects through the Bank's WAVES program (natural capital accounting)

Annex 5: Bibliography of studies and reports informing the SCD

World Bank

Report / document (year)
Agriculture PER (2014)
Broadband Competitiveness in Southern Africa (2013)
Climate Change Policy Note (2009)
DPR on Competitiveness and Diversification (2012)
Employer and Employee Survey in Botswana (2010)
Financial Sector Development Strategy (2012)
Financing and Delivery of HIV/AIDS Social Support Services in Botswana: An Economic Analysis (2008)
Integrated Multi-modal Transport Master Plan (forthcoming)
M&E Framework (EDC RAS) (2014)
Multimodal Transport Study for Greater Gaborone
Note on Labor Market Dynamics (2014)
Poverty Assessment (2014)
PSIA assessment of mobile banking reform (2014)
Public Expenditure Review (2010)
SACU regional study on value chains (2014)
Skills and Competitiveness Report (2012)
Social Protection Assessment (2013)
Study on transport and logistics sector (2014)
Support to Botswana Innovation Hub (2013-14)
Diagnostic Study of Credit Reporting System (2014)
Trade Finance Study (2013)
Trans-Kalahari Rail pre-feasibility study (2010)
Various "Doing Business" analytics (EDC RAS) (2013-14)
WAVES – Wealth Accounting (water, minerals, energy) (2013-14)

Government of Botswana, Development Partners, Others

Organization	Report / document
Government of Botswana	National Vision Council
	Towards Prosperity for All – Vision 2016
	MFDP
	National Development Plan-10
	MFDP
	Mid-Term Review of National Development Plan-10
	BEAC
	Botswana Excellence Strategy
	MTI
	Economic Diversification Drive- Medium to Long Term Strategy
	MTI
	Draft Industry Policy
	MTI
	National Export Strategy
	MFDP
	National Employment Strategy (ongoing)
	MESD
	National Education and Skills Development Strategy (ongoing)
	MTI and BOCCIM
	Private Sector Development Strategy
	NSO
	Presentation from Michael Porter to the ECC (2012)
	NSO
	IISD: Botswana Environment Endowment Study (2014)
	NSO
	Conservation International: Towards a Green Economy in Botswana:

		An Assessment of Environmental Institutions (2014)
	NSO	Commonwealth / Dr. Gem Fletcher: Diagnostic Study on Governance, Safety and Security for The Republic Of Botswana (2014)
	Presidency and National AIDS Coordinating Agency	2 nd Botswana National Strategic Framework for HIV and AIDS (2010-2016)
	MIIST	National Policy on Science Technology and Innovation
	MOH	National Health Accounts (2012)
	Statistics Botswana	Botswana AIDS Impact Survey IV (2014)
Development partners / others	UNDP	Poverty and Social Impact Assessment of ISPAAD (2012)
	UNICEF (MLG and BIDPA)	Review of Ipelegeng Program (2012)
	UNICEF	Child Nutrition Situation in Botswana: Observations from the 2000 and 2007 Household Surveys (2012)
	EU	Mid-Term Evaluation of 10 th EDF Education and Training SPSP (2012)
	EU/MFDP	Public Expenditure and Financial Accountability Assessment (2013)
	IMF	Policies That Can Raise Potential Growth in Small Middle-Income Countries Of SSA (2014)
	IMF	Inward and Outward Spillovers in the SACU Area (2013)
	IMF	Macroeconomic Policy Frameworks for Resource-Rich Developing Countries (2012)
	IMF	Staff report (2014)
	OECD	Investment Policy Review –Executive Summary and Key Recommendations (Draft – October, 2013)
	FAO	Botswana Beef Value Chain Study (2013)
	SADC	Regional Infrastructure Development Masterplan (2012)
	Africa Competition Forum	Studies in competition in: poultry, cement, and sugar markets in Southern Africa (2014)
	BIDPA	Coal Exports and the Diversification of Botswana's Economy
	BIDPA	Synthetic Gem Quality Diamonds and their Potential Impact on the Botswana Economy (2014)
	BIDPA	Water Pricing and Policy in Botswana (2013)
	BIDPA / IDASA	A Fine Balance: Assessing the Quality of Governance in Botswana (2012)
	BIDPA / UNECE	Elections and the Management of Diversity in Botswana (2013)
	BIDPA (Grynberg)	Remuneration, Consumption and Household Debt in Botswana (2014- draft)
	UNRISD (2012)	Poverty Reduction and Changing Poverty Programs in Botswana (2012 – edited by O. Selolwane)
	ACET (2014)	Growth in Depth: 2014 Africa Transformation Report
	Leith, C (2005)	Why Botswana Prospered



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