COUNTRY PRIVATE SECTOR DIAGNOSTIC

CREATING MARKETS IN BOTSWANA

A Diamond in the Rough: Toward a New Strategy for Diversification and Private Sector Growth

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ABBREVIATIONS AND ACRONYMS

AfCFTA	Africa Continental Free Trade Agreement
AfDB	African Development Bank
ASD	air service development
BAOA	Botswana Accountancy Oversight Authority
BERA	Botswana Energy Regulatory Authority
BPC	Botswana Power Corporation
BTC	Botswana Telecommunications Corporation
BWP	Botswana pula
CBO	community-based organization
CBNRM	community-based natural resource management
CMN	coalbed methane natural gas
CCA	Competition and Consumer Authority
CPSD	Country Private Sector Diagnostic
ECI	Export Complexity Index
EESB	Employer and Employee Survey Botswana
EGS	environmental goods and services
ERTP	Economic Recovery and Transformation Plan
FDI	foreign direct investment
FIT	foreign independent traveler
GCI	Global Competitiveness Index
GDP	gross domestic product
GNI	gross national income
ICT	information and communication technology
IFC	International Finance Corporation
IFSC	International Financial Services Center
IMF	International Monetary Fund
IPP	independent power producer
IPT	independent power transmission projects
IRP	Integrated Resource Plan
MoFED	Ministry of Finance and Economic Development
MICE	meetings, incentives, conferences, and exhibitions
MSME	micro, small, and medium enterprises

MME	Ministry of Minerals and Energy
NESC	National Electricity Standard Connection
NRW	nonrevenue water
OECD	Organisation for Economic Co-operation and Development
PBC	performance-based contract
PEDU	Projects and Energy Development Unit
PEEPA	Public Enterprises Evaluation and Privatization Agency
PMR	Partnership for Market Readiness
PPAD	public procurement and asset disposal
PPP	public-private partnership
PV	photovoltaic
RCA	revealed comparative advantage
RIT	regional independent traveler
SACU	Southern African Customs Union
SADC	Southern African Development Community
SCD	Systematic Country Diagnostic
SME	small and medium enterprise
SMSP	Sustainable Mega Solar Program
SOE	state-owned enterprise
UMIC	upper-middle-income country
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNWTO	United Nations World Tourism Organization
US$	United States dollar
VAT	value added tax
WBG	World Bank Group
WEF	World Economic Forum
WTTC	World Travel and Tourism Council
WUC	Water Utilities Corporation
WWTP	wastewater treatment plant

EXECUTIVE SUMMARY

In many ways Botswana is a development paradox. Botswana stands out among countries in Africa for its successful development policy, economic performance, and long track record of macroeconomic stability. Successive governments used the country's considerable diamond and mineral wealth to drive significant investments in infrastructure, education, health, and social protection, which resulted in its graduation to upper-middle-income country (UMIC) in 2004. However, the rapid growth during the first decades after independence that lifted most Botswana out of poverty still left the country with high inequality and subpar human capital indicators compared with peers.

Diamonds have been at the center of Botswana's growth miracle for decades—but the urgency to diversify is stronger than ever. The world's second-largest producer of diamonds, Botswana remains almost fully dependent on diamonds for its exports. Today, the contribution of minerals to government revenue hovers at about 30 percent, but the forward outlook is uncertain. DeBeers' market power, which somewhat insulates prices against market shocks, has not been able to fully protect the Botswana economy, which saw an 8 percent contraction of gross domestic product (GDP) in 2009 following the global financial crisis and an 8.5 percent contraction in 2020 during the COVID-19 pandemic.[1] Although diamond demand has been recovering during 2021 and 2022, the prospects for the industry remain volatile, underscoring the need to move away from diamond dependency and putting a greater urgency on the diversification reform agenda.

Although Botswana's economy has undergone transformation over the past decades, the shift has been largely into nontradable services, with limited gains in employment, income equality, and export diversification. Revenues from diamond production and exports provided the main impetus to the development of the nontradables sector. The services sector now is the largest contributor to GDP in Botswana, with public administration and defense (18.5 percent), wholesale and retail (11.6 percent), and construction (11.3 percent) the most important subsectors. At the same time, the agricultural sector's contribution to GDP has declined significantly over the years to about 1.9 percent in 2019. The sector remains dominated by subsistence farming, which leaves many rural households excluded from the mining boom. Manufacturing has not picked up either—contributing only about 6.6 percent to GDP in 2019 and serving mostly the domestic market. As a result, the export base has remained undiversified, with diamonds accounting for nearly 90 percent of exports while productivity is low and job creation is limited. Inequality remains high (a Gini coefficient of 0.53) and its Human Capital Index is low for an upper-middle-income country (at 0.41). In 2019, Botswana's poverty headcount, measured at the UMIC rate of US$5.50/day, reached 57 percent, reflecting limited job creation.

1. GDP numbers used are from the World Bank's World Development Indicators. Botswana data is available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=BW

The limitations of Botswana's public investment and diamond-reliant growth model were made apparent during the COVID-19 crisis. Despite strong fiscal buffers, the crisis brought to the front both the high risk of continuing to rely on public investment to drive growth in the context of future fiscal vulnerabilities as well as the vulnerability of growth to declining external balances, mainly owing to lack of export diversification. The pandemic amplified those challenges and caused a sharp GDP contraction among the strongest in Sub-Saharan Africa, a widening in the current account deficit, and the biggest jump in the unemployment rate over the past 35 years.

In addition, Botswana's high vulnerability to climate change, which affects all major sectors of the economy, underscores the need to strengthen Botswana's response to climate factors as a basis for renewed, sustainable growth. Botswana ranked 94th out of 181 countries in the 2020 Notre Dame Global Adaptation Initiative Index, which measures a country's political, geographic, and social factors to assess vulnerability to climate change, as well as its readiness to improve resiliency. Agriculture, which is mostly rainfed, is especially vulnerable to drought exposure. The higher frequency and intensity of extreme droughts and floods threaten crops and livestock and consequently food security, employment (one-fifth of which is concentrated in the agricultural sector), and poverty rates. The water sector, which is already struggling to meet demand, is expected to see a decline in water quality and availability. Botswana's successful low-volume, high-cost tourism model depends on water-based wildlife endowments, especially in the Okavango Delta, which is projected to have a decrease in stream flows. At the same time, the energy sector will be transformed by climate-change mitigation requirements and related policies that call for a more sustainable and efficient energy mix while at the same time adapting to the impacts of emerging changes in climate and weather.

The current context provides Botswana with an opportunity for a paradigm shift—to redirect the economy to a more resilient, green, and diversified growth model. The gradual sunset of diamonds, volatile global conditions due to the COVID-19 pandemic, and the impending effects of climate change have placed the Botswana economy at a crossroads. This CPSD argues for a new strategy that puts the foundations for a greener and more sustainable growth model at its core, making diversification an outcome rather than a starting point. This strategy would focus on leveraging and protecting Botswana's natural resource endowments and driving new investment in high-potential sectors such as tourism to lay the groundwork for green competitiveness and growth. Meeting those goals would start with policies that tackle underlying and cross-cutting constraints, especially those that foster competition in sectors dominated by state-owned enterprises (SOEs) and harness private sector participation to foster transitions to sustainability, efficiency, and affordability of key enabling sectors such as energy and water. The government should reduce the state's presence and influence in sectors that are commercial, creating markets with competitive neutrality. This will create markets for entrepreneurs and SMEs to address, private firms to grow, and foreign investors to participate in. These actions would be buttressed with policies to facilitate trade in environmental goods and services and reduce gaps in infrastructure, skills, and access to finance that hinder employment and productivity growth in firms. The government's Economic Recovery and Transformation Plan, valued at approximately 7.8 percent of GDP, supports this transition with its climate agenda aimed at reducing Botswana's dependence on carbon-intensive sectors, enhancing electricity generation capacity, and strengthening climate resilience.

A positive growth outlook and steps taken as part of the COVID-19 crisis response should give the government new impetus to accelerate reforms. Botswana entered the pandemic with larger buffers than most countries, but the depletion of those buffers and constraints in revenue collection dampened the government's ability to accelerate much needed structural reforms. In 2021, an increased demand for diamonds, an expansionary fiscal stance, and the lifting of mobility restrictions led to a strong GDP growth of 11.4 percent,[2] which was complemented by a robust agricultural production output, given improving rains.[3] This growth should give the government the fiscal space to accelerate much needed structural reforms and to execute on a strategy to redirect the economy to a more resilient, green, and diversified growth model. However, this strong rebound also risks diminishing the momentum to undertake necessary reforms. Botswana should seize the moment, before it passes, to address the longstanding and difficult issues around competitive markets, SOE governance and performance, quality of infrastructure, and inefficiencies in sectors that enable private sector growth such as water, energy, and digital. Tackling these reforms can underpin the government's vision of green, diversified, and private sector–led growth.

Success in diversifying the economy will depend on the decisive implementation of structural measures to increase private sector participation in nonmineral exports and transformative sectors. Despite government efforts in the past, a move from diamond dependency has not been achieved. Instead, current policies favor declining activities over emerging ones, import substitution over exports, and manufacturing and agriculture over services. Both in relative and absolute terms, Botswana has failed to attract significant foreign direct investment (FDI) outside extractives, and few of Botswana's current export products provide an obvious platform for further diversification. At the same time, the complexity of services exports has increased, indicating further growth opportunities in the tourism and financial services sector and underscoring the potential of nonmineral exports and transformative sectors (including digital, green, and climate adaptation technologies). Regional market integration, taking advantage of Botswana's membership in the Southern African Development Community, the Southern African Customs Union, and the Africa Continental Free Trade Agreement (AfCFTA), can play an important role in developing regional value chains opportunities in sectors such as tourism, energy, and livestock to create jobs and incomes for communities, with Botswana acting as a hub to link these markets.

The private sector's growth is undermined, however, by constraints that limit its ability to drive economic activity, generate jobs, and successfully compete in markets. Key cross-cutting constraints identified through consultations held with experts, private sector stakeholders, and development partners are as follows: (a) the impact of SOE presence and lack of competition on private participation in commercial sectors; (b) gaps in infrastructure, access to finance, and skills that constrain employment and productivity growth; and (c) the unrealized opportunity for facilitation of trade in environmental goods and services that support economic diversification and resilience.

2. Central Statistics Office, Botswana

3. Strong economic performance is expected to continue in 2022, though the effects of the crisis in Ukraine create uncertainty with likely food and fuel price rises and increasing diamond prices due to sanctions on Russian diamonds.

The dominant role that the government of Botswana still plays in large parts of the economy, particularly through its footprint as a shareholder in companies in the corporate sector, is a critical constraint that inhibits the entry and success of private sector participants. Limited competition is driven especially by (a) market distortions owing to the state's participation in markets in which contestability is the norm in other countries, particularly related to the large presence and preferential treatment of some SOEs in those sectors; (b) regulatory barriers to market entry and the growth of new competitor firms; and (c) lack of effective competition rules and limited enforcement. As of 2019, the government had ownership participation of 10 percent or more in at least 92 companies across 16 sectors, which is relatively high with respect to the economy's size.[4] Companies with state participation are large market players in the economy, accounting for about 5 percent of total formal employment and with collective revenues that surpass 25 percent of GDP. Seven out of every 10 companies with state participation identified in Botswana operate in competitive sectors[5] (that is, those that are not natural monopolies or highly regulated in other countries), which are often viable for the private sector to operate in and where there is no clear rationale for state ownership.[6] Furthermore, the legal framework governing SOEs is fragmented, with multiple laws containing conflicting and outdated requirements, adversely affecting SOE viability, compliance, and accountability. The government has been actively working to improve the SOE legal framework, improve governance and profitability of SOEs, and reduce the presence of SOEs in competitive sectors, but much remains to be done. The government should commit to and prioritize addressing issues in the competitive environment. The competition framework should be updated to (a) emphasize the subsidiarity role of the state, so its presence is assessed through an economic rationale, (b) spell out more strongly the competitive neutrality principles to ensure that SOEs are subject to the same discipline and enforced in similar terms as their private peers, and (c) strengthen the power and capability of the competition agency to review and abolish current regulations that create barriers to entry to the private sector (e.g., FDI caps in competitive sectors). Once appropriate governance and regulatory mechanisms are in place they should be followed by firm-level SOE reforms and improvements.

4. The definition of SOE used for the Businesses of the State (BOS database) and used for this assessment uses the three main conditions proposed by the IMF (2020), but also expands the coverage beyond majority participation to offer a very comprehensive landscape of the real footprint of the state. An entity is considered a SOE if it satisfies the following conditions:
    I. it is controlled by government units or by other public corporations, with a level of direct or indirect (i.e., through subsidiaries) participation of 10% or more
    II. It is recognized by law as a legal entity separate from its owners
    III. It can generate profit or other financial gain for its owners
    IV. It is set up for the purposes of engaging in market production
5. Competitive sectors refer to competitive sectors characterized by small entry barriers; contestable sectors are characterized by moderate entry barriers, public goods, or externalities; and natural monopoly sectors are those that exhibit high entry barriers, economies of scale, or sub-additivity cost structures.
6. Findings based on the World Bank global Businesses of the State database, which include SOEs (with majority or full control of the state), but also minority owned companies given that this analysis looks to understand and unveil the footprint of the state in markets and potential implications for the private sector, which are not limited to majority owned firms.

Gaps in infrastructure, access to finance, and skills are additional key constraints to employment and productivity growth. Despite relatively high public investment spending, Botswana's quality of infrastructure has fallen, significantly lagging structural peers. Though Botswana performed better than UMIC averages up to 2010, more recent indicators on infrastructure quality in the Global Competitiveness Index suggest significant bottlenecks, particularly in access to railways and electricity supply. Increased private participation in roadway, rail, and air infrastructure and improved governance of SOEs are important ways to improve infrastructure spending efficiency. Inclusion of SOEs in the public-private partnership law, preparation of a dedicated investment policy and investment law, and improving the investment dispute system are all ways to increase foreign investment. In addition, access to finance for micro, small, and medium enterprises (MSMEs) remains challenging. Although financial inclusion on an individual level is higher than the regional average (51 percent of Botswana adults have a formal bank account versus the regional median of 40.5 percent), access to finance for firms, and particularly MSMEs, is limited. The MSME financing gap is estimated at 19 percent of GDP, indicating a large unmet demand in the market. **A coordinated approach to financing entrepreneurship and policies to increase uptake of digital finance could help close the gap.** Also, despite Botswana's high spending on education, skills mismatches are a key constraint to employment and productivity growth. Enterprises surveyed are largely unsatisfied with the skills found in the labor market. In the short term, the government can assist firms trying to fill these skills gaps with labor from abroad by streamlining the cumbersome processes firms face when obtaining employment permits for foreigners. In addition to financing and skills support, the growth and productivity of small and medium enterprises (SMEs) will rely on improved management capabilities, technology adoption, and entrepreneurial capacity.

Trade barriers are another key cross-cutting constraint for the private sector, and a greener path for the economy could be unlocked by facilitating improved trade in environmental goods and services (EGS). Botswana has relatively high costs for EGS despite its high potential for using EGS such as solar and other environmental technologies in energy production and in other industries such as tourism. Tariff and nontariff trade barriers undermine imports of EGS as well as preferential access agreements, which raises the costs of imported inputs for Botswana exports. For example, Sothern African Development Community rules of origin are relatively complicated to administer and to reach because they often follow a line-by-line approach with rules devised for a specific product or sector. Similarly, high tariffs on imported goods and import licenses raise the cost of manufacturing products dependent on imported inputs.[7] Beyond EGS, trade barriers affect all exporting sectors. For example, a 2016 United Nations Conference on Trade and Development (UNCTAD) report documents that Botswana systematically underperformed in all service exports in comparison with the rest of the world despite its high potential for trade in services. Restrictions placed on foreign investors by Botswana's National Trade Policy, such as limits on foreign-owned capital, hinder the commercialization of some services. To improve trade in EGS and other sectors, the government should strengthen standards and certifications systems to raise the competitiveness of Botswana exporters.

7. Tariffs are applied on goods that are imported outside SACU.

In addition to cross-cutting constraints, the CPSD investigates the potential for a greater private sector role in three key sectors: energy, water and sanitation, and tourism. These enabling sectors support the productivity and competitiveness of other sectors, while reducing costs of public services. This in turn supports diversification and upgrading of the economy with greener and more future-oriented modes of production. Five criteria, reflecting those priorities, were therefore used to select sectors for deeper assessments: (a) feasibility of attracting investment into the sector in the next three to five years; (b) potential to support enhanced competitiveness and productivity; (c) contribution to economic growth and diversification; (d) potential to contribute toward equity, social inclusion, and jobs; and (e) contribution to sustainability and greening of the economy. In addition, the sector selection considers the feasibility of expected sector reforms, the ability for the CPSD to add value, and an overall fit with strategic priorities for the country.

Energy is a growing industry in Botswana with tremendous potential and importance as an input to other industries. Because of steady population and GDP growth, overall power demand in Botswana has been on the rise and is expected to further grow by 4 percent per year over the next decade. At the same time, the country is facing diminished generation capacity, forcing the national power utility Botswana Power Corporation (BPC) to increase its energy imports with more than 50 percent of Botswana's power requirements being imported from South Africa and Zambia. This increase in energy imports has resulted in high import costs and operational efficiencies that have affected BPC's financial performance, which in turn is affecting consumer tariffs and draining public finance resources. At the same time, key growth industries, services, and households suffer from a lack of sustainable, cost-effective, and reliable energy. Despite a higher electrification rate than the regional average, most firms in the country are not satisfied with their access to electricity. Interruptions stemming from importing electricity as well as transmission and distribution losses continue to be important barriers to growth in Botswana because the grid lacks appropriate investment and maintenance. In addition, the generation and import of fossil-fueled power is threatening the international marketability of Botswana's diamond industry, a key contributor to Botswana's GDP (20 percent) and exports (90 percent).

To address the energy supply shortage, Botswana has set ambitious targets to grow domestic power generation capacity and to accelerate the move toward renewable energy resources contributing at least one-half of total electricity by 2036. With an abundance of sunshine, Botswana has a comparative advantage in producing solar energy while also supporting energy diversification in the region. This presents solid opportunities for increased private sector participation in Botswana's energy sector, especially in renewable energy generation and related value chains, standalone solar photovoltaic solutions, as well as aspirational opportunities in transmission and distribution. However, systematic constraints such as institutional, regulatory, financial, and risk-mitigation challenges must first be addressed if these opportunities are to be harnessed by the sector.

Three key recommendations for the energy sector are as follows. The first recommendation is the fast tracking of instruments to facilitate investment in energy infrastructure development, including independent power producer (IPP) licensing, and procurement guidelines and processes. In addition, the capacity of the Projects and Energy Development Unit (PEDU) under the Ministry of Minerals and Energy (MME) should be increased to implement large electricity infrastructure projects including all projects under the Integrated Resource Plan, and the Sustainable Mega Solar Program. In the medium term, the PEDU should be transformed into a full-fledged IPP office. The second recommendation is the enhancement of the institutional capacity and governance

model of the Botswana Energy Regulatory Authority (BERA). A short- to medium-term objective should be to implement full independence of BERA away from the government to give investors and industry players confidence in the regulator. This would include, among other things, moving it from dependence on government subvention to a sustainable and independent revenues-from-fees-and-levies model, as well as making BERA the final decision maker in tariff determination. The third recommendation is the development of credit-enhancement and risk-mitigation strategies and supporting instruments to attract and mobilize private sector investment. Risk-mitigation instruments such as sovereign guarantees, backstops on liquidity and termination, as well as foreign exchange rate risk mitigation in power purchase agreements are critical to ensure private sector participation and need to be considered by policy makers.

Tourism directly accounted for 4.64 percent of Botswana's GDP in 2019, rising to almost 10 percent when including indirect contribution to GDP. It comprises more than 60 percent of the country's services exports, with wide-ranging economic impacts and strong long-term growth potential. However, after remarkable growth between the early 1990s and mid-2000s, both visitor volumes and receipts have leveled off. The COVID-19 pandemic has severely affected the tourism sector, exposing structural weaknesses and accelerating their impacts. Several governance, coordination, and strategy issues threaten the sector's long-term competitiveness and attractiveness. These issues include competing priorities across government departments; limited government budgetary allocations for the sector; climate change and environmental degradation and early signs of "over-tourism"; a lack of location, source market, and product diversity; and revenue leakage throughout the tourism supply chain that is limiting local value capture. Nevertheless, Botswana is well placed to take advantage of new post-COVID-19 demand trends. In preparation for recovery, the industry is consolidating with a view to increasing efficiency and reducing costs. Opportunities include expanding the luxury safari segment to new source markets (for example, China and India) and longer stays, attracting and dispersing foreign and regional independent travelers toward new locations, and strengthening local tourism supply-chain linkages to create opportunities for domestic SMEs providing goods and services to the sector. Support for digitization and entrepreneurship built around community-based tourism can also help support more domestic SME participation in the tourism sector.

A revitalization of private sector–led growth in the tourism sector can be catalyzed through a three-pillar approach. Pillar one: streamline and harmonize the tourism-enabling and business environment. This approach would include undertaking a regulatory review of permits, licenses, fees, and processes for tourism firms to reduce barriers to entry and growth in coordination with the Botswana Bureau of Standards, and clarifying the operationalization of the new tourism policy, including institutional roles, responsibilities, coordination, and a roadmap toward decentralization. Pillar two: catalyze private investment in new products, destinations, and markets. This approach would include increasing concessions available in new destinations and encourage government-private sector-community public-private partnerships in the design and management of new sites and attractions and promoting foreign joint ventures with local partners, particularly with investors and brands from high-potential markets (China, India). And, pillar three: improve local economic links and sector sustainability. This approach would include piloting a local sourcing program for a small basket of green tourism supply goods and services by providing incentives to procure from locally based firms, upgrading skills and business processes, linking local suppliers to tourism firms, and developing a tourism sector climate-change adaptation and mitigation strategy.

Botswana faces water supply and sanitation issues. Botswana is already a water-stressed country and projected to become even more highly water stressed by 2040, with water supply shortages affecting all key sectors of the Botswana economy including mining, agriculture, manufacturing, and tourism. Botswana is located on semi-arid terrain with low, variable, and unevenly distributed rainfall. It suffers from chronic droughts that are becoming more severe due to climate change. Local water supply is not enough to meet demand, and part of the water supply is imported from South Africa.[8] Climate change, infrastructure deficiencies, and contamination of water sources threaten water supply reliability. Although the state-owned water and sanitation company, Water Utilities Corporation (WUC), performs well relative to many African utilities, it is facing serious headwinds to maintain and increase water supply. WUC's deteriorating infrastructure, inadequate collection rates, shortfall of revenue necessary to cover operating costs, challenges to access finance for water supply expansion, and low productivity of staff all hamper investment in water resilience. Because WUC's revenue does not cover its operating costs, traditional lenders are hesitant to provide WUC with investment capital.

Introducing private sector participation in the water sector could help address weaknesses in the sector. This report identifies three main opportunities for private sector participation: (a) performance-based contracts for nonrevenue water reduction, collections, and energy efficiency; (b) concession for wastewater treatment and water recycling services; and (c) water savings performance contracts for large users. Several actions can advance these opportunities for private sector participation. The WUC should be assisted to develop performance-based contracts to reduce nonrevenue water levels, improve energy efficiency, and improve customer collections. Public-private partnerships for wastewater treatment and recycling services should be implemented. Large water users should be encouraged to implement water savings performance contracts. A legally or contractually bound regulatory mechanism should be created to define full-cost recovery tariff mechanisms for WUC and to mandate that WUC's tariffs be set at that level. The government, working with WUC, should consider legally establishing a subsidy system to ensure affordability of low-income households while also providing a reliable source of revenue (that is, cross-subsidies or direct subsidies by the government).

Table ES.1 summarizes the priority recommendations for each of the cross-cutting areas and the three sector assessments. Further recommendations and additional detail on each of the recommendations are provided in the main report.

8. Botswana shares several transboundary rivers with its neighbors, making its water security dependent on the arrangements how to share those resources among member countries. The shared river-basins are Okavango (with Namibia and Angola), Zambezi (with Angola, Zambia, Namibia, Zimbabwe and Mozambique), Orange-Senqu (with Lesotho, Namibia and South Africa), and Shashe-Limpopo (with Mozambique, South Africa and Zimbabwe).

TABLE ES.1 HEADLINE POLICY RECOMMENDATIONS

CROSS-CUTTING

State-owned enterprise presence and competition

- Reduce the state's presence and influence in sectors that are fully competitive, creating markets with competitive neutrality. This will create markets for entrepreneurs and SMEs to address, private firms to grow, and foreign investors to participate in.
- Update the competition framework to (a) emphasize the subsidiarity role of the state, so its presence is assessed through an economic rationale, (b) spell out more strongly the competitive neutrality principles to ensure that SOEs are subject to the same discipline and enforced in similar terms as their private peers, and (c) strengthen the power and capability of the competition agency to review and abolish current regulations that create barriers to entry or competition of the companies with state participation vis-à-vis the private sector (e.g., FDI caps in competitive sectors).
- Introduce competitive neutrality principles across regulatory provisions related to state-owned enterprises (SOEs) and consider removal of legal monopolies to SOEs in commercial sectors.
- Follow through on the government's cabinet subcommittee on SOEs recently recommended reforms to improve the achievement of SOE mandates, enhance shareholder oversight, and improve the accountability and transparency of SOEs.
- Create an overarching legal framework governing SOEs to improve viability, compliance, and accountability.
- Provide firm-level support for governance and efficiency improvements after addressing the above issues in the competitive landscape.

Infrastructure, access to financing, and skills

- Strengthen implementation of existing and higher-quality digital infrastructure development at the national level to facilitate the digital transition to a high data volume, knowledge-based economy.
- Facilitate better quality infrastructure through an improved public investment management framework (i.e., better project appraisal, selection, and monitoring) and greater integration in transportation subsector planning, including increased Southern African Development Community integration for the development of better transport networks.
- Attract foreign investment through the inclusion of SOEs in the public-private partnerships law, preparation of a dedicated investment policy and investment law, and improving the investment dispute system.
- Coordinate an approach to encourage early-stage finance for entrepreneurial start-ups and small and medium enterprises (SMEs), including through regulatory reforms, uptake of digital banking methods, and digitization of SMEs as described in the National Entrepreneurship Policy and e-commerce strategy.
- Assist firms trying to fill immediate skills gaps with labor from abroad by streamlining the cumbersome processes firms face when obtaining employment permits for foreigners.

Trade in environmental goods and services

- Strengthen standards and certifications systems to raise competitiveness of Botswana exporters.
- Reassess restrictions placed on foreign investors by the National Trade Policy so as to not limit the commercialization and productivity of some services, particularly telecommunications and air transportation.

ENERGY

- Fast-track the completion of instruments to facilitate investment in energy infrastructure development, including independent power producer licensing and procurement guidelines and processes.
- Develop a network connection policy and a national transmission grid code to govern the development, operation, maintenance, and use of the national transmission network as well as regulatory mechanisms for ancillary service pricing.
- Enhance institutional capacity and the governance model of the Botswana Energy Regulatory Authority (BERA). Transition to full independence of BERA away from government subvention to a sustainable and independent revenues-from-fees-and-levies model, as well as making BERA the final decision maker in tariff determination.
- Develop and implement quality-of-service regulations that cover all aspects of reliability to guide toward a more reliable and efficient network as well as to achieve cost reflectivity.
- Enhance Projects and Energy Development Unit (PEDU) project management and process efficiency through institutional and technical capacity building. In the medium term, the PEDU should be transformed into a full-fledged independent power producer office.
- Develop credit-enhancement and risk-mitigation strategies and supporting instruments to attract and mobilize private sector investment, including sovereign guarantees, backstops on liquidity and termination, and foreign exchange rate risk mitigation in power purchase agreements.

TOURISM

Streamline and harmonize the tourism-enabling and business environment

- Undertake a regulatory review of permits, licenses, fees, and processes for tourism firms to reduce barriers to entry and growth in coordination with the Botswana Bureau of Standards.
- Clarify the operationalization of the new tourism policy, including institutional roles, responsibilities, coordination, and a roadmap toward decentralization.

Catalyze private investment in new products, destinations, and markets

- Increase concessions available in new destinations and encourage government-private sector-community public-private partnerships in the design and management of new sites and attractions.
- Promote foreign joint ventures with local partners, particularly with investors and brands from high-potential markets.

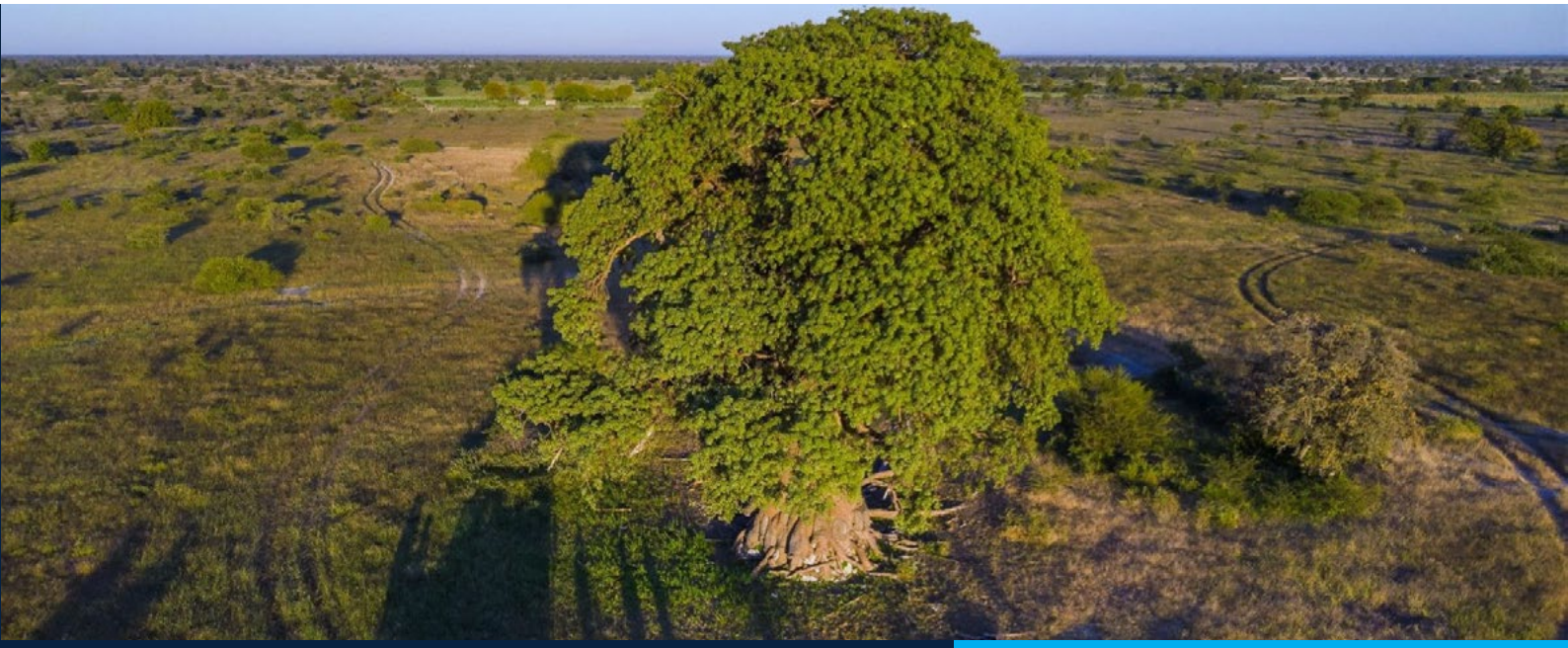
Improve local economic links and sector sustainability

- Pilot a local sourcing program for a small basket of green tourism supply goods and services by providing incentives to procure from locally based firms, upgrading skills and business processes, and linking local suppliers to tourism firms.
- Develop a tourism sector climate change adaptation and mitigation strategy.
- Provide community-based organizations with funding and entrepreneurship training to diversify away from reliance on hunting licenses.

WATER

- Assist the Water Utilities Corporation (WUC) to develop performance-based contracts to reduce nonrevenue water levels, improve energy efficiency, and improve customer collections.
- Implement public-private partnerships for wastewater treatment and recycling services.
- Encourage large water users to implement water savings performance contracts.
- Create a legally or contractually bound regulatory mechanism to define full-cost recovery tariff mechanisms for WUC and to mandate that WUC's tariffs be set at that level.
- Consider legally establishing a subsidy system to ensure affordability of low-income households while also providing a reliable source of revenue (i.e., cross-subsidies or direct subsidies by the government).

01. COUNTRY CONTEXT



1.1 AN ECONOMY BASED ON DIAMONDS HAS STRUGGLED TO DIVERSIFY

1.2 CLIMATE CHANGE PRESENTS AN INCREASING CHALLENGE TO BOTSWANA'S LONG-TERM GROWTH STRATEGY

1.3 THE COVID-19 PANDEMIC HAS ADDED PRESSURE TO REPLACE LOST JOBS AND BUILD A MORE RESILIENT ECONOMY

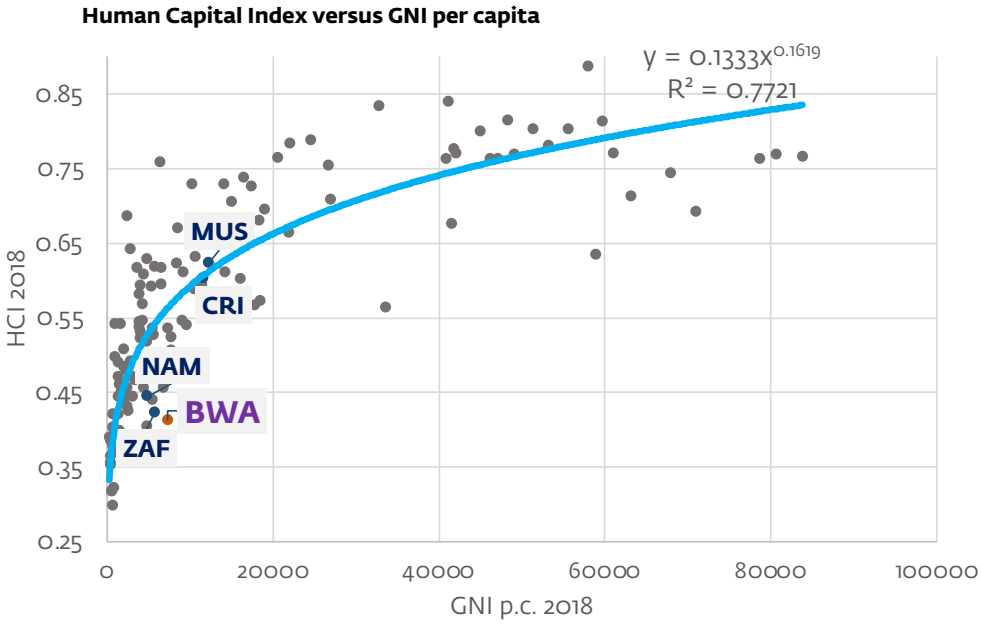
Over a span of 40 years, Botswana transitioned from one of the world's poorest countries to an upper-middle-income economy. Botswana is a sparsely populated, landlocked country in Southern Africa, bordering Namibia, South Africa, Zambia, and Zimbabwe. It is topographically flat and arid, with the Kalahari Desert covering 70 percent of its territory. Botswana gained independence from British rule in 1966 and at that time was considered one of the world's poorest nations, with a per capita gross domestic product (GDP) of only US$90. Today, its GDP per capita is US$6,700.[9] Cattle raising dominated the social and economic lives of Batswana before independence. In 1971, the first diamond mine was opened, altering fundamentally the economic structure of the economy. The development of nature-based, luxury tourism—Botswana's second biggest export—took off in the 1990s, attracting nearly 2 million visitors in 2018.[10]

Botswana stands out among countries in Africa for its successful development policy and economic performance. Successive governments used the country's considerable diamond and mineral wealth to drive significant investments in infrastructure, education, health, and social protection, which resulted in its graduation to an upper-middle-income country in 2004. Accompanied by prudent fiscal and monetary policies, Botswana successfully maintained a long track record of macroeconomic stability, including consistent budget surpluses and high levels of foreign-exchange reserves. Botswana has also experienced success in lowering fertility rates and in entering the demographic transition. The country further demonstrated strong policy commitment in responding to its HIV epidemic and was the first country in the region to provide universal free antiretroviral treatment to people living with HIV. As a result, it was able to nearly halve its HIV prevalence from 39 percent in 2000 to 20.3 percent in 2020.[11]

The rapid growth of the first decades after independence lifted most Batswana out of poverty, but today inequality is high and human capital indicators are subpar compared with peers. On the back of strong economic growth, Botswana pulled most of its population out of poverty mainly through an effective use of fiscal redistribution that increased incomes in the agricultural sector.[12] As a result of the COVID-19 pandemic, the poverty rate is estimated to have reached 59 percent in 2020, measured using the upper-middle-income country poverty line (US$5.50/person/day in 2011 purchasing power parity).[13] This means that an additional 103,000 people were living in poverty in 2020, reaching a total of 1.4 million, the highest number on record in Botswana. In 2021, poverty is expected to have declined to 56.6 percent owing to the economic recovery. Inequality in Botswana pre-COVID-19 was also among the highest in the world with a Gini coefficient of 0.53.[14] The devastating impact of Botswana's still high prevalence of HIV/AIDS in combination with the high rates of inequality have contributed to human capital outcomes that are today among the lowest in the world for a country at Botswana's level of development (figure 1.1).[15]

9. World Development Indicators, GDP per capita (current US$) for 2020, last updated July 30, 2021.
10. Tourism Statistics Report, 2018. Statistics Botswana.
11. WHO/UNAIDS. Botswana Country Profile, 2005 & CDC Botswana Country Profile, 2021.
12. World Bank. Botswana - poverty assessment. 2015. Washington, D.C.
13. World Bank. Poverty & Equity Brief Botswana. April 2022.
14. World Bank. Poverty & Equity Brief Botswana. April 2022. https://databank.worldbank.org/data/download/poverty/987B9C90-CB9F-4D93-AE8C-750588BF00QA/SM2021/Global_POVEQ_BWA.pdf
15. Both maternal and infant mortality rates are declining, but they remain far above global peers. Chronic undernutrition (stunting) in Botswana is 30 percent higher than in South Africa and it is many multiples higher than in global peers. In Botswana, less than 25 percent of newborn children are exclusively breastfed for the first three months. Diarrheal diseases continue to be a challenge and put formula-fed children at a particularly high risk of malnutrition and death. Systematic Country Diagnostic 2015 World Bank.

FIGURE 1.1 BOTSWANA'S HUMAN CAPITAL OUTCOMES ARE LOW GIVEN ITS LEVEL OF DEVELOPMENT



Source: World Bank (GNI per capita Atlas method, HCI 2018)

Botswana's substantial infrastructure investments generated important "growth dividends" in the past, but the lack of electricity generation capacity has hampered growth. Between 2008 and 2018, the government of Botswana has consistently invested at least 25 percent of its total budget into infrastructure through its development budget. In 2011, the World Bank estimated that improvements in Botswana's infrastructure added about 2 percentage points to the per capita growth rate for the high-growth period 2003–07, a much higher contribution than what was observed in neighboring countries such as Angola, Malawi, South Africa, and Zambia.[16] This boost to growth came predominately from digital infrastructure, followed by the development of transport infrastructure. By contrast, Botswana's lack of electricity generation capacity held back the per capita growth rate by as much as 0.4 percentage points during the same period. The same study also estimated that raising the country's infrastructure endowment to that of Mauritius, the region's infrastructure leader, could boost annual growth by another 1.2 percentage points.[17]

16. Cecilia Briceno-Garmendia and Pushak, Nataliya. Botswana's infrastructure: a continental perspective (English). Policy Research working paper; no. WPS 5887 Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/865861468013869689/Botswanas-infrastructure-a-continental-perspective
17. Ibid.

1.1 AN ECONOMY BASED ON DIAMONDS HAS STRUGGLED TO DIVERSIFY

Diamonds have been at the center of Botswana's growth miracle for decades. Botswana is the world's second-largest producer of diamonds in output volume after Russia. Diamond production reached record levels every year between 2002 and 2007, lifting the average growth rate to 5.7 percent in 2019. Though the contribution of the sector to economic output has declined over time from a high of close to 60 percent of value added in the early 1980s to below 16 percent in constant terms, Botswana remains almost fully dependent on diamonds for its exports—even more so today than in the past. Moreover, because diamond extraction is capital-intensive, mining and quarrying accounts for only a small part of total employment in the country—1.1 percent in 2020.[18]

Botswana has been able to extract relatively high resource rents from the joint venture with De Beers, reaching on average mineral revenues for the government budget equal to 83 percent of mineral rents earned.[19] The contribution of minerals to government revenue through its 50:50 joint venture with De Beers of South Africa declined from about 60 percent (reached in 1988 and again briefly around 2000) to about 28.5 percent in 2021. Accumulation of mineral revenues in Botswana is disciplined by the Sustainable Budget Index,[20] which allows the government to ensure that mineral revenues finance development expenditure and recurrent spending on education and health only. Diamond revenues also contribute to the Pula Fund, a sovereign wealth fund established in 1994 and managed by the Bank of Botswana as a long-term investment portfolio.

Diamond proceeds have remained significantly below the pre-2008 global financial crisis levels, mainly because of weakened global demand, which has put greater urgency on the diversification reform agenda. In 2014, that pressure intensified owing to increased competition from synthetic diamonds and higher production costs as Botswana's diamond mines become deeper. Industry specialists also foresee pressures on the industry from aging mines, declining productivity, and uncertainty about revenue sharing arrangements with De Beers (the government is currently renegotiating the 10-year sales arrangement). Commercial production of diamonds is also predicted to end, as per present conditions, around 2050.[21]

18. Statistics Botswana Q4 2020 labor force module report.
19. SCD, 2015.
20. The Sustainable Budget Index prevents the use of mineral revenues to finance recurrent (non-investment) spending. Spending on health and education (even if recurrent in nature) is "asset building" and therefore part of development expenditure for purposes of the Sustainable Budget Index rule.
21. Government of Botswana assessment.

Concerns about climate issues add an urgent risk of disruption to the diamond industry that could have sudden impacts on revenues and exports. At present, Botswana's diamond production is almost entirely fueled by carbon-intensive, coal-fired energy generation (with a little diesel). Because diamonds are an emotional, luxury consumer good, there is a real risk of backlash from climate-conscious consumers akin to the conflict diamond awareness of the past decade, a trend already seen for other luxury consumer goods. So far, however, diamonds have not been included in the list of goods subject to carbon border adjustment taxes. International diamond mining companies have acknowledged the growing risk of changing consumer preferences and they are taking steps to achieve carbon-neutral operations. Synthetic diamond manufacturers can more easily decarbonize their product and are doing this to grab market share. The country therefore needs to act now to decarbonize its electricity sector to protect the value of the diamond industry from this very real threat.

Services dominate the economy apart from diamonds. The services sector remains the largest contributor to GDP in Botswana. The most important subsector within the services industry is government services, which contributed 20.4 percent in 2020.[22] Though a far cry from its peak of 63 percent of GDP in 1983, the industrial sector's contribution to GDP has remained relatively steady in recent years, contributing an estimated 27.5 percent to GDP in 2020.[23] Within the industrial sector, the manufacturing sector made an estimated contribution of about 6 percent to GDP in 2020.[24] Within the manufacturing sector, downstream diamond activities continue to gain in importance. The agricultural sector's contribution to GDP has declined significantly over the years; recording a real value add of 10.7 percent in 1980, the sector's contribution lowered to about 1.9 percent in 2019 and 2 percent in 2020.[25] Although agriculture makes only a marginal contribution to GDP, it remains a key feature of the economy, given that about 30% of the population lives in rural areas, a large portion of which are involved in subsistence crop and livestock farming.[26]

In the past five years, Botswana has struggled to maintain its growth momentum as key sectors have faced persistent headwinds. With limited progress on structural reforms, Botswana's growth potential has slowed. After averaging 7 percent in the first half of the decade, weakening global demand for diamonds and severe weather conditions led real GDP growth to slow to an average of 2.6 percent between 2015 and 2019. Per capita growth has narrowed by 4 percentage points between the two periods, averaging 1 percent in the latter half of the decade. Although the mining sector's share in the economy has fallen, accounting for 13 percent in 2020 (fourth largest sector in the economy),[27] it remains an important driver of economic growth, the largest single contributor to government revenues in most years, and the source of at least 80 percent of goods export earnings (diamonds alone correspond to 70 percent of the country's export earnings).[28]

22. Statistics Botswana GDP estimates.
23. Statistics Botswana GDP estimates.
24. Statistics Botswana GDP estimates.
25. Statistics Botswana GDP estimates.
26. Botswana Agricultural Census, 2015.
27. The contribution of mining in overall output has steadily decreased from 32 percent in the first decade of the 2000s to 10 percent in 2019.
28. The Economist Intelligence Unit. Africa's diamond mining outlook brightens after tough 2020. February 25, 2021.

The government of Botswana has supported growth and employment through fiscal expansion, weakening its fiscal position and drawing from the Government Investment Account of the Pula Fund (see box 1.1). Despite declining traditional revenue sources from diamonds and the Southern African Customs Union (SACU)[29] over the past decade, the government has continued to support growth and employment through fiscal expansion (increases in public sector wages, employment and social spending, continued investments). This has led to large fiscal deficits, a persistent drawdown in buffers, a deteriorating current account and, with the Bank of Botswana seeking to maintain a stable real exchange rate to counter inflation, a moderate overvaluation of the exchange rate,[30] which undermines the competitiveness of other sectors in the economy. So far, government domestic borrowing does not seem to be crowding out private sector borrowing, as per the 2021 International Monetary Fund (IMF) Article IV report. However, the IMF also recommends maintaining exchange rate flexibility to gradually reduce the real overvaluation, help the economy adjust to shocks, and facilitate structural transformation.

BOX 1.1 THE PULA FUND

is a Sovereign Wealth Fund established in 1994 with the main objective of investing proceeds from non-renewable resources for the benefit of future generations. This long-term fund is part of the overall foreign exchange reserves of Botswana, stemming primarily from diamond exports. Activities of the fund are run by a management team and overseen by the Board of Directors of the Bank of Botswana. Botswana is a founding member of the International Forum of Sovereign Wealth Funds and a contributor to the Generally Accepted Principles and Practices for Sovereign Wealth Funds (Santiago Principles). The investment guidelines of the Pula Fund follow the key principles of preserving the purchasing power of the reserves, maximizing return within acceptable risk parameters, and maintaining adequate liquidity. The Fund invests in developed and emerging market fixed income and equities. After a period of sustained balance of payment surpluses and successful investments, the Pula Fund began experiencing a substantial outflow of funds, especially after the establishment of the Public Officers Pension Fund in 2001, the 2008 Global Economic Crisis, and the most recent economic downturn caused by the COVID-19 pandemic. As of January 2022, the assets of the Pula Fund stood at US$3.8 billion, similar to January 2020 but down from US$4.7 billion in January 2018.

Source: Bank of Botswana, 2022; International Forum of Sovereign Wealth Funds, 2022

29. Southern African Customs Union (SACU) member states maintain a common external tariff, share customs revenues, and coordinate policies and decision making on a wide range of trade issues.

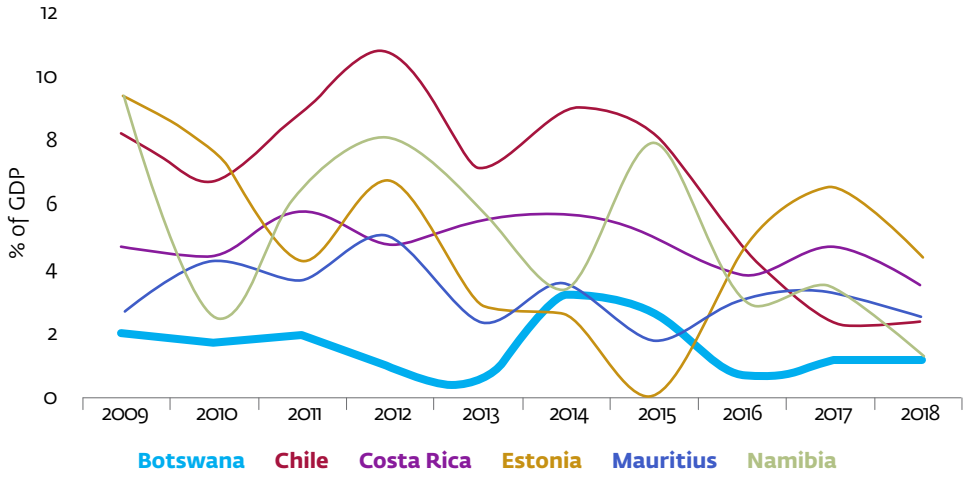
30. Iyke and Odhiambo 2016; Limi 2006; Pegg 2010; Taye 2013.

Diversification policies are hampered by governance and implementation capacity challenges. The government of Botswana has long included a commitment to diversifying the economy away from diamonds in its national strategies, most recently in the National Development Plan 11 and Vision 2036. Initially, efforts were focused on the diamond industry by developing downstream activities. However, the policies increasingly exhibited a sectoral bias toward declining activities over emerging ones, import-substitution over exports, and manufacturing and agriculture over services. Despite this bias, service sectors expanded while manufacturing and agriculture declined, benefiting from policies that favored nontradables in general. Policies were also fragmented and uncoordinated across a proliferation of operations and institutions, which created a difficult environment for implementation and monitoring of efforts. In addition, many programs contravened the basic principles of effective industrial policy owing to their lack of transparency, monitorable indicators of success, and sunset clauses. The cost to the budget of these incentives and subsidies has been substantial (in the order of 3 percent of GDP annually). By contrast, very little was spent on research and development, which has been shown to have been an important factor in other countries that successfully diversified, coupled with exposure to foreign competition.

Concerns about rising corruption and weakened government effectiveness hinder greater private sector participation. Botswana's policy makers have become increasingly concerned with increased perceptions of corruption. The country has seen a consistent decline in its Transparency International Corruption Perception Index ranking, which fell from a score of 65 in 2012 to 35 in 2020 on a scale of 0 (highly corrupt) to 100 (very clean). This ranking is consistent with findings from Afro Barometer on public perceptions of corruption, while the Ibrahim Index of African Governance also notes a deterioration in areas such as transparency, accountability, and the business environment. Similarly, the World Bank's 2018 Worldwide Governance Indicators show a decline in government effectiveness between 2007 and 2017.

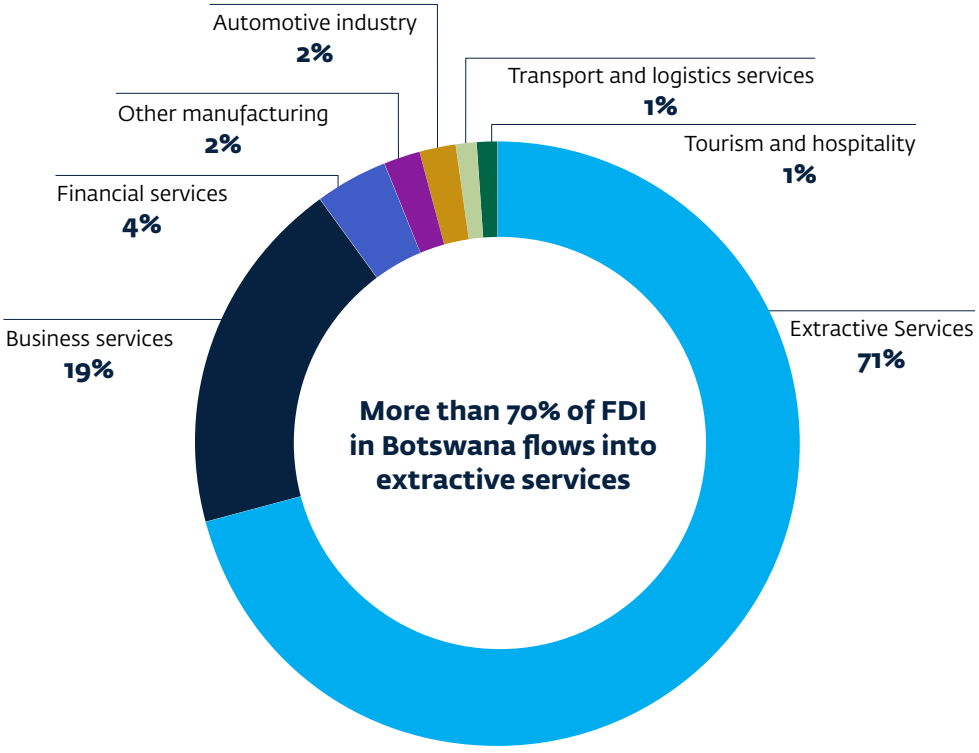
Policies to attract FDI outside of extractives have mostly failed. Botswana attracts very little FDI, especially outside of extractives and compared with its peers (figures 1.2 and 1.3). This pattern holds regardless of whether FDI is analyzed in absolute or in relative terms (as a share of GDP). According to the United Nations Conference on Trade and Development's World Investment Report 2021, FDI inflows in Botswana averaged US$173 million between 2016 and 2020. The total stock of FDI in Botswana reached US$5.45 billion in 2020. The mining sector still attracts most of the FDI. However, in recent years, investments in the services industry (insurance and banking) have also been growing, with a particularly strong focus on business services. FDI primarily comes from the SACU, the European Free Trade Association, Canada, and Zimbabwe.

FIGURE 1.2 TOTAL INWARD FDI INFLOWS: BOTSWANA VERSUS COMPARATORS, 2009–19



Source: UNCTAD

FIGURE 1.3 MOST OF FDI IN BOTSWANA GOES TO EXTRACTIVE SERVICES



Source: Financial Times fDi Markets

Note: Data is based on the sum of announced Greenfield projects over the time period. Capex figures are reported in USD million

Aside from a strong institutional framework, Botswana has implemented many favorable investment policy measures. The country does not impose foreign exchange controls, which guarantee free repatriation of profits, dividends, and capital. The government of Botswana also offers tax incentives in the form of tax holidays and indirect tax exemptions (value added tax [VAT] and customs) for companies that conduct business activities in certain economic sectors, such as mining, manufacturing, agriculture, and the financial sector.[31] Usually, foreign investors also receive equal treatment; however, it is not guaranteed by law. Finally, investors benefit from preferential access to the Southern African Development Community (SADC), which represents a market of 292 million people, and Botswana has signed numerous bilateral double taxation treaties.[32]

However, the investment dispute system can be improved. Botswana currently lacks a dedicated investment policy and investment law. Also, no formal mechanism exists to address investor grievances and the effectiveness of Botswana's local content requirements, which can deter investors.[33] The settlement of investment disputes is performed by default through local courts because there is no automatic consent to refer disputes to international arbitration.[34] In addition, a formal grievance redress mechanism to address investor grievances is not available and some restrictions to foreign ownership and public procurement exist in some areas of commercial manufacturing, construction, and services activities.[35]

1.2 CLIMATE CHANGE PRESENTS AN INCREASING CHALLENGE TO BOTSWANA'S LONG-TERM GROWTH STRATEGY

Botswana is highly vulnerable to climate change, with drought-prone areas concentrated in agricultural zones. Botswana ranks in the top three countries in Sub-Saharan Africa that will experience an expected average temperature increase of 2.9 to 3.8 degrees Celsius by 2100, which makes the country highly vulnerable, despite progress on responding to climate change.[36] Botswana ranked 94th out of 181 countries in the 2020 Notre Dame Global Adaptation Initiative Index.[37] The country has significant drought exposure, especially the agricultural regions, which are predominantly rainfed. The National Drought Risk Index estimates that 40 percent of the agricultural areas in the North-East, North-West, South-East, and Southern districts, and in Kweneng and Kgatleng are drought-prone areas.[38]

31. For example, companies that are accredited by the International Financial Services Centre pay a flat 15 percent corporate tax rate on For example, companies that are accredited by the International Financial Services Centre pay a flat 15 percent corporate tax rate on profits derived from approved business activities, such as banking, accounting, investment advice, insurance, and other finance-related operations. The Development Approval Order (DAO), another tax incentive provided by the government of Botswana, offers zero-rate tax holidays for five to 10 years and educational grants for business projects that stimulate the country's economic and social development. DAO projects are aimed at reducing consumer prices and involving Botswana citizens in entrepreneurial activities.
32. According to the Botswana Unified Revenue Service, Botswana currently has 13 bilateral double-taxation treaties in effect.
33. Botswana: Investment Policy and Promotion: Rapid Diagnostic. 2020. Internal World Bank document.
34. Only two bilateral investment treaties are in force, with Germany and Switzerland.
35. In activities deemed as "reserved" for citizens, foreigners can participate as minority joint venture partners in medium-size businesses. They can hold the majority share if they obtain written approval from the trade minister.
36. IMF Article IV, 2019.
37. University of Notre Dame (2020). Notre Dame Global Adaptation Initiative. URL: https://gain.nd.edu/our-work/country-index/
38. Drought Resilience Project, Botswana. Southern Africa Drought Resilience Initiative (SADRI). https://www.ciwaprogram.org/wp-content/uploads/SADRI_Drought_Resilience_Profile_Botswana.pdf

Unevenly distributed rains, heat waves, and the higher frequency and intensity of extreme droughts and floods have led to lower hectarage planted, crop failure, and a decline in livestock population, with important implications for food security.[39] With more than one-quarter of the country's employment concentrated in the agricultural sector, climate change threatens livelihoods and increases poverty risks. The effects of drought are estimated at 38 percent of the total GDP of the areas hit by droughts (equivalent to US$5.8 billion of GDP per year).[40] Under future climate conditions, this may rise to 80 percent of the GDP. Similarly, under the present climate, approximately 37 percent of the 2016 population (or 845,000 people) are likely to be affected by drought annually, which could increase to 78 percent under a changing climate scenario.[41] Initiatives by the government include a climate change policy, a climate change strategy and action plan, a climate-smart agriculture program, and a global environmental facility.

Water scarcity is high and climate risks remain pronounced despite significant adaptation efforts. The country lags its East African peers, especially in water management, storage, and irrigation, which are key to building resilience of the agricultural sector. Limited water availability has also affected mining activity and increased tensions between humans and wildlife, trends that are further exacerbated by low technology adoption rates and limited access to alternative off-farm income streams. As water demand is projected to rise, Botswana could become "highly water stressed by 2040" under a business-as-usual scenario.[42] According to the 2019 International Trade Centre SME competitiveness survey, 62 percent of companies interviewed confirmed that environmental risks were frequently on their mind.[43] Three-quarters of small and medium enterprises (SMEs) also rated their access to water as "low" or "medium." Apart from agriculture, tourism is also overwhelmingly dependent on nature-based and biodiversity-driven activities, making it particularly vulnerable to climactic impacts.

39. Ministry of Environment, Wildlife and Tourism (2011). Second National Communication to the United Nations Framework Convention on Climate Change. URL: https://unfccc.int/resource/docs/natc/bwanc2.pdf
40. CIMA, (2019). Building Disaster Resilience to Natural Hazards in Sub-Saharan African Regions, Countries and Communities. EU, 2019.
41. CIMA, (2019). Building Disaster Resilience to Natural Hazards in Sub-Saharan African Regions, Countries and Communities. EU, 2019.
    UNDRR and CIMA (2018). Botswana Disaster Risk Profile. Nairobi: UNDRR and CIMA Research Foundation.
    UNDRR. (2020). Republic of Botswana: Risk-sensitive Budget Review. UNDRR Country Reports on Public Investment Planning for Disaster Risk Reduction
42. World Bank, Botswana Emergency Water Security and Efficiency Project (P160911).
43. International Trade Centre. 2019.

Botswana's vulnerability to climate change is exacerbated because of its dependence not only on agriculture, but also on other sectors vulnerable to climate change (that is, the water, tourism, and energy sectors).[44] With regard to water supply, temperature increases and decreases in rainfall will add to the existing water stress,[45] with the main impact expected in water quality and availability. Projected increases in the frequency of droughts, evaporation, and evapotranspiration along with potential changes in rainfall patterns and runoff may further reduce the availability of water in water-scarce regions (northern, eastern, and central).[46] The Okavango Delta, in which a significant portion of Botswana's profitable low-volume high-cost tourism is concentrated, depends heavily on water-based wildlife. This key tourist attraction is vulnerable to variable rainfall, with a projected decrease by 20 percent of stream flows for the Okavango catchment. At the same time, the energy sector will be transformed by climate change mitigation requirements and related policies that call for a more sustainable and efficient energy mix while at the same time needing to adapt to the impacts of emerging changes in climate and weather. Going forward, advancing economic diversification, making infrastructure more resilient to climate shocks, increasing access to financing and cost-effective insurance, and enhancing social safety nets and policy buffers will help reduce Botswana's vulnerability to climate shocks.

1.3 THE COVID-19 PANDEMIC HAS ADDED PRESSURE TO REPLACE LOST JOBS AND BUILD A MORE RESILIENT ECONOMY

COVID-19 has further dampened the Botswana economy, with unemployment reaching the highest level in the past 35 years.[47] Although swift containment measures were instituted early, the lifting of the measures in November 2020 allowed the virus to spread and peak in March 2021 (to about 170 confirmed daily cases per million) and then again in August 2021 (to about 940 confirmed daily cases per million), dwarfing the second-wave peaks of its neighbors.[48] From August to mid-November 2021, the number of new cases mostly followed a downward trend. In 2020, the economy contracted by 8.5 percent of GDP[49] due to heavy reliance on diamonds and contact-intensive services, and the unemployment rate, although already high at 22.6 percent in 2019, reached 24.5 percent in the last quarter of 2020—the highest in the past three and half decades. Public

44. Climate Risk Profile: Botswana (2020): The World Bank Group.
45. USAID (2016). Climate Change Risk Profile – Southern Africa. Regional Fact Sheet. URL: https://www.climatelinks.org/sites/ default/files/asset/document/2016%20CRM%20Fact%20Sheet%20-%20Southern%20Africa.pdf
46. USAID (2015). Risk Vulnerability & Resilience in the Limpopo River Basin. Climate Change, Water and Biodiversity – a synthesis. URL: https://www.climatelinks.org/sites/default/files/asset/document/Risk,%20Vulnerability%20and%20Resilience%20in%20the%20Limpopo%20River%20Basin%20-%20A%20Synthesis_0.pdf
47. ILO Estimate. Accessed from World Development Indicators at https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?locations=BW
48. Our World in Data, source COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University. https://ourworldindata.org/covid-cases
49. World Development Indicators, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=BW

debt increased to 19.5 percent of GDP in fiscal 2020 from 16.3 percent of GDP in fiscal 2019. The drawdown on the Pula Fund has not been replenished, and the Government Investment Account declined from 18.4 percent of GDP at end-2019 to 3.7 percent of GDP by end-2020, mainly driven by a significant drop in mineral revenue and rise in COVID-19-related spending.[50] Yet, although declining, the foreign reserves buffer is ample for immediate foreign payment obligations, currently covering 9.8 months of imports.

The pandemic has led to a steep decline in earnings from tourism and diamond mining. Global diamond prices and demand from Belgium, China, and India (the main diamond importers) dropped during 2019 and the first half of 2020. The impact of travel restrictions has also been felt in the tourism sector, with a survey that was conducted by Botswana's Local Enterprise Authority and covered 382 SMEs showing a 72 percent revenue loss in March 2020.[51] Rough diamond sales plunged 33 percent globally in 2020, with a resulting contraction of 20 percent of diamond production compared with 2019. Although there is evidence of a revival in global demand in 2021, full recovery is not expected until 2022 to 2024.[52]

The rollout of the COVID-19 vaccine to the general public commenced in March 2021, contributing to positive recovery prospects in 2021. As of March 2022, about 61.9 percent of the eligible population (1.45 million) had received their first dose of the COVID-19 vaccine, and about 55.0 percent of the population, including those who have received their first dose, have been fully vaccinated. The state of public emergency that instituted COVID-19 containment restrictions across contact-intensive sectors was lifted in September and business activities are gradually picking up momentum, however, there are perceived job losses in the form of retrenchments from firms that have not recovered from losses incurred from the pandemic.

The government has taken measures to limit the health and economic fallout of the pandemic and has introduced a fiscal relief package focused on supporting firms and vulnerable households. Spending pressures owing to increased fiscal expenditure on health care and an economic recovery plan led to an increase of the fiscal deficit from 6.2 percent in 2019 to 8.9 percent in 2020, with a drop to 6.6 percent in 2021. The Botswana government is funding the deficit through a mix of further drawing down the Government Investment Account, domestic debt issuance, and concessional external borrowing.[53] Although increased domestic borrowing has put public and publicly guaranteed debt at an estimated 23.5 percent of GDP for fiscal 2020, this debt remains below the 40 percent of GDP legal cap. On the monetary side, the Bank of Botswana has decreased its main lending rate by 100 basis points, from 4.75 to 3.75 percent.[54] The primary reserve requirement was also decreased from 5 to 2.5 percent to improve the liquidity position of the banking sector.[55]

50. IMF Country Report No. 21/98. Botswana Staff Report for the 2021 Article IV Consultation and Press Release June 2021.
51. Botswana's Local Enterprise Authority Snap Survey published on LEA's Facebook account. https://www.facebook.com/localenterpriseauthority/photos/a.1870843259808245/3167075020185056
52. Bain & Company. 2021. The Global Diamond Industry 2020–21 report.
53. IMF Country Report No. 21/98. Botswana Staff Report for the 2021 Article IV Consultation and Press Release June 2021.
54. IMF Country Report No. 21/98. Botswana Staff Report for the 2021 Article IV Consultation and Press Release June 2021. In April 2020, the bank rate was reduced by 50 basis points from 4.75 to 4.25 percent. In October 2020, the bank rate was reduced again by 50 basis points from 4.25 to 3.75 percent. Bank of Botswana. 2020.
55. In addition to these macrofinancial actions, banks and nonbank financial institutions have restructured loans and provided payment holidays for those sectors that have been severely affected.

The government response to the crisis includes plans for promoting green technology and climate resilience measures. The government's Economic Recovery and Transformation Plan (ERTP), valued at approximately 7.8 percent of GDP, contains a climate agenda aimed at reducing Botswana's dependence on carbon-intensive industries, enhancing energy generation capacity, and strengthening climate resilience.[56] The ERTP supports Botswana's efforts to pursue an outward-looking growth strategy that promotes exports and private sector activity.[57] Plans to implement the ERTP are underway, with the parliament approving in April 2021 the Botswana climate change policy, boosting renewable energy sources through the Integrated Resource Plan, reducing subsidies to the use of fossil fuels, and increasing fossil fuel fees. As per the IMF Article IV assessment, the success of the ERTP in diversifying the economy by promoting nonmineral exports, manufacturing, and transformative sectors (including digital, green, and climate adaptation technologies) hinges on its swift implementation and on Botswana moving away from import substitution and protectionist policies.[58]

A rebound in growth occurred in 2021, at 11.4%, but long-term uncertainty remains. Just as in 2021, developments in the global diamond industry will play a key role in determining Botswana's immediate growth trajectory given the sector's importance in the economy. The global diamond market looks to be recovering, with a revival in 2021 and price spikes in the rough diamond trade owing to strong demand in China and the United States and to shortages in supply related to the war in Ukraine.[59] On the supply side, this translates to increased mining production and diamond beneficiation activities across different stages of the value chain. Output can also be complemented by agricultural production if improving rains continue[60] and government's measures to improve domestic production, though the sector shrank in 2021, driven by underperformance in the livestock sub-sector. Over the medium term, growth is set to plateau at about 4.2 percent, with private investments in coal and copper mining and in recovering private consumption as the main contributing factors. Per capita income levels are not expected to revert to 2019 levels until 2023/24.

56. The ERTP complements the government relief program (valued at 2 percent of GDP), which contains measures to protect lives and to limit the spread of the virus and that support livelihoods as well as firms and the banking sector.
57. In June 2020, the World Bank approved the Programmatic Economic Resilience and Green Recovery Development Policy Loan (DPL) of US$250 million, which will support the implementation of Botswana's Economic Recovery and Transformation Plan.
58. IMF Country Report No. 21/98. Botswana Staff Report for the 2021 Article IV Consultation and Press Release June 2021.
59. Fortune.com. 17 August 2021. It's not just microchips and lumber. The next great supply shortage is diamonds https://fortune.com/2021/06/09/diamond-shortage-de-beers-supply-chain/
60. FAO. GIEWS Country Brief Botswana. 22 March 2021. http://www.fao.org/giews/country-analysis/country-briefs/country.jsp?code=BWA

02. STATE OF THE PRIVATE SECTOR

Botswana's development model has relied on the redistribution of revenues generated from diamonds without sufficient focus on strengthening the role of the private sector for economic growth. The private sector accounts for less than half of employment in the country (37.4 percent), with the rest divided among local governments (3.0 percent), the central government (18.2 percent), parastatals (2.9 percent), and various forms of self or household employment.[61] Because of the global COVID-19 pandemic, unemployment reached a 35-year high of approximately 24 percent, but even in the two decades before the pandemic unemployment rates were high, hovering near 18 percent, with youth unemployment posing a critical challenge. The high level of unemployment reflects a lack of opportunities in the small, non-mining private sector and in the low-income, drought-prone agricultural sector. Job creation has been particularly weak in urban areas. Nearly all private sector job creation has come in local services. By contrast, the manufacturing sector has shed jobs and the construction sector has been stagnant.[62] Thus, opportunities for lower- and medium-skilled Batswana have been limited. A comparison with structural peers on the latest Global Competitiveness Index reveals important competitiveness gaps in skills, information and communication technology (ICT) adoption, product markets, business dynamism, and infrastructure. Recently, Botswana also received lower scores on the quality of its institutions on the index.[63]

Botswana's employment challenge is related to constraints in both the supply of and demand for labor. On the supply side, lack of skills in the labor force and skill mismatches (despite high spending rates on education) have been the most serious challenge, compounded by an overly restrictive policy on permits for foreign workers. In addition, high wages in the public sector are likely to have a negative effect on the supply of skilled workers to the private sector; public sector wage levels are high and are de facto seen as a reservation wage that constrains the supply of skilled labor to the rest of the private sector. On the demand side, a small domestic market, limited competition in the nontradable sector, shortages of electricity and water, and barriers to establishing and funding businesses have resulted in high costs and a lack of profitable investment opportunities, effectively deterring the entry of new businesses and employment creation. Moreover, some sectors have suffered the effects of Dutch disease, with recent decades seeing skilled labor migrate from manufacturing to the mining sector and replaced by less-skilled labor, including previously unemployed agricultural workers.

61. Quarterly Multi-Topic Survey, Q4 2021
62. BOTSWANA: Systematic Country Diagnostic (2015).
63. Legwaila (2002), Segwati (2010 and 2012) and World Bank Group (2012 and 2015).

Weak job creation in Botswana presents somewhat of a paradox given Botswana's high entrepreneurship potential. Botswana has the highest ranking among all Sub-Saharan Africa countries in the Global Entrepreneurship Index (52nd out of 137 ranked countries), ahead of nine European countries and Organisation for Economic Co-operation and Development (OECD) economies, such as Mexico.[64] The country scores well on opportunity perception, risk acceptance, high-growth economy, and cultural support for entrepreneurship, but it scores poorly on access to risk capital, technology and innovation, internationalization, and start-up skills. Overall, this scoring points to high potential for entrepreneurial activity but limited institutional and human capacities to exploit that opportunity. Policies that draw in international entrepreneurs, provide access to global markets, and link to international sources of capital and technology would benefit the ecosystem. Concurrent policies could focus on building domestic entrepreneurial skills necessary to start and grow businesses and on providing access to appropriate forms of capital needed by start-up and early-stage businesses.

Botswana's export basket lacks dynamism, and its exports are increasingly losing global market shares. Botswana enjoys preferential market access to Southern Africa's markets through the SACU and SADC,[65] but the country exports little with its neighbors and it trades less compared with others in the same trade block.[66] In addition, diversification of the export basket has remained elusive despite decades of diversification policies. According to Harvard's Export Complexity Index,[67] since 2003, Botswana has added merely five new products to its export basket (compared with 18 in Eswatini, 14 in Namibia, and nine in Chile, Estonia, Mauritius, and South Africa). On the other hand, the complexity of some of Botswana's existing products has gone up, notably in the travel and tourism product space and in electrical machinery and equipment products. Regarding Botswana's product positioning, most of its products (apart from diamonds) are in slow-growth segments of international trade. Botswana has been gaining market share in live animals and in lac, gums, and resins, but both are markets in which world demand has been slowing. Further, Botswana lost world market shares in diamonds, textiles, inorganic chemicals and metals, and processed beef.

64. Global Entrepreneurship Index 2020

65. Botswana also benefits from preferential market access to the European Union through the recently concluded Economic Partnership Agreement (EPA), and to the United States through the African Growth and Opportunity Act. It also ratified Regional Trade Agreements with MERCOSUR and the European Free Trade Association.

66. In 2019, only 14 percent of Botswana exports went to SADC neighboring countries. Meanwhile, the average intraregional trade of SADC countries represented 20 percent of all exports from the region.

67. https://atlas.cid.harvard.edu/

Few of Botswana's current export products provide an obvious platform for further diversification in the short term. Different studies have looked at products that Botswana could reasonably produce based on its current export structure, world market trends, and its revealed comparative advantages (RCA). According to the Harvard Growth Lab, which considers not only current production structures but also global demand trends, soda ash is the product with the highest "diversification potential."[68] A recent World Bank Group study on industrialization for the SADC region confirms that Botswana has a RCA for this value chain with opportunities for value addition in downstream products such as soap, detergents, fertilizers, animal feed, swimming pool care, and paper mills. However, the development of these sectors faces significant constraints such as high transport costs and lack of commitment for the development of necessary transport infrastructure nationally and domestically as well as environmental concerns about production including water use and the impact on conservation and wildlife zones.[70]

Agriculture makes a marginal contribution to GDP but remains a key feature of the economy. Despite high levels of government financial support, agriculture's contribution to GDP has significantly declined in recent decades, recording a real value added of 1.9 percent in 2019, compared with 10.7 percent in 1980. Nevertheless, the sector is still responsible for 7.5% of all employment and it plays a critical role in Botswana's rural economy. Livestock and beef are the second largest exports of goods after diamonds, contributing 80 percent of the sector's GDP, but these goods remain largely dependent on traditional management through communal grazing and subsidized veterinary services. Difficult climate and weather conditions, low sector productivity, high barriers to commercialization, a small domestic market, and limited regional and global value-chain integration all severely limit Botswana's agricultural potential. The sector also has struggled with cyclical problems such as foot and mouth disease that are compounded by quality and traceability problems that prevented access to lucrative European export markets between 2010–12, resulting in the near collapse of the Botswana Meat Commission. Despite resolution of traceability issues, BMC still cannot successfully export to the European Union and Norway. Challenges posed by climate change make the sector vulnerable to unpredictable rainfall patterns and water scarcity, dry spells, and desertification. Crop diseases put agricultural production at risk and expose rural areas and subsistence farmers to unsustainable agricultural livelihoods, food insecurity, and health vulnerabilities. Climate change also has the potential to increase the stress on fiscal redistribution programs that heavily support subsistence agriculture and agricultural incomes, such as the Integrated Support Programme for Arable Agriculture Development.[71]

68. Soda ash is primarily used for the downstream products of glass, other chemical products, and detergents. Globally, glass accounts for approximately 50 percent of the demand for soda ash; in the SADC region, glass accounts for 66 percent of the demand for soda ash.
69. SUPPORTING TRADE, JOBS AND INDUSTRIAL DEVELOPMENT IN THE SADC REGION- PHASE 2 (P169358).
70. Soda ash has also been identified as a priority value chain by the government of Botswana and is encouraging investors with funding and other incentives (Ramaphane 2017).
71. World Bank. Botswana - poverty assessment. 2015. Washington, D.C.

Low productivity, location disadvantages, and the absence of economies of scale erode the competitiveness of Botswana's manufacturing sector. Manufacturing contributes between 5 and 6 percent to GDP—less than half the average of middle-income economies—and more than 11 percent of formal jobs (56,000 in 2021).[72] Manufacturing activity includes processing of diamonds, beef, and textiles, among others. Despite relatively low manufacturing wages, the sector attracts little private investment. Low productivity, issues of scale economies, and location are significant barriers, with transport costs eroding much of the country's labor cost advantage. Moreover, Botswana relies on the import of nearly all inputs, with SACU tariffs constituting an additional cost to private sector firms and consumers. The trade regime is heavily biased against exports, but the country has seen some success in this sector with the growth of the diamond cutting and polishing sector following the establishment of the Diamond Hub in 2015. The sector is likely to be Botswana's largest single manufacturing sector in relation to employment, with its contribution to manufacturing value added at 15 percent in 2021. At the same time, Botswana has trouble competing with low-cost producers in Asia, especially India, where cutting and polishing costs are three to five times lower.

The services sector is by far Botswana's largest sector, accounting for nearly 60 percent of GDP. Government and financial and business services accounted for 2.6 percent of GDP in 2021, with tourism services contributing 10.4 percent to GDP in 2019 which dropped to 5.5 percent in 2020.[73] Botswana is likely to double revenues collected by domestic businesses from tourism if current leakages in imports (supplies and services managed from South Africa rather than from Botswana) are reduced by 5 to 7 percent.[74] Overdue road and airport infrastructure maintenance as well as fragmented tourism management and governance are other constraints on the sector's growth. In financial and business services, companies currently provide mainly general services such as general accounting, IT services, and legal services. The government has identified growth potential in more specialized business services and is fostering links to more demanding client companies to promote this market segment. Botswana's International Financial Services Centre and its supporting regulations provide regional and international banks, international business firms, insurance companies, and investment funds with a range of incentives to attract investment to specialized services.[75]

72. A small textile and garment-making industry has been developed, mainly through exporting to the United States under the provisions of the African Growth and Opportunity Act; however, competition from cheaper Asian producers is a considerable constraint on developing this industry.

73. Statistics Botswana, Gross Domestic Product, Q4 2021; World Travel and Tourism Council (WTTC). Botswana Country Profile, 2021.

74. World Bank. 2019. Rapid Evaluation Report of the Tourism Policy of 1990 and Related Tourism Strategies: Optimizing Botswana's Tourism Sector. Washington, D.C.: World Bank Group. Much of the expenditure by foreign tourists takes place outside the country by way of tours, airfares, and travel gear, including money spent on imports such as food supplies, building materials, and salaries.

75. Companies are exempt from withholding tax when distributing to nonresidents, zero rated for value added tax, offered up to a 15 percent tax credit for taxes incurred in jurisdictions in which a Double Taxation Agreement is not in place, and offered a 200 percent tax rebate for training costs, among other benefits. The Botswana Investment and Trade Centre facilitates investors to set up a variety of structures under the IFSC to service the regional market that, among others, covers investment funds, international insurance, banks, and ICT-enabled services such as business-process outsourcing and call centers.

Progress has been made in strengthening the competition framework, but several regulatory gaps limit full competition and enforcement. The Competition Act was enacted in 2009 and amended in 2018. In December 2019, the implementing Competition and Consumer Authority (CCA) was officially established, building on its predecessor competition authority. Early reviews of the Botswana experience suggest that the reform—while relatively lengthy—is one of the more consequential and successful ones on the continent. Since its inception, the CCA has effectively intervened to remove anticompetitive conduct including refusal to deal and remove barriers to entry in several cases, identification of cartels, and intervention to avoid three attempted bid-rigging cases. However, several key concerns remain: (a) legal monopolies are excluded from the application of the law;[76] (b) abuses of dominance are not subject to a fine, although remedies can be imposed;[77] (c) the concept of dominant position is not clearly defined, and market share thresholds are not determined by the Competition Act;[78] (d) price discrimination and tying or bundling agreements are prohibited irrespective of parties' market power, while international experience generally accepts these agreements in the absence of a dominant position;[79] (e) the Minister is empowered to exclude certain sectors from merger control or to propose alternative merger control systems;[80] and (f) Botswana's regulatory framework does not integrate a subsidy oversight system to ensure transparency and avoid market distortions. Although the Competition Act applies also to state-owned enterprises that participate in markets open to other enterprises, it does not apply to statutory monopolies, such as the utilities market (water, electricity, rail, and meat export), with some exceptions (for example, anticompetitive behavior resulting in fixing stockbroking commissions). Competition regulation cannot address other underlying factors that hinder private sector participation in the market, such as trade barriers and existing influence of South African firms with a dominant market position within SACU.

Limited resources of the CCA may affect the effective enforcement of competition rules in Botswana. The CCA appears to have insufficient funds to carry out its broad mandate and it experiences staff shortages, which may negatively affect its ability to conduct investigations and detect cartels.[81] According to the CCA, its budget has been decreasing the past few years.[82] Furthermore, the number of dawn raids conducted seems to be low and sanctions are not imposed. Dawn raids are essential to develop competition enforcement because they allow competition authorities to collect the necessary evidence to identify (and eventually sanction) cartels and other anticompetitive practices that may be secretly carried out by firms. According to publicly available information, the CCA has not carried out any dawn raids since January 2019.[83] The Competition Tribunal is

76. Section 3 (3) of the Competition Act.
77. Section 76 and 77 of the Competition Act.
78. Section 2 and Section 31 of the Competition Act.
79. Section 28 (2) of the Competition Act.
80. Section 46 of the Competition Act.
81. CCA's 2017/2018, 2018/2019 and 2019/2020 Annual Reports.
82. For instance, the 2020 budget was BWP75,000, excluding staffing costs.
83. Baker & McKenzie, 2020. Africa Competition Guide – Botswana; available at: https://resourcehub.bakermckenzie.com/en/resources/africa-competition-guide/africa/botswana/topics/general

the organism in charge of imposing sanctions for the infringement of competition rules, after referral from the CCA. Even though some of the cases investigated by the CCA have resulted in the adoption of concrete remedies to terminate the anticompetitive practice identified by the CCA, no fines have been reported during the past three years.[84] The absence of fines significantly reduces the deterrence effect of the prohibitions contained in the Competition Act and thus, compliance with competition rules.

Botswana's ambitions to green its economy are held back by the high cost of environmental goods and services (EGS) compared with the cost of traditional carbon-intensive products. This high cost constrains the private sector's uptake of such goods and services. For example, given the widespread abundance of solar radiation, investment in solar energy is a cost-effective solution in the long term for many firms in Botswana but this solution suffers from high initial costs of investment and low quality products. However, the average price of a solar installation is 50 percent higher in Botswana compared with the price of a traditional generator (US$9,920 and US$6,594, respectively) for comparable power output, which makes solar a less cost-effective solution in the short term and decelerates private sector shifts to renewable energy sources. EGS trade barriers also affect complementary services such as installation and maintenance of sustainable energy products (solar panels, wind turbines), which remain of poor quality as the market for EGS remains small in Botswana. Improving access to imported services from neighboring countries can reduce costs of services related to EGS.

Beyond EGS, Botswana has potential for greater trade in services. As of 2018, trade in services accounted for a mere 12 percent of GDP and 14 of all exports. Within services, travel accounted for 60 percent of all services exported by Botswana, followed by other business services (20 percent) and government services (7 percent). Since 2010, on average, service exports grew at 6 percent annually, with relatively steady annual growth rates but with significant fluctuations from year to year in exports of financial and business services. Yet, in 2016, a United Nations Conference on Trade and Development (UNCTAD) report stated that Botswana systematically underperformed in all service exports in comparison with the rest of the world.[85] The financial services sector is the main sector outside of extractives that has attracted foreign direct investment in the past decade.

84. Discussions with CCA.

85. UNCTAD, 2016.

03. CROSS-CUTTING CONSTRAINTS TO PRIVATE INVESTMENT

3.1 PREFERENTIAL TREATMENT OF STATE-OWNED ENTERPRISES AND POOR GOVERNMENT EFFECTIVENESS HINDER COMPETITION AND PRIVATE SECTOR PARTICIPATION

3.2 GAPS IN INFRASTRUCTURE, ACCESS TO FINANCE, AND SKILLS ARE CONSTRAINTS TO EMPLOYMENT AND PRODUCTIVITY GROWTH

3.3 IMPROVE TRADE POLICIES TO FACILITATE ADOPTION OF ENVIRONMENTAL GOODS AND SERVICES AND INCREASE TRADE SERVICES

3.1 PREFERENTIAL TREATMENT OF SOES AND POOR GOVERNMENT EFFECTIVENESS HINDER COMPETITION AND PRIVATE SECTOR PARTICIPATION

Botswana's efforts to diversify have been undermined by limits on competition in important domestic markets. Limited competition in Botswana stems from a combination of the following: (a) market distortions due to the state's participation in competitive markets, notably in competitive sectors, and preferential treatment of some state-owned enterprises (SOEs); (b) lack of procompetitive regulation and regulatory barriers to market entry; (c) lack of effective competition rules and limited enforcement; and (d) tariff protection and other trade barriers.

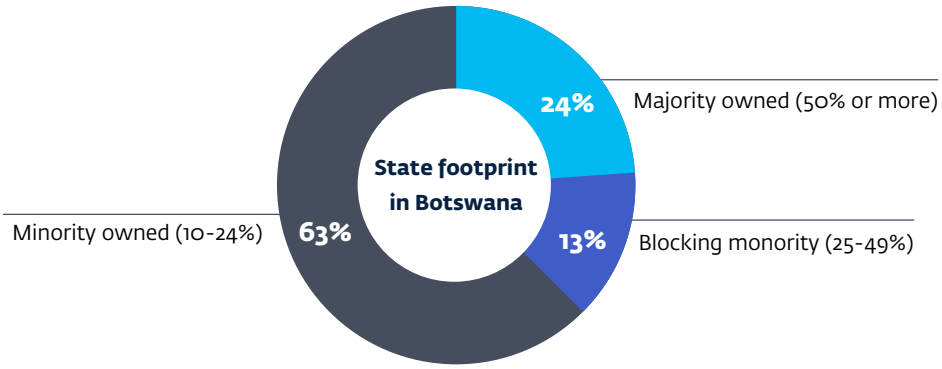
The government should reduce the state's presence and influence in sectors that are competitive, creating markets with competitive neutrality. This will create markets for entrepreneurs and SMEs to address, private firms to grow, and foreign investors to participate in. This needs to go beyond SOE ownership changes to remove any potential distortions in the market. Government can divest, either partially in the form of PPPs or fully, in companies in competitive sectors, but this will require complementary regulatory reforms and overarching principles to ensure that even if fully privatized, those companies will not receive any preferential treatment vis-à-vis private peers. Moreover, regulatory reforms will be key to ensure sectoral and independent regulators. It is critical to break the dual role of the SOEs and eliminate those situations where the SOEs are the market player and also the agents that provide licenses and permits for potential investors (e.g., BMC) or determine the prices for the markets. Reforms, therefore, should be a combination between divestiture decisions and designing a strong overarching framework with two key components: (a) the principles of subsidiarity role of the state such that the state focuses its participation in sectors that are not viable for the private sector and where there is a strong economic rationale for its intervention (e.g., market failures, externalities, public goods); and (b) the update of the competition framework accompanied by a strengthening of the competition agency and institutional capacity to ensure the enforcement of these principles in the market.

Decisions around state participation in sectors deemed as strategic, for historical or political reasons, can be guided by the overarching framework of the subsidiarity role of the state in markets. This framework provides key criteria, based on economic rationale, for state intervention, rather than subjective strategic considerations. Intermediate solutions, such as concessions and management arrangements can also be explored, for sectors that remain viewed as strategic for state interventions. In this way, the state can bring in private participation without relinquishing the assets that are considered strategic from a political perspective (e.g., ports), while allowing the private sector to run the businesses to improve performance and service delivery.

On SOE governance, the government should explore adopting a more centralized ownership or advisory model rather than the current decentralized model (i.e., ownership by line ministries) to foster effective oversight of SOEs. Such a model would provide better consistency and oversight of SOEs in Botswana as it will further separate the state's ownership role from its policy-making and regulatory roles and better insulate SOEs from political interference while holding them accountable for results. This would also enable the government to become a more active shareholder and improve its capacity to manage the SOE reform process effectively through a centralized approach that brings coordination, uniformity, and transparency to the state's ownership role.

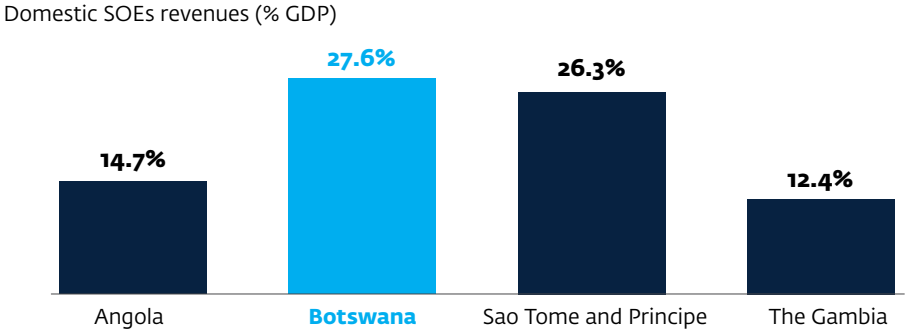
Botswana's state footprint is large in the economy, accounting for about 5 percent of total formal employment and revenues that surpass 25 percent of GDP. In total, 57 companies are majority owned by the state in Botswana, which account for 85 percent of the total revenues and 80 percent of the employment among all companies with state participation. However, control can be exerted even through blocking minority or golden shares that allow the government to outvote other shareholders or influence even if indirectly on the operations of the companies and therefore on the sector performance and signal potential risks for private investors. For this reason, the state footprint considered for the purpose of this assessment also includes companies with less than 50% participation of the state (figure 3.1). As of 2019, companies with state participation employed more than 22,900 workers, or 5 percent, of total formal employment and generated more than US$4.5 billion in revenues (25 percent of the GDP), which is among the largest when compared with other countries in the region (figure 3.2).

FIGURE 3.1 LEVEL OF STATE PARTICIPATION IN COMPANIES WITH 10 PERCENT OR GREATER GOVERNMENT OWNERSHIP



Source: World Bank, Markets, Competition, and Technology Global Unit analysis based on preliminary findings of the global World Bank Businesses of the State (BOS) database.

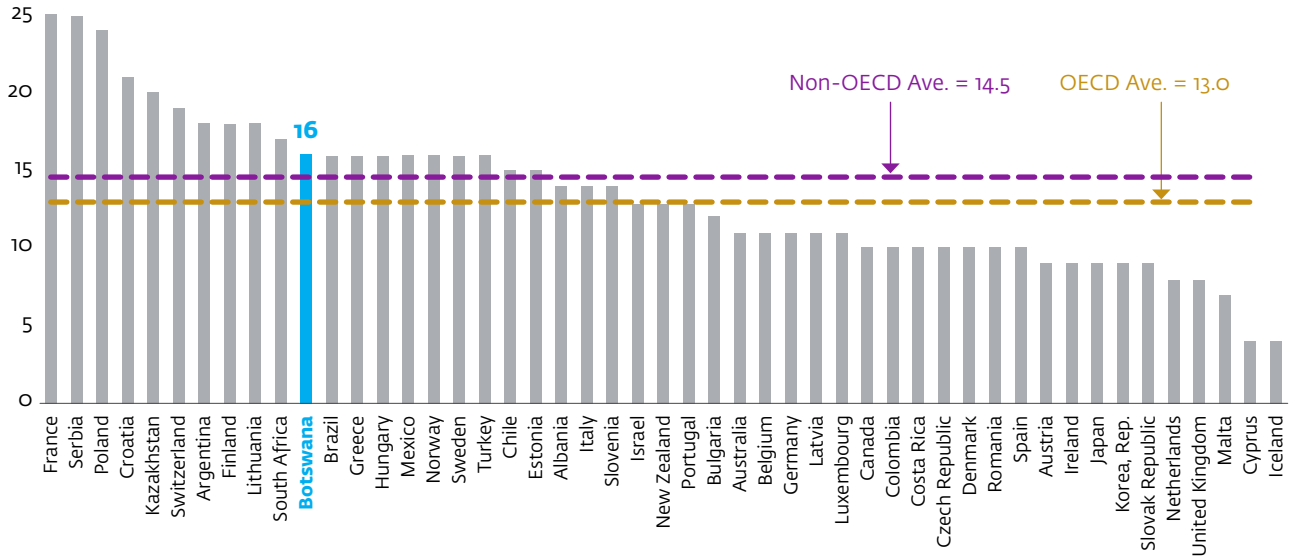
FIGURE 3.2 REVENUES OF COMPANIES WITH STATE PARTICIPATION AS PERCENTAGE OF GDP



Source: WBG, Markets and Technology Global Unit based on preliminary findings global SOE database

When comparing the companies with majority participation of the state with most of the countries analyzed, the PMR suggests that the government controls over half over the sectors analyzed. Comparing companies with control of the state using the OECD definition (majority owned companies only) under the Botswana WBG-OECD Product Market Regulation (PMR) indicators, Botswana's government controls at least one company in 16 sectors out of 29 covered,[86] which is above the average of sectors with SOE participation among OECD and non-OECD countries for which PMR information is available (figure 3.3).[87]

FIGURE 3.3 NUMBER OF SECTORS (OR SUBSECTORS) WITH AT LEAST ONE STATE-OWNED ENTERPRISE (SOE) PRESENT



Source: World Bank staff elaboration based on desk research for Botswana and OECD, OECD-WBG Product Market Regulation database, 2018 methodology.

86. Data for Botswana were collected through a selected set of questions based on the OECD 2018 PMR methodology.

87. For the assessment of the regulatory environment, the OECD defines control in the PMR methodology as those companies in which the government holds 50 percent or more of the shares of the company. The OECD analysis focuses on control of the state rather than footprint and therefore covers only majority owned companies. However, control can be exerted even through blocking minority or golden shares that allow the government to outvote other shareholders or influence even if indirectly on the operations of the companies.

Currently, seven of every 10 Botswana companies with state participation operate in competitive sectors with no clear basis for state ownership. State footprint in Botswana are predominantly present in competitive sectors such as real estate, wholesale trade, accommodation services, travel agencies, crop, and animal production, among others (figure 3.4). Interestingly, companies with state participation in competitive sectors are not only the most common type of companies with state participation in Botswana, they are also large market players that explain 23 percent of the revenues and 38 percent of the labor force among all SOEs. The larger the presence of SOEs in competitive sectors, the higher the risks of creating market distortions that can deter private investment. On the contrary, only five SOEs operate in natural monopolies in Botswana, and they are linked to operations in sectors in which some market failures might justify state ownership including the provision of water utilities and sewage (Water Utilities Corporation), fiber networks (Botswana Fibre Networks), and postal services (BotswanaPost), electricity distribution (Bostwana Power Corporation). When considering only companies majority owned by the state, the results still hold as 74 percent of the companies owned and controlled (under 50% rule) by the state operate mostly in competitive activities, and only 4 percent perform in natural monopolies (Figure 3.4).

FIGURE 3.4 PRESENCE OF SOES ACROSS SECTORS IN BOTSWANA

Source: WBG, Markets and Technology Global Unit based on preliminary findings global SOE database

SOEs in Botswana also have a significant market position in key sectors. Not only are SOEs present across multiple sectors in the economy, but they also hold a significant market position even in sectors in which they compete with the private sector. For instance, the national flag carrier, which is fully owned by the state, had a market share above 45 percent as of 2020 while competing with four other airlines. This market share has continuously increased as a result of the COVID-19 pandemic.[89] In other regulated sectors, SOEs enjoy monopolistic positions as the single provider of services that could be served in competition with or by the private sector. However, certain segments such as electricity generation are now be opened to the private sector. With revenues surpassing US$2.6 billion, Debswana Diamond Company is the largest SOE in the country.[90]

SOEs continue to play a large role in the economy despite efforts to privatize. Over the past years, certain efforts to privatize SOEs have been proposed, but only partially implemented. In 2016, the government of Botswana sold 49 percent of the shares of the SOE Botswana Telecommunications Corporation (BTC).[91] However, BTC's financial status remains challenging, and the partial privatization has had limited impact on the ambition to increase fixed broadband penetration. In 2017, the government stopped the privatization of its national airline to reorganize it before privatization.[92] In 2019, the government announced the intention to privatize the Botswana Meat Commission, however, the sale has not taken place yet.[93] Conversely, new SOEs have been established in the past decade, notably in key sectors for Botswana's economy, such as mining and trade.[94]

Competitive neutrality analysis shows that the government of Botswana seems to grant certain privileges to SOEs that might tilt the playing field to the detriment of the private sector. For instance, in 2018, Botswana Oil received an unsecured loan of BWP 140 million (approximately US$12 million) from the government of Botswana at favorable conditions.[95] Other advantages include transfers or leases of land,[96] general tax exemptions, exclusions from certain laws and regulations, and, for non-corporatized SOEs, capital injections from the government when faced with financial constraints.[97] Those advantages not only place heavy burdens on the state budget, but also discourage more efficient private players from entering markets with a large presence of SOEs.

89. As of March 2021, the number of air travel companies operating in Botswana reduced to two and the market share of Air Botswana increased to almost 60 percent measured by the number of seats.
90. Botswana is the largest African country producing diamonds and this activity is the main source of foreign currency. Revenues from this activity are considered strategic to finance schools and roads.
91. Reuters, press release: Botswana sells stake in state telecoms firm; available at https://www.reuters.com/article/
92. US Department of State, 2021. 2021 Investment Climate Statements: Botswana.
93. Ibid.
94. Newly created SOEs include Botswana Oil Company, Botswana Fibre Networks, among others.
95. The loan was granted under the Public Debt Service Fund (PDSF). The government loan of P140 million was obtained at bank rate plus 2 percent, with a loan period of 25 years and a two-year moratorium. See: Botswana Post's Annual Report, 2019. According to representatives of the Botswana Power Corporation (BPC), BPC receives financial support from the government when necessary.
96. Information provided by the Botswana Power Corporation.
97. Information provided by the Public Enterprises Evaluation and Privatization Agency.

Furthermore, the legal framework governing SOEs is fragmented—it has multiple laws with conflicting and outdated requirements. This fragmented framework adversely affects SOE viability, compliance, and accountability. The ownership of SOEs is decentralized, with ministries having the authority to establish SOEs with the Cabinet's approval. No overarching framework guides the establishment process, especially the requirement to consult other institutions and assess the need and capacity of the state to own another entity. In addition, no ownership policy exists to guide the ministries on establishing and monitoring the SOEs. The current ownership model results in line ministries acting as shareholders, policy makers, and regulators. This undermines accountability and creates a conflict of interest between line ministries' responsibility for setting sectoral policies and for managing SOEs' day-to-day businesses. According to the law, the appointment and removal of boards is the sole responsibility of the line ministers, a practice that has compromised board performance and has led to insufficient compliance with King III (the King Report on Governance for South Africa and the King Code of Governance Principles) by public interest SOEs.[98]

The introduction of competitive neutrality principles across SOE regulatory provisions, competition enforcement, and the application of good corporate governance principles could level the playing field in Botswana. Reforms in the tax act, procurement act, and competition act as well as a strengthening of the enforcement capacity of the competition agency to investigate SOEs are key to ensuring the private sector will not be subject to a different set of rules based on ownership. The government could also consider removing legal monopolies to SOEs in commercial sectors and explore alternatives to relinquish state participation. Other relevant reforms include the following: (a) introducing an accounting separation between SOEs' commercial and noncommercial activities; (b) adopting clear compensation mechanisms for public service obligations carried out by SOEs; (c) mandating that SOEs earn rates of return comparable with the private sector under similar market conditions; (d) avoiding preferential direct or indirect grants for SOEs; (e) ensuring tax and regulatory neutrality for all operators, whether public or private; (f) harmonizing and updating the SOE legal frameworks; (g) developing a Botswana corporate governance code and requiring all SOEs to comply with the code; and (h) strengthening the oversight institutions' (Public Enterprises Evaluation and Privatisation Agency (PEEPA), Botswana Accountancy Oversight Authority (BAOA), and Export Development Programme (EDP)) systems and capacity, along with reorganizing board remuneration and appointment principles into a transparent framework.

98. This only applies for directly owned companies by the government, but not their subsidiaries.

In 2000, the government of Botswana, recognizing the underperformance of SOEs, created PEEPA with the aim of advancing state divestiture and improving SOE performance. However, it is deemed to have achieved limited success in fulfilling its mandate.[99] A lack of public information on PEEPA's performance hampers independent assessments of the sector. In 2019, the BAOA) announced publicly for the first time that many SOEs were not in compliance with basic reporting requirements and that some audits had been deemed ineffective. According to the IMF, the debt-to-GDP ratio of those SOEs stood at 4.5 percent of GDP in March 2019, one-half of which was held by the Botswana Power Corporation (BPC),[100] and the Auditor General reported that almost US$91 million (approximately 0.5 percent of GDP) was transferred to 18 of the biggest SOEs to cover losses. The government's cabinet subcommittee on SOEs has recently recommended reforms to improve the achievement of SOE mandates, enhance shareholder oversight, and improve the accountability and transparency of SOEs. The government needs to follow through with these recommended reforms. However, experience suggests that firm-level SOE improvements are most effective after issues in the competitive environment have been addressed. Once appropriate governance and regulatory mechanisms are in place, they should be followed by the firm-level SOE reforms.

3.2 GAPS IN INFRASTRUCTURE, ACCESS TO FINANCE, AND SKILLS ARE CONSTRAINTS TO EMPLOYMENT AND PRODUCTIVITY GROWTH

Close infrastructure gaps

Despite relatively high public investment spending, the quality of infrastructure has fallen in recent years and now significantly lags structural peers (figure 3.5). Despite performing better than upper-middle-income averages until 2010, recent indicators on infrastructure quality assessed by the Global Competitiveness Index suggest significant barriers, particularly in access to railways and electricity supply. Indeed, Botswana's electrification rate remains well below those of peer countries at similar income levels.[101] A lack of domestic generating capacity means the country is highly dependent on imported electricity, which is volatile owing to potential fluctuations in exporter's energy market conditions. Transmission and distribution losses remain considerable at an estimated level of 14 percent, compared with an average of 23 percent in Sub-Saharan Africa and a global average of 10 percent. Only one-third of SMEs interviewed in 2019 were satisfied with their access to electricity.[102]

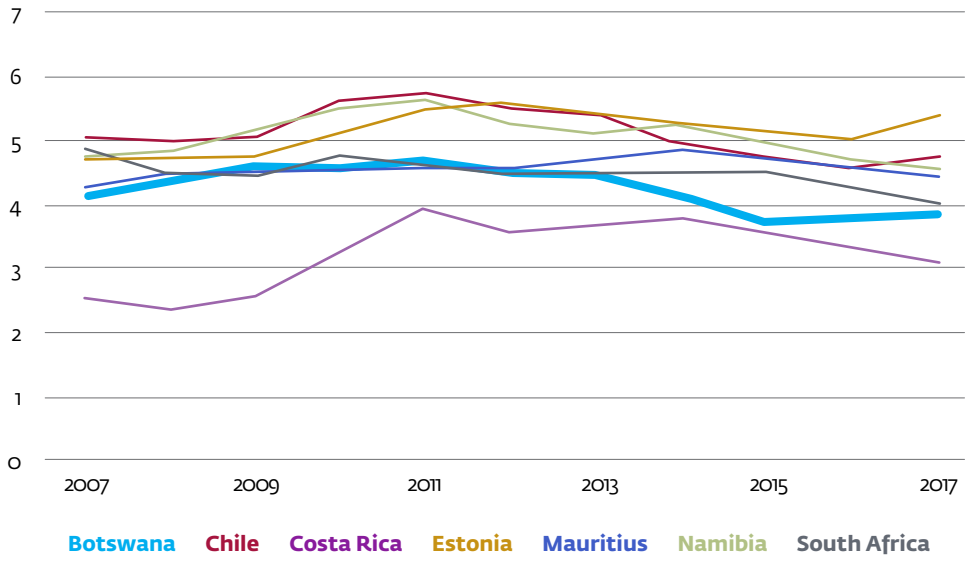
99. Motshegwa, B. et al. (2017).

100. IMF Country Report No. 20/78. March 2020. 2019 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR BOTSWANA.

101. In 2018, 65 percent of Botswana was electrified versus 91 percent of South Africa, 98 percent of Mauritius, and 100 percent of Chile, Costa Rica, and Estonia.

102. ICT, 2019.

FIGURE 3.5 QUALITY OF OVERALL INFRASTRUCTURE, 2007–17



Source: World Economic Forum GCI

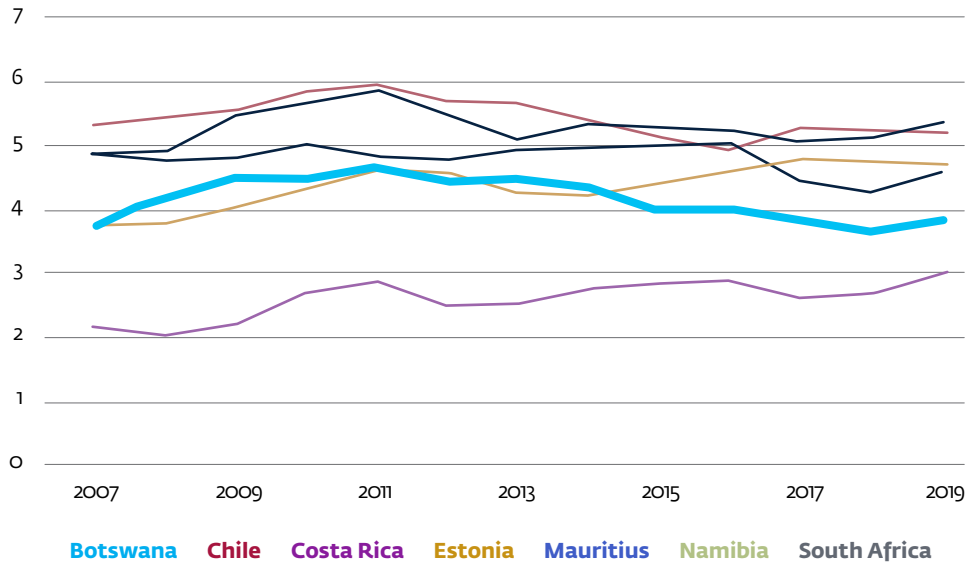
Low road quality is a significant constraint to trade for the land-locked country. Botswana is landlocked, resulting in high transport costs that undermine the competitiveness of export prices and affect the ability of firms to serve markets on time. On a per capita basis, Botswana has one of the densest road transport networks in Sub-Saharan Africa, with 80 percent of the main road network and 73 percent of the rural network in "good or fair" condition. However, compared with its structural peers, road quality and trade logistics are lagging (figures 3.6 and 3.7). The government is gradually facing problems with funding the increasing needs of the transport sector, which has resulted in an accumulation of periodic maintenance backlog. The current transport networks are developed to serve a relatively small economy. Coupled with a lag in SADC integration and existing cabotage regulations, the market for transporters is limited.[103] Transportation is also hampered by lack of integration; subsector planning operates in silos and does not interface, which reduces opportunities to optimize transport models.[104] In addition, an improvement in traffic management could yield 20 to 30 percent of expected result with much lower cost and speedier intervention.[105]

103. SCD, 2015.

104. National Development Plan 11.

105. World Bank, Botswana Integrated Transport Lending Project (P102368).

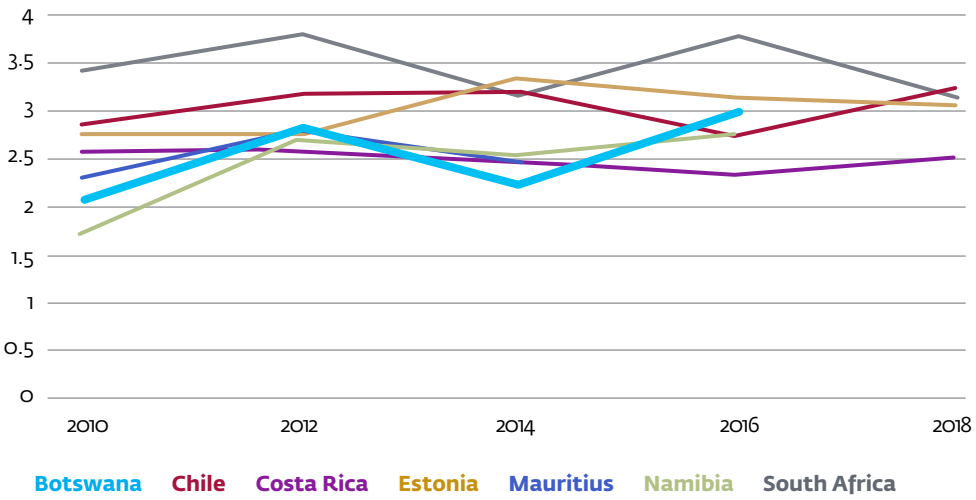
FIGURE 3.6 ROAD QUALITY INDEX, 2007–19



Source: World Economic Forum GCI, Road Quality Index*

* The Road Quality Index, developed by the World Economic Forum, comprises two elements: 1) a measure of the average speed of a driving itinerary connecting the 10 or more largest cities in an economy accounting for at least 15% of the economy's total population; and 2) a measure of road straightness.

FIGURE 3.7 TRADE LOGISTICS PERFORMANCE INDEX BY COUNTRY (2010 – 2018)



Source: World Bank; Logistics performance index*: Quality of trade and transport-related infrastructure (1=low to 5=high)

* Respondents from international institutions and private companies and individuals engaged in international logistics evaluate eight markets on six core dimensions on a scale from 1 (worst) to 5 (best). Respondents evaluated the quality of trade and transport related infrastructure (e.g. ports, railroads, roads, information technology). Details of the survey methodology are in Arvis and others' Connecting to Compete 2010: Trade Logistics in the Global Economy (2010).

Botswana's rail and air infrastructure are not conducive to supporting export growth. Botswana's railway—a 100 percent government-owned parastatal—consists of a single 900-kilometer main line with three short branch lines. It links with the South Africa railway to the south and the Zimbabwe railway to the northeast. Its major business activities are export freight traffic of soda ash and import traffic of raw materials for the textile industry. Challenges include increased competition from the road sector and outdated management practices, as well as monopolistic power from South Africa in controlling rail freight traffic routing.[106] Air transport infrastructure remains at a limited scale, with no long-haul connections yet established, and restrictions exist for scheduled domestic and international air transport services. The bilateral agreement with South Africa has an important influence on access, frequencies, and prices to Botswana, given that most originating flights from Botswana go to South Africa.[107]

Botswana also needs higher-quality digital infrastructure to facilitate the digital transition. So far, the country has achieved broad internet coverage, but services are priced high compared with aspirational and regional peers (figure 3.8). The average price of 1GB of mobile data is US$13.87 in Botswana compared to US$4.30 in South Africa and US$2.13 in Lesotho.[108] About 64 percent of Batswana households have internet access according to the National Household Survey,[109] and 90 percent of mobile networks are at least a 3G.[110] However, the current quality of the country's internet services may not be able to support the high data volume of the knowledge-based economy that Botswana aspires to. The internet speed in Botswana has stagnated for almost a decade, which becomes a bottleneck for widespread digital adoption, particularly in the business services sector that demands high digital capacity. Government has made deliberate efforts to improve the ICT infrastructure, with increased expenditure toward it. The national broadband strategy, the ICT policy (Maitlamo), and the SmartBots strategy—coordinated by the Office of the President—form a solid foundation for digital infrastructure development but the country must combine it with stronger implementation.[111]

106. Botswana Railways has four dry ports and terminals in Gaborone (GABCON), Francistown (FRANCON), and Palapye (PALCON), as well as the Walvis Bay dry port in Namibia.

107. The Bilateral Air Services Agreement with South Africa was last updated in 2011. World Bank. 2021. Sector Monitoring Tools: Global Aviation Dashboard. Retrieved on 01/26/2022. The World Bank has an advisory and analytical activity supporting Southern Africa on aviation that could support efforts to increase public-private partnerships in aviation infrastructure.

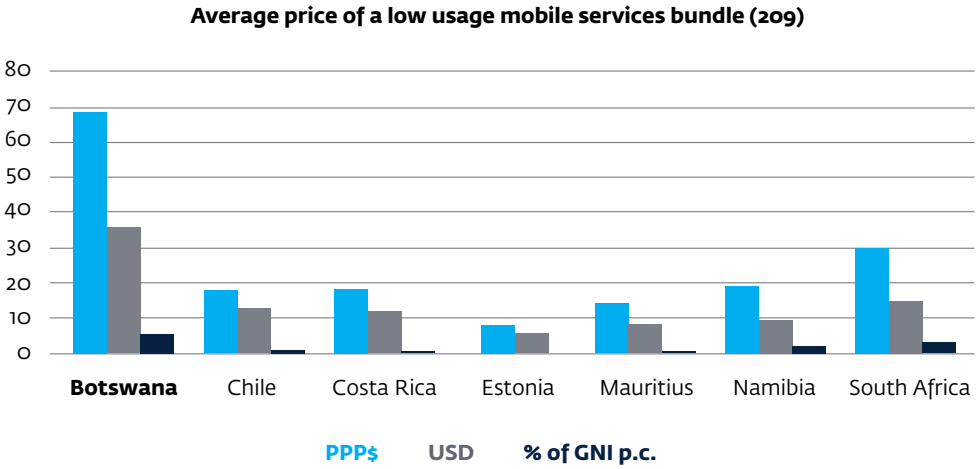
108. Cable.co.uk

109. Botswana HH Access to ICT Survey – 2019.

110. GSMA Intelligence.

111. A more detailed discussion of the impact and opportunities of digital development and the constraints to digital infrastructure can be found in the Botswana Digital Economy Diagnostic, World Bank (forthcoming).

FIGURE 3.8 COMPARED TO PEERS BOTSWANA HAS HIGH MOBILE SERVICES PRICES



Source: ITU; low-usage data and voice basket refers to a monthly allowance of 70 minutes, 20 SMS, and 500 MB.

Inefficient public spending and poor SOE performance result in weak infrastructure outcomes. Between 2010 and 2015, the allocation of public investment to economic infrastructure (such as roads, ports, airports, and electricity sources) was much higher in Botswana compared with other emerging markets. Yet, according to the IMF, inefficiencies were also large in the provision of public infrastructure, underscoring the need to improve Botswana's public investment management framework.[112] About one-third of investment spending does not result in the level or quality of infrastructure of countries that manage their resources efficiently.[113] To fully realize economic growth from public investment spending, Botswana would need to improve project appraisal, selection, and monitoring, as well as the governance of SOEs because they account for a significant portion of public sector investment and provide important public services.[114] SOEs charged with poor performance and weak governance include all relevant infrastructure SOEs including Botswana Railways, the Water Utilities Corporation, Air Botswana, the Motor Vehicle Accident Fund, and BPC.[115]

112. IMF. (2017). Botswana – Public Investment Management Assessment. Technical Assistance Report.

113. IMF. (2017). IMF Country Report No. 17/188. Botswana. Public Investment Management Assessment. Technical Assistance Report.

114. Between 2010–15, SOEs accounted for one-fourth of all public sector investment. IMF, 2017.

115. Mothusi B. and Dipholo K. (2008). See also in 2019 https://www.sundaystandard.info/here-are-the-ocbad-boysoco-of-corporate-governance-in-botswana/.

Constrained government revenues mean increased private participation is needed to fill remaining infrastructure gaps. Rail, air, roadway, and digital infrastructure, for instance, can benefit from public-private partnerships (PPPs) that can increase private participation. More than 10 years after approving its PPP policy in 2009,[116] PPP activity in Botswana remains limited. As of April 2022, only two independent power producers (IPPs) are in operation, with six recently awarded generation licenses.[117] There have been other attempts at using PPPs, such as building a new science and technology university.[118] According to the IMF, the 2009 PPP policy is comprehensive and reflects many good practices, but it also has some weaknesses—mainly that it does not explicitly apply to SOEs or parastatals. The BPC and IPPs are linked through power purchase agreements, but in contrast to central and subnational governments, the BPC is not required to consult the PPP unit in the Ministry of Finance and Economic Development (MoFED).[119] A small number of PPPs were procured in recent years under the Public Procurement and Asset Disposal (PPAD) Act, despite not providing adequate guidelines on the quantification of fiscal implications of PPPs.[120] Moreover, those PPPs were procured without the full involvement of the PPP unit of MoFED.[121] Government has since replaced the PPAD Act with the Public Procurement Act (PPA) No. 24 of 2021 which covers PPPs, rather than enacting a separate PPP law, to improve the legal and regulatory framework related to the use of PPPs.

116. The idea of PPPs took root in Botswana after the adoption of the Privatisation Policy of Botswana in 2000 and the approval of the PPP Policy in 2009. A PPP unit was set up in the Ministry of Finance and Development Planning the same year. Although the PPP Policy suggests a focus of PPP projects in such sectors as serviced office accommodation, educational facilities, health facilities, and transport infrastructure, sectors such as energy, ICT, and water are neither explicitly mentioned nor explicitly prohibited by the policy.

117. World Bank PPIAF Database, 2020.

118. And, in 2018, the government of Botswana stated publicly that it had identified 16 projects that are in the pipeline for implementation under the PPP model during National Development Plan 11, including the construction of about 4,000 teaching houses, the Glen Valley Wastewater Reuse Project, the Chobe-Zambezi water transfer plan, land servicing, the Sepopa Prison Farm, and the Gaborone tourism project, among others. http://www.thepatriot.co.bw/business/item/5406-ppps-new-cost-effective-way.html.

119. Note that MoFED has been renamed as the Ministry of Finance as of April 2022, with the National Development Planning (Economic Development) portfolio moving to the Office of the President.

120. Some PPPs projects awarded by PPADB were agreed prior to the establishment of the MoFED PPP Unit.

121. IMF, 2017.

Increase access to finance

Botswana has made important progress on financial inclusion, but access to finance remains a challenge for micro, small, and medium enterprises (MSMEs). Individually, Botswana adults fare better than the regional average (51 percent have a formal bank account compared with the regional median of 40.5 percent), however, firms' access to finance—MSMEs in particular—remains limited. With an estimated MSME financing gap sitting at 19 percent of GDP, there appears to be a large unmet demand in the market.[122] The Botswana credit market is still relatively shallow, with providers of credit focusing primarily on retail clients (households) and large corporate borrowers, which leaves smaller enterprises widely underserved. A 2019 survey of SMEs in Botswana found that only 45 percent of responding firms had obtained formal credit in the past three years and very few had obtained it from commercial banks.[123] Two credit bureaus operate in Botswana[124] and they cover 54.4 percent of adults,[125] however, information is not shared between credit bureaus[126] and borrowers do not have the right to access their own data in the credit bureau.[127] A Secured Transactions in Movable Assets bill—which would allow for all types of movable property to be used as collateral—is under preparation.[128]

The ecosystem for early-stage finance is fragmented and would benefit from regulatory reform and a coordinated approach to financing entrepreneurship. Uptake of digital methods, including mobile banking, internet banking, and mobile money has increased in Botswana. Forty-two percent of Botswana adults made or received a digital payment in the past year.[129] The adoption of digital payments has also supported the establishment of digital businesses, and Botswana is now home to a growing number of digital start-ups. The government has also signaled its support of the digital ecosystem with the National Entrepreneurship Policy and an e-commerce strategy that emphasizes digitization of small and medium enterprises. The government should follow through on the National Entrepreneurship Policy to implement a set of coordinated regulatory reforms, digitization of SMEs, and potential government interventions to crowd in early-stage finance for entrepreneurial start-ups and SMEs.

122. IFC, World Bank, The MSME Financing Gap, 2017

123. International Trade Centre. 2019.

124. The two credit bureaus are TransUnion and Experian (Experian acquired Compuscan and CSIT Botswana in 2019).

125. World Bank. 2019. Doing Business database.

126. This issue will likely change with the new Credit Information Sharing Act drafted by MoFED. The objective of the act is to regulate operations of credit information sharing companies, protect data subjects, and improve access to credit by small businesses.

127. Doing Business database. World Bank, 2019.

128. The draft bill and regulations have been finalized and are with the Auditor Attorney-General's office for approval. As of June 2022, this bill still has been passed into law and is awaiting the finalization of regulations before it commences.

129. World Bank Global Findex, 2017

Close the skills gap

Despite high spending on education, Botswana experiences skills mismatches that are a key constraint to employment and productivity growth. Thanks to a strong policy commitment to education, Botswana has achieved universal primary education and secondary gross enrollment stands at 82 percent—double the average for the continent.[130] But compared with peers, Botswana is lagging. On average, Botswana children who start school at age four can expect to complete 8.1 years of school by their 18th birthday, compared with children in Chile who can expect to complete 13 years of school by their 18th birthday and with children in Mauritius who can expect to complete 12.4 years. Factoring in the quality of learning that Botswana children receive, those 8.1 years shrink to a mere 5.1 years,[131] with learning gaps especially acute in mathematics.[132]

Vocational education and training in Botswana will need to focus more on the current and future potential demands of the labor market. The current technical and vocational education and training system is fragmented and suffers from both a lack of coordination and a lack of organizational capacities.[133] Skills mismatches vary by sector, with the service sector performing better with regard to workforce skills suitability. According to the International Trade Centre's 2019 SME survey, firms in the services sector rated the availability and suitability of skilled labor higher than elsewhere in the economy, with 65 percent reporting a good match between the skills of their workforce and the needs of the company. Services SMEs also reported translating skills into research and development activities more frequently than firms in other sectors, which fosters innovation and productivity improvements.[134] In the short term, the government can assist firms trying to fill these skills gaps with labor from abroad by streamlining the cumbersome processes firms face when obtaining employment permits for foreigners.

In addition to access to finance and skills support, the growth and productivity of SMEs will rely on improved management capabilities, technology adoption, and entrepreneurial capacity. Efforts by the government to increase access to skills and finance noted earlier should be part of a package of support that develops a sustainable entrepreneurship and SME support ecosystem. Finance is a necessary factor, but not a sufficient factor, in the growth of SMEs. Supporting creation of start-ups and productivity of SMEs is complementary to recommendations to improve the competitive landscape as new businesses enter and compete in those markets.

130. Botswana's public spending on education not only compares well with other countries but also constitutes the biggest spending category for government.

131. Human Capital Index, 2020.

132. World Development Report, 2018. Botswana also does not fare well in comparisons of early childhood development. In 2012, Botswana was ranked far below its income level on the UNESCO Early Childhood Care and Education Index, which summarizes nutrition, health, and education of children younger than age seven.

133. GIZ (2021). Improving the quality and job-market relevance of technical and vocational education and training (TVET).

134. International Trade Centre. 2019.

3.3 IMPROVE TRADE POLICIES TO FACILITATE ADOPTION OF ENVIRONMENTAL GOODS AND SERVICES AND INCREASE TRADE IN SERVICES

Trade in EGS can help Botswana's private sector achieve higher levels of economic diversification and export competitiveness.[135] Imports of EGS can help improve export diversification by giving the private sector access to environmental technologies that make it more competitive and sustainable, such as renewable energy, waste and water management, and air pollution control. Productivity gains from better access to EGS will set the stage for a greener private sector–led growth model in traditional exports (mining, agriculture, and tourism). For example, most tourism facilities in northern Botswana (mainly Okavango Delta and Chobe regions) are not connected to the national grid, with many relying on diesel generators and solar energy. Imports of efficient solar energy products can benefit the industry by significantly reducing energy costs and reliance on fossil fuel–based energy supplies. Imports in the latest advances in water filtration and purification (such as on-site filtration machines, ceramic filters, and ultraviolet and ozone treatment of water) can also help firms better engage in sustainable water management practices, which allows them to do away with the costs of buying bottled water and to minimize plastic waste production. Furthermore, trade in EGS can broaden economic opportunities for some domestic firms through various complementary services such as installation, maintenance, and monitoring. Some of these services require technical knowledge and in some cases might be less costly to import from neighboring countries or suppliers of environmental technologies based abroad.

Despite the sustainability benefits of EGS to multiple sectors, tariff and nontariff trade barriers undermine imports of EGS as well as preferential access agreements, which raises the costs of imported inputs for Botswana exports. Although Botswana has signed a wide range of preferential market access agreements, traders often face constraints in benefitting from them. For example, SADC rules of origin are relatively complicated to administer and reach because they often follow a line-by-line approach with rules devised for a specific product or sector. Similarly, high tariffs on part and components of imported environmental goods and import licenses raise the cost of manufacturing products dependent on imported inputs.[136] Tariff and nontariff barriers also constrain imports of EGS despite sustainability benefits to varying sectors. Given that the domestic production of sustainable intermediate inputs (for example, sustainable construction timber, quality solar materials, and other recyclable materials) is very limited,[137] imports of EGS are critical to achieving efficient and sustainable practices across Botswana's key economic and enabling sectors. SACU tariffs on environmental goods appear low

135. EGS are products and services produced with the main aim of preventing and minimizing environmental damage; repairing damage to biodiversity and landscapes; and carrying out other activities such as measurement and monitoring, research, and development of actions and information related to environmental protection and resource management. Eurostat, 2020.

136. UNCTAD, 2016.

137. See Malumbela and Masuku, 2017.

(averaging 1 percent according to the Asia-Pacific Economic Cooperation list of goods and services)[138] but there are some important exceptions, including a 7.5 percent tariff on parts used for the maintenance and repair of solar water heaters. In addition, behind-the-border barriers such as the misclassification of environmental goods,[139] and a lack of clear quality standards for imported renewable energy technologies further constrain firms' access to imported EGS.

Restrictions placed on foreign investors by Botswana's National Trade Policy hinder the commercialization of some services.[140] Specifically, the policy limits the presence of foreign capital, allowing foreigners to hold a maximum percentage of domestic capital, and applies to foreign services seeking to establish themselves in Botswana. This policy results in restrictions on all sectors apart from professional firms where foreign presence is permitted.[141] Such domestic barriers, together with regional barriers present within SACU and SADC, have a negative impact on competition that could otherwise increase productivity. Removing some of the restrictions and further opening Botswana's markets for services imports could help to increase competitiveness of exports. Studies have shown that the importation of services has a positive effect on the skill and technology mix of exports, labor productivity, and total factor productivity because input services facilitate transactions through space, information and communication technologies, logistical services, and financial services.[142] Because of the deep connections of services in the manufacturing sector, efficiency in one sector leads to efficiency in others.[143] To this end, Botswana should open the key services that connect it with the rest of the world, particularly telecommunications and air transportation.

A greater focus on standards and certifications is needed to raise the competitiveness of Botswana exporters. According to a 2019 SME competitiveness survey conducted by the International Trade Centre, very few Botswana companies are certified to national and international standards. More than 75 percent of survey respondents said they were not certified to any quality, sustainability, or other standard.[144] The survey results also indicate that SMEs are aware of the quality requirements of the market, and many are responding to their current buyers' requirements, but they still fail to adopt certification plans. This is particularly relevant in the agricultural sector, where rates of certification are especially low compared with peer countries.[145]

138. There is no single list that defines environmental goods; in absence of this, the Asia-Pacific Economic Cooperation's list is used here, which consists of seven groups defined by Vossenaar (2013): (a) air pollution control; (b) environmental monitoring, analysis, and assessment equipment; (c) environmentally preferable goods; (d) management of solid and hazardous waste and recycling systems; (e) natural risk management; (f) renewable energy plant; and (g) wastewater management and potable water treatment. Botswana's main imports of environmental goods fall under environmental monitoring, analysis, and assessment equipment; management of solid and hazardous waste; and renewable energy products, for which US$15.7 million, US$11.9 million, and US$13.1 million worth of goods were imported, respectively, in 2020. Eurostat, 2020; Vossenaar, 2013.

139. Botswana Customs has no guidelines for the treatment of environmental goods at borders. The risk of misclassification and unclear tariff lines can lead to the application of incorrect tariff rates and result in costly time delays at the border. Moreover, inconsistent classification of products resulting from the rotation of customs officials at border crossings is also a risk and could be mitigated by publicly available rules of classification and advanced rulings. De Melo, 2015.

140. UNCTAD, 2016.

141. ibid.

142. Molinuevo and Saez. 2014.

143. This is especially true for business services such as accounting, financial services, or communication and transport services, which provide the basic infrastructure for cross-border exchange of information and trade in goods.

144. International Trade Centre. 2019.

145. See also UNCTAD (2016) for a discussion of the status of standards and certifications in Botswana.

04. SECTOR ASSESSMENT: ENERGY, WATER, AND TOURISM

4.1 CHOICE OF SELECTED SECTORS

4.2 ENERGY SECTOR ASSESSMENT

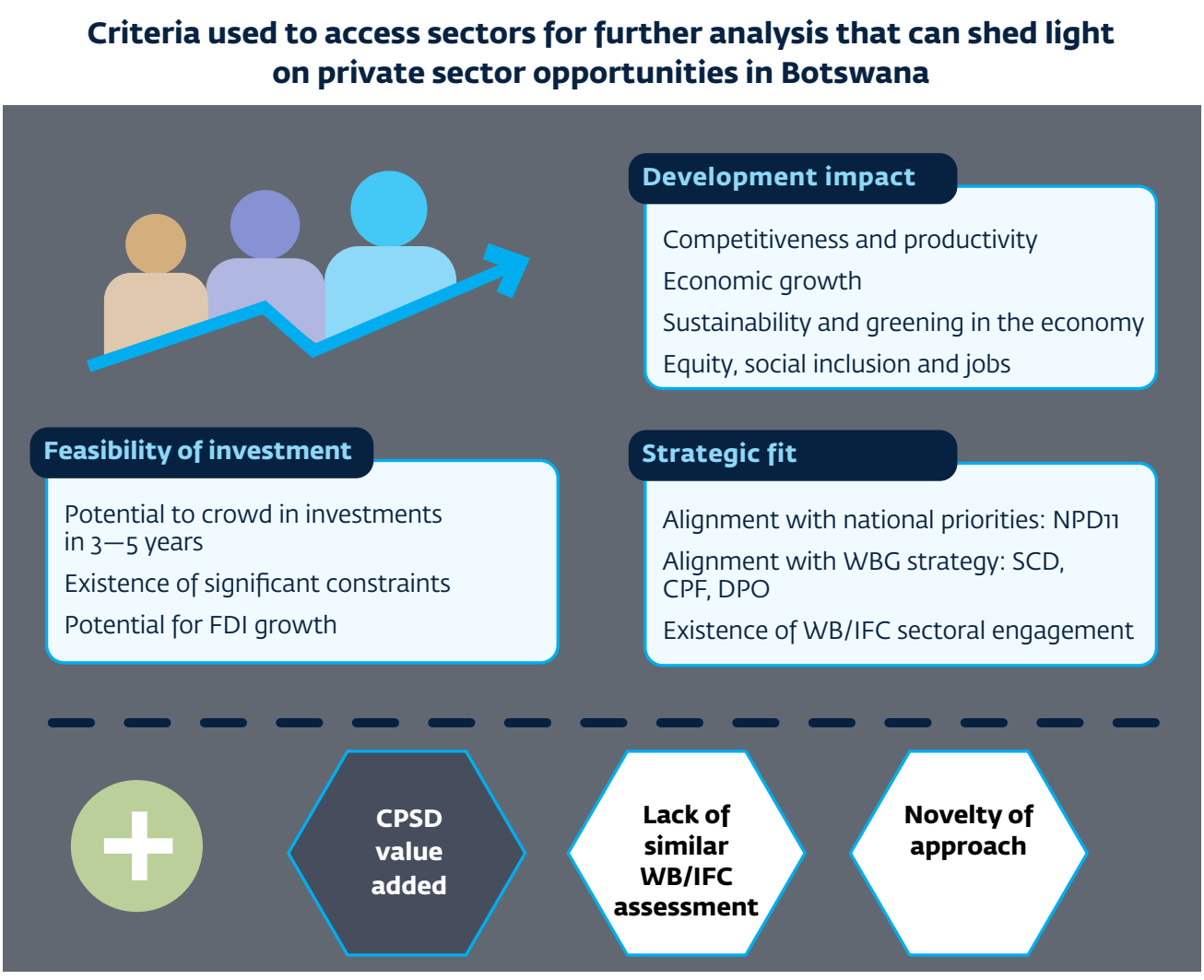
4.3 WATER AND SANITATION SECTOR ASSESSMENT

4.4 TOURISM SECTOR ASSESSMENT

4.1 CHOICE OF SELECTED SECTORS

Several factors important to economic development in Botswana were considered when choosing sectors for review. Previous sections have identified the need to refocus efforts on the enabling sectors to increase productivity and competitiveness of other sectors, while reducing costs of public services and upgrading the economy with greener and more future-oriented modes of production. Five criteria, reflecting those priorities, were therefore used to select sectors for deeper assessments: (a) feasibility of attracting investment in the sector in the next three to five years; (b) potential to support enhanced competitiveness and productivity; (c) contribution to economic growth and diversification; (d) potential to contribute toward equity, social inclusion, and jobs; and (e) contribution to sustainability and greening of the economy. In addition, the sector selection considers the feasibility of expected sector reforms, the ability for the CPSD to add value, and an overall fit with strategic priorities for the country (see figure 4.1).

FIGURE 4.1 SECTOR SELECTION FRAMEWORK



Based on the sector selection framework, the CPSD includes in-depth sector assessments in three sectors: energy with a focus on renewable energy, water, and tourism. Additional sectors that have high development impact such as agriculture, financial services, and ICT were also considered but they ranked lower because of short- to medium-term feasibility of reform implementation, CPSD additionality or strategic fits, or both. Sector selection met the following rationale:

- **Energy:** Botswana's energy sector provides significant private sector opportunities to supply key growth industries, services, and households with sustainable, cost-effective, and domestically produced energy that will contribute to productivity and diversification as well as higher-quality jobs and social inclusion. With a focus on renewable energy generation, Botswana can leverage its comparative advantage to produce solar energy and support energy diversification in the region. Further, as climate changes create challenges of increased demand and seasonality, a robust energy supply will be needed to ensure climate resiliency.
- **Water:** As part of embracing a green economy, Botswana's water sector has opportunities in being efficient, generating more jobs through various industries (as they increase their profitability through water efficiency), and increasing its contribution to societal and ecological well-being, especially food security. Carefully managed public-private partnerships can help the efficiency of wastewater management and use of recycled water to provide predictability and increase the supply of water.
- **Tourism:** The tourism sector has a high impact on the Botswana economy significantly contributing to exports, GDP, and job creation. Its high-cost low-volume model has been successful albeit limited to a part of the country and to wilderness tourism. The additional challenges posed by climate change also force the industry to focus on increasing its presence into attractions that are less vulnerable to climate variability. This segment has significant room to grow and to expand to untapped areas such as growing the southern part of the country and increasing its footprint in the heritage and cultural tourism with a road circuit. Increased investment in tourism can help strengthen the supply chain, which currently is mainly in South Africa, and boost the local servicing economy. 4.2 Energy Sector Assessment

4.2 ENERGY SECTOR ASSESSMENT

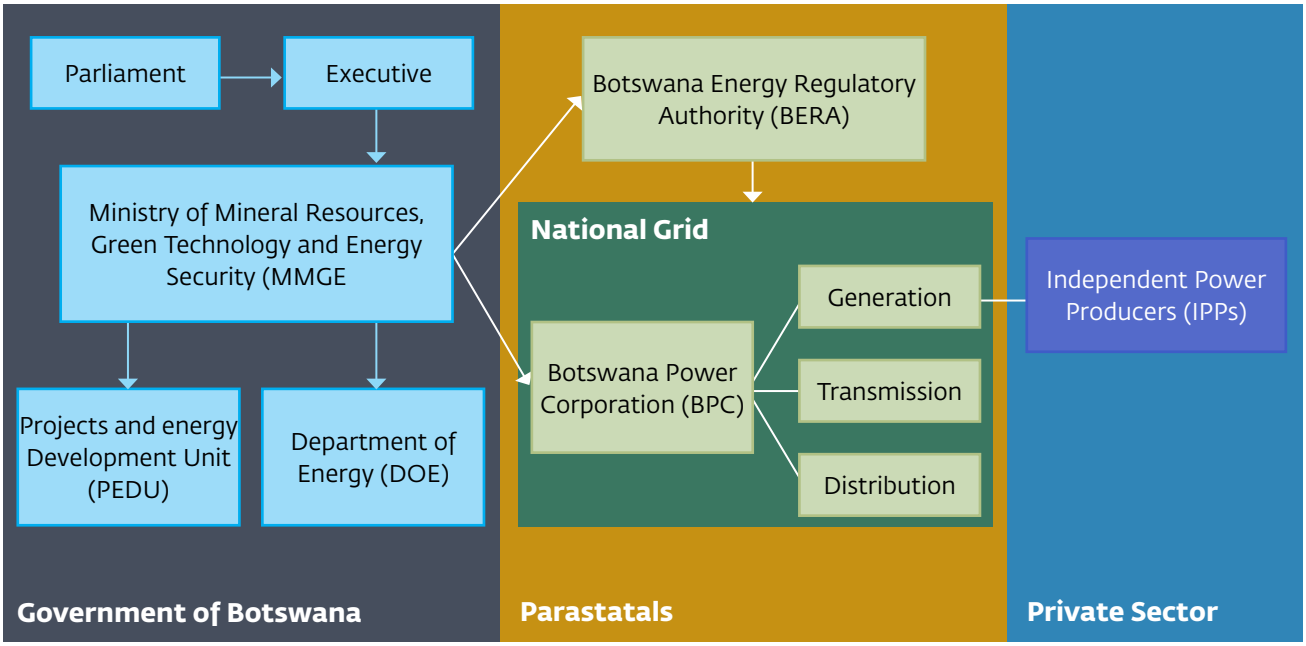
Context

Botswana's institutional framework for the power sector rests mainly on a state-ownership model. Overall, the Ministry of Mineral and Energy (MME) is responsible for the coordination and regulation of minerals and energy development in Botswana. The Department of Energy is the lead policy-making organ in the energy sector. It formulates and coordinates the implementation of the National Energy Policy. The Projects and Energy Development Unit (PEDU) is responsible for implementing electricity mega projects. The Botswana Energy Regulatory Authority (BERA), created in 2017, oversees performance, quality, and economic regulation of energy supply and services. The BPC, a vertically integrated national power utility, is the parastatal responsible for generation, transmission, distribution, and sale of electricity within Botswana to areas approved by MME. The regulator has recently awarded generation licenses to six IPPs for both domestic and export sales. Figure 4.2 illustrates the sector structure.

Botswana's main regulatory instruments guiding the electricity sector are as follows:

- The 1970 Botswana Power Corporation Act established a national utility (BPC).
- The 1973 Electricity Supply Act (amended 2007) established BPC as an integrated monopoly that operates generation, transmission, distribution, and retail. It required that all installations above 25 kilowatts be issued a license. The 2007 amendment allows for liberalization of the electricity sector to allow for private sector participation. A 2016 amendment increased the threshold of installations requiring a license from 25 kilowatts to 100 kilowatts.
- The 2016 Botswana Energy Regulatory Authority Act established the creation of BERA.

FIGURE 4.2 BOTSWANA ELECTRICITY SECTOR STRUCTURE



- The 2005 Environmental Impact Assessment Act (amended in 2011) requires every licensing authority to ensure an authorization has been issued before delivering a license.
- The 2021 Environmental Assessment (Amended) Regulations reduce the turnaround time for assessments and for approval of environmental impact assessments.
- The 2021 National Energy Policy.
- The 2022 Revised National Electricity Standard Connection (NESC) policy for rural household connections.
- The 2020 Integrated Resource Plan (2020–40)
- The 2020 Rooftop Solar Guidelines
- BPC's MASA 2020 transformation strategy established to ensure that BPC becomes financially self-sustaining and provides reliable and affordable access to electricity, with the intention of increasing the renewable energy portion of BPC's energy mix.

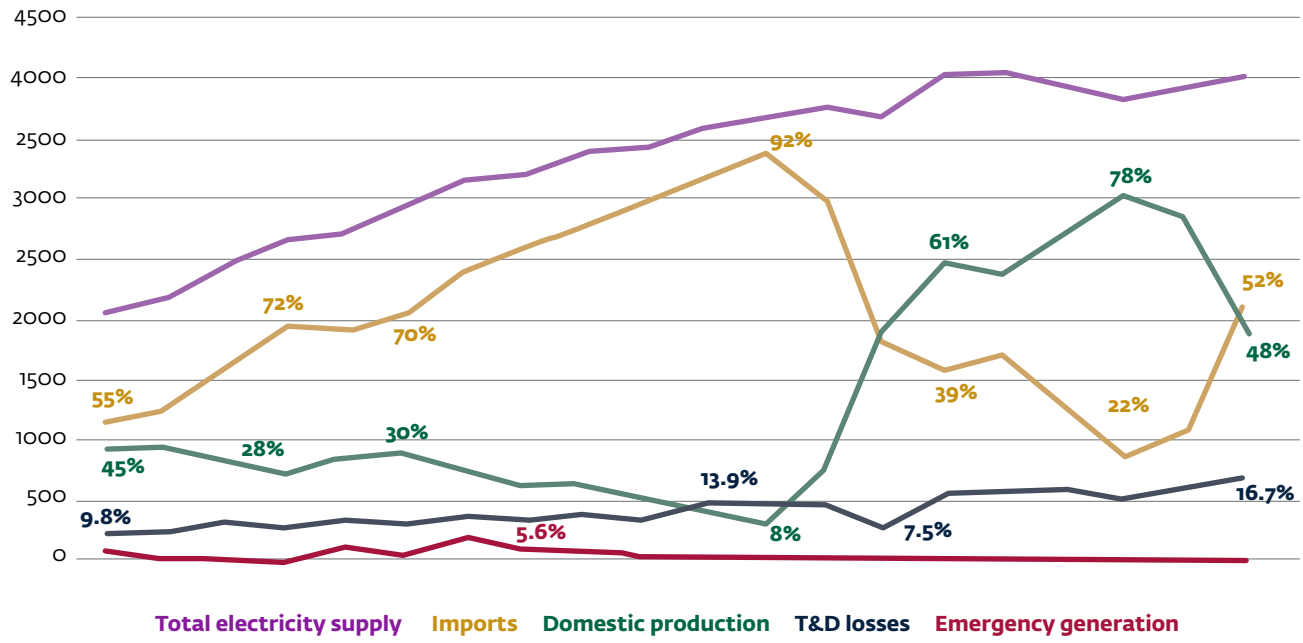
Generation

Botswana's electricity generation industry is growing with tremendous potential. Because of steady population and GDP growth, overall power demand in Botswana has been on the rise and it is expected to grow an additional 4 percent per year during the next decade.[146] The 2020 Integrated Resource Plan (IRP) projects final electricity consumption to increase from about 3.5 terawatt-hour in 2016 to 7.7 terawatt-hour by 2040.

146. Botswana Energy diversification and electrification ASA (ID: P175421), World Bank, 2020

Botswana is highly dependent on electricity imports due to uncertain domestic production. Over the past decade the government of Botswana undertook several projects to boost domestic power generation, the largest of which is Morupule B, completed in 2012. As a result, the share of domestic generation in total power supply rose from 8 percent in 2012 to 78 percent in 2018. Total installed capacity now stands at 893 megawatts (MW) (see figures 4.3 and 4.4 for breakdown). However, domestic generation currently fails to meet the maximum system demand of 610 MW mainly because of the poor performance of Morupule B, which never consistently delivered its intended 600 MW capacity due to construction and equipment defects[147] and is currently undergoing remedial works (2019–23) that have temporarily reduced its output from 71 percent (2019) to 31 percent (2020). This poor performance has meant that, as of 2020, domestic generation had dropped to 48 percent, forcing the BPC to import 52 percent of total power supply from South Africa and Zambia through the Southern African Power Pool.[148] According to the BPC 2021 annual report, the imports reduced to 40 percent of the total power supply in 2021 with Morupule B, Morupule A, and emergency power plants contributing 41 percent, 17 percent, and 2 percent respectively.[149]

FIGURE 4.3 EVOLUTION OF KEY ELECTRICITY SUPPLY INDICATORS



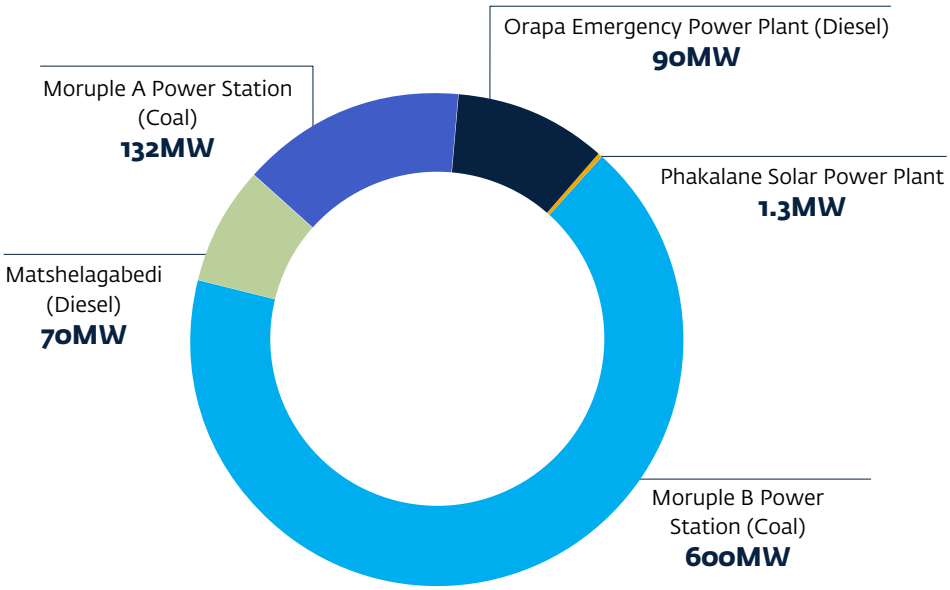
Source: Statistics Botswana, 2021; BPC, 2020, BPC 2015; BPC, 2010, BPC, 2005; BPC, 2001

147. BPC, 2020.

148. UNEP, 2015.

149. BPC, 2021.

FIGURE 4.4 INSTALLED GENERATION CAPACITY (MW)



Source: BPC 2020; BPC 2015; BPC 2011.

This high dependence on electricity imports and diesel usage is costly with regard to foreign currency outflows and it challenges the country's energy security and consistency.[150] The increased dependence on imports and diesel generation as well as operational inefficiencies contributed significantly to a 36 percent increase in BPC's total operating expenditure (BPC 2020), negatively affecting financial performance and placing a burden on the balance of payments and budget. Moreover, the high cost of importing environmental goods and services relevant to the energy sector, such as quality solar materials and services related to their repair and maintenance, presents barriers to moving away from electricity imports and moving toward greater domestic production.

Key growth industries, services, and households suffer from a lack of sustainable, cost-effective, and domestically produced energy. Despite a higher electrification rate than the regional average, most firms in the country are not satisfied with their access to electricity.[151] Interruptions stemming from importing electricity as well as transmission and distribution losses continue to be important barriers to growth because the grid lacks appropriate investment and maintenance. In addition, the high share of fossil fuel–based power in Botswana's energy mix is threatening the international marketability of the country's diamonds.

150. High costs of import are primarily due to the cost of emergency power imports which are very high and tend to be generally procured during peak hours. These imports may be sourced under bilateral arrangements or from the SAPP markets (where historically costs can reach up to USD 17 cents/kWh compared to average cost of power ~USD 0.13 per kWh/ per BPC 2020 annual report).

151. ICT 2019.

In response, Botswana has started significant policy initiatives aimed at enhancing its electricity supply security, reducing dependence on imports and increasing the contribution of renewables. Botswana's power generation capacity is currently dominated by coal power plants (82 percent) and emergency backup diesel power plants (18 percent). The heavy reliance on coal has important negative environmental effects: in 2019, annual carbon dioxide (CO^2) emissions from coal reached 3.98 million tonnes, which is equivalent to nearly 60 percent of total CO^2 by fuel type in the country, up from 1.99 million tonnes in 2010 when coal accounted for 44 percent of total fuel emissions.[152] Even though coalbed methane will continue to play a key role and coal investments will continue—at least in the short term—there is an increasing policy focus on renewables. With abundant sunshine, Botswana has a comparative advantage to produce solar energy and support energy diversification in the region. The government of Botswana plans to increase the contribution of renewables to the total energy supply mix to at least 15 percent by 2030 and 50 percent by 2036 (Vision 2036).[153] The Integrated Resource Plan (2020–40), the National Energy Policy (2021), the Renewable Energy Strategy (2018), the Sustainable Energy Action Agenda (2018), the Rooftop Solar Program (2020), and the Renewable Readiness Assessment (2020) all reflect ambitious targets and plans to increase domestic power supply by increasingly using renewable energy sources. For example, procurements of a 2 X 50-MW solar photovoltaic (PV) power plant and 12 grid-tied solar plants totaling 35 MW are currently at an advanced stage. One of the two 50MW solar PV plants and 6 of the 12 grid-tied solar plants have been awarded, with a total of 5 Power Purchase Agreements signed. The MME has started the bidder prequalification process for 200 MW of concentrated solar power thermal production (CSP).

Access and affordability

Access to reliable and affordable electricity supply continues to be a paramount driver of Botswana's economic and social development. In alignment with the global target, Botswana has made a commitment to achieving universal access to electricity by 2030. Two-thirds of Botswana's households use electricity for lighting (versus other energy sources), one-quarter of households use electricity for cooking, and one-fifth of households use electricity for heating (figure 4.5). 97 percent of public institutions, including rural schools and health centers, have access to electricity, mainly through the grid, followed by solar and diesel systems. However, household access to electricity remains low by international standards and given Botswana's per capita income, at 66 percent of households.[154] Connection rates in rural areas, small towns, and low-income areas of the larger settlements are low as households in such locations generally find grid electricity costs unaffordable, and grid access is particularly low in the northwest region.[155]

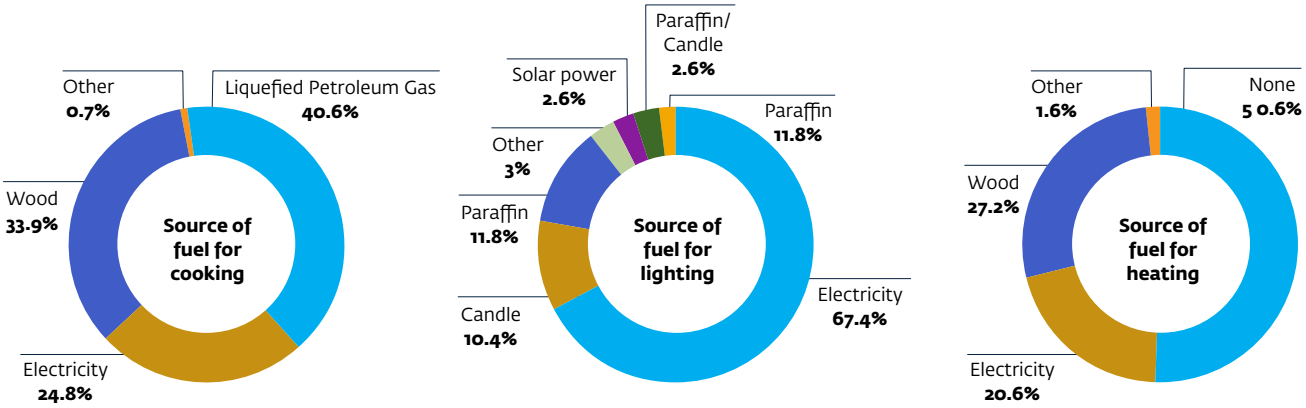
152. Ritchie, Hannah, and Roser, Max. 2021. Botswana: CO2 Country Profile. Our World In Data. org

153. Republic of Botswana, 2021.

154. Sekantsi and Timuno, 2017; Blimpo and Cosgrove-Davies, 2019

155. Agarwal et al., 2018.

FIGURE 4.5 POPULATION USE OF FUEL FOR COOKING, LIGHTING, AND HEATING, BY SOURCE TYPE



Source: Statistics Botswana 2017.

The price of electricity in Botswana of US$0.106 per kilowatt-hour (kWh) is lower than the global average of US$0.135 per kWh,[156] in part because of government subsidies. Botswana's electricity tariff is partially subsidized and thus it is 91.5 percent cost reflective.[157] Increasing-block pricing is applied to domestic customers and small businesses whereby the marginal price increases with customers' average monthly usage. Although the subsidized rates for the first 200 kWh of monthly consumption ensure that nearly every household can afford a basic quantity of electricity, the rates do not have cost bearing and often raise a conflict between efficiency and distributional goals. With renewable generation rapidly expanding across many electricity grids, often as distributed renewable energy sources, the benefits of cross-subsidy transfers under the traditional electricity pricing model (that is, increasing-block pricing and flat rates) risk becoming increasingly socially regressive (that is, taxing the poor more than the wealthy).[158] Similarly, in addition to demand-based tariffs, social welfare may also be improved by considering time-dependent charge pricing, which can incentivize consumers to change their consumption patterns.

156. Valev, 2020; https://www.globalpetrolprices.com

157. BERA quarterly performance report – June 2021

158. Mohammad Ansarin, Yashar Ghiassi-Farrokhfal, Wolfgang Ketter, John Collins; Applied Energy, Volume 275, 1 October 2020, 115317, The economic consequences of electricity tariff design in a renewable energy era.

Despite the government's efforts to subsidize household electricity connections, some households still cannot afford to pay for internal wiring and the subsidized connection cost of BWP 5,000. In 2019, the National Electricity Fund was established with the associated National Electricity Standard Connection (NESC) program, which was financed by a levy of BWP 0.05 per kWh collected by BPC. Through the NESC program, residential customers located within 500 meters of the nearest transformer pay a subsidized standard electricity service connection cost of BWP 5,000 (excluding VAT). In addition, customers have an option to pay the connection fee over six to 18 months with discounted interest rates. In December 2021, the Cabinet approved an amendment to the NESC Scheme to reduce electricity connection fees for low-income households from BWP 5,000 to BWP 2,500 and provide "ready boxes" to address wiring problems for the households that cannot afford internal wiring. This reduced connection fee will be financed through an increase in the electricity consumption levy from BWP 0.05 per kWh to BWP 0.10 per kWh. The Rural Electrification Program and the NESC program have enabled access to clean and affordable energy for many low-income households, leading to improvements in their well-being.[159] However, the Off-Grid Solar Action Plan concluded that the discrepancy between grid availability and access can be attributed to the high cost of both providing and obtaining grid connections.[160]

Rural electrification in Botswana has mainly been done through grid expansion, which is costly in a context of low population density and especially for remote settlements.[161] Some households in villages located far from existing transmission and distribution infrastructure (see Figure 4.6) may never have access to the grid because it may never make economic sense to connect them. The country is sparsely and unevenly populated, with concentrations in the southeastern and eastern parts of the country, near the capital city. These demographic dynamics present challenges in delivering modern energy access and services to the distant rural and sparsely populated areas with low demand and high grid connection costs. However, this dynamic presents opportunities for distributed and off-grid solutions. There is growing evidence that decentralized renewable energy solutions can create value locally for electricity access, employment, and economic growth.[162] The MME is finalizing the guidelines for the Off-Grid Solar Program that was developed based on the Off-Grid Solar Action Plan.

159. Motsholapheko et al., 2018

160. In 2018, the Government of Botswana issued an off-grid solar action plan, supported by funding from the World Bank's Energy Sector Management Assistance Program, that proposes the development of rural electrification projects.

161. Ibid.

162. WRI, 2017; Verma et al., 2019.

FIGURE 4.6 BOTSWANA'S TRANSMISSION GRID

Source: BPC, 2021

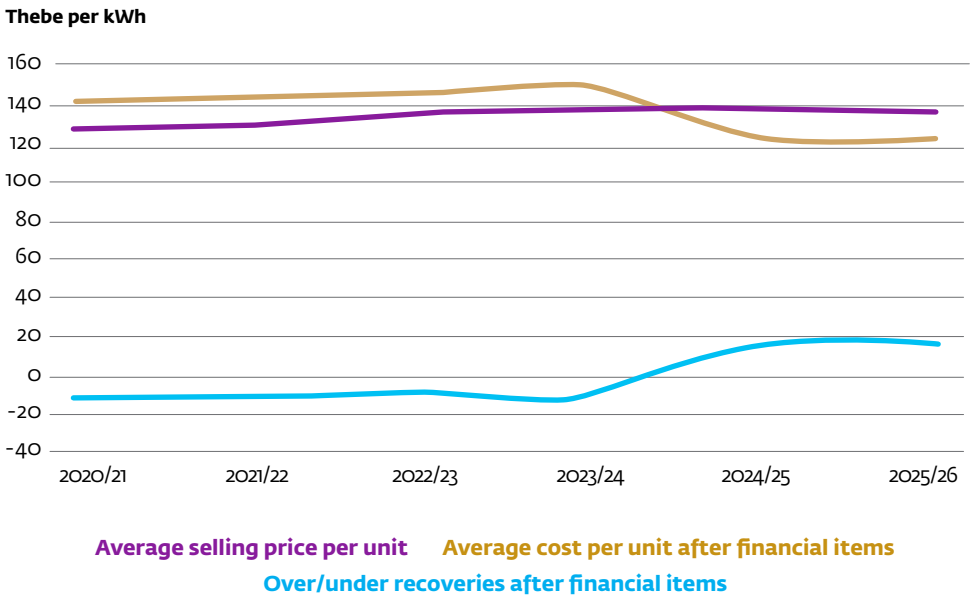
Efficiency and financial performance

BPC has seen poor financial performance, with a net operating loss of BWP 1.4 billion in 2020 and liabilities exceeding assets by BWP 3.4 billion.[163] The reasons for this financial underperformance include non-cost-reflective tariffs, underperformance of the Morupule B power plant that has resulted in high dependence on imported electricity and diesel-based emergency power, and operational inefficiencies throughout the electricity supply chain. BPC's technical and commercial losses are estimated at 15 percent, further aggravating BPC's financial stance and constraining its ability to procure electricity generation from IPPs. Technical and operational inefficiencies, metering and billing errors, and pilferage of electricity also result in system and financial losses for the utility. Notwithstanding the aforesaid, BPC is currently implementing its five-year transformation strategy, Masa 2020, introduced in 2016 to ensure that the corporation becomes financially self-sustaining, and provides reliable and affordable access to electricity. the 2021 BPC annual report records an improvement in the financial performance in 2021 with a net operating loss of BWP 384,134.

163. BPC, 2020

The government of Botswana recognizes that to provide reliable electricity services to all households and businesses it must encourage private investment in the energy sector by allowing electricity tariffs to reflect all costs.[164] In 2020, BERA and BPC initiated a gradual move toward fully cost-reflective tariffs through tariff increases and subsidy reductions. At a BERA public hearing in August 2021, electricity tariffs were projected to reach cost reflectivity by March 2024 (figure 4.7). Initiatives to achieve cost reflectivity include improvements in operational efficiency, further gradual tariff increases, prioritization of distribution and transmission network maintenance, increased internal generation capacity through the Morupule A and Morupule B plants, as well as the lowering of generation costs through the development of renewable energy solutions.

FIGURE 4.7 BPC PROJECTED OVER/UNDER RECOVERY OF COSTS



Source: BPC, 2021

164. Kumar et al., 2018.

COVID-19 impacts

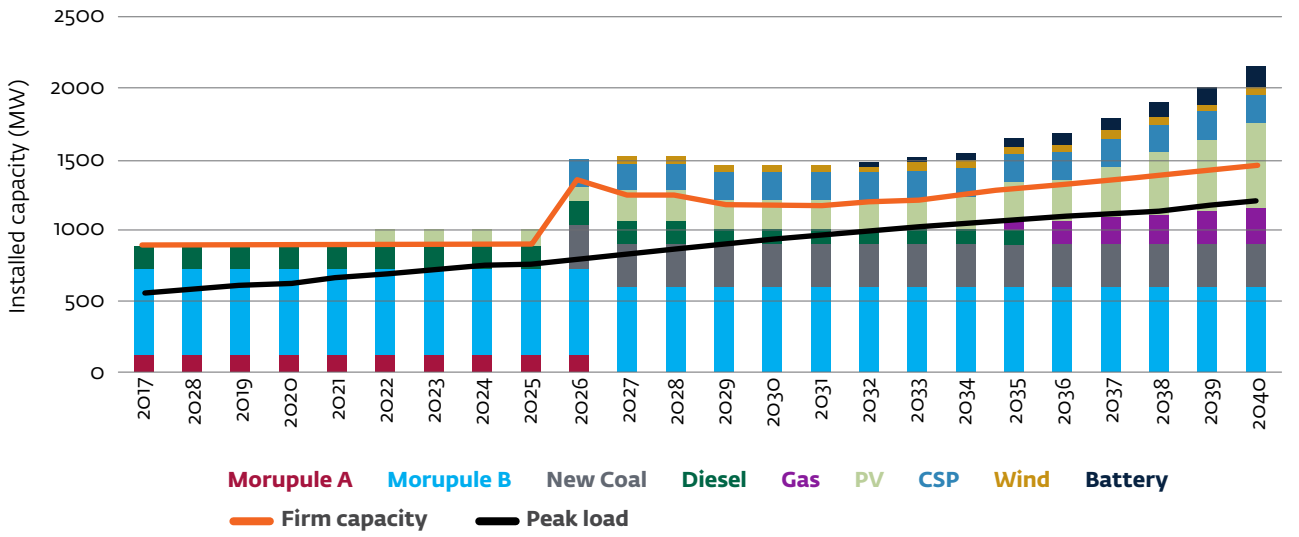
The COVID-19 pandemic triggered demand and supply-side shocks that delayed numerous generation, transmission, and distribution projects. Restrictions introduced to prevent the spread of COVID-19 affected normal management of power system operations. Service delivery was affected because maintenance was not done as expected owing to technical personnel being in isolation and longer (almost double) time frames for delivery of spares. Supply-chain disruptions affected the availability of material for household connections and there were extended forced outages at the Morupule power plant and transmission grid failures. Also, operations of the regulator were affected by lockdown and movements restrictions. Some medium and large industrial electricity users were forced to stop or scale down operations, which resulted in increased customer defaults. Notwithstanding these challenges, the country was able to prevent load shedding to date, though outages due to equipment failures are common.[165]

Opportunities for private investment

Solid opportunities exist for increased private sector participation in Botswana's energy sector, especially in renewable energy generation and stand-alone solar, as well as aspirational opportunities in transmission and distribution.

Generation. There are opportunities for private investment and participation in large-scale generation projects under the 2020 IRP and the Southern Africa Sustainable Mega Solar Program (SMSP). All the new generation capacity projects under the IRP will be implemented through IPPs including 600 MW of solar photovoltaic, 200 MW of concentrated solar power, 50 MW of wind, and 140 MW of battery storage (see Figure 4.8).

FIGURE 4.8 GENERATION CAPACITY, 2017–40



Sources: Botswana IRP, 2020; IRENA, 2021; BPC, 2021.

165. BPC, 2020.

The SMSP—developed by the government of Botswana, the government of Namibia, Power Africa, WBG, and the African Development Bank—aims to build up to 5,000 MW of solar photovoltaic and concentrated solar power capacity over the next 20 years.

Transmission. The private sector can play a vital role in financing, building, operating, and building power transmission lines, as global experiences attest.[166] Expanding and upgrading transmission networks often involves significant capital investment, something that electricity utilities backed with limited public finance are not able to fulfill efficiently on their own. Therefore, private investments are critical to delivering cost-effective power to households and industries. Botswana's transmission sector is not currently open to private sector engagement. Unlike in the generation subsector, in which the government of Botswana has announced that all planned projects will be implemented through the private sector, the planned transmission projects are still fully government-funded and implemented through BPC with no possibility for private investment.[167] Planned transmission projects (such as the Molepolole to Thamaga 132-kilovolt [kV] transmission line) present an opportunity for the government to leverage private financing and implementation. Going forward, the government should consider steps to allow and attract private investment in the country's transmission infrastructure, including setting the appropriate legal and regulatory frameworks and devising policies that support independent power transmission projects (IPTs), potentially through the build, own, operate, and transfer model, depending on the outcomes of the transmission line study.

Stand-alone solar photovoltaic solutions. The Rooftop Solar program, launched in 2020 and running for three years, allows BPC customers to generate electricity for their own consumption and to sell excess to the grid up to a specified limit (35 kW for residential customers, 1 MW for industrial and commercial). Further, the Sustainable Energy for All Action Agenda for Botswana[168] projects that based on current trends, 200,000 households will not have electricity access in 2030, which will bring an opportunity for off-grid and mini-grid solutions to provide electricity to about 15 percent of all households and 37 percent of rural households by 2030. The Off-Grid Solar Program aims to deliver power access to 145,000 households through credit lines managed by the National Development Bank. These initiatives create opportunities for private companies to supply, install, and maintain off-grid solar systems with a potential to scale-up.

166. World Bank Group,2017

167. These projects include the second phase of the North-West Transmission Grid Extension Project, which entails building a 400 kV line from Phokoje to Dukwi, a 400/132 kV substation at Dukwi, a 400 kV line from Dukwi to Pandamatenga, and a 400/330/220/132 kV substation at Pandamatenga.

168. Sustainable Energy for All, 2021, https://www.se4all-africa.org/seforall-in-africa/country-data/botswana/

Constraints on private investment

Despite the government of Botswana's interest in increasing private sector participation to relieve electricity supply constraints, results thus far have been disappointing. Since 1985, energy sector developments have been guided by the Botswana Energy Master Plan, which was reviewed in 1996 and 2002. The National Energy Policy was developed in August 2008 but because of extensive consultations and revisions it was not adopted by parliament until April 2021. As a result, for about 15 years, between the end of the Botswana Energy Master Plan and approval of the National Energy Policy, energy sector development progressed without any overarching guiding instrument. This situation dampened investor confidence because there was no assurance from the government on the developmental direction of the energy sector. BERA has recently awarded generation licenses to six IPPs for both domestic and export sales,[169] but none of those IPPs are operational yet mainly because of significant institutional, regulatory, financial, and risk mitigation challenges. Each major constraint on private investment in Botswana's electricity sector is discussed in the following sections.

High perceived investment risk in the power generation subsector. Given the financial sustainability concerns of the off-taker, and while sector reform is ongoing, providing sufficient comfort and visibility to the private sector is essential to attract quality, competitive bidding to the IPP process while strengthening BPC financial sustainability. The progress recorded so far is not yet commensurate to significantly reduce the perceived investment risk in the power generation subsector. A clear path to commercial viability of the BPC with tariff reform; an independent regulator for tariff setting; independent governance; demonstration of viable operation; and the potential issuance of improved independent, stand-alone long-term credit ratings and bonds would provide a longer-term basis to look at future structures that can attract financing with reduced government support. However, in the short to medium term, government support (such as guarantees to cover liquidity and termination payments) can help to attract quality competition between bidders, entice larger more experienced IPP sponsors whose economies of scale can profitably accommodate lower costs of production, leading to lower tariffs. This is turn can help strengthen the financial sustainability of BPC, as observed in other countries on the continent through the deployment of sustainable and bankable procurement programs, for example, the World Bank Group's scaling solar program that has been successful in reducing upfront development risks and driving down tariffs in Zambia and Senegal, among others.

Unreliable transmission infrastructure. The utility is facing major power supply disruptions caused by maintenance backlogs, aging infrastructure, and network overloads.[170]

169. The licenses are for 10 MW of coalbed methane natural gas (CMN) for Tlou Energy, 3 MW of solar PV for Bobonong, 1 MW of solar PV for Shakawe, 285 MW of coal for Sese Power (export); 150 MW of coal and 450 of solar PV for Energy & Natural Resource Corporation (export), and 100 MW of solar PV for Coal Petroleum (export).

170. BPC, 2020.

Insufficient institutional capacity. There is inadequate regulatory capacity with regard to the level of skills and number of personnel in key functional areas. An independent assessment of BERA found that it was severely understaffed, with only 41 out of 91 planned positions filled, and 29 of those being support staff. This insufficient capacity delays the development of regulatory instruments[171] to facilitate investment in energy infrastructure. Further, even though Botswana is currently at an advanced stage of procuring the 100-MW solar power plants and the 35-MW (12 grid-tied) solar power plants, it does not have a track record of procuring and implementing large-scale renewable energy projects and IPPs.

The regulator has insufficient financial and policy independence. BERA is still a nascent regulator, operating for less than five years. Although it is the final decision maker in licensing, it is not the final decision maker on tariffs. International experience shows that licensing, tariff determination, and conflict resolution should be handled solely by the regulator without interference by other parts of government. Regulator independence, accountability, and transparency give investors and industry players confidence in the regulator.[173]

Inadequate renewable energy frameworks. A lack of specific renewable energy regulatory frameworks—such as grid access provisions for renewable energy producers and a simplified licensing framework specifically for off-grid systems—stifles private sector participation in renewable electricity generation. Botswana has neither a network connection policy nor a national transmission grid code to govern the development, operation, maintenance, and use of the national transmission system; it also does not have regulatory mechanisms for ancillary service pricing. Currently, the African Development Bank (AfDB) is supporting the review of the regulatory framework for IRP implementation and Licensing Framework as well as the development of Grid Code, Cost of Service Study and Tariff Framework though the Sustainable Energy Fund for Africa (SEFA) grant.

Weak local supply chains for renewable energy. Currently, local companies lack the capacity to take advantage of opportunities in the design, manufacture, installation, and maintenance of renewable energy systems and their component parts, particularly solar. Stronger local supply chains for renewable energy could drive cost efficiencies in the sector and create jobs in the country.

Limited funding to implement Off-Grid Solar Action Plan. The required funds to deliver the Off-Grid Solar Action Plan's objective of off-grid solar access for 145,000 households over five years using pay-as-you-go systems are estimated to be US$50 million. The plan initially recommended a PPP model but noted that Botswana's small serviceable off-grid population limits the scope for competition within the market. Because of the previously noted challenges, it was decided that the Department of Energy should lead the program's implementation. Instead of contributing investment, the role of the private sector is thus limited to supplying, installing, and maintaining the solar systems. The government of Botswana has thus far availed about 10 percent of the estimated cost and the Department of Energy is seeking additional financing to roll out the program.

171. Power Africa, 2019

172. Currently, BERA has completed the development enforcement guidelines, net metering rules, tariff review methodology, performance monitoring framework with key performance indicators, and guidelines for power purchase agreements for guiding BPC and investors. The regulator is finalizing the development of licensing guidelines.

173. AfDB, 2020

Recommendations

Review institutional mandates and sector planning

1. **Fast-track the completion of instruments to facilitate investment in energy infrastructure development, including IPP licensing, and in procurement guidelines and processes.** As the government moves on its plans for a greener generation mix, procurement focus should be on capitalizing on the most cost-effective technologies that are quick and scalable.

2. **Review governance and independence of the regulator, BERA.** A short- to medium-term objective should be to implement BERA's full independence from the government to give investors and industry players confidence in the regulator. This would include, among others, moving its dependence on government subvention to a sustainable and independent model of revenues from fees and levies as well as making BERA the final decision maker in tariff determination.

3. **Enhance BERA's institutional capacity including skills of and number of personnel in key functional areas to reduce the backlog of regulatory instruments to be developed.** Consider secondment of experienced technocrats (in key functional areas) to BERA to speedily capacitate it to handle the pipeline of IRP projects.

4. **Enhance PEDU project management and process efficiency.** The PEDU under the MME should receive institutional, technical, and legal capacity building[174] to further strengthen its capacity to implement large electricity infrastructure projects including all projects under the IRP future projects to be supported under the Mega Solar initiative. In the medium term, the PEDU should be transformed into a full-fledged IPP office.

Develop network connection policy and undertake grid integration analysis for IRP implementation

5. **Develop a network connection policy and a national transmission grid code to govern the development, operation, maintenance, and use of the national transmission network as well as the regulatory mechanisms for ancillary service pricing.** The grid code should be conducive for variable renewable power and provide transparency in access to the grid by IPPs.

6. **Undertake grid integration and stability studies to inform the implementation and update of the IRP and advise on required grid reinforcements.** The studies would reveal how much intermittency the grid can handle, which would inform dispatch strategies and grid investment requirements based on the planned IRP project to ensure stability.

174. The World Bank is implementing a Sustainable Renewable Risk Mitigation Initiative in partnership with the Green Climate Fund to support the government of Botswana and other governments to leverage renewable energy private investments in optimized conditions, reduce reliance on public finance, and maximize the socioeconomic benefits.

Revise the tariff-setting structure

7. **Review the tariff structure to be incentive-based and to reflect the temporal profile of consumption.** A cost-of-service analysis should be undertaken to advise on cost allocation and tariff design. Time-of-use tariffs, for example, can unlock demand-side flexibility and thereby help to increase the penetration of renewable energy.

Develop a risk-mitigation strategy and supporting instruments to attract and mobilize private sector investment

8. **Address bankability risks such as currency risk, off-taker recurring payment risk, political risk, and early termination risk.** The government of Botswana should avail itself of the full spectrum of risk-mitigation instruments to attract private participation in the energy sector, including providing government guarantee that an obligation will be satisfied if the primary obligor defaults.[175]

    a. Stimulate local currency lending to provide competitive financing to mitigate foreign exchange risk and to facilitate the involvement of local developers. The tariff on the power purchase agreement should be indexed to the local inflation rate as well as to the hard currency. The tariff might also be structured to include both the local foreign currency components.

Develop strong policy and implementation measures in support of a renewable energy strategy

9. **Perform geospatial analysis for the IRP renewable energy projects to minimize delays and reduce costs in the procurement phase.** Performing location-specific pre-feasibility studies of IRP projects would enable proper planning and help reduce delays during the procurement phase.

10. **Review the Rural Electrification Program to include cost-effective, off-grid renewable energy solutions such as mini-grids and solar home systems to service distant rural and sparsely populated off-grid areas with very low consumption and to reduce the costs of electrification through grid expansion.** Rural electrification strategies and activities should be consolidated and integrated into a single, comprehensive document with incentives for private mini-grid operators in rural areas with sufficient density.

175. A sovereign guarantee is usually seen as the strongest commitment by investors to make projects with high-risk perceptions and weak off-taker bankable. Although these guarantees should not be extended in a routine manner because they affect government balance sheets and constitute costs themselves, neither should they be ruled out a priori as that deprives the government of an important tool to bring critical infrastructure projects to financial close. Rather, they should be applied on a case-by-case basis, grounded in a solid rational and cost-benefit analysis. As an alternative, governments may also issue "letters of comfort" or "letters of support" that are not a formal guarantee but can be tailor-made to provide strong commitments that can be legally enforced, especially when reviewed by an attorney general. Other multilateral investment risk-mitigation instruments can also be considered. For example, MIGA political risk insurance (PRI) products protect investments against noncommercial risks (including expropriation, breach of contract, transfer restriction, and loss due to war and civil disturbance), which can help governments unlock additional private investment through improved risk-mitigation terms and conditions. In infrastructure sectors, MIGA PRI products can provide protection against losses arising from a government's breach or repudiation of a contract (for example, a concession or a power purchase agreement) with an investor. In certain circumstances, coverage may be extended to the contractual obligations of state-owned enterprises (such as a utility or off-taker). In addition, in certain eligible countries, MIGA can provide credit enhancements in the form of "non-honoring of sovereign financial obligations by a host government" (NHSFO product) and "non-honoring of financial obligations by a state-owned enterprise" (NHSOE).

11. **Formulate incentives and local content rules to facilitate the domestic investment and firms' learning by doing in the renewable energy supply chain.** A simplified licensing framework for off-grid systems, local content rules (as per the Citizen Economic Empowerment Policy and the Economic Diversification Drive Policy), and a program to certify solar system components against acceptable quality standards could help spur domestic private sector involvement in the design, manufacture, installation, and maintenance of renewable energy systems and their component parts.

12. **Provide financial and technical support for local solar companies, coupled with consumer awareness building of pay-as-you-go technology, to support rollout of solar home systems.** MME could work with development partners to support this under its planned Off-Grid Solar Program.[176]

13. **Fast-track the implementation of the Off-Grid Solar Program to ensure that the country achieves universal access by 2030.** The government adopted the Off-Grid Solar Action Plan in 2018 but it has not been implemented. So far, the government has allocated only about 10 percent of the required US$50 million; significant private sector investment and grant assistance are needed to ensure affordable access to the planned 145,000 households and the remaining unelectrified public institutions (3 percent).

176. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Aug/IRENA_RRA_Botswana_2021.pdf

4.3 WATER AND SANITATION SECTOR ASSESSMENT

Context

Despite the government of Botswana showing commitment to increasing long-term water security, the country is one of four Southern African nations forecast to become highly water stressed by 2040.[177] Botswana's hydrology presents formidable water resource challenges. The country is located on semi-arid terrain, and its low, variable, and unevenly distributed rainfall fuels chronic droughts that are increasing in severity due to climate change. The local water supply is not enough to meet domestic demand, and part of it is imported from South Africa. Most villages depend on groundwater for their supply needs; however, groundwater recharge is extremely limited and surface water resources serve as the main water supply for urban areas.[178] In 2020, supply from surface water was expected to rise to 57 percent of consumption, with the Limpopo and Zambezi rivers viewed as potential sources to meet the country's future water needs. The main threats to water resources are overexploitation and pollution; the major sources of pollution are industrial and domestic effluent from settlements, human waste from pit latrines, and waste disposal on dam catchment areas and shallow aquifers.

177. The Water Resources Institute indicates that water stress levels for Botswana, Lesotho, Namibia, and South Africa will reach levels between 40 and 80 percent by 2040. See Luo et al., 2015; Figure 3; Maddocks et al., 2015.

178. WUC main supply sources are as follows: dam water (56.6 percent), groundwater (41.6 percent), and river water (1.8 percent). Department of Water Affairs, 2017.

Botswana has clear policy objectives for its water sector and it provides water and sanitation services through the Water Utilities Corporation (WUC). Approved in 2016, the Botswana National Water Policy sets the nation's water and sanitation objectives, principles, and strategies and provides a framework to coordinate actions in pursuit of national objectives (see box 4.1).[179] WUC is responsible for sewage infrastructure, wastewater treatment plants, and on-site sewage system emptying services, and it must comply with water standards defined by the Botswana Bureau of Standards.[180] Apart from WUC, some large water users (such as mining companies) operate on private water supplies. Moreover, some settlements are served by mobile water tanks, and many households have installed storage tanks and purchase water from private water vendors.[181] Private companies also provide services across the sanitation value chain, including construction of on-site sanitation facilities, and emptying and transport services.[182]

BOX 4.1 BOTSWANA'S NATIONAL WATER POLICY OBJECTIVES

Botswana's National Water Policy has 32 specific objectives across 11 focus areas. The overall themes include the following:

- **Water for growth:** Ensure equitable and efficient application of the nation's water resources to achieve sustainable economic growth, development, and diversification. Promote integrated planning and development to maximize economic benefits from water usage.
- **Water demand management and conservation:** Ensure the conservation, protection, and efficient use of Botswana's water resources.
- **Domestic water supply and sanitation:** Accelerate access to safe, affordable, and reliable water and sanitation services to all in Botswana. Ensure the financial sustainability of services, promote social equity in access to services, and increase water reuse and other alternative water sources.
- **Water for environment and tourism:** Ensure water resources are managed sustainably and protect the quantity and quality of natural water resources.
- **Water for agriculture, mining, industry, and energy:** Ensure water of sufficient quantity and quality is available to support the sustainable development of economic sectors.

179. According to the Botswana National Water Policy, as approved by the National Assembly in 2016.

180. The Botswana Bureau of Standards is tasked with preparing standard BOS93:2012, which sets the wastewater, physical, microbiological, and chemical requirement standards, and standard BOS32:2015, which sets the drinking water specification standards.

181. World Bank, 2017.

182. For example, Skip Hire, Flexi Waste, and Multi Waste provide on-site sanitation facilities and fecal sludge collection and haulage services. These private operators transport fecal sludge to WUC's wastewater treatment plants.

Challenges to the sector

Climate change is the largest threat to water reliability in Botswana. Climate change has already exacerbated Botswana's water scarcity. WUC relies on nine dams, river abstraction,[183] and approximately 900 boreholes to deliver water to its customers.[184] During the 2015 drought, Botswana's dam levels fell below 20 percent capacity, with the Gaborone dam recording a dam level of 1.6 percent of capacity on June 15, 2015.[185] Although rainfall restored dam levels to 68 percent capacity by March 2020, climate projections suggest Botswana could again experience severe droughts like that of 2015.[186] Groundwater availability is also impaired by low recharge rates with boreholes that have dried or become saline and rivers that have run dry due to high evaporation rates.[187] Lower rainfall and high levels of evaporation could mean lower flows in the transboundary rivers Botswana relies on, such as the Zambezi, Limpopo, and Orange, and that could complicate negotiations for water allocation with other riparian states.

WUC's infrastructure requires extensive upgrading and replacements after years of underinvestment and poor maintenance. Poorly maintained systems threaten water supply reliability through system breakdowns that lead to water interruptions and shortages. WUC has a relatively high level of physical losses (27 percent),[188] which are typically the result of deteriorating infrastructure, particularly leaking pipes, and a lack of proactive leak detection and repair. Poorly maintained sewer pipes and sanitation facilities can also contaminate groundwater thereby affecting water supply sources.[189] By 2018, 75 percent of WUC boreholes had exceeded their design life by 10 years. Although WUC started a replacement campaign in 2016, its target to rehabilitate three to five boreholes per month means it would take 10 years to rehabilitate over 600 boreholes.[190] Moreover, WUC's transmission and distribution networks are deficient, as signaled by 27 percent water loss in 2017, which further highlights WUC's weak infrastructure.[191]

183. Abstraction is the process of water extraction from any natural source either permanently or temporarily.

184. Water Utilities Corporation, 2019.

185. Botswana Environment Statistics 2016, Statistics Botswana, 2017

186. World Bank Group, 2021.

187. In 2015, dry boreholes forced WUC to serve over 20 settlements by water bowsers, resulting in many households having to purchase water from private vendors. High river evaporation rates have also been a factor—in 2015–16, the drying up of the Thamalakane River plunged Maun and the surrounding areas into an unprecedented water supply crisis. Water Utilities Corporation, 2016.

188. Physical or "real" losses describe water lost from leaks, system-wide and storage overflows, and bursts. See Kingdom et al., 2006, and WUC Rapid Assessment of Scope of Non-Revenue Water Reduction Program, 2017.

189. See Masindi and Foteinis, 2021.

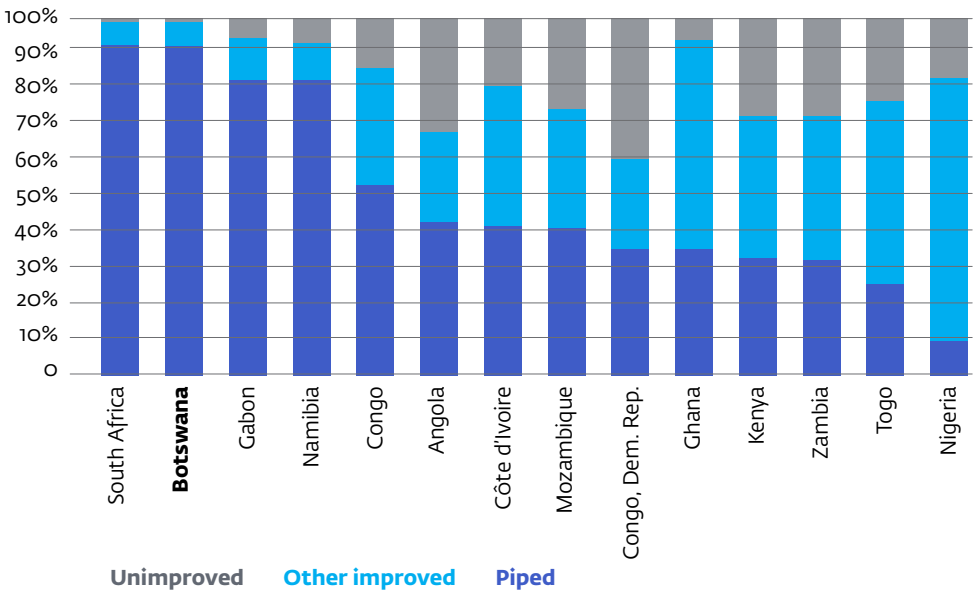
190. Water Utilities Corporation, 2019.

191. WUC Rapid Assessment Scope of Non-Revenue Water Reduction Program, 2017.

Performance challenges

Compared with regional neighbors, Botswana fares well in terms of access to water and sanitation services but service gaps persist. Botswana boasts 97 percent access to improved water sources and 91 percent of households receive water from a piped network.[192] [193] Alongside South Africa, Botswana is among the best performing African countries with regard to water access (see figure 4.9) but lags behind in sewer access: 72 percent of the population has access to improved sanitation but only 14 percent has access to sewers. Water rationing arrangements are also an issue, with water supply limited to eight hours per day, three days a week in many parts of the country[194] and lead many households with a piped connection to revert to alternative sources, such as mobile water tanks. Ten percent of the population defecates in the open, and 4 percent uses unimproved sanitation facilities. A service gap also persists in wastewater treatment services. Approximately 37 million cubic meters (m^3) of wastewater is collected and treated per year, which is roughly 60 percent of total water sold, however some current wastewater treatment plants and sludge disposal facilities do not comply with quality service standards, which places water sources at risk of pollution.

FIGURE 4.9 ACCESS TO WATER SUPPLIES: REGIONAL COMPARISON, 2020[195]



Source: Joint Monitoring Programme (JMP). https://washdata.org/. 2020

192. Joint Monitoring Programme, 2020. https://washdata.org/

193. Improved sanitation facilities include flush and pour flush toilets or latrines connected to septic tanks or pits, ventilated pit latrines, pit latrines with slabs, and composting toilets. Unimproved facilities include pit latrines without slabs, hanging latrines, and bucket latrines.

194. World Bank, 2017.

195. Percentage distribution of the population accessing piped, improved, and unimproved sources for water supply. Piped and improved sources include tap water in the dwelling, yard, and public stand posts. Drinking water from other improved sources includes boreholes, protected wells and springs, rainwater, packaged water (bottled and sachet), and delivered water from trucks. Drinking water from unimproved facilities includes unprotected wells and springs.

A burdened public water utility faces increasing challenges. Botswana has achieved significant progress in the provision of safe water. However, droughts, increases in demand, and climate change are stressing existing water sources.[196] At the same time, WUC has been experiencing increasing challenges in water supply and distribution since the reform of the sector in 2009 that saw an expansion of the utility's mandate from just urban areas to the entire country. These reforms transferred rural water infrastructure to WUC that had been heavily subsidized by the government and in need of repairs and upgrading. As a result, operational and financial indicators have deteriorated and attempts to contain costs have come at the expense of water infrastructure maintenance. Moreover, government measures to curb the COVID-19 pandemic will further affect WUC's finances.

WUC's revenue does not cover its operating costs, which leaves no funds for new investment. WUC's nonrevenue water (NRW)[197] was 39 percent in 2017, lagging behind best regional performers, which have levels of 20 percent or less (see figure 4.10).[198] A source of this challenge is highlighted by an operating cost recovery ratio equal to 0.93[199] in fiscal 2019/20, which means that WUC cannot cover day-to-day operation and maintenance costs alongside capital costs.[200] WUC relies on the government for operating subsidies, receiving BWP 147,420,000 (US$13 million) in revenue grants to compensate its operating losses of BWP 105,964,000 (US$9 million). Furthermore, its ability to collect customer water bills is estimated at 79 percent compared with better performing utilities with rates at or above 95 percent. Limited government resources also contribute to the shortfall. In 2017–18, WUC requested nearly BWP 5 billion (US$455 million) for capital investments. However, that year the Ministry of Land Management, Water and Sanitation's capital budget allocation was just BWP 2.8 billion (US$254 million) across all portfolio responsibilities,[201] which left little room for new investment, and capped WUC's capacity to access debt.

196. Ibid.

197. NRW is the volume of unbilled water put into supply. This includes losses made up of unauthorized consumption and metering inaccuracies and physical losses that include leakage of transmission and distribution mains, leakage and overflows of a utility's storage tanks, and leakage of service connections up to measurement point.

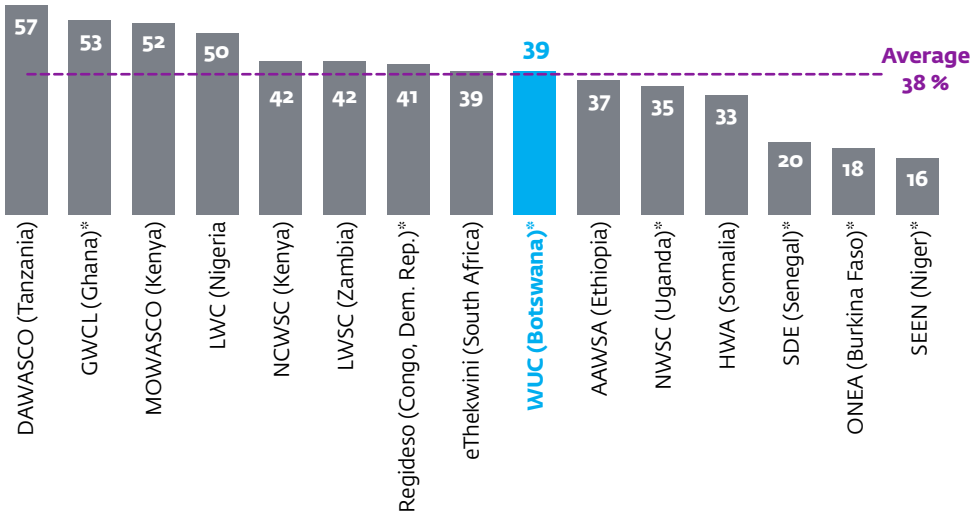
198. WUC lags behind Senegal's La Sénégalaise des eaux (SDE) and Burkina Faso's Office National de l'Eau et de l'Assainissement (ONEA). Both are national utilities serving urban areas.

199. This is measured as revenue divided by operating costs including depreciation and amortization.

200. A minimum operating cost recovery ratio of 1.2 is needed to cover day-to-day operation and maintenance costs and some capital costs. In fiscal 2019/20, WUC reported BWP 1,825,430 of revenue from contracts with customers, and BWP 1,955,370 of total operating expenses.

201. Soppe et al., 2017.

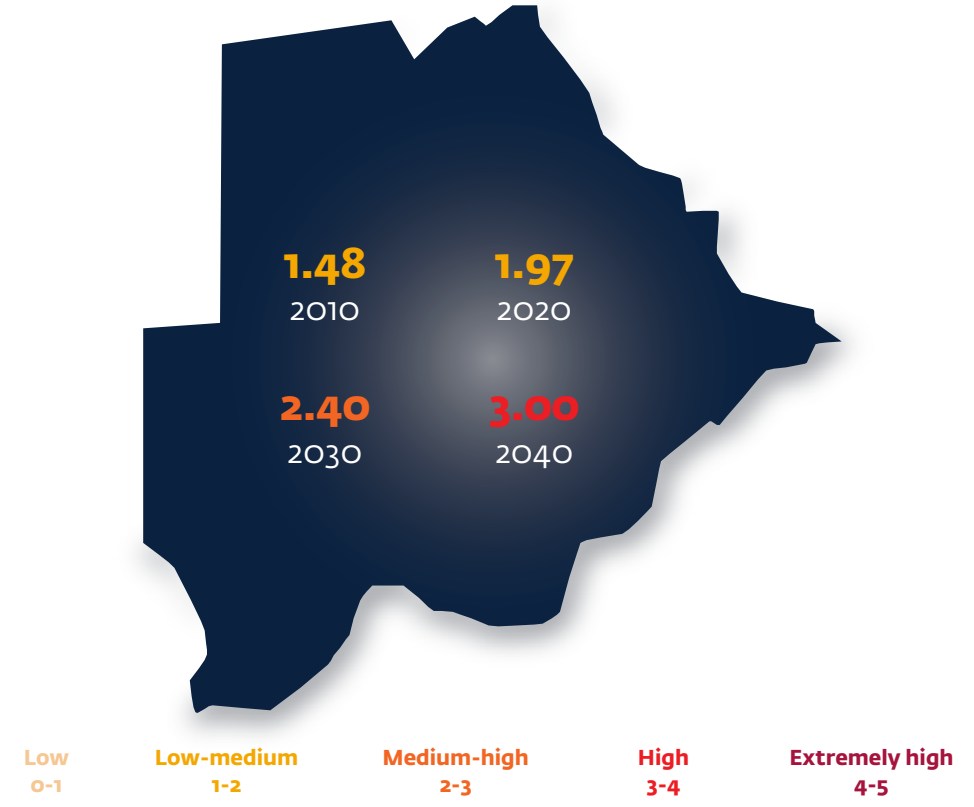
FIGURE 4.10 PERCENTAGE OF NONREVENUE WATER



*national utility

Table 1, Appendix A shows yearly available data for each utility

FIGURE 4.11 WATER STRESS IN BOTSWANA, 2010 TO 2040



Source: Maddocks et al., 2015

The COVID-19 pandemic has also impacted WUC's efforts to increase revenues, at least in the short term. The government forbade any disconnections for nonpayment and forced WUC to reconnect all customers disconnected for nonpayment. In January 2022, however, this temporary order was lifted and WUC again has the power to remove customer supply for nonpayment and institute legal actions for accounts that remain outstanding for more than 60 days after disconnection. Revenues from government accounts are also significant and improving public sector collection rates is relevant in making WUC financially sustainable. As government users pay much higher rates per cubic meter of water than commercial and household users, this is both an indirect subsidy to WUC and a significant liability when those government users are behind on their payments to WUC. In fiscal 2018/19, government users' corporate debt to WUC represented 22 percent of WUC's total uncollected fees.

Not enough water is treated to standard, with the ensuing pollution threatening water sources, the environment, and human health. Many people in rural areas rely on direct abstraction from untreated water sources and therefore can be exposed to water-borne diseases such as cholera. Moreover, water pollution can harm aquatic organisms and reduce ecosystem sustainability. Less than 50 percent of wastewater is treated and indeed some boreholes have been abandoned because of fecal contamination.[202] Ridding groundwater of contaminants is difficult and costly. Once polluted, an aquifer may remain unusable for decades.[203] Insufficient wastewater treatment infrastructure compliance standards contribute to these problems. One example is Mambo's wastewater treatment plant (WWTP), which does not meet standard 93 of the Botswana Bureau of Standards. The flow of the Tati River, into which the Mambo WWTP discharges, is seasonal and the effluent discharged during the dry season can cause local contamination and pollute an essential water supply dam (Dikgatlhong).[204] Pollutants affecting water sources include chemicals discharged from pastoral and arable farming and from mines. Those pollutants end up in water sources, reducing their quality, contaminating soil, and degrading ecosystems.

WUC faces institutional and financial barriers to realize water efficiency enhancing opportunities. WUC's financial constraints include a lack of public financing for investments and an inability to internally generate sufficient financial resources. WUC's revenue might be insufficient to repay performance-based contracts. Also, public finance to implement such projects falls far short of needs. Institutional constraints include a lack of specialized expertise needed for effective loss network management, difficulties in enforcing bill payments, and difficulties in creating strong performance incentives in a public sector environment.

202. Opelo and Little, 2004.

203. Denchak, 2018.

204. World Bank, 2017.

Impact of water and sanitation sector challenges on the private sector

Agriculture, mining, and tourism all face poor output risks because of inadequate water supply. Agriculture is the most vulnerable sector to inadequate water supply as it consumes approximately 50 percent of water supply.[205] Climate variability adds to the challenge, in particular because only a small proportion of land is under irrigation.[206] This concern further risks a repeat of the 2015 drought in which cereal crop production declined by 70 percent and livestock mortality increased by 20 percent.[207] The mining sector, which accounts for 15 percent of GDP, is the third-largest water consumer in Botswana.[208] Expected increases in coal production are likely to add additional pressures on water supply given the sector's notoriously water-intensive processes. The 2020 IRP approved 300-MW coal power plants by 2026, out of a total of 795 MW of new generation capacity. Indeed, mining companies, such as Debswana, have begun implementing water savings and efficiency programs, including wastewater reuse projects. Botswana's most important service sector—tourism—relies on the availability of water and depends on the country's natural resource base. In 2015 and 2016, droughts caused a decline in nature-based tourism because of ecosystem degradation and shifts in wildlife locations. Like the mining sector, many private hotels, lodges, and campsites within national parks and game reserves also self-provide water and sanitation services.

Further, there is no blanket mandate for public or private customers to be connected to sewer systems within a specified distance to premises. WUC has fewer than 100,000 sewer connections—one-quarter of all water supply connections—which makes it difficult for private firms across many sectors to engage in basic business activities. As an enabling sector, a lack of quality basic water and sanitation infrastructure has knock-on effects on the broader private sector, increasing the cost of doing business. For example, many mineral deposits central to the mining industry are not found close to groundwater resources, which places on firms the burden of the cost to develop their own water supply lines for mineral production.[209] Moreover, coal, diamond, nickel, and copper subsectors obtain 75 to 85 percent of their water through private groundwater abstraction; overabstraction increases climate vulnerability in these areas and it can lead to exhaustion of underground aquifers and a reduction in water availability for local communities.[210]

205. Department of Water Affairs, 2017.

206. World Bank, 2017.

207. The livestock subsector accounts for 66 percent of agricultural water use. World Bank, 2017.

208. In 2019, mining's share of Botswana's GDP was 15.2 percent. Mining's water consumption share is third after agriculture and domestic consumption. Statistics Botswana, 2020; Department of Water Affairs, 2017. Centre for Applied Research and Department of Water Affairs, 2014

209. WAVES, 2015.

210. See UNDP, 2012; Qiu, 2013.

Finally, a lack of quality wastewater services limits cost-saving opportunities for private sector users. In some cities, WUC collects wastewater, but treatment and sludge disposal do not comply with national standards.[211] For example, in Lobatse, wastewater is collected by sewer and fecal sludge by truck, but wastewater treatment does not comply with effluent quality standards, and sludge from the treatment plant is disposed of in landfills. Mines, golf courses, and other businesses have expressed interest in using treated effluent if WUC can guarantee compliance with quality standards.[212] Moreover, the health and environmental benefits of wastewater treatment mean that even when customers are reluctant to pay the total service cost, there is still a policy rationale for publicly funded wastewater services.

Modalities for leveraging the private sector and constraints to private sector participation

Performance-based contracts for nonrevenue water reduction, collections, and energy efficiency

WUC could use performance-based contracts (PBCs) to leverage specialized private firms to fill gaps in service and efficiency. PBCs allow public utilities to contract with private firms on an output basis rather than payment based simply on activities or inputs performed or provided. To justify the risk taken on by the private firm, the public utility provides sufficient flexibility and resources to carry out output-based tasks.[213] Examples from Armenia, Brazil, and South Africa (see box 4.2) show that PBCs can successfully improve public water utility efficiency and service by

- **Reducing NRW** through pipe and valve renewal, pressure regulation, leak detection and repair, and detection and regularization of illegal connections[214]
- **Increasing collection rates** by improving the commercial systems database, customer identification, and debt collection
- **Improving energy efficiency and generating more energy** for domestic consumption by replacing pumps, optimizing storage, producing biogas (from sludge treatment), using solar panels for energy production, and improving wastewater collection and treatment

211. Standard 93.2012 of the Botswana Bureau of Standards sets the requirements for physical, microbiological, and chemical limits for wastewater discharged into sewers, watercourses, and the open environment.

212. World Bank, 2017.

213. Kingdom et al., 2006.

214. Currently, WUC's service standards allow water disconnection for nonpayment. See Water Utilities Corporation, n.d.

BOX 4.2 PERFORMANCE-BASED CONTRACTS HAVE A SUCCESSFUL GLOBAL TRACK RECORD: EXAMPLES FROM ARMENIA, BRAZIL, AND SOUTH AFRICA

WUC's institutional constraints include a lack of specialized expertise needed to prepare and track PBCs for NRW, collection, and energy efficiency. WUC needs baseline data available and technical knowledge to define realistic objectives. Also, WUC needs capacity to track and evaluate the PBC once implemented. WUC also has difficulties in enforcing bill payment, and difficulties in creating strong performance incentives in a public sector environment. Procurement legislation might be an obstacle, either for the procurement process itself or to select PBCs as an option. Procurement procedures involve various entities that require compulsory preliminary assessment and administrative authorizations.

In South Africa, the municipality covering the townships of Sebokeng and Evaton launched a PBC to regulate off-peak pressure. A private contractor invested US$500,000 to save 50 million m^3 of water over five years and 14,250 MW of energy per year, with a return on investment in less than two years.[a]

In Armenia, the public utility Yerevan entered a five-year PBC with private capital investment of US$24 million.[b] The PBC increased daily hours of service from six to 18, the collection rate improved from 20 to 80 percent, and electricity consumption decreased by 30 percent. The payback period for energy efficiency investments was 3.5 years.

Similarly, in São Paulo, a PBC increased revenue by US$72 million over three years, of which the utility kept 75 percent and collected an additional US$43 million from customers' bad debts over the contract's three years.[c]

[a] Janssens et al., 2018.

[b] The entire cost of the project was US$28.9 million, including capital investment, management contract fees, and operator bonuses.

[c] Kingdom et al., 2006.

By making improvements in those areas, PBCs can help to enhance supply-side efficiencies in Botswana's water-market equivalent to increasing water resources by 37 million m^3 per year.[215] In particular, reducing NRW would convert to estimated increased operating cash flows of US$61 million per year that can be reinvested into Botswana's public utility.[216] By improving energy efficiency, PBCs can also reduce greenhouse gas emissions through the use of solar power and biogas and less reliance on emission-heavy fossil-fuel generators on the grid.[217] Better wastewater treatment will have knock-on effects for improved water resource quality, including water bodies and groundwater receiving fewer pollutants and better water availability for domestic and industrial purposes.

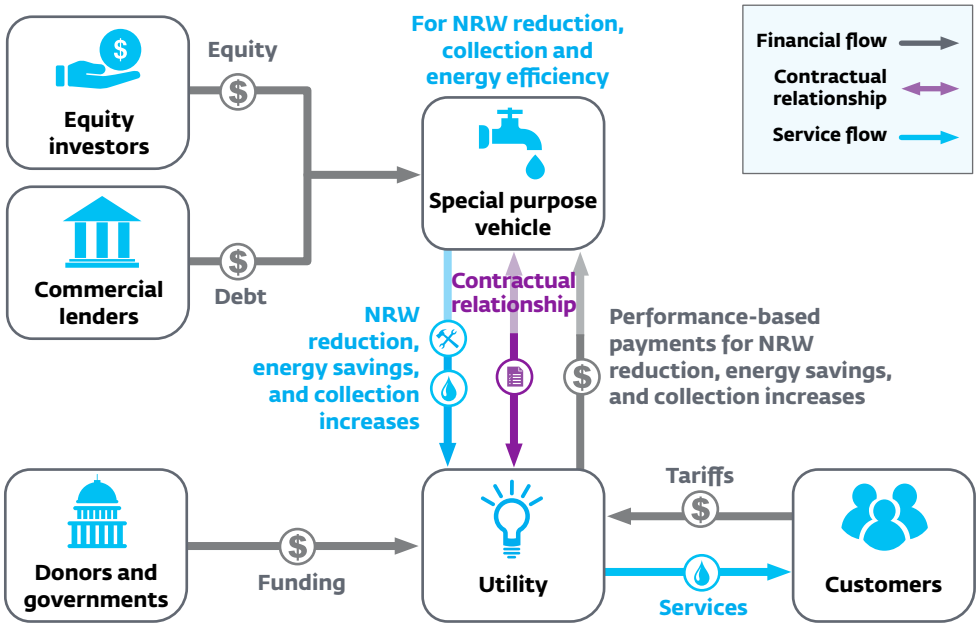
The main barrier for implementing PBCs for NRW reduction, collections, and energy efficiency is that it relies on WUC's constraints. Private sector firms may not wish to engage with WUC because of WUC's financial constraints and WUC might lack the institutional capacity to procure PBCs on its own.

215. Calculated by taking the additional volume of water that can be sold after NRW reduction (94 million m3 per year) and grossing up by current NRW rate of 39 percent. Thus, 37 million m3 per year represents additional water resources or supply capacity required by WUC in a business-as-usual situation without NRW reduction to sell an additional 22.5 million m3 per year.

216. This estimate considers a reduction in NRW from 39 to 20 percent, an increased collection rate from 79 to 95 percent, and a reduction in energy costs of 20 percent. Cash inflows are calculated as revenue multiplied by collection rates. Cash outflows are cash operating expenses (that is, the sum of costs for water treatment and distribution expenses, administration, and other expenses).

217. Janssens et al. (2018) estimate readily achievable energy cost savings of between 15 and 30 percent in water and wastewater plants within short payback periods.

FIGURE 4.12 PBC MODEL FOR NRW REDUCTION, COLLECTION, AND ENERGY EFFICIENCY



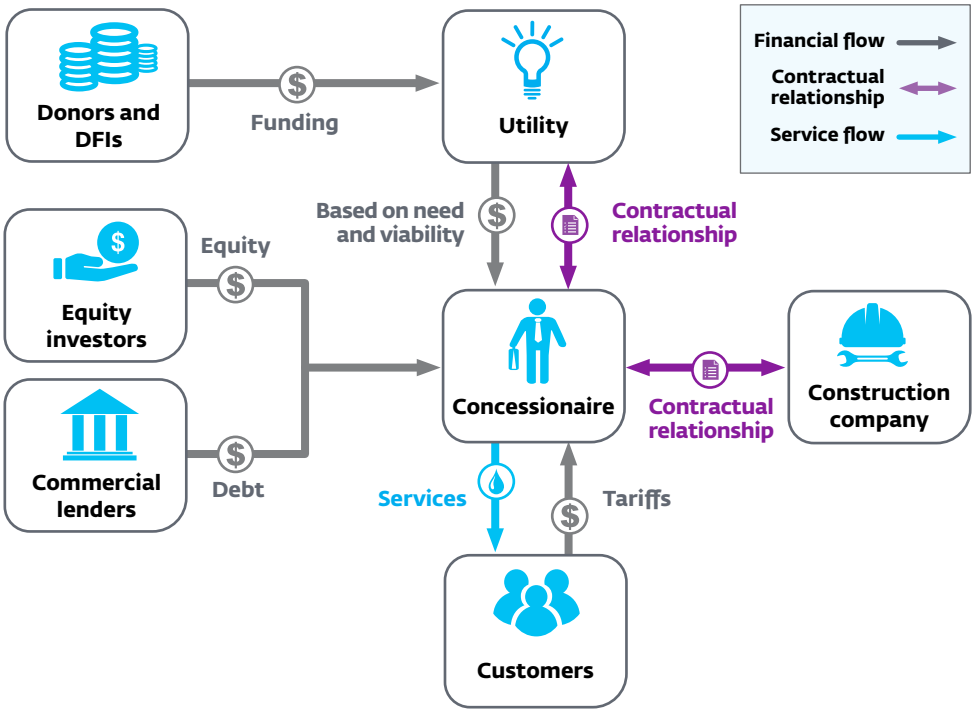
Public-private partnerships for wastewater treatment and recycling services

Public-private partnerships for wastewater treatment and reuse projects can improve service to customers while also providing greater incentives to private firms for effective output-based results. In the PPP model, the public authority signs a concession agreement with a private operator (or consortium of operators) who is responsible for financing (partially or fully) the design, construction, and operation of a wastewater treatment and reuse facility in return for concessions from the government that may include payment that covers an agreed amount of the investor's fixed costs and reduced land-leasing rates.[218] Engaging in water supply agreements with private sector users will mean guaranteed demand for the private firm operator that increases attraction to the project and places a profit incentive on efficient supply (see figure 4.13 for financial and service flows under a model PPP arrangement). Furthermore, PPPs can help to transfer risks (such as overruns and delays) away from WUC to the private firm and they can relieve public pressure in supplying some large industrial users. Such an approach has large potential benefits; if WUC increases the amount of wastewater collected and treated through resource recovery plants to the equivalent of water sold, it could provide alternative sources of water to up to 970,000 people.[219]

218. See World Bank Group (2020) and World Bank (2018a), for examples of specific contractual terms from the New Cairo Wastewater Treatment Plant and Durban Water Recycling (Pty) Ltd.

219. The Glen Valley reuse plant has a capacity of 18 million m3 per year. In the long term, WUC might be able to collect, treat, and reuse a volume of water equivalent to its current water sales in fiscal 2019/20 (65 million m3). Dividing the 65 million m3 per year by an average consumption of 47 m3 per capita per year (128 liters per capita per day), and assuming WUC has made modest improvements in NRW from 39 to 30 percent, results in an equivalent of 970,000 people served.

FIGURE 4.13 CONCESSION MODEL FOR SANITATION ASSETS IN BOTSWANA



PPPs can be used to efficiently rehabilitate existing wastewater treatment facilities, as evidenced by the Glen Valley WWTP.[220] Botswana's relatively supportive foreign investment regime and stable governance provide a legal and policy environment conducive to private participation in the water sector. That environment allows for a wastewater treatment and reuse PPP—currently being procured by WUC—through which a private company will rehabilitate the existing Glen Valley treatment plant and develop a new potable reuse plant. The concessionaire will provide the estimated US$100 million in finance needed to rehabilitate, upgrade, operate, and maintain the plant for 25 years with the reclaimed water to be blended with water in the Gaborone Reservoir for use in the city's supply. Other examples of successful water PPPs include Egypt's New Cairo WWTP concession with a new capacity of 250,000 m^3 per day[221] and South Africa's Durban wastewater reuse plant under a 20-year contract to finance, design, construct, and operate a WWTP that treats 10 percent of Durban's wastewater (48,000 m^3 per day) for industrial purposes.[222]

220. The PPP Unit has also registered the "Reclamation and Treatment of Gaborone Wastewater for Potable Use" project. The project involves upgrading the wastewater treatment plant and wastewater reclamation for potable use. The feasibility stage has been completed and the implementing entity (Water Utilities Corporation-WUC) in collaboration with Ministry of Finance/PPP Unit is the process of procuring a private party to finance and implement this project.

221. World Bank Group, 2020.

222. Mondi, a multinational packaging and paper group, and SAPREF, an oil refinery, utilize the reuse water produced by the PPP with the wastewater cheaper than the potable water previously used. See World Bank, 2018a.

PPPs can also be used to improve wastewater treatment and increase revenues through treated effluent that has positive environmental and health benefits. Treated effluent can provide a reliable water source for mining, agriculture, and potable uses and it can enhance climate resilience by avoiding abstraction from natural water sources. Improvements in wastewater services can also be profitable; where sewerage networks exist, land values often increase as higher-density development becomes possible, which encourages widespread services that bring about economies of scale and reduced average cost per customer.[223] Revenue-generating opportunities include recycled water, compost for soil enhancement, and biogas for energy.

Constraints to private sector participation

Without a formalized policy on PPP arrangements, the financial and regulatory incentives for the private sector to enter into such agreements remain unclear. Although Botswana's 2009 PPP policy has been praised for being comprehensive and for reflecting good practices, compliance with the policy is not explicitly mandatory for SOEs such as the WUC and SOEs need not consult the PPP unit that sits within the MoFED. Given that PPPs for wastewater treatment and reuse plants transfer risk away from the public utility and onto the private sector, there must be clear financial and regulatory incentives that help offset some of that risk. Similarly, in the case of water savings performance, incentives for large water users in the main economic sectors to reduce usage are also unclear, resulting in limited awareness of potential benefits or of plans with which such benefits can be feasibly achieved.

WUC's weak revenues negatively affect efforts to attract private sector participation in PPPs for wastewater treatment projects. Efficiency gaps across the water sector lead to reduced revenues that cap WUC's ability to provide public financing to complement private capital in PPP projects. This discourages private firms from engaging in PPPs to realize potential benefits both for themselves and the public utility.

Given the financial weakness of the water utility and while sector reform is ongoing, it is essential to provide sufficient comfort to the stakeholders of the project to attract quality, competitive bidders and to strengthen WUC's financial sustainability. In that regard, the government of Botswana and WUC need to develop a risk-mitigation strategy and supporting instruments to attract and mobilize private sector investment, including measures to address off-taker risk, breach of contract, and short-term payment defaults (see chapter 4.2 on the energy sector for a more detailed discussion on guarantee and risk mitigation instruments).

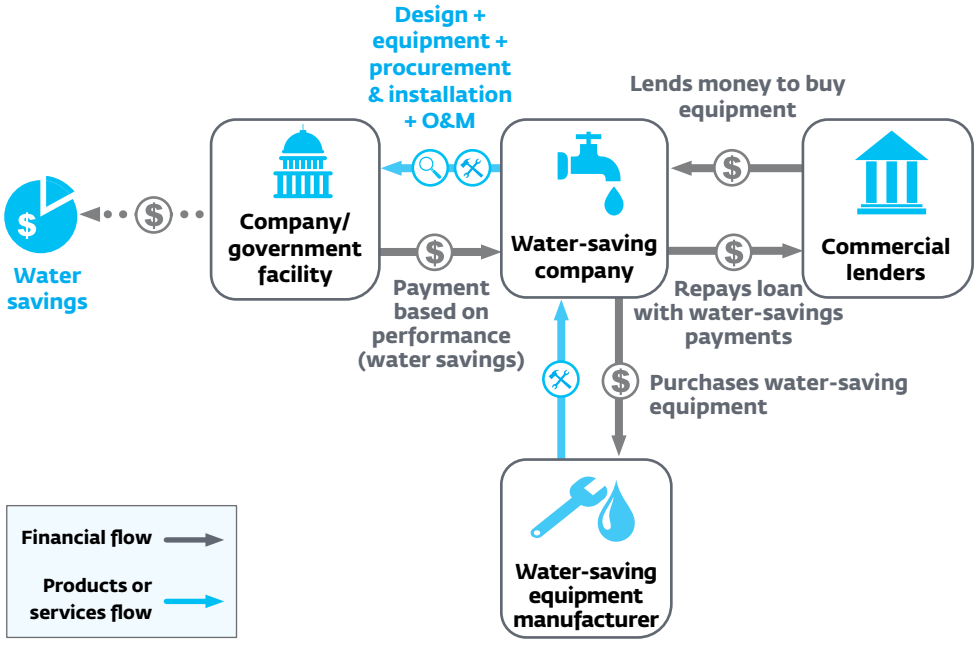
Water savings performance contracts for large users

Water savings performance contracts for Botswana's largest water users would enhance demand-side efficiency that has positive implications for long-term water security. These contracts work by large water users (private companies or government entities) contracting specialized private firms that assume responsibility for the improvement of water systems and appliances on the user's premises and are paid based on the water savings achieved (see figure 4.14). Agriculture and mining—two of Botswana's largest water-using sectors—account for approximately 60 percent of national water

223. Churchill and Kulzer, 2019.

consumption but they have the scope to reduce usage.[224] The meat industry continues to have high water usage, with the Botswana Meat Commission using between 4.6 to 7.9 m^3 of water per slaughter animal compared with international standards of 2.5 to 5.5 m^3 per animal.[225] Government facilities are also high-level users, with many suffering from high leakage levels and old, inefficient water-usage appliances.[226] Some private firms within the mining industry have already started to improve water savings and efficiencies; for example, in 2020, the Debswana Diamond Company launched a wastewater utilization project at its Jwaneng mine and used the water for its industrial purposes.[227] By 2030, Debswana's goal is to decrease freshwater withdrawal by 50 percent and increase water efficiency (reuse and recycling).[228] Contracts with specialized private companies have the potential to ensure feasibility of such targets, saving both water and money in these important sectors and ensuring more productive use of water.

FIGURE 4.14 STRUCTURE OF A WATER-SAVINGS PERFORMANCE CONTRACT FOR LARGE USERS



224. World Bank, 2017.

225. Center for Applied Research and Department of Water Affairs, 2015.

226. Consultations with WUC.

227. Debswana, 2020.

228. De Beers Group, 2020.

Constraints to private sector participation

Despite opportunities for greater profits and efficiencies, businesses and the government are underinvesting in water efficiency due to information gaps, public incentive issues, and other financial barriers. Water consumers often do not know the potential for saving water or the financial returns from investing in water savings and can contribute to less pressure on the utility to engage in efficiency practices. They also lack the technical skills required to develop and implement solutions. Public facilities also are typically not incentivized to save water. The financial savings made may not benefit the public entity if, for example, the entity does not pay its water bills directly and payments are made by central or local government, as is the case for MoFED. By assuming greater ownership over the administration and contractual responsibilities of water savings, both public and private sector large water users are encouraged to engage in publicly beneficial efficiency practices while also encouraging greater private sector participation through the use of continued on-site maintenance via specialized firms.

Recommendations

Considering the discussed challenges and constraints, this section provides possible solutions and policy reforms aimed at attracting greater private sector participation in Botswana's water and sanitation sector. These recommendations are based on the three modalities detailed earlier as well as cross-cutting sectoral challenges.

Performance-based contracts

1. **Use PBCs among Botswana's large water users to reduce NRW levels and improve customer collections.** Payments based on outcomes can be based on water savings achieved from usage improvements, such as the installation of low-water user appliances and the detection and repair of leaks in internal plumbing, among others.

Public-private partnerships

2. **The government of Botswana should work with development partners to attract private finance and skills in identifying financially viable water-savings projects, designing performance contracts, and helping to procure contractors.** The Glen Valley WWTP serves as a blueprint for more PPPs to rehabilitate existing plants and build new WWTPs with resource recovery.[229] Development partners can assist WUC in identifying service expansion and resource recovery opportunities, as well as the research required for the formulation of regulations of appropriate sanitation solutions, tariff and subsidy design, feasibility studies and proposed business cases, and design and management of PPP transactions. External assistance could be provided by initiatives such as the World Bank's Scaling ReWater—a tool kit offering transaction advice, competitive financing solutions, and a more straightforward tendering process designed to mobilize hybrid financing from public and private sources.

229. WUC can also look to Singapore's example of developing wastewater reuse technologies as part of a national water supply reliability and resilience strategy. Through public entity NEWater, wastewater reuse technologies supply 30 percent of water, which is expected to increase to 55 percent by 2060. The private sector operates two out of five reuse wastewater plants under a design-build-own-operate model. See World Bank, 2018b.

3. **The government of Botswana should avail itself of the full spectrum of risk-mitigation instruments to attract private participation in the water sector, including providing government guarantee that an obligation will be satisfied if the primary obligor defaults.** This action will ensure investor protection comfort in existing projects and encourage others to bid on future PPP projects.

4. **Run a parallel comprehensive communications campaign to increase public awareness and uptake of wastewater reuse projects.** Low public uptake of reused wastewater can be tackled by introducing recycled wastewater for nondomestic consumption and by gradually moving toward domestic use. In Singapore, for example, parliament and community leaders were briefed to engage with wastewater reuse through exhibitions, posters, brochures, and other advertisements. WUC can engage in similar practices to ensure public uptake and continued viability of the PPP.[230]

Water-savings performance contracts

5. **Identify the biggest public sector water users and work with them to hire private companies to increase water efficiency.** Audits of high water-using government facilities should be carried out by the Ministry of Lands and Water Affairs to identify potential areas for private sector involvement in water usage efficiency and reduction. Technical advisory from donors can be used to identify clear financial and social benefits that can be used to justify specific contracts for larger users. Given that the audits could feasibly include energy usage too, donor technical expertise can also be used to identify areas of synergy with the Ministry of Mineral Resources, Green Technology and Energy Security.

6. **Create a partial grants system for private firms that engage in water audits and ensure private sector awareness of expected benefits.** Government should devise incentives such as subsidies in the form of partial grants that cover a percentage of the fees companies pay to specialist water efficiency firms that highlight potential for increased profit margins. In the case of the Botswana Meat Commission, for example, by reducing water consumption per slaughter animal by 30 percent the commission could save more than US$100,000 per year.[231] Awareness campaigns bringing together large water users and specialized water- and energy-savings companies should be used to highlight financial and nonfinancial benefits.

230. See Tan and Rawat (2018) and Marais and Dürckheim (2011), for examples from South Africa's Beaufort West Water Reclamation Plant.

231. Center for Applied Research and Department of Water Affairs, 2015.

Cross-cutting policy and regulatory reforms

7. **Make WUC more financially and managerially autonomous through public sector reforms.** Large-scale commercial finance to Botswana's water sector requires greater WUC autonomy that creates increased impact per dollar by adopting a more streamlined, integrated, and accountable system for capital expenditure planning and delivery. Government should set goals for coverage and service improvements and task WUC with developing the necessary corresponding capital expenditure and service expansion plans. Plans can be reviewed by a regulator or multistakeholder accountability council. Once approved, WUC would oversee delivering on the agreed plan. A holistic approach is required to achieving this plan, with steps including improvements to the following three areas: (a) allowing WUC to charge full-cost recovery tariffs, (b) creating a fully funded subsidy system to ensure water affordability and wastewater services to meet basic needs, and (c) increasing WUC's efficiency by boosting and/or introducing accountability and incentives mechanisms.

8. **Create a legally or contractually bound regulatory mechanism to define full-cost recovery tariff mechanisms for WUC and mandate that WUC's tariffs be set at that level.** Institutional mechanisms to support implementation would be required; a more obvious option is the creation of an independent regulator, however, experiences of other national utility regulators have often failed to raise tariffs to full-cost recovery levels. A better approach involves a contractual agreement between the utility and government regarding tariffs, service standards, and other matters alongside a multistakeholder accountability council to monitor the performance of all contractual parties—an approach that has seen success in Burkina Faso's public water utility.[232]

9. **Create incentives for WUC performance.** Utilities serving Burkina Faso, Senegal, and Uganda have had success with systems that combine performance targets with performance pay for management teams. Botswana's WUC could create a system of agreed targets, a credible multistakeholder monitoring system to judge performance, and senior-level performance pay when service and financial targets are met and exceeded.

10. **Strengthen WUC's capacity to access different financing mechanisms (such as commercial loans and bonds) once it becomes a creditworthy utility.** With tariffs at cost recovery levels, investment plans can be financed by loans taken out by WUC (and PPPs when appropriate). Financing of the capital program might start with donor loans, as WUC takes steps toward financial autonomy. The goal would be to move rapidly to the point at which commercial loans or bond issuance would finance the capital expenditure needed. There is every reason to believe that a financially autonomous WUC could tap the vibrant South African municipal bond market, alongside other issuers such as Cape Town and various other South African water boards. Indeed, WUC would be well placed to issue "green" and "blue" bonds, which are increasingly sought after by investors.

232. Burkina Faso's ONEA is supervised by a multistakeholder committee containing customer, nongovernmental organization, and donor representatives. The committee monitors performance of the utility and government on the basis of independently audited financial and technical reports. See Van Den Berg and Danilenko, 2017.

11. **Legally establish a subsidy system to ensure affordability of low-income households while also providing a reliable source of revenue (such as cross-subsidies or direct subsidies by government).** Considering the government of Botswana's goal of universal access, developing a subsidy mechanism is essential to ensuring all households can afford water and sanitation services that meet their basic needs, regardless of income. Available options include government-issued vouchers to low-income households;[233] household tariffs differentiated by house type and the ratable value of the property, as used in Colombia and South Africa;[234] and guaranteed basic-needs water quantities for poorer households. An electronic payment and flow-control system automatically cuts off supply once the free allowance threshold has been reached with the option of electronic top-up payments if necessary (as seen in Cape Town and eThekwini, South Africa).

12. **Create national or local regulations to mandate customer connection to sewer systems (where one already exists) within a specified distance to premises.** Some towns in Botswana, such as Francistown city council, already have town-planning regulations that enable them to require connection to sewerage systems.[235] To gain maximum benefits from sewerage systems, WUC should work with town-planning authorities to ensure that where sewers are installed, all premises within a specified distance are connected.

13. **Create more payment options for customers to connect to sewer systems.** This recommendation can include staggered payments over several months and subsidy mechanisms to make connections affordable and to avoid a lump-sum payment of BWP 1,500 (about US$ 150), which can be a barrier for some households. Moreover, because installments offer a steady cash stream, WUC will be able to commercially borrow funds for investment while covering up-front costs and repaying loans from installment payments. Given that some poverty-stricken households will not be able to afford installment payments and sewerage service bills, the affordability mechanisms recommended earlier should be used to help those families.

233. Chile subsidizes 100 percent of the first 15 m3 of monthly consumption for low-income users. The subsidy is provided to households that spend at least 5 percent of their income on water and sanitation bills. See Ministerio de Desarrollo Social y Familia, 2021.

234. Colombia's means-tested cross-subsidy system ensures affordability of water, sanitation, and energy services for low-income households.

235. See Francistown City Council (public sewer) bylaws.

4.4 TOURISM SECTOR ASSESSMENT

Context

Tourism is Botswana's most important services export, with wide-ranging economic impacts and strong long-term growth potential. In 2019, tourism represented almost 60 percent of Botswana's services exports, directly contributing 4.94 percent and indirectly contributing 9.6 percent to GDP.[236] In the same year, the sector directly and indirectly accounted for 8.4 percent of total employment.[237] In 2018—the latest year of available visitation data—Botswana attracted 1.83 million international visitors and US$572 million in receipts.[238]

236. World Travel and Tourism Council (WTTC). Botswana Country Profile, 2021.

237. World Travel and Tourism Council (WTTC). Botswana Country Profile, 2021.

238. UNWTO, 2021; WTTC, 2020.

Botswana's comparative advantage lies in large diversity and volume of wildlife in a relatively compact, scenic natural area. Botswana has set aside more than 17 percent of all available land for national parks and wildlife sanctuaries and an additional 23 percent of land as wildlife management areas.[239] Northern Botswana contains one-third of Africa's elephants and houses rare species such as white and black rhinos. The Okavango Delta, the largest inland delta in the world, is home to the world's largest elephant population and in 2014 it became a UNESCO World Heritage Site. In addition to its natural assets, visitors and investors alike have been attracted by Botswana's good governance, relatively low levels of corruption, and advantageous location next to the tourism hub of South Africa and growing destinations like Victoria Falls and Namibia and Zambia. However, aside from northern wildlife areas, very few additional site-specific attractions exist. Botswana has little to no primary historical sites, monuments, or geological and archaeological highlights with visible visitor appeal. The rock art at Tsodilo Hills, a World Heritage Site, is one such site but it has struggled to attract substantial visitor flows mainly because of its remote location. Similarly, Gaborone is not a city tourism destination and currently experiences limited business and MICE (meetings, incentives, conferences, and exhibitions) tourism.

After remarkable growth between 1990 and mid-2019, both visitor volumes and receipts appear to have leveled off. Receipts are likely driven by the higher-value wildlife tourism segment whereas visitor volumes are led by arrivals from neighboring countries, with more than 80 percent of visitors originating from Southern Africa in 2019.[240] Those visitors are likely not tied to pure leisure tourism arrivals and are driven by political and economic factors affecting neighboring countries. The World Travel and Tourism Council estimates that 93 percent of Botswana's tourism spending is leisure, with only 7 percent going toward business visitors.[241] In total, 92.7 percent of tourist entries are by road, compared with 7.1 percent by air.[242] An undetermined proportion of those road arrivals also include higher-spending long-haul visitors on regional multicountry itineraries.

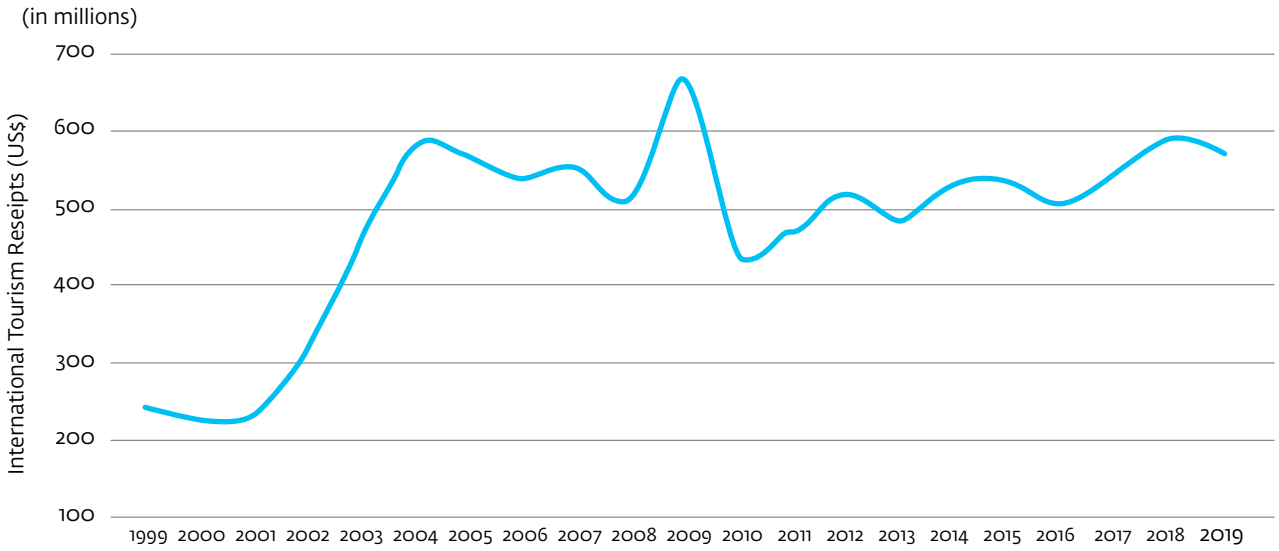
239. A wildlife management area may be defined as an area where wildlife conservation and recreation is to be the primary form of land use.

240. Zimbabwe (34 percent), South Africa (33 percent), Zambia (9 percent), and Namibia (6 percent).

241. World Travel and Tourism Council (WTTC). Botswana Country Profile, 2021.

242. Tourist includes business travelers, those "visiting friends and relatives," and others. African Business Information, January 2021.

FIGURE 4.15 INTERNATIONAL TOURISM RECEIPTS, 1999–2019



Source: World Bank, 2021

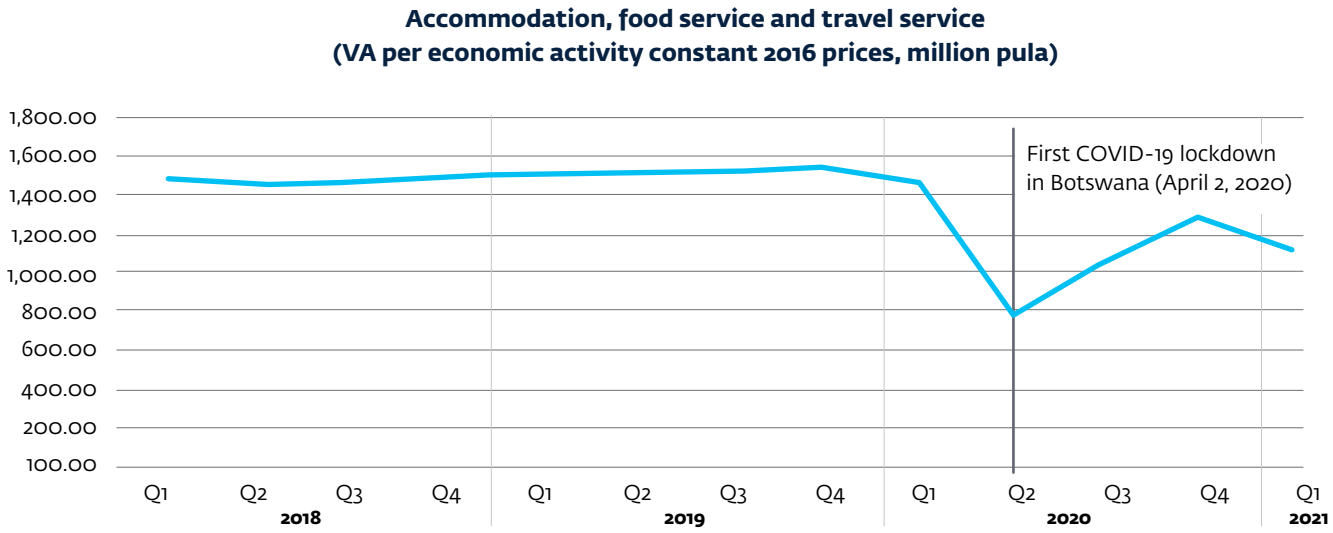
The COVID-19 pandemic has significantly affected the tourism sector, exposing structural weaknesses and accelerating their impacts. From 2019 to 2020, international tourism arrivals are estimated to have dropped by 76 percent and tourism receipts by 73 percent.[243] Value-added data show a 50 percent drop in the combined category "accommodation, food services, and travel services" from quarter 1 to quarter 2 of 2020 (figure 4.16). This drop coincides with Botswana's first pandemic lockdown on April 2, 2020.[244] Tourism operators were severely affected, with more than 90 percent of tourism enterprises closing, at least temporarily, in the same month and placing the majority of staff on reduced wages. A February 2021 survey carried out in the Kavango Zambezi Transfrontier Conservation Area (which includes parts of Botswana) showed that its operators continued to face dire conditions, with a 72 percent reduction in customers and a 76 percent drop in future bookings. The entire tourism value chain was adversely affected, with a 44 percent average reduction in local procurement.[245]

243. Fitch Solutions, 2021. Botswana Tourism Report Q3 2021. Retrieved from: https://store.fitchsolutions.com/tourism/botswana-tourism-report

244. MoFED 2021; World Health Organization, 2020. COVID-19: WHO's Action in Countries – Botswana.

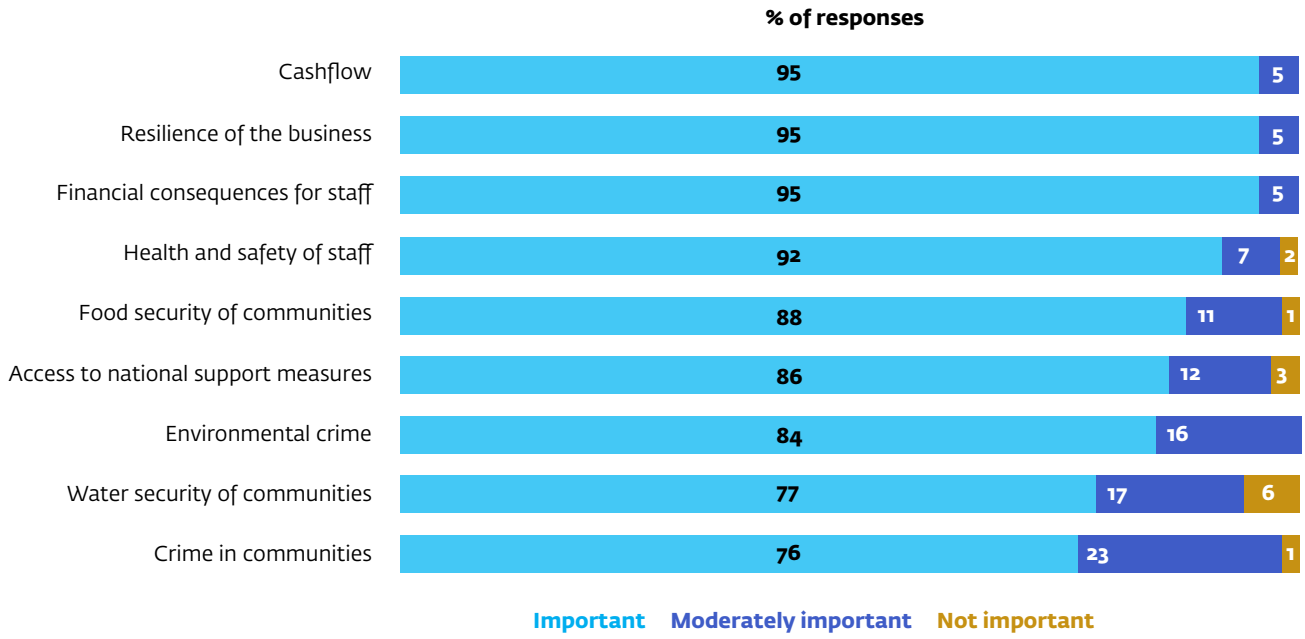
245. GIZ. The Impacts of COVID-19 on Tourism in Protected Areas: Data analysis for the Kavango Zambezi Transfrontier Conservation Area. February, 2021.

FIGURE 4.16 ECONOMIC IMPACTS OF COVID-19 ON BOTSWANA'S TOURISM SECTOR[246]



Source: MoFED 2021. WHO 2020.

FIGURE 4.17 TOURISM OPERATORS' MOST IMMEDIATE CONCERNS



Source: GIZ. The Impacts of COVID-19 on Tourism in Protected Areas: Data analysis for the Kavango Zambezi Transfrontier Conservation Area. February 2021.

246. The government of Botswana has stated that, by Q4 2021, tourism value-added was back to 87% of the pre-COVID (Q4 2019) level.

Because of the pandemic, fluctuating travel restrictions—in particular for air travel—have meant that almost all arrivals have entered by road from neighboring countries.[247] Given COVID-19 uncertainties surrounding new variants, slower than expected vaccination rollout, regional lockdowns, and travel restrictions from key source markets, tourism receipts are not expected to return to pre-COVID levels until 2023, and the number of international arrivals is not expected to return to pre-COVID levels until after 2025.[248] Botswana has experienced similar declines seen in other regional destinations, with a greater decline in international receipts partly cushioned by a smaller decrease in domestic spending (see table 4.1). Botswana's relatively undiversified tourism sector, both in terms of products and source markets (only four countries—Namibia, South Africa, Zambia, and Zimbabwe—make up 78 percent of arrivals), has reduced its resilience to shocks and will likely continue to pose a problem given the uneven recovery of its source markets.

TABLE 4.1 IMPACT OF COVID-19 ON TOURISM IN BOTSWANA AND AMONG REGIONAL PEERS

Country	GDP contribution		Decline in GDP contribution	Employment contribution		Decline in employment contribution	Decline in visitor spending (US$), 2019–20	
	2019	2020	2019-2020	2019	2020	2019-2020	Int.	Dom.
Botswana	**9.6%**	**5.3%**	**- 48.6%**	**8.4%**	**6.6%**	**-24.0%**	**-76.8% (-0.4b)**	**-33.6% (-0.2b)**
Namibia	15.3%	9.8%	- 41.9%	15%	11.1%	-27.6%	-65.5% (-0.3b)	-37.9% (-0.4b)
South Africa	6.9%	3.7%	- 49.8%	8.9%	6.5%	- 24.0%	-66% (-5.4b)	-42.8% (-4.2b)
Rwanda	11.4%	5.1%	- 57.1 %	11.9%	7.7%	-35.3%	-64.1% (-0.4b)	-52.7% (-0.2b)
Mauritius	19.5%	8.7%	-62.1%	19.2%	14.0%	-31.4%	-71.3% (-1.3b)	-40.9% (-0.01b)
Global	10.4%	5.5%	-49.1%	10%	9.1%	-18.5%	n/a	n/a

247. Fitch Solutions, 2021. Botswana Tourism Report Q3 2021. Retrieved from: https://store.fitchsolutions.com/tourism/botswana-tourism-report

248. Ibid.

However, thanks to Botswana's natural endowments and wide-open spaces, it is well placed to take advantage of new post-COVID-19 demand trends. A 2021 survey[249] by Booking.com, the world's largest tourism platform, suggests that new visitor priorities line up with Botswana's natural features, including preferences such as hiking (94 percent of surveyed respondents), spending time outdoors (69 percent), rural experiences (56 percent), clean air (50 percent), nature (44 percent), and relaxation (33 percent). In addition, 45 percent of respondents indicated they are exploring longer-haul destinations to use up leave days accrued during lockdowns and 63 percent said they will stay away from crowded tourist attractions. These factors support Botswana's low-volume tourism model that is focused on exploring its vast expanses of nature. Early research has also shown that visitors are resilient and feel largely positive about Botswana's handling of the pandemic, suggesting that the sector's biggest pandemic-related risk is source-market travel restrictions rather than visitor sentiment or hesitancy.[250]

In preparation for recovery, the industry is consolidating with a view to increasing efficiency and reducing costs. Acquisition of individually owned (distressed) properties by larger corporate entities that operate several properties is likely to lead to a consolidation of accommodation facilities owned by fewer firms. Although potentially hurting the sector's inclusivity, this consolidation is likely to drive investment in enhanced supply-chain efficiency as well as cost control through retrofitting of energy-saving installations and processes for off-grid enterprises. Investment finance will be required to acquire distressed properties, repurpose facilities, undertake deferred maintenance, and prepare for reopening. Working capital will be needed to manage continuous pandemic-related demand fluctuations in the short term.

249. Booking.com. Smarter, Kinder, Safer: Booking.com Reveals Its Predictions for the Future of Travel. 2021

250. Delly M. Chatibura (2020) Travellers' top comments during the COVID-19 pandemic in Botswana, Research in Hospitality Management, 10:2, 123-130, DOI: 10.1080/22243534.2020.1869462

Opportunities for the private sector

Expansion of the luxury safari sector segment can result in new source markets and longer stays. Botswana is well known as a luxury safari destination; it can expand this key value segment to emerging luxury markets while also aiming for an increased average length of stay.[251] This sector segment currently caters to mainly Western European and North American visitors, with the potential to diversify to visitors from emerging luxury markets such as China, Eastern Europe, India, and the Middle East. Recently improved relations with China, as well as a new Qatar Airways route (Doha-Johannesburg-Gaborone, launched in 2019) strengthen the opportunity to expand eastern markets. This opportunity will require product adaptations (that is, food, language, signage, packaging) as well as transport link development (such as air travels links, visa facilitation). In addition, there is the potential to increase the average length of stay, which currently sits at approximately three days, by offering additional activities around lodge bases, and offering packaged add-on destinations within Botswana. Stiff competition is expected from South Africa, which has more sophisticated access and distribution links, wider product ranges, and a higher-skilled workforce. Private sector optimism in this market segment can be seen in the recent opening of luxury resorts such as the Xigera Safari Lodge in December 2020.[252]

Dispersing and attracting foreign independent travelers present private sector investment opportunities in hotels, private car rentals, and camp and caravan sites. Overseas independent travelers are set to grow in the short term, allowing for opportunities that capitalize on their mobility and nonpackaged travel characteristics. The international long-haul market is seeing increasing growth in self-drive, fully contained trips, with independent travelers (mainly from Europe) arriving in Namibia, South Africa, or Zimbabwe before conducting multidestination self-planned road trips with fully equipped rental vehicles.[253] Increased long- and short-haul air access in Botswana could open the door for investments in vehicle rentals as a base for regional circuits. The Chobe riverfront, a protected area, has seen excessive visitor and vehicle numbers after a sharp influx of day visitors from neighboring Victoria Falls, and to a lesser extent, from the Zambezi region of Namibia. This presents impetus to disperse these visitors, creating openings for greater private sector participation in the sector.

251. Fitch Solutions, 2021. Botswana Tourism Report Q3 2021. Retrieved from: https://store.fitchsolutions.com/tourism/botswana-tourism-report

252. Broughton, J. Conde Nast Traveler. Botswana's Xigera Lodge has a light impact footprint and a major impact. 2021. Retrieved from: https://www.cntraveler.com/story/botswanas-xigera-lodge-has-a-light-footprint-and-a-major-impact

253. AfDB, 2011. Preliminary Market Segment Analysis of the Tourism Sector in Botswana.

Similarly, strengthened links and the dispersion of overland regional independent travelers (RITs) provide investment opportunities in transport, accommodation, and food and hospitality services provided by local SMEs. Botswana's visitor volume growth is likely to be led by independent overland visitors from neighboring countries. Developing the RIT market can be accompanied with measures to disperse tourism geographically and strengthen links with local SMEs. This segment has the potential to either overwhelm already popular wildlife destinations with little local economic impact or disperse tourism expenditures geographically and provide inclusive growth through more visitor spending with local SMEs. Maximizing this market's positive impacts and minimizing negative ones will require the government of Botswana to use a range of levers such as regulation, ticketing, capacity limits, developing satellite sites, fostering SME links, and marketing alternative destinations and circuits. An overreliance on this market segment can make Botswana vulnerable to regional economic downturns or localized crises. This vulnerability can be partially mitigated by attracting longer-haul independent travelers with the same facilities and destinations.

TABLE 4.2 KEY TARGET MARKETS AND THEIR NEEDS

Market segment	Opportunities	Characteristics	Private sector product needs and investment opportunities	Enabling environment needs
Long-haul luxury safari	Source-market diversification to include emerging luxury markets (China, Eastern Europe, India, Middle East) New destinations New experiences for higher-spending visitors and longer length of stay	Packaged fly/drive-in, short-stay (two to three days) visitors at luxury game lodges, including those on multicountry regional itineraries Potential to contribute 71% of revenue and jobs gains Highest value: five times the expenditure of RITs	Wellness facilities (spa, gym); refurbished and well-maintained properties; swimming pools; suites and villas Lodges in new concession areas	Visa-free (for Asia, particularly China, India), and e-visas for others Direct air links with new source markets
Overseas foreign independent travelers	New destinations and products	Mid-market, self-drive, eight-day average stay Potential to contribute 58% of revenue and jobs gains	Bed and breakfasts, private rentals, camp and caravan sites	Cross-border roads, shared regional visas, visitor information, social media marketing
Overland regional independent travelers	Inclusive growth by spending more with local SMEs Increased resilience against volatility in overseas arrivals	Budget and mid-market, one-to-four-night stays, direct booking Potential to contribute 13% of revenue and jobs gains	Tourism transport (motorboats, canoes, airport transfers), bed and breakfasts, private rentals, camp and caravan sites	Thematic routes, cross-border roads, review of park and camping fees SADC visitors

Sources: Author Compilation from World Bank. Strengthening Public Sector Performance RAS (P159841) Rapid Evaluation Report of the Tourism Policy of 1990, 2019. AfDB, 2011. Preliminary Market Segment Analysis of the Tourism Sector in Botswana; The Uplifting Africa Program, 2020.

Note: RIT = regional independent traveler; SME = small and medium enterprise; SADC = Southern African Development Community.

To broaden the visitor base and diversify income streams, several niche markets can be built onto existing infrastructure with minimal investment. A niche market example is birdwatching, which is best in the wet (low) season and attracts high-spend, low-impact visitors.[254] Other markets with low negative environmental impacts include sports, health, religious tourism, MICE, game farming, and research. Domestic tourism has been a government priority since the COVID-19 pandemic began and stakeholder interviews indicate it has seen sharp growth since 2020. Despite a small demand base, domestic and regional tourism can improve sector resilience to hedge against external volatility and it has been shown to result in more inclusive spending in the tourism value chain, particularly toward smaller MSMEs.[255] Several new operators have emerged during the COVID-19 pandemic to cater to this underrepresented segment.

Both the government of Botswana and the tourism industry are prioritizing diversification to new geographic and thematic areas. Nature and wildlife products that have been successful in the north can be transposed to areas with different, but complementary, features such as the Kgalagadi Transfrontier Park, Tuli Block, Ghanzi, and the Central Kalahari Game Reserve. These destinations can also act as a hedge against seasonality, offering alternatives to core northern destinations. New products, such as cultural and sporting events, industrial heritage visits in collaboration with the diamond industry, and adventure tourism have the potential to increase expenditures and lengths of stay. The government of Botswana is also prioritizing agritourism to increase local economic links and to spur domestic tourism. This has been encouraged by allowing farmers to keep small wildlife on their properties to form smaller attraction sites and by relaxing regulatory requirements for small-scale agritourism establishments.[256]

Constraints

Stagnating tourism competitiveness

Botswana is experiencing the largest decline in tourism competitiveness of all Southern African countries.[257] Despite dropping in rankings, between 2017 and 2019 Botswana's place in the World Economic Forum (WEF) Travel and Tourism Competitive Index has remained at 3.5 (on a range from one to seven, with seven the best), reflecting progress made by others rather than a drop in scores. Nevertheless, by dropping seven places to 92nd, the decline in Botswana's tourism competitiveness was most acutely felt in its enabling environment (dropping from 83rd to 99th), infrastructure (89th to 99th), and environmental sustainability (36th to 58th) (see figure 4.18). This decline suggests a level of complacency in a sector with entrenched public and private sector stakeholders and a need to continuously innovate and improve or risk further decline. Moreover, low rankings for "extent of market dominance" suggest sector domination by a small number of businesses, likely exacerbated by long-term concession frameworks to few operators in protected areas and decreasing pressures for market reform.

254. Market Analysis of Bird-Based Tourism. Audubon; CREST. N.d.

255. The World Bank, 2020. Domestic Tourism: Building back better and more resilient destinations; UNWTO, 2020. Understanding Domestic Tourism and Seizing Its Opportunities.

256. Fitch Solutions, 2021. Botswana Tourism Report Q3 2021. Retrieved from: https://store.fitchsolutions.com/tourism/botswana-tourism-report

257. World Economic Forum, 2019. Travel & Tourism Competitiveness Index.

FIGURE 4.18 WEF TRAVEL AND TOURISM COMPETITIVE INDEX, 2019 BOTSWANA RANKINGS

Source: World Economic Forum. 2019. Travel & Tourism Competitiveness Index- Botswana.

Inefficient sector governance and high bureaucratic burden for the private sector

Competing priorities across government departments render coherent strategy implementation difficult. The Department of Tourism and the Botswana Tourism Organisation have indicated interest in shifting from a high-value, low-volume tourism model to a mixed-price, high-volume strategy. However, the Department of Wildlife and National Parks has largely adopted a low volume, low-impact approach to visitor management to sustain its conservation mandate, which has created conflicting policy and development priorities. Existing wildlife operators have tended to prefer this model, which combines a move to diversify toward mid-market, low-impact visitor attraction. The new 2021 Tourism Policy prioritizes citizen and community participation, product diversification, domestic tourism, skills development, market intelligence, and increased involvement of local authorities in the development and management of tourism; but with a lack of cohesive government priorities in the sector, implementation is likely to be its biggest challenge. Support from the World Tourism Organization will go some way in helping to address this challenge, with support in the creation of a National Tourism Development Strategy and Master Plan as well as several destination area plans.[258]

258. UNWTO, 2019. Boosting the Economy through Tourism: A New National Tourism Development Strategy and Master Plan for Botswana.

Difficulties in coherent strategy implementation also occur at the operational level, with some accommodation, safari vehicle, and boat licenses awarded independently. In Chobe, for example, the Ministry of Environment and Tourism awards accommodation licenses; the Ministry of Transport and Public Works provides vehicle licenses; and the Ministry of Lands and Water Affairs holds the same mandate for boats—all without cross-institutional collaboration that makes it easier for private investment to navigate the sector. Furthermore, the private sector has highlighted heavy regulatory burden and protracted delays in approvals emanating from the Botswana Bureau of Standards, which is inhibiting investment, refurbishment, and expansion in the sector. Together, these governance, coordination, and strategy issues threaten the sector's long-term competitiveness and attractiveness.

Limited investment in and funding for key assets and their communities

Limited government budgetary allocations for the Department of Wildlife and National Parks has led to underinvestment in essential facilities. This underinvestment is particularly true for the flagship Chobe and Moremi parks, which lack public investment in essential facilities and infrastructure such as access and internal roads, park staff offices, water points, signage, and campgrounds, which is affecting long-term competitiveness by contributing to poorer-quality visitor experience compared with neighboring country competitors. Botswana's overall tourism growth, as well as the economic development of the northern region, is seen by the industry to be largely dependent on the ability of these key parks to accommodate visitors and thereby sustain the industry.

Funding shortfalls have been exacerbated by the impact of the COVID-19 pandemic. With an almost complete absence of visitors, protected areas have been left without income and are unable to conduct wildlife management tasks such as the maintenance of water points and fire breakers.[259] Poaching has also increased substantially across all African protected areas,[260] with environmental crimes a large concern for sector stakeholders.

259. IUCN. The Impact of COVID-19 Pandemic on Africa's Protected Areas Operations and Programmes. 2020

260. The Economist. The pandemic is a gift to poachers in Africa. March 31, 2021 Edition; retrieved from: https://www.economist.com/middle-east-and-africa/2021/03/31/the-pandemic-is-a-gift-to-poachers-in-africa ; IUCN. The impact of COVID-19 pandemic on Africa's protected areas operations and programmes. 2020. Retrieved from: https://www.iucn.org/sites/dev/files/content/documents/2020/report_on_the_impact_of_covid_19_doc_july_10.pdf

Similarly, community revenue streams from tourism are increasingly volatile. Government priorities are shifting to scenery and wildlife tourism. The 2015 suspension of hunting across Botswana highlights the precariousness of existing revenue streams. This suspension severely reduced income to community-based organizations (CBOs),[261] with various entities reporting a 50 percent decline in annual revenue.[262] CBOs have struggled to diversify into alternative tourism models. In 2019 the hunting suspension was lifted, with fewer than 400 elephant hunting licenses allowed per year.[263] Community-Based Natural Resource Management (CBNRM) programs are facing challenges beyond volatile revenues; a review of the Sankuyo Tshwaragano Community Management Trust concluded that weak legislative backing for the CBNRM Policy has tended to undermine the powers of local communities in the implementation of programs because they are unable to legally challenge decisions felt to be contrary to the implementation of CBNRM programs.[264] For Botswana, which already has a relatively well-developed CBT ecosystem, the challenge is to (a) build resilience of communities that have been hit by revenue losses from volatile hunting permits and COVID, (b) ensure consistent and diversified demand, and (c) expand CBNRM to new products and destinations, ensuring models are updated to remain relevant and beneficial to communities.

Climate change and environmental degradation

Climate change and environmental degradation pose existential threats to the sector and its competitiveness. Climate change is accelerating desertification, which is putting pressure on key wildlife habitats, particularly through water scarcity. Climate change and water scarcity, along with their geopolitical implications in upstream Angola, may threaten the competitiveness of Botswana's wildlife safari offering, which is dependent on ample water inflow into the Okavango Delta. Early indications are that changes in water levels, flow, and seasonality are already affecting biodiversity, as well as the spread and migration patterns of iconic wildlife species across the delta and Chobe. Botswana's growing elephant population has also led to increased instances of damaged crops and infrastructure (leading to conflict with local communities) as well as natural resource degradation through reduced tree cover that is used by other wildlife for shelter and food.

Before the COVID-19 pandemic, early signs of "over-tourism" were visible. The rapid increase in day visitors places pressure on limited existing road infrastructure and park facilities near Chobe National Park (particularly in Kasane and Maun). Despite the introduction of a decongestion strategy by the Department of Wildlife and National Parks, specific areas such as the Chobe riverfront section and some areas of Moremi and Makgadikgadi face major logistical pressures during specific months and times of day. This may be exacerbated by new plans to allow the building of eight new hotels/lodges along the Chobe waterfront, inside the protected area.

261. CBOs are created and operated by local communities under Botswana's Community-Based Natural Resource Management (CBNRM) Policy, a national community-based strategy aimed at greater rural development and biodiversity conservation. The policy also includes legally registered community trusts that are formed by local groups seeking to use and benefit natural resources through tourism development. See Knowledge Base, 2013. Community-Based Natural Resource Management in Botswana.

262. Review of Sankuyo Tshwaragano Management Trust operation of CHA NG33 and NG34. 2019

263. Africa Geographic. Botswana trophy hunting. May 24, 2019. Retrieved from: https://africageographic.com/stories/botswana-trophy-hunting-400-elephant-hunting-licenses-granted-annually/

264. Review of Sankuyo Tshwaragano Management Trust operation of CHA NG33 and NG34, 2019

Limited geographic scope and product range

Botswana's tourism sector is highly concentrated, both geographically and by supply of firms and products. Although partly the result of market forces responding to Botswana's comparative advantage (concentrations of world-class wildlife in unique natural surroundings), the lack of product and geographical depth poses resilience, inclusion, and competitiveness risks to the sector. These risks are already being felt in several ways, including unsustainable pressure on sensitive ecosystems as they gain popularity through increased visitor volumes. The Chobe and Moremi parks remain the principal tourism attractions, together accounting for more than 90 percent of the primary leisure market segments. These markets are small, niche, and well established but they are geographically restricted and based on wildlife resources that are found in a limited geographic range. Few structured "site" attractions exist outside of this packaged wildlife lodge and camp offering, and new sites have been piloted in a supply-driven manner, which has led to a lack of uptake.

Botswana's tourism sector has traditionally been tightly regulated, which has limited product diversity. Concession arrangements dictate the permitted activities within a certain area, such as nonmotorized water-based activities (mokoro and boats), walks (drives only allowed for transfers), and timing of activities (restricted to daylight hours). Similarly, new areas—particularly heritage sites—have been regulated for preservation rather than conservation, albeit a policy that is slowly changing. These regulations stifle opportunities for the development of nontraditional products such as sports, soft-adventure experiences, nighttime experiences, and hot-air ballooning, among others.

New destinations lack basic infrastructure and services required for tourism, as well as incentives and information for private sector investment. Road connectivity to and within potential secondary destinations is problematic, particularly in the vast Central Kalahari Game Reserve, which still suffers from a severe shortfall in appropriate access and internal infrastructure for both visitors and rangers. Tourism operators also experience infrastructure shortcomings in access to electricity, water, and waste management. This is compounded by the lack of incentives for the private sector to provide such infrastructure for their facilities. Anecdotal evidence suggests there is significant unmet demand for concessions. Tendering concessions is currently a lengthy process with high transaction costs requiring zoning and management plans of protected areas, which may not have been undertaken or updated in new destinations. Furthermore, a lack of up-to-date data and market intelligence is another bottleneck for the development of new areas. In the 2019 WEF Travel and Tourism Competitiveness Index, the country ranked 112th out of 140 in the comprehensiveness of its travel and tourism data, and 131st out of 140 in the timeliness of providing it. These data are crucial in facilitating investment decisions, particularly for FDI, and in ensuring a coordinated, evidence-based approach to selecting and prioritizing new destinations.

Current air connectivity, both regional and long-haul, is a key inhibitor to accessing new markets and destinations. Botswana ranks 119th out of 140 countries in the openness of bilateral Air Service Agreements in the 2019 WEF Travel and Tourism Competitiveness Index, and it ranks 103rd for air transport infrastructure. Within this category, the most problematic factors are available international seat kilometers[265] (136th out of 140), number of operating airlines (134th out of 140, and quality of air transport infrastructure (96th out of 140). Air Botswana—the loss-making state-owned national airline—has a fleet of only three airplanes[266] and operates a limited international route network connecting Gaborone, Maun, and Kasane with Johannesburg and Cape Town only.[267] Moreover, its problematic privatization process continues to pose a significant barrier to developing new flight routes.[268] Expensive charter flights thus dominate the regional inbound market, with Maun Airport being one of the busiest in Southern Africa for unscheduled charter flights. Because of a lack of long-haul direct flights, long-haul tourists must travel to Botswana via Johannesburg, Windhoek, Victoria Falls, and other gateway locations. This limits market control and has meant that Botswana broadly remains an "add-on" destination for subregional circuits. It also makes Botswana highly susceptible to South Africa's and Zimbabwe's access and travel policies, given its reliance on those neighbors for arrivals.[269]

Visa restrictions inhibit the attraction of new source markets. Despite visa-free travel for many countries in Africa, Commonwealth countries, the United States, the EU, Gulf Cooperation Council countries, and Russia, 108 countries still require a visa to enter Botswana.[270] Where visas are required, e-visas are not available (although an e-visa program is currently being worked on), requiring applications through local embassies and consulates. This issue includes major potential markets of most of Asia, including China and India, and West, Central, and North Africa.

265. Available seat kilometers is a measure of passenger-carrying capacity. It is equal to the number of seats available multiplied by the number of miles or kilometers flown.

266. This includes two ATR72-600s and 1 EMBRAER E-170 jet.

267. As of May 2021.

268. Fitch Solutions, 2021. Botswana Tourism Report Q3 2021. Retrieved from: https://store.fitchsolutions.com/tourism/botswana-tourism-report

269. Fitch Solutions, 2021. Botswana Tourism Report Q3 2021. Retrieved from: https://store.fitchsolutions.com/tourism/botswana-tourism-report

270. Fitch Solutions, 2021. Botswana Tourism Report Q3 2021. Retrieved from: https://store.fitchsolutions.com/tourism/botswana-tourism-report

Underdeveloped domestic supply chains and limited local economic spillovers

The level of local tourism linkages in relation to leakages[271] - both within the tourism value chain and among suppliers to the sector - has improved measurably, however its actual status remains unclear and room for improvement remains. No consensus exists on the level of leakage in Botswana, with estimates ranging wildly from 12 to 90 percent of total revenue.[272] Some studies have cited high foreign ownership of upscale lodges leading to a higher-than-average expatriation of revenues. In contrast, a 2017 value chain assessment of tourism expenditure in Kasane found that 37 percent of revenue generated remained within the local economy and 88 percent of staffing expenditure stayed within Botswana. The greatest revenue generating subsectors for the local economy were excursions and transport (49 percent of local revenue generation), followed by accommodation (26 percent) and food and beverage (26 percent)273. Regardless of the analysis, links have improved measurably since the 1990s, with increased quality, sophistication, and reliability of local tourism service providers and local skillsets; however, there remains room to increase local linkages, particularly to augment benefits in local destination economies.[274]

Tourism operators in Botswana rely heavily on imported intermediate inputs, mainly from South Africa. These inputs include equipment and building materials as well as skilled services for maintenance and repairs of cooling systems, solar power installations, some boats, pumps, and vehicles, among others.[275] It is often the case that South Africa–based contractors travel to Botswana to carry out maintenance, bringing all required spare parts with them. New cost- and energy-efficient green technology is also highly dependent on the import of foreign equipment and staff for both construction and maintenance, often because of the lack of capacity and skills by local firms to take on such projects.[276] The rapid development of tourism, combined with a small national population and relatively poor skills and education outcomes,[277] create severe shortages across the industry spectrum.

271. Tourism leakage refers to the proportion of income from tourism that leaves the destination country.

272. The World Bank. Tourism Sector stakeholder interviews. August 2021

273. Rylance and Spenceley, 2017. Reducing Economic Leakages from Tourism: A Value Chain Assessment of the Tourism Industry in Kasane, Botswana.

274. Rylance and Spenceley, 2017. Reducing Economic Leakages from Tourism: A Value Chain Assessment of the Tourism Industry in Kasane, Botswana; World Bank. Strengthening Public Sector Performance RAS (P159841) Rapid Evaluation Report of the Tourism Policy of 1990, 2019

275. World Bank. Strengthening Public Sector Performance RAS (P159841) [unpublished] Rapid Evaluation Report of the Tourism Policy of 1990, 2019.

276. Mbaiwa, J. E. (2015). Ecotourism in Botswana: 30 years later. Journal of Ecotourism, 14(2-3), 204-222.

277. Botswana ranks 92nd out of 140 for human resources and the labor market, with "qualification of the labor force" ranking particularly low (99th out of 140). WEF, 2019. Travel and Tourism Competitiveness Index.

Recommendations

Botswana's tourism sector has been—and has the potential to continue being—a key driver of jobs and economic growth, but the sector needs a revitalization to enable long-term, private sector–led growth. There is potential to enhance tourism by expanding to untapped geographical areas and product types as well as through different horizontal and vertical linkages in the tourism value chain, thereby boosting local economic benefits. Regional market integration achieved through SADC and SACU can play an important role in developing or enhancing critical regional value-chain opportunities. The governance of the tourism private sector needs to be transitioned from a regulating to an enabling approach that focuses on incentivizing the development of competitive, green, resilient, and inclusive products and services. The challenges in operationalizing Botswana's tourism diversification strategy of the past decade point to an increased need to focus on implementation, partly through the decentralization of tourism development and management. Several regulatory, governance, coordination, and infrastructure constraints need to be addressed to unlock the sector's potential.

Private sector–led growth in Botswana's travel and tourism sector can be catalyzed through a three-pillar approach:

1. Streamline and harmonize the tourism-enabling and business environment.
2. Catalyze private investment in new products, destinations, and markets.
3. Improve local economic links and sector sustainability.

These pillars can help unlock and catalyze private sector investments in key markets (for example, long-haul luxury safari, overseas foreign independent travelers (FITs) and RITs, and niche markets like birdwatching and agritourism), corresponding products (for example, upscale lodges, wellness facilities, lodges in new concession areas, bed and breakfasts, private rentals, camp and caravan sites, tourism transport), and tourism supply-chain goods and services (such as food, furniture, textiles, vehicle and machinery maintenance).

Streamline and harmonize the tourism-enabling and business environment

1. **Assess, streamline, and clarify tourism planning and institutional arrangements.** The operationalization of the new tourism policy should clarify at what level tourism planning takes place and elucidate each agency's roles and responsibilities to improve coordination across the various government bodies involved (for example, Department of Forestry and Range Resources, Department of Wildlife and National Parks, Department of Tourism, districts). Further, to support the improvement of public policy and strategy processes, a study on tourism governance should be undertaken to assess the effectiveness of current institutional arrangements and to design new frameworks for subnational tourism governance and development, including the potential for public-private destination management organizations.

2. **Decentralize the management of tourism.** The management of tourism needs to move closer to where tourism happens. Licensing, inspection, and grading could be completed in those districts that host a critical mass of tourism activities, such as Chobe and the North-West districts. As all relevant institutions already have a local presence, this decentralization would improve decision-making authority at local levels, commensurate with financial resources. This decentralization will make processes more efficient and improve stakeholder interaction and dialogue. Where required, capacity building and skills training should strengthen decentralized operations.

3. **Undertake a regulatory review of permits, licenses, fees, and processes for tourism sector establishments** with the goal of streamlining systems and reducing sectoral barriers to entry and expansion, particularly in coordination with the Botswana Bureau of Standards. It is important this recommendation is implemented in a consultative manner, by organizing public-private forums and establishing advisory councils to provide industry feedback for and inputs on reforms and regulatory reviews.

4. **Develop an open-source tourism market intelligence platform to support private sector investment decisions.** Insufficient up-to-date and analyzed statistics are available to support investment decisions as well as sector planning and management. The government should address statistical capacity issues and encourage and support the private sector in this endeavor by capturing and disseminating market data drawn from traditional as well as innovative data sources (such as big data, aggregators). This includes undertaking and publishing consumer market research to understand priority market profiles and segment demand. This action can inform infrastructure prioritization, product investments, and marketing campaigns as well as providing an evidence base for investors.

Catalyze private investment in new products, destinations, and markets

For product and market diversification to occur in a demand-driven manner, the following bottlenecks need to be addressed by the public sector. Importantly, this should be driven by a diversification strategy that considers Botswana's comparative advantages and source-market characteristics and that develops products jointly with the private sector.

5. **Further liberalize visa policies.** Visa liberalization can be one of the most effective quick wins to stimulate tourism demand growth. Visa policy changes have historically increased international tourist arrivals of affected markets by 5 to 25 percent (WTTC 2012). For Botswana, this can include the following: (a) prioritizing participation in the Kavango Zambezi Transfrontier Conservation Area UniVisa Stage 2, (b) accelerating an e-visa system for all countries that require a visa, and (c) eliminating visas for strategic growth markets (for example, China, India).

6. **Improve air access.** A transition plan is required to find politically feasible solutions for the troubled Air Botswana—either through liquidation, restructuring, or sale—as a precursor to enable improved air access. Air-route development programs are needed to increase air links to priority source markets, however the uncertainty surrounding Air Botswana, and its existence in its current form, affect the viability of larger airlines entering the market. (See box 4.3 for a summary of an air-route development program implemented in Victoria Falls.)

BOX 4.3 IMPROVING AIR ACCESS AND SERVICES IN VICTORIA FALLS

The IFC Zimbabwe Destination Development Program implemented an air-route development program to strategically position Victoria Falls (VF) as a competitive air-transport gateway to Zimbabwe and the region. Within six months of program intervention, the program recommended a preliminary set of enabling environment reforms and facilitated direct engagement with 11 airlines for route recovery, new frequencies, and new routes. Pitches with in-depth data analysis were presented to seven of the 11 airlines that expressed concrete interest in flying to Zimbabwe/VF. The program's key achievement to date is the successful pitching and negotiation of the first long-haul route from Europe to VF with Eurowings Discover (Lufthansa). Key factors contributing to this early success include the following:

- The establishment of a multistakeholder Air Service Development (ASD) Committee to lead ASD efforts, and the building of its capacity, to guarantee longer-term technical ASD leadership.
- The in-depth assessment of VF's air transport, tourism, and enabling environment factors to identify demand- and supply-side gaps and opportunities, and reform priorities.
- The analysis of global air-transport data sets and local-level data to assess route demand and develop robust business cases for presentation to airlines.
- Close consultation with the local private sector in ASD planning and engagement with airlines
- Technical hand-holding for plan implementation
- Facilitation of negotiations between airlines and destination stakeholders on route terms and incentives, based on the local context and current international best practices
- Building relationships with parallel agencies able to incentivize deals—such as the Zimbabwe Tourism Authority—to provide 'in-kind' marketing support on new routes.

7. Improve tourism and related infrastructure

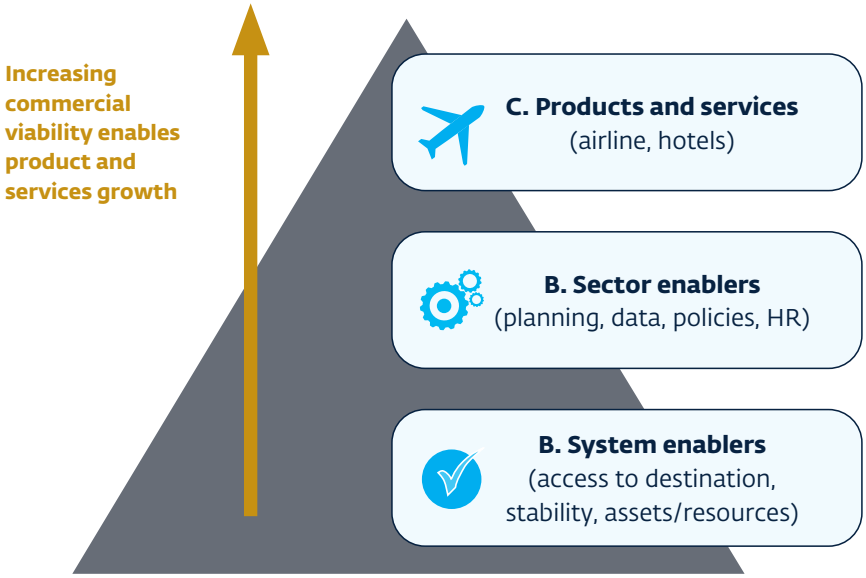
a. Upgrade road quality and connectivity: Improved road infrastructure could significantly help create visitor circuits and boost the self-drive tourist market. The National Spatial Plan 2036 identifies new road developments that support tourism itineraries, including proposed highway development and road upgrading under the proposed Zambia-Botswana-Namibia transport corridor, which can shorten the distance between key destinations and enable direct access to protected areas. Those developments will support the spread of tourism between the three hubs of Gaborone, Maun, and Kasane (Victoria Falls) as well as improve access to the country's largest game reserve.

b. Implement market-driven tourism infrastructure investments in key attractions and destinations such as Ghanzi, Kgalagadi, the Central Kalahari Game Reserve, Tuli Block, and Tsodilo Hills as well as tourism experiences such as events (COVID permitting), industrial heritage (diamond mine tours), and agritourism.

c. Invest in ICT and telecommunications connectivity enhancements in priority destinations to improve links and reduce the digital divide. These enhancements will further facilitate the digitization of tourism services and offerings, following a global trend.[278]

278. See "At Your Service? : The Promise of Services-Led Development" (World Bank 2021) at https://openknowledge.worldbank.org/handle/10986/35599

FIGURE 4.19 FACTORS IN INCREASING COMMERCIAL VIABILITY



Source: Author's conceptualization

8. **Review and, where appropriate, ease restrictions on tourism activities within concession areas.** Restrictions on activities allowed to be carried out in protected areas should be re-thought without compromising sustainability principles. Shifting from a short "approved list" of activities to a short "banned list" of activities provides more flexibility and innovation for the private sector. In addition, the shift from hunting to other forms of tourism should be implemented in a staged, analytical manner that ensures consultations are held with sector players and that opportunities for alternative revenue streams are promoted.

9. **Facilitate investment and access to land in new destinations.** This recommendation includes the following actions: (a) opening high-potential areas such as the Kalahari and Kgalagadi Transfrontier Park for concessions and investments in a strategic and demand-driven manner, (b) lengthening concession tenures to help reduce investment risks and increase investment attractiveness in new destinations, and (c) streamlining permit processes for private airstrips if the public sector is unable to finance such infrastructure.

10. **Encourage government-private sector-community PPPs** in the design and management of new sites and attractions so that they are developed in a demand-driven manner with the target markets' needs in mind, while ensuring host communities are partners in the process.

11. **Diversify funding sources for CBOs and protected areas** to reduce dependence on revenues from hunting licenses. This action should include complementary support on business development and entrepreneurship to offer CBOs new alternative business models and opportunities outside of hunting-reliant tourism (See box 4.4).

BOX 4.4 STRENGTHENING THE ROLE OF COMMUNITIES IN THE TOURISM SECTOR

Community-Based Tourism (CBT) can have a multitude of social, economic and environmental impacts from direct job creation to indirect revenues from the provision of food/produce from communities, increased self-determination and improved sources of financing of community infrastructure and basic services. Involving communities in conservation through tourism can also have wide-ranging conservation impacts by shifting livelihoods away from natural-resource intensive means and providing capacities, financing and incentives to safeguard natural heritage assets. Regionally, CBT experiences are undertaken by around 20 percent of adventure tourists to Africa, accounting for 3.8 percent of total tourist arrivals to the continent[279]. This can have widespread benefits; in Namibia for example, it has contributed an estimated US$488m to net national income and created 5,147 jobs as of 2016.

Botswana was an early leader for Community-Based Natural Resource Management (CBNRM), a program that aims to increase rural development as well as biodiversity conservation, often through tourism. Although largely successful, it faces present challenges of ensuring resilience, demand, financing and maintaining relevance. These challenges can be met by improving the governance of CBOs, strengthening private sector partnerships and building capacities to develop CBOs in new destinations.

Ensuring strong governance frameworks, practicing transparency, providing better avenues for dispute resolution, and establishing third parties as mediators are all key avenues for improving the capacity and operation of CBOs. In Namibia, for example, an Association of CBNRM organizations (NACSO) helps provide centralized support services, business development and training to communities. At the local level, some lodges and operators which have leased operating rights from communities regularly publicize business performance graphics to communities, talking through aspects such as occupancy levels, payments to the government and conservancy, and changes in expenses. Publishing contracts and providing financial dashboards for communities can increase trust, capacity and buy-in by community members.

For further information see the World Bank's report on Supporting Sustainable Livelihoods through Wildlife Tourism, and Getting Financed: 9 Tips for Community Joint Ventures in Tourism.

279. The World Bank. 2018. Demand Analysis for Tourism in African Local Communities

Improve local economic links and sector sustainability

There is considerable potential to increase local economic benefits of tourism through increased local linkages. This reduction in leakages includes both value-chain operations managed abroad and foreign-sourced supplies to the tourism sector. It does not mean enacting protectionist measures and limiting imports, but rather encouraging technology and knowledge transfer as well as supporting local firms to increase their competitiveness. The tourism value chain can be grown even without dramatic increases in volumes by addressing these structural leakages.

12. **Pilot a local sourcing program for a small basket of green tourism supply goods and services** by providing incentives to procure from locally based firms, upgrading skills and business processes, and linking local suppliers to tourism firms. This local sourcing program can also help Botswana become a leader in sustainability by encouraging green energy standards and retrofits for all accommodation types.

13. **Plan for and act on climate change.** The government should develop a tourism-sector climate-change adaptation and mitigation strategy on the basis of the latest scientific modeling on climate-change impacts on Botswana's protected areas, in particular the Okavango Delta. Funds should then be set aside for adaptation and mitigation efforts identified in the study.

14. **Undertake joint public-private marketing campaigns to increase FITs.** Encouraging more FITs is a key strategy to diversify the market geographically and increase local linkages of the tourism value chain. FITs are not beholden to packages and therefore they are more likely to spend money in a broader range of SMEs (bars, restaurants, retail, entertainment) and destinations, while relying less on intermediaries. The Botswana Tourism Organisation could offer technical support to lodges that traditionally cater to package tourists to help them tailor pricing and products to FITs.

15. **Facilitate digital transformation by tourism firms,** focusing on online distribution for lodging, activity providers, and inbound tour operators to diversify from traditional middlemen and reduce foreign leakages. This transformation could be operationalized as a fund like skills development funds, which pool private sector contributions as a percentage of turnover. It could also support digital skills development for the tourism workforce.

16. **Promote foreign joint ventures with local partners,** particularly with investors and brands from high-potential markets (such as China, India).

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